SKOKHOLM

BIRD OBSERVATORY

Annual Report 2023

Ymddiriedolaeth Natur
De a Gorllewin Cymru
Wildlife Trust of
South & West Wales

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Wardens' Report

Introduction to the Skokholm Island Annual Report 2023

The 2023 season, quite probably the hottest ever experienced, will live long in the memory due to several unprecedented avian events, although sadly some of these were due to the ongoing impacts of highly pathogenic avian influenza; the first non-Gannets to test positive on the Pembrokeshire islands were found on Skokholm, whilst a dead Guillemot late in the breeding season was the greatest cause for concern. Breeding season counts of Fulmar, Great Black-backed Gull, Guillemot and Razorbill were all down, yet the highest post-War Puffin count brought some relief. It was always going to be difficult to match an exceptional 2022 rarity list which included the first Welsh record of Moltoni's Warbler and the sixth British record of Tennessee Warbler, however it again proved a remarkable year which included five rarities to be assessed by the British Birds Rarities Committee. An unprecedented passage of large shearwaters saw extraordinary scenes off the Lighthouse, whilst the largest ever arrival of North American passerines to the east Atlantic saw the third British record of Alder Flycatcher and the fourth Welsh record of Bobolink reach Skokholm. It

was arguably the most exciting mothing year to date, with 17 additions to the Island list and highlights which included the second Beautiful Marbled, third Old World Webworm and fourth Toadflax Pearl to be seen in Wales. There was a Hoopoe in the Ringing Hut, a Portuguese Man O' War again reached our waters and a Lesser Emperor was watched devouring a Red Admiral whilst lying on its back. Scarce birds included American Golden Plover, Lesser Yellowlegs, another Pallid Harrier, Red-backed Shrike, Golden Oriole, Western Bonelli's Warbler, Melodious Warbler, Western Subalpine Warbler and Bluethroat, whilst in a Skokholm context, Nightjar, Dartford Warbler and Water Pipit were exceptionally exciting. An amazing group of volunteers and guests again brought passion, excitement and that difficult to describe Skokholm vibe, whilst the creation of a second Petrel Station provided even more excitement for next year.

Whilst following the same format as used in the previous ten years, the 2023 report is a slightly scaled down version to those which have been produced over the last few years. The decision to begin creating lighter documents was taken to free up more time to work on the 'Birds of Skokholm' and to pursue other Island projects. Nevertheless, this report still provides a full account of the 2023 season, documenting the fortunes of Skokholm's breeding birds, along with a detailed record of migrant birds and the non-avian wildlife encountered this year. Each species logged during 2023 is addressed separately and all key information gathered during the season can be found under that species title; thus the details of first and last dates, peak numbers, breeding, ringing totals, ringing recoveries, specific projects and all other relevant information can be found in the one place. Following the success of our previous online reports, the Skokholm Island Annual Report 2023 has again been produced in a free to download, tree-saving, searchable PDF format. For any readers wishing to contribute to our work, a 'donate now' button is available on the source page.

The 2023 Season and Weather Summary

A combination of continued climate warming and a switch to El Niño conditions meant that globally, 2023 was the warmest calendar year on record. A global average temperature of 14.98°C was 0.17°C hotter than the previous high recorded in 2016, 0.60°C warmer than the 1991-2020 average and 1.48°C warmer than 1850-1900 pre-industrial levels (Copernicus, 2024). It was the first year on record in which every day exceeded 1.0°C above the pre-industrial level for that time of year; alarmingly, nearly 50% of days were more than 1.5°C warmer and, for the first time, two days in

November were more than 2.0°C warmer. The UK experienced its second warmest year on record, with an annual average temperature of 9.97°C just 0.06°C short of the record high logged last year. Pembrokeshire, along with the rest of Wales, experienced its hottest year ever (Carbon Brief, 2024).

The season ran from 1st March to 3rd December and we welcomed paying guests from 17th April to 2nd October. The Island was thus occupied for a total of 278 days (including the arrival and departure dates), this seven fewer than in 2022 (which saw the longest period of occupation in recent times).

The following weather summary is compiled using observations noted during the daily Birdlog, meteorological measurements taken by the weather station at the Coastguard Lookout on Wooltack Point (4km to our northnortheast, managed by Natural Resources Wales and referred to as 'the weather station' from this point onwards) and wave height and wind data retrieved from the Mid Channel Rock Lighthouse Beacon (nearly 8km to our westsouthwest, owned by Milford Haven Port Authority and referred to as 'the beacon' from this point onwards).

Only one named storm hit the UK between our departure from Skokholm in December 2022 and our return; storm Otto brought strong winds and heavy rain to parts of Scotland and northeast England, however it had minimal impact in Wales. Poor late winter weather in continental Europe and North Africa impacted harvests which, when combined with Brexit complications, resulted in a shortage of some fresh fruit and vegetables in UK supermarkets; immediately prior to our return to the Island, large areas in the fresh fruit and vegetable aisles were completely empty. It was an incredibly dry start to the year in coastal Pembrokeshire; the weather station collected just 37.4mm of rainfall in January and 8.1mm in February, the latter being the driest month of 2023 by some margin.

Staff returned to Skokholm on 1st March, with the waters around South Haven proving manageable despite a moderate northeasterly and a 1.5m swell. It was strikingly dry on the plateau, by far the driest that we have seen in March (there were no areas of standing water around a North Pond which was below full capacity). Gentle northerlies and grey skies dominated for the first seven days of March, whilst a bitter northeaster on the 8th brought brief light snow and sleet during the early hours; a low of 0.2°C, recorded on this date by the weather station, would prove the lowest temperature of the year. Rough weather arrived on the morning of the 10th, with wind data from the weather station showing an increase from 2mph at 0020hrs to force 11 gusts of 70mph at 0350hrs.

Although it whipped up a substantial swell, which crashed against the North Coast Cliffs, the blow was brief and by 1800hrs it had dropped to a force three. The sea remained rough for the next two days, this driven by a southwesterly wind. Very rough seas, with waves topping 15.5m, were recorded at the beacon on the 13th; gusts, which once again reached speeds of 69.9mph, this time drove a lashing drizzle. A respite between the 15th and 21st gave way to a force nine southwesterly on the 22nd, with rough weather remaining until the 25th. The month ended with a storm force westerly blow. Precipitation was logged on 22 March dates, though this fell mostly as overnight rain or occasional showers, with heavy persistent rain logged on the 29th (this accompanied by a thick mist) and again on the 31st; nevertheless the weather station collected just 78.7mm of rain.

The weather during early April was uneventful, this interrupted by Storm Noa which brought a period of very rough weather between the 10th and 12th; southwesterly gusts of up to 76.5mph on the 11th and of 96.0mph on the 12th resulted in a very rough sea (the latter was the strongest gust of the year). Waves occasionally reached the 16m limit at the beacon, whilst regular nine metre waves were recorded. The second named storm of the 2022-2023 season, Storm Noa was notable for being an unusually severe storm for the time of year and the most significant April wind storm to impact England and Wales since 2013 (Met Office, 2024). Wind speeds only exceeded force four on a further seven April dates, blowing from the easterly quarter on 63% of days and with the calmest conditions experienced in the second half of the month. April was also relatively dry, with precipitation logged on just 14 dates; the weather station took a total of 49.3mm of rain, 13.0mm of which was collected on the 24th during heavy overnight showers and morning rain.

May was the driest month of the visitor season; precipitation was logged on just eight days, with a total of 25.6mm measured at the weather station. Heavy showers on the evening of the 4th, heavy overnight rain and regular showers on the 8th, drizzle and mist on the 9th and damp mist on the 14th were the only precipitation events of note. It was a month dominated by northerlies, with gentle winds arriving from this quarter on 61% of days, this resulting in a calm sea. Calm weather and clear skies made for sunny and warm conditions, this especially apparent during the last ten days of the month when temperatures peaked at 16.3°C on the 30th. June was typically dry, with a rainfall total of 29.4mm making it the third driest month of 2023. It was the sunniest month of the year, with a total of 383.0 sunshine hours recorded, whilst the 22.6°C logged on the 13th was the second highest peak temperature of 2023. Calm winds came from the easterly quarter on 57% of days, although southwesterlies dominated during the last ten days of the month, these bringing occasional light showers. Calm and hot mainland conditions between the 11th and 12th resulted in a thick fret, whilst wind speeds only exceeded force four on the 30th.

July was the fourth wettest month of the year, although North Pond was empty by the 6th; precipitation was logged on 17 dates, this falling mostly as brief showers or light drizzle, however heavier showers or prolonged rain were experienced on the 10th, 14th, 15th, 18th and 26th. It was a typically warm but rather unsettled month; temperatures peaked at 21.5°C on the 7th, however gusts exceeded force seven on 20 dates. Winds blew from the southerly quarter on 19 dates, 68% of which were from the southwest. A prolonged southeasterly blow between the 6th and 9th saw gusts peak at 52.2mph on the 6th, whilst a southerly on the 10th reached 53.1mph and southwesterlies on the 14th and 15th reached 56.0mph and 54.6mph respectively. Although typically a rougher month, August this year hosted two named storms for only the second time since storm naming was introduced in 2015. Storm Antoni hit on the 5th, bringing force 11 gusts of up to 73.6mph, however the heavy rains which impacted much of the southwest managed to miss Skokholm. Storm Betty arrived between the 18th and 19th, with the weather station recording gusts of up to 73.6mph; these were accompanied by heavy rain and rough seas. Although drier than July, precipitation was logged on 61% of days, this falling mostly as occasional light drizzle but with heavier rain or showers logged on the 2nd, 12th, 13th, 14th, 18th and 31st. August temperatures were typical, with 20.4°C on the 24th the peak, whilst calmer days resulted in humid conditions between the 8th and 11th and again on the 27th and 31st.

September commenced hot and calm, indeed it was the hottest month of the year in terms of both peak and mean temperature (26.0°C on the 4th and 16.6°C respectively). The period between the 4th and 10th was atypically warm, with maximum daily temperatures averaging 23.0°C, a mean air temperature of 19.9°C and minimum daily temperatures averaging 17.1°C; the 7th was exceptional, with a temperature range of just 5.9°C between a high of 25.3°C and a minimum of 19.4°C. The UK experienced a significant heatwave during this time, with daily maximum temperatures exceeding 30°C for seven consecutive days from the 4th, this the longest such run on record. The highest temperature of the year was recorded on 10th September in Faversham, Kent, this just the fifth time ever in which the peak has been recorded in this month (Met Office, 2024b). Gentle winds came from the southwest on the 1st, the north on the 2nd and 3rd and from the east between the 4th and 8th, before yo-yoing between the north and east between the 9th and 10th; with wind speeds averaging between only force one and two during this time, the sea state was in the most part calm. A northerly blow on the 10th brought much appreciated cooler temperatures, whilst atypically calm winds toured the compass between the 13th and 17th prior to a period of brisker weather. Hurricane Lee, having passed the eastern seaboard of North America on the 15th and 16th, rapidly tracked east, bringing storm force winds and heavy rain to Wales on the night of the 19th; this system brought unprecedented numbers of North American birds to Wales, including three to Skokholm (see below).

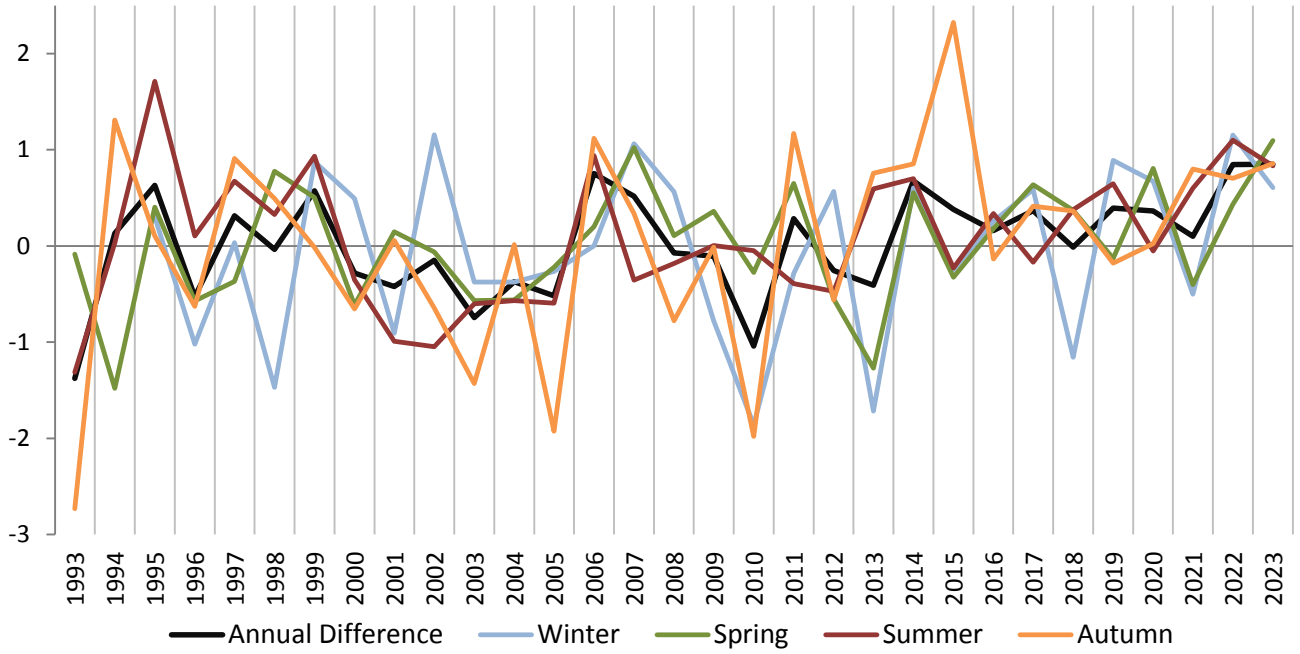
The 20th saw gusts peak at 62.5mph, whilst rough seas included waves of up to 7m at the beacon. Freshening southerlies dominated for eight of the last ten September dates, the arrival of Storm Agnes on the 27th seeing gusts of up to 74.5mph and rough sea conditions. Fuelled by energy from tropical storm Ophelia, Agnes was an intense area of low pressure; although it had weakened by the time it reached the UK, a gust of 84mph at Capel Curig, Conwy, equalled the highest September gust ever recorded in Wales (Met Office, 2024c). A total of 60.3mm of rain was collected at the weather station, 19.1mm of which fell on the 17th. Heavy showers or prolonged rain were logged on a further 12 September dates, this accompanied by overnight lightning on the 7th and torrential on the 24th. North Pond began holding water during the last week of the month.

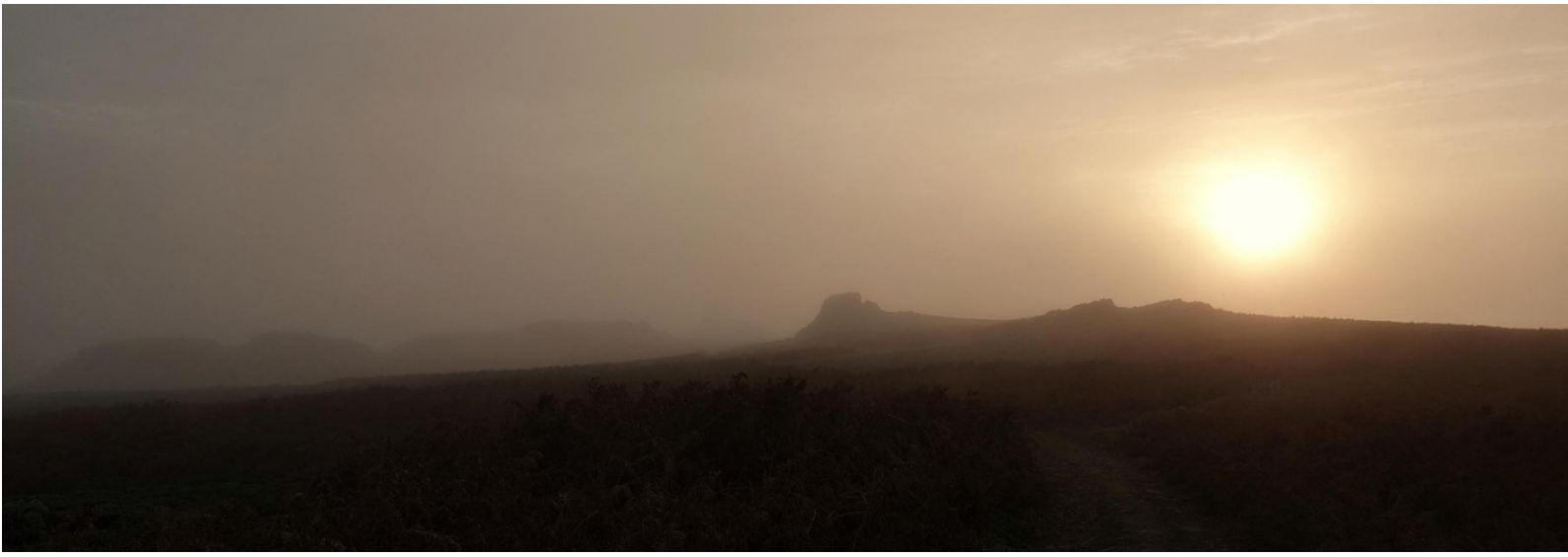
Although a high of 17.3°C was recorded on the 8th, October brought cooler temperatures, indeed a low of 6.0°C on the 16th was the coolest minima since April. A rainfall total of 151.5mm made it the wettest month of the year by some margin; 21.9mm of this was collected on the 12th and 26.4mm on the 13th, the latter the most rainfall recorded on any day in 2023. Precipitation was logged on 23 dates, this falling as heavy rain or heavy showers on six dates, whilst torrential showers were noted on the 19th, 20th, 23rd, 28th and 29th (the former accompanied by thunder and lightning that evening). Fog descended on the evening of the 7th, whilst further wet mist rolled in on the evenings of the 9th, 10th and 12th. Although typically quite a windy month, October this year was largely calm. Mean wind speeds did reach 36.0mph on the 13th, when overnight gale force southwesterly gusts hit 48.5mph, whilst easterly gales on the 17th and 18th, caused by Storm Babet, saw gusts of 55.0mph and 58.7mph respectively. The month ended with brisk southwesterlies and storm force gusts of up to 59.7mph on the 29th.

November saw the arrival of Storm Ciarán, with force 11 southwesterly gusts of up to 70.0mph on the 1st giving way to hurricane force northwesterlies of up to 76.4mph on the 2nd. This storm system was accompanied by heavy bands of rain and occasional squally hail showers. Ciarán was felt most heavily in northern France and the Channel Islands; a gust of 93mph was recorded at Jersey Airport (the biggest gust there since the 'Great Storm' of 1987), whilst wind speeds at two weather stations in Brittany reached 115mph and 122mph (Met Office, 2024d). It was a rough month, with gusts reaching force seven or above on 25 dates; southwesters reached 67.1mph on the 9th, northwesters 73.6mph on the 10th, southwesters 68.0mph on the 13th (this the result of Storm Debi) and southwesters 64.3mph on the 19th. Although precipitation was logged on 21 dates, this often fell as light, brief showers, indeed the weather station collected just 52.9mm of rain. Wetter weather was logged on six dates, with torrential showers and hail on the 9th, occasional heavy showers on the 20th, prolonged heavy showers on the 26th and a day of showers, some heavy, on the 27th. It was a

rather mild month for the time of year, with temperatures averaging 10.3°C. A high of 14.5°C was recorded on the 1st, whilst a low of 0.8°C on the morning of the 30th saw frost in shaded hollows; puddles and small ponds were frozen, as was the edge of Winter Pond. Icy conditions continued into December, with gentle easterlies on the 1st seeing a thin layer of ice over all of South Pond and half of North Pond; sheltered areas were again frosted and the temperature dipped to 0.7°C. Freshening southwesterlies on the 2nd reached 41.9mph, this creating a choppy sea, however a switch to northerlies on the 3rd settled the sea and allowed for an early afternoon staff departure.

The extent to which the mean seasonal temperatures and the mean annual temperature differed from the long-term average during each year between 1993 and 2023.





Highly Pathogenic Avian Influenza

An unprecedented outbreak of the H5N1 subtype of highly pathogenic avian influenza (HPAI) has caused devastating population changes in wild birds since it was first detected in UK breeding colonies in the summer of 2021 (see the Skokholm Annual Report 2022 for further details). In wild bird populations, HPAI is spread through saliva and nasal secretions, through the predation of

infected birds and through faeces (Pearce-Higgins *et al*., 2023). Given the presence on Skokholm of both gregarious species such as Puffin and Guillemot, along with scavenging species such as Great Black-backed Gull and Raven, staff were again on the lookout for any unusual behaviour this season. In contrast to 2022, there were no ringing or nest recording suspensions implemented by Natural Resources Wales this year, however strict hygiene practices remained in place.

An adult **Black-headed Gull** found dead along the South Coast Path on 21st May was bagged within 30 minutes of its discovery and later tested positive, this the first non-Gannet to test positive on the Pembrokeshire islands. Unusually high May counts perhaps reflected the early abandonment of breeding grounds by birds impacted by HPAI, whilst low autumn numbers probably reflected significant losses (the August bird-days total was the lowest since 2015, the September total the lowest since 2010 and the October total the lowest since 2011). A dead adult **Great Black-backed Gull** found near North Pond on 30th May tested negative, however one found along the South Coast Cliffs on 9th July tested positive for HPAI. Additionally a Skokholm ringed eighth-summer (W:108) found dead on Lundy Island, Devon, tested negative in July, this despite the fact that it was found alongside two dead **Herring Gull** which tested positive. Unusually, a dead adult **Guillemot** was in the North Gully plot from 3rd July, however the corpse was not accessible for testing; there were 1060 dead Guillemot collected from beaches by the Pembrokeshire local authorities during three weeks from 8th July, with 500 reported in Carmarthenshire during the same period (PCC, 2023). Moribund birds were found from Anglesey to Cardiff, with the actual number present no doubt higher than officially reported (tested individuals proved positive for the H5N1 strain). Three Skokholm ringed adult **Manx Shearwater** were found on Welsh beaches this year (see the Manx Shearwater section below); although none were tested, this total was above average. Sadly no **Great Skua** were seen this year (the annual bird-days mean between 2013 and 2022 is 30.1), this no doubt a reflection of the devastating impact of HPAI on British breeding colonies. Aerial counts of the Grassholm **Gannet** colony went from 34,491 pairs in the summer of 2022 to 16,482 pairs in July this year (BirdGuides, 2023), although no dead Gannet were seen from Skokholm in 2023.

Spring Work Party

A Work Party team consisting of Teresa Donohue, Rob Smith, Howard Driver, Steve and Anna Sutcliffe, Nick Ainger, Shirley Matthews, Sam O'Shea, Stephen Hyam and Mike Penny were welcomed on 2nd April and we were joined by Pete Thomas, Richard Dobbins, Andrew Hughes, Phil and Dorothy Blatcher and John Walmsley on the 7th.

As is invariably the case in spring, lime-washing of exterior walls and roofs at the Farm took priority, however the team also tackled various other jobs. The old log burner was replaced with a new one purchased by the Friends, rotten joists below Stewards floor were cut out and replaced, a leak in the west gable of Lockley's Cottage (which was impacting the corridor ceiling) was fixed, repairs were made to Bullhouse door, a new stormguard was fitted to the Officer's Mess doorway, the leaking Kitchen sink was fixed and the interior of the Cottage porch and composting toilets were given some attention. Investigations into a rotten window frame in the Library revealed that the entire window was sat on a saturated piece of old timber embedded in the wall; a small job thus became a big one, with the rotten wood being removed and a new concrete base installed. Away from the Farm, a shelf and coat rack were crafted for the new Crab Bay Hide, the Gull Trap was repaired and moved to a new location on North Plain, the Lighthouse Lantern windows were sealed and repairs were made to earthen dams at the Well and Orchid Bog. A hearty selection of lovely meals were provided by our excellent cheffing team.

Spring Long-term Volunteers

The role of spring Long-term Volunteer is exceptionally varied, with no two days being the same. Following the return of the seabirds, much time is spent assisting with the annual monitoring; this includes searching for colour ringed gulls and Puffins as part of our adult survival studies, helping with the Manx Shearwater and Storm Petrel plot censuses, setting up the Fulmar productivity plots, Puffin productivity and kleptoparasitism monitoring and helping with the first phase of Manx Shearwater productivity and adult survival surveys. The work of the Bird Observatory continues throughout, this providing an opportunity to develop bird ringing skills and census techniques. Louis Driver and Eleanor Biggs joined us as Long-term Volunteers for three months this spring. Eleanor, an early career conservationist, joined us after volunteering as a Ranger on the Isle of Eigg, Scotland. As a birder and BTO permit holder on a gap year, Louis had previously volunteered at Bardsey Bird Observatory and Rocky Point Bird Observatory in Canada. Louis and Eleanor thus brought different, but complimentary, skillsets which made for a great team. They put their absolute all into everything they did, tackling jobs with good humour and a smile. They resighted more colour ringed Puffins than any spring team has managed before, developed a new mist net site in the Cottage Garden and improved the habitat in Billy's Dyke (by slowing the flow of water). The Wheelhouse and Kitchen were always kept clean for oncoming guests and the log fire was always roaring for Birdlog. They also found some good birds, a highlight being the first Nightjar to be seen on Skokholm since 1993.

Spring Migration Highlights

A **Stock Dove** on 5th March was the first of four 2023 bird-days, this the highest tally since 1990. A **Firecrest** on the 15th made this the ninth year with a March record. A **Common Gull** on the 18th was a rare overland sighting and made this the 13th March with a bird. A **Great White Egret** at North Pond on 4th April was the first spring record for Skokholm and just the fourth to be seen here. A minimum of 138 **Meadow Pipit** on the 13th was the highest April daycount since 1990. A total of 121 **Linnet** on the 16th was a spring daycount record, whilst a **Tree Pipit** singing on the same date was the first of four April bird-days. A **Little Ringed Plover** on the 17th was the first of four individuals, these taking the all-time total to 24. A count of 103 **Willow Warbler** on the same day was the highest of the year, as was a count of 52 **Blackcap** the following day. The 18th also saw the first three of 11 April **Redstart** bird-days, the tally for this month the fourth highest to date, however a **Ring Ouzel** the same day was the first of a below average three spring bird-days. A male **Cuckoo** on the 19th was 13 days earlier than the 2013-2022 first spring bird mean, whilst a **Wryneck** that evening was the 12th individual to be seen in spring. Two **Bar-tailed Godwit** on the 20th were the first of 50 April bird-days, this more than doubling the previous record. A **Siberian Chiffchaff** was present on the 23rd and 24th, whilst a different individual was logged on the 26th. Two westbound **Greylag Goose** on the 25th was a 22nd Skokholm record. A **Little Egret** on the 27th was the first of eight 2023 bird-days, this the third highest annual total. An **Arctic Skua** on the 28th was the first April record since 1996.

A **Golden Oriole** on 3rd May was the fifth live record for Skokholm. A **Great Northern Diver** two days later made this the eighth May with a sighting. A **Kingfisher** on the 13th was the first to be seen in May. A **Wood Sandpiper** on the 15th was just a 12th spring record. An apparent **'dombrowskii' Yellow Wagtail** was around the Dip for much of the 20th. A dead **Black-headed Gull** found along the south coast on the 21st became the first non-Gannet to test positive for highly pathogenic avian influenza on the Pembrokeshire islands; autumn numbers would prove very poor. A minimum of 13 **Spotted Flycatcher** on the 25th was the highest daycount of the year, whilst a second calendar-year **Kittiwake** at North Pond on the same date was the first of a record 1423 to be seen ashore. Three **Sanderling** on the 28th was a 25th spring record and a fine male **Red-backed Shrike** the same day was the 11th to be logged in the first half of the year. A **Turtle Dove** on the last day of the month was the first of two, these the first spring birds since 2021. A **Spoonbill** on 6th June was the 16th Island record, whilst a **Little Ringed Plover** the following day was only the second to be seen in June. A first-summer male **Western Subalpine Warbler** ringed on 24th June was confirmed genetically and a third for Skokholm. A male **Nightjar** along the Lighthouse Track on the same date was the first since 1993.

The Breeding Season

No **Shelduck** chicks were seen for a fourth consecutive year and for the fourth year since 2009, however there were **Shoveler** ducklings for the first time since 2018. **Water Rail** were confirmed as

breeding for only the third time since 1931. A **Lapwing** held territory for the first time since 2001. The **Great Black-backed Gull** population was the lowest since 2008. Both the **Guillemot** and **Razorbill** counts were down, although the former was the fourth highest to date and the latter the second highest. The **Fulmar** population was the lowest since 2016. The Wreck Cove **Buzzard** pair continue to do well since a change in nest site, however a single pair of **Peregrine** failed for a sixth consecutive year and a lone **Raven** pair was down on all but one year since 2006. Five breeding **Chough** pairs was a new Skokholm record, however a total of 13 **Skylark** territories matched the lowest since 2015. The **Meadow Pipit** total was the highest since 2016 and the **Rock Pipit** total the highest since 2017. **Shag**, **Short-eared Owl**, **Reed Warbler**, **Whitethroat**, **Stonechat** and **Reed Bunting** did not breed, the latter for the first time in 19 years.

A summary of the status of seabirds breeding on Skokholm in 2023.
The lower limits given here, taken from the Skokholm Island Management Plan, have been established by the Wildlife Trust of South and West Wales and endorsed by the Seabird Subgroup of the Islands Conservation Advisory Committee. A green box is an attribute above its lower limit, a red box an attribute below the lower limit stipulated in the plan.

	Whole Island or Annual Plot Total (2022-2018 in parentheses)	Productivity (2022-2018 in parentheses)
Great Black-backed Gull	**Whole Island population:** not to drop below the 2018-2022 mean of 84	
Population / Productivity	**Productivity:** 3 in any 5 consecutive years with less than 1.10 chicks per breeding pair	
	66 nests (78, 80, 83, 86, 93)	1.05 (1.30, 1.51, 1.40, 1.43, 1.40)
Herring Gull	**Whole Island population:** not to drop below the 2018-2022 mean of 307	
Population / Productivity	**Productivity:** 3 in any 5 consecutive years with less than 0.70 chicks per breeding pair	
	309 nests (309, 305, 301, 301, 320)	0.78 (0.69, 0.84, 0.33, 0.69, 0.73)
Lesser Black-backed Gull	**Whole Island population:** 3 in any 5 consecutive years with less than 4600 pairs	
Population / Productivity	**Productivity:** 3 in any 5 consecutive years with less than 0.60 chicks per breeding pair	
	715 aia (833, 935, 880, 1028, 1069)	0.70 (0.53, 0.89, 0.12, 0.27, 0.63)
Guillemot	**Whole Island population:** not to drop below the 2018-2022 mean of 4930	
Population / Not set	**Productivity:** not monitored on Skokholm	
	4992 aol (5515, 5065, 5101, 4654, 4316)	- (0.55-0.61 in 2013)
Razorbill	**Whole Island population:** not to drop below the 2018-2022 mean of 3236	
Population / Productivity	**Productivity:** 3 in any 5 consecutive years with less than 0.80 chicks per breeding pair	
	3552 aol (3965, 3356, 3517, 2755, 2585)	0.55 (0.64, 0.47, 0.56, 0.63, 0.69)
Puffin	**Whole Island population:** not to drop below the 2018-2022 mean of 9320	
Population / Productivity	**Productivity:** 3 in any 5 consecutive years with less than 0.74 chicks per breeding pair	
	12,192 adults (10611, 11245, 8534, 7447, 8762)	0.79 (0.72, 0.80, 0.78, 0.76, 0.75)
Storm Petrel	**Study plot population:** any measurable decrease in the population	
Population / Not set	**Productivity:** limit not yet set due to a lack of data	
	92 transect responses (102, 86, No census, 89, 83)	0.80 (0.85, 0.80, 0.45, 0.74, 0.55)
Fulmar	**Whole Island population:** not to drop below the 2018-2022 mean of 214	
Population / Productivity	**Productivity:** 3 in any 5 consecutive years with less than 0.50 chicks per breeding pair	
	195 aos (224, 225, 207, 198, 217)	0.54 (0.52, 0.51, 0.51, 0.62, 0.49)
Manx Shearwater	**Study plot population:** any measurable decrease in the population	
Population / Productivity	**Productivity:** 3 in any 5 consecutive years with less than 0.69 chicks per breeding pair	
	521 sites in 8000m^2 (710, 670, 730, 655, 739)	0.68 (0.69, 0.79, 0.68, 0.72, 0.70)

A summary of breeding birds on Skokholm in 2023. Productivity is the average number of fledglings produced by each breeding pair ('-' indicates insufficient data).

	Total (2022-2018 in parentheses)	Productivity (2022-2018 in parentheses)
Canada Goose	4 pairs (2, 3, 3, 2, 4)	0 (0, 0, 0, 0, 0)
Shelduck	0 pairs produced ducklings (0, 0, 0, 3, 1)	0 (0, 0, 0, 0, 0)

Shoveler	1 pair produced ducklings (0, 0, 0, 0, 1)	0 (0, 0, 0, 0, 0)
Mallard	2 pairs produced ducklings (3, 5, 1, 5, 6)	0 (0, 0, 0, 0, 0)
Water Rail	1 territory (0, 1, 0, 0, 1)	2+ (0, 4, 0, 0, 0)
Moorhen	5 pairs (6, 5, 3, 3, 2)	1.40 (0.67, 2.80, 3.33, 2.00, 3.50)
Oystercatcher	53 pairs (61, 76, 54, 53, 52)	0.86 (1.00, 1.24, 0.70, 0.47, 1.62)
Lapwing	1 territory (0, 0, 0, 0, 0)	0 (0, 0, 0, 0, 0)
Buzzard	1 pair (1, 1, 1, 1, 1)	2 (3, 2, 2, 3, 1)
Peregrine	1 pair (1, 1, 1, 1, 1)	0 (0, 0, 0, 0, 0)
Chough	5 pairs (4, 4, 3, 2, 2)	0.60 (2.25, 1.75, 2.00, 2.50, 1.00)
Jackdaw	26 pairs (27, 26, 25, 22, 22)	- (-, -, -, -, -)
Crow	12 pairs (11, 11, 9, 10, 10)	1.00 (1.73, 2.27, 1.33, 0.70, 0.60)
Raven	1 pair (1, 2, 2, 2, 2)	3.00 (3.00, 4.00, 2.50, 2.50, 4.00)
Skylark	13 territorial males (13, 16, 14, 14, 19)	- (-, -, -, -, -)
Swallow	5 pairs (6, 5, 5, 5, 4)	3.80 (4.50, 4.00, 2.40, 3.20, 4.00)
Chiffchaff	2 territorial males (0, 1, 1, 0, 2)	0 (0, 0, 0, 0, 0)
Sedge Warbler	14 territorial males (15, 14, 15, 15, 15)	- (-, -, -, -, -)
Whitethroat	0 pairs (0, 0, 0, 1, 0)	0 (0, 0, 0, 2, 0)
Wren	66 territorial males (68, 71, 72, 69, 63)	- (-, -, -, -, -)
Blackbird	9 pairs (9, 9, 7, 6, 6)	3.22 (2.44, 2.44, 3.57, 3.67, 3.33)
Stonechat	0 pairs (1, 1, 0, 0, 0)	0 (5, 9, 0, 0, 0)
Wheatear	29 pairs (30, 29, 23, 23, 18)	3.07 (3.10, 2.90, 1.96, 3.70, 3.89)
Dunnock	1 breeding female (0, 2, 1, 0, 0)	0 (0, 2, 3, 0, 0)
Pied Wagtail	7 pairs (6, 7, 7, 5, 5)	3.71 (3.50, 2.29, 1.71, 5.20, 3.60)
Meadow Pipit	45 territorial males (42, 43, 38, 33, 40)	- (-, -, -, -, -)
Rock Pipit	56 territorial males (51, 45, 49, 49, 41)	- (-, -, -, -, -)
Reed Bunting	0 pairs (2, 4, 5, 3, 4)	0.00 (1.50 0.00, 0.60, 0.67, 2.50)

Autumn Migration Highlights

An adult **American Golden Plover** on 17th July was only the third for Skokholm but the second in five years; it was seen on and off until the 28th. The sixth ever **Great Shearwater** was logged on the morning of the 31st, whilst that evening saw an unprecedented eight **Cory's Shearwater** off the Lighthouse. Eight **Cory's Shearwater** were also logged on the morning of 1st August.

Although the number of large shearwaters was remarkable, a **Balearic Shearwater** on the 1st was the first of an average autumn and a **Sooty Shearwater** on the 2nd was the first of only two autumn birds. The first **Robin** of the autumn arrived on the 6th, this the first of an all-time record 229 August bird-days. Three **Cory's Shearwater** on 12th August was the third highest daycount ever. A juvenile **Melodious Warbler** on the 18th was a 65th Skokholm individual. It became the 44th year with a **Knot**, with the first of six autumn bird-days logged on the 21st. A juvenile **Western Bonelli's Warbler** on the 23rd was a fourth for Skokholm. A flock of 27 **Redshank** on the 24th was a daycount record. Although their true status may be masked by the regular passage of racing pigeons, a **Feral Pigeon** on the 26th was only the eighth acceptable individual. Two **Great Shearwater** on the evening of the 31st took the all-time total to eight. There were at least 73 **White Wagtail** on 4th September; there have only been higher daycounts in eight autumns. The fourth **Dartford Warbler** to be seen on Skokholm was found on the 6th, as was a **Hoopoe**, the latter probably the same individual seen most days to the 15th.

Two **Wryneck** on the 8th were the first of 16 September bird-days, the total only down on the 35 of 2021. A **Firecrest** on the 10th was the first of a below average two autumn bird-days. A northbound **Brent Goose** on the 12th was the 17th record to date. A **Lesser Whitethroat** on the 14th was the first of 28 autumn bird-days, this five more than the 2013 record. An **Arctic Skua** over the Neck on the

16th was an unusual sight, whilst the first of five autumn **Ring Ouzel** bird-days was logged the following day. The last **Cory's Shearwater** of an unparalleled year was offshore on the 19th. A juvenile **Lesser Yellowlegs** at Orchid Bog on 20th September was the second to be seen on Skokholm. An **Alder Flycatcher** found late that afternoon was just the third to be found in Britain; it remained until the 29th. A **Bobolink** on the 21st was a second for the Island, the fourth for Wales and the 34th for Britain; this was the third date in Skokholm history on which two North American passerines have been present. A **Kingfisher** on the 22nd was the 18th Island record. A **Grey Plover** on the 23rd was surprisingly the only sighting this year, this a day calm enough to allow for a successful **Alder Flycatcher** twitch. The first two **Siberian Chiffchaff** of the autumn arrived the following day, whilst at least 11 **Arctic Skua** were offshore on the 27th, this the second highest daycount to date.

Two **Common Rosefinch** on 1st October arrived on the same date as the first of 2022, at least one of these lingering until the 5th. An unringed **Common Rosefinch** on the 6th was the third of the year, this a total only matched in 1991 and 2001. A daycount of 33 **Chough** on the 8th was the second highest on record. A record daycount of five **House Sparrow** on the 10th was repeated on the 16th and 22nd. A first-winter **Bluethroat** on the 12th was the 15th Skokholm record and the first autumn sighting since 1992; the same day saw counts of 24 **Stonechat** and 184 **Goldfinch**, the former the second highest daycount ever and the latter the third highest. Six **Pintail** were together at North Pond on the 17th,

this the first of seven October dates to see this all-time record daycount. A count of 491 **Skylark** on the 31st was the highest since 1988, whilst two **Snow Bunting** on the same date were the first of an average autumn. The nine **Long-tailed Tit** present on 3rd November was a 12th Skokholm record and a new daycount high. A **Water Pipit** feeding on Home Meadow on the same date was just a third Island record. The 21st saw the last sighting of a **Wryneck** which had probably been present since at least 14th October. A **Siberian Chiffchaff** on the 22nd was the last of three autumn birds and a first-winter female **Pallid Harrier** present on the 23rd remained in Wales until April 2024. The 13th Skokholm record of **Whooper Swan** was of two on the 25th. A **Mistle Thrush** on 1st December made this the 57th year with a sighting, these accounting for 217 bird-days.

Autumn Long-term Volunteers

Autumn Long-term Volunteers are inevitably thrown in at the deep end, picking up from where the spring team leave off during the height of our visitor season. Seabird work still occupies a large proportion of their time, with Fulmar, Manx Shearwater, Storm Petrel and Puffin productivity taking priority. Puffin kleptoparasitism monitoring and colour ring searching continues, whilst Storm Petrel population monitoring peaks. As autumn migration picks up pace, there are daily opportunities to assist with the trapping and ringing of migrant birds. Ellyn Baker and Amelia Corvin-Czarnodolski joined us as Long-term Volunteers for three months this autumn. Both were just out of higher education, with Ellyn joining us following a professional placement with the National Botanic Garden of Wales (she had volunteered for a week on Skokholm in 2022, helping to move building materials for the Crab Bay Hide). Amelia, already a Trainee ringer, had previously completed a professional internship with the Game and Wildlife Conservation Trust. Ellyn, with a passion for invertebrates, and Amelia, with a love of birds, formed a tight bond which made for an excellent autumn team. They helped us reach for and ring more Storm Petrel chicks and fledglings than ever before and ran the moth trap on almost every suitable night (catching firsts for Skokholm, Pembrokeshire and Wales). They also ran camera traps at Orchid Bog and the Well, capturing fascinating footage of Water Rails and Eels (and proving that the former were breeding). Ellyn stayed on at the end of the season to help with migration monitoring and with packing up for the winter.

Autumn Work Party

In preparation for the forthcoming Work Party, the Dale Sailing barge Kitcat delivered 11 pallets of building materials on 7th September; following their 0700hrs arrival, it took until 1600hrs for a team

of seven to lift the pallet contents onto and off the dumper, with staff and volunteers hugely appreciative of the help provided by Howard Driver, Jessica Bartlett and Andrew Sutton. A volunteer team which arrived on 11th September consisted of Shirley Matthews, Alison Peck, Mike Davies, Stephen Hyam, Richard Dobbins, Andrew Hughes, Matt Bryant and Kris Bell. Fuelled by excellent meals, cakes and hot drinks, this diverse team achieved a lot in a short time.

The biggest task at the Farm was to start constructing Petrel Station II along an area of collapsed wall leading down from the Knoll; a solid base was created and hollow dense concrete blocks were modified to create tunnels and nest chambers. Meanwhile, salt and grime were pressure washed from the south face of the Lighthouse before it received a coat of specialist paint. The weather was testing, making outdoor work challenging and sometimes impossible. Nevertheless, a good number of other jobs were completed; the Food Shop and Pantry floors were tiled and glosswork on the

Central Block doors and windows was sanded and painted. A deteriorating forecast forced an early end to the Work Party, with volunteers departing on the 16th. We were joined by Emyr Roberts on the 29th; using stones gathered from around the Farm, he faced Petrel Station II in a manner similar to the surrounding herringbone walls, this keeping him busy until 22nd October.

Skokholm Bird Observatory

Ringing Projects

Colour ringing birds allows us to recognise individuals without the need to retrap them; these projects typically generate more regular insights into survival, behaviour and movements than those using only conventional metal rings. Skokholm Bird Observatory has focussed its attention on such worthwhile studies. The Great Black-backed Gull colour ringing project, established in 2014, operated for a tenth year and projects monitoring adult Herring Gull and Puffin survival also continued. Both gull species are fitted with a red darvic ring, inscribed with a unique four digit alpha numeric (for example W:001). An additional red ring has been fitted above the BTO metal ring on Great Black-backed Gulls since 2022; this was added to the project as a means of identifying birds which have lost their darvic ring through wear or damage. A Rock Pipit colour ringing project was trialled this year, with more intensive studies planned for 2024; birds are marked with three rings in addition to the BTO ring, two of which are small coloured rings and one of which is a white ring inscribed with a single black letter.

The Wheatear study, designed and implemented by visiting ringer Ian Beggs in 2017, continued for a sixth year (there was a COVID-19 enforced hiatus in 2020); this is now a Masters project with the University of South Wales. Breeding adult Wheatear and their offspring were again colour ringed in order to determine survival rates, pairings and movements (without the need to retrap returning birds). Study birds are fitted with a green darvic ring, inscribed with a unique white alpha-numeric code. A total of nine breeding adults and 86 of their offspring were colour ringed this year, taking the colour ringing total to 120 adults and 424 offspring. Comparing the findings with those made by previous Wardens Peter Conder between 1947 and 1952, work which was published as part of his seminal monograph ‘The Wheatear’ (1989), and Michael Brooke in 1979 and 1980, is just one aspect of the project. On 17th April female F77, a returning 2022 juvenile, became the first British Wheatear to be fitted with a geologger and the first British songbird to be fitted with an accelerometer, these to explore the routes, stop-over points and timings used on migration. A further 19 tags were deployed during the spring, these designed to stay with the birds until they return in 2024.

Whilst handling birds for ringing, we sometimes observe parasitic Flat Flies. This year we continued to participate in the UK wide Flat Fly mapping project run by UK Hippoboscidae Recorder Denise Wawman since 2021; specimens were collected and preserved for subsequent identification. Further information, including the 2023 results, can be found in the Invertebrates section of this report.

Visiting Ringers

Skokholm Bird Observatory continues to attract visiting ringers who assist with our monitoring work and provide additional coverage between April and September. During its first incarnation between 1933 and 1976, Skokholm Bird Observatory was famous as a site for visiting ringers to stay and contribute to ongoing research. It was a tradition we were keen to continue and between 2013 and 2022 we welcomed a total of 386 visiting ringers to the Island. We were pleased to be able to accommodate 82 ringers this year, taking the 2013-2023 total to 468. Aside from the thrill of ringing at a Bird Observatory during spring and autumn migration, two of the big draws for ringers are our long-term studies targeting Manx Shearwater and Storm Petrel; there were 3522 Manxies handled this year (2097 of which were new) and 448 Stormies (415 of which were new).

Birds Ringed in 2023

A total of 7743 birds of 64 species were caught and processed or resighted this season; due at least in part to the avian influenza dictated restrictions of 2022, this was 39% up on last year and 19% up on the 2013-2022 mean (6520.5 ±sd 1461.2). Seabirds made up 54% of new birds ringed (the 2013-2022 mean is 49%, with a high of 60% in 2013 and a low of 37% last year, the latter again the result of bird flu restrictions). Manx Shearwater accounted for 79% of these and 43% of the overall total (the 2013-2022 mean is 31%, with a high of 45% in 2013 and a low of 20% in 2022). Seabirds made up 64% of the retrap total (birds caught or resighted which had previously been ringed on Skokholm) and Manx Shearwater accounted for 78% of seabird retraps and 50% of retraps overall (the 2013-2022 mean is 41%, with a high of 57% in 2014 and a low of 20% in 2021). There were 45 controls (birds caught or resighted which had been ringed elsewhere), this 13 more than last year but a tally fractionally down on the 2013-2022 mean (46.7 ±sd 14.1). Seabirds contributed 76% of the total number of controls, whilst Storm Petrel were responsible for 62% of these and 47% overall.

There were ten passerines encountered wearing rings from elsewhere, this almost identical to a 2013-2022 mean of 10.4 (there were six in 2013, seven in 2014, ten in 2015, 14 in 2016, ten in 2017, 14 in 2018, ten in both 2019 and 2020, 12 in 2021 and 11 last year). A fine range of birds were once again handled; a total of 64 species almost matched the 2013-2022 mean (64.80 ±sd 4.80), albeit being the fourth lowest total of the last 11 years (a high of 71 was recorded in 2018). A **Short-eared Owl** was the first adult to be ringed since the Bird Observatory was reaccredited (three pulli were ringed in 2017), whilst an **Alder Flycatcher** and a **Hoopoe** took the total number of species ringed since 2012 to 118; the **Alder Flycatcher** was the first to be ringed in Wales and the **Hoopoe** the second for Skokholm following one in 1940.

Details of each control, of the more interesting retraps and of where Skokholm ringed birds have been found, are given within the Systematic List of Birds, as is the total number of each species ringed between 1928 and 1976 and between 2010 and 2023.

The total number of New Birds, Retraps and Controls processed between 2012 and 2023, along with the number of different species handled.

	Total Birds Processed	New Birds (full grown)	New Birds (pulli)	Retraps	Controls	Species processed
2023	7743	4559	324	2815	45	64
2022	5561	3451	324	1754	32	65
2021	7476	5379	340	1682	75	68
2020	4442	2994	229	1181	38	68
2019	7170	4964	298	1853	55	58
2018	8417	6123	325	1905	64	71
2017	6030	4285	295	1411	39	69
2016	5979	4263	274	1394	48	58
2015	7245	5367	270	1563	45	67
2014	8439	5785	313	2303	38	59
2013	4446	3436	297	680	33	65
2012	697	648	2	46	1	25
Total	**73,645**	**51,254**	**3291**	**18,587**	**513**	**118**

Catching Methods

There are four Heligoland Traps (at the Well, in the Cottage Garden, alongside the Wheelhouse and to the east of the Garage), the first two of which are constructed on the footprints of those originally erected by Ronald Lockley in 1933 and 1935 and the latter of which was constructed in September 2022. These provide an invaluable method of trapping birds when blustery weather prohibits the use of mist nets. The Heligolands were driven regularly on every day of the season and with increased frequency on good fall days. There are five permanent mist nets in the vicinity of the Well: the six metre 'Well 6', the nine metre 'Well 9' (extended with a six metre net in 2014), the nine metre 'Stream Net' (a new site in 2015) and the six metre 'Ram Net' (a new site in autumn 2020 situated

just above the hydraulic ram in Billy's Dyke). The nine metre 'Reedbed Net' (a new site in 2018) is strictly an autumn net only erected when the Sedge Warblers have finished breeding. A further four permanent nets around the Farm are a six metre 'Courtyard Net', a nine metre 'Wheelhouse Net' and two nine metre nets forming the 'Library Net' (the second added in the autumn of 2017). A six metre 'Pond Net', first erected to the east of North Pond in autumn 2020, has been used in each subsequent autumn. Long-term Volunteer Louis Driver, challenged to find a new netting site, added the 'Garden Net' on 11th May, this a six metre net running from near the catching end of the Cottage Heligoland and along the face of the Sycamore there. The nets were opened on most occasions when conditions were suitable. Additionally four potter traps, eight spring traps, two very large spring traps and a perch trap were used to target rails, gulls, chats and pipits. A purpose built Gull Trap on Home Meadow was regularly baited but only produced one Herring Gull this year; although not always effective, it has now taken 350 gulls since it was built in May 2013. Further seabirds were caught using a variety of methods, although the majority were trapped by hand in the colony. Adult and fledgling Manx Shearwater were trapped in study burrows and further adults were trapped after dark, all by hand and most along the Manx Shearwater Transect. Storm Petrel were mist netted in South Haven using a MP3 lure to attract birds towards the net.

The Heligoland Traps produced 1166 new birds, this 52% of the new non-seabird total; an average of 1063 new birds were taken from Heligolands in each year between 2013 and 2022 (with a high of 1435 in 2022 and a low of 741 in 2020), which accounted for between 29% (in 2018) and 70% (in 2013) of the new non-seabird total (with a mean of 47%). There were 492 retraps, this up on a 2013-2022 mean of 361 and only down on the 500 of 2014 and the 501 of 2018 (there was a low of 239 in 2020). Seven controls was up on a 2013-2022 mean of 4.6 and matched the 2016 and 2018 totals as the highest during this period (there was a low of one in 2015). The Well, for an 11th consecutive season, proved the most productive Heligoland for new birds, providing 34% of the total. The Garage was the second most productive Heligoland for the first time, whilst the Cottage once again caught the fewest, contributing 17% of the new Heligoland birds total. The proportion of birds caught in each trap is unsurprisingly similar year on year, with the continuing success of the Well Heligoland no doubt due to the maturing corridor of vegetation which runs from South Haven and funnels

migrants towards a trap where more extensive cover and standing water hold birds for longer. **Willow Warbler** was again the most commonly encountered species in the Heligolands, although a total of 182 new birds was well down on a 2013-2022 mean of 354 and only up on the 181 of 2013 (there were highs of 616 in 2014 and 536 last year). **Blackcap** was the second most regularly trapped species, with 179 new birds (there was a previous high of 172 last year and a low of 65 in 2013, whilst the 2013-2022 mean is 119). Although a total of 136 new **Chiffchaff** was close to a 2013-2022 mean of 163 and up on three years during that period, this was not in the top three most common Heligoland species for the first time since 2013. There were 147 **Meadow Pipit** taken (135 of which came from the Garage), this up on a previous high of 108 recorded last year (when an equal number of **Chiffchaff** were taken).

Ringing highlights from the Well Heligoland included singles of **Water Rail**, **Moorhen**, **Snipe**, **Wryneck**, **Red-backed Shrike**, **Crow** and **Siberian Chiffchaff**, two **Reed Warbler**, four **Grasshopper Warbler**, two **Lesser Whitethroat**, a **Fieldfare**, 13 **Redwing**, 15 **Spotted Flycatcher**, a **Pied Flycatcher**, two **Redstart** and five **Stonechat**. Highlights from the Wheelhouse Heligoland included a **Woodpigeon**, two **Collared Dove**, singles of **Sparrowhawk**, **Crow**, **Siberian Chiffchaff**, **Melodious Warbler**, **Garden Warbler**, **Lesser Whitethroat**, **Western Subalpine Warbler** and **Firecrest**, two **Fieldfare**, two **Redwing**, 11 **Spotted Flycatcher**, four **Redstart** and a **Stonechat**. The Cottage Heligoland produced a **Woodpigeon**, a **Collared Dove**, an adult **Lesser Black-backed Gull**, two **Sparrowhawk**, singles of **Reed Warbler**, **Fieldfare** and **Redwing**, nine **Spotted Flycatcher**, two **Pied Flycatcher** and a **Redstart**. Scarcer species from the Garage Heligoland included singles of **Great Black-backed Gull**, **Chough**, **Crow** and **Raven**, two **Spotted Flycatcher**, a **Whinchat** and seven **White Wagtail**, along with 88 **Rock Pipit**.

On 1st August 2019 we began recording the amount of effort put into pushing the Heligoland Traps, a practice which has since continued. A visit to a single trap is logged as one 'push', with a full circuit of the traps equating to four pushes (this three pushes prior to September 2022). A total of 6708 Heligoland pushes were recorded in 2023 (there were 4173 in 2020, 5027 in 2021 and 5309 in 2022), with one push yielding an average of 0.25 birds (this 0.24 in 2020, 0.28 in 2021 and 0.34 last year).

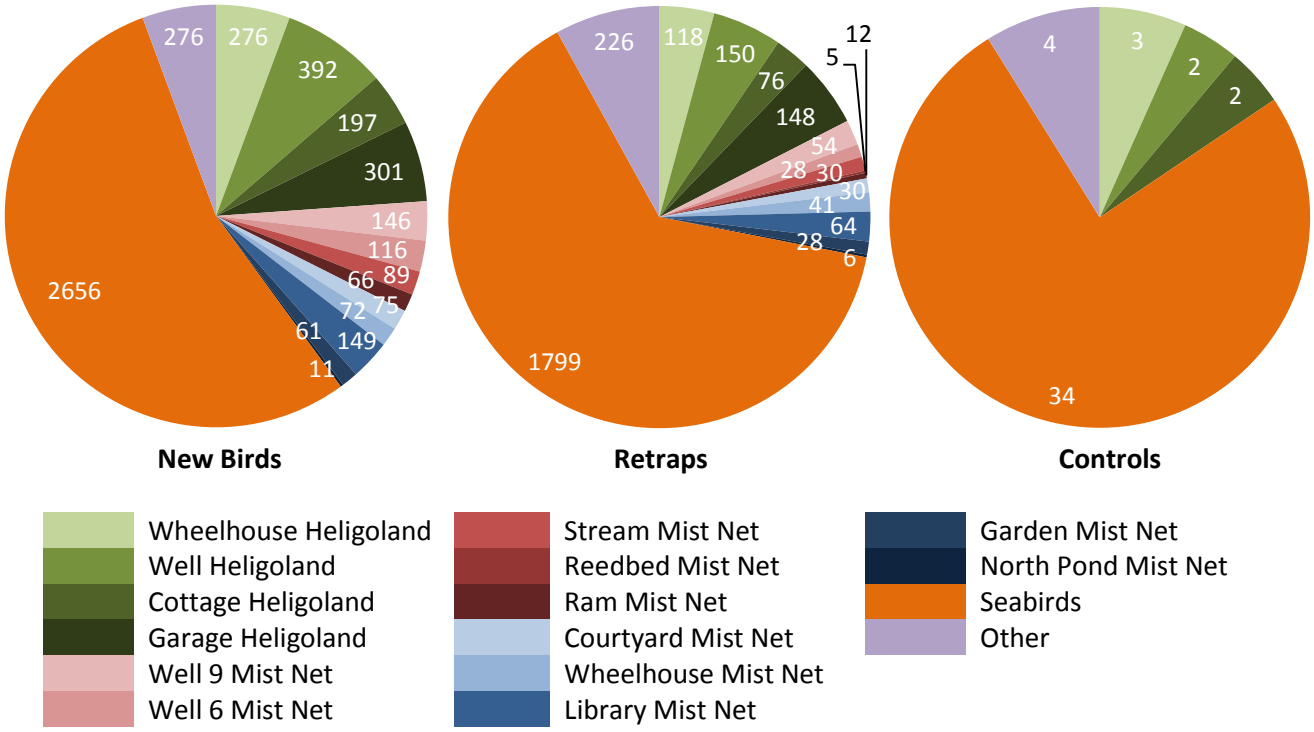
The number of Heligoland Trap pushes recorded during each month of 2023, the total number of new and retrap/control birds taken during these pushes and the mean number trapped per push.

	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Total Pushes	397	980	1081	486	596	926	976	801	437	28	**6708**
New Birds	47	342	145	45	155	172	87	124	49	0	**1166**
Retrap/Control Birds	23	65	40	23	81	124	40	65	38	0	**499**
Avg. No. of Birds per Push	0.18	0.42	0.17	0.14	0.40	0.32	0.13	0.24	0.20	0.00	**0.25**

The regular mist nets produced 785 new birds, this the third lowest total of the last 11 years; the 2013-2022 mean is 1226.8, with highs of 1673 in 2015 and 1925 in 2018, lows of 556 in 2013 and 757 last year. There were 298 mist netted retraps (the 2013-2022 mean is 326.3, with a high of 489 in 2018 and a low of 155 in 2013) and, for the first time in 11 years, no controls (the 2013-2022 mean is 5.0, with highs of seven in 2015, 2016 and 2018 and a previous low of two in 2014). As has been the case for the past eight years, the nets around the Well provided the majority of birds, with the Well 9 and Well 6 nets catching 33% of new birds (the 2013-2022 mean contribution made by these nets is 51%, with a high of 88% in 2013 and a low of 33% in 2019). The Library Nets proved the single most productive site, catching 19% of new netted birds. Excluding the non-permanent Reedbed and North Pond Nets, the least productive netting sites were the Garden Net and the Ram Net (each provided 8% of new netted birds). **Willow Warbler** was again the most commonly trapped species in the Well nets, with 106 new birds, whilst **Sedge Warbler** and **Robin** were the second and third most abundant, with 52 and 40 respectively. **Willow Warbler** was also the most commonly netted species around the Farm, with 72 new birds. **Swallow** and **Blackcap**, the former often

attracted via the use of a tape lure, were the second and third most frequently encountered, with 40 and 34 respectively.

The number of new birds, retraps and controls trapped during 2023 and the proportion made up of seabirds, birds trapped in each Heligoland and birds from each regular mist netting site.



Highlights from the Well mist nets included singles of **Hoopoe**, **Wryneck**, **Alder Flycatcher** and **Western Bonelli's Warbler**, 14 **Reed Warbler**, a **Grasshopper Warbler**, two each of **Garden Warbler** and **Lesser Whitethroat**, a **Firecrest**, a **Redwing**, three each of **Spotted Flycatcher** and **Pied Flycatcher**, two **Redstart** and singles of **Whinchat**, **Stonechat**, **White Wagtail** and **Common Rosefinch**. Around the Farm the mist nets produced a **Skylark**, four **Reed Warbler**, two **Garden**

Warbler, four **Redwing**, singles of **Spotted Flycatcher**, **Pied Flycatcher** and **Stonechat**, four **White Wagtail** and a **Common Rosefinch**.

Arrival and Departure Dates

The first arrival and latest departure dates of 2023 migrants, along with the extreme earliest and latest dates on which they have been recorded in the past, are documented at the beginning of each species account in the Systematic List of Birds. This year saw three records of a species outside of its period of previous occurrence, this down on a 2013-2022 mean of 4.7 and matching the tallies of 2018, 2020 and 2021 as the lowest since 2013. This year they were of a **Kingfisher** on 13th May (the previous earliest was logged on 28th June 2019), a **Wryneck** on 21st November (the previous latest was on 12th November 2014) and a singing **Willow Warbler** on 19th March (the previous earliest were on 23rd March in 1972, 1997 and 2017). The following species were recorded close to their Skokholm limits: a **Brent Goose** on 12th September (earliest on 9th September 2003), a male **Ruff** on 13th March (earliest on 3rd March 1964), a **Puffin** on 2nd March (earliest returning bird on 1st March 2019), a **Sand Martin** on 17th March (earliest on 8th March 2000), a **House Martin** on 28th March (earliest on 20th March 1988), a **Reed Warbler** on 27th April (earliest on 17th April 2015), three **Grasshopper Warbler** on 17th April (earliest on 7th April in 1961 and 1966), two **Blackcap** on 18th March (earliest on 9th March 1997), two **Pied Flycatcher** on 17th April (earliest on 10th April 1993) and a **Common Rosefinch** on 6th October (latest on 12th October 1995).

2022 Rarity Decisions and DNA Results

A DNA confirmed male **Moltoni's Warbler** present between the 17th and 29th May was accepted by the British Birds Rarities Committee as the first for Wales and 13th for Britain. A juvenile **Pallid Harrier** present on 12th September was also accepted by the British Birds Rarities Committee, this as a first for Skokholm and a third for Wales. A stunning first-winter **Tennessee Warbler** watched for a few exhilarating minutes on 12th October was also accepted, this another first for Wales and just the sixth for Britain (the other five were all found in Scotland, as were four 2023 birds which arrived during an exceptional autumn for Nearctic passerines).

An **Alpine Swift** on 22nd April was accepted by the Welsh Birds Rarities Committee as the fourth for Skokholm and our second in two years. A juvenile **Corncrake** at Orchid Bog on 19th September was also accepted, this the first since 1999. The Welsh Birds Rarities Committee also accepted a **Pectoral**

Sandpiper present at North Pond on 2nd June as the 21st record and 25th individual for the Island. A **Cory's Shearwater** which lingered off the Lighthouse for at least six minutes on 25th July was accepted, as was another on 20th August, these taking the all-time total to eight (remarkably a further 20 would be seen in 2023). A **Shore Lark** which spent the 23rd and 24th April around North Plain was accepted as the fourth for Skokholm. An **Icterine Warbler** present on 29th May was a fifth acceptable spring record, whilst a juvenile on 1st September was the 23rd autumn record to be accepted. A **Siberian Lesser Whitethroat** present between the 23rd and 25th October was only the second Skokholm bird to be genetically confirmed following one in 2014. An **Olive-backed Pipit** found at sunset on 13th November was accepted as the sixth for Wales and second for Skokholm following the first for Britain present between the 14th and 18th April 1948. A first-winter **Common Rosefinch** noted each day between the 1st and 3rd October was accepted as the 30th individual to be seen here. A female **Serin** found in the Courtyard on 20th May was also accepted by the Welsh Birds Rarities Committee, this only the fourth to be encountered on Skokholm. A vocal **Richard's Pipit** on 15th November was considered by the Pembrokeshire Records Committee to be the same individual logged on the 29th, autumn 2022 becoming the 20th with a sighting. The acceptance of all 2022 descriptions by the relevant rarities committees means that there were indeed 157 species in 2022, a tally up on a 2013-2021 mean of 152.8 and matching that of 1993 as the fourth highest to date (there were peaks of 166 in 2017 and 165 in 2020). The acceptance of **Pallid Harrier**, **Moltoni's Warbler** and **Tennessee Warbler** takes the Skokholm list to 304 species.

Research Projects

The Skokholm House Mouse Study

A team from Oxford University, led by Dr Sarah Knowles, re-established a longitudinal study of the Skokholm House Mouse in 2019, this building on the intensive works carried out by R.J. Berry in the 1960s and 1970s (see the introductions to the Annual Report 2019-22 for further information). This spring saw the last of the field data collection, with faecal sampling and assays used to explore how variations in individual gut microbiome influence behaviour and responses; Alex Figueiredo continued to lead on the latter part of this study, whilst Holly Coombes and Carla Wagener again worked on a cold tolerance assay.

The team were again joined by Dr Emily Dennis who runs a laboratory in Virginia, USA, studying the predatory behaviours of the House Mouse; Skokholm offered the perfect opportunity to examine if hunting prey correlates with increased survival and differences in the gut microbiome (R.J. Berry published work in the 1960s indicating that hunted items made up a large part of the diet of cliff

mice, and that those mice seem to be the animals which re-populate the Island each year following winter die-offs). Trail cameras were again used to see how they hunt for prey, this investigating whether Skokholm mice exhibit any specific behavioural changes that may have developed in an island environment. The faecal samples gathered by the Oxford team will again be used for DNA sequencing to find out what mice had recently eaten. The team were also joined by 2022 Skokholm Long-term Volunteer Lucy Williamson who retrieved all of the logging stations which have been monitoring the movements of tagged mice. Marlene Knupfer and Tim Dennis also assisted the team this spring. The last House Mouse was tagged on 2nd May, the last faecal samples were collected on the 3rd, the last logger was brought in on the 4th and the team departed on the 6th, taking with them four dumper truck loads of equipment (meaning that any tears of sadness were convincingly lost in sweat). At least two years of laboratory work will follow their departure. It has been a pleasure to support this fascinating project.

Manx Shearwater Tracking

A team of researchers led by Ollie Padget from the Oxford Navigation Group tracked 20 chick rearing adults nesting in the Lighthouse Study Plot, with devices deployed and retrieved between 24th July and 9th August. Two different types of device were used for this short-term deployment, both new technologies developed to improve data quality. Ten were Ornitela GPS-GSM devices which save GPS locations ascertained as normal using satellites, but which then download data via the GSM (3G) network when birds come close to the coast (updates are received every few hours if birds are in signal). Although these devices do not need to be retrieved to obtain data, all ten were recovered after one or several foraging trips. The second device type was a new Oxford snapperGPS. These take 'snapshots' of GPS signals but, rather than process locations on-board, data is computed after retrieval; this means that the devices use far less power than normal, allowing very high temporal resolution data to be collected. All ten snappers were also retrieved. Both this and previous studies have shown that birds visit the waters earmarked for the Erebus wind farm and similar future projects (see the introduction to the Annual Report 2021). The Manx Shearwater section below includes a map showing some of this year's tracks.

Bird Observatory Fundraising and Donations

The Ticks Jar

The Ticks Jar is a Bird Observatory tradition which we brought to Skokholm in 2013; birders and ringers are encouraged to make a small donation if they see or ring a new species during their stay. An impressive £3531.94 was raised between 2013 and 2022 (this despite an 'empty Jar year' during the 2020 Island closure and a reduced number of guests the following year).

This year, the Ticks Jar contained a remarkable £1608.85, this including monies raised during the Alder Flycatcher twitch (photograph above) and from the sale of old and duplicate Observatory reports (brokered by Richard Dobbins and which raised £300). The takings from the Ticks Jar have funded a wide range of items over the years, including the Storm Petrel sound system, two-way radios, bat detector accessories, local artwork, interior furnishing and fittings for the new Crab Bay Puffin Hide. This year we again donated £100 of the takings to the Wildlife Genetics and Conservation Team at the University of Aberdeen; for more than ten years, they have kindly provided us with bird identifications based on the mitochondrial DNA held in dropped feathers. The remainder of the Jar was spent on gardening equipment (for the maintenance of ponds and net rides), a 12-volt widescreen monitor and associated crimping tools (which allowed for the creation of a more impressive nocturnal Storm Petrel viewing experience), a cordless sander and replacement battery, large storage boxes, further USB plugs, six new books and framed rare bird photographs for the Library, two replacement UHF radios and four replacement aerials, chopping boards and Tupperware for the Kitchen, a range of sundries for the Workshop and a new furling stick setup for the trapping area. An underspend of £197.56 remains in the Jar for 2024.

Bird Observatory Merchandise

We have been selling quality Skokholm Bird Observatory merchandise on the Island since 2013, with 100% of the profits contributing towards the work of the Observatory. Whilst we began selling only polo shirts, the range has expanded over the years to include hoodies, fleeces, gilets, headwear, bumbags and mugs. This year we also stocked a range of original natural history artworks, sourced and framed by Richard Dobbins. Rochelle Hood donated Puffin pattern towels and bags for sale in the shop (uniquely created for the Island by Wendy Barnes Design), along with Skokholm inspired soap (made by Wild Goat Soap). The proceeds reside in the Skokholm Bird Observatory account and are used to purchase additional equipment, such as extra nets and rings, or materials, such as those used for building and maintaining Heligoland Traps.

Acknowledgements and Thanks

Skokholm is a remarkable place which, over the decades, has attracted people from far and wide, many of whom become so much a part of it, and it them, that Dream Island is never far from their thoughts. We are so grateful for the support and generosity bestowed upon both the Island and ourselves each year; it is only right that those who helped make Skokholm so special in 2023 are acknowledged here.

Our first and biggest thanks must go to this year's Long-term Volunteers Eleanor Biggs, Louis Driver, Ellyn Baker and Amelia Corvin-Czarnodolski. They each gave three months of their lives to Skokholm, assisting with everything from seabird and migration monitoring to lime-washing buildings, constructing nest walls and cleaning on changeover days. Ellyn stayed on after her stint to help finish off Petrel Station II and to assist with autumn migration monitoring, data inputting and the preparation of the Observatory for winter. We would like to say a heartfelt thank you to Howard Driver, a skilled carpenter with an excellent sense of humour, who once again spent a month here at both the beginning and end of the season, undertaking all things joinery (and, with coercion, tiling); he steams through his job list at a pace we often struggle to keep up with. To us and many guests, Howard has become as much a part of Skokholm as a Puffin (though he's much taller). We are also lucky to have been able to accommodate short-term volunteers for specific tasks; for example Rob Smith and Steve Roberts, the 'Water Boys', visited for several days at a time to transport drinking water from the Well to the underground storage tanks at the Lighthouse (Rob also made a dent in the odd jobs list, whilst Steve treated the hides). Nick Davison and Alan Wilkins of the Wildlife Sound Recording Society continued to work on their project to recognise individual Manx Shearwater and Storm Petrel by their calls and Chris Payne installed bespoke cameras in a selection of boxes in the Petrel Station to provide further insights into petrel life. Nick also built and donated two LED bucket

moth traps and batteries to the Island. Julia Manning returned in the spring to repaint the Jetty sign, guest Alyn Lamb came to the rescue on a hot and waterless July day by fixing the float switch on the drinking water tank, Alice Connell assisted with Manx Shearwater playback surveys in May, Professor Chris and Mary Perrins ran the moth trap during their visit in June, Helen and Phil Mugridge cleared Bracken from the path edges whilst on holiday, Jodie Henderson (2019 and 2021 Long-term Volunteer and now Portland Bird Observatory Assistant) returned for a holiday but also mucked in with monitoring work and changeover cleaning, Emyr Roberts faced and landscaped Petrel Station II, Chris Brown again created the report covers and Sandie Eagle deep cleaned all of the bird bags over the winter.

The Skokholm infrastructure would not be in such great repair, nor would the accommodation be ready in time for the visitor season, if it were not for the help of the fantastic Work Party volunteers who labour for two weeks in spring and one week in autumn. Thank you to everyone who volunteered this year, as well as to those who helped gather supplies and who assisted on the delivery boats. Thank you to Gareth Reynolds and the staff and crew at Dale Sailing for another seamless year, safely ferrying our guests and volunteers to and from the Island.

We must thank all of our colleagues at the Wildlife Trust of South and West Wales who undertake the behind-the-scenes jobs that allow Skokholm to function the way it does. We would like to say a specific thank you to Jon Cooper and Jane Kokoch who sort out the guest bookings, as well as to our Line Manager Lisa Morgan and Chief Executive Sarah Kessell who find and secure grant funding for projects and procurements, and who are invariably supportive of new ideas. Lisa also acted as mainland support, taking post and other deliveries before getting them to the boat.

Individual acts of generosity, whether small or large, allow us to keep dreaming up exciting projects and provide an exceedingly pleasant guest experience; there were once again many. Our extreme gratitude goes to Joan Bingley, a regular Skokholm guest, who generously funded the materials and transportation costs for Petrel Station II. A specific mention must also go to Rochelle Hood, our Floridian supporter, who donated a solar-powered trail camera, along with another battery powered unit, SD cards, batteries, two tripods and a range of items for the Bird Observatory shop.

We were again appreciative of the support of the Friends of Skokholm and Skomer. The Friends continued to offer assistance to our Long-term Volunteers and financial support to the Island, this year purchasing hardbound copies of the 2013-2021 Annual Reports and Bird Observatories Council Reports for the Library. John Walmsley crafted three beautiful new tables for the Library, the timber for which was also purchased by the Friends. We are hugely grateful to Mark Burton who again

volunteered to receive, pack and deliver to the boat our fresh groceries. Shirley Matthews and Mike Davies shopped for and delivered the tuck-shop stock, this a service very much appreciated by our visitors. A huge thank you to Anna and Steve Sutcliffe, our mainland haven, who again supported us and the Island in so many thoughtful ways this year.

For the first time in 11 years we took a mid-season holiday, this following the bulk of the seabird monitoring and before autumn migration reached full swing. This was only possible thanks to a team of great people who we happily trusted to run the Island in our absence. Our gratitude goes to caretakers Richard Dobbins (Chair of Skokholm Bird Observatory), Wendy James (Head of Bird Observatory Merchandise), Alice Connell, Anna and Steve Sutcliffe and our autumn LTV's Ellyn and Amelia. They did a cracking job, finding a Dark-barred Straw and a Straw Underwing (both moths new to Skokholm) as well as a Melodious Warbler and a Western Bonelli's Warbler.

A pleasing number of visiting ringers joined us at the Observatory in 2023; our thanks go to all who contributed to our work. Special thanks go to Wendy James and Richard Dobbins of the Teifi Ringing Group who organised and ran visits for several ringing groups, to Kenny Cramer of the (not) Northants Ringing Group who brought a group that filled all of the beds at the Obs (and filled the Ringing Hut with much appreciated useful stuff) and to Eric Wood and Robin King who once again assisted with the Great Black-backed Gull colour ringing project and scone manufacturing. Thank you to the researchers, birders and ringers, from all over Europe, northwest Africa and the east coast of South America, who submitted sightings of Skokholm ringed birds this year; much of the work carried out at the Observatory relies on this wonderful network.

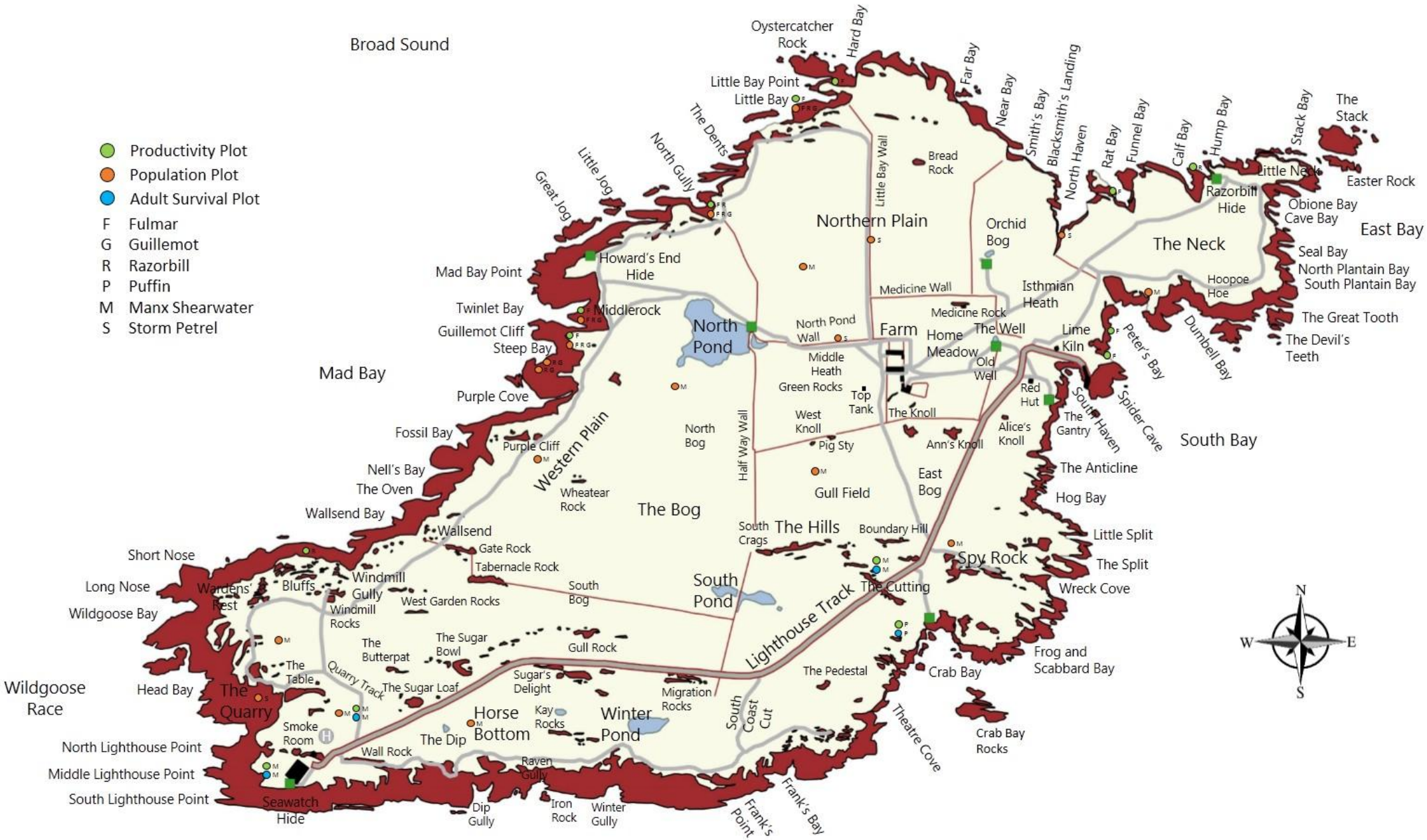
We were grateful for the Bird Observatories Council who once again supported our work and continued to publicise the Observatory as part of the UK Bird Observatory network, for the staff at Natural Resources Wales for their consents and for the Islands Conservation Advisory Committee and Seabird Subgroup who provided support and advice on relevant issues. Thank you specifically to Mike Alexander for his support and genuine interest in Skokholm. Our appreciation goes to Greg Morgan and Jinx the Conservation Dog who visited in late April as part of the Biosecurity for LIFE project. Jinx has been specially trained to detect the presence of rats; he will be able to check boat deliveries before they come to the Island and search for incursions if they are suspected. Thank you to the experts who assisted with our work this year; Professor Martin Collinson and his team at the University of Aberdeen again carried out DNA analyses on feather samples obtained from migrant

birds, Denise Wawman identified our collection of Flat Flies for a third year and 2014 Long-term Volunteer Billy Dykes, previous Pembrokeshire Moth Recorder Robin Taylor and newly appointed County Recorder Paul Warren provided knowledge, identification assistance and encouragement during moth trapping.

It is always our pleasure to share the Island with researchers and we would like to thank all who visited this year. It was bitter sweet to host Oxford University Team Mouse for the final year of their funded research; we hope to be able to welcome them back in the future. Thanks must also go to Ian Beggs for another year of fascinating, cutting-edge research into the Skokholm Wheatear population and for his company and assistance during the spring and summer. We are also keen to welcome students to the Island; this year we were visited by a group of Salford University undergraduates led by Jamie Gundry and a group from Cardiff University led by Rob Thomas.

Last but never least, we would like to say a huge thank you to all of our 2023 guests. It is your continued support, wildlife sightings, generosity, excitement and great humour which produce that magical Skokholm feeling.

Giselle and Richard


Productivity Plot
Population Plot
Adult Survival Plot
F Fulmar
G Guillemot
R Razorbill
P Puffin
M Manx Shearwater
S Storm Petrel
Broad Sound
Oystercatcher Rock
Hard Bay
Far Bay
Near Bay
Smith's Bay
Blacksmith's Landing
North Haven
Rat Bay
Funnel Bay
Calf Bay
Hump Bay
Stack Bay
The Stack
Little Neck
Easter Rock
Razorbill Hide
Obione Bay
Cave Bay
East Bay
Seal Bay
North Plantain Bay
South Plantain Bay
The Great Tooth
The Devil's Teeth
Little Bay Point
Little Bay
The Dents
North Gully
Great Jog
Little Jog
Little Bay Wall
Bread Rock
Northern Plain
Orchid Bog
The Neck
Howard's End Hide
Mad Bay Point
Medicine Wall
Isthmian Heath
Hoopoe Hoe
Twinlet Bay
Middlerock
Guillemot Cliff
Steep Bay
North Pond
North Pond Wall
Medicine Rock
Farm
Home Meadow
The Well
Lime Kiln
Peter's Bay
Dumbell Bay
Mad Bay
Middle Heath
Green Rocks
Top Tank
Old Well
Red Hut
Purple Cove
Fossil Bay
Purple Cliff
Western Plain
North Bog
West Knoll
The Knoll
Alice's Knoll
Ann's Knoll
South Haven
Spider Cave
South Bay
The Gantry
Nell's Bay
The Oven
Wheatear Rock
Half Way Wall
Pig Sty
Gull Field
East Bog
The Anticline
Hog Bay
Wallsend Bay
Wallsend
The Bog
South Crags
The Hills
Boundary Hill
Little Split
Short Nose
Gate Rock
Tabernacle Rock
Spy Rock
The Split
Long Nose
Wardens' Rest
Bluffs
Windmill Gully
Windmill Rocks
West Garden Rocks
South Bog
South Pond
The Cutting
Wreck Cove
Wildgoose Bay
Lighthouse Track
The Butterpat
The Sugar Bowl
Gull Rock
Frog and Scabbard Bay
The Table
Quarry Track
The Sugar Loaf
Sugar's Delight
The Pedestal
Crab Bay
Wildgoose Race
Head Bay
The Quarry
Migration Rocks
South Coast Cut
Theatre Cove
Smoke Room
Horse Bottom
Kay Rocks
Winter Pond
The Dip
Crab Bay Rocks
North Lighthouse Point
Middle Lighthouse Point
South Lighthouse Point
Wall Rock
Raven Gully
Seawatch Hide
Dip Gully
Iron Rock
Winter Gully
Frank's Point
Frank's Bay
N
W
E
S

Definitions and Terminology

The status summaries used in this report closely follow those established by Betts (1992) and used by Thompson (2007); they refer to the period prior to this season. Where the status has changed in the years subsequent to Betts' 'Birds of Skokholm', the current status is used but the change is noted. The definition of each status is as follows:

Status	Definition
Vagrant	1-10 records since 1927
Rare	11-50 records or breeding records
Scarce	1-5 birds, records or breeding pairs per year
Uncommon	6-50 birds or breeding pairs per year
Fairly Common	51-250 birds or breeding pairs per year
Common	251-1000 bird-days or breeding pairs per year
Abundant	1001-2500 bird-days or breeding pairs per year
Very Abundant	More than 2500 bird-days or breeding pairs per year

The systematic list below follows that of the British Ornithologists' Union (McInerny *et al*., 2017) but includes updates published in BOURC reports up to and including November 2020.

The Systematic List of Birds

Brent Goose *Branta bernicla* **Gwydd Ddu**
Rare only 11 spring and five autumn post-War records, including three long-stayers in spring
Earliest 9th September 2003 (12th September 2023) **Latest** 20th June 2015

One flew low and north over the Island, mid-morning on 12th September; it was probably a pale-bellied *B. b. hrota* but this was not confirmed (RDB). Lockley mentions Brent Goose passing in the winter and notes a flock of 16 on 10th April 1936, however no Brents were recorded between 1937 and 1983 and only 17 records totalling 36 individuals have now been logged since (including 20 in the last nine years); ten of the records have come in April, with three of the previous five autumn records occurring in November. Given that the vast majority of Pembrokeshire Brent Goose sightings assigned to race each year have been *B. b. hrota*, the pale-bellied Greenland breeding subspecies, it is perhaps surprising that of the 14 Skokholm records where race has been determined, all but five have belonged to the dark-bellied nominate form of Arctic Russia. Lockley's April skein remains the largest on record, with ten *B. b. hrota* on 5th April 2019 being the only other double-figure count.

Canada Goose *Branta canadensis* **Gwydd Canada**
Scarce Breeder and Common Visitor four in October 1952 were the first for Pembrokeshire

The majority of spring sightings were again of those which would attempt to breed on Skokholm, although there were nine April and four May daycounts which exceeded the four breeding pairs. The nine April highs, logged between the 4th and 18th, peaked at 12 on the 7th and 18 on the 14th, whilst the four May highs logged between the 19th and 22nd peaked at 11 on the 20th and 21st; the spring daycount high was 16 down on that of last year and down on a 2013-2022 mean of 23.4. Four nesting pairs was the highest tally of the last five years, but still well down on a 2010 peak of 41, the egg control measures designed to protect rare aquatic vegetation and implemented under licence since 2002 still working; this species colonised in 1999, the population had increased to seven pairs by 2004 and numbers grew still further during the period that Skokholm was closed to the public. Two pairs nested in the Bog, one pair nested on Green Heath and one pair nested near Bread Rock, with all attempts being unsuccessful; only the two Bog pairs produced second clutches, both of

which were also destroyed. The most recent fledgling was a single in 2012, whilst there were highs of 38 in 2006 and a minimum of 40 in 2007. A dead adult found near North Pond on 13th May was not tested for highly pathogenic avian influenza, however four similar bodies on Skomer in July 2022 tested negative for the disease. Eight were still present on 30th May and there were at least seven on the last day of the month, however only two were seen on each of the first three days of June and a single on the 7th was the last of the month. One was on North Pond for three days from 8th July and two flew to Skomer on the morning of the 25th, this the second July of the last five with a record.

The number of territorial pairs, with the peak coinciding with low disturbance during the renovation period.

2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
36	41	23	16	18	11	10	7	7	4	2	3	3	2	4

There were six on the evening of 8th August and two logged on six dates between 26th August and 16th September. Counts on three further September dates peaked at seven on the 21st, whilst there were October sightings on 13 dates (including highs of 65 on the 17th, 85 on the 21st and 87 on the 25th) and November sightings on 18 dates (including highs of 70 on the 5th and 65 on the 6th); the peak autumn daycount was more than twice that of last year but was down on a 2013-2022 mean of 102.2 (there was a high during this period of 205 in 2016, a low of 41 last year). A late, typically post-sunset, arrival to the autumn North Pond roost and an early departure inevitably lead to undercounting on occasion.

Greylag Goose *Anser anser* **Gwydd Wyllt**
Rare 15 post-1953 spring records of up to five birds and six autumn records of up to seven birds

Two photographed as they flew west along the south coast and out towards Grassholm on 25th April were the first since what was probably the same single present at North Pond on 26th April and 3rd May 2017 (DJ). April remains the best month for encountering this feral species on Skokholm, now with ten separate records. Sightings in five of the last 11 years reflects an increasing Pembrokeshire population; the eight highest WeBS maxima have occurred in the last eight years (Haycock, 2023).

Whooper Swan *Cygnus cygnus* **Alarch y Gogledd**
Rare 12 previous records, three of which occurred in spring

Two which flew north over the Bog and then northwest over the Bluffs at 1130hrs on 25th November made 2023 the third year of the last four with a sighting, this following one at North Pond on the 23rd and 24th October 2020 and two south over the Neck and out towards St Ann's Head on 5th December last year (RDB, GE); the 2020 individual was seemingly just the fourth to overnight on Skokholm following a group of three which lingered between the 17th and 19th May 1981.

The majority of earlier sightings have occurred in October, with two on the 25th in 1967, three on the 22nd and 29th in 1980, eight on the 5th in 1981, five on the 24th in 1987 and 18 on the 29th in 1988. The only other records (not listed above) are of 47 west on 19th February 1956, six on 1st November 1991, a single on 13th November 1992 and three on 12th May 1995; the former herd were originally identified as this species, later considered in a British Birds paper to be part of an eruption of Bewick's Swans and subsequently confirmed as Whooper Swans by the finder (leading to a correction in British Birds and the removal of the smaller species from Betts' 1992 Skokholm list).

Shelduck *Tadorna tadorna* **Hwyaden yr Eithin**
Scarce Breeder recorded in 58 years, almost annually since 1956 and first seen with young in 2006

There were March sightings on all but four dates, always of a pair bar a single on the 25th. April sightings were of a pair on 25 dates, these joined by a third bird on six dates from the 17th, by two extra birds on the 23rd and 28th and by four extra birds on the 19th; the latter was the highest daycount of the year but the second lowest spring maximum of the last 11 years (the 2013-2022 spring high mean is 11.4, with peaks of 20 in 2013 and 15 in 2016 and a low of four last year). Between one and four were logged on all bar one May date, with no more than two males and two females confirmed to be present. A scuffle between a Shelduck pair and Lesser Black-backed Gulls, in the Bog on 26th May, was perhaps indicative of a breeding attempt, however no chicks were seen; this becomes the fourth consecutive year, but just the fourth year since 2009 and the fifth year since breeding was first confirmed in 2006, in which no chicks were seen. Although it is possible that the adults which swam their young towards St Ann's Head in 2016 managed to protect them through to fledging, it was only in 2011 that any chicks definitely went on to fledge from Skokholm. Sightings on 26 June dates were all of one or two birds bar daycounts of three on the 4th, 10th and 18th. Two were present on each of the first five days of July, these the last to be seen this year; there have only been July sightings in seven previous years. There were no records in either November or December, this for a second consecutive year but just the second time in 11 years.

Shoveler *Spatula clypeata* **Hwyaden Lydanbig**
Rare Breeder and Uncommon Visitor bred in 1988, 1991-1996, 1999, 2015, 2017 and 2018

Following records of a male on 31st March and a pair on 10th April, there were daily encounters from 13th April to 11th June, often with a pair but with a second male confirmed on 25 dates between 24th April and 31st May and a second female confirmed on 31st May and 1st June. A female accompanied six ducklings at Orchid Bog on 29th May, at least one of which was still alive on the 30th and 31st, however an alarming female was the only bird seen there on 1st June and there were no further sightings of young; breeding was strongly suspected in 2003 and 2019 and confirmed in 11 years between 1988 and 2018, however no young are known to have successfully fledged from Skokholm.

A female was on North Pond on seven dates between the 14th and 22nd June, with further sightings of a lone female on 30th June and the 5th and 22nd July being the last of the summer; the latter records made this the 18th July since 1935 with a sighting. The only autumn record was of a flyover pair on 13th October, this becoming the 34th year (and eighth of the last ten) with a sighting in the last five months of the year.

Wigeon *Mareca penelope* **Chwiwell**
Uncommon Winter Visitor
Earliest 22nd August 1986 (13th October 2023) **Latest** 29th May 2017 and 2018
1964: 1 trapped

There were no spring records for just the third time since 2010, this a period which has seen an average of 36.8 spring bird-days a year (there was a high of 127 in 2017). One at North Pond on 13th October was thus the first of the year, whilst three joined four Pintail there on the 30th. A pair were at North Pond on the evening of 1st November, a dead male found on North Plain on the 21st had tears to the sternum indicative of a Peregrine kill and seven at North Pond the following day were the last of the year. There have been autumn sightings in 51 previous years, with a 2013-2022 autumn bird-days mean of 31.6 and all-time highs of 120 in 1990, 149 in 1991 and 103 in 2016.

Mallard *Anas platyrhynchos* **Hwyaden Wyllt**
Scarce Breeder and Fairly Common Visitor
1936-1976: 10 trapped, 2018-2022: 3 trapped

There were sightings on all but one date between the return of staff on 1st March and 22nd June, with highs of eight logged on the 1st, 9th and 17th March, on the 3rd, 7th and 24th April and on 7th May (but with up to four females recorded in March and seven males on five dates between 3rd April and 2nd May); the peak spring daycounts matched those logged on two dates in 2020 as the lowest high of the last 11 years, down on a 2013-2022 mean of 11.1 (there was a spring daycount high during this period of 19 in 2022 and a post-War high of 31 on 13th June 1993). A female accompanied nine ducklings at the Well on 4th May, these five days earlier than the 2013-2022 first chick mean (the earliest during this period were present on 7th April 2021 and the latest on 27th June 2014). Nine ducklings were still present at the Well the following day, however only four were seen on the morning of the 6th and no young were seemingly present that afternoon.

A female at Orchid Bog was seen with up to eight ducklings on three dates between the 9th and 13th May, however at least three were taken by gulls on the latter date and there were no further

sightings. There were thus at least two broods of ducklings this year, this only one down on the peak count listed by Thompson (2007) but the second lowest total of the last eight years, down on a 2013-2022 mean of 3.2 (there was a high of six in 2018). It is seemingly over two decades since any young fledged; there were occasional fledglings between 1985 and 2000, with a peak of 25 in 1988 (surprisingly so given that this was a period when gull numbers were more than twice what they are today). A dead adult was found on 22nd June, after which records became more sporadic with up to two seen on four further June dates and a lone drake on nine dates between the 1st and 11th July. There were no further sightings until nine were logged on 1st September, seven of which were at Orchid Bog after dark; as with other ducks in autumn, this species regularly exhibits a post-dusk arrival and pre-dawn departure from roost sites, making an accurate assessment of numbers difficult. All bar one of seven further September records were nocturnal, with highs of ten at Orchid Bog on the nights of the 20th and 21st. Sightings on 11 October dates included five nocturnal counts of up to two and diurnal highs of 17 on the 13th and 28 the following day. Similarly only four of ten November records were diurnal, including a high of six on the 26th, whilst the remains of a male on the 17th had tears to the sternum indicative of a Peregrine kill and two were at North Pond on 2nd December. An autumn daycount high of 28 was down on a 2013-2022 mean of 40.0 (there were peaks during this period of 68 in 2014 and 64 in 2018, lows of 15 in 2015 and 13 in 2017).

Pintail *Anas acuta* **Hwyaden Lostfain**
Scarce suspected of breeding in 1993 and 1995, but records in only four years since 1996

Six were together at North Pond on the 17th, 18th and 19th October, these record daycounts up on the four logged on the 24th and 25th July 1987, 29th October 1991 and the 21st, 22nd and 24th March 1995. Following a two day absence, six returned on the afternoon of the 22nd, these still present on the 23rd and again at North Pond on the morning of the 25th following another day long absence. Only five were seen early on the 26th, but six were again present on the 28th, whilst four joined three Wigeon on the 30th. One at North Pond on the evening of 1st November was the last and the 52nd bird-day of the year; there were also 52 bird-days in 1996 and highs of 64 in both 1993 and 1995.

Teal *Anas crecca* **Corhwyaden**
Common Visitor recorded in all months, but more regular in winter and possibly bred in 1936
1936-1976: 15 trapped, 2014-2018: 3 trapped

Sightings on all bar one March date to the 26th included highs of 12 on the 1st, 13 on the 10th and 14 on the 14th, although no more than four were seen each day from the 20th (when the remains of one were at South Pond); a March bird-days total of 154 was close to a 2013-2022 mean of 146.8 but

down on a high during that period of 284 in 2018 and an all-time high of 874 in 1969. A pair at South Pond on the 3rd made this the 19th year this century with an April record; there have been 3555 previous April bird-days, including 641 this century, but only five since 2019. One was at Orchid Bog on the 10th, 11th and 12th September and two were there on the 24th, a bird-days total of five down on a 2013-2022 September mean of 29.9. The only October records were of one on the 3rd and eight on the 19th, the bird-days total for the month similarly down on a 2013-2022 mean of 40.3 (there was a high during this period of 111 in 2021 and all-time highs of 256 in 1971, 174 in 1976 and 305 in 1991). November saw five on the 22nd, two on the 25th and four on the 26th; the bird-days total was the lowest since 2017, down on a 2013-2022 mean of 128.2 and all-time highs of 270 in 1967, 216 in 2016 and 547 in 2018. There were 20 at North Pond on 2nd December, this the highest daycount of the autumn but down on a 2013-2022 mean autumn high of 50.0 and on peaks during this period of 96 in 2016 and 110 on 5th November 2018 (lows were of seven in 2017 and 14 last year).

Common Scoter *Melanitta nigra* **Môr-hwyaden Ddu**
Common recorded offshore in all months, but particularly from June to September
1936-1976: 11 trapped (oiled birds following rehabilitation)

There were no sightings in the first half of the year for only the second time since 2011; records in 56 previous springs have seen daycounts reach highs of 420 in May 1992, 176 in June 2016 and 210 in June 2017. Six off the Lighthouse on 18th July were thus the first of the year, these followed by 12 on the 20th and two on the 28th. The only August sightings were of a single on the 1st and eight on the 5th, however numbers increased in September with records on nine dates and highs of 20 on the 1st, 80 on the 3rd and 48 on the 17th. Counts peaked in October, with sightings on nine dates and highs of 14 on the 2nd, 58 on the 8th and 241 on the 12th, whilst the only November birds were three on the 18th, one on the 20th and two on the 21st. An autumn bird-days total of 548 was down on both the 626 of last year and a 2013-2022 mean of 685.4, although the peak daycount was up on a 2013-2022 autumn mean of 136.7 and was only down on highs during the period of 249 in 2016 and 392 in 2017 (the latter the all-time autumn daycount record). As is typically the case, most birds seen during the autumn were heading southeast, probably towards wintering grounds in Carmarthen Bay.

Nightjar *Caprimulgus europaeus* **Troellwr Mawr**
Rare only one post-1979 record
Earliest 6th May 1952 and 1971 (24th June 2023) **Latest** 21st October 1977
1938-1967: 7 trapped

A male found along the Lighthouse Track following early afternoon mist on 24th June was the first since a male on 18th May 1993, these the only two Skokholm records since the 1970s (LD, EGB *et al*.).

Nightjar were encountered more frequently in the past, with records in 27 years between 1929 and 1979 accounting for 56 bird-days (with 31 in May, ten in June, six in August, seven in September and two in October). There were annual bird-day maxima of six in 1946, seven in 1954 and five in 1958 and 1968, whilst highs of two were present on 27th August 1934 and 5th June 1954. Although once a common breeding species in Pembrokeshire, numbers declined rapidly in the 1960s and by 1971 they were found at only eight sites, this followed by only occasional records of displaying birds during the 1980s and 1990s. It is thus pleasing that churring males have been heard at Ty-Rhyg for the last three years (Haycock, 2023b); hopefully Island records will mirror an increase in the county.

Swift *Apus apus* **Gwennol Ddu**
Fairly Common Migrant common in some years and most regular in late spring
Earliest 15th April 1991 (30th April 2023) **Latest** 28th October 1976 (17th September 2023)
1955-1967: 13 trapped

One heading west over North Gully on 30th April was one day later than the 2013-2022 first spring bird mean; there have been 322 earlier bird-days, including only 24 this century. Sightings on 16 May dates totalled 50 bird-days and included highs of 11 on the 6th and 16th, this a more productive month than June which saw sightings on 13 dates tally 38 bird-days, with highs of only five on the 9th and six on the 10th. A minimum of 15 on 7th July was the highest daycount of the year, with up to three on four further dates taking the tally for the month to 24. Singles on the 23rd and 24th August, the 5th and 6th September and finally on 17th September were the last in a poor year; the latter was three days later than the last of 2022 and the latest autumn sighting since one on 26th September 2001, indeed there have only been 29 later bird-days including ten in 1979 and four in October. An annual bird-days total of 118 was down on a 2013-2022 mean of 176.2 and well down on all-time highs of 515 in 1948, 457 in 1950 and 439 in 1977, whilst the peak daycount was down on a 2013-2022 mean of 30.9 and on all-time highs of 100 on 10th May 1948, 27th July 1948, 4th May 1950 and 11th May 1969 and of 150 on 8th May 1989 (the 21st century daycount high is 89 on 5th May 2017).

Cuckoo *Cuculus canorus* **Cog**
Scarce Migrant has bred, most recently suspected of having done so in 2006
Earliest 6th April 1960 (19th April 2023) **Latest** 8th September 1956 (17th July 2023)
1934-1976: 77 trapped, 2015-2020: 6 trapped

A male in Crab Bay on 19th April was four days earlier than last year's sole record and 13 days earlier than the 2013-2022 first bird mean, indeed there have only been eight earlier spring bird-days (LD).

The only other spring sighting was of a female seen over Migration Rocks and the Farm, late on the afternoon of 21st May. Although a spring bird-days total of two was the highest since 2019, it was down on a 2013-2022 mean of 2.8 (there was a high during this period of eight in 2018); the peak spring bird-day totals are the 16 of 1951, the 19 of 1957 and the 17 of 1973 and 1976, with the most recent double-figure tally being the 13 of 1977. The only autumn record was of a juvenile seen at the Hills and the Farm on 17th July; autumn records in 59 previous years include bird-day highs of 34 in 1937, 23 in 1953 and 37 in 1966, whilst a total of 14 bird-days in 2018 is the only double-figure autumn tally since the 12 of 1987, the 2013-2022 autumn bird-days mean being just 3.0.

Feral Pigeon *Columba livia domestica* **Colomen Ddôf**
Vagrant status clouded by the regular passage of racing pigeons

The vast majority of pet pigeons are marked with a closed ring squeezed over the foot of a growing squab. Racing pigeons marked in such a way regularly rest on Skokholm's buildings and cliffs, these grounded birds often failing to find the energy to continue with their journeys. Larger cohesive flocks which regularly pass over are almost certainly also racing pigeons. Although the systematic recording of such pets has been sporadic, a typical annual total is over 100 and up to 250 have been logged in a single day. Approximately 3000 pairs of Feral Pigeon were thought to nest in Pembrokeshire in 1988 (Donovan and Rees, 1994), a figure which may have increased to somewhere in the region of 5000 pairs by 2007 (Rees *et al*., 2008); nevertheless good views are required to confirm that a pigeon is not a wayward pet. The only previous Skokholm records attributable to genuinely wild birds are singles on 17th June 1958 and 14th April 1959, two which lingered around the cliffs between 27th April and 6th May 1980 and further singles on 1st July 1994, the 15th and 16th September 2017 and 8th August 2020. A flighty bird seen near the Lighthouse on the evening of 26th August was not wearing rings and is here treated as the eighth Feral Pigeon to be seen on Skokholm (GE, JA).

Stock Dove *Columba oenas* **Colomen Wyllt**
Scarce formerly Fairly Common, with up to 62 pairs breeding between 1967 and 1983
1967-1976: 28 trapped

One, found above Twinlet on the morning of 5th March, was later seen over the Farm and North Plain. A second March sighting was of one heading west over the Farm on the afternoon of the 13th. There were no further records until 16th October when one landed at Twinlet before entering the Bracken to the south of Wheatear Rock, this probably that seen at the Lighthouse the following morning. Four 2023 bird-days was the highest annual tally since five in 1990. There have now been records in 22 years since breeding was last confirmed in 1983, with only 21 bird-days across 12 years this century but sightings in eight of the last nine years (with a 2015-2023 bird-days mean of 1.8).

Woodpigeon *Columba palumbus* **Ysguthan**
Uncommon Visitor has bred, most recently in a South Haven sea cave in 2007
2 trapped
1960: 1 trapped, 2017: 1 trapped

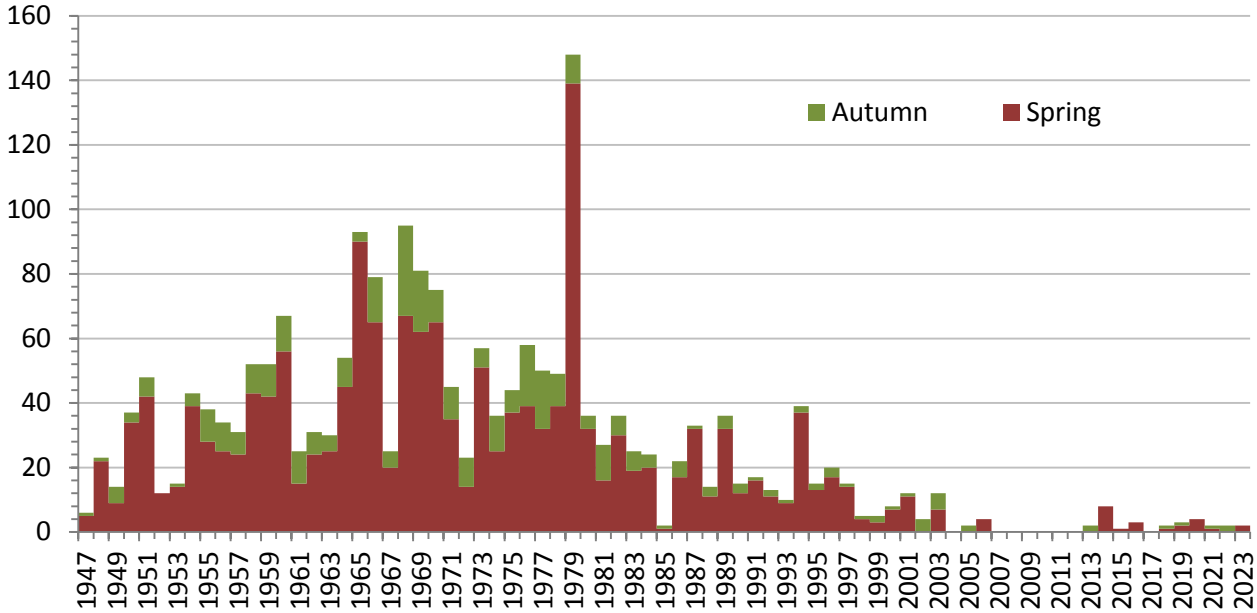
Singles were in Crab Bay on 4th March and in the Cottage Heligoland on the 16th, the latter definitely different to the unringed bird present in South Haven on the 18th. Following singles on four further March dates, two were together in South Haven on the 29th. There were South Haven sightings on ten further dates to 11th April, with two present on five occasions, unringed birds which flushed a shorter distance than is typical for Woodpigeons on Skokholm and which gave rise to the hope that the site last occupied in 2007 may be used again for a breeding attempt. However it was not to be, with singles on five further April dates including one watched flying to Skomer on the 24th. Sightings on ten May dates were all of singles bar two over East Bog on the 23rd, whilst one in the Wheelhouse Heligoland on the 21st was the second to be ringed in a record year for in the hand encounters. Woodpigeon were logged on six June dates, again all singles bar two on the 14th and 25th, whilst singles on 8th July and 17th October were the last of the year. A 2023 bird-days total of 50 was up on a 2013-2022 mean of 25.9 and the highest annual total since the 111 of 2007, however a peak daycount of two was well down on the eight of last year; Skokholm daycounts have never been big, with peaks of 18 in May 1960, 12 in April 1978 and 11 in August 1987 and May 1989.

Turtle Dove *Streptopelia turtur* **Turtur**
Scarce Migrant previously Uncommon
Earliest 1st April 1949 (31st May 2023) **Latest** 18th October 1995 (6th June 2023)
1934-1976: 37 trapped

One between North Pond and the Bog on 31st May was the first spring sighting since one on the same date in 2021. What was probably a different individual seen to the north of the Farm at 0600hrs on 6th June was not seen again. With the exception of the War years, there were annual spring records between 1936 and 2001, with bird-day highs of 90 in 1965, 67 in 1968 and 139 in 1979 (there were peak daycounts, all in May, of nine in 1958, ten in 1940 and 1965 and 14 in 1979). The highest spring bird-day totals this century are 11 in 2001 and eight in 2014, with peak daycounts during this period of two on 12th May 2001, 22nd April 2003, the 17th and 18th May 2014 and 14th May 2019. There were no autumn records for the first time since 2020 and for the 14th time this century; between 1946 and 1999 there were autumn sightings in every year bar 1952, these totalling 351 bird-days, whilst the all-time autumn bird-day highs are the 28 of 1968, the 19 of 1969 and 1976 and the 18 of 1977. The 2023 sightings take the post-2006 bird-days total to just 29 and the 21st century total to 71; alarmingly there were 407 bird-days recorded in the last two decades of the previous

century and 1165 bird-days logged in the 20 years prior to that. Sadly this has become a truly scarce species in Wales, with a 96% drop in the breeding population observed between 1970 and 2010 (Bladwell *et al*., 2018).

The total number of Turtle Dove bird-days logged in each year since 1947.



Collared Dove *Streptopelia decaocto* **Turtur Dorchog**
Uncommon Visitor the majority of sightings coming in spring. First recorded 7th June 1962
3 trapped
1965-1976: 31 trapped, 2013-2022: 9 trapped, 2 retrapped

One at Frank's Point on the 15th was followed by three further April singles including one which evaded the attentions of a female Peregrine on the 19th. There were May sightings on 18 dates, all of singles bar three on the 13th, two on the 20th and two on the 27th; a male was singing on three dates from the 17th but there was again no indication of nest building or prospecting. The presence of one on 13th May was enough to encourage a Meadow Pipit to leave its nest in order to mob the dove, an unnecessary display of awareness which often befalls visiting Collared Doves on Skokholm and which in this instance allowed a Jackdaw to locate the Meadow Pipit nest and take an egg. June saw one on the 7th, two at the Lighthouse on the 8th and singles on four further dates between the 18th and 25th. One sang for much of 17th July, one along the south coast on the 19th was probably the bird at the Farm that evening and one on the Neck on 6th August was the last of the year. A 2023 bird-days total

of 36 was down on 20th century highs but up on a 2013-2022 mean of 26.0 (there was a high during this period of 40 in 2018, a low of 16 in 2021); there were 16 annual totals of more than 60 between 1970 and 2003, eight annual totals of more than 80 between 1970 and 1991 and highs of 108 in 1977, 92 in 1978 and 156 in 1985. Daycounts peaked at eight in 1970, 1979, 1982 and 2018, nine in 1977, 1983 and 2003, ten in 1991 and 13 in 1974.

Water Rail *Rallus aquaticus* **Rhegen y Dŵr**
Uncommon Winter Visitor and Irregular Rare Breeder confirmed in 1929, 1931, 2012 and 2021
2 trapped, 2 retrapped
1936-1976: 19 trapped, 2013-2022: 34 trapped, 6 retrapped

There were no March records for the first time in 12 years and no April records for the first time in 11 years, however singles were logged on 25 May dates from the 2nd, this including a nocturnally singing male on at least seven dates and EM29200 on the 7th which had been ringed as an adult on 16th September 2022. A bird-days total of 25 was a new May high, up on the 15 of 1934 and the 24 of 2013. One was logged on each June date to the 22nd and on three further dates during the month, whilst singing was noted on five dates and a motion-sensing trail camera revealed two birds on the 30th (the larger of which was ringed). July saw the birds become more secretive, with sightings on four of the 12 dates with an encounter coming from the trail camera; two were filmed mating on the 10th (the male wearing a ring), this only the fifth breeding attempt to be confirmed on Skokholm (it is possible that attempts may be more likely to go unrecorded in years without a trail camera). There were up to two adults logged on 22 August dates, with only trail camera captures on 11 of these; the camera revealed a minimum of four chicks on the 9th, three chicks and a possibly limping female on the 20th and the female dragging her leg on the 30th. One at the Ram on the 16th and 22nd August was potentially one of the pair, however it would seem likely that one at East bog on the 24th was from elsewhere.

Birds became more vocal in September, with encounters on 25 dates including two fledged young on the 5th, a second brood chick on the 7th and 11th (the latter recorded on the trail camera) and birds at the Cottage from the 10th, Gull Field from the 14th, the Top Tank from the 15th and Orchid Bog from the 21st. Up to three adults were seen on the Well camera during September, none of which were limping. As has been the case in each of the last 11 years, numbers peaked in October, with sightings on 25 dates and highs of seven on the 7th and five on the 12th and 15th which took the bird-days total

to 72; despite a breeding presence and at least two fledged young, the October total was the second lowest of the last 11 years, down on a 2013-2022 mean of 159.6 and on all-time highs of 222 in 2014, 281 in 2015 and 195 in 2018. There was no indication that any second brood chicks had fledged, although this would be difficult to prove during an influx of birds from elsewhere. November was similarly quiet by recent standards, with up to three birds logged over ten dates taking the bird-days total to 19; the 2013-2022 November bird-days mean is 74.4, with highs of 123 in 2015 and 113 in 2021. Two were to the north of Medicine Rock as staff departed on 3rd December.

Moorhen *Gallinula chloropus* **Iâr Ddŵr**
Scarce Breeder did not breed in 1937, 1939 to 1953, 1955 to 1966, 1974 and 1976 to 1995
3 trapped, 1 retrapped
1936-1970: 10 trapped, 2013-2022: 28 trapped, 9 retrapped

Sightings on 16 March dates were all of a single at North Pond bar two there on the 2nd and 21st, one in the Well Heligoland on the 26th, one at the Well on the 29th and one at South Pond on the 30th and 31st, this year's March bird-days total of 19 only being down on the 31 of 2002, the 23 of 2003 and the 20 of 2018; early spring is typically quiet on Skokholm, a paucity of records which may reflect an absence of birds or just skulking non-breeding behaviour (the 2013-2022 March bird-days mean is only 8.9). Daily April sightings from the 4th included highs of six on the 23rd and five on the 26th which took the bird-days total to 80, this only down on the 91 of last April; similarly the peak daycount was only down on one count of eight and one of seven, both logged last year.

Birds were collecting chick food at North Pond from 2nd June, this one day earlier than the first of last year but nine days later than the 2013-2022 first chick mean. No more than two chicks were seen at North Pond, both of which went on to fledge. There was no indication that a second North Pond attempt, which began with nest building on 12th June, produced young. A nest found at Orchid Bog on 29th April was being added to on 9th May following heavy overnight rain, whilst a chick eaten by a gull on 4th June was the only indication that any eggs hatched. A small chick eaten by a Lesser Black-backed Gull on 8th July was similarly the only indication of a second attempt at Orchid Bog. Five third brood chicks were present between the 20th and 26th August, however one with a damaged leg was not seen after the latter date and only three were seen from 8th September, all of which went on to fledge. Lone adults at East Bog on three dates between 3rd May and 15th August and in Gull Field on the 6th and 8th August were perhaps part of a pair which nested in the Green Heath Bracken; birds were heard in this area on 19 dates between 15th June and 30th August, with a probable chick logged on the former date and two fledglings seen on 27th August. A single recorded at South Pond on 15 dates between 1st May and 26th June suggested a territory, although there was no indication of a breeding attempt. The only May sighting from the Well came on the 4th, with one chased from Orchid Bog on 8th June and an extra pair at the latter site on 22nd July; there was no suggestion that a pair in this area produced young.

Five pairs thus fledged a minimum of seven young, this equating to a productivity figure of 1.40 fledglings per pair. Although down on the all-time record of six present last year, five breeding pairs matched that recorded in 2021 as the second highest tally to date (the 2013-2022 mean is 3.3 pairs). However productivity was the second poorest of the last nine years, up on the 0.67 of last year but down on a 2013-2022 mean of 2.20 ±se 0.32 (there were highs during this period of 3.50 in 2018 and 3.33 in 2020). Sightings of up to six birds on 20 September dates led to a bird-days total of 49, this close to a 2013-2022 mean of 52.1 (there was a high of 112 in 2021), whilst October sightings of up to three on 14 dates led to a bird-days total of 18, this down on a 2013-2022 mean of 29.3 (there was a high of 116 in 2021). Daycounts of up to three on 23 November dates saw an adult and up to two juveniles on the pond to the north of the Wheelhouse, one in the Well Heligoland on the 22nd (which fledged from Orchid Bog this year), one at Orchid Bog on the 23rd and one at the Top Tank on the 28th which was the last to be encountered before the departure of staff on 3rd December.

Oystercatcher *Haematopus ostralegus* **Pioden y Môr**

Fairly Common Breeder and Common Visitor previously an Uncommon Breeder
11 pulli trapped, 5 retrapped, 38 resightings, 1 control
1939-1976: 1882 trapped, 2014-2022: 83 trapped (including 68 pulli), 158 resightings, 1 control

There were March lows of 19 on the 2nd, seven on the 6th and 22 on the 8th, but 17 three-figure daycounts and highs of 148 on the 21st, 156 on the 22nd and 150 on the 23rd; there were two counts of 300 in 1932 and one of 300 in 1933, with 160 in 1951 being the only other March daycount up on this year's peak. The largest roosts again formed in the vicinity of the Anticline, with highs of 147 on the 21st, 136 on the 22nd and 148 on the 23rd; although down on a high of 152 logged on the 10th and 13th March 2022, the peak was otherwise the largest Anticline spring roost this century. Following April Anticline peaks of 116 on the 6th and 108 on the 9th, no more than 55 were seen at this site from the 14th, however a roost at North Pond peaked at 55 on the 17th and 61 on the 18th. The majority were on territory by the end of April and a scrape on Middle Heath (to the south of North Pond Wall) contained three eggs on the 25th; this was the same date on which two eggs were found in the same area last year and two days earlier than the first lone egg found at this site in 2021.

A whole Island May census revealed 53 territories, this matching the 2019 tally as the lowest since the 52 of 2018 but up on a 2002-2022 mean of 44.75 ±sd 13.70 (there were highs during this period of 61 in 2017 and 2022, 76 in 2021). All eight of the colour ringed adults breeding in 2022 were breeding this year, all bar one in the same territories (taking the 2017-2023 mean return rate to 93.6%); number 96, which bred in South Haven between 2020 and 2022 but which failed early last year, fledged one in the vicinity of Gull Field. Four dead adults were found between 16th May and 27th July, this one more than last year. North Pond breeding season roosts were smaller than in most recent years; there were peak May counts of 35 on the 6th, 29 on the 10th and 32 on the 20th (the May high was 46 in 2022, 61 in 2021, 47 in 2020, 55 in 2019 and 36 in 2018) and peaks in June of 40 on the 9th, 41 on the 18th and 30th and 42 on the 20th (the June high was 29 in 2022, 63 in 2021, 58 in 2020, 61 in 2019 and 58 in 2018). As in the previous ten seasons, nests were selected for productivity monitoring during early May (21 in total). Of these, 15 successful pairs fledged 18 young, with 12 pairs fledging a singleton and three pairs fledging two. A productivity figure of 0.86 fledglings per monitored pair was down on the 1.24 of 2021 and the 1.00 of last year, but up on that

logged in five years this decade and close to the 2013-2022 mean (0.93 ±se 0.14). The first juvenile to be seen in flight was at Warden's Rest on 22nd June, this one day later than the first three of last year and on the same date as the 2016-2022 first fledgling mean (the earliest during this period were logged on 16th June in 2017). There were peak July North Pond roost counts of 53 on the 1st, 45 on the 3rd and 46 on the 6th, although no more than 47 were seen across the Island after the 18th.

Although there were daily sightings, no more than 34 Oystercatcher were logged on each August date and no more than 24 were logged after the 13th, a bird-days total of 458 being the lowest of the last 12 Augusts and down on a 2013-2022 mean of 726.6 (there was a high of 943 in 2014). Although daily September sightings peaked at 23 on the 21st, this the second highest September daycount of the last seven years, a bird-days total of 297 was also down on a 2013-2022 mean of 354.9. There were daily October encounters for a second successive year but for just the second time in 11 years, with highs of 25 on the 1st, 29 on the 30th and 26 on the 31st taking the bird-days total to 554, this the third highest October tally on record (behind the 570 of 1973 and the 625 of 1974). Daily November sightings included 13 daycounts of 25 or more and highs of 31 on the 16th and 18th and 33 on the 17th, the peak the second highest this decade and a bird-days total of 590 a new November record (although staff have not always been present throughout the month).

Ringing recovery Left tarsus orange over FB46115, right tarsus orange with black 9A
Originally ringed as a breeding adult, EAST OF TWINLET, SKOKHOLM 28th May 2017
Previously recovered as an adult, SAINT-MAURICE, CÔTES-D'ARMOR, FRANCE 12th December 2017
Previously recovered as an adult, SAINT BRIEUC, BRITTANY, FRANCE 29th November 2022
Recovered as an adult, SAINT BRIEUC, BRITTANY, FRANCE 7th January 2023
Subsequently recovered as an adult, NORTH OF NORTH POND, SKOKHOLM 7th July 2023
Finding condition Colour ring read in field
Distance travelled 397km at 153 degrees (SSE)
Days since ringed 2050
This bird bred on Skokholm in each year between 2017 and 2023, always returning to the area between Twinlet and North Pond. In 2022 it fledged two young, however it failed with a 2023 attempt, possibly due to the loss of its partner. The November 2022 and January 2023 resightings came from within 5km of where it was found roosting in December 2017.

Ringing recovery FB46876
Originally ringed as a pullus, THE DIP, SKOKHOLM 27th June 2021
Recovered as an adult, DAWLISH WARREN, DEVON 21st July 2023
Finding condition Metal ring read in field
Distance travelled 176km at 134 degrees (SE)
Days since ringed 754

Ringing recovery FJ08620
Originally ringed as an adult, WHITEFORD SANDS, GOWER, SWANSEA 23rd October 2021
Recovered as an adult, BLUFFS, SKOKHOLM 16th June 2023
Finding condition Fresh carcase with torn sternum, probably taken by a Peregrine
Distance travelled 71km at 275 degrees (W)
Days since ringed 601

Lapwing *Vanellus vanellus* **Cornchwiglen**
Scarce previously Common and an Uncommon Breeder, but last bred in 2000
1938-1976: 696 trapped

Following singles on 28th March and 7th April, what was presumed to be the same male was seen in the vicinity of North Pond and the Bog on all but one date between 18th April and 27th June, with

regular display flights noted from 22nd April. A tail feather was at Wallsend on 20th April, a second bird went high and east on 7th May and a second male present each day between the 12th and 15th May led to regular pursuits around the pond. This was the first year since 2001 with a regular breeding season presence, indeed there were only 26 bird-days logged in either April, May or June between 2002 and 2022. At least one pair bred almost annually on Skokholm from Lockley's arrival, with numbers peaking at 12 pairs before the War and increasing during the 1950s and 1960s to a high of 27 pairs in 1966, the population then dropping to single-figures during the early 1970s and remaining so until 2000 when the last two females had nests. This was seemingly always a sink population which suffered heavy egg and chick mortality due to gulls and corvids. Singles logged on 29th June, on four July dates to the 8th, on three further July dates from the 22nd, on 16 dates in August and on 27 dates in September were probably all the lingering male which resumed display flights from 7th September. Sightings on 23 October dates were likewise of a single adult, although a second bird was being chased on the 19th and three mobile birds were together on the 20th. Similarly sightings on 25 November dates were of a lone bird bar three together on the 22nd, two on the 23rd and 24th and seven on the 25th (when a group of six on South Pond remained separate to a bird on North Pond); the latter daycount was the third highest of the last 12 years, only down on counts of nine and 11 in October 2015, however it was tragically down on all-time peaks of 400 in November 1927, 500 in February 1929, 400 in November 1931 and 540 in October 1958 (indeed a post-breeding flock numbering up to 150 birds was regular during September and October up until 1977). Three were present on 2nd December, with the male again alone as staff departed on the 3rd.

Golden Plover *Pluvialis apricaria* **Cwtiad Aur**
Uncommon or Fairly Common but only 29 bird-days between 2005 and 2012
1976: 1 trapped, 2018: 1 trapped

March saw a single on the 7th, four circling together on the 9th, a flyover on the 13th, nine north together on the 14th and different singles on the 16th, 26th and 27th; although cold weather can increase numbers, as in 2018 when the 'Beast from the East' produced March daycounts of up to 130 and a record monthly total of 234 (along with the emaciated corpses of 22 individuals), only six previous years have seen more than the 18 bird-days logged this March. There were no April sightings for only the second time in eight years, however two on the 14th and one on the 27th made this the 54th May with a bird, this including annual records since 2014 (a daycount of 46 took the 1967 total to a record 50, whilst the 2013-2022 May bird-days mean is 4.5). Singles on the 16th and

19th made this the 26th June with a record, this including seven of the last nine. Following flyover singles on 1st July and 23rd August, there were sightings on ten September dates between the 4th and 25th, with highs of five on the 10th and eight on the 17th and 25th. Encounters on ten of the first 15 days of October included highs of seven on the 12th and ten west together on the 14th, whilst a further single on the 25th and 22 over together on 22nd November were the last of the year. A total of 89 bird-days during the second half of the year was up on a 2013-2022 mean of 47.8, indeed it was only down on the 90 of 1966, the 102 of 1971 and the 159 of 2021, whilst the peak daycount was up on a 2013-2022 mean of 17.5 and was only down on that logged in six previous autumns (there were highs of 50 on 20th September 1950, 33 on 26th September 1992 and 27 on 18th September 2021).

American Golden Plover *Pluvialis dominica* **Corgwtiad Aur**
Vagrant two previous records

A stunning adult found towards the north of North Plain on 17th July was just a third for Skokholm but the second in five years (HS, RDB *et al*.). It remained on North Plain each day until the 22nd when it was watched flying high and east at 1315hrs. Surprisingly what was seemingly the same adult was back on North Plain on the 25th and again on the 27th following another apparent absence. It was possibly limping when last seen on the afternoon of 28th July. The first for Pembrokeshire logged on 26th September 1981 was described in sufficient detail to allow it to be assigned to species following the 1986 splitting of this and Pacific Golden Plover *P. fulva*, whilst the only spring record commuted between North Plain, Winter Pond, the Dip and Windmill Gully from the 25th to 28th May 2019.

Grey Plover *Pluvialis squatarola* **Cwtiad Llwyd**
Scarce records in 58 years since 1929, with only eight singles 1997-2012 and 12 singles 2013-2015

One over East Bog and then the Farm at 0830hrs on 23rd September was the only record this year (GE *et al*.). A single 2023 bird-day was down on a 2013-2022 mean of 4.6 and on all but one year since 2011; a high during this period of 12 in 2020 was only down on the 14 of 1993 (the latter including a record daycount of six on 14th September).

Ringed Plover *Charadrius hiaticula* **Cwtiad Torchog**
Uncommon but Scarce between 2004 and 2011
1956-1970: 3 trapped

There were no March records this year; although there have been March sightings in five years since 2016, the all-time bird-days total is only 59. Following a single on the 8th, there were sightings on nine further April dates from the 17th, including highs of three at North Pond on the 21st and 22nd and ten on the 23rd, the latter matching that of 23rd April 1953 as the highest to be logged in this month. An April bird-days total of 25 was the highest to date, up on previous peaks of 21 in 1966 and 20 in 2021. However May counts were poor, with singles on 13 dates and two on a further four dates from the 16th; a May bird-days total of 21 was the lowest of the last five years and down on a 2013-2022 mean of 31.5. A nocturnal single on the 7th and two at North Pond on the 10th were the only June sightings. A spring bird-days total of 49 was close to a 2013-2022 mean of 46.9 (there were all-time highs of 59 in 1978, 62 in 2014 and 72 in 2021). A flyover on the 25th was the only July bird, whilst vocal flyover singles on nine dates from the 15th were the only August records, the bird-days total in the latter month less than half the 2013-2022 mean. Similarly records on eight September dates were of flyover singles, with four on a puddle at North Pond on the 7th and three over on the 13th being the only records of multiple birds. Perhaps surprisingly it became only the 32nd October with a sighting, with flyover singles on three dates to the 7th, one at North Pond on the 10th and one over with three Snipe on the 12th. One over on the 11th was just the 21st November bird-day (ten of which were in 1967), whilst a flyover on the 1st and one at North Pond the following day made this only the second December with a record following a single on the 1st in 1990. There were thus 33 bird-days in the second half of the year, this down on a 2013-2022 mean of 49.6 and on all-time highs of 59 in 1989, 68 in 2015 and 158 in 2016.

The total number of Ringed Plover bird-days logged each month (2022 to 2020 in parentheses), along with the maximum monthly daycount (2022 to 2020 in parentheses).

March	April	May	June	July	August	September	October	November
0	25	21	3	1	9	15	5	1
(1, 0, 2)	(8, 20, 16)	(25, 50, 32)	(3, 2, 0)	(6, 1, 1)	(33, 26, 22)	(12, 9, 16)	(1, 0, 9)	(0, 0, 0)
0	10	2	2	1	1	4	1	1
(1, 0, 1)	(4, 3, 3)	(7, 16, 10)	(3, 1, 0)	(2, 1, 1)	(12, 9, 7)	(6, 2, 3)	(1, 0, 1)	(0, 0, 0)

Little Ringed Plover *Charadrius dubius* **Cwtiad Torchog Lleiaf**
Rare 16 spring birds accounting for 27 bird-days and four autumn birds accounting for 12 bird-days
Earliest 27th March 2012 and 2022 (17th April 2023) **Latest** 24th August 2016 (7th June 2023)

A flyover on 17th April was later at North Pond; there have been six earlier birds, including two in March. What may have been the same bird was again at North Pond on the 19th. There followed three vocal flyovers, with an eastbound bird on 12th May, one on 20th May and one on the afternoon of 7th June, the latter only the second June record following one on the 26th in 2018. Given the increase seen in the Welsh breeding population over the last few decades, it is of little surprise that 21 of the 24 Little Ringed Plover logged on Skokholm have occurred this century, with 20 since 2011 and 15 since 2016 (the first was on 5th May 1986, this still the best month with 17 bird-days to date).

Whimbrel *Numenius phaeopus* **Coegylfinir**
Common Visitor has seemingly overwintered on at least 22 occasions
1959-1974: 30 trapped, 2018: 2 trapped

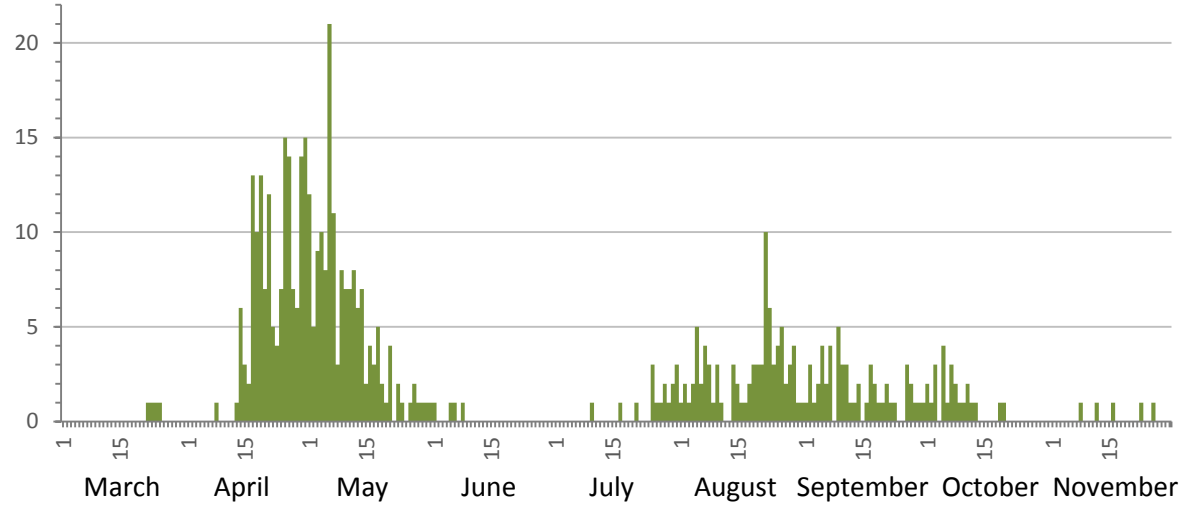
One on 12th October was the last to be logged in 2022, a lack of late records suggesting that this species was not set to overwinter, however one in the vicinity of the Dip each day between the 22nd and 25th March was early for a passage bird; the 2013-2022 first spring migrant mean is 11th April,

with the earliest during this period logged on 3rd April 2016. Following one at North Gully on the 8th, there were daily April sightings from the 13th, with six on the 14th and numbers peaking at 13 on the 17th and 19th, 15 on the 25th and 30th and 14 on the 26th and 29th; an April bird-days total of 155 matched the eighth highest to date, this down on all-time highs of 179 in 2016, 174 in 2020 and 249 in 2021. Whimbrel were logged on all but two May dates, with highs of 12 on the 1st, 21 on the 6th and 11 on the 7th, but no more than five from the 15th and no more than two from the 22nd; the peak daycount was close to a 2013-2022 May mean of 22.9 but well down on all-time highs of 41 in 1961, 50 in 1993 and 40 in 1997. Singles on four dates to the 8th were the only Whimbrel logged in June. A combined April, May and June total of 312 was down on a 2013-2022 mean of 379.3 (highs of 504 and 508 during this period (in 2019 and 2021 respectively) were only down on the 615 of 1989).

The total number of Whimbrel bird-days logged each month, along with the maximum monthly daycount. Counts from 2020 to 2022 are included for comparison.

	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
2023	4	155	153	4	16	82	52	24	5
2022	0	128	263	1	33	53	53	1	0
2021	3	249	252	7	39	42	4	0	0
2020	2	174	167	4	15	43	21	15	12
2023	1	15	21	1	3	10	5	4	1
2022	0	27	33	1	8	4	7	1	0
2021	1	40	27	1	6	3	2	0	0
2020	1	22	23	1	5	6	5	1	1

The number of Whimbrel logged each day between March and November 2023.



As is invariably the case, autumn proved to be quieter than spring. Following singles on the 10th, 17th and 21st, there were daily July sightings from the 25th, with highs of three on the 25th and 31st; there have been earlier July sightings in four years since 2013. There were August sightings on each date bar the 12th and 13th, with highs of five on the 5th and 26th, ten on the 22nd and six on the 23rd; the peak autumn daycount was the highest since the 18 of 2017, albeit down on a 2013-2022 mean high of 12.0 and on all-time highs of 110 on 22nd August 1948, 35 on 4th September 1973 and 39 on 16th August 1984. Sightings on all but four September dates peaked at four on the 5th and 7th and five on the 9th, a bird-days total of 52 being up on a 2013-2022 mean of 38.4. Whimbrel were seen on all but one October date to the 13th, with three on the 3rd and 7th and four on the 5th, but no more than two from the 8th. One was around Mad Bay on the 19th and 20th October, this perhaps that seen between North Pond, North Plain and Purple Cove on five dates between the 8th and 26th November. An autumn bird-days total of 179 was the highest for five years and up on a 2013-2022 mean of 163.0, albeit being down on all-time autumn highs of 259 in 1974, 326 in 1989 and 242 in 2015.

Curlew *Numenius arquata* **Gylfinir**

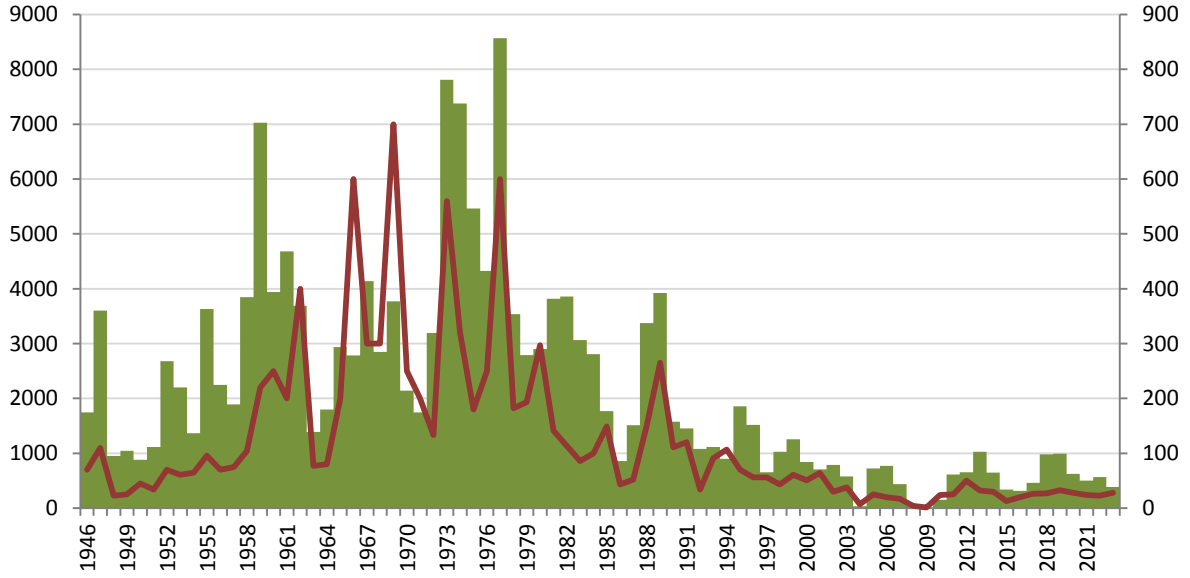
Common Visitor previously Abundant and usually present throughout the year, but has never bred
1960-1976: 141 trapped, 2016-2022: 5 trapped, 3 controls

The drop in the number of Curlew visiting Skokholm has been alarming, with recent seasons proving the worst on record for this charismatic red-listed wader, a species which between 1994 and 2010 declined in the United Kingdom by 46% and in Wales by over 50% (BTO, 2016). Daily March sightings to the 9th included highs of four on the 1st and 9th (with an eaten bird also found on the former date) and five on the 2nd, these followed by daily singles between the 12th and 19th (including a singing bird on three dates) and another lone bird on the 26th and 27th; a March bird-days total of 34 was down on a 2013-2022 mean of 66.4, recent highs of 271 in 2013 and 147 in 2018 and all-time March highs of 1158 in 1965 and 1058 in 1967. April saw singles on ten dates and a further two on the 30th, whilst there were singles on seven dates in May and on five June dates to the 17th. Two flew to the mainland on 19th June, there was one on the 20th and one at North Pond on the 27th had a broken leg. A March to June bird-days total of 63 was the second lowest of the last 11 years, down on a 2013-2022 mean of 151.4 and on all-time highs of 1366 in 1958, 1483 in 1959, 1248 in 1965 and 1478 in 1967. Curlews seen during late spring may have already departed their mainland Europe breeding grounds and reached coastal wintering quarters, as exemplified by the failed German breeder observed at North Pond on 16th June 2016.

The total number of Curlew bird-days logged each month, along with the maximum monthly daycount. Counts from 2022 to 2019 are included for comparison.

	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
2023	34	12	7	10	73	148	42	38	16
2022	21	32	9	31	81	224	85	58	14
2021	19	26	30	38	118	90	110	28	26
2020	25	49	13	35	120	146	65	65	73
2019	27	26	36	76	191	377	155	81	20
2023	5	2	1	2	19	28	5	3	3
2022	5	4	1	8	13	23	21	23	1
2021	5	3	3	6	24	11	8	3	3
2020	4	6	1	4	27	28	4	28	5
2019	3	3	3	6	14	33	19	5	4

The total number of Curlew bird-days (green) and the maximum daycount (secondary axis) logged in each year since 1946.



The majority of autumn records were again of birds which returned to Skokholm to roost but which were feeding elsewhere, with departures during July often at 0500hrs and no doubt leading to undercounting on occasion. Daycounts on 16 July dates were of six or less bar highs of ten on the 22nd, 14 on the 23rd and 19 on the 24th, the peak fractionally up on a 2013-2022 July mean of 16.6 but well down on all-time highs of 140 in 1959, 149 in 1985 and 112 in 1988. Counts during the second half of the year again peaked in August, with birds noted on 25 dates and highs of 16 on the 16th, 25 on the 21st and 28 on the 23rd taking the bird-days total to 148, this nevertheless down on the 224 of last year and a 2013-2022 mean of 176.0; although there were perhaps even higher August tallies in the 1960s and 1970s, when Curlew were routinely logged as being 'present' rather than being counted, totals of 2175 in 1959, 1521 in 1960 and 1897 in 1978 eclipsed those of the 21st century. September counts peaked at five on the 3rd and 24th, with up to three on 21 further dates taking the total for the month to 42, this the lowest of the last eight years; the September total has reached four-figures on nine previous occasions, including a peak of 2069 in 1977. Sightings on 25 October dates included highs of just three on five dates, this the same as the November peak which was recorded on one of the 11 days with an encounter; that 46 years ago a herd of at least 600 were present on one November date is a sad reflection of the Curlew's plight. Two were logged on the 1st and 2nd December; daycounts during this month peaked in 1979 when 193 were present.

Bar-tailed Godwit *Limosa lapponica* **Rhostog Gynffonfrith**
Uncommon Visitor although occasionally Scarce or Fairly Common
1964-1974: 8 trapped

Two on 20th April were the first of the year; although the 2018 'Beast from the East' led to an influx into Pembrokeshire which included seven of the 17 bird-days ever logged here in March, the first of spring typically arrives in April (the 2013-2022 first bird mean is 16th April). One of the two was ringed, with views from the Orchid Bog Hide good enough to confirm the digits '5524'; unfortunately this was not sufficient to identify the individual, although it was most likely either one of three birds ringed in Norfolk between 2016 and 2019 or one ringed in Kent in 2017. There followed daily sightings to the end of the month, with numbers increasing to five on four dates from the 23rd and to highs of seven on the 25th and 27th and six on the 28th, this taking the April bird-days total to a record 50 (the previous high was the 23 of 1987); one on the 24th had a broken leg (this individual seen intermittently until 14th May), the ringed bird was last confirmed on the 25th and a second bird with a leg injury was also encountered on the 25th.

Up to three were seen on each of the first four days of May, although there were no more sightings until the 9th when two birds included the injured individual. Up to two were encountered on five further dates to the 15th, with what was probably the same lone bird logged each day between the 16th and 21st taking the May total to 23. A spring bird-days total of 73 was up on a 2013-2022 mean of 11.0 and highs during that period of 21 in 2016 and 31 in 2019, indeed it was only down on the 108 of 1966 when eight or nine were logged on ten dates. The only autumn record was of a vocal flyover on 18th August, this becoming the 26th year with a sighting in this month, now with a bird-days total of 73 which includes 18 logged over seven years this century. A single autumn bird-day was down on a 2013-2022 mean of 9.3; the highest autumn bird-days total of the 21st century is the 47 of 2016, whilst there have been five higher post-1927 tallies, peaking at 72 in 1950, 76 in 1979 and 257 in 1988 (the latter the product of an unprecedented September which saw 11 double-figure daycounts, including flocks of 43 and 21). Traditionally this was thought of as the commoner of the two godwit species to be seen on Skokholm, however since 2010 this has only proven to be the case in 2016, 2021 and this year.

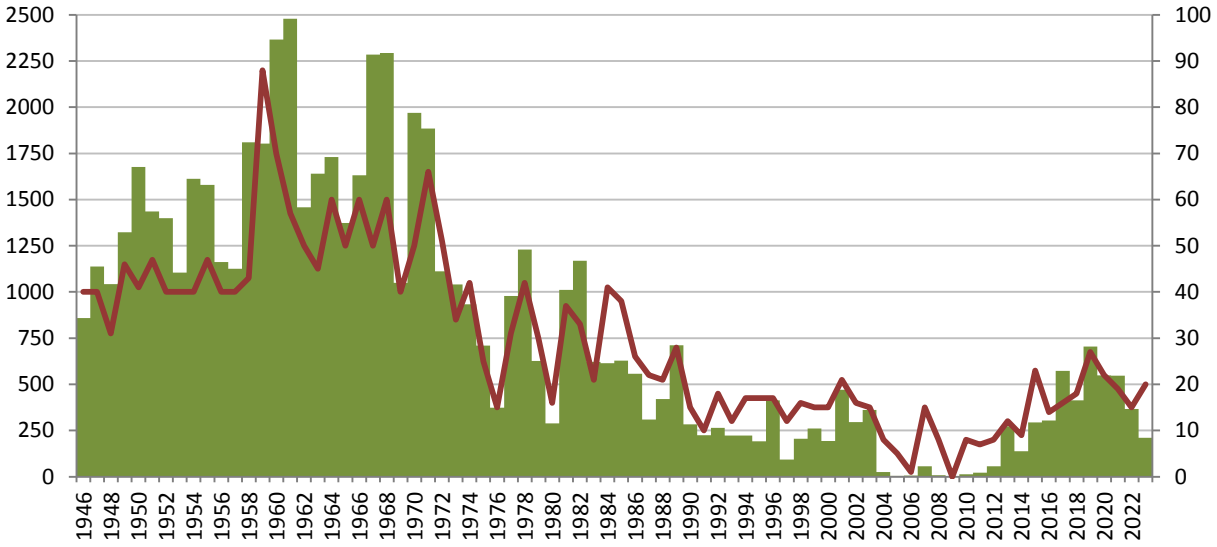
Black-tailed Godwit *Limosa limosa* **Rhostog Gynffonddu**
Scarce or Uncommon Visitor but Fairly Common in 2012, 2013, 2015, 2017 and 2019
1971: 1 trapped, 2017: 1 control

What was believed to be the same individual was at North Pond on the 13th, 14th, 16th and 17th March, whilst an additional group of 11 headed northwest on the 16th; a daycount of 12 was a new March high, although a bird-days total of 15 was down on the 23 of 1971. Following four on the 18th, up to two were present on nine further April dates; a bird-days total of 15 matched that of 2017 and 2022 and was only down on the 25 of 1957. Two present on the morning of 1st May were joined by a further five that afternoon, although one on the 2nd and three on the 3rd were the only other sightings during the month; a bird-days total of 11 was the sixth highest to be recorded in May, but was well down on peaks of 23 in 2015, 31 in 2016 and 35 in 2017. The only June record was of a single at North Pond on the 10th, this the 128th June bird-day, 74 of which have occurred since 2012. One over the Farm on 21st August was the only sighting in what proved the poorest autumn of the last 12 years. Nevertheless an annual bird-days total of 43 was the seventh highest to date, albeit down on a 2013-2022 mean of 46.8; in contrast to the Bar-tailed Godwit, the eight most productive years for this species have occurred since 2012 (including a 2017 high of 149 bird-days).

Turnstone *Arenaria interpres* **Cwtiad y Traeth**
Common Visitor once Abundant and sometimes only Fairly Common in recent years
1956-1970: 12 trapped

Although Turnstone are no doubt under-recorded, due to their preference for spending the majority of time below cliffs and their sporadic use of visible high tide roosts, off-path coverage was similar to recent years (observations should thus be comparable). There were no March sightings for only a second time in 13 years, with two on the Anticline on 6th April thus the first of the year. One was at North Pond on the 12th and 16th April, with another at Little Bay Point on the latter date, whilst three on the 17th and one on the 20th and 25th took the April tally to ten, this the highest of the last seven years but well down on 27 three-figure totals logged between 1947 and 1982 which peaked at 417 in 1947, 463 in 1949 and 441 in 1954. For a fourth year running, May proved the most productive month of the spring, with sightings on 11 dates and highs of 20 at Near Bay on the 11th and eight over the Farm on the 14th which took the bird-days total to 46; the May bird-days total more than doubled a 2013-2022 mean of 22.1, indeed it was the highest since the 58 of 1986, however there were 15 three-figure tallies between 1950 and 1974 including highs of 276 in 1965 and 1972 and 334 in 1967. There were no June sightings for the sixth time since 2013; Turnstone were encountered in 48 previous Junes, including annually between 1958 and 1976 and in 12 years between 1977 and 1999, with bird-day peaks of 109 in 1958 and 79 in 1961.

The total number of Turnstone bird-days (green) and the maximum daycount (secondary axis) logged in each year since 1946.



The total number of Turnstone bird-days logged each month (2022 to 2020 in parentheses), along with the maximum monthly daycount (2022 to 2020 in parentheses).

March	April	May	June	July	August	September	October	November
0	10	46	0	2	19	39	68	26
(17, 25, 0)	(8, 1, 0)	(26, 41, 12)	(0, 9, 0)	(15, 14, 1)	(20, 109, 111)	(95, 107, 227)	(156, 151, 146)	(29, 85, 50)
0	3	20	0	1	3	4	6	5
(6, 4, 0)	(3, 1, 0)	(15, 19, 6)	(0, 3, 0)	(6, 6, 1)	(7, 15, 21)	(9, 18, 22)	(12, 14, 19)	(8, 11, 14)

Singles on the 22nd and 26th were the only July sightings, whilst August saw up to three logged on 12 dates, the tally for the latter month matching that of 2013 as the second lowest of the last 11 years, this down on a 2013-2022 mean of 68.1 (the August total was of between 114 and 781 in each year between 1946 and 1989, with a mean of 353.2). Sightings on 18 September dates included highs of four noted on three dates from the 21st, a bird-days total of 39 being the lowest of the last 11 years, down on a 2013-2022 mean of 161.9 and on every year between 1946 and 2003 (the 1946-1970 September bird-days mean is 426.0, with a high of 637 in 1950). There were encounters on 23 dates in October, with daycounts of no more than three to the 13th and peaks of six on the 14th and 30th which were the highest of the autumn; the peak was the lowest October high in eight years, whilst a bird-days tally of 68 was down on a 2013-2022 mean of 106.1 and well down on all-time highs of 442 in 1954, 389 in 1967 and 378 in 1968. Counts on 12 November dates reached five on the 16th and 21st, with one on the 27th the last of the year and a bird-days total of 26 being the poorest of the last five years. An autumn total of 154 bird-days over 67 dates was down on a 2013-2022 mean of 374.2 over 64.7 dates and was down on all but one of the years during that period (there were highs of 555 in 2017, 676 in 2019 and 536 in 2020); the 2019 autumn total was the highest since 1982 when 871 birds were counted across 72 dates. Given that the majority of monthly totals doubtless consist of counts of the same individuals over multiple dates, the highest daycount made each year is telling; the maximum Skokholm daycount of 88, logged on 26th August 1959, was more than four times that of this year.

Knot *Calidris canutus* **Pibydd yr Aber**
Scarce usually singles, although occasionally more with 67 on 29th September 1958 the maximum 1956-1970: 8 trapped

It proved to be the 12th August with a record, with one present in Little Bay between the 21st and 23rd probably that which flew west with 27 Redshank on the 24th and perhaps the bird calling at the

Lighthouse on the 26th. The only other sighting was of one which circled the Neck on 20th September. An annual bird-days total of six was up on a 2013-2022 mean of 4.1; there were highs during this period of ten in 2015 and 13 in 2018, whilst the all-time highs are 85 in 1958, 18 in 1962 and 31 in 1978. This becomes the 44th of 92 recording years with a sighting, with birds in every month bar December and 171 of 308 all-time bird-days logged in September.

Ruff *Calidris pugnax* **Pibydd Torchog**
Scarce usually singles or pairs, but with a high of 12 on the 17th and 18th April 1987
Earliest 3rd March 1964 (13th March 2023) **Latest** 26th October 1971 (25th April 2023)
1955-1970: 7 trapped

A male which joined a Black-tailed Godwit at North Pond on 13th March was six days earlier than the first of last spring; the only earlier records were present on 3rd March 1964 and between the 5th and 7th March 1967. What was probably the same individual was seen on seven further dates to the 21st, this taking the all-time March bird-days total to 42, nine of which were logged last year (records in eight further Marches peaked at six bird-days in both 1948 and 1967). A moulting male on 25th April was the only other sighting this year; Ruff have now been logged in 16 Aprils totalling 99 bird-days, with records in each of the last four years totalling 12 bird-days. Given that 345 of the 555 bird-days logged on Skokholm have occurred in autumn and that there have been 82 autumn bird-days this century (with highs of 40 in 2015 and 26 in 2016), it is disappointing that there have now been six consecutive autumns without a record (probably at least in part due to a regular lack of water).

Sanderling *Calidris alba* **Pibydd y Tywod**
Rare only 44 previous records, with 15 records totalling 19 individuals this century
1948-1968: 2 trapped

The only sighting this year was of three with nine Dunlin, all heading northeast past North Gully on 28th May (RDB); this was the highest daycount since three on 31st May 2013. There have now been 25 spring records accounting for 39 bird-days, including 11 records and 19 bird-days since 2013. Although Sanderling have been logged in every month between March and November inclusive (now with a total of 82 bird-days), the most productive month is May, with a total of 28 bird-days, whilst there have been 21 bird-days in August and 13 in September. All but seven sightings have been of singles, with five on 4th September 1979 and 11 on 7th August 1994 being the maximum daycounts.

Dunlin *Calidris alpina* **Pibydd y Mawn**
Common Visitor recorded in all months, but only Fairly Common in some years
1937-1976: 185 trapped, 2014-2019: 18 trapped

There were no March records for the fourth time in 13 years, the all-time March bird-days total

remaining at 245. Sightings on nine April dates from the 17th included highs of seven on the 18th, 19th and 21st and of 13 on the 23rd which led to a bird-days total of 51; there have been higher April tallies in nine years, with peaks of 82 in 1953 and 1955, 115 in 1960 and 111 in 1966, whilst the 2013-2022 mean is 34.5 (with a high of 67 in 2021, a low of 12 in 2013). Dunlin were noted on 24 May dates, with singing heard at North Pond on the 26th and 29th and with peaks of six at North Pond on the 25th and of 17 on the 28th (the latter daycount, the highest of the year, comprised seven on Winter Pond, nine off North Gully and one moving between North Pond and Orchid Bog); there have been higher daycounts in 19 previous Mays, including seven of the last ten, whilst a bird-days total of 69 was the second lowest since 2012, down on a 2013-2022 mean of 124.9 and all-time highs of 193 in 1967, 167 in 2016 and 204 in 2020. Encounters on 12 June dates to the 16th were all with five or fewer bar the 14 logged on the 4th; the latter was the third highest June daycount to date, only down on counts of 16 and 21 in 2018, whilst a June bird-days total of 36 was only down on the 133 of 2018 (the 2013-2022 mean is 23.2).

The total number of Dunlin bird-days logged each month, along with the maximum monthly daycount. Counts from 2020 to 2022 are included for comparison.

	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
2023	0	51	69	36	1	4	10	11	11
2022	2	18	97	19	7	5	19	1	0
2021	0	67	129	11	8	15	14	3	2
2020	1	42	204	8	2	9	24	13	5
2023	0	13	17	14	1	2	2	6	1
2022	1	3	24	5	2	1	8	1	0
2021	0	22	25	3	2	8	2	2	1
2020	1	7	26	3	1	3	3	6	1

Although North Pond contained water during the first week of July, the only record during the month was of a single in Peter's Bay on the 10th. No doubt due at least in part to the fact that North, South and Winter Ponds were empty throughout the month, the only August records were of an eastbound bird on the 6th, one at North Gully on the 12th and two past the Lighthouse on the 15th; a bird-days total of four was down on a 2013-2022 August mean of 53.6, this a period which included August records of 139 in 2015 and 192 in 2017 (the lows were of five in 2018 and 2022). Bar one in South Haven on the 2nd, September records on eight dates to the 17th were all of flyovers, with two of these vocal birds in the night, whilst the appearance of a puddle at North Pond was sufficient to ground a single on the afternoon of the 27th; a September bird-days total of ten was down on a

2013-2022 mean of 25.0 and highs of 68 in 1958, 127 in 1981 and 69 in 2015. October saw six on the 9th, two on the 10th and 12th and one on the 19th, a bird-days total of 11 being up on a 2013-2022 mean of 5.1 (the highs are of 35 in 1958, 38 in 1960 and 48 in 1974). Singles on 11 dates between the 11th and 30th led to the fourth highest November tally to date, with 15 in 1967, 12 in 1998 and 13 in 2016 the only higher bird-days totals. An all-time December total of five was not added to.

Purple Sandpiper *Calidris maritima* **Pibydd Du**
Uncommon Visitor previously Fairly Common, but occasionally Scarce in recent years
1967-1976: 8 trapped

It became only the fifth March this century with a sighting, a group of nine below the Bluffs on the 25th being the sole record; nevertheless this matched daycounts in the Aprils of 1978 and 1979 as the highest in spring since four counts of between ten and 15 in 1977. The only other spring record was of one heading east off Howard's End on 20th April, this the first sighting in this month since 2001. Purple Sandpiper were previously much more regular between March and June, with daycount highs of 30 in March 1966, 22 in March 1967 and 32 in March 1968, sightings in every year between 1947 and 1989 and peak monthly totals of 101 in March 1967, 88 in March 1968 and 92 in April 1974. The only autumn record was of one below Alice on 3rd November, this becoming the ninth of the last ten years with a record in this month (it is tempting to link a group of 12 on the 29th last year (this the second highest November daycount) with the unusually large group present this March). A 2023 bird-days total of 11 was down on a 2013-2022 mean of 13.8 and on six years during that period (there were highs of 32 in 2014, 20 in 2019 and 28 in 2020). Prior to 1983 three-figure annual totals were the norm, with record monthly tallies of 279 in August 1971, 234 in August 1978 and 229 in August 1979. As noted for Turnstone, it is likely that birds go under-recorded as they inhabit the spray zone at cliff bases, however the decline in records suggests a genuine lack of birds, this a sad reflection of the situation nationally and their red listing as a species of UK conservation concern.

Woodcock *Scolopax rusticola* **Cyffylog**
Scarce Winter Visitor not recorded every year, but over 200 corpses found in February 1963
Earliest 15th July 1962 (3rd November 2023) **Latest** 23rd April 1956
1956-1963: 3 trapped, 2018-2022: 2 trapped

As is so often the case, there were no spring birds this year; there have been records between 3rd March and 23rd April in only 22 previous years, including four of the last 12. One near the Top Tank on the night of 3rd November was thus the first of the year, this one day earlier than the first of last year but three days later than the 2014-2022 first of autumn mean (the earliest during this period was in the Well Heligoland on 23rd October 2018). There followed singles near Migration Rocks on the 4th and at the Pig Sty on the 25th; a November bird-days total of three was down on a 2013-2022 mean of 3.6, on six years during that period and on all-time highs of ten in 1968 and eight in 1991 and 2018. A winter presence would no doubt increase the number of records; there were 93 bird-days in January 1982, including 47 on the 15th which is the highest daycount of live birds.

Jack Snipe *Lymnocryptes minimus* **Gïach Bach**
Scarce Winter Visitor although not recorded every year
Earliest 18th August 1938 (8th November 2023) **Latest** 22nd May 1995
1964-1976: 8 trapped

There were no spring records for the fourth time in 11 years; the 2013-2022 spring bird-days mean is 1.1, with a high of three in 2013, whilst the all-time highs are of eight in 1955, 1956 and 1969, 14 in 1959 and 13 in 1996. One near South Pond on 8th November was thus the first of the year, this 30 days later than the 2013-2022 first of autumn mean. One near the Lighthouse Track (opposite the start of the South Coast Cut) on 25th November was the only other record this year. A 2023 total of

two autumn bird-days matched the lowest since 2018 and was down on a 2013-2022 mean of 2.7; although Lockley described Jack Snipe as 'common from 7th October to 24th March', the all-time autumn bird-day highs recorded in the census logs are of only nine in 1957 and 1968 and 11 in 2013.

Snipe *Gallinago gallinago* **Gïach Cyffredin**
Common Winter Visitor and Passage Migrant breeding suspected in 1927 and 1965
1 trapped
1936-1976: 55 trapped, 2018-2019: 14 trapped, 3 retrapped

Counts on 15 March dates included one trapped in the Well Heligoland prior to the catch box being reinstated on the 1st, highs of four on the 4th and 7th and only singles from the 12th; there have been higher March daycounts in all bar one of the last ten years, with a 2013-2022 mean of 21.9 and highs of 38 in 2013 and 72 in 2019, whilst a bird-days total of 30 was down on a 2013-2022 mean of 93.7 and on all-time highs of 314 in 1971, 331 in 1973 and 313 in 2019. Sightings on 14 April dates to the 26th included highs of five on the 3rd and 22nd which took the bird-days total to 32; there have been higher daycounts in 20 Aprils, with peaks of 20 in 1955, 1971 and 1995, and higher totals in 22 Aprils, with peaks of 105 in 1955, 139 in 1973 and 95 in 1977 (the 2013-2022 April bird-days mean is 25.4, with a high of 61 in 2019). There were no May sightings for the fifth time this decade; the all-time May bird-day highs are the 17 of 1962 and the 31 of 1967, whilst the 2013-2022 mean is 1.2. The last of 36 June bird-days occurred in 1999.

The total number of Snipe bird-days logged each month (2022 to 2020 in parentheses), along with the maximum monthly daycount (2022 to 2020 in parentheses).

March	April	May	June	July	August	September	October	November
30	32	0	0	0	2	34	59	77
(44, 72, 76)	(16, 44, 19)	(0, 5, 0)	(0, 0, 0)	(7, 2, 0)	(13, 5, 19)	(50, 33, 85)	(67, 79, 131)	(36, 124, 89)
4	5	0	0	0	1	10	11	8
(6, 15, 22)	(3, 6, 5)	(0, 1, 0)	(0, 0, 0)	(1, 1, 0)	(2, 1, 5)	(7, 4, 14)	(20, 9, 10)	(8, 10, 15)

There were no Snipe logged in July for the fifth time in 12 years, the all-time July bird-days total remaining at 277. One over the Farm on 20th August was thus the first of the autumn, with another flyover on the 30th being the only other record during the month; a bird-days total of two was down on a 2013-2022 mean of 20.0, on a 21st century high of 42 in 2017 and on all-time highs of 86 in 1947 and 1958 and 77 in 1982. A wisp of ten on the 17th was the only September daycount of more than three, with sightings on 18 further dates including one drumming over Orchid Bog on the evening of the 10th (above photograph); the peak daycount was down on September highs of 15 logged in 1934 and 2018, albeit matching the seventh highest to date, however a bird-days total of 34 was down on a 2013-2022 mean of 51.8 and well down on highs of 145 in 1972, 83 in 2018 and 85 in 2020. There were 59 October bird-days noted over 21 dates, with 11 on the 9th and six on the 10th the only counts of more than four and with a walk around South Pond on the 26th failing to reveal any birds at

all; the bird-days total was well down on all-time highs of 273 in 1973 and 259 in 1975 and on a 2013-2022 mean of 84.5 (this a period which included peaks of 174 in 2018, 113 in 2019 and 131 in 2020). Snipe were encountered on 24 November dates, with highs of eight on the 25th and 26th taking the total to 77; differing staff departure dates mean that November tallies are not directly comparable, however the peak daycount was down on that recorded in five of the last seven years (November daycounts of up to 100 were logged before the War, with post-War highs of 30 in 1962 and 2010 and 40 in 1991). December saw nine on the 1st, 22 on the 2nd and two on the 3rd; the eight highest December daycounts of between 30 and 100 were all logged between 1927 and 1930.

Common Sandpiper *Actitis hypoleucos* **Pibydd y Dorlan**
Uncommon more regular in autumn
Earliest 21st March 1948 (17th April 2023) **Latest** 29th October 1975 (8th September 2023)
1938-1976: 22 trapped, 2018: 1 trapped

One which flew from Peter's Bay to North Haven on 17th April was three days earlier than the 2013-2022 first bird mean; there have been 47 earlier bird-days, including four in March. There were further singles on the 21st and 24th April and on the 8th, 18th, 25th, 26th and 28th May, with four of these seen on the ponds. This has never proven a common species in the first half of the year, indeed the eight bird-days logged this spring was up on a 2013-2022 mean of 6.5 (the 21st century high is 17 in 2016 and the all-time highs are 27 in 1950 and 1953). The first returning bird was logged on 1st July; Common Sandpiper have been recorded in the first eight days of July in all but one of the last 11 years. There were further July sightings of one at North Pond on the 3rd, two there on the 4th, one there on the 10th, one over the Lighthouse at 0400hrs on the 20th and one in South Haven on the 26th. Singles on nine dates in August and on four dates to 8th September were all encountered around the coast, one of these in the night; there have been 162 later bird-days, including 20 in October. An autumn bird-days total of 20 was down on a 2013-2022 mean of 28.2, on highs during this period of 58 in 2013 and 41 last year and on all-time highs of 70 in 1947 and 64 in 1948.

Green Sandpiper *Tringa ochropus* **Pibydd Gwyrdd**
Scarce not recorded every year, only four singles 1998-2012 and only 17 spring records
Earliest 2nd April 1997 **Latest** 21st October 1967 (6th September 2023)

There was no spring sighting for a fourth consecutive year; although spring birds have only been encountered in 15 previous years, this has included five of the last 13. A vocal bird seen in flight over North Pond on the morning of 6th September was thus the first of the year, this two days earlier than the last two of 2022 and the only 2023 encounter; there have been 29 previous September bird-days, with highs of three in 1958 and 2015. Although there were no autumn records in 2018, a lone autumn bird-day is otherwise the lowest total of the last ten years, down on a 2013-2022 mean of 6.3 and on all-time highs of 31 in 1997, 13 in 2015, ten in 2017 and 15 last year.

Lesser Yellowlegs *Tringa flavipes* **Melyngoes Bach**
Vagrant only one previous record

A juvenile found on Orchid Bog at 0900hrs on 20th September soon flew west calling (RD). Given that this is one of the commonest of the American waders to reach Britain, with 433 individuals recorded between 1958 and 2022 (White and Kehoe, 2024), it is perhaps surprising that the only other Skokholm record was found on the evening of 9th October 1961 and still present the following day.

Redshank *Tringa totanus* **Pibydd Coesgoch**
Uncommon most regular in July and August
1957-1974: 4 trapped, 2018-2022: 5 controls

There were no March records for only the third time in 12 years, a flyover on 4th April thus being

the first of the year; an all-time March bird-days total of 105 includes 81 since 2013 and highs of 35 in 2018 and 30 in 2019. Ten were present on 16th April, with two in Crab Bay at the same time as eight were at North Pond, this by far the highest spring daycount to date; there were previous highs of four in April 1968, May 2000, March 2018 and March 2019. One in the vicinity of South Haven on 18th April and one at North Pond on 27th June were the only other sightings during the first half of the year. A spring bird-days total of 13 was down on a 2013-2022 mean of 16.5, however it was only down on all-time highs of 14 in 1956, 18 in 2000, 22 in 2014, 52 in 2018 and 34 in 2019. Two juveniles were briefly at North Pond on 2nd July, these followed by singles on the 9th and 25th. Three went over on 15th August, a single was logged the following day, one was at an empty North Pond on the 21st and 27 flew west along the North Coast on the 24th (with a Knot in the photograph below); the latter was the highest Skokholm daycount to date, eclipsing previous highs of 15 on 4th August 1939, 12 on 7th July 1949 and 14 on 17th August 2001. September saw one on the 3rd and two on the 4th, whilst one at North Pond on 14th October was the last of the year. There were no November birds for the second time in seven years; there have been 33 November bird-days over ten years, including 25 in six years since 2014. The only December sightings were in 1927, 2019 and 2020. Due only to the record daycount, an autumn 2023 bird-days total of 40 was up on a 2013-2022 mean of 29.1, indeed it was only down on the 53 of 1966, the 41 of 2015 and the 52 of 2017.

Wood Sandpiper *Tringa glareola* **Pibydd y Graean**
Scarce not recorded every year and only 11 spring records
Earliest 22nd April 1973 (15th May 2023) **Latest** 22nd September 1966
1936-1976: 2 trapped

One photographed on North Pond at 0700hrs on 15th May was soon chased off by a Lapwing (CJ *et al*.); the most recent of 11 previous spring records were singles on 2nd June 2005, 22nd May 2014 and 23rd June 2019. Including the first two Skokholm birds found in August 1955, there have now been approximately 53 records totalling at least 58 individuals and with birds noted on 96 dates, all logged during 32 of 69 recording years; there have been 11 records totalling 12 individuals and with birds noted on 19 dates since 2014.

Greenshank *Tringa nebularia* **Pibydd Coeswerdd**
Uncommon but sometimes Scarce and not recorded every year
Earliest 30th March 2019 (16th April 2023) **Latest** 9th November 1958 (3rd September 2023)

A flyover on 16th April was the first of the year, this on the same date as the first of last year; there have been seven earlier bird-days, including just one in March, with four of these logged since 2015. One on 24th April was the last in what became the 38th spring with a sighting; a maximum spring daycount of three in April 1966 took the total for that month to a spring record 13, however the majority of 89 previous spring bird-days have been logged in May. One at 0650hrs on 3rd September was the only autumn record; the 2013-2022 autumn bird-days mean is 3.9, with a high of 11 in 2016,

whilst an all-time autumn bird-days total of 419 logged over 65 years includes 277 in August, 104 in September and all-time peak totals of 23 in 1955, 20 in 1964 and 22 in 1983.

Kittiwake *Rissa tridactyla* **Gwylan Goesddu**
Very Abundant a single pair attempted to breed in 1959
2018-2020: 5 controls

Although present offshore in all months, Kittiwake were again logged in smaller numbers than might be expected given the presence of 1291 breeding pairs on nearby Skomer. Sightings on 14 March dates were of no more than 11; the 2013-2022 mean March high is 237.6, this well down on a 1980 record of 1500. Two hours of seawatching on the 12th produced only 76 birds, this the highest April daycount of the year but down on a 2013-2022 mean April high of 118.9 (the 1981 daycount record is of 1000). As is typically the case, the number of birds feeding close to Skokholm again increased in May, with 13 three-figure daycounts and highs of 587 on the 25th, 281 on the 27th and 291 on the 31st, these all well down on the four-figure counts of the 1980s. More unusually two flew over the Neck on 10th May and a second calendar-year bird was on North Pond on 25th May. June daycounts were similar, with 14 in three-figures and highs of 332 on the 7th, 350 on the 8th and 445 on the 14th; the only higher June daycounts this century were both logged in 2019 when there were peaks of 550 and 640. That spring counts were all down on 20th century totals is unsurprising; the Skomer population has steadily declined since the early 1990s, dropping by 32% between 2000 and 2015 and by over 16% between 2022 and 2023. July saw highs of 200 on the 1st, 180 on the 3rd and 230 on the 4th, the peak down on a 2013-2022 mean of 353.4 and a high during that period of 863 in 2022. A seemingly healthy first-summer was briefly sat in front of the Lighthouse Hide on 15th July.

The total number of Kittiwake bird-days logged each month, along with the maximum monthly daycount. Counts from 2022 to 2018 are included for comparison.

	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
2023	65	300	3503	3423	1494	1169	871	669	2532
2022	344	126	1313	1035	2451	3677	6381	1064	4884
2021	298	172	866	939	1217	368	461	2548	2650
2020	920	150	462	619	1656	4989	5455	7978	5530
2019	2152	361	597	2627	2136	1928	786	10414	3715
2018	115	71	1053	954	1587	3876	3221	600	4539
2023	11	76	587	445	230	135	127	210	410
2022	174	83	214	203	863	681	1381	241	623
2021	81	63	91	254	244	51	258	531	437
2020	422	38	52	121	457	1170	1481	1542	1154
2019	919	65	171	640	262	332	388	3032	860
2018	89	22	187	113	443	427	678	127	1102

Following the North Pond youngster on the 25th, there were 30 Kittiwake on the back of the Stack on 29th May and 15 on Oystercatcher Rock the following day; since 2013, singles on the 20th in 2019 and on the 14th in 2021 are the only others seen ashore in May. Birds were ashore on 18 June dates, this 13 more dates than in any of the previous ten Junes, with highs of 231 on the 14th (a minimum of 200 were on Crab Bay Rocks, whilst 20 were below the Bluffs and 11 were below Howard's End), 101 at East Bay on the 19th and 113 on the 24th (with 98 on Crab Bay Rocks, 15 on the Stack); the peak was the highest of this year and a June record, but down on two counts of up to 261 in August 2018, two counts of up to 492 in August 2020 and a count of 490 in August last year. Birds were ashore on four July dates to the 15th, with a high of 46 on Crab Bay Rocks on the 13th only down on July highs of 82 in 2016 and 96 in 2017. There were no sightings of Kittiwake ashore in August until the 24th when 42 took to the Stack, whilst up to 32 on three further dates to the 30th led to an August total of 92 which was only down on the 1073 of 2018, the 1266 of 2020 and the 723 of last year. There were no

further on shore sightings this year; birds were ashore in September in five years between 2016 and 2022, with a high of 160 in 2018. Nevertheless a 2023 total of 1423 loafing birds over 29 dates was a new high, up on a 2013-2022 mean of 443.2 and previous highs of 1235 over 13 dates in 2018 and 1388 over 20 dates in 2020. Up to two colour ringed birds were seen on three June dates, but none showed sufficiently well to allow for an individual to be identified (in both 2018 and 2020 colour rings confirmed that at least some of the birds present were from French breeding colonies).

Seawatching effort increases in August and September as autumn passage attracts regular and prolonged observations, the dip in numbers often logged at this time of year no doubt reflecting a genuine absence (which coincides with the period of post-breeding moult). This August saw daily sightings and highs of 97 on the 6th and 135 on the 24th, the peak less than half a 2013-2022 August mean high of 327.5. September proved quieter still, with peaks of 127 on the 1st and 97 on the 19th, the former the lowest September peak since 2014, down on a 2013-2022 mean of 578.6 and on highs during this period of 1049 in 2017, 1481 in 2020 and 1381 last year (all well down on the all-time high of 5000 logged in 1978). The larger Broad Sound flocks which have formed in recent Octobers were again generally absent, with highs of 106 on the 8th and 210 on the 23rd the only daycounts of more than 55; both the peak October daycount and a bird-days total of 669 were the lowest since 2018, the former down on a 2013-2022 mean of 868.9 and a recent high of 3032 in 2019, the latter down on a 2013-2022 mean of 3213.9 and a recent high of 10,414 in 2019. Although numbers increased somewhat in November, with seven three-figure daycounts and highs of 410 on the 6th, 267 on the 24th and 394 on the 25th, the peaks were the lowest of the last nine Novembers and down on a 2013-2022 mean high of 1098.2 (the maximum daycounts during this period were of 2820 in 2015 and 2548 in 2016, whilst the all-time high is the 8000 of 1968). An adult over the Bluffs on 28th November then flew south over the Sugarloaf.

Black-headed Gull *Chroicocephalus ridibundus* **Gwylan Benddu**
Very Abundant during autumn and winter. Two pairs defended North Pond territories in 1968

Given the size of the Broad Sound flocks which gather each autumn and winter, it is surprising that there are so few spring records, this probably suggesting that Black-headed Gulls have already dispersed towards their breeding grounds by the time that staff return to Skokholm. There were no March sightings for the sixth time in 11 years; there have been 659 previous March bird-days logged over 32 years, with 44 in 1968 and 455 in 2013 being the highest tallies. One calling in thick fog on 5th April was thus the first of the year, whilst one over the Bluffs on the 23rd, two adults on North Pond on the 24th and an adult off the Quarry on the 25th led to a typical April tally. A second calendar-year bird was in the Dip on 4th May, seven headed southeast over the middle of the Island on the 6th, one was logged on the 15th, an adult was found dead along the South Coast Path on the 21st and three were logged on both the 28th and 31st (with one on North Pond on the former date); the peak daycount was only down on May highs of ten in 1967 and nine in both 1992 and 1993, this perhaps reflecting the early abandonment of breeding grounds by birds impacted by the H5N1 strain of highly pathogenic avian influenza (HPAI)). The dead bird was bagged within 30 minutes of it being found and later tested positive for HPAI, this the first non-Gannet to test positive on the Pembrokeshire islands (it was followed by a Great Black-backed Gull here on 9th July (see below)). June numbers were unremarkable, with up to three on four dates between the 8th and 17th, these including an adult ashore at East Bay on the 14th which soon headed for the mainland; annual June sightings between 2013 and 2022 averaged 6.4 bird-days, whilst the all-time highs are the 26 of 1966 and the 28 of 1969.

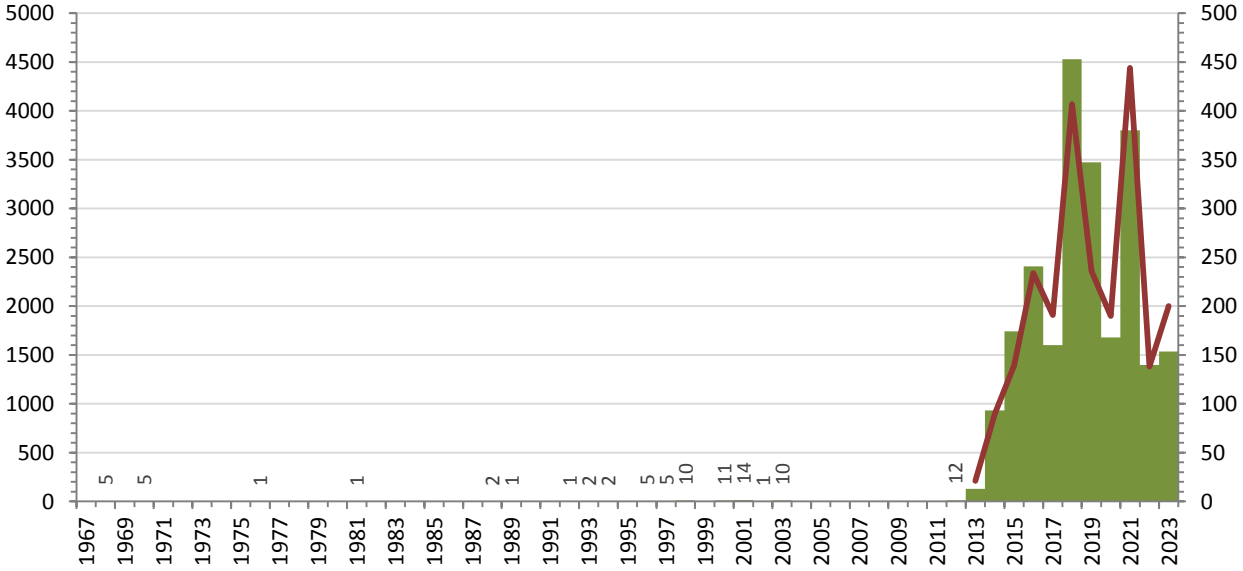
One over the Farm on the 6th and one off the Lighthouse on the 8th were the only July sightings, the total matching that of 2020 as the lowest of the last 11 years (there was an all-time July high of 102 in 2018). August was similarly quiet, with up to seven noted on four dates including the first juvenile of the year on the 18th; on average between 2013 and 2022 the first definite juvenile of the year

arrived on 6th July, with the earliest on 22nd June 2018 and the latest on 19th July 2020, the very late 2023 arrival perhaps reflecting poor productivity due to HPAI. An August bird-days total of 13 was the lowest since 2015, down on a 2013-2022 mean of 160.3 and all-time highs of 224 in 2019, 124 in 2020 and 1108 last year. Perhaps again as a consequence of the HPAI outbreak, there were no September records for the first time since 2010; the 2013-2022 bird-days mean is 212.7, with all-time highs of 269 in 2013, 270 in 2015 and 1225 last year. Sightings on ten October dates from the 8th were all of six or less bar 32 in Broad Sound on the 25th and 14 on the 31st; an October bird-days total of 70 was the lowest since 2011 and massively down on a 2013-2022 mean of 3137.0 (the largest daycount during this period was the 1735 of 2017, the highest total the 10,147 of 2018, whilst earlier daycounts peaked at 2500 in 1992). Differing staff departure dates mean that November bird-day totals are not directly comparable, however peak 2023 daycounts of 532 on the 28th, 447 on the 29th and 183 on the 30th were disappointing; the 2013-2022 peak November daycount mean is 933.9, with highs of 2400 in 2017 and 1466 in 2018.

Mediterranean Gull *Ichthyaetus melanocephalus* **Gwylan Môr y Canoldir**
Abundant offshore during the autumn, but Rare prior to 2000 and first logged in 1968

Considering that there had only been a total of 76 bird-days up until the end of 2003, that there were no birds observed at all between 2004 and 2011 inclusive and that there were only four records in 2012, the 21 records totalling 130 bird-days logged in 2013 was exceptional. However there has followed a remarkable increase, primarily due to a rise in the number of birds feeding in Broad Sound during October and November; the 2014-2022 bird-days mean is 2396.1, with highs of 4528 in 2018 and 3800 in 2021. Despite this huge increase, spring records are still rare, indeed there have only been 11 bird-days in February or March (nine of which were in 2019) and there is yet to be an April or May sighting. A second-summer on 7th June was the first of this year, this followed by two on the 12th and four on the 15th; the only previous June sightings were of three in 2014, one in 2015 and two in 2020. Despite a record June, there were no July records for the first time in four years, the all-time bird-days total remaining at 28 (there was a high of 12 last year).

The total number of Mediterranean Gull bird-days noted in each year since the first five logged in November 1968 (green) and the maximum daycount (secondary axis) in each year since 2013.



August was similarly disappointing by recent standards, with no records for the first time since 2014; sightings in 11 previous Augusts total 192 bird-days, with highs of 11 in 2018 and 153 last year. There were no September sightings for only the second time since 2011, the all-time bird-days total remaining at 267 (there were highs of 27 in 2013 and 2017, 145 last year). Ten adults and a first-

winter on 10th October were thus the first of the autumn, with sightings on 13 further dates from the 14th peaking at 17 on the 15th and 21st, 26 on the 16th and 18 on the 31st and taking the October bird-days total to 149; although the peak daycount was three up on that of both 2021 and 2022, it was down on a 2013-2022 October mean of 102.5 (there were highs of 191 in 2017 and 227, 202 and 243 in 2018), whilst the bird-days total was down on a 2013-2022 mean of 744.8 (this a period which included highs of 1171 in 2016, 1186 in 2017 and 1961 in 2018). Sightings on 22 November dates saw daycounts of no more than 71 to the 20th followed by four three-figure tallies and highs of 200 on the 25th (with 159 adults or second-winters in Broad Sound and 41 off the Quarry) and 195 on the 28th; a November bird-days total of 1359 was the fourth highest to date (there were highs of 2547 in 2018 and 2394 in 2021), whilst the peak daycount, the highest this autumn, was down on those logged on 14 previous dates (with highs of 361 and 407 in November 2018 and of 355 and 444 in December 2021). Given the substantial number of Mediterranean Gulls being recorded in Skokholm waters, it is surprising how few are first-winters, for example the record 1st December 2021 count included no first-winters, as was the case with this year's high; this year saw a peak of eight on 28th November (there were first-winter daycount highs of 12 in 2016, 33 in 2018 and 17 in 2022).

Common Gull *Larus canus* **Gwylan y Gweunydd**
Uncommon offshore during the late autumn and with only 34 bird-days between April and July

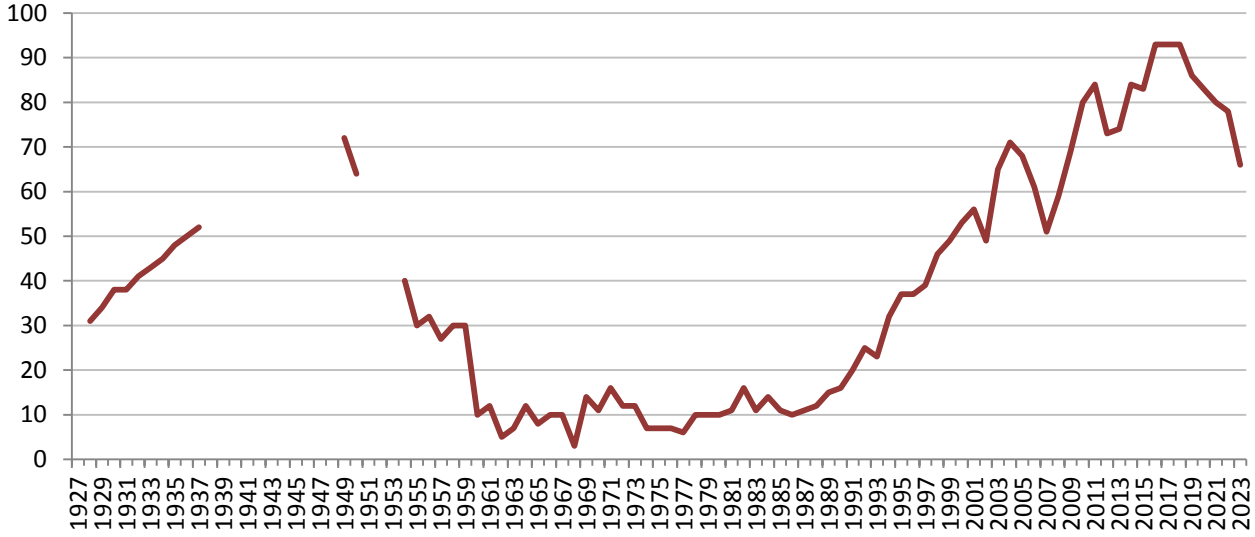
A vocal bird heading east over the Knoll on 18th March was a rare over-Island encounter; there have been March records in 12 previous years, with bird-day highs of ten in 1974 and seven in 2013. A first-winter sat on the sea off South Haven on 7th April was also unusual; there have been singles logged in seven previous Aprils, most recently with youngsters in 2013 and 2015. There were no further sightings until 10th October when three first-winters arrived, these 18 days later than the 2013-2022 first of autumn mean (the earliest during this period were present on 26th August 2022, the latest on 17th October 2015). Sightings on seven further October dates were of no more than four, a bird-days total of 17 being down on a 2013-2022 mean of 46.3 (there were all-time highs of 121 in 1966, 130 in 1991 and 182 in 1992). Numbers again increased in November, with birds noted on 17 dates and highs of 12 on the 11th, 31 on the 28th (30 adults and one second-winter) and 13 on the 30th which took the bird-days total to 115; although well down on four 1967 daycounts of between 100 and 120 and five 1968 daycounts of between 100 and 150, the peak November count matched the fifth highest this century (there were peaks of 35, 36 and 44 in 2018). Ten were logged on 1st December and three the following day. Although the 28th November daycount saw the highest number of adults to be logged this year, counts of second-winter birds peaked at three on 11th November and counts of first-winter birds peaked at four on 17th November.

Great Black-backed Gull *Larus marinus* **Gwylan Gefnddu Fwyaf**
Fairly Common Breeder and Common Visitor
21 trapped (including 15 pulli), 60 resighted, 2 controls
1936-1976: 231 trapped, 2012-2022: 535 trapped, 15 retrapped, 313 resighted, 8 controls

Although March roost counts otherwise peaked at 42 on the 6th and 26 on the 25th, a Bog roost of 18 on the morning of the 9th had become 71 by that evening, this the largest March roost of the last ten years; the 2014-2022 peak March roost mean is 34.8, with a high during this period of 48 in 2016 and 2017. Nevertheless, a peak March daycount of only 91 on the 9th was down on a 2013-2022 mean high of 106.1 and on that logged in seven of the previous ten years, with lower highs in recent years mirroring the declining breeding population. April roosts reached 45 on the 3rd, 51 on the 5th and 34 on the 30th, the peak the second largest roost in this month since 2017 (albeit down on a 2013-2022 mean of 65.2 and highs of 213 in 2013, 63 in 2015 and 58 in 2016 and 2017). However April daycounts followed the pattern seen in March, with a peak of 116 on the 6th being the second lowest April maximum of the last 12 years, down on a 2013-2022 mean high of 141.1. Nests were mapped between 28th April and 20th May, this revealing 66 apparently incubating birds (the only

nests not visited to confirm the presence of eggs were adjacent to the Bog Lesser Black-backed Gull colony and on offshore stacks); although the total was the 18th highest on record, it was 15.4% down on the 78 mapped last year, 22.1% down on a 2013-2022 mean of 84.7 ±sd 6.6 and well down on highs of 93 in 2016, 2017 and 2018. Indeed this was the largest drop in the Skokholm population since 2007 and made this the fifth year in succession in which the total number of breeding pairs has fallen below the lower limit stipulated in the Skokholm Management Plan. A drop in adult survival is seemingly, at least in part, to blame for this decline in the breeding population (see below).

The number of Great Black-backed Gull breeding pairs 1928-2023 (where data exists). Control of numbers started in 1949 (destruction of both nests and adults) and stopped in 1985.



A colour ringing project, begun nine years ago, is providing an insight into how adult return rates influence the number of breeding pairs. Of 23 adults wearing rings in 2014, 19 (82.6%) returned for the 2015 breeding season; the number of nesting pairs dropped from 84 in 2014 to 83 in 2015. There followed an apparent increase in adult survival, during which time the breeding population increased to, and then stabilised at, 93 pairs; of 21 adults wearing colour rings in 2015, 19 returned in 2016 (90.5%), whilst 32 of 33 returned in 2017 (97.0%) and 32 of 36 returned in 2018 (88.9%). Of 43 adults wearing rings in 2018, only 34 (79.1%) returned in 2019, the breeding population dropping by seven pairs during the same period, whilst 37 of 43 birds (86.1%) returned in 2020 (the nest count dropped by three), 29 of 37 (78.4%) returned in 2021 (the breeding population declined by a further

three pairs) and 25 of 29 (86.2%) returned last year (there were two fewer pairs). This year saw 27 of 33 adults return (81.8%), whilst there were 12 fewer breeding pairs; this suggests that approximately 28 established adults did not return to breed in 2023 and that only four new birds recruited in their place. Although what was apparently the largest drop in adult survival (logged in 2021) did not correspond with the biggest drop in breeding numbers, the population has only increased or remained stable with adult survival of 88.9% or better. One potential issue is that the ringing of adults on the nest could deter them from returning (thus making survival appear lower than it is in reality), however if we exclude the data collected in the year after ringing (when any disturbance should take effect), the return rates remain at a similar 89.5% in 2016, 100% in 2017, 90.6% in 2018, 74.2% in 2019, 81.8% in 2020, 78.4% in 2021, 86.2% in 2022 and 82.1% this year; it thus seems likely that disturbance during ringing is not responsible for a decline in return rates.

The 2018 and 2019 return rates were previously reported as being lower than listed above. However a chance close encounter with a metal only ringed bird in 2020 revealed it to be an adult colour ringed in 2014 (which lost its colour mark between the 2017 and 2018 seasons). A close inspection of birds occupying territories from which colour ringed individuals had previously gone missing revealed a further darvic loss, this from another 2014 ringed adult (which had lost its ring between the 2018 and 2019 breeding seasons). Additionally W:142, ringed as an adult in 2016, lost its colour ring between the 5th and 6th June 2020; the dropped ring was found in the Puffin study plot, allowing the loss to be attributed to snapping rather than glue failure. Although the rate of ring loss is seemingly low, it will perhaps increase as the rings age; a careful check for metal rings is thus important, although reading the inscribed digits demands good views and significant patience (at least two of the three adults which lost their plastic rings were breeding this year, their metal rings again being read (these do not form part of the adult survival statistics)). In an effort to better understand ring loss, an additional red ring was fitted above the metal ring on every bird ringed in 2022 and 2023; it is hoped that this ring will outlast the taller numbered darvic and thus draw attention to any birds with missing rings.

It is not clear what may have caused such seemingly high adult mortality since 2018, although interactions with the fishing industry, poisoning and the H5N1 strain of highly pathogenic avian influenza (HPAI) have previously been raised as areas for concern. Major leg injuries (including

missing feet and snapped bones) and punctured torsos have occurred, wounds seemingly too severe to have been caused by anything other than anthropogenic means. Aggressive encounters with other gulls and extreme weather events have previously resulted in broken wings and apparent internal injuries, whilst it seems likely that undamaged corpses are the result of toxins (including those produced by *Clostridium botulinum*). A full record of the injuries recorded in previous years can be found in the Skokholm Seabird Reports. The only injured Great Black-backed Gull encountered this year was an adult with a broken leg present to the south of Winter Pond on the 4th and 17th July, this perhaps the long dead adult found in a similar area on 29th November. Freshly dead adults were in Rat Bay on 28th May and near North Pond on 30th May, a long dead adult was near Wheatear Rock on 22nd June, a further fresh adult was along the South Coast Cliffs on 9th July and a dead adult and dead juvenile were together above the Anticline on 8th August. The North Pond bird was tested for HPAI but came back negative, an empty gastrointestinal tract suggesting that it had starved. The south coast bird tested positive for the H5N1 strain of HPAI, this the second positive case on the Island following a Black-headed Gull found on 21st May. Additionally a Skokholm ringed eighth-summer (W:108) found dead on Lundy Island, Devon, tested negative for HPAI in July, this bird found alongside two dead Herring Gull which tested positive for the disease. Unsurprisingly it has been proposed that gulls will prove a vector for HPAI transmission both between colonies and between seasons; it is hoped that colour ringing will highlight any significant drop in survival. This species was again regularly observed behind fishing vessels, although flocks were smaller than of late; there were peak counts of ten behind 'Emma Jane' on 9th May and ten behind 'Boy's Pride' on 2nd June. An important step in understanding the Skokholm population will be to discover if such anthropogenic food sources are regularly exploited; additional food will increase survival, particularly during the winter or periods of low seabird and Rabbit numbers, however foraging around boats or mainland food sources also has the potential to seriously impact health.

Checks of any accessible and seemingly complete nests from 5th April failed to find any eggs until the 14th when a search of the area to the south of Winter Pond located a nest with one egg; the other pairs in this area were either yet to build or were lingering near empty nests. The first two eggs of 2022 were found in a nest to the southwest of North Pond on the 11th, whilst the 2013-2022 first egg mean is 15th April (with the earliest found on the 10th in 2014 (a single egg) and 2018 (a clutch of three) and the latest on the 25th in 2013). The first three chicks to be seen in 2023 were above Blacksmith's Landing on 13th May, these the earliest of the last six years (with the latest during this period logged on the 20th in 2018). Of 37 monitored nests, 16 pairs failed, seven pairs fledged a singleton, ten pairs fledged two and four pairs fledged three. There were thus 39 young fledged, resulting in a productivity figure of 1.05 fledglings per monitored pair; productivity was the poorest

since the 0.93 of 2014, 19.2% down on that of 2022, 27.1% down on a 2013-2022 mean of 1.44 (±se 0.07) and 3.7% down on the 1989-2004 mean of 1.09. Poor productivity was due in part to failures as chicks approached fledging size; six dead near-fledglings were found on 7th July, with two of three at Gate Rock, two of three to the northwest of the Sugarloaf and both on the Tabernacle perishing, whilst a further brood of two were lost at South Pond on 21st July.

Productivity estimates 2002-2023 (average number of fledglings per monitored pair).

2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
1.09	0.91	-	0.76	1.07	1.02	1.02	-	0.71	0.89	-
2013	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**
1.80	0.93	1.66	1.38	1.54	1.40	1.43	1.40	1.51	1.30	1.05

The Great Black-backed Gulls are spectacular apex predators and an exciting component of the Skokholm seabird assemblage, however it is important we monitor the impact of higher breeding numbers on the Manx Shearwater population. Dead shearwaters were counted for a tenth consecutive year, the vast majority of which had been eaten by Great Black-backed Gulls (see the Manx Shearwater section for further details); a total of 2615 corpses, comprising 1859 adults and 756 youngsters, were marked this year. The number of adults marked was the second lowest of the last ten years, down on a record 3008 logged in 2020 and 20.7% down on a 2014-2022 mean of 2343.7 ±sd 451.8. The number of youngsters marked was also the second lowest to date, 31.8% down on a 2014-2022 mean of 1108.6 ±sd 224.1 (a high of 1398 was recorded in 2016 and a low of 728 last year). The total number of marked corpses was the lowest to date, 24.3% down on a 2014-2022 mean of 3452.2 ±sd 554.5. There are many factors influencing the number of corpses found; observer effort has been rather consistent, but possible or certain differences between years have included the number of Great Black-backed Gulls present (which may include differences in the number of shearwater specialists (Westerberg *et al*., 2018)), the number of shearwaters available (including differences in the number of prospecting individuals likely to spend longer on the surface), the prevalence of suitable hunting conditions (governed primarily by the moon cycle and weather), the size of the Rabbit population (which may provide an alternative food source) and the prevalence of puffinosis (which may make young birds easier to catch). Although the number of dead birds currently being found represents a relatively small proportion of the Skokholm shearwater population, there is clearly a benefit to understanding these relationships in greater detail. Ad hoc observations again suggested that shearwaters were regularly being dug out from their burrows this year (as opposed to being taken from the entrance or from above ground), indeed birds in five of 166 active study burrows were seemingly accessed via an excavated hole; this form of hunting has

the potential to impact more than just the eaten individual, as it reduces the suitability of nest sites and the stability of the colony. Over 500 burrows have been repaired during the last decade, with stones used to cover the void (below photographs).

The percentage of Great Black-backed Gulls colour ringed as fledglings to be encountered in each subsequent year. The mean is that for the period prior to 2022.

Ringed in	2014	2015	2016	2017	2018	2019	2020	2021	2022	Mean
% not seen again	25.58	46.15	53.13	63.89	39.47	20.45	46.15	51.43	70.00	**43.28**
% seen again	74.42	53.85	46.88	36.11	60.53	79.55	53.85	48.57	30.00	**56.72**
% seen 1+ year	48.84	36.54	31.25	27.78	42.11	40.91	43.59	28.57	15.00	**37.45**
% seen 2+ years	37.21	30.77	18.75	22.22	42.11	34.09	38.46	17.14		**30.09**
% seen 3+ years	32.56	26.92	18.75	22.22	39.47	31.82	28.21			**28.56**
% seen 4+ years	30.23	25.00	15.63	19.44	28.95	20.45				**23.28**
% seen 5+ years	18.60	19.23	15.63	13.89	13.16					**16.10**
% seen 6+ years	16.28	13.46	15.63	5.56						**12.73**
% seen 7+ years	13.95	13.46	12.50							**13.31**
% seen 8+ years	9.30	9.62								**9.46**
% seen 9+ years	4.65									**4.65**
% found dead	9.30	3.85	9.38	2.78	7.89	6.82	2.56	5.71	5.00	**6.04**

The colour ringing project initiated in 2014 is also providing information on juvenile survival and recruitment. Of 43 fledglings ringed in 2014, 32 (74.4%) have been resighted subsequently, including four which have been found dead. At least 21 birds (48.8%) definitely survived their first full year, 16

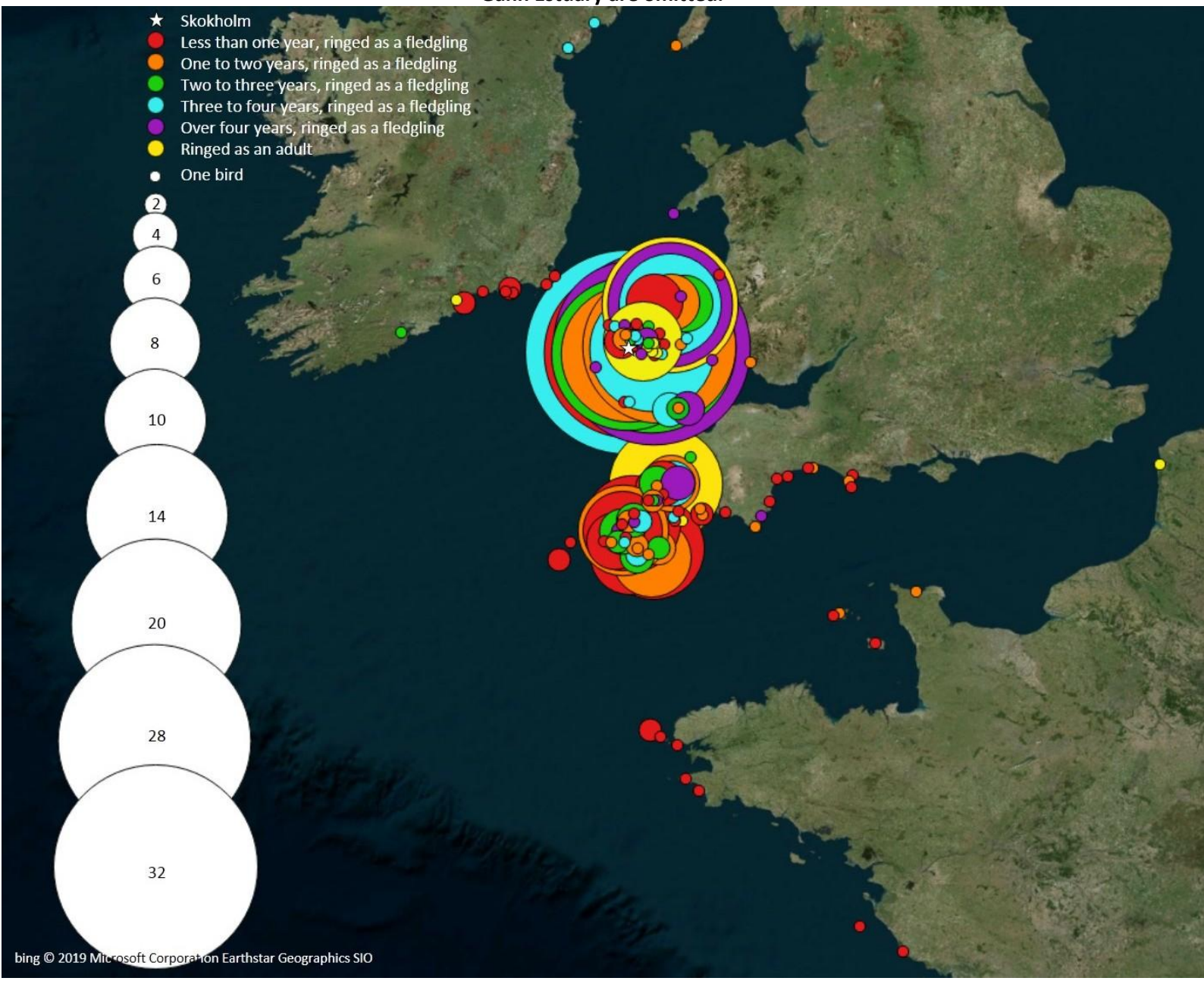
(37.2%) survived two years, 14 (32.6%) survived three years, 13 (30.2%) survived four years, eight (18.6%) survived five years, seven (16.3%) survived six years, six (14.0%) survived seven years, four (9.3%) survived eight years and two (4.7%) have survived nine years. The birds ringed as fledglings in 2015 have provided similar results (see table above). Although these figures do not give an exact measure of juvenile survival, the birds ringed longer ago (of which more have returned to Skokholm and for which there has been longer for them to be encountered on the mainland), suggest that at least 25% of fledglings are surviving to four years of age. Two ringed as fledglings in 2015 and one ringed at the same age in 2017 bred on Skokholm for a second straight year, whilst one ringed as a fledgling in 2016 bred for the first time. Two 2014 ringed fledglings were found breeding on Skomer in 2020, although only one has been reported in each subsequent year, whilst a 2015 ringed bird bred there for the first time this year and a 2016 ringed bird which bred there last year was seen this September (although there were no breeding season reports). Only time will tell whether this study provides a sound estimate of recruitment to the breeding population, something which may well be dependent on how many establish territories on Skokholm or Skomer (where they should be seen) as opposed to other less studied breeding sites. Of 64 youngsters which have so far returned to Skokholm at some point, 14 were first back as first-summers, nine as second-summers, 24 as third-summers, 13 as fourth-summers, three as fifth-summers and one as a sixth-summer; it would appear that birds are most likely to first return in their third summer, with 8.45% of all youngsters ringed between 2014 and 2020 having first returned to the Island at this age (10.92% returned at this age, this including birds first back in earlier years).

Although resightings away from Skokholm will be somewhat biased by a preponderance of birders at the main roost sites in Cornwall, it seems likely that the typical southerly movements observed in young Great Black-backed Gulls reflect their genuine post-fledging distribution (see map below). Birds gravitate back towards Pembrokeshire as they get closer to breeding age (see both the table and map below). In addition to those sightings listed below, there were eight individuals ringed as breeding adults and found 7.5km away on the Gann Estuary (birds captured on their Skokholm nests between 2014 and 2023). The ages given in the following table are known for birds ringed as near-fledglings, whereas 'adult' denotes a bird ringed at a minimum of four years which is thus of unknown age. All of these records were received since a similar table was published in the 2022 Seabird Report.

Darvic	Ring	Location	County/COUNTRY	Age	Date
W:004	MA37971	Camel Estuary	Cornwall	Fourth-winter	01/02/23
W:064	HT94925	Skomer Island	Pembrokeshire	Ninth-summer	15/04/23
W:064	HT94925	Gann Estuary	Pembrokeshire	Tenth-winter	18/10/23
W:077	HT94934	Skokholm	Pembrokeshire	Tenth-winter	03/08/23, 07/10/23
W:108	HT94971	Skokholm	Pembrokeshire	Eighth-summer	06/04/23, 01/05/23
W:108	HT94971	Lundy Island	Devon	Eighth-summer	01/07/23 (dead)
W:114	HT94943	Skomer Island	Pembrokeshire	Eighth-summer	12/06/23 (breeding)
W:119	HT94979	Skokholm	Pembrokeshire	Eighth-summer	06/04/23, 27/08/23
W:121	HT94981	Skokholm	Pembrokeshire	Eighth-summer	22/07/23 (breeding)
W:124	HT94955	Gann Estuary	Pembrokeshire	Eighth-winter	24/03/23
W:124	HT94955	Skokholm	Pembrokeshire	Eighth-summer	05/08/23 (breeding)
W:145	HT95000	Dale Airfield	Pembrokeshire	Adult	09/09/23
W:154	MA37811	Skokholm	Pembrokeshire	Seventh-summer	14/06/23
W:162	MA37820	Skomer Island	Pembrokeshire	Seventh-summer	03/09/23, 07/09/23
W:162	MA37820	Gann Estuary	Pembrokeshire	Eighth-winter	26/10/23
W:168	MA37826	Gann Estuary	Pembrokeshire	Seventh-summer	30/04/23
W:168	MA37826	Skokholm	Pembrokeshire	Seventh-summer	08/08/23, 12/09/23
W:179	MA37838	Skokholm	Pembrokeshire	Seventh-summer	20/05/23 (breeding)

W:192	MA37859	Gann Estuary	Pembrokeshire	Sixth-winter	04/03/23
W:195	MA37862	Skokholm	Pembrokeshire	Sixth-summer	16/09/23 (breeding)
W:195	MA37862	Gann Estuary	Pembrokeshire	Seventh-winter	27/10/23
W:195	MA37862	Skokholm	Pembrokeshire	Seventh-winter	29/10/23

The movements of Skokholm ringed Great Black-backed Gulls 2014-2023. The different colours represent the different ages at which the birds were resighted. 58 birds ringed as fledglings and resighted on Skokholm over four years later and 54 birds ringed as adults and resighted on the Gann Estuary are omitted.



Darvic	Ring	Location	County/COUNTRY	Age	Date
W:217	MA37882	Gann Estuary	Pembrokeshire	Sixth-winter	04/01/23
W:217	MA37882	Skokholm	Pembrokeshire	Sixth-summer	18/04/23
W:217	MA37882	Skomer Island	Pembrokeshire	Sixth-summer	04/09/23
W:219	MA37884	Skokholm	Pembrokeshire	Sixth-winter	04/03/23
W:230	MA37844	Camel Estuary	Cornwall	Adult	28/10/23, 20/11/23

W:233	MA37846	Camel Estuary	Cornwall	Adult	03/12/23
W:246	MA37915	Skokholm	Pembrokeshire	Fifth-summer	16/09/23
W:259	MA37904	Skokholm	Pembrokeshire	Fifth-summer	28/04/23
W:260	MA37905	Rhossili Bay, Gower	Glamorgan	Fifth-summer	16/07/23 (dead)
W:261	MA37906	Gann Estuary	Pembrokeshire	Fifth-winter	06/01/23
W:271	MA37928	Skokholm	Pembrokeshire	Fifth-summer	20/04/23, 24/05/23
W:274	MA37931	Gann Estuary	Pembrokeshire	Fifth-summer	17/09/23
W:295	MA37963	Skokholm	Pembrokeshire	Fourth-summer	29/04/23
W:295	MA37963	Lundy Island	Devon	Fourth-summer	13/07/23
W:296	MA37964	Skokholm	Pembrokeshire	Fourth-summer	06/04/23, 16/09/23
W:296	MA37964	Gann Estuary	Pembrokeshire	Fourth-summer	17/09/23
W:298	MA37967	Skokholm	Pembrokeshire	Fourth-summer	01/05/23
W:298	MA37967	Camel Estuary	Cornwall	Fifth-winter	04/12/23
W:304	MA37979	Lundy Island	Devon	Fourth-summer	23/07/23
W:307	MA37982	Skokholm	Pembrokeshire	Fourth-summer	22/04/23, 29/04/23
W:315	MA37989	Gann Estuary	Pembrokeshire	Fourth-winter	04/03/23
W:315	MA37989	Skokholm	Pembrokeshire	Fourth-summer	13/05/23
W:315	MA37989	Dale Airfield	Pembrokeshire	Fourth-summer	09/09/23
W:318	MA37992	Gann Estuary	Pembrokeshire	Fourth-summer	17/09/23
W:320	MA37994	Skokholm	Pembrokeshire	Fourth-summer	06/05/23
W:320	MA37994	Skomer Island	Pembrokeshire	Fourth-summer	07/09/23
W:322	MA37996	Skokholm	Pembrokeshire	Fourth-summer	05/03/23, 14/05/23
W:325	MA37999	Skokholm	Pembrokeshire	Fourth-summer	30/04/23
W:331	MA46912	Frainslake Beach	Pembrokeshire	Third-summer	24/06/23
W:331	MA46912	Skokholm	Pembrokeshire	Third-summer	24/05/23, 05/09/23
W:332	MA46913	Skokholm	Pembrokeshire	Third-summer	22/04/23, 17/09/23
W:335	MA46916	Gann Estuary	Pembrokeshire	Third-winter	03/03/23
W:339	MA46920	Gann Estuary	Pembrokeshire	Fourth-winter	27/10/23
W:343	MA46924	Skokholm	Pembrokeshire	Third-summer	03/05/23
W:345	MA46926	Skokholm	Pembrokeshire	Third-summer	01/05/23, 13/05/23
W:346	MA46927	Lundy Island	Devon	Third-summer	18/07/23
W:346	MA46927	Camel Estuary	Cornwall	Fourth-winter	19/10/23
W:347	MA46928	Newlyn Harbour	Cornwall	Third-winter	07/01/23
W:348	MA46929	Gann Estuary	Pembrokeshire	Third-winter	01/03/23
W:349	MA46930	Skokholm	Pembrokeshire	Third-summer	18/04/23, 16/09/23
W:349	MA46930	Gann Estuary	Pembrokeshire	Fourth-winter	26/10/23
W:352	MA46936	Gann Estuary	Pembrokeshire	Third-summer	06/01/23, 25/04/23
W:353	MA46937	Skokholm	Pembrokeshire	Third-summer	27/04/23
W:353	MA46937	Lundy Island	Devon	Third-summer	07/07/23, 17/07/23
W:358	MA46942	Gann Estuary	Pembrokeshire	Third-winter	08/01/23
W:358	MA46942	Skokholm	Pembrokeshire	Third-summer	16/09/23
W:361	MA46946	Gann Estuary	Pembrokeshire	Third-summer	22/04/23
W:361	MA46946	Skokholm	Pembrokeshire	Third-summer	20/05/23
W:365	MA46949	Skokholm	Pembrokeshire	Third-summer	20/05/23
W:365	MA46949	Lundy Island	Devon	Third-summer	12/07/23, 17/07/23
W:370	MA46956	Ramsey Island	Pembrokeshire	Second-winter	30/03/23
W:374	MA46961	Gann Estuary	Pembrokeshire	Third-winter	26/10/23
W:376	MA46963	Lundy Island	Devon	Second-summer	05/07/23, 23/07/23
W:379	MA46966	Hayle Estuary	Cornwall	Second-winter	22/02/23
W:379	MA46966	Gann Estuary	Pembrokeshire	Third-winter	27/10/23

W:384	MA46971	Hayle Estuary	Cornwall	Second-winter	22/02/23
W:384	MA46971	Skokholm	Pembrokeshire	Second-winter	13/03/23
W:390	MA46979	Lundy Island	Devon	Second-summer	05/07/23, 14/07/23
W:390	MA46979	Camel Estuary	Cornwall	Third-winter	19/12/23
W:391	MA46980	Gann Estuary	Pembrokeshire	Second-summer	30/04/23
W:391	MA46980	Skokholm	Pembrokeshire	Second-summer	01/05/23
W:391	MA46980	Carrigaline, Cork	IRELAND	Second-summer	13/07/23
W:416	MA55408	Kentraugh	Isle of Man	First-summer	31/08/23
W:419	MA55411	Slade Harbour, Wexford	IRELAND	First-winter	09/01/23
W:419	MA55411	Ballynagaul Pier, Waterford	IRELAND	First-winter	12/02/23
W:419	MA55411	Skomer Island	Pembrokeshire	First-summer	06/09/23
W:419	MA55411	Dale Airfield	Pembrokeshire	First-summer	16/09/23
W:422	MA55414	Lundy Island	Devon	First-summer	07/07/23
W:422	MA55414	Camel Estuary	Cornwall	Second-winter	31/12/23
W:428	MA55421	Dale Airfield	Pembrokeshire	Adult	16/09/23
W:440	MA55433	Dale Airfield	Pembrokeshire	Juvenile	28/08/23

Breeding season roosts again formed regularly in the Bog, although these were smaller than those of last year when numbers peaked at between 48 and 54 on three dates; there were ten roosts of 25 or more between 15th April and 15th June this year, with numbers peaking at 34 on four dates and 35 on 30th May (there were 21 roosts of 25 or more during the same period last year, with just two in 2021 and 11 in 2020). The first flying fledgling was to the west of Crab Bay on 4th July, this five days later than the first of last year and one day later than the 2014-2022 mean (the earliest during this period were recorded on 29th June last year and the latest on 11th July 2021). The largest July roosts were of only 23 on the 5th and 22 on the 8th and there were few communal roosts in August, with highs from the Neck of 39 on the 13th and 66 on the 18th; the latter was close to a 2022 August high of 68 and down on a 2021 peak of 86. Although 33 were anting on North Plain on the 2nd and daycounts peaked at 106 on the 17th, the largest September roosts were down on those of recent years; highs of 40 on North Plain on the 4th, 35 in the Bog on the 16th and 40 on North Plain on the 28th were down on peaks of 95 in 2022, 48 in 2021, 130 in 2020, 113 in 2019, 135 in 2018, 183 in 2017, 193 in 2016, 179 in 2015, 52 in 2014 and 355 in 2013. Numbers were also low in October, indeed the 25th became only the second October day this decade with no Great Black-backed Gull sighting at all; an October bird-days total of 571, although up on the 379 of last year, was otherwise the lowest this decade and was well down on a 2013-2022 mean of 1281.8 (there was a high of 3113 in 2013 when daycounts peaked at 264, this well up on October 2023 daycount highs of 41 on the 3rd and 43 on the 14th). November counts were also up on those of last year, with ten daycounts of more than ten including highs of 42 on the 1st and 29 on the 14th (three daycounts of more than ten last November peaked at 17), however a bird-days total of 314 was the second lowest of the last five Novembers (staff were present throughout in all five years). Counts during the first three days of December peaked at three on the 3rd (one of which was eating a Razorbill). The first fledgling to be seen away from the Island was on Dale Airfield on 28th August, however it proved the second year since the colour ringing project began in which a youngster was not seen in southwest England before the end of the year (the mean 2014-2021 first southwest resighting date is 29th September, with one at Newquay Harbour, Cornwall on 10th August 2019 the earliest and different birds at Gothian Sands and Newlyn Harbour (both Cornwall) on 5th December 2021 the latest).

Ringing recovery HT95457 (orange darvic with black M64:M)
Originally ringed as a chick, CALF OF MAN, ISLE OF MAN 18th July 2019
Previously recovered as a first-winter, SKOMER ISLAND, PEMBROKESHIRE 13th October 2019
Previously recovered as a first-winter, DUNGARVAN BAY, WATERFORD, IRELAND 17th February 2020
Previously recovered as a second-winter, FORLORN POINT, WEXFORD, IRELAND 3rd December 2020

Previously recovered as a third-winter, HELVICK HEAD, WATERFORD, IRELAND 26th February 2022
Recovered as a fourth-summer, NORTH POND, SKOKHOLM 14th May 2023
Finding condition Colour ring read in field
Distance travelled 263km at 188 degrees (S)
Days since ringed 1396

Ringing recovery MA55556 (red darvic with white S42:D)
Originally ringed as a chick, LAMBAY ISLAND EAST, DUBLIN, IRELAND 22nd June 2021
Previously recovered as a first-winter, PORT ORIEL, LOUTH, IRELAND 17th September 2021
Previously recovered as a second-winter, COVERACK, CORNWALL 15th January 2023
Recovered as a third-winter, NORTH PLAIN, SKOKHOLM 16th September 2023
Subsequently recovered as a third-winter, GANN ESTUARY, PEMBROKESHIRE 17th September 2023
Subsequently recovered as a third-winter, PORT ISAAC, CORNWALL 25th October 2023
Finding condition Colour ring read in field
Distance travelled 205km at 166 degrees (SSE)
Days since ringed 816

Herring Gull *Larus argentatus* **Gwylan y Penwaig**
Common Breeder Abundant Breeder in the 1970s
5 trapped (including 3 pulli), 42 resighted, 1 control
1934-1976: 13,265 trapped, 2013-2022: 178 trapped, 31 retrapped, 95 resighted, 1 control

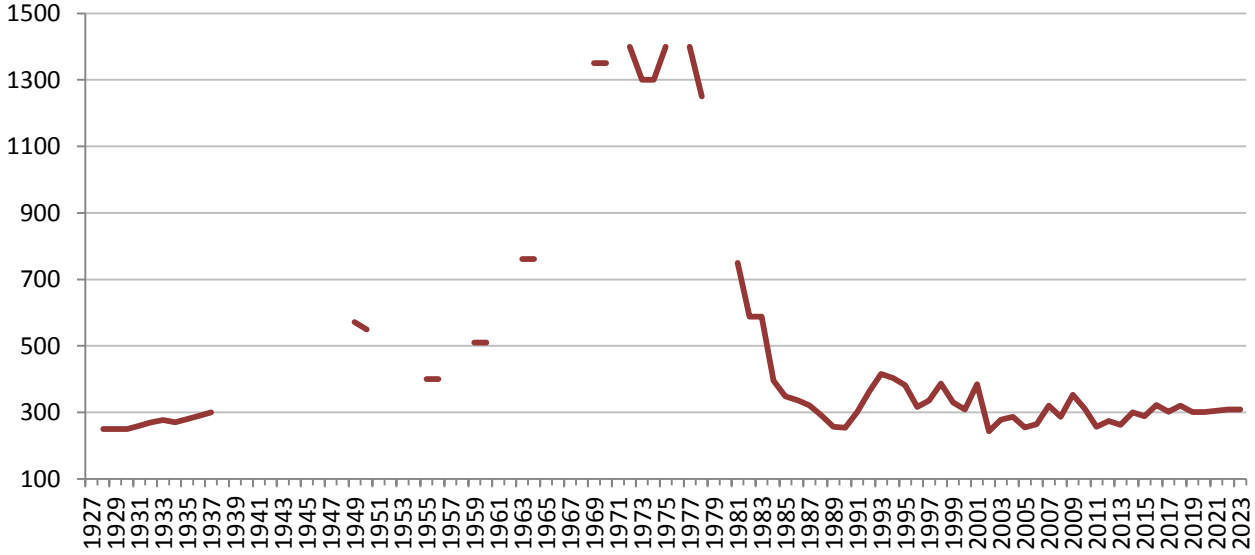
March daycounts again fluctuated widely, with 80 or less logged on ten dates, including lows of 41 on the 2nd, 28 on the 5th and 31 on the 8th when birds fed and roosted away from Skokholm, but highs of 246 on the 12th, 308 on the 17th and 282 on the 18th when many were back on territory. March roosts again included a good number of young birds, for example a North Pond roost of 48 on the 17th included 30 obvious subadults and a Neck roost of 97 on the 18th included at least 73 subadults (there were 12 younger birds in Crab Bay at the same time, a total of 85 close to the 81 logged on 3rd April); counts of subadults again contrasted with observations made of Lesser Black-backed Gulls during the same period. April checks of seemingly complete nests failed to find an egg until the 18th when one was in Purple Cove (neighbouring nests were all empty or still under construction); this was one day later than the first lone egg of last year (found in Peter's Bay), but matched the 2013-2022 first egg mean (see table below). Whole Island counts between the 13th and 16th May located 303 active nests, whilst an additional six were present on the east side of the Stack on 7th June; a total of 309 nests matched that recorded last year, this 2.6% up on the 2013-2022 mean (301.2 ±sd 16.6) but 1.8% down on the 1984-2022 mean (314.8 ±sd 44.9). This was the second

year in five in which the total has risen above the lower limit set in the Skokholm Management Plan. The number of breeding pairs has apparently stabilised at a level close to that seen in the 1930s (the 1928-1937 mean was 269.7 ±sd 17.5), counts well down on the artificial peak of the 1970s.

When in April the first egg was located in each year 2013-2023, along with the 2013-2022 mean.

2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Mean
18th	14th	25th	17th	18th	19th	18th	22nd	15th	17th	18th	**18th April**

The number of breeding pairs 1928-2023 (where data exists). The 1970s peak was attributed to the exploitation of local fish waste and the decline to botulism (Thompson, 2007).



The number of breeding pairs and productivity estimates (average number of fledglings per sample pair) 2009-2023.

2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
353	312	257	274	263	300	289	322	302	320	301	301	305	309	309
-	0.82	0.67	1.15	0.72	0.70	0.66	0.86	0.70	0.73	0.69	0.33	0.84	0.69	0.78

The monitoring of adult survival in Herring Gulls has been undertaken on Skomer for many years, however recent struggles with trapping sufficient adults to produce a reliable estimate led to the Islands Conservation Advisory Committee recommending that a project be established on Skokholm in 2017. There were 13 adults colour ringed in 2017 (all trapped on the nest), 17 in 2018 (11 on the

nest and six in the Gull Trap), ten in 2019 (nine on the nest and one in a Spring Trap), four in 2021 (all in the Gull Trap) and 36 in 2022 (one on the nest and 35 in the Gull Trap); a COVID-19 dictated staffing shortage meant that there were no adults trapped in 2020. Each bird is ringed with a red darvic inscribed W:9** or W:8** in white, the latter two digits identifying the individual. Birds trapped away from the nest are only included in the adult survival sample in years after they have been found at a nest; 26 of the 46 trapped in this way were found at a nest prior to this season and 11 of the 2021/2022 birds were found this year (and will be included in the 2024 estimate). Of the 13 birds marked in 2017, 11 bred in 2018 (84.6%). Of 26 with rings in 2018, 17 (65.4%) were still alive during the 2019 breeding season, four of these Gull Trap birds (100% survival) and 13 nest trapped birds (59.1%); two of the nest trapped birds were only seen elsewhere and were seemingly not breeding, whilst two had changed nest site (one moved 370m and one moved 837m). Of 27 with rings in 2019, 20 (74.1%) were alive in 2020, five of these Gull Trap birds (100%) and 15 nest trapped birds (68.2%); six of the nest trapped birds and two of the Gull Trap birds were not seen at a nest. All 21 with rings in 2020 were alive in 2021; five nest trapped birds and one Gull Trap bird were not found breeding (three were only seen on the mainland and two were not seen at all). Of the 22 alive in 2021, 20 (90.9%) were alive in 2022, seven of these Gull Trap birds (100%) and 13 nest trapped birds (86.7%); six of these were not seen at a nest, including two only seen on the mainland and two not seen until 2023. Of the 40 alive in 2022, 30 (75.0%) were logged this year, 20 of these Gull Trap birds (76.9%) and ten nest trapped birds (71.4%); three of these were not seen at a nest, including one only seen on the mainland. Only one adult was colour ringed this year, this taken in the Gull Trap and tracked to Hump Head (from where it went on to fledge three young).

For a sixth successive year, the only colour ring resightings away from Skokholm came from mainland Pembrokeshire.

Darvic	Ring	Location	County	Age	Date
W:988	GR77159	Gann Estuary	Pembrokeshire	Adult	02/11/23
W:978	GV22428	Gann Estuary	Pembrokeshire	Adult	07/01/23, 30/04/23, 15/12/23
W:977	GV83149	Gann Estuary	Pembrokeshire	Adult	03/03/23
W:974	GV22432	Johnston	Pembrokeshire	Adult	04/06/23, 07/07/23
W:971	GV22440	Gann Estuary	Pembrokeshire	Adult	03/03/23
W:966	GV83062	Gann Estuary	Pembrokeshire	Adult	09/01/23
W:958	GY02321	Gann Estuary	Pembrokeshire	Adult	07/01/23, 26/10/23, 27/10/23
W:953	GV83151	Gann Estuary	Pembrokeshire	Adult	24/03/23
W:950	GV83136	Gann Estuary	Pembrokeshire	Adult	24/02/23
W:897	GR87920	Gann Estuary	Pembrokeshire	Adult	03/03/23, 18/03/23, 30/04/23
W:897	GR87920	Dale	Pembrokeshire	Adult	05/07/23
W:887	GY02329	Gann Estuary	Pembrokeshire	Adult	03/03/23
W:886	GY02330	Gann Estuary	Pembrokeshire	Adult	03/03/23
W:885	GY02331	Gann Estuary	Pembrokeshire	Adult	03/03/23, 04/03/23, 10/03/23
W:883	GY02334	Gann Estuary	Pembrokeshire	Adult	10/03/23, 06/04/23
W:877	GY02339	Gann Estuary	Pembrokeshire	Adult	04/01/23
W:876	GY02366	Gann Estuary	Pembrokeshire	Adult	12/01/23
W:875	GY02369	Gann Estuary	Pembrokeshire	Adult	06/01/23
W:873	GY02365	Gann Estuary	Pembrokeshire	Adult	07/01/23, 23/03/23

There were no colour ringed birds found dead this year, the post-2017 total remaining at five. Six unringed dead adults were recorded this year, all of which were seemingly uninjured; one was to the southeast of North Pond on 1st March, one was along the south coast on 6th May, one was in Twinlet and one in South Haven on 15th June, one was to the south of Winter Pond on 4th July and one was in Crab Bay on 12th July (none were sent for HPAI testing). Additionally a bird with a broken, bloody leg near North Pond on 4th May was not seen again. There were nine dead adults found on the Island in

2022 and three in both 2021 and 2020, this year's tally thus suggesting that the H5N1 strain of highly pathogenic avian influenza did not have a serious impact this breeding season. Injured Herring Gull are encountered most years (broken limbs and puncture wounds are most common, see previous Skokholm Seabird Reports); it would seem likely that interactions with fishing gear are responsible for some of these injuries, unsurprisingly so given how this species searches around boats for food (additionally a dead bird found in 2021 was strangled by fishing line). Following four impacted birds in 2019, no incidences of oiling have been recorded for four years.

The first chick was alongside two eggs on 16th May, this in the Purple Cove nest where eggs were first seen; this was on the same date as the first chicks of last year and one day earlier than the 2017-2022 mean. The first flying fledgling was near the Top Tank on 2nd July, this five days earlier than the first of last year and two days earlier than the 2013-2022 mean; the latest first fledgling noted during this period was aloft on 10th July in 2015, the earliest on 30th June in 2016 and 2021. Checks of the Neck productivity plot during July, where 139 pairs had established nests (five more than last year), located a maximum of 109 fledging-sized young (along with five smaller chicks, none of which were thought to have gone on to fledge). The resulting 2023 productivity figure of 0.78 fledged young per pair was 13.0% up on both the 0.69 of last year and the 2013-2022 mean (0.69 ±sd 0.15); there was a high during this period of 0.86 in 2016 and a low of 0.33 in 2020, with the remaining years all seeing productivity of between 0.66 and 0.84 fledglings per pair. Disappointing 2020 productivity was linked to a period of rough May weather which resulted in low nests being destroyed by unseasonable 11 metre waves. Large seas also destroyed nests last year, the resulting productivity estimate matching the third lowest of the last decade. However the weather in May 2022 was even more unusual, with southwesterly winds gusting at up to 69mph and the Mid Channel Rock Lighthouse Beacon off St Ann's Head registering an average wave height of 11 metres and multiple waves of at least 16 metres; nevertheless overall productivity was 0.84, with the pairs not impacted by the storm doing particularly well. It remains to be seen if the more regular spring storms predicted by current climate change models will impact numbers or encourage birds to nest elsewhere.

August saw the customary post-breeding departure of both adults and fledglings, although a mean daycount of 94.0 was the third highest of the last decade and up on a 2013-2022 mean of 79.3; although there were lows of 35 on the 17th, 37 on the 19th and 12 on the 31st, there were highs of 280 on the 3rd (including 158 roosting ashore and 42 juveniles together off the Neck), 152 on the 4th and 316 on the 16th (including 210 feeding off South Haven). As is typically the case, fewer Herring

Gulls visited Skokholm in September, indeed there were fewer than in nine of the last ten years; there were 22 single-figure daycounts and none noted on the 30th, with 31 on the 1st, 220 on the 2nd (122 of which were anting on North Plain) and 38 on the 6th (32 of which were on North Plain) the only daycounts of more than 21. October counts were more typical of the last decade; although no Herring Gull were seen at all on two dates and there were a further 12 dates with single-figure daycounts, highs of 75 on the 21st, 94 on the 29th and 73 on the 31st led to a bird-days total of 854, this down on a 2013-2022 October mean of 963.7 (there were higher totals in six of these years, with a peak of 2014 in 2015). Numbers again increased in November, with birds returning to their breeding territories and the Neck becoming a regular roost site once more; although only four were logged on the last day of the month and there were 14 daycounts of between 31 and 89, six counts of 250 or more included highs of 305 on the 3rd (298 of which were in the Neck roost), 320 on the 5th (290 in the Neck roost) and 340 on the 6th (320 in the Neck roost). A November bird-days total of 3847 was 40% up on a 2013-2022 mean of 2747.4 (there were highs of 4531 in 2015, 4454 in 2016 and 4287 in 2020), although the peak daycount only matched a mean of 339.8 (there were daycount highs of 585 in 2015, 588 in 2016 and 612 in 2017, the majority of which were feeding with the smaller gulls in Broad Sound). Very few were present in early December, indeed there were only 19 on the 1st, six on the 2nd and four on the 3rd; this was quite a contrast to 2021 when large Broad Sound feeding flocks led to record daycounts of 465 on the 1st, 838 on the 2nd and 425 on the 3rd.

Ringing recovery GV04160
Originally ringed as a chick, CALDEY ISLAND, PEMBROKESHIRE 13th June 2014
Recovered as an adult, THE NECK, SKOKHOLM 6th May and 15th June 2023
Finding condition Metal ring read in field
Distance travelled 39km at 279 degrees (W)
Days since ringed 3249 and 3289

***Larus* hybrid** *Larus argentatus* x *L. fuscus* (one possible record of *L. argentatus* x *L. michahellis*)
Scarce Breeder

Although Herring x Lesser Black-backed Gull hybrids occasionally establish territories on Skokholm (photographs and further details are in the 2014 and 2015 Annual Reports), a metal ringed bird present around South Haven between 2020 and 2022 appeared more similar to a Yellow-legged Gull (see the 2020 and 2021 Annual Reports for photographs). Indeed correspondence with authorities on the Continent suggested that all of the observable features fell within the range exhibited by *L.*

michahellis. However further communications with experienced gull watchers in southeast England led to the conclusion that the washed-out leg colour and primary pattern, with the grey primary bases extending into what would typically be an extensive black outer wing, were too far removed from what is usual in this species. This ringed hybrid was paired with a Herring Gull and seen with two near-fledglings in 2021, whilst last year it was in the vicinity of its 2021 nest and seemingly paired with a Herring Gull on five March dates, although it was not seen again; there was no sign of it this year. More typical Herring x Lesser Black-backed Gull hybrids were in Crab Bay on 22nd April and 16th July, near the Hump on 17th June and in the Neck roost on the evening of 20th October.

Lesser Black-backed Gull *Larus fuscus* **Gwylan Gefnddu Leiaf**
Common Breeder previously a Very Abundant Breeder
18 trapped (including 12 pulli), 2 retrapped, 5 resighted, 2 controls
1938-1976: 11,912 trapped, 2013-2022: 671 trapped, 32 retrapped, 114 resighted, 19 controls

A mean March daycount of 466.1 was up on the 419.9 of last year, but otherwise the lowest this decade, down on a 2013-2022 mean of 585.4 and a high during that period of 827.0 in 2014 (the three lowest mean March daycounts have occurred in the last three years). The number of birds within the colonies again fluctuated considerably during the day; for example the Middle Heath colony contained 112 birds on the morning of 12th March but only two that afternoon, whilst the Frank's Point colony contained 55 birds on the morning of 14th April but 112 in the evening and 40 on the morning of the 19th but 112 again in the evening. The larger communal roosts recorded in previous years were again generally absent; the majority of early season counts were of birds on territory, with the largest roosts forming in the Bog and North Pond where there were highs of 86 on the 6th and 69 on 13th March. A more detailed description of how the gulls prepare for the breeding season was available in 2015 and 2016 due to the GPS trackers fitted by the British Trust for Ornithology in 2014 (funded by the Department of Energy and Climate Change) which gave some idea as to when birds first returned to Skokholm (see the relevant Skokholm Seabird Reports for details of return dates and the range of over-wintering strategies used); the last of the functioning trackers and the base station were removed in 2017. A daycount of 577 on the 25th was the lowest April maximum of the last 12 years, down on a 2013-2022 mean high of 1221.7; there were highs of 2109 in 2014 and 1703 in 2016, whilst the five lowest peaks have occurred in the last five years (including previous lows of 759 in 2019 and 750 last year). April nest checks at Purple Cove, Middle Heath, Green Heath and the Neck located two eggs at the former site on the 23rd (in the same nest); these were one day earlier than the first two of last year and four days earlier than the 2013-2022 mean, indeed they were the earliest of the last 11 years.

When the first egg was located in each year 2013-2023, along with the 2013-2022 first egg mean.

2013	2014	2015	2016	2017	2018
3rd May	24th April	4th May	25th April	1st May	26th April
2019	**2020**	**2021**	**2022**	**2023**	**Mean**
28th April	25th April	24th April	24th April	23rd April	**27th April**

Vantage point counts of the inland breeding subcolonies and a full census of the coast nesting pairs were made between the 13th and 18th May, during which 643 apparently incubating adults were located; this was the lowest count in over 50 years, a total down on the 750 of 2022 and 37.2% down on the 2014-2022 mean (1023.7 ±sd 253.9). In an effort to reduce disturbance in the colony, the Islands Conservation Advisory Committee has suggested that the walkthrough surveys, which have traditionally been used to check the accuracy of the point counts, are no longer performed annually; there was thus no walkthrough for a fourth year (the lack of a walkthrough in 2020 was due to a COVID-19 dictated lack of personnel). The number of apparently incubating adults (as assessed using the vantage point counts) and the number of nests containing eggs (as located during walkthrough surveys) invariably differ, primarily due to incubating birds being hidden by vegetation

(particularly in areas where there are no raised vantage points). Between 2013 and 2019 there were on average 12.83% more nests containing eggs than apparently incubating adults (although this was as low as 0.82% in a year with a particularly short breeding season sward height and as high as 27.32% when vegetation was taller (see table below)). The walkthrough surveys also reveal a variable number of empty nests; over the period 1991-2002 the count of empty nests varied from 11-44% of the total number of nests (with a mean of 22.7% (Thompson, 2007)), although between 2013 and 2019 this dropped to between 4.98% and 17.62% (with a mean of 14.03%). It is unclear whether empty nests are second nests made by the pairs present, nests robbed of eggs or nests where adults are yet to lay. The breeding season is certainly a protracted one, with the first three 2023 chicks located on 24th May (the 2013-2022 mean is 24th May, with one on the 18th in 2021 the earliest and one on 6th June 2015 the latest), but a nest near the Top Tank containing recently hatched young on 2nd July, the latter four days before the first flying fledglings were recorded at Purple Cove (the 2016-2022 first fledgling mean is 5th July, with the earliest on 30th June 2020). It would thus seem likely that some (but given their extremely close proximity to each other, not all), empty nests belong to additional pairs. Between 2013 and 2019 the total number of nests (including empty nests) was between 20.68% and 43.45% higher than the vantage point total (with a mean of 31.36%, see table below).

Of the 643 apparently incubating adults counted this year, 92 were in open (primarily coastal) areas where it was apparent that additional pairs were not present. A mean 2013-2019 correction factor of 1.13 (see table below) would suggest that the remaining 551 apparently incubating birds actually represented a total of 623 nests with eggs (giving a 2023 breeding population estimate of 715); this is the lowest estimate of the post-War era, 14.2% down on the previous low of 833 recorded in 2022 and 37.6% down on the 2014-2022 mean (1146.2 ±sd 271.1). A mean 2013-2019 correction factor of 1.31 would suggest that the remaining 551 apparently incubating birds actually represented a total of 722 nests (including empty nests); this gives a 2023 breeding population estimate of 814, a total 38.6% down on the equivalent 2014-2022 mean (1326.3 ±sd 348.4) and only the second such post-War estimate of less than four-figures (following the 947 of last year). The actual number of breeding pairs probably lies somewhere between these two estimates (715-814). It was again clear during the vantage point surveys that the vegetation was taller and thicker than usual this year; it is thus possible that the estimate of inland pairs (using the 2013-2019 mean correction factor) will be lower than what was actually present. However, even if we use a 2017 correction factor of 1.27 (that generated in a year with similar thick vegetation), the 2023 whole Island estimate would only be 792 (which is still down on the 833 predicted using the mean correction factor last year).

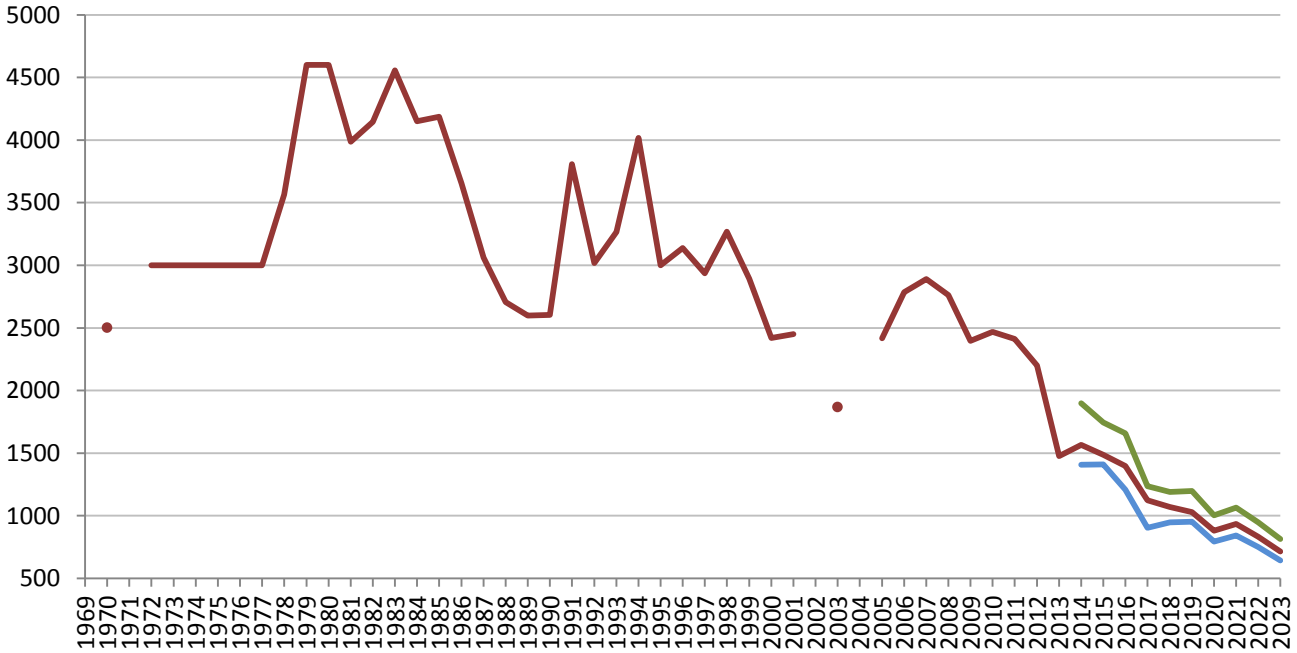
A comparison of vantage point counts (of apparently incubating adults) and the number of nests (both empty and with eggs) located during walkthrough surveys of the same areas. The difference each year provided a correction factor to predict the number of nests (both empty and with eggs) which were actually present. The 2013-2019 means may be useful in years when walkthrough surveys are not possible/desirable.

Year	Vantage point count	Walk through count	Empty/	With egg(s)	Percentage of empty nests	Difference between counts (%)*	Correction (no empty nests)	Difference between counts (%)**	Correction (including empty nests)
2019	194aia	251	39	212	15.54	9.28	1.09	29.38	1.29
2018	266aia	321	16	305	4.98	14.66	1.15	20.68	1.21
2017	366aia	517	51	466	9.86	27.32	1.27	41.26	1.41
2016	550aia	789	139	650	17.62	18.18	1.18	43.45	1.43
2015	493aia	636	110	526	17.30	6.69	1.07	29.01	1.29
2014	613aia	827	135	692	16.32	12.89	1.13	34.91	1.35
2013	245aia	296	49	247	16.55	0.82	1.01	20.82	1.21
Mean					**14.03**	**12.83**	**1.13**	**31.36**	**1.31**

* How many more nests (containing eggs) were present than the number of apparently incubating birds seen (as a percentage).

** How many more nests (including empty nests) were present than the number of apparently incubating birds seen (as a percentage).

The total number of Lesser Black-backed Gull breeding pairs 1970-2023. Control measures started in 1984 (destruction of nests) and stopped in 1998. The green line is the population estimate if all empty nests are assumed to belong to additional pairs. The maroon line is the corrected population estimate based on a comparison of vantage point counts and the number of nests which contained eggs. The blue line is the uncorrected vantage point count total (of apparently incubating adults). A lack of walkthrough surveys means that the corrected 2020-2023 totals are based on the 2013-2019 means.



Lesser Black-backed Gull productivity is typically assessed by entering various subcolonies to ring as many near-fledglings as possible, the BTO rings becoming marks for a mark/resighting population estimate. However it has lately proven difficult to resight sufficient ringed fledglings to allow for a meaningful evaluation. In an attempt to increase the number of resightings, recent years have seen

staff and volunteers re-enter the subcolonies (rather than observing fledglings at a distance with a telescope (below photograph)). A simple calculation, '(number ringed on first visit x number checked for rings on second visit) / number of birds found to have rings on second visit', predicts the number of near-fledglings within an area (which can then be compared with the number of pairs thought to have been present). Whereas the walkthrough surveys allowed for an accurate assessment of how many nests were in an area, a lack of walkthroughs from 2020 onwards means that productivity estimates are less accurate (as they are based on corrected vantage point counts); given that the vegetation was again dense this year, productivity at the inland site may have been lower than that given below (as there may have been more pairs present than predicted using the mean correction). Visits to the Middle Heath and Green Rocks area during early July suggested that 40 near-fledglings had been produced by 59 pairs (the uncorrected vantage point count for this area was 52 pairs); the resulting productivity figure of 0.68 fledglings per pair was the third highest inland estimate of the last 11 years. The coastal slopes of Purple Cove were investigated for a seventh year as this discreet subcolony, with very short sward or rocky substrate, is seemingly suitable for an accurate fledgling count using only a telescope; here 43 pairs produced a minimum of 31 fledglings, giving a productivity figure of 0.72 fledglings per pair (the 2017-2022 Purple Cove mean is 0.84 ±se 0.12, with a high of 1.21 in 2018 and a low of 0.54 in 2022). Purple Cove productivity has proven to be higher than that observed inland in each of the last seven years (albeit only marginally so in the last three years), this fitting ad hoc observations and perhaps supporting the theory that birds in larger, denser subcolonies are struggling in part due to the intraspecific depredation of small chicks.

Lesser Black-backed Gull productivity estimates 2008-2023 (where data exists).

2008	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
0.27	0.03	0.16	0.16	0.30	0.15	0.23	0.38	0.63	0.27	0.12	0.89	0.53	0.70

Combining data from Purple Cove and Middle Heath suggests that 102 pairs fledged 71 young; a combined productivity figure of 0.70 is the second highest estimate of the last decade, this 89.2% up on the 2013-2022 mean of 0.37 ±se 0.08 (there was a high during this period of 0.89 in 2021 and a low of 0.12 in 2020). It is unclear why productivity was above average this year. Ad hoc observations broadly mirrored the estimate; although fledglings across North Pond and North Plain could potentially have come from anywhere on Skokholm (and possibly elsewhere), a maximum of 93 on 24th July was the second highest count of the last six years (only down on the 136 present in 2021 when productivity was thought to be higher than in any other year this decade). Although it should be remembered that the breeding population has fallen considerably during the same period, the 2014-2022 mean maximum is 102.8, with a high of 141 in 2014.

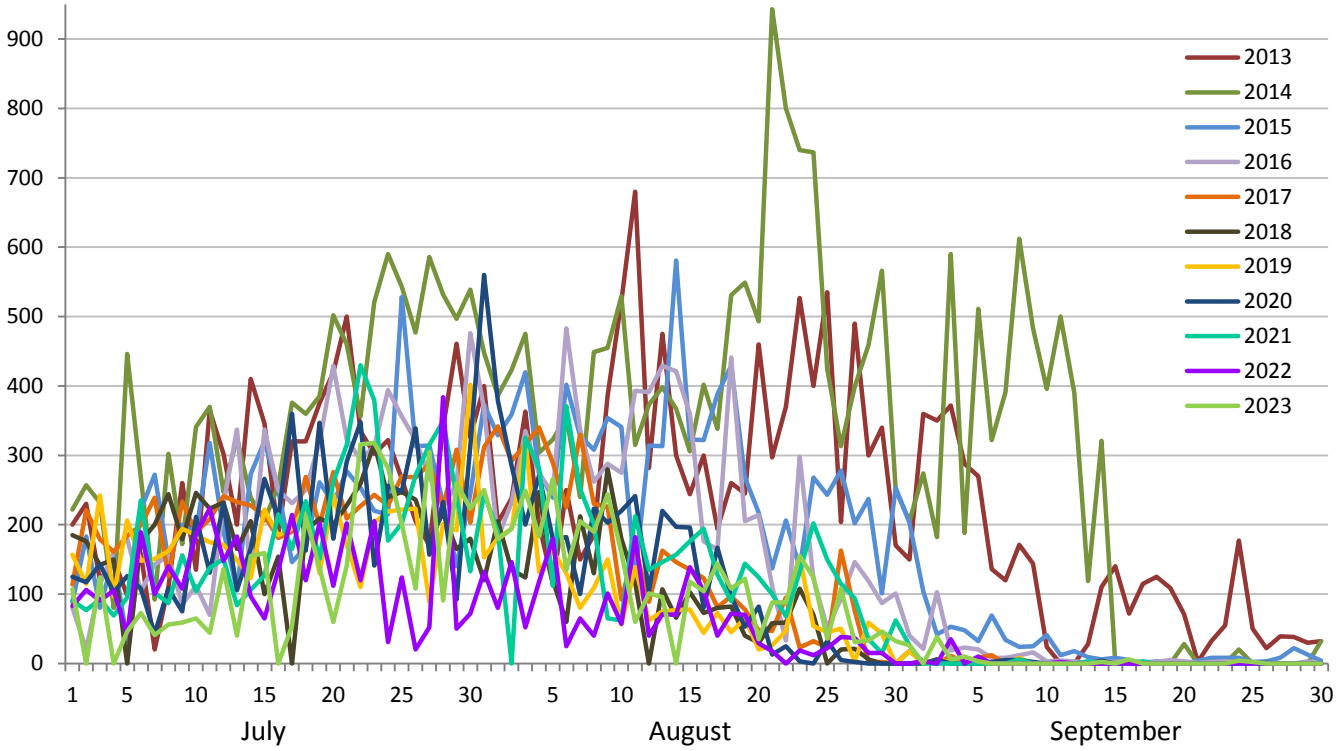
Although poor productivity is seemingly driving the decline in the Skokholm breeding population, it also seems possible that disease may be taking its toll in some years. There were ten dead adults

encountered this year, six of which were found dead with no indication as to what had happened; birds were found at Crab Bay on 7th March, in the Bog on 1st May, in Peter's Bay on 17th June, at North Pond on 26th June and on North Plain on 21st July and 3rd August. Additionally a third-summer at the Top Tank had a bloody head injury on 29th April, an adult at the Cutting with a bloody broken wing on 3rd May walked to Frank's Point and was at Spy Rock between the 6th and 9th (it was not found dead), an adult with a broken wing at North Pond on the morning of 7th June was dead that afternoon, an adult on the Neck with a broken wing on 13th June had reached the Well by the 15th and was dead on the 16th, a bloody adult missing both feet along North Pond Wall on 20th June was dead the following day, a first-summer at North Pond on 20th June had a broken wing (it was not seen again), a second-summer along the south coast had a broken leg on 20th June, an adult with a broken wing on Home Meadow on 6th July was later found dead and an adult on North Plain had two broken legs on 19th July. There were nine non-juveniles found dead last year (including one shot using an air gun), 14 adults in 2021 (along with one which had recently lost a leg), 11 adults in 2020 (including an uncoordinated bird (with a clean vent) found dead two days later, but not including two live birds with broken wings, one with a broken leg and one missing a foot), two adults in 2019, 15 adults in 2018 (including a bird with a particularly dirty vent and a bird handed in live from a passing boat), three dead adults in 2017 and 21 dead adults in 2016 (which were thought to be diseased or poisoned, with the period before death characterised by very lethargic behaviour, fine shaking and an eventual loss of limb control (similar symptoms were seen in 2018 and 2021)). Although it is possible that aggressive interactions with other birds may have caused some deaths (indeed one body was inverted in much the same way as that of a Manx Shearwater), amputations likely result from human interaction (probably with the fishing industry), whilst disease or poisoning seem likely in many cases where intact bodies are found (HPAI was not suspected).

As is typically the case, the number of birds using traditional roost sites increased during July; North Plain and the area around North Pond again proved to be the usual site for the largest post-breeding roost, with smaller numbers congregating at South Pond and on the Neck. This year saw the July roost peak at 318 on the 23rd; this was the third lowest July peak this decade, down on a 2013-2022 mean of 449.5 and a high during that period of 590 in 2014. A cumulative July total of 4064 roosting birds was 23 more than last year's tally but otherwise the lowest of the last 11 years and well down on highs of 8353 in 2013 and 11,226 in 2014. Whereas roost counts between 2013 and 2017 peaked in August, the last six years have seen a more rapid departure of birds from the Island. This year saw an August peak of 266 on the 5th, this up on an August 2022 high of 182 but otherwise the lowest

maximum of the last 11 years (the 2013-2022 mean high is 456.5, with a peak of 943 in 2014). An August total of 3660 roosting birds was also up on last year, but down on a 2013-2022 mean of 5959.2 (between 2013 and 2015 the August total ranged between 8903 and 13,849, there were 7306 in 2016 and no more than 4364 since). The last three-figure roost count of the year was the 108 present on 26th August; this was ten days later than the last such count of 2022 and on the same date as the last of 2021 (between 2013 and 2016 the last three-figure roost counts were logged in September). September again proved to be quiet, with only 71 roosting birds noted during the month; although up on totals of between eight and 50 logged in each year between 2017 and 2022, the September roost total was in three-figures in 2015 and 2016, whilst in 2013 and 2014 it was in four (with a high of 5359 in 2014).

The number of Lesser Black-backed Gulls roosting on North Plain and in the vicinity of North Pond 2013-2023.



A flightless juvenile with a drooped wing was present to the north of the Pedestal on 11th September, this individual regularly guarded and fed by both aggressive parents until 8th October when it was seen in flight (having presumably recovered from a wing strain or fracture); none of the three birds were knowingly encountered thereafter. These lingering birds, along with daycount highs of 17 on the 2nd and 13 on the 12th and 15th, contributed to an October bird-days total of 104, this the highest October tally since the 166 of 2016 (there was a 21st century high of 658 in 2013). November also proved more productive than of late, with sightings on all but three dates and highs of 19 on the 7th (18 on North Pond), 54 at North Pond on the 20th and 20 there on the 23rd and 26th; a November bird-days total of 255, although down on the 277 of 2020, was otherwise the highest this century and up on a 2013-2022 mean of 156.7 (this was the tenth year this century in which staff were present throughout the month). Two adults on the 1st was the only December sighting prior to a staff departure on the 3rd.

Ringing recovery Left leg white darvic with black N:M3M, Right tibia 6009695
Originally ringed as an adult male, R.S.U. LOS RUICES DUMP, MALAGA, SPAIN 22nd October 2022
Recovered as an adult, SPY ROCK, SKOKHOLM 21st and 22nd April and 1st May 2023
Finding condition Darvic ring read in field

Distance travelled 1664km at 353 degrees (N)
Days since ringed 181, 182 and 191

Ringing recovery Left leg green darvic with black 3NF, Right leg FH07803
Originally ringed as a juvenile, FLAT HOLM ISLAND, CARDIFF 2nd July 2006
Previously recovered as a juvenile, GLOUCESTER LANDFILL, GLOUCESTERSHIRE 17th July 2006
Previously recovered as an adult, GLOUCESTER LANDFILL, GLOUCESTERSHIRE 30th June 2010
Previously recovered as an adult, QUARTEIRA, FARO, PORTUGAL 6th and 8th October 2010
Previously recovered as an adult, FIGUEIRA DA FOZ, COIMBRA, PORTUGAL 10th November 2011
Previously recovered as an adult, EAST BOG, SKOKHOLM 31st July 2022
Recovered as an adult, EAST BOG, SKOKHOLM 17th March and 22nd, 23rd and 27th April 2023
Finding condition Darvic ring read in field
Distance travelled 154km at 283 degrees (WNW)
Days since ringed 6102, 6138, 6139 and 6143
Given that this individual has now been seen five times in under two years, it would seem likely that it has recently switched nest site to an area closer to the Skokholm path network.

Ringing recovery GV83171
Originally ringed as a chick, SKOKHOLM 9th July 2021
Recovered as a second-winter, TORREIRA, AVEIRO, PORTUGAL 23rd February 2023
Finding condition Unidentified gull found freshly dead
Distance travelled 1241km at 193 degrees (SSW)
Days since ringed 594

The birds previously carrying GPS tags, along with an additional 48 non-tagged controls, were all fitted with yellow darvic rings with a black alpha-numeric code (number/letter:W e.g. 5A:W) in 2014. The colour ring is on the left leg and a BTO metal ring on the right. Although the number of encounters logged each year is unsurprisingly declining, the darvic rings have yielded a fantastic number of field resightings; the 73 ringed birds have produced 184 separate resightings of 38 different individuals away from Skokholm. The table below summarises resightings received since similar tables were published in the 2014-2022 Seabird Reports. As has been shown by the British Trust for Ornithology GPS tracking project on Skokholm, and at other British Trust for Ornithology tracking sites (Ross-Smith, *pers. comm.*), Lesser Black-backed Gulls show a high degree of wintering site fidelity; this is reflected in the colour ringing data, with 19 birds having been resighted at the same location in more than one winter. Records of returning birds have come from several sites in Portugal and Spain, along with two in France, one in the Channel Islands and one in Morocco. This year saw 9J:W in Malaga Harbour for at least a fifth winter (it was there 2017-2018, 2018-2019, 2019-2020 and 2020-2021), but also at a new site in Cadiz (it was seen in Barbate Harbour, 51km to the south of Cadiz, in the winters of 2014-2015, 2015-2016, 2016-2017, 2020-2021 and 2022-2023). Five different individuals were seen on Skokholm this year.

Darvic	Ring	Location	Country	Date
9J:W	GR98265	Malaga Harbour	Spain	07/01/23
9J:W	GR98265	La Caleta, Cadiz	Spain	28/11/23

Sandwich Tern *Thalasseus sandvicensis* **Môr-wennol Bigddu**
Uncommon although Scarce in all but one year between 2006 and 2012
Earliest 29th March 1984 (29th April 2023) **Latest** 25th October 1967 (3rd October 2023)

A vocal bird in a foggy South Haven on 29th April was the only sighting during the first three months of the season; there have been 172 previous bird-days logged in March, April or May, including 36 between 2014 and 2019 and highs of 20 in both 1980 and 2016. A minimum of eight lingered off

South Haven and the Stack on 12th June, whilst one was off the Stack the following day, at least five were off South Haven on the 17th and at least two were calling after dark on the 21st; nine in 1982 and ten in 1989 and 2002 are the only higher June daycounts, whilst a June bird-days total of 16 was only down on the 24 of 1989 (there have been 113 previous June bird-days). There were no July birds for the fourth time in 12 years. The only August records were of two on the 13th and seven on the 20th; sightings in 41 previous Augusts peaked at 65 in 1983, 32 in 1992 and 34 in 1993, although the 2013-2022 bird-days mean is just 5.9. The only September sighting was of seven loafing on a floating pallet on the 7th; the 1038 bird-days now logged in September is considerably more than in any other month (411 in August is the next highest tally), with peaks of 103 in 1966, 82 in 1994 and 60 in 2011 being well up on a 2013-2022 mean of 14.1. Three in Broad Sound on 3rd October were the last of the year; there have been 101 later bird-days, 12 of which have been this century.

Common Tern *Sterna hirundo* **Môr-wennol Gyffredin**
Uncommon but 'commic' terns Common in some years. Bred at the Stack in 1894 but gone by 1916
1936-1976: 1 trapped

Singles off Little Bay on 25th September and in Broad Sound the following day were the only definite sightings this year; a bird-days total of two was down on a 2013-2022 mean of 14.4 and well down on all-time highs of 66 in 1993, 47 in 2003 and 77 in 2015 (there were peak daycounts of 23 in 1992, 21 in 2003 and 71 in 2015). Additional records of *Sterna* terns too distant to identify are listed below under Arctic Tern.

Arctic Tern *Sterna paradisaea* **Môr-wennol y Gogledd**
Uncommon sometimes Fairly Common or Scarce, with unidentified 'commics' Common on occasion
Earliest 18th April 2018 (2nd September 2023) **Latest** 27th October 2017 (26th September 2023)
1963-1967: 3 trapped

There were no spring records; a total of 35 bird-days have been logged between April and June, including six this century (with one in 2001, four in 2016 and one in 2018). Indeed the only records this year were in September, with five heading west off the Lighthouse on the 2nd and eight in Broad Sound on the 26th. A bird-days total of 13 was down on a 2013-2022 mean of 60.6 and on highs during this period of 91 in 2018, 229 in 2020 and 128 last year (the only other three-figure annual total is the 149 of 1997, whilst the peak daycounts are of 130 on 1st September 1997, 71 on 13th September 2016 and 78 on 5th September 2022). Additionally there were unidentified 'commic' terns logged on six dates, with one off Crab Bay on 10th April, two off South Haven on 15th May and September counts of 11 on the 2nd, eight on the 25th and singles in Broad Sound on the 26th and 28th; a bird-days total of 24 was the third lowest of the last 11 years, down on a 2013-2022 mean of 150.5 and highs during this period of 198 in 2018, 436 in 2020 and 542 in 2022 (the only totals up on that of last year are the 582 of 1957, the 1400 of 1958, the 578 of 1977 and the 713 of 2011).

Arctic Skua *Stercorarius parasiticus* **Sgiwen y Gogledd**
Uncommon sometimes Scarce
Earliest 9th April 1996 (28th April 2023) **Latest** 15th November 2020 (28th September 2023)

A dark adult photographed from the Lighthouse on 28th April was just the seventh to be seen in this month and the first since 1996 (DJ); there have now been 55 bird-days logged in April, May or June, with seven this decade and highs of eight in 1982, seven in 1993 and six in 2002. An all-time July bird-days total of 31, the most recent of which was in 2020, was not added to. Lone dark birds on the 2nd and 5th were the only August records; there have now been 115 August bird-days, with 29 since 2015 and highs of 15 in 1957 and nine in 2015. September saw sightings on nine dates to the 28th, with two on the 1st, five on the 14th, three on the 24th and a minimum of 11 on the 27th the only daycounts of more than one (11 went east through Broad Sound on the morning of the 27th, with 11

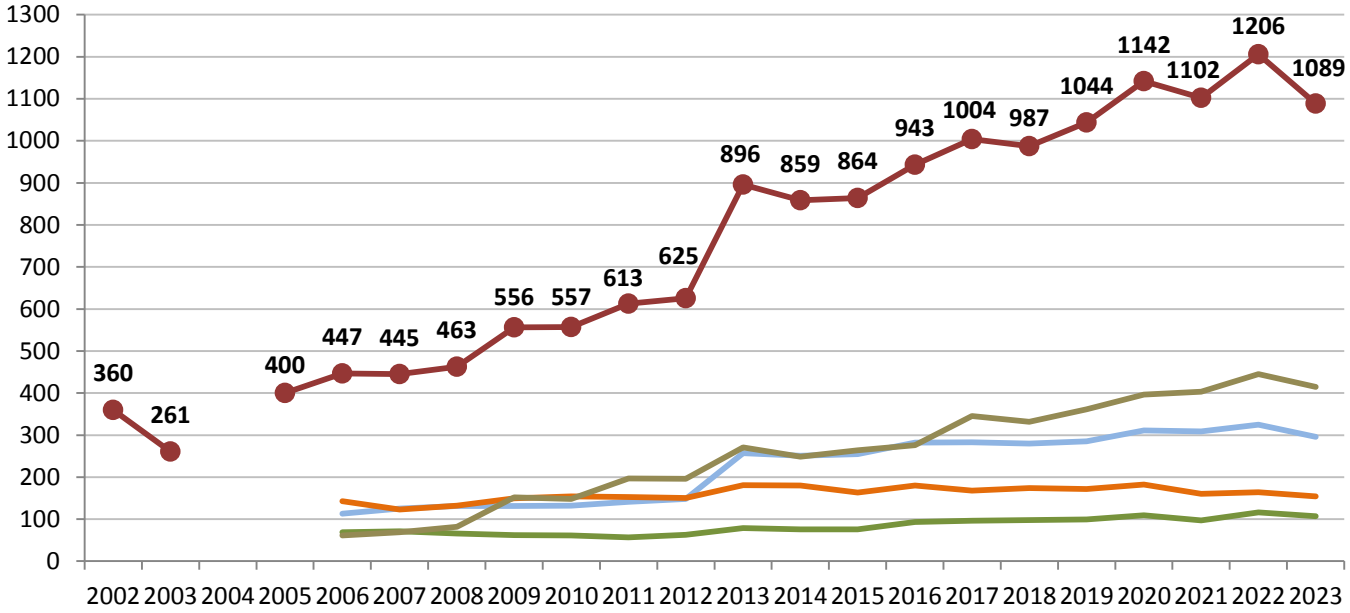
heading back west that afternoon probably including at least some of the same individuals); the peak daycount was only down on an astonishing 63 recorded on 5th September 2004. Unusually a dark subadult flew low over the Neck on 16th September (ACC, photograph below). A September bird-days total of 26 was the fourth highest to date, up on a 2013-2022 mean of 6.7 and only down on highs of 50 in 1980, 27 in 1993 and 67 in 2004. There were no October or November sightings; there have been 74 previous October bird-days logged over 20 years, with a high of 19 in 2019, and single November bird-days in 2020 and 2022. An annual bird-days total of 29 was up on a 2013-2022 mean of 13.7 and only down on highs of 51 in 1980, 36 in 1993, 67 in 2004 (courtesy of that remarkable daycount) and 30 in 2017.

Guillemot *Uria aalge* **Gwylog**
Very Abundant Breeder Common during the period 1928-1996, numbers then increasing rapidly
2 controls
1936-1976: 1021 trapped, 2014-2022: 7 pulli trapped, 25 controls

The mean March daycount was 511.2, this less than half the all-time high of 1159.6 recorded last year and down on a 2013-2022 mean of 610.1; there were 16 dates without a sighting (ten last year) and a further five dates when between two and five were encountered (five last year), but highs of 2973 on the 5th, 2341 on the 17th and 3087 on the 18th (the 2022 March daycount high was a record 4306, whilst the 2013-2022 mean is 2993.9). Customary departures for the sea continued in April, with 20 dates when counts of less than 600 were logged (including two dates without a sighting and 12 dates with between one and 19 birds present); there were 16 similar mass April departures last year, nine during an unprecedentedly early 2019 breeding season and an average of 15.1 between 2013 and 2022 (with highs of 25 in 2013 and 20 in 2014). A minimum of 3610 on the 23rd was the third highest April peak to date, a tally down on the 3971 of 2020 and the 3725 of 2021. The first egg to be found was at Middlerock on 1st May, this on the same date as the 2013-2022 first egg mean; the first 2019 egg (which was believed to be the earliest yet recorded in Wales (Birkhead, *pers. comm.*)) was found on 18th April and was perhaps the result of unusually high sea surface temperatures (Burton, M., 2019), however the only other earlier eggs during this period were found on the 29th in 2017 and on the 27th in 2020, 2021 and 2022 (the latest egg during this period, found on 15th May 2014, followed a winter of prolonged storms and significant auk wrecks). Early eggs are likely to be at risk during spring storms, as was the case on the night of 26th April 2019 when Storm Hannah encouraged the majority of auks back to sea (leaving those incubating birds which managed

to protect their early eggs from the storm more exposed to predators). Exceptional 16 metre seas during the 20th and 21st May 2021 led to the loss of many eggs from the more exposed ledges, an unseasonable disruption which probably altered the number of adults present on at least some areas of cliff during the 2021 survey period. May weather was more clement in 2022, although an eight metre sea on the night of 17th May, which destroyed both Razorbill and Herring Gull eggs, may have impacted Guillemots. No major weather events were recorded this breeding season.

The total number of adult Guillemot in all six study plots 2002-2023 (as an average from ten visits) and the totals from the four largest plots since 2006 (as an average from ten visits).



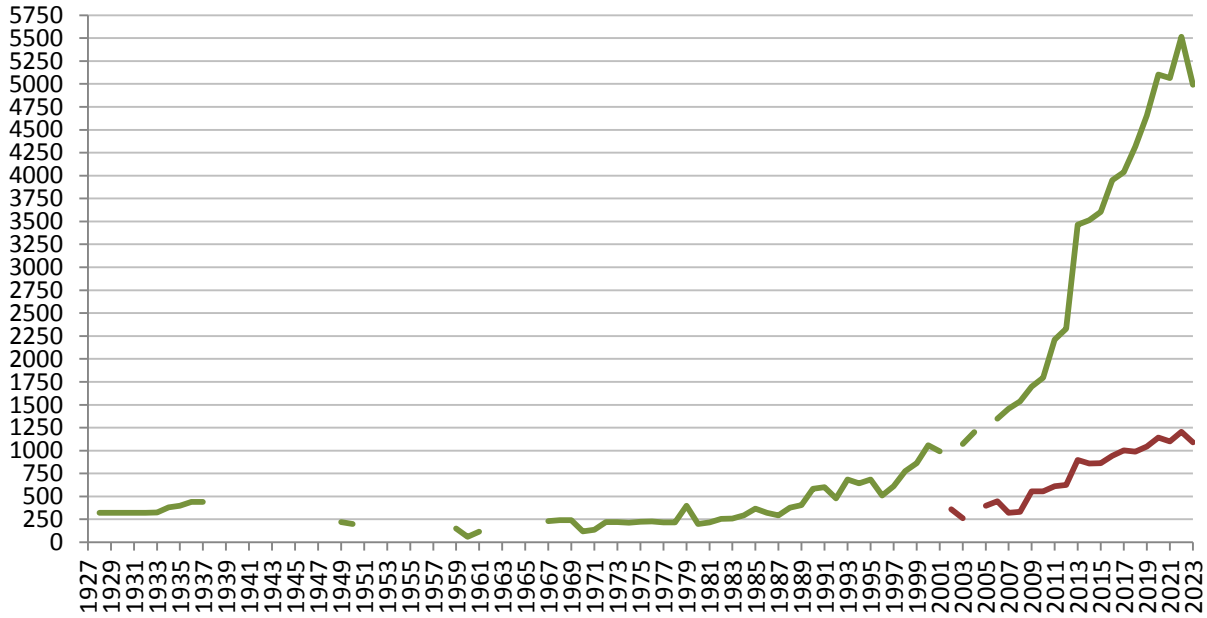
The whole Island totals (adults on ledges suitable for breeding), mean plot totals, the range of totals over ten study plot visits, the standard deviation observed over the ten visits and the percentage of the Island total made up of study plot birds 2014-2023.

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Island	3512	3603	3949	4038	4316	4654	5101	5065	5515	4992
Plots	859	864	943	1004	987	1044	1142	1102	1206	1089
Range	797-947	756-939	887-1003	939-1144	937-1060	982-1140	1069-1213	1012-1209	1144-1318	1035-1150
±SD	54.25	58.30	40.25	57.45	37.38	54.40	50.57	68.55	55.19	39.88
Plot %	24.5	24.0	23.9	24.9	22.9	22.4	22.4	21.8	21.9	21.8

The six study plots were counted on ten dates between 29th May and 9th June. The mean total from all plots was 1089 adults on ledges; this was 9.7% down on that recorded last year, but 8.4% up on the 2013-2022 mean (1004.7 ±sd 119.0) and the fourth highest total yet recorded. The mean declined in all six plots, with the largest drop at Middlerock where an average of 37 adults on ledges was 28.8% down on the 52 of last year and the lowest mean yet recorded (down on the 43 of 2007). A 23.1% decline was seen on the slope to Purple Cove, where the mean dropped from 104 to 80, the latter the fourth highest total yet recorded (there were 85 in 2020 and 2021). A Little Bay mean of 296 was also the fourth highest to date, down on the 311 of 2020, the 309 of 2021 and 8.9% down on the 325 of last year. A Steep Bay mean of 107 was the third highest, down on the 109 of 2020 and 7.8% down on the 116 of last year. Although a North Gully mean of 415 was 6.7% down on the 445 of last year, it was the second highest to date. The smallest drop was seen on Guillemot Cliff where a mean of 154 was 6.1% down on the 164 of last year; nevertheless the mean was the lowest since 2012, down on a 2013-2022 mean of 172.4 and a high during that period of 182 in 2020. Previous reports have suggested that this drop in the number of birds using Guillemot Cliff, along with the decline seen on Middlerock, may be due in part to an increase in Fulmar numbers; although the

number of Fulmar pairs in these Twinlet plots dropped by two this year, there were still 67% more pairs nesting than in 2013, the petrels perhaps excluding auks from previously occupied areas and halting any further expansion of auks along their current ledges. Although Fulmar-free ledges apparently suitable for colonisation by cliff nesting auks are present within the study plot boundaries, these new areas were not utilised this year. The only other plot which contains Fulmar is at Little Bay, however numbers here have declined from a high of 19 in 2013 to only 12 in 2023, this no doubt reducing any impact on the auks. The remaining three plots did not contain Fulmar this year. The Twinlet counts will again have been impacted by a pair of Crows which nested in Steep Bay; this pair specialised in taking the eggs and young of Guillemots, with one Crow grabbing an auk until they tumbled towards the sea, this allowing the second bird to snatch unattended ledge contents. Despite the potential impacts of Fulmars and Crows, it would seem certain that the 9.7% drop in the number of plot Guillemots was driven by other factors.

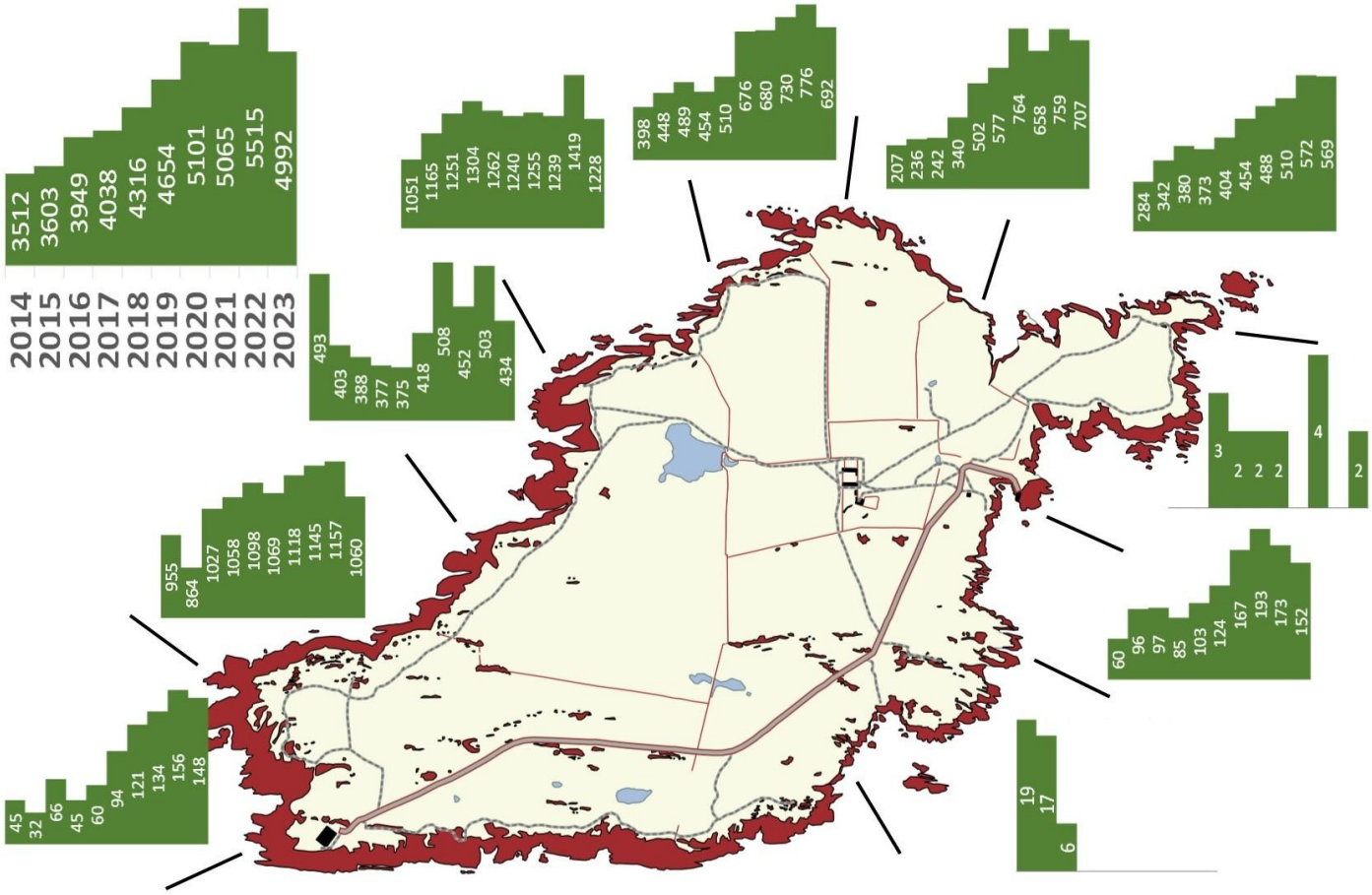
The total number of Guillemots (adults on ledges suitable for breeding) recorded on Skokholm since 1928 and the number of birds within the study plots since 2002.



Whole Island counts were made from the land between the 1st and 11th June and calm seas allowed for a boat-based survey on 7th June. Boat-based surveys allow some areas to be monitored which

cannot be viewed from on the Island and enable closer access to some areas which can normally only be viewed at a distance; they have not always been available, with 2012 the last year in which there was not at least one boat survey. A mean total of 4992 adults in suitable breeding habitat was 9.5% down on the 2022 count but the fourth highest tally yet recorded on Skokholm (also down on the 5101 of 2020 and the 5065 of 2021). The proportion of the whole Island total made up of study plot birds (21.8%) matched that of 2021 and almost matched the 21.9% of last year, but was down on the 2006-2022 mean of 25.3% and matched the fourth lowest on record. This was only the second time since 2001 in which the mean whole Island total has declined, the drop the largest since the 25.6% decline observed between 1995 and 1996 (and the largest numerical decline to date, with drops of 200 birds between 1979 and 1980 and of 175 birds between 1995 and 1996 the previous highs). It is tempting to attribute the decline to avian influenza, although it would seem that the drop in numbers occurred prior to, rather than during, the 2023 breeding season; the plots at Twinlet and North Gully were again counted on nearly every day of the season (see chart below), with the mean May total for 2023 (510.23 adults on ledges) being 12.2% down on a 2022 mean of 581.33 (this greater than the 9.7% decline seen during the plot count period (see above)). Nevertheless a dead adult was in the North Gully plot from 3rd July, this an unusual sight on Skokholm; it was not accessible for HPAI testing (see below for the post-breeding impact of HPAI).

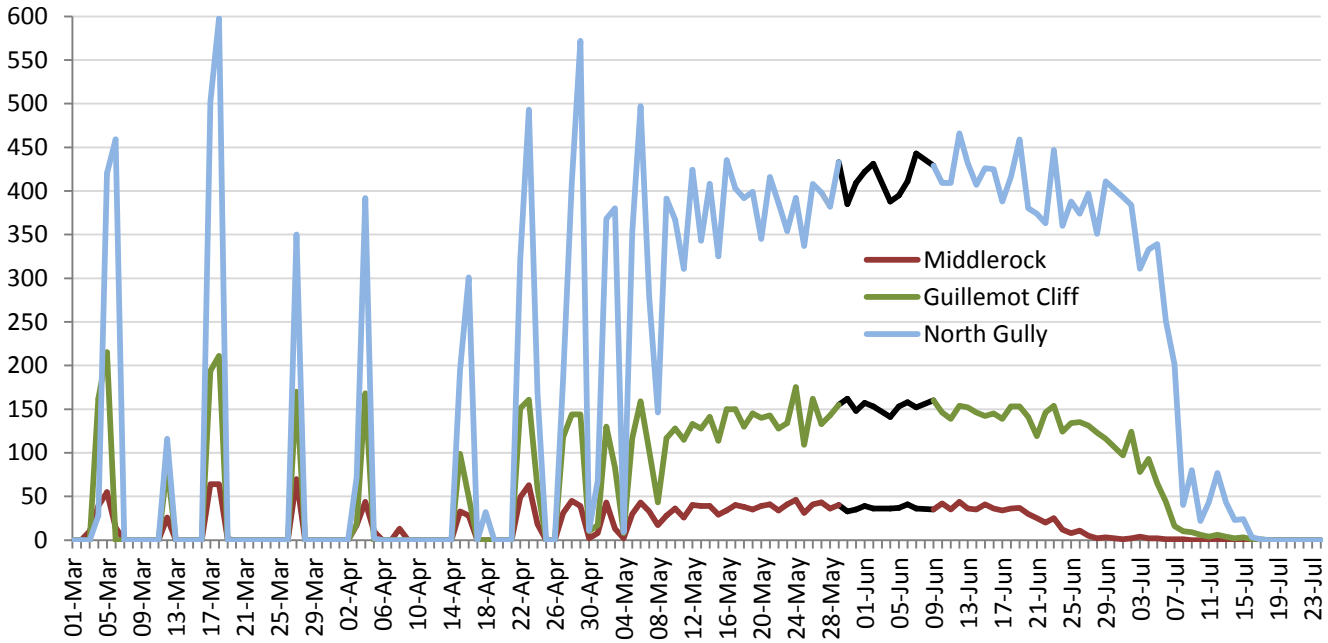
The distribution of Guillemots on suitable breeding ledges 2014-2023.



As can be seen from the above map, there were numerical declines in all bar two areas; the area around Crab Bay was again free of Guillemots (they last occupied ledges in 2016), whilst an average of two birds joined the Razorbills in Peter's Bay following an absence last year. The largest drop in numbers was seen in the area between the Jogs and the Dents where there were, on average, 191 fewer individuals (this a 13.5% decline). The largest proportional decline was seen between Twinlet and Purple Cove where there were 13.7% fewer adults on ledges (69 fewer birds). There was a 5.1% decline around the Quarry, an 8.4% decline around the Bluffs, a 10.8% decline around Little Bay, a

6.9% decline between Smith's and Far Bays and a 12.1% decline around Hog Bay. An average of only three birds were missing from the north coast of the Neck and the Stack, this a 0.5% decline. These counts of individuals on ledges potentially include incubating adults, some of their partners, failed breeders, non-breeding adults and younger birds yet to pair; a correction factor is thus sometimes adopted to convert the count to an estimate of breeding pairs (Harris *et al*., 2015). A 2015 survey on Skokholm found the correction factor to be 0.64, a figure close to the 0.67 widely adopted in previous studies (see the Skokholm Seabird Report 2015); the latter correction factor predicts the Skokholm breeding population to be in the region of 3345 pairs, this 350 fewer than last year.

The number of adults on ledges within three of the plots (standard survey period in black).



The first chick to be seen this year had only just hatched, this at Middlerock on 4th June; this was four days later than the first to be seen last year (which was also at Middlerock) and one day later than the 2013-2022 mean (the earliest chick during this period was logged on 23rd May in 2019, whilst the first chick of 2014, the year following the severe winter auk wrecks, was on 13th June). Productivity, calculated at between 0.55 and 0.61 jumplings per pair in 2013 and at 0.6 in 2007, was again not assessed in 2023 following recommendations from the Islands Conservation Advisory Committee. Chicks were watched jumping from the fourth week of June and the number of adults recorded in the three regularly monitored plots dropped from 626 on the 23rd to 530 on the 25th, 428 on 4th July and 296 on the 6th (see chart above). There were no late spikes in the number of birds occupying the plots; see previous seabird reports which document a late spike in numbers in the majority of years.

Between the 8th and 9th July, the number of adults in the Middlerock plot dropped from one to zero, this matching the third earliest departure from this plot in ten years of monitoring; between 2014 and 2022, the last day with birds in the Middlerock plot averaged 10th July, with the latest still present on the 17th in 2021 and the earliest last seen on the 1st in 2022. The lone bird present at Guillemot Cliff on 17th July was the last to be seen in this plot, this the latest departure from here for at least a decade and nine days later than the 2014-2022 mean. Counts at North Gully dropped from 24 on the 15th to three on the 16th and to one on the 17th, the latter one day later than the 2014-2022 last bird mean (the latest bird in this plot was still present on the 22nd in 2014, the earliest last seen on the 13th in 2022). This was thus only the second year of the last ten in which birds have not remained for longer at North Gully than at the other plots (a pattern probably explained by the larger North Gully population). Whole Island counts mirrored those made at the plots, with Steep Bay and the area above the Jogs the only sites to see breeding birds ashore after the 21st; there were

two at each site on the 23rd, one at each site on the 24th and one at Steep Bay on the 25th, the latter five days later than the last to be seen ashore in 2022 and three days later than the 2013-2022 last bird mean (the earliest last was seen on 16th July in 2019 and the latest on the 27th in 2013 and 2021). There were no further July sightings until three were seen off the Lighthouse on the 28th, after which daily counts peaked at 19 on the 31st. There were sightings on 13 August dates (13 fewer than last year), with eight single-figure daycounts and highs of 41 on the 1st, 19 on the 13th and 15 on the 25th; an August bird-days total of 112 was the lowest since 2016 and well down on a 2013-2022 mean of 722.3 (this a period which included all-time highs of 3841 in 2018, 1129 in 2019 and 1138 in 2020). A bird ashore in Peter's Bay on 4th August mirrored the single seen ashore last August.

There were 1060 dead Guillemot collected from beaches by the Pembrokeshire local authorities during three weeks from 8th July, with 500 reported in Carmarthenshire during the same period (PCC, 2023). Moribund birds were found from Anglesey to Cardiff, with the actual number of dead Guillemot no doubt higher than officially reported. The H5N1 strain of highly pathogenic avian influenza was found in tested birds.

Sightings on 13 September dates were all of eight or less bar 21 on the 3rd and 17 on the 26th, a bird-days total of 83 being down on a 2013-2022 mean of 287.9 but up on five of the years during that period (there were all-time highs of 287 in 2012, 563 in 2014, 1419 in 2018 and 277 last year). There were an additional 318 distant, unidentified auks logged during September, this the second lowest total of the last nine years (there were all-time highs of 2613 in 2018, 1261 in 2021 and 2814 last year). Sightings of up to eight Guillemot on nine October dates totalled 33 bird-days, this down on a 2013-2022 mean of 114.4 (there was a high of 519 in 2021 when there was an unprecedentedly early return to the cliffs). An additional 457 unidentified auks were logged during October, this down on a 2013-2022 mean of 1738.6 and on all but one year during that period (there was an all-time high of 7951 in 2021). There was again a staff presence throughout November, with sightings on 13 dates and highs of 16 on the 12th and 22nd and 11 on the 27th taking the bird-days total to 100; the peak November daycount was down on a 2013-2022 mean of 311.4 (there was a high of 790 in 2015) and the total was down on a mean of 1231.9 logged during the same period (a high of 3441 was tallied in 2019). An additional 3706 distant auks were noted during the month, this including 1520 on the 24th which was a new November daycount high (482 on the 22nd and 455 on the 25th were the eighth and ninth highest November daycounts to date). There were no Guillemot logged during the first three days of December, although there were daily sightings of up to 52 large auks.

Although a return of Guillemots to the breeding ledges in early winter is to be expected, there was no record of this behaviour on Skokholm between 2000 and 2014, despite the fact that staff did not depart until 16th November in 2013 and 24th November in 2014. However birds were seen ashore in seven of eight subsequent Novembers, with 2017 the only year without a record (when staff departed on the 9th); the 2013-2022 mean first winter return date is 3rd November (this not including the three years without a record), with the earliest ashore on 23rd October 2021 and 1st November 2019, the latest on 6th November in 2018 and 2022 and 11th November 2015 (a landfall on 27th October 1999 is the only other to be documented prior to 6th November). A fresh leg was above the Dents on 7th November this year, although no birds were seen ashore and there was no guano at the sites which typically hold early returning birds. Two at North Gully on 26th November were the only Guillemot to be seen ashore prior to the 3rd December staff departure; there was again no guano found elsewhere. Such a return to the colony outside of the breeding season, with the risk of being attacked, must have a substantial benefit; it has been suggested that the return may be to secure the best ledge and thus attract the best mate (Harris *et al*., 2006), but birds ashore may also use less energy than those at sea (Humphreys *et al*., 2007). The majority of early winter sightings of birds ashore come from the ledges above the Jogs; this site holds the largest breeding season aggregation, perhaps suggesting that the need to come to land is greater in birds which occupy areas with more neighbours.

Ringing recovery Left leg white darvic with black 48T, Right leg N01129
Originally ringed as a pullus, THE AMOS, SKOMER ISLAND, PEMBROKESHIRE 2nd July 2006
Previously recovered as an adult, NORTH GULLY, SKOKHOLM 11th July 2021
Recovered as an adult, NORTH GULLY, SKOKHOLM 5th July 2023
Finding condition Colour ring read in field
Distance travelled 4km at 163 degrees (SSE)
Days since ringed 6212

Ringing recovery Left leg white darvic with black 24A, Right leg N03025
Originally ringed as a pullus, THE AMOS, SKOMER ISLAND, PEMBROKESHIRE 3rd July 2006
Previously recovered as an adult, NORTH GULLY, SKOKHOLM 15th April 2022
Recovered as an adult, NORTH GULLY, SKOKHOLM 12th and 13th June 2023
Finding condition Colour ring read in field
Distance travelled 4km at 163 degrees (SSE)
Days since ringed 6188 and 6189

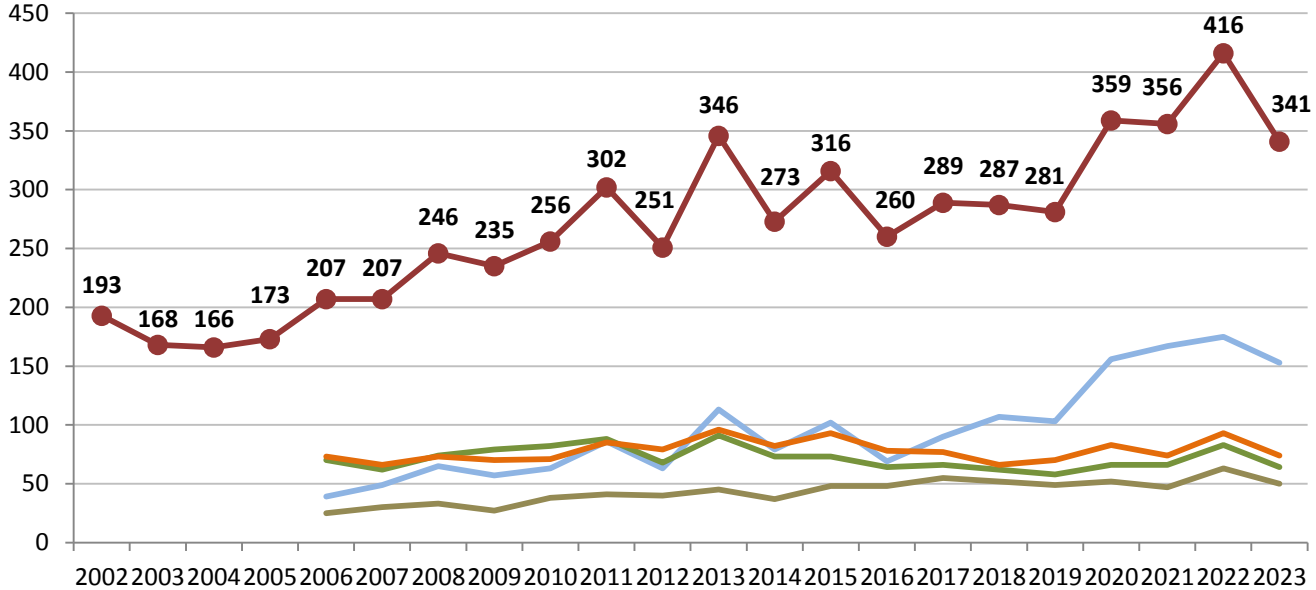
Ringing recovery Left leg N07823, Right leg blue darvic with white 0308
Originally ringed as a pullus, THE AMOS, SKOMER ISLAND, PEMBROKESHIRE 27th June 2016
Recovered as an adult, NORTH GULLY, SKOKHOLM 20th April 2022 (sic)
Finding condition Colour ring read in field
Distance travelled 4km at 163 degrees (SSE)
Days since ringed 2123

Razorbill *Alca torda* **Llurs**
Very Abundant Breeder Common or Abundant until 2007, numbers then increasing rapidly
23 trapped (all pulli), 4 retrapped/resighted, 1 control
1931-1976: 9705 trapped, 2013-2022: 364 trapped, 9 retrapped/resighted, 4 controls

There were sightings on 16 March dates (24 last year), with highs of 1946 on the 4th, 1391 on the 5th and 1973 on the 12th, but five further dates when fewer than six were noted and only 11,616 bird-days logged during the month (down on a 2013-2022 mean of 14,706 and on seven Marches during that period). The majority of March birds were again at sea, with 1005 on the 5th, 668 on the 12th and 659 on the 18th the highest counts of birds ashore. Daycounts continued to fluctuate during

April, with highs of 2200 on the 3rd, 2460 on the 23rd and 2400 on the 29th, but lows of between zero and 46 on ten dates to the 20th. There were two dates in April when the only Razorbills ashore were those occupying crevices in the Anticline, the Oystercatcher roost perhaps offering sufficient safety in numbers to allow for a landfall. The peak in numbers on 29th April coincided with the discovery of the first egg to be seen this year (at Middlerock), although it was soon eaten by Crows; this was 14 days later than the first to be seen last year (which was at North Gully), two days later than the 2013-2022 first egg mean and the latest first to have been recorded on Skokholm since one on 13th May 2014 (the latter was the latest for over a decade and no doubt a consequence of the prolonged winter storms preceding that breeding season, whilst the 15th April 2022 egg was the earliest on record). The majority of eggs were produced during early May, with 58% of Neck plot pairs having eggs by the 11th and 94% of Bluffs plot pairs having eggs by the 12th. A non-breeder encountered regularly at Middlerock from late May onwards had white proximal portions to both the primaries and primary coverts (below photograph).

The total number of adult Razorbill in all six study plots 2002-2023 (as an average from ten visits) and the totals from the four largest plots since 2006 (as an average from ten visits).



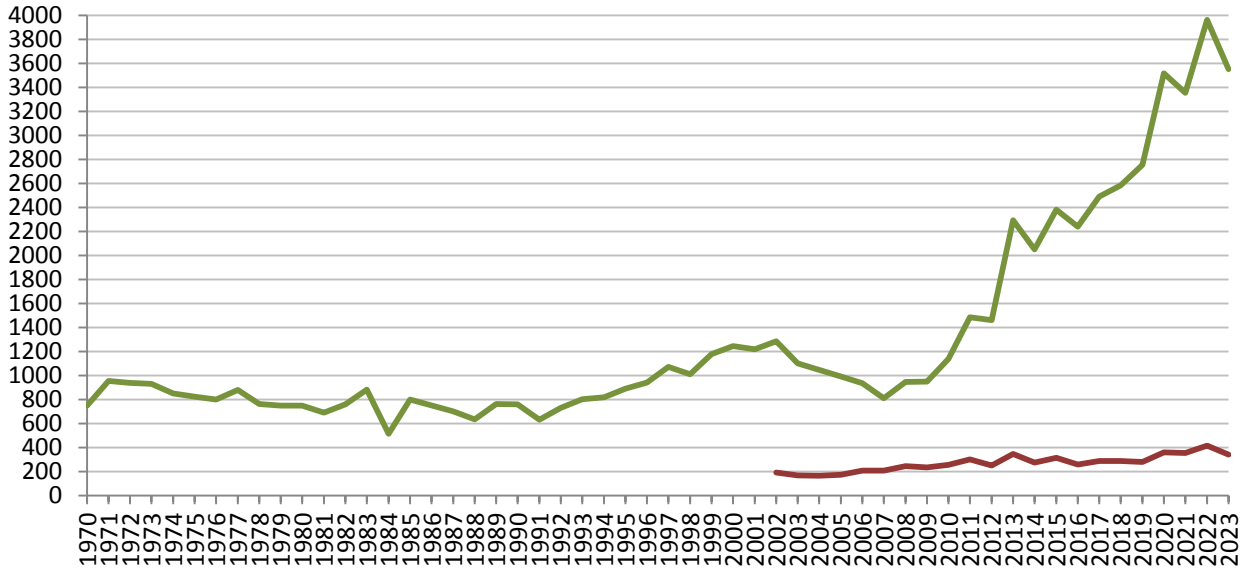
The six study plots, established in 2002, were visited on ten dates between 29th May and 9th June when every adult in suitable breeding habitat was counted. The mean single visit total of 341 adults

on ledges was 75 (18.0%) down on that logged last year and down on the means recorded in 2013, 2020 and 2021, but was the fifth highest yet recorded and 7.1% up on the 2013-2022 mean (318.4 ±sd 49.4). The largest numerical decline was in Little Bay where the mean dropped by 12.6% from 175 to 153; this year's mean was only otherwise down on the 156 of 2020 and the 167 of 2021. The largest proportional decline occurred on Middlerock where the mean number of adults dropped from 83 to 64, this 22.9% decline leading to the lowest mean since the 58 of 2019 and matching the third lowest total of the last 11 years. A similar 22.6% decline was observed at Guillemot Cliff where the mean total fell from 93 to 72. With the notable exception of 2022, recent years have seen a decline in the number of Razorbill occupying the two Twinlet plots, drops tentatively linked to an increasing Fulmar population (which has no doubt led to competition for space within the confines of the plot boundaries); it is likely that this downwards trend was exacerbated this year by the activities of a Crow pair which routinely took eggs from the plot area. There was a mean of 12 fewer birds at North Gully, this a 19.0% drop on the 2022 total; a mean tally of 51 adults was still the fifth highest yet recorded. A mean of one bird joined the Guillemot ledge on the slope to Purple Cove; although up to two have been seen at this site on at least one date in each year since 2013, only singles in 2013, 2014 and 2021 and two in 2020 and 2022 have been present regularly enough to register on the ten visit mean. It was the first year since 2018 in which birds were absent from the Steep Bay plot on every visit; there was a mean of two in 2014 and 2021 and one in 2016 and 2022.

The whole Island totals (adults on ledges suitable for breeding), mean plot totals, the range of totals over ten study plot visits, the standard deviation observed over the ten visits and the percentage of the Island total made up of study plot birds 2014-2023.

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Island	2052	2382	2242	2491	2585	2755	3517	3356	3965	3552
Plots	273	316	260	289	287	281	359	356	416	341
Range	254-315	291-346	236-324	253-334	263-309	230-351	312-395	312-411	376-446	299-409
±SD	19.96	15.78	26.58	25.61	13.25	40.82	30.72	34.06	23.15	31.74
Plot %	13.4	13.3	11.6	11.6	11.1	10.2	10.2	10.6	10.5	9.6

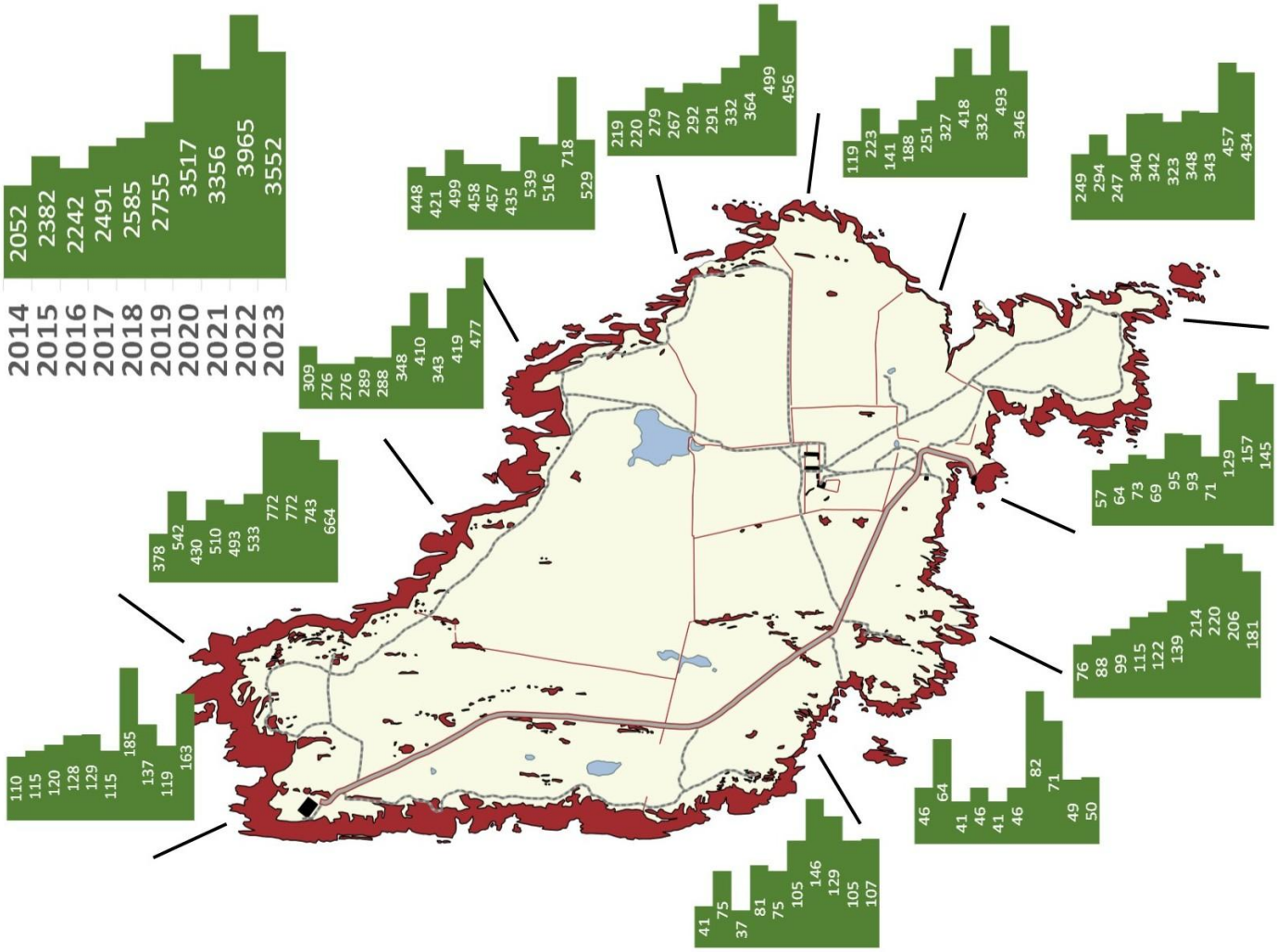
The total number of Razorbills (adults on ledges suitable for breeding) recorded on Skokholm since 1970 and the number of birds within the study plots since 2002.



Both 2020 and 2021 saw severe May weather impact the Razorbills nesting in the productivity plots (and no doubt elsewhere); a 2020 storm, with multiple waves of at least 11 metres, resulted in 60% of Neck pairs losing their eggs (but just one or possibly two of the North Gully eggs being lost), whilst a 2021 storm, with winds gusting at up to 69mph and several waves of at least 16 metres, led to 59%

of Neck pairs and 7% of North Gully pairs losing their eggs. May seas peaked at eight metres in 2022 (as measured by the Mid Channel Rock Lighthouse Beacon off St Ann's Head), with rough weather on the night of 17th May probably being responsible for one egg loss at the Neck (elsewhere there was a loss of Herring Gull eggs and chicks and some low nesting Razorbills lost eggs along the North Coast), whilst four Neck plot egg losses between the 21st and 24th May were perhaps due to heavy showers on the evening of the 23rd. The 2023 breeding season was by comparison a clement one, with no productivity plot losses directly attributable to weather events. Extreme May weather inevitably impacts the number of adults on ledges during the usual whole Island and study plot count period; in the unsettled June of 2012, plot counts fluctuated between 164 and 338 birds, whereas the 2018 counts, made during a prolonged period of high pressure, fluctuated between 263 and 309 (with the lowest standard deviation of the last 12 years (see table above)). Given that far fewer plot birds were impacted by the weather this year, it might be expected that the range in study plot counts (and the standard deviation given in the table above) might be lower than in the rough weather years of 2020 and 2021; however this was not the case, with a range of 110 birds being the second highest of the last 11 years (there was a difference of 121 in 2019) and the standard deviation being the third highest noted during the same period. It is unclear why the plot counts were so varied this year, particularly as Guillemot counts in the same areas were consistent.

The distribution of Razorbills on suitable breeding ledges 2014-2023.



Whole Island counts were made from the land between the 1st and 11th June, whilst a boat-based count was possible on 7th June. This was the 11th year running in which access to a boat had been available, inevitably leading to higher but more accurate whole Island counts; in 2012 rough seas

meant that there was no opportunity for a boat-based count and it was concluded that 'there remains a section of North Coast that was missed, while other parts of the North Coast and Bluffs were counted less accurately at a distance' (Gillham and Yates, 2012). A 2023 whole Island mean of 3552 adults in suitable breeding habitat was 10.4% down on the 3965 logged in 2022 but the second highest total yet recorded on Skokholm (28.5% up on the 2013-2022 mean of 2763.9 ±sd 633.6). Given the variability seen in the plot counts this year, it should be remembered that the whole Island total given here (based on fewer visits) could be less accurate than in most other years. As can be seen from the map above, the number of adults present did not decline everywhere, indeed there were increases in four areas; the largest increase occurred between Purple Cove and Twinlet where there were on average 58 more birds (a mean of 477 being a new high for this area, this despite the decline seen in the Twinlet plots), whilst there were 44 more in the vicinity of the Quarry (a mean of 163 only down on the 185 of 2020), two more along the South Coast (there have been higher means in two years) and one more between Wreck Cove and Crab Bay (there have been higher means in three years). The largest numerical decline occurred between the Jogs and the Dents where there were on average 189 fewer adults on ledges, although the mean was the third highest to be recorded in this area. There were an average of 147 fewer birds between Far and Smith's Bays, a total of 346 still the third highest to date, whilst there were 79 fewer between Wardens' Rest and Fossil Bay (there have only been higher means in the last three years), 43 fewer in the vicinity of Little Bay and Little Bay Point (the total only down on that of 2022), 25 fewer between South Haven and Hog Bay (there have been higher means in three years), 23 fewer to the north of the Neck (the total only down on the 457 of 2022) and 12 fewer around the southerly portion of the Neck (the total also only down on that of 2022). Although the drop in the whole Island count mirrored the drop at the plots, the local factors impacting some plots (namely the increase in Fulmar numbers and the impact of Crows at Twinlet) are possibly not responsible for declines elsewhere; avian influenza may have had an impact since 2022, although rough weather can also influence the population (as was seen between 2013 and 2014).

Productivity monitoring was undertaken for an 11th consecutive year. There are some concerns among ICAC members that recent Pembrokeshire productivity estimates have been quite low (on Skokholm ranging between 0.23 in 2015 and 0.69 in 2018), perhaps lower than what actually occurred given the continued growth of the population and certainly too low to maintain the expansion; one explanation for continued population growth despite low productivity estimates could be that the plots do not represent the Island as a whole. This is potentially the case at the exposed Neck plot where predation levels are often quite high and where, in recent years, extreme weather events have had a greater impact; although Razorbills nest in similarly exposed places

elsewhere on Skokholm, an additional plot looking at cliff nesting pairs was established at North Gully in 2017 in an attempt to study birds in a somewhat more sheltered setting. There were thus three survey areas this year, one a cliff below the Neck Razorbill Hide where 33 incubating pairs were mapped between the 2nd and 29th May, one the ledges around North Gully where 27 pairs were mapped between the 2nd and 18th May and one an area among the Bluffs boulders where 52 egg sites were marked between the 12th and 20th May.

The first five chicks to be encountered anywhere on Skokholm were at the Bluffs on 30th May (the oldest of which was seemingly two days old); this was three days later than the first of last year, but two days earlier than the 2013-2022 mean (which is 1st June, with the earliest on 18th May 2019 and the latest on 15th June 2013). At the Neck there were six egg stage failures, four failures at either egg or small chick stage (ledges were found empty, with no indication as to what had happened), two chick losses and 21 pairs produced jumping age chicks at the first attempt; of the pairs which failed with their first egg, two re-laid, one of which lost a large chick between the 18th and 20th July and one of which produced a jumpling. The resulting productivity figure of 0.67 matched that logged last year as the third highest value of the last 11 years, up on a 2013-2022 mean of 0.41 ±se 0.09 (productivity at this site is very variable, with highs of 0.77 in 2013 and 0.86 in 2018, but lows of 0.03 in 2016 and 0.14 in 2017). The North Gully plot saw 20 pairs successful at the first attempt, two egg stage failures (both pairs re-laid, one again failing with an egg and the other failing with a ten day old chick) and five chick stage failures. The resulting North Gully productivity value of 0.74 jumplings per pair was only down on the 0.76 of 2020 and was up on a 2017-2022 mean of 0.67 ±se 0.03 (there was a low of 0.58 in 2017). The combined productivity estimate for cliff nesting pairs was 0.71; this was up on a 2017-2022 mean of 0.56 ±se 0.06 and was the second highest estimate in this period, only down on the 0.74 of 2018 (there was a low of 0.36 in 2017 when Neck productivity was particularly poor, with 0.44 in 2021 the next lowest mean (again due to a poor season at the Neck)).

Among the Bluffs boulders, eight pairs failed at egg stage, nine pairs failed with eggs or small chicks (crevices were found empty, with no indication as to what had happened) and an unprecedented 23 pairs failed with chicks. All bar two of the chicks went missing prior to reaching jumping age, whilst one was found dead (a milky yellow substance was present in the beak) and an adjacent chick was found dying (similar beak contents were present); the dead chick was sent for HPAI testing, with both cloacal and oro-pharyngeal swabs proving negative for the disease. Only one pair produced a

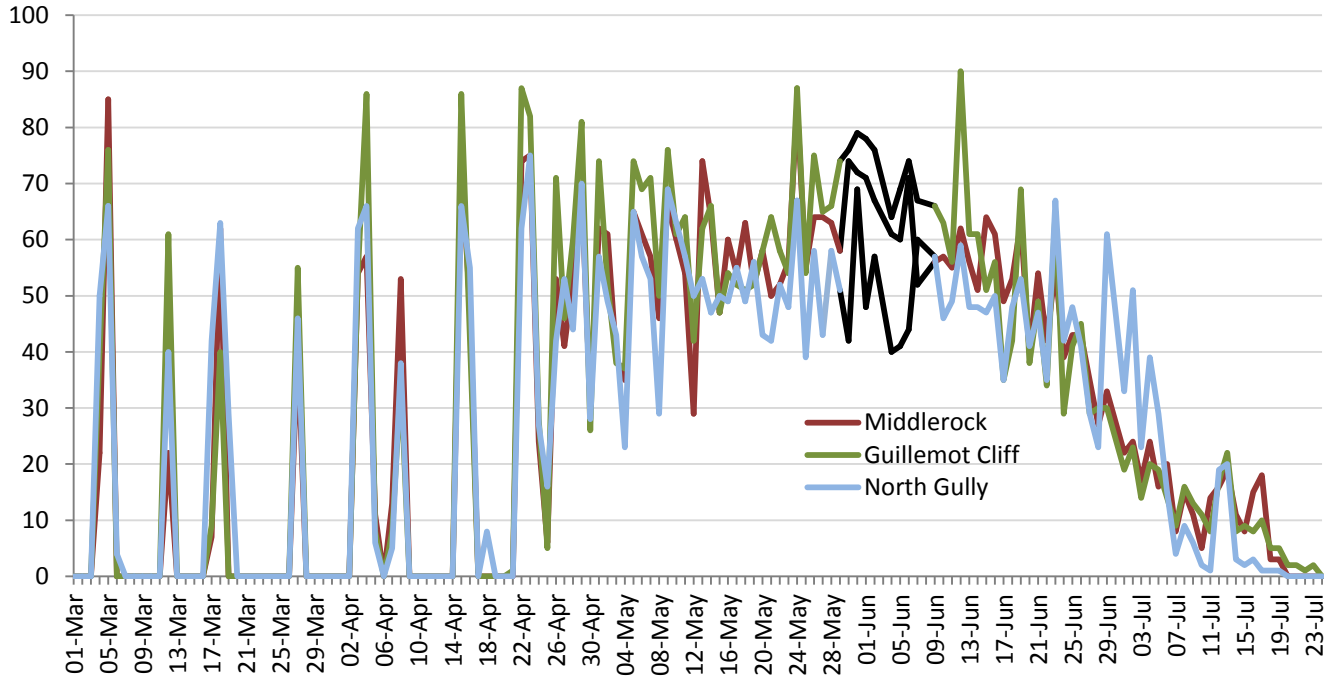
second egg, an attempt which again failed at egg stage. Thus only 12 pairs produced a jumpling, this equating to a productivity value of 0.23 per pair; the 2023 Bluffs productivity estimate was the lowest yet recorded at this site, down on a 2013-2022 mean of 0.55 ±se 0.04 and previous lows of 0.44 in 2014 and 0.29 in 2015 (there were highs during this period of 0.74 in 2016, 0.60 in 2018 and 0.71 in 2020). It is unclear why productivity was so poor this year, particularly given the above average productivity recorded on the cliffs; at least eight chicks went missing from sites not accessible to gulls (although no doubt reachable by the smaller corvids), whilst the two dead youngsters perhaps hint at an issue other than predation. For an 11th year running, the last of the breeding attempts within the boulders were concluded before the last of the attempts on the cliffs.

Combining the productivity figures for the cliff plots and the boulder plot to give an indication of overall productivity on Skokholm can be achieved in two ways, either by averaging the final values obtained for the three sites, as recommended in the Seabird Monitoring Handbook (Walsh *et al*., 1995), or by combining all of the data from the three plots (that is to say by dividing the total number of jumplings at all sites by the total number of monitored sites). The former, preferred, technique produces a productivity estimate of 0.55 jumplings per pair and the latter 0.48. Although down on the 0.64 of last year, the 2023 estimate is up on that seen in five of the last ten years and up on a 2013-2022 mean of 0.51 ±se 0.05 (lows during this period were of 0.23 in 2015 and 0.39 in 2016, both these calculated prior to the establishment of the less variable and more sheltered North Gully plot, whilst the only values up on that of 2022 are the 0.66 of 2013 and the 0.69 of 2018).

In an effort to ascertain the pattern of colony attendance, near daily counts were made at three of the plots throughout the breeding season (see chart below). There were again fluctuating numbers in all three subcolonies following the usual count period and regular peaks when the totals were augmented by the return of partners, failed adults, successful females or non-breeding birds; interestingly these peaks were again broadly consistent between subcolonies, suggesting that returning auks respond to the same environmental cues (in previous years the peaks have also coincided with increases in Guillemot numbers, although counts of the latter did not peak as usual this year (see above)). The first jumpling had departed the productivity plots by 18th June; this was six days later than the first of last year and the latest first of the last five years, two days later than the 2015-2022 mean (between 2015 and 2022 the first productivity plot chick jumped between the 8th and 26th June). The number of adults within the three plots declined during June, with only double-figure totals logged from 1st July (the 2014-2022 mean is 4th July, ranging between 30th June in 2019 and 10th July in 2018) and single-figure counts from 18th July (the 2014-2022 mean is 13th

July, ranging between 9th July in 2019 and 2022 and 18th July in 2014 and 2018). Although this was a poor year at the Bluffs (see above), all of the study chicks at this site had departed by 24th June (three further attempts had failed by the 29th), whilst 12 of 33 attempts at the Neck plot and 13 of 27 attempts at the North Gully plot were still active on 1st July. The last seemingly successful North Gully chick jumped between the 9th and 10th July (a late chick perished between the 18th and 19th) and the last seemingly successful Neck chick jumped by 16th July (a late chick perished between the 18th and 21st). Across the Island there were 45 adults ashore on 19th July and single-figure counts each day from the 20th until 25th July, with one in Purple Cove on the 27th the last to be seen on land; the 2013-2022 mean last adult ashore date is 27th July, with the earliest lasts logged on 24th July in 2015, 2016 and 2017 and the latest on 2nd August in 2018.

The number of adults on ledges within three of the plots (standard survey period in black).



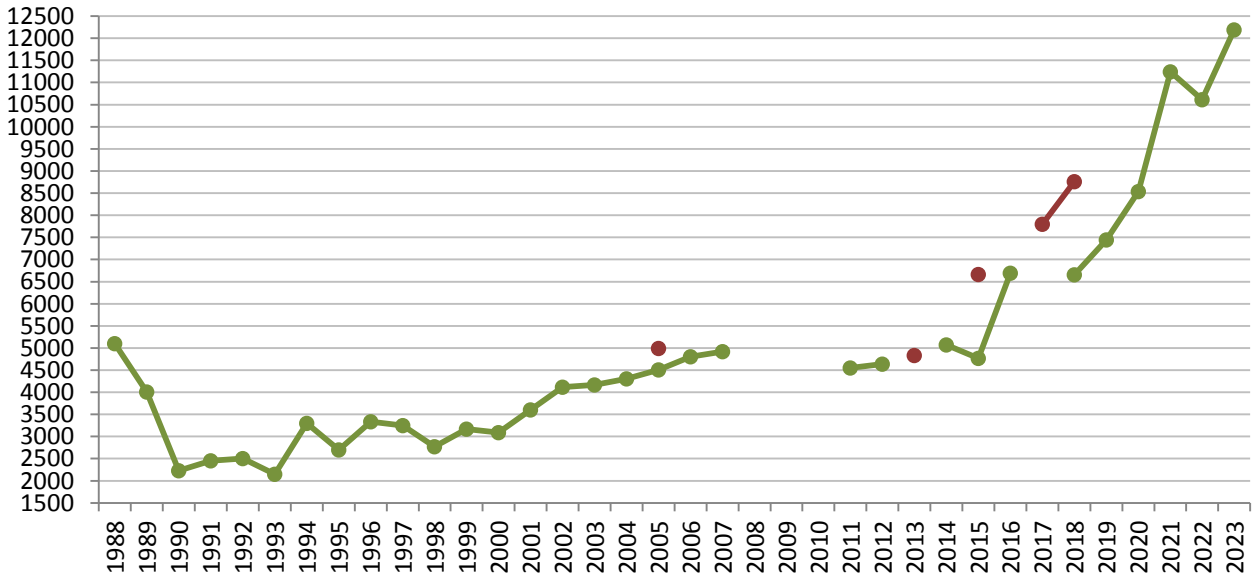
There were sightings of Razorbill at sea on 16 August dates, with highs of 23 on the 3rd and 20 on the 14th taking the bird-days total to 119; there have been higher August daycounts in six years and higher bird-day totals in four years (a record August daycount of 159 took the 2020 tally to a record 575). Counts on 13 September dates, with highs of 98 on the 19th, 45 on the 25th and 52 on the 28th, led to a bird-days total of 282, this the sixth highest September tally to date; five of the six highest September bird-day totals have been recorded in the last seven years, with a peak of 1708 logged in 2017. October counts were low for a second straight year, with birds noted on 16 dates and highs of only 14 on the 16th and 12 on the 23rd taking the bird-days total to just 76; the peak October daycount was the lowest of the last 12 years, whilst the total was the third lowest logged during the same period (the 2013-2022 October bird-days mean is 369.3, with an all-time high of 1224 in 2019 and a low of 56 last year). November counts were also below average, with sightings on 13 dates including highs of 25 on the 8th and 14 on the 11th which took the total to 76; the 2013-2022 peak November daycount mean is 40.6 and the mean bird-days total for the same period is 98.2. There were no Razorbill seen ashore for an 11th successive November, this seemingly an auk behaviour confined to Guillemot during the early winter period. The only December record was of one in Broad Sound being eaten by a Great Black-backed Gull on the 3rd. Further large auks were present at sea during the autumn, but they remained unidentified due to their distance from the Island; there were 318 in September (66.6% down on a 2013-2022 mean of 952.6), 457 in October (73.7% down on a 2013-2022 mean of 1738.6), 3706 in November (this including a new November daycount high of 1520 on the 24th and the third highest tally in this month) and 99 in the first three days of December.

Ringing recovery M93635
Originally ringed as a pullus, SKOMER ISLAND, PEMBROKESHIRE 24th June 1999
Previously Recovered as an adult, THE DENTS, SKOKHOLM 27th April 2018
Recovered as an adult, THE DENTS, SKOKHOLM 19th May 2023
Finding condition Metal ring read in field
Distance travelled 4km at 163 degrees (SSE)
Days since ringed 8730

Puffin *Fratercula arctica* **Pâl**
Very Abundant Breeder
74 trapped (including 29 pulli), 4 retrapped, 220 resighted, 1 control
1936-1976: 5412 trapped, 2011-2022: 766 trapped, 33 retrapped, 2066 resighted, 1 control

One off South Haven on the afternoon of 2nd March was the first of the year, this 11 days earlier than the 2013-2022 first arrival mean and the second earliest returning individual yet recorded (there was a single on the 1st in 2019). There were 112 logged the following day, 108 of which were off South Haven; this was the earliest ever three-figure daycount, 15 days earlier than the 2013-2022 mean (the earliest three-figure daycount prior to this year was logged on 9th March 2021, the latest of the last 12 years on 31st March 2014). There were no sightings on five of the next eight dates, including on the 11th which is now the only March date without a record. A minimum of 1730 on the 12th was the earliest ever four-figure daycount, this ten days earlier than the 2013-2022 mean (a count of 1741 on 15th March 2022 was the previous earliest, a count of 3491 on 4th April 2014 the latest of the last 12 years). Despite the large attendance and several records of wheeling birds, a landfall was not recorded on the 12th, indeed it was not until the 17th that birds were first seen ashore; this matched 2020 as the second earliest landfall to date, two days later than the first of last year and seven days earlier than the 2013-2022 first landfall mean (the latest first landfall during this period was on 6th April 2013). There followed sightings on every March date bar the 22nd and 31st, the bird-days total for the month coming to 29,915; the five highest March bird-day totals have occurred in the last five years. Between 2013 and 2019, daily counts were made from around the Neck each spring evening to record the pattern of colony attendance and to help select the most productive times for a whole Island count (see the 2013-2019 Seabird Reports for charts showing spring attendance around the Neck). The impetus for the 2023 whole Island count on 27th March was an assessment of the (again remarkable) number of birds rafting in and around South Haven.

The maximum Puffin daycount recorded each spring during the period 1988-2023. Green points represent counts made during March and April, maroon points counts made in May.

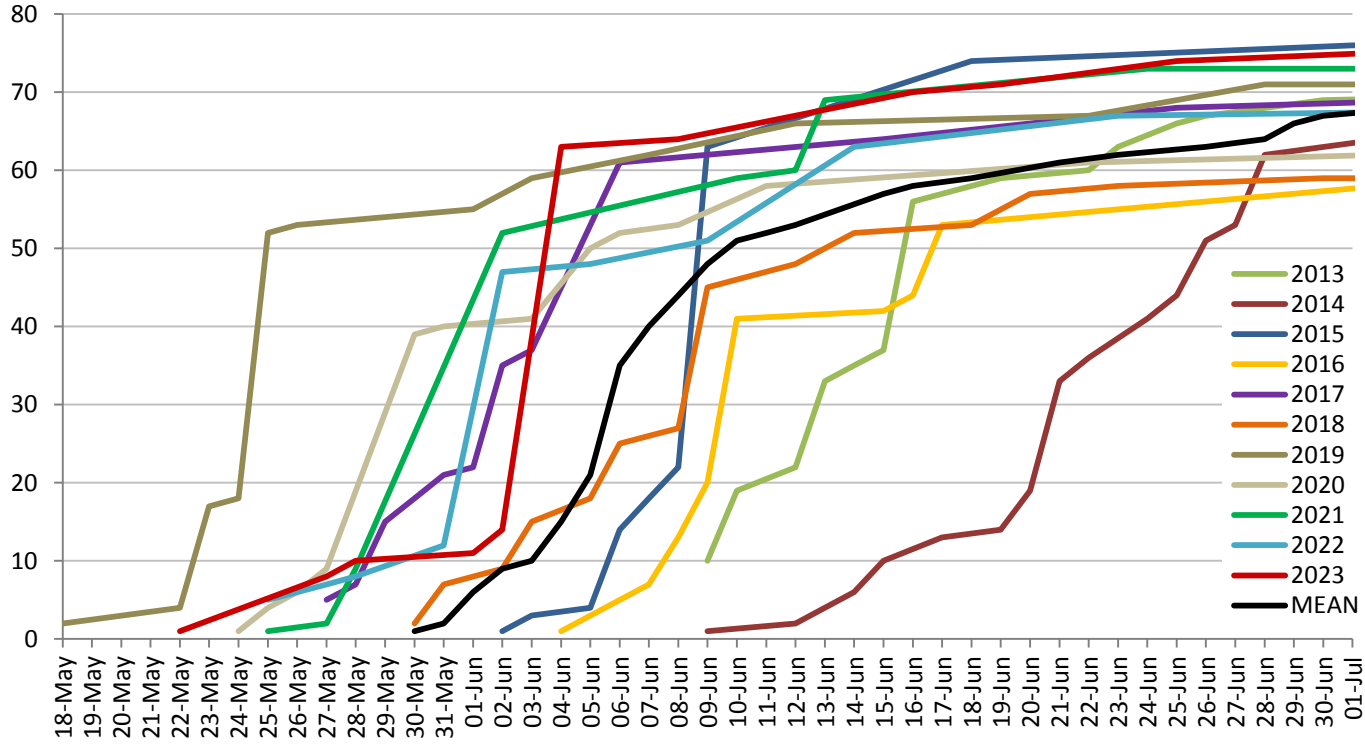


The 27th March whole Island survey produced a total of 12,192 individuals (to the north there were 3615 on the sea, 29 in the air and four ashore, to the south 2668 on the sea, 222 in the air and 1527 ashore and around the Neck there were 4073 on the sea, 26 in the air and 28 ashore); although numbers are still well down on Lockley's spring estimates of approximately 40,000, this was the highest post-War spring count, up on the 10,000 logged on nine occasions between 6th April 1950 and 22nd April 1953, the 11,245 counted on 22nd March 2021 and the 10,611 present on 23rd March last year. The 2023 south coast total was 426 down on that of 2022 (and 737 down on that of 2021), however the Neck total was 695 up and the north coast total 1312 up, both the latter tallies new highs. The north coast count included only 13 in the region of the Quarry, this area probably now home to five times this number. The whole Island counts provide a relatively consistent long-term method for monitoring the trend in numbers, however it is difficult to ascertain how the totals reflect the actual size of the Skokholm breeding population. Monitoring work at the Crab Bay study plot revealed 79 active burrows in an area which comprises approximately 10% of the colony and where less than half of occupied burrows were study burrows; we might thus predict a very rough minimum of 1580 pairs for Crab Bay (as active burrow distribution is apparently quite even), 3160 individuals being close to the 2997 seen during the 27th March whole Island count. Notable range expansions included a bird ashore to the west of the Lighthouse Manx Shearwater plot on 18th June and one visiting a Western Plain burrow only ten metres from the inland Bracken edge on 21st June. Puffins nested in the new Crab Bay Hide for the first time, with at least three of the roof top boxes (photograph below) and three of the one-way glass tunnels being occupied (an additional burrow was dug by Puffins on the roof); unfortunately none nested in viewable positions this year (see the introduction to the 2022 Annual Report for further information).

A productivity plot established at Crab Bay in 2013 was used for an 11th season. Of 90 marked non-bifurcating burrows, 71 were seen to be occupied and were visible throughout the season (68 in 2022); productivity estimates are based on observations of these burrows. Chick provisioning was first witnessed on 18th May, with a successful delivery made on the north coast; this was on the same date as the first of last year and six days earlier than the 2013-2022 mean (the earliest in this period was logged on 14th May in 2019 and the latest on 3rd June in a post-wreck 2014). The mean 2013-2022 first fish delivery to the Crab Bay plot is 29th May, this five days after the whole Island mean (in 2020 the first plot delivery was on the same date as the first delivery anywhere, whereas in 2013 it was ten days later); this year saw a fish delivery to a plot burrow on 22nd May, this three days earlier than the first of last year and seven days earlier than the mean (see the graph below for the

first plot delivery dates logged in previous years). The first daylight hours watch showed that 79% of study burrows had been provisioned by 4th June, the 2023 chick feeding period approximately three weeks earlier than in 2014 (the breeding season which followed the most severe winter storms recorded during this study). The breeding season is seemingly getting earlier; the five earliest chick provisioning periods between 2013 and 2023 have occurred in the last five years. Four active burrows (5.63%) were not seen to be provisioned with fish and it is assumed that these failed at egg stage (the 2013-2022 mean is 6.63%, with a low of 2.82% in 2021 and a high of 14.71% in 2022).

The number of study burrows which had been provisioned with fish by a particular date each year, along with the 2013-2022 mean.



Although the study plot was visited regularly following the first recorded fish delivery, it certainly cannot be assumed that the first and last fish provisioning was seen for each burrow. Indeed the

daylight hours Puffin watches highlight how some burrows are provisioned infrequently (see table below). Additionally it proves difficult to standardise ad hoc recording effort between years. It was thus decided in 2016 that a three visit method would be used to calculate productivity on Skokholm, but that five visits and ad hoc records would still be amassed to allow further comparisons to be made in the future (see the 2016 Seabird Report for more details). This is more in line with the Seabird Monitoring Handbook (Walsh *et al.*, 1995) which states that, when monitoring Puffin productivity in colonies where the nest is inaccessible and the colony is shared with Manx Shearwaters, the most appropriate technique is 'When birds are feeding large chicks, make a few watches to determine which burrows/crevices have fish taken down them'. Establishing when burrows contain large chicks is inevitably the main issue with this technique, necessitating earlier watches to detect chick hatching dates (which since 2013 have varied by as much as a month). Whereas five daylight hours watches were performed in each year between 2014 and 2019 and in 2021 and 2022, a COVID-19 dictated staffing shortage meant that the five 2020 watches each lasted from 0430-1700hrs only; this year the watches again lasted all of the hours of daylight.

The number of fish deliveries to known active burrows seen during five daylight watches.

No. of deliveries	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
No. of burrows 4 June		13	8	9	8	8	2	5	5	1	1	1	1			1
No. of burrows 16 June	2	2	4	1	3	6	7	4	6	8	6	7	6	2	1	
No. of burrows 25 June		4	3	3	7	10	8	12	6	6	4	2	2	1		
No. of burrows 8 July		9	7	4	6	5	3	4	5	2	1	1				
No. of burrows 16 July		1	6	2	1		3			1	1	1	2			3

Calculating productivity using only three daylight watches. The first watch was between 25th May and 28th June (dependent on the date of first fish delivery that year), the second between 11th June and 8th July and the third between 28th June and 24th July. Chicks are assumed to have fledged if fed on a minimum of two watches. Ad hoc productivity is based on a chick reaching 31 days and the mean is that from 2013-2022.

	First fish in plot	Last fish in plot	Fed watch 1 & 2	Min. chick age	Fed watch 2 & 3	Min. chick age	Fed all 3 watches	Min. chick age	Prod. based on 3 watches	Ad hoc prod.
2023	22 May	26 Jul	39	22 (4/6 - 25/6)	5	22 (25/6 - 16/7)	12	43 (4/6 - 16/7)	**0.79** (56 of 71)	0.52
2022	25 May	25 Jul	31	22 (2/6 - 23/6)	7	21 (23/6 - 13/7)	11	42 (2/6 - 13/7)	**0.72** (49 of 68)	0.53
2021	25 May	24 Jul	38	23 (2/6 - 24/6)	11	20 (24/6 - 13/7)	8	42 (2/6 - 13/7)	**0.80** (57 of 71)	0.62
2020	24 May	14 Jul	3	13 (30/5 - 11/6)	16	22 (11/6 - 2/7)	33	34 (30/5 - 2/7)	**0.78** (52 of 67)	0.64
2019	18 May	24 Jul	19	19 (25/5 - 12/6)	9	17 (12/6 - 28/6)	29	35 (25/5 - 28/6)	**0.76** (57 of 75)	0.55
2018	30 May	30 Jul	20	22 (9/6 - 30/6)	11	18 (30/6 - 17/7)	15	39 (9/6 - 17/7)	**0.75** (46 of 61)	0.56
2017	27 May	30 Jul	33	20 (6/6 - 25/6)	6	18 (25/6 - 12/7)	16	37 (6/6 - 12/7)	**0.80** (55 of 69)	0.57
2016	04 Jun	13 Aug	7	16 (17/6 - 2/7)	3	13 (2/7 - 14/7)	38	28 (17/6 -14/7)	**0.73** (48 of 66)	0.64
2015	02 Jun	05 Aug	16	14 (18/6 - 1/7)	2	12 (1/7 - 12/7)	42	25 (18/6 -12/7)	**0.75** (60 of 80)	0.55
2014	09 Jun	06 Aug	14	11 (28/6 - 8/7)	4	17 (8/7 - 24/7)	38	27 (28/6 -24/7)	**0.74** (56 of 76)	0.50
Mean	**29 May**	**30 Jul**							**0.76**	**0.56**

Puffins can fledge having spent 34 days as a burrow-bound chick, although this is more typically 38 days and can be anything up to 60 days (Ferguson-Lees *et al*., 2011). A flaw with the three visit technique is that some chicks were counted as fledged when they had reached as little as 22 days old (see table above). However it would be incorrect to assume that only those provisioned on all three watches went on to fledge; early hatchers could potentially have departed by the third watch, whilst others may have hatched after the first watch. Although this three visit technique is more standardised than ad hoc recording, the 2013 to 2023 productivity estimates of between 0.72 and 0.80 fledglings per pair include birds which did not fledge; there have been examples each year of chicks already counted as having fledged which were eaten or found dead (this including the chick in burrow 52 this year which was eaten at approximately 43 days old and the chick in burrow 80 which was mauled by a Lesser Black-backed Gull (having lain dazed for a few minutes it stumbled back to its burrow, although it was not seen to be provisioned again)). This technique also misses fledglings in some years, with apparently successful chicks known to hatch after the second watch (which were thus recorded on only one of three watches and assumed to have failed). Nevertheless this more standardised monitoring suggests that a 2023 productivity figure of 0.79 was similar to that of recent years (the 2013-2022 mean is 0.76 ±se 0.01). If the ad hoc records are included and it is assumed that a chick seen to be provisioned for 31 days or more was of fledging size, then the 2023 data suggests that, of the 71 monitored attempts, perhaps as few as 37 were successful (0.52 fledglings per pair); the 2013-2022 mean ad hoc productivity figure is 0.57 ±se 0.02, with a high of 0.64 in 2016 and 2020 and a low of 0.49 in 2013. At least 44 attempts saw a chick reach a minimum of 26 days (62.0% or 0.62 chicks per pair, see table below); this figure was very close to the 0.65 of last year.

The number of days between first and last observed chick feeding based on ad hoc recording and five daylight watches.

Days	1-5	6-10	11-15	16-20	21-25	26-30	31-35	36-40	41-45	46-50
No. of burrows	6		1		16	7	20	2	15	

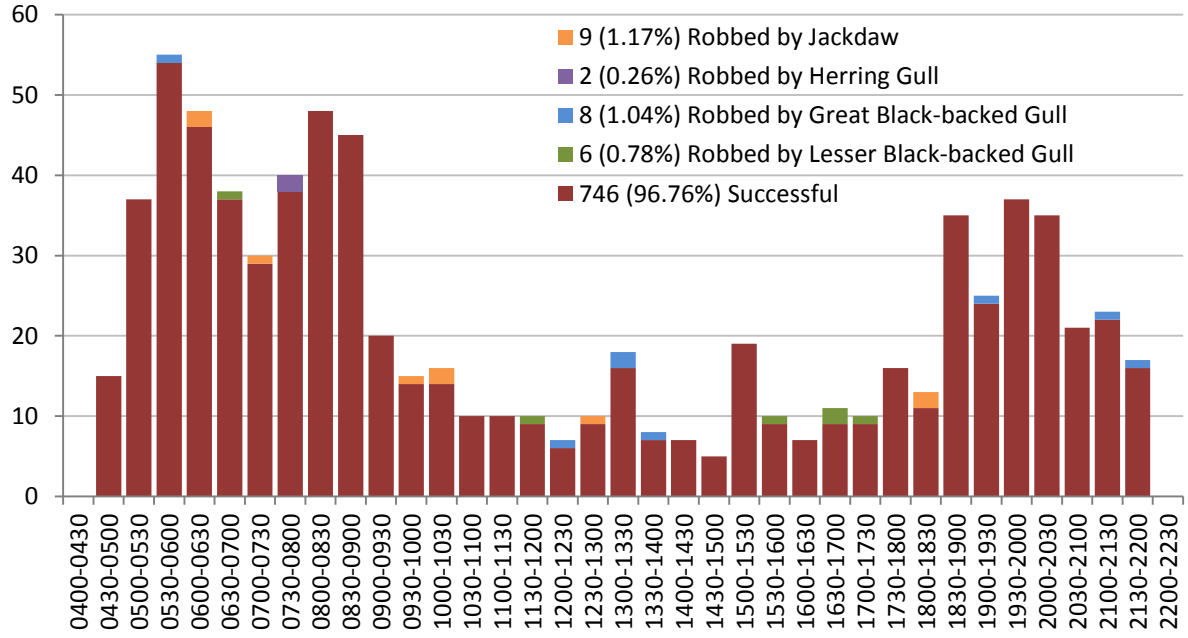
The number of fish deliveries made to the study plot during each daylight hours watch, the number of Puffins which lost fish over the plot and the percentage which lost fish.

		Watch 1	Watch 2	Watch 3	Watch 4	Watch 5	Total
2023	Number of deliveries	771	1379	1395	555	399	**4499**
	Number parasitised	25	22	81	23	18	**169**
	Percentage parasitised	3.24	1.60	5.81	4.14	4.51	**3.76**
2022	Number of deliveries	497	880	1131	541	243	**3292**
	Number parasitised	7	12	13	15	10	**57**
	Percentage parasitised	1.41	1.36	1.15	2.77	4.12	**1.73**
2021	Number of deliveries	464	891	1262	813	394	**3824**
	Number parasitised	13	11	9	11	5	**49**
	Percentage parasitised	2.80	1.23	0.71	1.35	1.27	**1.28**
2020*	Number of deliveries	357	553	600	659	170	**2339**
	Number parasitised	22	37	3	10	5	**77**
	Percentage parasitised	6.16	6.69	0.50	1.52	2.94	**3.29**
2019	Number of deliveries	579	929	504	429	228	**2669**
	Number parasitised	25	18	14	18	5	**80**
	Percentage parasitised	4.32	1.94	2.78	4.20	2.19	**3.00**
2018	Number of deliveries	701	852	527	511	359	**2950**
	Number parasitised	19	12	8	8	33	**80**
	Percentage parasitised	2.71	1.41	1.52	1.57	9.19	**2.71**
2017	Number of deliveries	844	991	1100	527	177	**3639**
	Number parasitised	30	11	3	7	5	**56**
	Percentage parasitised	3.55	1.11	0.27	1.33	2.82	**1.54**

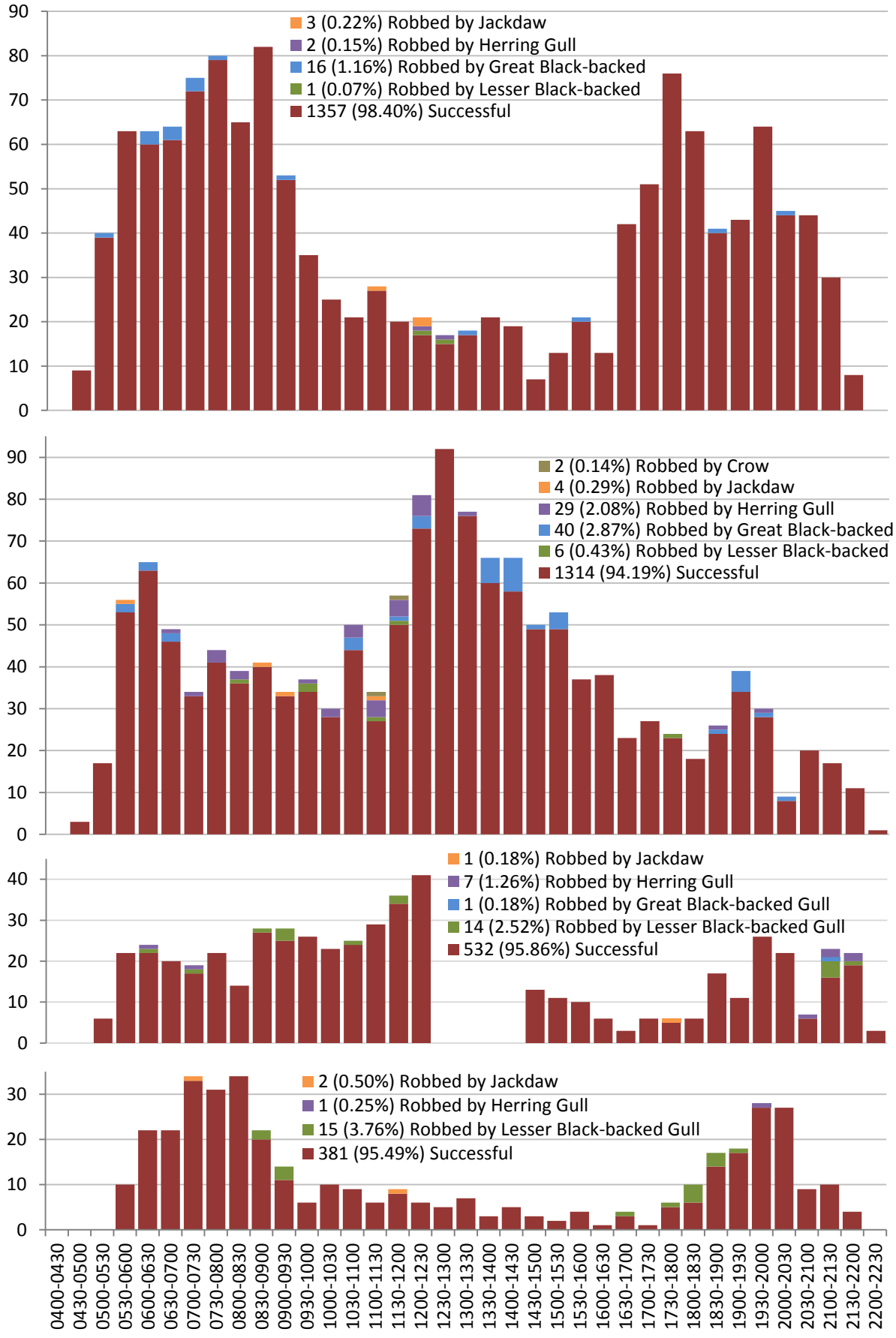
*watches stopped at 1700hrs.

The five daylight watches were also used to monitor kleptoparasitism. The study plot was confined to the area of the 90 numbered burrow stakes at Crab Bay. On 4th June 771 Puffins arrived to the study area with fish and of these 25 (3.24%) were successfully robbed. On 16th June 1379 arrived and 22 (1.60%) were robbed. On 25th June 1395 arrived and 81 (5.81%) were robbed. On 8th July 555 arrived and 23 (4.14%) were robbed. On 16th July 399 arrived and 18 (4.51%) were robbed. These figures do not take into account the number of fish lost to gulls at sea or on the approach to the colony. The total number of deliveries witnessed over the five watches was a new high, up on the 3824 of 2021. In terms of the percentage of deliveries lost over the study plot, a five visit mean of 3.76% was the highest since the 4.51% of 2016 and up on a 2013-2022 mean of 3.47%. Over the five 2023 watches, 1.51% of deliveries were taken by Lesser Black-backed Gull (the fourth lowest of the last ten years and down on a 2014-2022 mean of 2.31%), 1.05% were taken by Great Black-backed Gull (the third highest of the last ten years), 0.80% were taken by Herring Gull (the highest of the last ten years), 0.47% by Jackdaw (the highest of the last ten years) and 0.03% by Crow (the highest of the last ten years). Jackdaw were not seen to take fish during plot watches between 2013 and 2017, took between 0.04% and 0.07% of deliveries between 2018 and 2021 and took 0.39% last year.

The number of chick provisioning attempts during daylight on 4th June 2023, along with the number of times that gulls and corvids successfully robbed the fish.



The number of chick provisioning attempts during daylight on the 16th and 25th June and the 8th and 16th July 2023, along with the number of times that gulls and corvids successfully robbed the fish.



Survival in adult Puffins. An average survival figure for each year is based on the number of birds ringed in the preceding year plus the number of previously ringed birds known to be still alive, for example 217 birds (93.94%) are now known to have been alive in 2015, of a 2014 total of 231 (57 ringed in 2014 plus 173 (93+40+41) ringed previously and known to be alive). Survival after a one year establishment period means that birds have been seen within the study area before (and are therefore assumed to be located in visible positions); birds ringed in the preceding year are therefore excluded from the calculations as they may be occupying hidden areas of the colony.

	2011	2012	2013	2014	2016	2017	2018	2019	2021	2022	Total	Survival after one year
Total Ringed	128	58	51	57	23	24	31	28	40	30	470	
Seen in 2012	72										72	
Alive in 2012	114										114	
% survival	89.06										89.06	-
Seen in 2013	102	52									154	
Alive in 2013	111	55									166	
% survival	97.37	94.83									96.51	**97.37**
Seen in 2014	86	36	37								159	
Alive in 2014	93	40	41								174	
% survival	83.78	72.73	80.39								80.18	**80.12**
Seen in 2015	78	37	35	50							200	
Alive in 2015	86	39	38	54							217	
% survival	92.47	97.50	92.68	94.74							93.94	**93.68**
Seen in 2016	67	34	32	43							176	
Alive in 2016	79	38	36	48							201	
% survival	91.86	97.44	94.74	88.89							92.63	**92.63**
Seen in 2017	71	35	31	44	19						200	
Alive in 2017	79	38	33	45	20						215	
% survival	100.00	100.00	91.67	93.75	86.96						95.98	**97.01**
Seen in 2018	69	34	28	40	19	20					210	
Alive in 2018	75	37	31	41	20	23					227	
% survival	94.94	97.37	93.94	91.11	100.00	95.83					94.98	**94.88**
Seen in 2019	65	33	27	36	17	20	21				219	
Alive in 2019	68	36	29	39	19	23	30				244	
% survival	90.67	97.30	93.55	95.12	95.00	100.00	96.77				94.57	**94.27**
Seen in 2020	60	31	23	33	15	18	22	17			219	
Alive in 2020	63	34	26	38	17	22	29	25			254	
% survival	92.65	94.44	89.66	97.44	89.47	95.65	96.67	89.29			93.38	**93.85**
Seen in 2021	57	30	23	28	16	16	25	22			217	
Alive in 2021	59	32	25	33	17	20	28	25			239	
% survival	93.65	94.12	96.15	86.84	100.00	90.91	96.55	100.00			94.09	**94.09**
Seen in 2022	47	29	21	29	13	19	21	18	26		223	
Alive in 2022	53	29	24	32	16	19	26	23	32		254	
% survival	89.83	90.63	96.00	96.97	94.12	95.00	92.86	92.00	80.00		91.04	**92.89**
Seen in 2023	38	21	20	27	11	14	22	20	28	19	220	
% survival	71.70	72.41	83.33	84.38	68.75	73.68	84.62	86.96	87.50	63.33	77.46	**79.13**

A colour ringing project was begun at Crab Bay in 2011 to allow an estimate of adult survival to be made each year. There were 128 ringed in the first year, 166 between 2012 and 2014, 106 between 2016 and 2019 and 70 between 2021 and 2022; a further 21 adults were colour marked this year. The table above summarises the resighting data collected so far. What is apparent is that some birds are not seen every year, perhaps because they have not returned to the plot or probably because their rings have been missed. Indeed 26 were not seen for two years (including two which went missing for two years twice), 13 were not seen for three years, two were not seen for four years and two were not confirmed for five years. Additionally one was missing for nine years, although this was due to ring loss. We now know that when 223 were seen last year, at least 254 were alive; between

2013 and 2022 a mean of 90.40% of known live birds were seen each year. A 2022-2023 survival figure of 77.46% is thus likely to increase in the future. With 12 years of resighting data now available, we can start to look at fluctuations in survival over time. The percentage of birds surviving the winter during the period 2011 to 2022 has varied between 80.18% (2013-2014) and 96.51% (2012-2013), with only the 2014 return rate being below 89% and a 2012-2022 mean of 92.40% ±sd 4.58. A flaw with this survival estimate is that colour marks were added to Puffins caught in flight, birds potentially resident in areas not visible to researchers; a better estimation of survival may therefore come from looking for birds previously seen in the field (thus discounting individuals in the year after ringing). The resulting survival estimates range from 80.12% (2013-2014) to 97.37% (2012-2013), with a 2013-2022 mean of 93.08% ±sd 4.82. The most striking feature of these estimates is the substantial drop in survival noted after the severe 2013 to 2014 winter wrecks; it remains to be seen how often such drops in survival can occur before the spring raft counts show a decline.

Puffins were again taken regularly by Great Black-backed Gulls during the breeding season, checks of the Buzzard nest revealed fresh carcases and Lesser Black-backed Gulls took Pufflings on occasion. Adult losses became rarer during the Puffling feeding period, dropped fish seemingly a sufficient deterrent. Crab Bay was regularly quiet from 7th July and was almost devoid of surface birds on the 23rd, however the North Coast and Neck remained busy (birds in the latter areas seemingly also bred a little later last year). The last four-figure daycount was logged on 22nd July, two days earlier than the last of 2022, and raft counts remained in the hundreds until 30th July (between 2013 and 2022 the last three-figure daycount averaged 2nd August, with the earliest on 29th July 2020 and the latest on 6th August 2014). Daily August sightings to the 8th peaked at 26 on the 1st and 18 on the 3rd. The last fish delivery to be seen this year was made to a burrow above Steep Bay on 8th August, this three days earlier than the last of 2022 and four days earlier than the 2013-2022 mean; the latest last delivery recorded during this period was on 23rd August 2014, whilst one on 4th August 2019 was the earliest (the latter the only last delivery earlier than that of this year). A second bird was seen at sea on 8th August, these the last of the year.

Ringing recovery EJ99230
Originally ringed as a pullus, SKOMER ISLAND, PEMBROKESHIRE 6th July 2006

Recovered as an adult, CRAB BAY, SKOKHOLM 14th May 2023
Finding condition Metal ring read in field
Distance travelled 4km at 163 degrees (SSE)
Days since ringed 6156

Ringing recovery EZ16232
Originally ringed as an adult, SKOKHOLM 17th July 2015
Recovered as an adult, PLAGE SUD, BISCARROSSE, LANDES, FRANCE 14th January 2023
Finding condition Fresh dead on beach
Distance travelled 861km at 160 degrees (SSE)
Days since ringed 2738

Ringing recovery EZ85652
Originally ringed as a pullus, SKOKHOLM 23rd June 2018
Recovered as an adult, NEWHAVEN, EAST SUSSEX 7th January 2023
Finding condition Fresh dead on beach
Distance travelled 385km at 106 degrees (ESE)
Days since ringed 1659

Red-throated Diver *Gavia stellata* **Trochydd Gyddfgoch**
Scarce passing at sea from September to May, not recorded every year but occasionally Uncommon

There were no spring records for the first time in three years; there have been 58 bird-days logged in March, April or May, with highs of eight in 1967 and ten in 2016. Indeed the only sightings this year were of singles in Broad Sound on the 22nd and 25th November; there have now been 46 November bird-days, with highs of 11 in 1990 and ten in 2021. An annual bird-days total of two was down on a 2013-2022 mean of 5.5 and well down on highs of 12 in 1967 and 2021, 14 in 2016, 15 in 1992 and 19 in 1990. The number of bird-days logged is inevitably impacted by how long staff remain on the Island towards the end of the year; although there have been birds in every month bar July, 88 of 194 all-time bird-days have now been noted during the last three months of the year and a further 18 have been in January or February.

Great Northern Diver *Gavia immer* **Trochydd Mawr**
Scarce passing at sea from August to May, not recorded every year but occasionally Uncommon
Earliest 3rd August 2019 (14th November 2023) **Latest** 30th May 1983 (5th May 2023)

A summer plumaged bird heading northwest off the Lighthouse during the afternoon of the 29th made this only the 12th April with a sighting, with six of these occurring in the last decade. A similarly smart bird was below the Lighthouse on 5th May, this just the 11th to be encountered in this month. There have been March, April or May sightings in 17 previous years tallying 25 bird-days, now with ten since 2014 and highs of three in 1980 and 1994. There were no autumn records until November; the all-time August bird-days total thus remains at four (with two in 2019 and one in 2020), the September total at 19 (with five since 2016 and a high of four in 1930) and the October total at 17 (including five since 2014). Distant unidentified divers were logged on the 7th and 8th November, with

the only definite Great Northern Diver seen close in at the Lighthouse on the 14th (photographs below); an all-time November bird-days total of 30 now includes 20 since 2015. A 2023 bird-days total of three was down on a 2013-2022 mean of 5.9, this a period which saw all-time highs of 24 in 2019 and nine in 2020 (the former tally including a remarkable daycount of 18 on 2nd December).

Storm Petrel *Hydrobates pelagicus* **Pedryn Drycin**
Abundant Breeder a 2016 whole Island survey predicted 2383 occupied sites
415 trapped (including 63 pulli), 12 retrapped, 21 controls
1933-1976: 18,473 trapped, 2011-2022: 6747 trapped, 662 retrapped, 278 controls

Despite the sizable Skokholm breeding population and the significant amount of time dedicated to seawatching, Storm Petrels typically prove a rare sight at sea. Indeed the only at sea sightings this year were of one off South Haven on the afternoon of 22nd July, one heading northwest off the Lighthouse on 5th August, two off the Lighthouse on 19th August, five feeding around a Great Black-backed Gull off Crab Bay on 19th September and a further four past on the latter date. With the exception of a small number of incubating adults visible in shallow crevices or in nest boxes, all other 2023 sightings came at night, although birds occasionally called from holes during the day and vocal responses were elicited for monitoring purposes. The first record of the year was of three heard during the day on 25th April and five were around the Quarry on the night of the 26th; the former were ten days earlier than both the first diurnal record of last year and the 2013-2022 mean (the earliest during this period was heard on 23rd April 2017 and the latest on 25th May 2013). Birds lingering around Migration Rocks on the nights of 23rd May and 16th June were notable; there were no records included for this area during the 2016 whole Island survey. The infrared viewing equipment again proved popular, producing peak nocturnal counts from the Quarry of at least 104 on 26th May, 154 on 9th June and 105 on 23rd June. Interestingly a Storm Petrel was watched dipping down onto the surface of Orchid Bog on the night of 12th August.

Four playback transects established at the Quarry in 2010, along with plots in North Haven Gully and along two of the walls which radiate from the Farm, potentially provide a sound method for monitoring changes in the Skokholm population (see the 2013-2019 and 2021-2022 Seabird Reports for full details). Unfortunately the COVID-19 dictated Island closure meant that there were insufficient staff to safely survey the boulder areas in 2020, however a check of the accessible crevices used for productivity monitoring revealed incubating adults in the vast majority of usual sites. We were joined by two Long-term Volunteers for the full survey period this year, this allowing work to be completed in the usual period; ten visits were made to the study areas between 20th June and 16th July. An MP3 recording of male song was played into every crevice encountered along the transects, both numbered (and therefore used previously) and unmarked, with each active crevice being recorded and marked if new. It was first noted in 2013 how some marked crevices no longer

fell within the two metre wide transects, an observation which prompted regular checks to assess the drift caused by (typically) small scale rock movements (and almost certainly in a small number of cases by erroneous measurements early in the project); it should be noted in future surveys that some marked crevices which were once within the two metre transects now lie outside of the survey area. The playback census this year again focused on the area delineated by marked burrows, although the results were then divided into those which fell within the two metre transects and those which fell just outside (see table below).

The total number of apparently occupied crevices (located over ten visits) responding to a recording of male song at each of the seven study sites. Numbers in parenthesis are the totals from the 2m wide Quarry transects (as stipulated in the project guidelines) as opposed to the more wayward crevices monitored since the project's inception. There was no 2020 survey, the mean that for the period 2010-2019 and 2021-2022.

Year	North Pond Wall	Little Bay Wall	North Haven Gully	Quarry transect 1		Quarry transect 2		Quarry transect 3		Quarry transect 4		Quarry total		Total	
2023	9	13	17	15	(6)	15†	(8)†	12	(7)	61	(32)	103	(53)	142	(92)
2022	9	18	19	16	(5)	18†	(9)†	17	(10)	57	(32)	108	(56)	154	(102)
2021	9	17	16	17	(5)	15†	(7)†	14	(10)	43	(22)	89	(44)	131	(86)
2019	10	23	12	18	(7)	18†	(9)†	13	(8)	44	(20)	93	(44)	138	(89)
2018	6	13	11‡	15	(5)	15†	(10)†	12	(8)	49	(30)	91	(53)	121	(83)
2017	7	20	15‡	15	(5)	13†	(7)†	10	(9)	47	(27)	85	(48)	127	(90)
2016	6	15	17	9*	(4)*	**	**	11	(8)	41	(26)	61	(38)	99	(76)
2015	7	17	17	14	(5)	21	(9)	12	(7)	42	(25)	89	(46)	130	(87)
2014	9	12	13‡	14	(5)	18	(9)	18	(12)	37	(22)	87	(48)	121	(82)
2013	8	15	22	14	(4)	15	(8)	10	(7)	46	(27)	85	(46)	130	(91)
2012	5	9	21	12	(5)	8	(4)	10	(5)	33	(17)	63	(31)	98	(66)
2011	7	5	19	11	(5)	13	(8)	10	(7)	25	(14)	59	(34)	90	(65)
2010	4	9	18	8	(5)	15	(12)	11	(8)	30	(17)	64	(42)	95	(73)
Mean	**7.3**	**14.4**	**16.7**	**13.6**	**5.0**	**15.4**	**8.4**	**12.3**	**8.3**	**41.2**	**23.3**	**81.2**	**44.2**	**119.4**	**82.4**

* Transect 1 was only visited on four occasions in 2016 due to safety concerns.
** Transect 2 was not visited in 2016 due to a rock fall.
† Transect 2 was shortened in 2017 due to the 2016 rock fall.
‡ There was substantial scouring in the winters of 2013-14 and 2016-17 and in October 2017.

Between 31 and 56 responses were elicited along the Quarry transects using MP3 playback in each of the years between 2010 and 2019 and in 2021 and 2022, although a substantial rock slide in 2016 significantly reduced the area which could be surveyed that year; Quarry transect two, which held between four and 12 responding birds, was almost entirely destroyed in 2016 and Quarry transect one was undercut on its southern edge, rendering both transects too dangerous to survey (see the 2016 Seabird Report for photographs and further details). It would seem from the records that the 2016 Quarry rock fall was by far the largest such event for over 35 years. Visits to the Quarry in 2017 established that there had been no further significant slides on any of the transects; the decision was made to reinstate transect one entirely and to use the upper section of transect two, a situation which has remained the same since. It was decided in 2017 that all of the data previously collected for transects one and two would be compared directly with future years; no adjustments have thus been made for the fact that transect two was shorter from 2017 onwards and that transects one and two were missed in 2016. Although it was again apparent that there had been some small winter rock slides, again along transect four, there were no safety concerns this year.

There is a general consensus that the number of pairs utilising the 18th century herringbone walls on Skokholm has declined (Vaughan and Gibbons, 1996; Vaughan, 2001; Thompson, 2003; Sutcliffe,

2010), perhaps due to a loss of suitable nest sites as vegetation and soil fills gaps in the collapsing walls. However standardised survey work over the last 13 years suggests that there have been no further declines, although clearly there is some variation in the number of responses elicited each year (perhaps in part due to fluctuations in the number of transient, non-breeding birds, rather than changes in the number of breeding pairs (Brown and Eagle, 2017)). This year saw 18.5% fewer wall responses than in 2022, however a combined North Pond Wall and Little Bay Wall total of 22 matched the 2010-2022 mean (21.7 ±sd 6.4); there were highs of 33 in 2019 and 27 in 2017 and 2022, lows of 12 in 2011 and 13 in 2010. It would seem that the Walls population can still be cautiously regarded as stable. The six holes excavated by hand in 2021 and 2022 were not used.

The huge swell generated by Storm Ophelia in October 2017, the remnants of the easternmost major Atlantic hurricane on record, caused yet another scouring event in North Haven Gully. Nest boxes installed in 2014, the access ladder to the lower portion of the slope and the central section of boulder scree which traditionally held many active crevices were all destroyed, whilst the painted marker stones were again moved from their original locations. This was the third major change to the North Haven landscape in five years, a series of events which almost certainly contributed to a 38.9% decline in the number of occupied crevices located between 2010 and 2018. No further significant changes to the North Haven landscape have been observed since, although a small rock fall above the upper east portion of the gully has created additional sites. Nevertheless, recent weather events releasing soil from further up the gully have seemingly reduced the overall number of open fissures suitable for nesting. How such a loss of available nest sites effects the Skokholm population as a whole is unclear; it would seem likely that nest sites are available away from North Haven and that the birds were not impacted directly (as they were predominantly absent during the scouring events), however the impact of looking for new nest sites on adult survival and productivity is something of an unknown. There were 17 active sites discovered in North Haven Gully this year, this two fewer than last year but matching a 2010-2022 mean of 16.7 ±sd 3.4 and matching the 2015 and 2016 totals as the second highest since the 22 of 2013 (the first big scouring event during this study was in the winter of 2013-2014).

The ephemeral nature of Storm Petrel nest sites was also evident at the Quarry where there were further small scale movements, particularly along transect four. A transect one total of six was one

up on both that of last year and the 2010-2022 mean (there have been five transect responses in nine of 12 years). A transect two total of eight was one down on that of 2022 but matched the mean (8.4 ±sd 2.0), this despite the fact that the transect was shortened in 2017. A transect three total of seven was three down on that of last year and matched those of 2013 and 2015 as the lowest since the five of 2012 (the 2010-2022 mean is 8.3 ±sd 1.8). The 32 responses elicited within the two metre wide transect four over ten visits matched the record total logged last year; the previous highs were the 27 of 2013 and 2017 and the 30 of 2018, whilst the 2010-2022 mean is only 23.3 ±sd 5.5. The overall Quarry total of 53 was three down on that of last year but matched that of 2018 as the second highest on record, this 19.9% up on the 2010-2022 mean (44.2 ±sd 7.2).

The number of crevices which have at some point been occupied over the 13 study years (a total of 394), subdivided to show how many years the crevices have been apparently occupied for and the percentage of crevices occupied for a particular number of years. Crevices in the lower half of transect two, not visited after the 2016 rock fall, are not included in this table.

	Quarry Transects	The Walls	North Haven Gully	Total	% of total
1 year of apparent occupancy	53	41	23	**117**	29.70
2 years of apparent occupancy	34	9	22	**65**	16.50
3 years of apparent occupancy	24	8	9	**41**	10.40
4 years of apparent occupancy	22	6	13	**41**	10.40
5 years of apparent occupancy	23	5	1	**29**	7.36
6 years of apparent occupancy	14	7	5	**26**	6.60
7 years of apparent occupancy	9	5	2	**16**	4.06
8 years of apparent occupancy	18	1		**19**	4.82
9 years of apparent occupancy	10	1	1	**12**	3.05
10 years of apparent occupancy	6	1		**7**	1.78
11 years of apparent occupancy	10	3		**13**	3.30
12 years of apparent occupancy	2			**2**	0.51
13 years of apparent occupancy	4	1	1	**6**	1.52
Total	**229**	**88**	**77**	**394**	

Overall there were 92 responses elicited this year, this ten fewer than logged in a record 2022 (there were two fewer active sites in North Haven, five fewer in Little Bay Wall and three fewer in the Quarry); nevertheless the total was the second highest on record, up on the 91 of 2013, the 90 of 2017 and a 2010-2022 mean of 82.5 ±sd 10.9. It still seems likely that, over the last decade at least, the Skokholm study population has been stable at worst, a conclusion which is probably applicable to the Island population as a whole. This is positive news following what may have been a significant population decline between 1996 and 2010 (Sutcliffe and Vaughan, 2011; Wood *et al*., 2017). One of the most important variables highlighted in recent years is nest site availability within the study areas; birds can only react to the changing landscape and maintain a stable population if further nest sites open up as others are lost. It is clear that some Storm Petrel nest crevices are short lived (as shown in the table above, nearly a third of those found over the course of this study have only been occupied during a single year), however stable sites are also in existence; over 25% of the active crevices located during 13 years of study have shown signs of occupancy in six or more years and 7.11% of crevices have contained a calling bird in ten or more years. Although changes in the positioning of rocks will mean that some crevices were only available for a single year, it is tempting to suggest that some of the crevices occupied only once are perhaps unsuitable nest sites (although they contained a calling bird, such sites may have never actually supported a breeding attempt).

The proportion of known active crevices which respond to a recording of male song during any single visit unsurprisingly fluctuates; there are several reasons for this, including the chance presence of birds of different sexes, individual variation in response rate, nest site positioning (which will

influence how occupants hear the stimulus) and breeding status (non-breeders are perhaps more likely to leave a crevice unattended, to occupy multiple crevices during the study period or to respond at a different rate to breeding birds, whilst breeding status could also change during the survey period). The Walls saw an average of 6.9 (31.4%) of the 22 active sites respond per visit, although between three and 14 responded on a single visit. At North Haven a mean of 6.3 (37.1%) of 17 active sites responded, although between two and 11 responded on a single visit. At the Quarry a mean of 35.5 (34.5%) of 103 active sites responded, but this was between 20 and 50 on any particular date. Despite this significant variation between dates, the mean response rates at the Walls, North Haven and the Quarry fell within the ranges observed between 2014 and 2022 (see table below). An average response rate for all sites of 34.3% was the second highest to be observed in nine years, only down on the 36.7% recorded last year; although it is unclear why, the three highest average response rates have occurred in the last three years and the five highest in the last five years. The use of these response rates to produce a correction factor remains the best way to predict the number of birds present in a large area when ten visits are not logistically feasible (for example during the whole Island census). Based on the data collected over nine of the last ten years, the number of active sites present in an area is likely to be in the region of 3.23 times more than the number encountered on a single visit. However the variation seen in this year's figures is a reminder of how difficult it is to assess the population of a species which usually cannot be seen.

The percentage of known active crevices which responded to male song during any single visit, averaged across all ten visits, and the 2014-2023 mean (the resulting correction factors are given in parenthesis).

Year	The Walls	North Haven	Quarry	Rock fall	Average
2023	31.4 (3.19)	37.1 (2.70)	34.5 (2.90)	34.8 (2.87)	34.3 (2.92)
2022	29.6 (3.38)	40.0 (2.50)	37.9 (2.64)	38.2 (2.62)	36.7 (2.73)
2021	34.2 (2.92)	36.9 (2.71)	32.1 (3.11)	32.9 (3.04)	33.1 (3.02)
2019	31.2 (3.20)	35.8 (2.79)	30.1 (3.23)	30.8 (3.24)	30.9 (3.24)
2018	22.6 (4.42)	31.8 (3.14)	32.6 (3.06)	32.5 (3.07)	31.0 (3.23)
2017	21.9 (4.58)	30.9 (3.23)	28.1 (3.55)	28.5 (3.51)	27.1 (3.69)
2016	40.0 (2.50)	25.9 (3.86)	23.3 (4.30)	23.9 (4.18)	27.7 (3.61)
2015	28.7 (3.48)	37.4 (2.68)	28.9 (3.46)	30.4 (3.29)	30.1 (3.33)
2014	36.2 (2.76)	40.0 (2.50)	26.2 (3.82)	26.4 (3.79)	28.1 (3.56)
Mean	**30.6 (3.26)**	**35.1 (2.85)**	**30.4 (3.29)**	**30.9 (3.23)**	**31.0 (3.23)**

A summary of Petrel Station contents 2018-2023

	2018	2019	2020	2021	2022	2023
Number of pairs that produced eggs	4	9	8	5	6	7
Number of pairs that fledged young	0	2	2	3	4	5
Productivity	0.00	0.22	0.25	0.60	0.67	0.71
Boxes with signs of occupancy	8	13	12	19	58	64

There is a clear need to discover what the birds which respond to playback during the annual monitoring are actually doing; due to the fact that the vast majority of responding birds are hidden, it is unclear how many of these (and indeed how many of the 2383 occupied sites predicted during the 2016 whole Island census (Wood *et al.*, 2022)) are actually breeding (as opposed to non-breeders moving around potential nest sites or diurnal refuges unsuitable for nesting). Previous attempts to use an endoscope in natural sites have failed to locate a sufficiently large sample size for monitoring purposes. One way to improve our knowledge is to encourage petrels to occupy accessible artificial sites. With this in mind a study wall containing 119 nest holes was created during the 2016 season (with the final inspection hatches and endoscope holes added in April 2017). Ten

visits were made to this 'Petrel Station' between 26th June and 11th July 2020 when an MP3 playback census was conducted (this within the standard period used for the transect survey). The ten visits elicited calls from just three boxes, with a mean of 1.1 responses per visit and a mean apparent response rate of 36.67%. Confirmatory checks during the chick provisioning period revealed discrepancies between the playback results and the box contents; two of the boxes found to be active during the survey contained chicks, but one only contained a nest scrape, whilst a further three boxes from which responses were not elicited contained nest scrapes and six additional boxes contained egg stage failures by silent pairs. This has obvious implications for the whole Island census as evidently some active sites were not detected over ten visits (which would perhaps suggest that the Skokholm population is larger than estimated in 2016). It should be remembered that the Petrel Station was probably not then representative of the Island as a whole, primarily as the majority of occupants were likely to be younger, inexperienced birds. This theory is supported by the 2018-2020 productivity estimates (see table above), these figures well down on those seen elsewhere on the Island. Given the poor productivity witnessed early in this project, it was decided that there would be no Petrel Station playback census in 2021, 2022 or 2023 (to allow for productivity checks in years without a potentially disturbing survey).

Visits to the Petrel Station during the 2023 chick provisioning period revealed that 64 boxes had contained a Storm Petrel at some point this year, this six more than last year and a new high. Only nest scrapes were present in 57 of these boxes, with seven pairs having produced eggs. An egg in box 21 was abandoned (there was a nest scrape in this box last year and no signs of occupation previously), as was an egg in box 104 (this site was seemingly occupied for the first time last year when a chick died during hatching). Chicks fledged from boxes 11 and 64 for a fifth consecutive year and a chick fledged from box 12 for a third consecutive year. A chick fledged from box 63 for the first time; this site held an egg stage failure in 2018 and was not seemingly occupied from 2019 to 2022. A chick also fledged box 112 for the first time; this site held egg stage failures in 2019 and 2020, was seemingly empty in 2021 and contained an empty scrape last year. Assuming that no eggs had been removed from the Petrel Station by the petrels or scavengers (a difficult task as there is a lip between the nest chamber and the access tunnel to each box), then productivity was 0.71 fledglings per pair, this a new high for this site and more consistent with that observed elsewhere. It is unclear whether the improved productivity seen since 2021 is due to reduced disturbance or the fact that this site may now contain older, more experienced birds. Eight cameras were installed in the Petrel Station this year, four of these in boxes 11, 12, 64 and 112. The cameras again captured courtship and mating, egg laying, incubation and chick feeding, along with some fascinating pebble tossing behaviour (the latter seen in both adults and chicks). An increasing number of Petrel Station

fledglings was sufficient inspiration for a Petrel Station II which was built near the Farm, this containing 148 accessible nest chambers (above photographs).

There were 25 sites discovered this season where an incubating bird was evident early enough in the nesting period to allow for a productivity estimate, these including the four Petrel Station cameras listed above (the largest sample this decade had been 20, with a 2014-2022 mean of 17.6). Although some very early egg stage failures may have been missed, the study is biased towards birds in shallow crevices or boxes and the sample size is far from great, these visible birds provide a rare opportunity to estimate productivity on Skokholm. The first eggshell fragments indicative of a hatched chick were discovered along Quarry Transect two on 5th July, this two days earlier than the 2015-2022 mean (the earliest chick during this period was discovered on 29th June 2019 and the latest on 26th July 2021). Only five of the monitored nest attempts failed; attempts in the Gantry Wall, under a rock in the Quarry and in Quarry box A2 failed at either egg or very small chick stage (the nest contents were not found), an egg in Quarry box A5 was abandoned and a smashed egg was found in Quarry box B8. The remaining 20 attempts were successful, the 2023 productivity estimate thus being 0.80 fledglings per pair; although down on the 0.85 of last year, this matches that of 2021 as the second highest estimate of the last decade (the 2014-2022 mean is 0.63 ±se 0.05, with a low of 0.45 in 2020). It is unclear why productivity was so high during the last three years, although predominantly dry conditions no doubt benefitted small chicks left alone in relatively exposed sites.

Although only small numbers of accessible chicks are ringed each year on Skokholm, the tape luring of adult birds in South Haven is giving some indication as to their post-fledging survival (this coupled with a small number of controls from elsewhere). Of four birds ringed as chicks in 2013, one has been found subsequently (25.0%), whilst three of 11 2014 chicks (27.3%), four of 17 2015 chicks (23.5%), one of six 2016 chicks (16.7%), one of seven 2017 chicks (14.3%), two of 15 2018 chicks (13.3%), five of 24 2019 chicks (20.8%), three of 15 2020 chicks (20.0%) and five of 42 2021 chicks (11.9%) have been encountered again (the controls being a 2015 chick retrapped in Cornwall in 2018 and again in France in 2021, a 2016 chick retrapped on the nearby mainland in 2019, a 2018 chick retrapped in Cornwall and then Wexford in 2021, a 2021 chick retrapped in Gwynedd this year and a 2021 chick retrapped in Donegal this year). Thus, of the 99 Storm Petrel ringed as chicks between 2013 and 2020, 20.2% have been seen again. Of the 25 youngsters now encountered subsequently,

15 were first found two summers after fledging (including one also seen three summers after), nine were first found three summers after fledging (including one also seen six summers after and one also seen four and seven summers after) and one was first found four summers after fledging. Four ringed in the Petrel Station have been seen again, this including the chicks ringed in box 11 in 2019, 2020 and 2021, all potentially siblings and encountered in South Haven this July.

In 2013 a thermal imaging camera recorded a Short-eared Owl hunting Storm Petrels in the Quarry, an event which has subsequently been shown to be quite regular. The remains of six petrels were found that year, with 16 in 2014, 18 in 2015, 51 in 2016, 98 in 2017 (the only year on record in which Short-eared Owls have been proven to breed), 31 in 2018, five in 2019, three in 2020, 39 in 2021 and five last year; the majority of these were thought to be the victims of Short-eared Owls, usually due to the presence of feathers or pellets. There were 20 Short-eared Owl bird-days logged this season, this matching the fourth lowest total of the last 11 years and down on a 2013-2022 mean of 33.7 (there was a high of 76 in 2017 and a low of 16 in 2020). The remains of eight adult Storm Petrels were located this year, all between 22nd June and 10th September; between 2013 and 2022 there was an annual mean of 27.2 ±sd 29.7 dead birds logged (see above). There were again no Little Owl records (the last was seen on 17th March 2018); this introduced species is a well-documented Storm Petrel predator, for example the 1936 Skokholm Bird Observatory Report includes details of a Little Owl nest containing the remains of nearly 200 petrels. In 2019 a House Mouse was watched via a live infrared camera feed as it entered Petrel Station burrow 64; it was seen to walk to the end of the entrance tunnel but did not drop down into the chamber or interact with the resident Storm Petrel chick, indeed neither seemingly reacted to the other's presence. There is as yet no evidence that the Skokholm mice take eggs or chicks, even those abandoned following failed nest attempts.

Adult Storm Petrels were lured to the traditional South Haven netting site on 16 nights between 17th July and 4th September; this was nine more nights than last year (when ringing was suspended due to HPAI concerns) and five more nights than the 2013-2022 mean, indeed it was more nights than in any other year during this period (although the six nights from 20th August yielded only 27 new birds, a retrap and a control). The largest catch was of only 74 birds on the night of 17th July; this was the lowest peak catch of the last 11 years (the previous low being the 101 of 2013), 193 down on the record of 267 set in 2022 and well down on the mean (190.2 ±sd 57.3). Subsequent catches were smaller still, with peaks of 56 on the night of 18th July, 51 on the night of the 19th and 55 on the night of the 25th. There were 379 adults handled in South Haven this year, this the lowest total of the last decade and down on a 2013-2022 mean of 722.4 (there were highs of 1063 in 2018 and 1284 in

2021). Of those handled, 8.4% were already wearing a ring (the mean during the period 2013-2022 was 11.1%, with a high of 21.3% in 2021 and a low of 5.4% in 2014); these included two ringed as adults in 2021, two ringed as adults in 2022, one ringed as an adult this year and six ringed as chicks (one in 2019, two in 2020 and three in 2021), whilst 21 (5.54%) had been ringed elsewhere (the mean during the same period was 4.07%, with a high of 5.68% in 2013 and a low of 2.58% last year). Since ringing fully recommenced in 2013 we have now received news of 542 Storm Petrels either ringed on Skokholm and found elsewhere or ringed elsewhere and controlled on Skokholm; of these 353 have been exchanged with sites more than 10km away from the Island (see map below). Unless stated otherwise, all of the following recoveries were of birds deliberately mist netted.

Ringing recovery 2186282
Originally ringed as an adult, SKINNINGROVE, REDCAR & CLEVELAND 20th July 2023
Recovered as an adult, SOUTH HAVEN, SKOKHOLM 20th August 2023
Distance travelled 432km at 223 degrees (SW)
Days since ringed 31
Only the seventh 21st century encounter with a bird ringed on the east coast of England. A Skokholm ringed bird is yet to be found on that side of the country.

Ringing recovery 2547865
Originally ringed as an adult, GREAT SALTEE ISLAND, WEXFORD, IRELAND 15th June 2023
Recovered as an adult, SOUTH HAVEN, SKOKHOLM 18th July 2023
Distance travelled 102km at 119 degrees (ESE)
Days since ringed 33
2547885, ringed as an adult on 16th June 2023, made the same journey, also reaching Skokholm on 18th July but after 32 days.

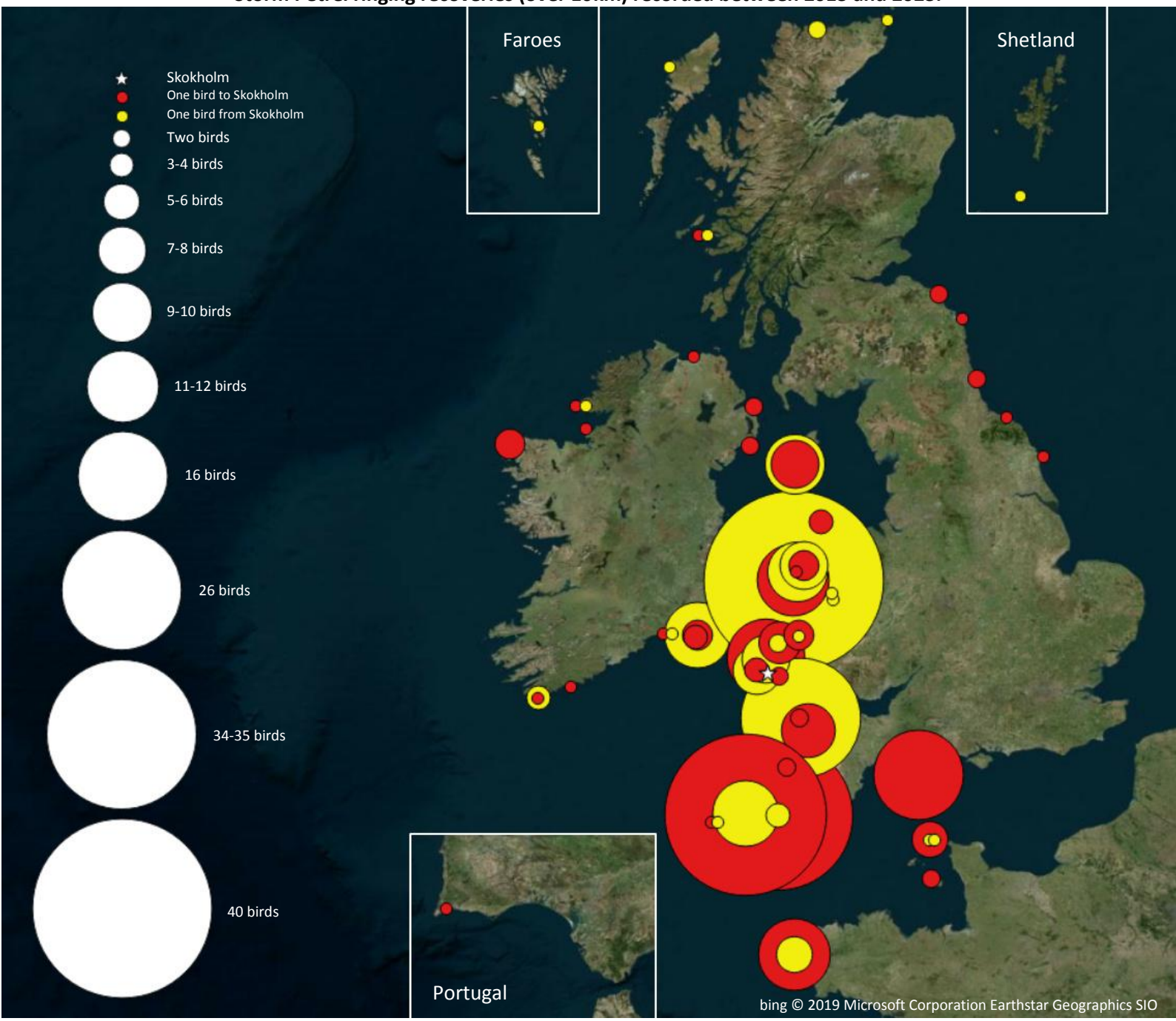
Ringing recovery 2566574
Originally ringed as an adult, GWENNAP HEAD, PORTHGWARRA, CORNWALL 13th July 2002
Recovered as an adult, SOUTH HAVEN, SKOKHOLM 21st July 2023
Distance travelled 187km at 9 degrees (N)
Days since ringed 7678
This was the oldest Storm Petrel encountered during the 2023 season. Additionally 2761201 and 2780591, ringed as adults at Gwennap Head on 7th June 2021 and 4th July 2022, were both in South Haven on 18th July 2023 after 771 and 379 days respectively. 2780599 and 2780665, ringed as adults at Gwennap Head on the 4th and 28th July 2022, were in South Haven on the 7th and 15th August 2023 after 399 and 383 days respectively. 2780684, 2780696 and 2780766, ringed as adults at Gwennap Head on the 15th, the 15th and 18th June 2023, were in South Haven on the 19th, the 26th and 19th July after 34, 41 and 31 days respectively. 2774544 made the reverse journey; having been ringed as an adult in South Haven on 20th July 2022, it was controlled at Gwennap Head on 18th July 2023 after 363 days.

Ringing recovery 2587602
Originally ringed as a juvenile, FRESHWATER WEST, PEMBROKESHIRE 26th October 2019
Recovered as an adult, SOUTH HAVEN, SKOKHOLM 19th July 2023
Distance travelled 17km at 290 degrees (WNW)
Days since ringed 1362
Yet more evidence that wayward youngsters released back to sea can go on to survive. This is the second Storm Petrel in four years to be encountered following a release at this site.

Ringing recovery 2649657
Originally ringed as an adult, PORTH IAGO, LLŶN PENINSULA, GWYNEDD 24th June 2020
Recovered as an adult, SOUTH HAVEN, SKOKHOLM 18th July 2023

Distance travelled 133km at 197 degrees (SSW)
Days since ringed 1119

Storm Petrel ringing recoveries (over 10km) recorded between 2013 and 2023.



Ringing recovery 2685475
Originally ringed as an adult, SOUTH HAVEN, SKOKHOLM 20th July 2014
Recovered as an adult, LUNDY ISLAND, DEVON 19th July 2023
Distance travelled 69km at 142 degrees (SE)
Days since ringed 3286
Additionally 2685534 and 2685757, ringed as adults in South Haven on the 20th and 24th July 2014, were controlled at Lundy on the 25th and 16th July 2023 after 3292 and 3279 days respectively. 2705497, ringed as an adult in South Haven on 31st July 2015, was controlled at Lundy on 17th August 2023 after 2939 days. 2722660, ringed as an adult in South Haven on 8th August 2017, was controlled

at Lundy on the 10th and 23rd July 2023 after 2162 and 2175 days. 2740238, ringed as an adult in South Haven on 19th July 2018 and controlled at Lundy on 1st September 2018, was again there on the 19th and 24th July 2023 after 1826 and 1831 days. 2740568, ringed as an adult in South Haven on 4th August 2018, was controlled at Lundy on 6th August 2023 after 1828 days. 2746782 and 2746817, both ringed as adults in South Haven on 13th July 2020, were controlled at Lundy on 16th July and 28th August 2023 after 1098 and 1141 days respectively. 2746895, ringed as an adult in South Haven on 17th July 2020, was controlled at Lundy on 17th August and 16th September 2023 after 1126 and 1156 days. 2758118, 2758120 and 2758755, ringed as adults in South Haven on the 31st, 31st and 18th July 2021, were controlled at Lundy on 20th July, 10th July and 16th August 2023 after 719, 709 and 759 days respectively. 2774192 and 2774446, ringed as adults in South Haven on the 12th and 17th July 2022, were controlled at Lundy on 20th July and 16th August 2023 after 373 and 395 days respectively. 2775076 and 2775094 made the reverse journey; having been ringed as adults at Lundy on the 19th and 20th July 2023, they were controlled in South Haven on 17th August and 26th July after 29 and six days respectively.

Ringing recovery 2685726
Originally ringed as an adult, SOUTH HAVEN, SKOKHOLM 24th July 2014
Previously recovered as an adult, BARDSEY ISLAND, GWYNEDD 28th June 2016
Recovered as an adult, BARDSEY ISLAND, GWYNEDD 9th August 2023
Distance travelled 125km at 16 degrees (NNE)
Days since ringed 3303
Additionally 2774127, ringed as a large chick along Quarry Transect Four on 5th September 2021, was controlled at Bardsey on 9th July 2023 after 672 days. 2773191 made the reverse journey; having been ringed as an adult at Bardsey on 28th July 2022, it was controlled in South Haven on 19th July 2023 after 356 days. Whilst the majority of Storm Petrels controlled on Skokholm have been ringed to our south, primarily in Cornwall and Dorset, the majority of birds ringed on Skokholm are controlled to our north. Skokholm ringed birds have now been controlled at Bardsey Island on 40 occasions since 2013, with 26 at Lundy, ten at Little Saltee and Gwennap Head and nine at Porth Iago and the Calf of Man the next highest tallies.

Ringing recovery 2722782
Originally ringed as an adult, SOUTH HAVEN, SKOKHOLM 24th August 2017
Recovered as an adult, FAIR ISLE, SHETLAND 16th August 2023
Distance travelled 902km at 15 degrees (NNE)
Days since ringed 2183
The first 21st century bird to be found on Shetland.

Ringing recovery 2724168
Originally ringed as an adult, SKOMER ISLAND, PEMBROKESHIRE 23rd July 2022
Recovered as an adult, SOUTH HAVEN, SKOKHOLM 19th July 2023
Distance travelled 4km at 163 degrees (SSE)
Days since ringed 361
There were 25 Skomer ringed birds encountered on Skokholm between 2013 and 2022, along with 55 Skokholm ringed birds found on Skomer, however this was the sole exchange reported this year.

Ringing recovery 2739409
Originally ringed as an adult, STRUMBLE HEAD, PEMBROKESHIRE 17th July 2023
Recovered as an adult, SOUTH HAVEN, SKOKHOLM 19th July 2023
Recovered as an adult, SOUTH HAVEN, SKOKHOLM 7th August 2023
Distance travelled 40km at 202 degrees (SSW)
Days since ringed 2 and 21
2774206 and 2774825 made the reverse journey; having been ringed as adults in South Haven on

22nd July 2022 and 19th July 2023, they were controlled at Strumble Head on 23rd June and 26th July 2023 after 336 and seven days respectively.

Ringing recovery 2746296
Originally ringed as an adult, SOUTH HAVEN, SKOKHOLM 27th July 2019
Previously recovered as an adult, LUNGA, TRESHNISH ISLES, ARGYLL & BUTE 2nd July 2021
Recovered as an adult, CALF OF MAN, ISLE OF MAN 29th June 2023
Distance travelled 263km at 8 degrees (N)
Days since ringed 1433

Ringing recovery 2758936
Originally ringed as an adult, SOUTH HAVEN, SKOKHOLM 27th July 2021
Recovered as an adult, ILE DE BANNEG, LE CONQUET, FINISTÉRE, FRANCE 25th June 2022 (sic)
Distance travelled 364km at 178 degrees (S)
Days since ringed 333
Additionally 2774507, ringed as an adult in South Haven on 19th July 2022, was controlled at Ile De Banneg on 3rd August 2022 (sic) after 15 days. FRP SE39284 and FRP SE42550 made the reverse journey; having been ringed as adults at Ile De Banneg on 11th June and 8th July 2021, they were controlled in South Haven on the 4th and 2nd August 2021 (sic) after 54 and 25 days respectively. FRP SE45101 also made the reverse journey; having been ringed as an adult at Ile De Banneg on 3rd August 2022, it was in South Haven on 18th July 2023 after 349 days. The commune of Le Conquet is home to Banneg, the largest Storm Petrel colony in France, an island believed to support just under 1000 pairs which primarily nest in abandoned Rabbit burrows. Interestingly this nesting habitat was not found to be in use on Skokholm during the 2016 whole Island census (although in 2019 birds were found calling from a small area of burrows to the west of Dip Gully). There have now been 11 Banneg ringed individuals found on Skokholm since 2013, whilst five Skokholm ringed birds have been found there.

Ringing recovery 2774131
Originally ringed as a large chick, FRANK'S POINT, SKOKHOLM 6th September 2021

Recovered as an adult, MALIN BEG, GLEANN CHOLM CILLE, DONEGAL, IRELAND 5th August 2023
Distance travelled 404km at 325 degrees (NW)
Days since ringed 698

Ringing recovery 2774652
Originally ringed as an adult, SOUTH HAVEN, SKOKHOLM 18th July 2023
Recovered as an adult, HOUMET HERBE, ALDERNEY, CHANNEL ISLANDS 15th August 2023
Distance travelled 310km at 135 degrees (SE)
Days since ringed 28

Ringing recovery CIJ P19472
Originally ringed as an adult, BURHOU ISLAND, ALDERNEY, CHANNEL ISLANDS 14th July 2023
Recovered as an adult, SOUTH HAVEN, SKOKHOLM 16th August 2023
Distance travelled 305km at 316 degrees (NW)
Days since ringed 33

Fulmar *Fulmarus glacialis* **Aderyn-drycin y Graig**
Fairly Common Breeder first bred in 1967
3 pulli trapped
1968-1976: 19 trapped, 2017-2021: 6 pulli trapped

Although birds were absent from the cliffs on both the 1st and 2nd March, Fulmar were ashore on each subsequent March date; birds were absent from the cliffs on an average of 2.6 March dates between 2016 and 2022 (with some birds ashore on every date in 2021 and birds absent on six dates last year). A 16th to 31st March daycount mean of 70.5 was up on a 2013-2022 mean of 60.3 (indeed it was only down on the 85.0 of 2018 and the 78.7 of 2021), whilst a peak March daycount of 209 on the 7th was only down on the 216 of 2016 and the 264 of 2021. Although there were eight April daycounts of 70 or less, including lows of 40 on the 12th (when no birds were ashore), 30 on the 16th and 43 on the 20th, eight three-figure daycounts took the April bird-days total to 2602 (this close to a 2013-2022 mean of 2517.9). No more than 59 were logged each day between the 2nd and 16th May, this pre-laying exodus mirroring that seen in recent years (there were lows of 28 on the 3rd and 25 on the 8th, with daycounts increasing to 88 on the 17th, 106 on the 19th and 139 on the 20th). The first egg to be seen was on Little Bay Point on 16th May, this two days later than the first of last year but matching those of 2019, 2020 and 2021 as the second earliest of the last 11 years; the 2013-2022 first egg mean is 19th May, with the latest during this period logged on the 28th in 2014 (following prolonged and severe storms during the preceding winter).

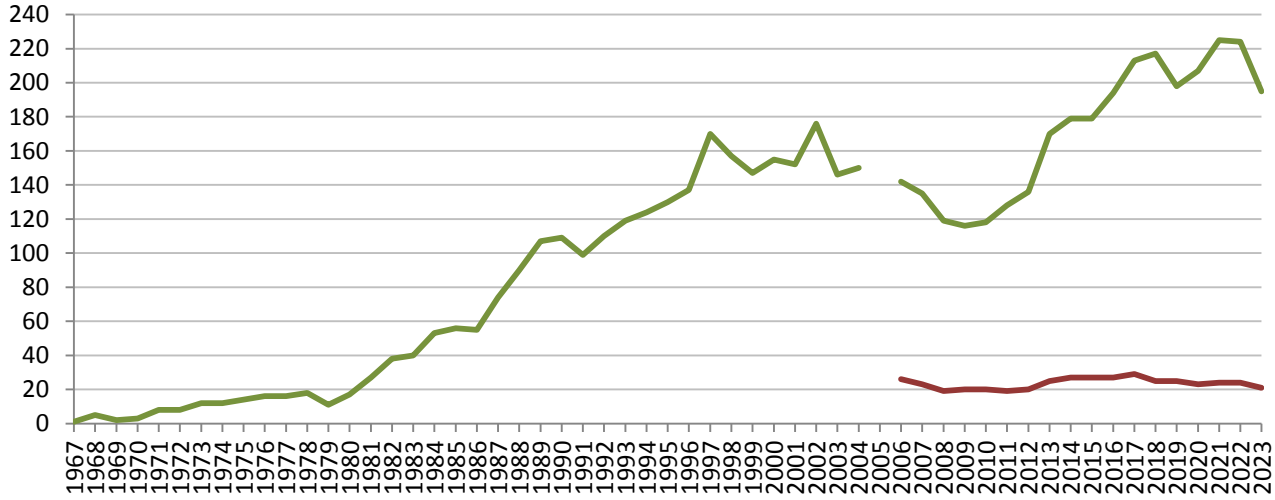
The six study plots counted annually since 2006 were visited on ten dates between 29th May and 9th June, an entirely dry period during which predominantly light winds blew entirely from the easterly quarter; some survey periods are far less clement, for example the 2020 and 2021 seasons saw May storms and huge seas which inevitably influenced Fulmar ledge attendance (the standard deviation recorded across ten visits being higher in rougher years (see below)). A 2023 average of 21 apparently occupied sites was the lowest since the 20 of 2012, eight down on the 2017 record and down on both a 2013-2022 mean of 25.60 ±sd 1.84 and a 2006-2022 mean of 23.71 ±sd 3.14. The mean total at Little Bay was again 12, this a plot where the number of occupied ledges has declined from a high of 19 in 2013 to 18 in 2014 and 2017, 17 in 2015, 16 in 2016, 14 between 2018 and 2020, 13 in 2021 and 12 last year; although 2019 saw one of the lowest plot averages, it was the year in which the area which contains this plot saw the highest number of apparently occupied sites (see map below), whilst this year the count for this area mirrored the plot (with the lowest total of the last decade). The Guillemot Cliff mean remained at five, this matching that logged in all but one year between 2014 and 2022. The Middlerock mean dropped to five, this matching the 2015, 2017 and 2020 totals as the lowest since the four of 2014. Up until the 2017 season, only these three plots

had contained Fulmar, however a hollow in the top third of the North Gully auk colony was occasionally occupied in three of the years between 2017 and 2020 (the overall mean was only changed in 2017); Fulmar were again absent from the North Gully plot this year.

The whole Island totals (apparently occupied sites), mean plot totals, the range of totals over ten study plot visits, the standard deviation observed over the ten visits and the percentage of the Island total made up of study plot birds 2013-2023.

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Island	170	179	179	194	213	217	198	207	225	224	195
Plots	25	27	27	27	29	25	25	23	24	24	21
Range	22-28	23-29	26-29	25-29	26-31	23-27	23-27	19-27	21-27	20-27	20-24
±SD	2.07	1.79	1.14	1.26	2.00	1.26	1.35	2.27	1.90	2.10	1.26
Plot %	14.7	15.1	15.1	13.9	13.6	11.5	12.6	11.1	10.7	10.7	10.8

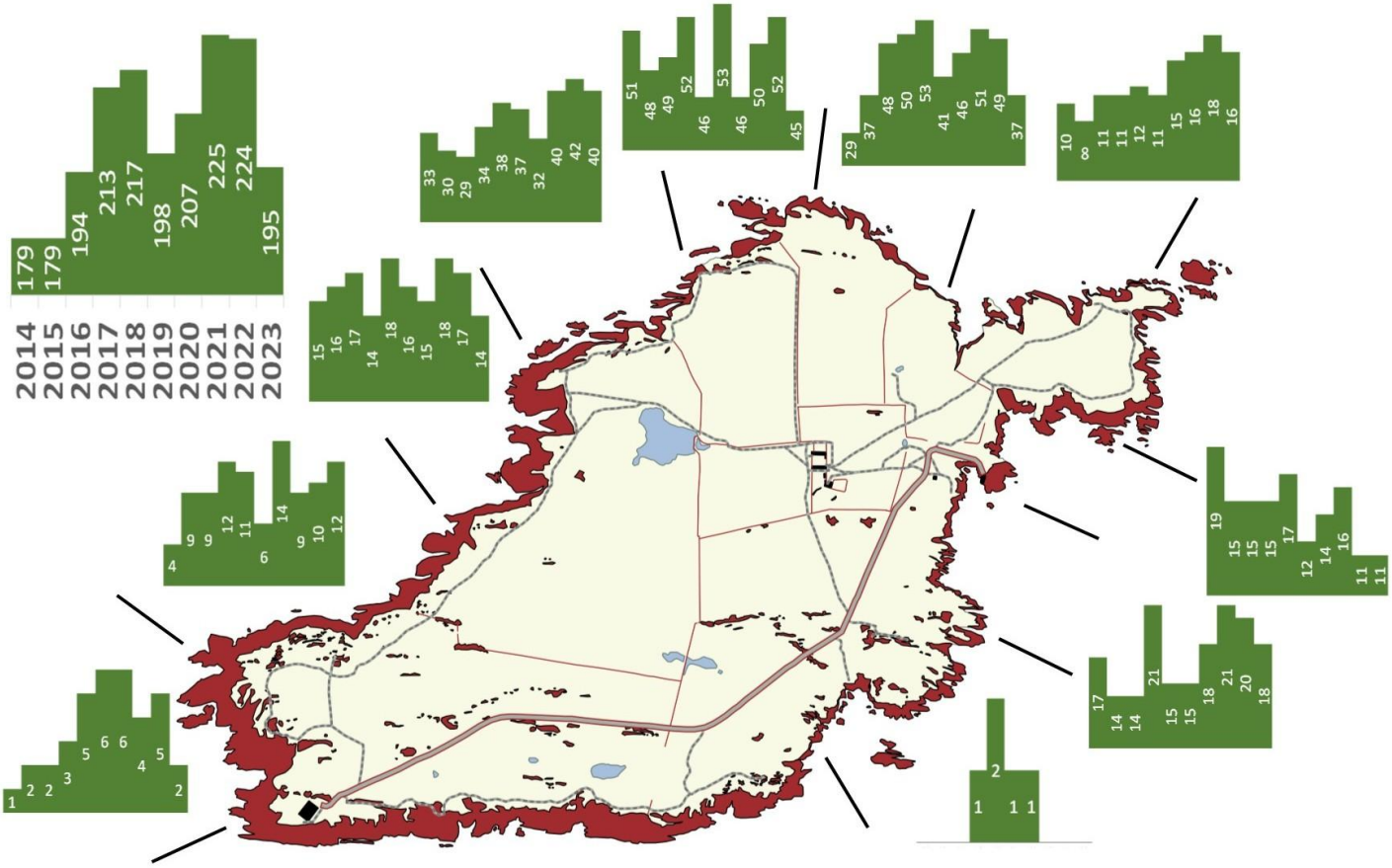
The total number of apparently occupied Fulmar sites recorded on Skokholm since breeding began in 1967 and the number within the study plots since 2006.



The whole Island counts undertaken between 29th May and 11th June yielded an average of 195 apparently occupied sites, this the lowest total since the 194 of 2016 and 2.8% down on a 2013-2022

mean of 200.60 ±sd 19.79; this was only the ninth time on record in which the total has been down on the mean of the preceding decade, with the same occurring in 2003 and annually between 2006 and 2012. There was a decline in numbers in all bar two of the occupied coastal sections, with the Peter's Bay mean matching that of last year as the lowest for more than a decade (this perhaps in some way connected to the poor productivity commonly recorded in this area (see below)) and two more apparently occupied sites between Wardens' Rest and the Bluffs (the total matching that of 2017 as the second highest to date). The declines were of three in the vicinity of the Quarry (-60%), three between Purple Cove and Twinlet (-18%), two between the Dents and the Jogs (-5%), seven between Little Bay and Little Bay Point (-13%), 12 between Far and Smith's Bays (-24%), two to the north of the Neck (-11%) and two in Hog Bay (-10%). The 2023 whole Island count includes approximately 30 pairs which would be difficult or impossible to see from the Island itself (birds seen from a boat to the west of North Gully, in Little Bay, on the Little Neck and in hidden crevices between Smith's Bay and Little Bay Point); the drop in numbers observed between 2006 and 2012 may perhaps thus be linked to a lack of boat access, although the study plots broadly mirrored the dip in the Island total. The proportion of the Island total made up of study plot birds was 10.8% this year; this is 16.3% down on the 2013-2022 mean (12.9% ±sd 1.8), almost matched the lowest recorded since the plots were begun (the 10.7% of 2021 and 2022) and is probably an indication that the plots are not representative of the Island as a whole (perhaps due to a lack of space for expansion, although up to eight more pairs have been resident in the Little Bay plot previously). The plots are nevertheless useful as they give an indication as to how the number of occupied ledges varies during the whole Island count period; they thus serve as a reminder that the population could be somewhat different to that deduced during a comparatively low number of visits.

The distribution of apparently occupied Fulmar sites 2014-2023.



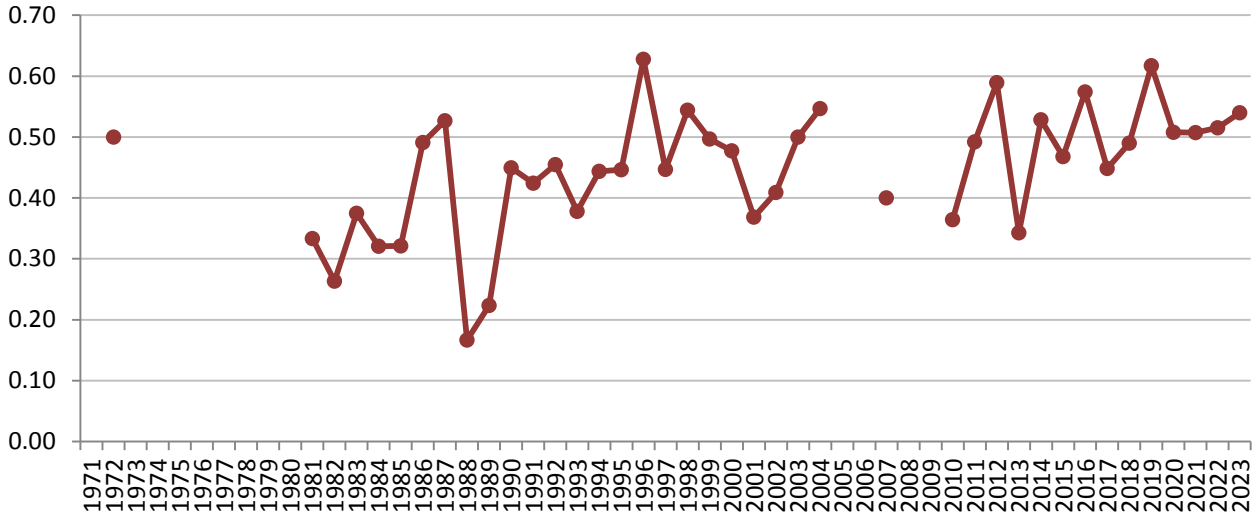
From 16th May, 63 incubating adults were selected for productivity monitoring (eight at Twinlet, 12 at North Gully and the Dents, 17 in Little Bay, 13 on Little Bay Point, five at Rat Bay and eight at

Peter's Bay); birds seen with eggs or those apparently incubating for ten consecutive days were included in the sample (thus more birds were initially monitored but were soon discovered not to be incubating). Unusually no failures became apparent during the first ten days of incubation, whilst three attempts failed within three weeks, six failed within four weeks, one failed after approximately 36 days and two failed within a week of the first chicks hatching; there were thus 12 egg stage failures, with all ledges found empty. An additional 13 failures became apparent at the time when the eggs of neighbouring pairs were hatching, however the nest sites were also found to be empty; none of these sites were seen to contain abandoned eggs, hatched eggshell or dead chicks (the contents were thus removed by either the parents, by other Fulmars visiting abandoned ledges, by predators or by scavengers). A ledge at Little Bay which had held an adult with hatched eggshell was empty four days later. A dead chick seen alone on Middlerock at approximately nine days of age was gone four hours later. There were two large chick failures, with one at Little Bay found alive on a lower ledge, wings broken and covered in oil at approximately 42 days (it was gone the following day) and one dead on its natal ledge at approximately 47 days (it was also missing the following day).

Of the 63 monitored breeding attempts, 34 (53.97%) were successful; a productivity estimate of 0.54 fledglings per pair is 20.0% up on the post-1972 average of 0.45 ±se 0.02 and 8.0% up on a 2013-2022 average of 0.50 ±se 0.02 (although it is down on two of the last ten years). The last ten years have seen productivity above or equal to the long-term average, with a 2013 estimate of 0.34 fledglings per pair the last to fall below the mean. The seventh highest whole Island total of apparently occupied sites, coupled with above average productivity, leads to a predicted 105 Skokholm fledglings in 2023; this matches the sixth highest predicted total to date, down on highs of 122 in 2019 (when there were 198 apparently occupied sites and monitored productivity was 0.62 fledglings per pair) and 115 last year (when there were 224 apparently occupied sites but monitored productivity was only 0.52 fledglings per pair). Poor productivity at Peter's Bay in eight of the years between 2013 and 2022 influenced the overall estimates; Peter's Bay productivity in 2013 was 0.06 (compared with an overall figure of 0.34), in 2014 it was 0.40 (0.53 overall), in 2015 it was 0.18 (0.47 overall), in 2017 it was 0.31 (0.45 overall), in 2018 it was 0.36 (0.49 overall), in 2020 it was 0.33 (0.51 overall), in 2021 it was 0.30 (0.51 overall) and in 2022 it was 0.44 (0.52 overall). The 2016 season saw 0.54 fledglings per pair, a total virtually identical to the overall value of 0.57, and 2019 saw 0.60 fledglings per pair, a total virtually identical to the overall value of 0.62. The reason for this near annual discrepancy is still unclear, as is what linked the more successful 2016 and 2019 seasons; neither environmental factors, predation pressure nor the behaviour of the birds themselves have been obviously different at this site. Six of the eight pairs monitored at Peter's Bay failed this year, at least five of which failed at egg stage; a productivity value of 0.25 fledglings per pair was the lowest

recorded at any of the monitored bays (productivity was 0.33 at North Gully, 0.46 at Little Bay Point, 0.65 at Little Bay, 0.75 at Twinlet and 1.00 at Rat Bay).

Fulmar productivity (total number of fledged young per monitored pair) in each year that it has been calculated between 1972 and 2023. The 1972-2023 mean is 0.45 ±se 0.02 fledglings per pair.



It is likely that the larger Fulmar population of recent years will have affected other species; observations during the last few years have included both adult and young Herring Gulls oiled by nesting Fulmars, adult Fulmars sat on Herring Gull nests, Razorbill adults and chicks evicted from ledges by prospecting birds, an oiled juvenile Peregrine and what was probably a Raven oiled so extensively that it led to the failure of a nest attempt. Intraspecific interactions have also been witnessed; heavily oiled adults are noted on occasion, whilst two chick stage failures and at least two egg stage failures have been attributed to aggressive neighbours (the eggs were lost prior to the whole Island census). There were no similar observations this year. Although Storm Petrels are regularly encountered without feet, and Manx Shearwaters occasionally so, a one-footed adult Fulmar photographed on 12th August was unusual.

The first fledgling of the year had departed its natal ledge at Little Bay Point by 21st August, this one day later than the first two of last year and on the same date as the 2013-2022 first fledgling mean (the earliest during this period had departed on the 18th in 2019 and the latest on the 25th in 2013). The first five study plot fledglings left ledges at Little Bay and Little Bay Point by 22nd August, this one day later than the 2014-2022 mean and on the same date as the firsts of 2021 and 2022. All of the

remaining 29 productivity plot fledglings departed over the following 16 days; the first 25% had fledged by 25th August (one day earlier than the 2014-2022 mean), 50% had departed by 27th August (two days earlier than the 2014-2022 mean) and 75% had departed by 31st August (one day earlier than the 2014-2022 mean). The last had left its Peter's Bay nest by 7th September, although it only reached as far as a lower ledge, a site which it occupied throughout a fogbound 8th and on the morning of the 9th; this matched the 2014-2022 mean (the earliest last plot fledgling during this period had departed by 3rd September in 2017, the latest by 22nd September in 2021). Interestingly the late 2021 fledgling was not wholly the result of a late hatching, indeed it had first been seen as a hatchling on 20th July meaning that it was on its natal ledge for 64 days (this a period typically closer to 51 days). The number of birds around the cliffs again dropped rapidly as the fledglings departed, with September highs of 32 on the 1st and 48 on the 2nd (when 19 rafted off the Neck). The Peter's Bay straggler was the last youngster to be seen ashore, 9th September being three days later than the lasts of 2017 and 2022 but otherwise matching one in 2016 as the third earliest last bird this decade; the latest bird to be seen ashore between 2014 and 2023 was present on the 21st in 2021, with the 2014-2022 mean being 11th September. There were September sightings of birds at sea on six further dates to the 20th, with a high of five on the 13th and no more than two from the 14th.

Seawatching during October produced only singles on the 22nd (a bird very close in at Guillemot Cliff), on the 27th (when one was also ashore at Guillemot Cliff) and on the 30th; an October bird-days total of four was the lowest of the last 11 years, down on a 2013-2022 mean of 43.4 and highs during this period of 185 in 2013 and 79 in 2020. The bird ashore was seemingly the earliest on record; the first seven returning birds were ashore on 6th November last year, whilst the 2013-2022 mean first return date is 7th November (with the earliest during this period present on the 3rd in 2021 and the latest on the 11th in 2015). There were no November records during the first four days of the month and only singles on the 5th, 6th and 7th, whilst sightings on 17 dates from the 9th included highs of 97 on the 17th, 121 on the 18th and 98 on the 23rd which took the bird-days total for the month to 779; the peak November daycount was the second lowest of the last 11 years (the 2013-2022 mean is 182.1, with a high of 283 in 2019), whilst the bird-days total was massively down on recent highs of 2006 in 2019, 2222 in 2020 and 2683 in 2021 (when staff were also present throughout the month). Despite the very early first autumn landfall, it was not until 18th November that 20 birds had been ashore, this nine days later than the 2013-2022 mean (20 had been ashore by the 6th in 2017, but not until the 20th in 2015). In total there were birds ashore on 11 November dates (two fewer than last year), including highs of just 69 on the 18th, 47 on the 27th and 36 on the 29th (although up on last year's November peak of 30, the number of birds ashore was well down on all-time highs of 189 on the 28th in 2019 and 180 on the 19th in 2021). The only sightings during the first three days of December were on the 2nd when four were ashore.

Cory's Shearwater *Calonectris borealis* **Aderyn Drycin Cory**
Vagrant eight previous records

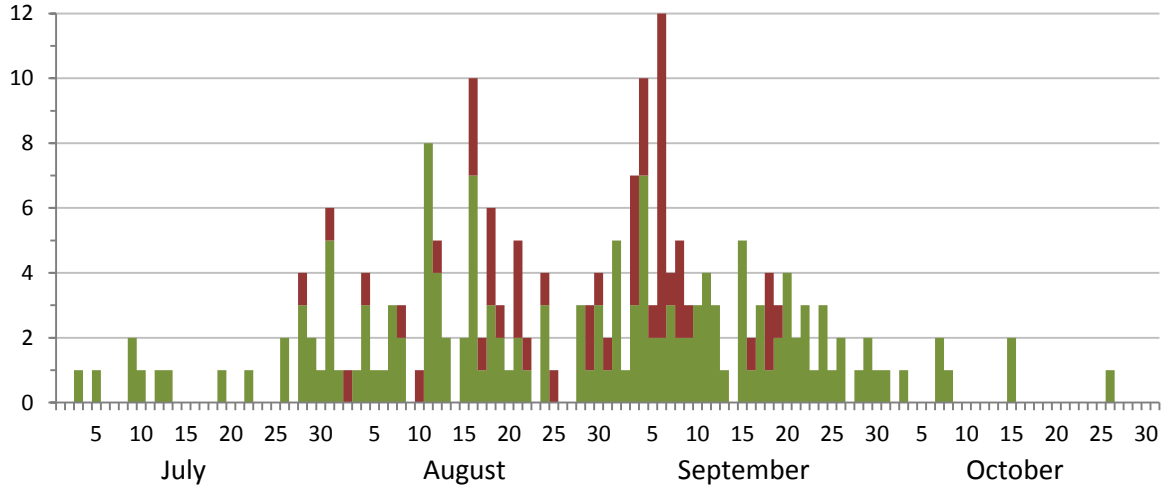
An unprecedented total of eight flew into force four westnorthwesterlies between 1920hrs and 2125hrs on 31st July (GE, EB, ACC, OP, RDB, photograph below). Given the number of birds in the Southwest Approaches at the time, it is quite possible that the eight heading into similar conditions between 0755hrs and 0859hrs the following day were all different individuals (GE, RDB). Three were off the Lighthouse during a force five southwesterly between 2005hrs and 2040hrs on 12th August (RDB, GE, photograph in introduction), whilst one off South Haven, heading into a southwesterly gale at 0910hrs on 19th September, was the last in a remarkable year (RD). The only other Island records are of singles on the 6th and 15th August 1989, the 17th and 25th September 1995, 10th July 2001, 1st August 2014 and on 25th July and 20th August last year. One reported on 17th August 1979 was not accepted during the 2020 Welsh Birds Rarities Committee review (as it was seemingly not submitted at the time), a bird included in the 1989 Annual Report for 10th September was not accepted with the other two records in that year and a second bird on 17th September 1995 was

considered no longer acceptable in 1999. The unparalleled numbers seen this year coincided with huge tallies from the Southwest Approaches, the week of the two highest Skokholm counts seeing multiple four-figure daycounts from Cornwall and more than 5,500 off Porthgwarra on the 2nd.

Sooty Shearwater *Ardenna grisea* **Aderyn Drycin Du**
Scarce recorded most autumns from July onwards and occasionally Uncommon
Earliest 3rd July 1968 (2nd August 2023) **Latest** 26th October 1994 (3rd September 2023)

One off the Lighthouse, heading into a force six northwesterly at 1835hrs on 2nd August, was 16 days earlier than the sole 2022 record. The only other sighting was of one over a flat sea on the evening of 3rd September. The bird-days total was down on a 2013-2022 mean of 2.8, this a period which saw highs of five in 2016, 2018 and 2020 and of seven in 2019 (the all-time bird-day highs are the 19 of 1987, the 16 of 1989 and the 22 of 2011). This southern hemisphere breeder remains a surprisingly scarce Skokholm species, now with records in 44 years, including each of the last nine, and with 24 bird-days logged in July, 79 in August, 98 in September (including a record daycount of ten on the 6th in 2011) and eight in October.

The total number of Sooty Shearwater bird-days to have been logged on each autumn date. Records shaded maroon have been made since 2010.



Great Shearwater *Ardenna gravis* **Aderyn Drycin Mawr**
Vagrant only four previous records totalling five individuals

One heading into a moderate westnorthwesterly at 0815hrs on 31st July was the first since 18th August 2018 (RDB). Given that eight Cory's Shearwater were off the Lighthouse that evening, that a further 12 Cory's Shearwater bird-days were logged between then and 19th September and that

huge numbers of Great Shearwaters were with the Cory's Shearwaters in the Southwest Approaches, it was perhaps surprising that the only other Skokholm birds this year were singles heading west in light southwesterlies at 1950hrs and 1953hrs on 31st August (RDB, GE). Indeed the only other Skokholm records are of two on 9th September 1993 and singles on 9th August 2000 and 19th August 2017. A probable was noted on 11th September 1969 and singles in the Septembers of 2007 and 2011 have subsequently been deemed 'not proven'.

Manx Shearwater *Puffinus puffinus* **Aderyn Drycin Manaw**
Very Abundant Breeder a 2018 census estimated 88,945 pairs (95% CI: 21,892). 2012-13 est. 63,980
2097 trapped (including 118 pulli), 1421 retrapped, 4 controls
1928-1976: 171,509 trapped, 2012-2022: 15,425 trapped, 6852 retrapped, 31 controls

One calling after dark on 9th March was three days later than the first two of last year but otherwise the earliest nocturnal record since singles on 27th February and 4th March 2000. Two were off the Lighthouse the following day when the first Lighthouse burrows were streaked with faeces, whilst the first two eaten birds were found on the 12th (two days later than the first single of last year which is the only earlier Great Black-backed Gull casualty on record). April seawatching produced peak daycounts of 6000 on the 10th, 8657 on the 11th and 20,500 during a moderate southeasterly on the 26th; the latter was only down on an April record 21,600 recorded during Storm Hannah in 2019. Manx Shearwaters were seen to be ousted diurnally by Crab Bay Puffins on four dates during April, whilst heavy rain led to at least one Dip bird being flooded from a burrow on the 24th. An adult found at the Lighthouse on 29th April had foot blistering similar to that typically seen in puffinosised youngsters. Peak May daycounts of 7474 on the 3rd and 10,400 on the 5th were made during moderate south and east winds; the 2013-2022 mean May peak is 13,581, with a high of 28,200 counted during a southwesterly gale in 2018. June daycounts were all of 3820 or less, these the lowest since 2018 and well down on a mean 2013-2022 maximum of 18,142 (there were highs during this period of 24,750 in 2020 and 72,000 during heavy rain and a near gale in 2019). Seawatching effort intensifies in July, however an increase in the number of birds lingering offshore was at least in part responsible for gale associated daycounts of 39,000 on the 7th and 49,560 on the 14th and a record July high of 50,400 during light northwesterlies on the 31st; the 2013-2022 peak July daycount mean is 21,981, with a previous July high of 45,016 logged in 2018. The following day saw a gentle westerly back to a moderate easterly and a minimum of 72,550 Manx Shearwaters offshore, this only down on an all-time high of 87,520 logged on 20th August 2020 (albeit down on the number present on the Island most days). There were further August highs of 42,680 on the 2nd, 34,880 on the 5th, 43,200 on the 8th and 66,090 on the 12th, with a northwesterly gale on the 5th being the only wind in excess of a force five during these watches.

Three areas of study burrows, that is to say natural burrows where a paving slab covers a manmade access point to the nest chamber, were established in 2012 and 2013 (see map in Introduction); all birds encountered within the burrows are ringed. Of 345 breeding adults bearing rings in 2022, 279 were found this year (80.87%); this almost matched a 2014-2022 next-year return mean of 81.10% (only 76.38% of 2017 birds were found in 2018, this following the ravages of Storm Ophelia which destroyed several study burrows, whilst a high of 89.56% of 2021 breeders were recorded last year). The next-year return rate is not an accurate estimate of survival as there is no searching for marked birds in neighbouring, non-study burrows; the number of birds known to be alive will thus be revised upwards as they are discovered in future years. For example 82.27% of 2013 adults were encountered in 2014, but we now know that at least 89.36% of birds were alive (see table below). This year saw four 2021 breeders encountered which were not logged last year, two which had not been seen since 2020, six which had not been seen since 2019, five which had not been seen since 2018, one which had not been seen since 2017 and two which had not been seen since 2014 (one of which was in the same burrow it occupied nine years previously). Given that we are still encountering birds not logged for up to nine years, it is likely that many of the figures given below

will again be revised upwards in the future, the current 2014-2022 corrected annual survival rate mean of 87.74% undoubtedly an underestimate.

The number of Manx Shearwaters breeding in the study plots encountered the following year and the number to have been found by 2023 (which were actually alive the following year).

	Birds found the next year		Birds found by 2023	
Birds breeding in 2022	279 of 345	80.87%	279 of 345	80.87%
Birds breeding in 2021	283 of 316	89.56%	287 of 316	90.82%
Birds breeding in 2020	253 of 328	77.13%	273 of 328	83.23%
Birds breeding in 2019	245 of 308	79.55%	260 of 308	84.42%
Birds breeding in 2018	247 of 296	83.45%	272 of 296	91.89%
Birds breeding in 2017	236 of 309	76.38%	254 of 309	82.20%
Birds breeding in 2016	238 of 287	82.93%	268 of 287	93.38%
Birds breeding in 2015	230 of 283	81.27%	248 of 283	87.63%
Birds breeding in 2014	215 of 278	77.34%	241 of 278	86.69%
Birds breeding in 2013	116 of 141	82.27%	126 of 141	89.36%

There is typically a discrepancy in return rates dependent on the breeding success of the previous year; of 251 birds successful with their 2022 breeding attempt, 211 were found in 2023 (84.06%), whereas only 69 of 94 unsuccessful birds returned (73.40%). Of 65 birds which went missing in 2023, 25 (38.46%) had failed with their 2022 breeding attempt. Assuming that not all of the failures were due to the death of a bird, it could be concluded that some of the missing birds have rather opted for more suitable nesting sites. It was noted in 2017 that Storm Ophelia had caused considerable damage to the Lighthouse Study Plot, a destruction of burrows which no doubt led, at least in part, to the reduced number of recaptures in 2018; although 18 of the missing birds have been found subsequently, the return rate of 2017 breeders remains the lowest of the nine years prior to 2023 (82.20%). Ultimately the study burrows give a better insight into burrow fidelity and show an interesting correlation with the stability of the colony; in the fragile Lighthouse colony ten of 82 marked birds were in the same burrow this year as that in which they bred in 2013 (12.2%), whereas in the more stable Quarry Track and Crab Bay colonies four of 18 birds (22.2%) and 17 of 41 birds (41.5%) were still in their 2013 burrows respectively. The fragile nature of the Lighthouse colony, along with the high density of burrowing birds and occasional storm events, sees the structure of many breeding tunnels change annually; clearly some lose their suitability as nest sites. Of the 23 birds encountered in all 11 years between 2013 and 2023, two have fledged a chick in every year

(EY41695 and EY41711 in Crab Bay burrow 8). Of the remaining 21 birds, four have fledged young on 73% of occasions, five have fledged young on 82% of occasions and 12 have fledged young on 91% of occasions; that the vast majority of these birds are exhibiting above average productivity is no doubt reflected in their continued use of the same stable burrows.

There were 14 adults in the Lighthouse Plot which had been ringed as chicks, this taking the total number of individuals ringed as plot chicks and subsequently found in the plots to 21. There were nine additions to this list, however only one of these was breeding; FB46236, which was ringed as a pullus in 2017, failed at egg stage this year. Of the eight non-breeders, two had been ringed in 2015, two in 2016, three in 2017 and one in 2019. Of the 21 returning birds ringed as chicks, 13 have been found to be breeding at some point, with five first found to be breeding after seven years, four after six years and three after five years, whist FB46145 bred successfully in 2021 at just four years of age (two metres from its natal burrow). Of the 13 found breeding between 2019 and this year, eight were successful with their first breeding attempt, a productivity value of 0.62 unsurprisingly down on that seen across the plots as a whole. More surprisingly, eight of the 12 birds found prior to 2023 were missing in the year following their first breeding attempt, only one of which has been found since. Of the five encountered more than once, overall productivity values of 0.67 (over three years), 0.60 (over five years), 0.50 (over four years), 0.50 (over two years) and 0.00 (over three years) have been observed.

The study burrows facilitate an accurate assessment of breeding success on Skokholm. There were 133 burrows at the Lighthouse occupied by a pair which produced an egg, eight burrows contained an egg along the Quarry Track and 25 pairs produced an egg inland of Crab Bay. There were thus 166 burrows this year from which productivity could be assessed (this up on a 2014-2022 mean of 159.7 and only down on the 168 of 2020 and the 185 of last year). At the Lighthouse 21 definitely failed at egg stage, two of which were close to hatching (one of these coincided with the discovery of parent EA46557 on a Swansea beach (a potential avian influenza casualty, see ringing recoveries below)). An additional 21 pairs failed at egg or very small chick stage, but no eggs, down nor dead chicks were found; three of these burrows had been dug into. There were three chick stage failures, birds which had attained wing lengths of 94mm, 123mm and 141mm before being taken from their burrows (two were excavated, one taken from the entrance). There were two failures along the Quarry Track, one at egg stage and one at egg or very small chick stage. Near Crab Bay there were six failures, five

at egg stage (one of which was deposited in a burrow already occupied by a pair which went on to fledge a chick) and one at egg or very small chick stage. A chick is typically assumed to be of fledging size when its wing length is in excess of 200mm; although not ready to fledge, we have previously shown that chicks larger than this may swap to a different burrow and therefore go undetected. However the discovery of FB46025 on 17th May this year is of note; this bird, last seen as a 2015 chick with a wing chord of 165mm, was missing when a same-sized neighbour had attained 198mm, the former leaving its burrow before reaching 200mm (the 2015 productivity figure was thus 0.69 rather than 0.68). In total 113 were believed to have attained fledging size this year.

Productivity was thus 0.68 fledging-sized chicks per breeding pair (68.07% of pairs produced a fledging-sized chick); productivity at the Lighthouse was 0.66 fledglings per pair, along the Quarry Track it was 0.75 and near Crab Bay it was 0.76. The combined 2023 productivity estimate was down on a 2013-2022 mean of 0.71 ±se 0.02, indeed it matched the estimates of 2016 and 2020 as the second lowest of the last 11 years (there was a low of 0.63 in 2014 and highs of 0.80 in 2017 and 0.79 in 2021). It should be noted that this is the number of chicks which attained fledging size and does not reflect the number of fledglings which are lost to Great Black-backed Gulls (and to a lesser extent corvids) as they exercise their flight muscles and make their first flights. Having said this, only one of the 113 chicks ringed in the study plots was found eaten after it fledged this year; none of 127 were found in either 2022 or 2021, one of 115 was found in both 2020 and 2019, none of 114 were found in 2018 and two of 135 were found eaten in 2017.

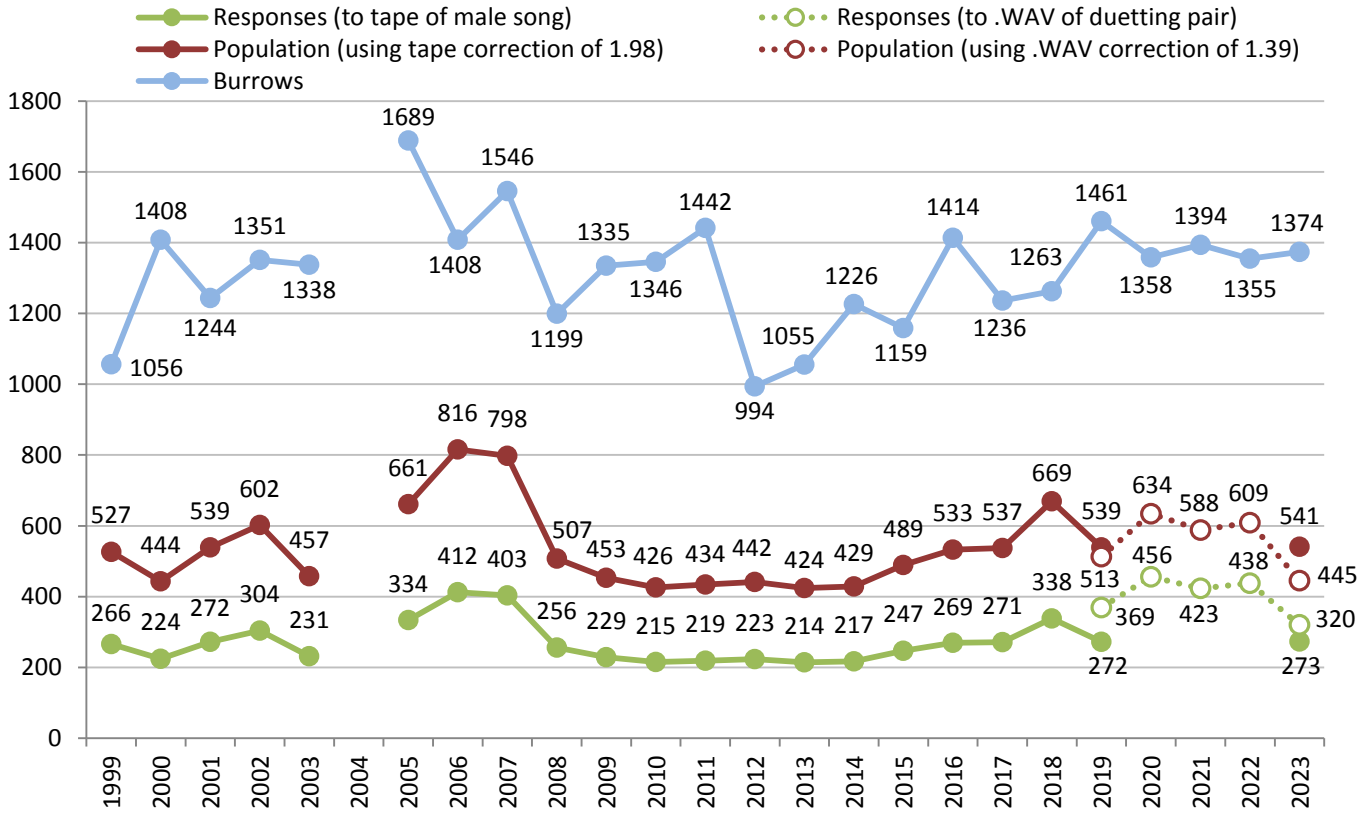
A Manx Shearwater ringing transect was established in 2013. It was defined as the track between the Observatory and the Lighthouse and the length of a landing net to either side; ringers were not to deviate from the track. The aim was to see whether, by ringing birds on the surface in this defined area, the retrap data could be interpreted to provide large sample size estimates of adult survival and the recruitment of juveniles to the breeding population. This project is producing a substantial amount of data, data which is currently difficult to examine in any detail as the British Trust for Ornithology changes its recording system from IPMR to DemOn (the latter of which still lacks the reporting capabilities of the former). Of the 10,561 birds ringed along the transect between 2013 and 2022 (4263 of which were ringed as fledglings), 3096 have been retrapped or found dead on the transect subsequently (with these recaptured individuals accounting for 5300 separate handlings).

In 1999 nine study areas, each a circle of 1000 square metres, were established to allow a reasonable subset of the Skokholm Manx Shearwater population to be monitored from year to year. Two of these plots were discontinued, one in 2006 and one in 2007, as the survey work was disturbing the Lesser Black-backed Gull colonies. New plots were established in 2006 and 2015 to maintain a good sample size, however only seven plots have been studied for a full 24 years. On each annual visit the number of burrows within each area is counted, as is the number of burrows from which a response is elicited when a recording is played down them. Between 1999 and 2019 the recording was of a singing male made on a cassette tape, the standard correction factor of 1.98 then being used to estimate the population within an area (see the 2013 and 2014 Seabird Reports for checking of the correction factor). The latest whole Island census utilised a .WAV recording of a duetting pair (as opposed to the male only cassette) as it has been shown that a dual-sex recording achieves a higher and less variable response rate, the correction factor thus dropping to 1.39 (Brown and Eagle, 2018; Perkins *et al*., 2017). Bearing this in mind, along with the fact that the cassettes and playback devices are becoming harder to maintain and replace, it was decided in 2019 that it was time to begin the process of changing the annual plot methodology from the use of cassettes to the use of .WAV playback. This changeover will occur over the course of several years to ensure that the data collected over the previous 20 years remains comparable with that collected in the future.

This year saw each of the nine plots visited twice between 30th May and 9th June, with one visit using the old cassette recording of a singing male and one using the new .WAV recording of a duetting

pair. The two visits to the 7000m² (seven plots) monitored since 1999 produced burrow counts of 1374 and 1369, a difference of five being even closer than the difference of eight achieved in 2019 and another confirmation that the variance in the number of burrows observed between years is in the most part genuine. The former burrow count was 19 up on that of last year, the fourth highest count of the last ten years and 4.4% up on the 1999-2022 mean (1316.39 ±sd 160.69). There was however a substantial decline in the plot started in 2006, the burrow count dropping from 368 in 2022 to 315 this year; this is a relatively stable plot inland from Purple Cove, the decline in apparent burrows perhaps in part due to a thick carpet of Sea Campion covering unused holes. There were 26 fewer burrows in the plot on The Head started in 2015, a total of 140 being the lowest since the 127 of 2017; this is an exposed area of very short sward with no Sea Campion, the decline in burrows likely a genuine one. It is not only digging by Manx Shearwaters which alters the number of burrows present; the weather may both close burrows and cause additional entrance holes to open (with both very dry and very wet periods shaping the landscape), whilst digging by Rabbits, Great Black-backed Gulls and in some areas by Puffins will also influence burrow numbers.

The total number of burrows, responses (to tape 1999-2019 and in 2023 and to .WAV 2019-2023) and the corrected population estimates for the 7000m² sampled annually since 1999.



There were 320 responses elicited in the original 7000m² using the .WAV recording, this the lowest total recorded during the five years of using this method, down on a high of 456 observed in 2020 and 24.1% down on the 2019-2022 mean (421.50 ±sd 37.51). There were however small increases in four of the plots, whilst another saw a decline of only one response, the overall drop due to substantial declines of 123 responses at the Quarry Track and 33 responses at Horse Bottom; it is unclear why such a decline was seen at these, the densest two plots in the survey. Intriguingly there were 273 responses elicited in the original 7000m² using the cassette tape recording, this up on all but one of the years between 2008 and 2019 and virtually matching both a 2019 total of 272 (this the year in which tapes were last used) and a 1999-2019 mean of 270.80 ±sd 59.63; the number of cassette responses at the Quarry Track plot, that which saw the significant drop in .WAV responses, was only one different to that recorded in 2019. The two years of the last five with the lowest

number of responses to the .WAV recording are the two years in which both cassette tapes and .WAV were used, a second visit perhaps influencing response rate (both visits were made on the same day); however it should be noted that the .WAV recording was used first at the Quarry Track, the drop in the number of responses not due to an earlier exposure to the cassette.

Using the .WAV correction of 1.39 predicts that there were 445 occupied burrows across the seven plots, whilst a correction of 1.98 for the cassette tape of male song predicts that there were 541 occupied burrows (see chart above). Both estimates are lower than those made over the last three years using only .WAV playback (588-634), however they are close to those made between 2008 and 2019 using the cassettes (the 2008-2019 mean is 490.07 ±sd 72.55, the 2023 .WAV estimate 9.2% down on this and the 2023 cassette estimate 10.4% up). Any comparison between the population predicted using the .WAV recording of the duetting pair and the male only cassette recording should clearly be a cautious one, although given that both the 2019 and 2023 .WAV estimates are below the cassette estimates, it is likely that we are not overestimating the population when using the .WAV correction any more than when using the tape correction. The .WAV survey suggested a 2022-2023 population decline of 24.8% in the 1000m^2 plot visited since 2006, the cassette survey a 27.4% decline in the same area since 2019; adding this data to that from the other 7000m^2 suggests that the combined population could be the lowest of the last nine years, albeit close to that seen between 2009 and 2015 (see table below). The .WAV survey suggested a 2022-2023 population decline of 37.7% in the 1000m^2 plot visited since 2015, the cassette survey a 34.3% decline in the same area since 2019. Although the number of pairs producing eggs in the accessible study burrows is stable, and it must be remembered that the proportion of burrows which respond to the playback on any given date varies considerably (leading to a high degree of error in these numbers (see Brown and Eagle, 2013, 2014 and 2019)), there is perhaps an indication here that the Skokholm Manx Shearwater population has declined after a peak, at least in some areas (although it would appear to be more stable in the 7000m^2 surveyed since 1999).

The estimated number of pairs in the 8000 square metres sampled 2006-2023, based on responses to a cassette of male song 2006-2019 and on responses to a .WAV of a duetting pair since 2020.

2006	2007	2008	2009	2010	2011	2012	2013	2014
869	954	620	525	499	495	501	521	476
2015	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**
533	588	584	739	655	730	670	710	521

In the period between 1957 and 1997 the number of dead Manx Shearwaters located on Skokholm was recorded in the daily census log. The corpses were either stored or thrown into the sea to ensure that birds were not counted more than once. The practice was stopped in 1997 as it was felt that the removal of carcases would be impacting the species reliant on this food source. However, with a Great Black-backed Gull population more than twice the size it was when the counting was stopped, the study was begun again in 2014. The corpses are left in situ but marked by neatly slicing the flight feathers of both wings with a pair of scissors (using scissors has the added advantage that it makes it easier to check for rings in tightly inverted bodies). Although the vast majority of Manx Shearwater kills are made by Great Black-backed Gulls, a small number are also taken by Peregrines and Ravens, whilst a Sparrowhawk eating the head of a puffinosised youngster in 2019 had perhaps also made the kill and three Crow were seen tackling a live bird on 19th May 2022.

As might be expected with a larger Great Black-backed Gull breeding population, the number of corpses marked over the last ten years has been the most ever. However the average number of corpses per Great Black-backed Gull pair was only 41.3 in 2023; this has only been lower in nine previous years (including six of the last seven), with all-time lows of 30.8 in 1959 and 27.6 in 1970 (there were highs of 280.3 in 1968, 318.8 in 1977 and 182.0 in 1978). One possible explanation for this reduction in kills per pair is that the gulls were routinely disturbed between 1949 and 1985

which, whilst reducing the number of breeding pairs, probably inflated the non-breeding flock (which would still be taking shearwaters). The number of adults found dead was the second lowest of the last decade, with a total of 1859 only up on the 1618 of 2019 and 20.7% down on the 2014-2022 mean (2343.67 ±sd 451.84). Factors which may impact predation rates are the number of Great Black-backed Gulls present (and the number specialising in shearwaters (Westerberg *et al*., 2018)), vegetation heights, the complexities of the weather and moon cycle influencing hunting, the availability of food away from the Island and perhaps the size of the Rabbit population (Rabbits being the other main prey item on the Island). The prevalence of puffinosis may well be influencing juvenile losses (see recent Skokholm Seabird Reports). It is often suggested that the majority of eaten shearwaters are younger, less experienced non-breeders, those which spend longer on the surface as they prospect for burrows and mates. However the 88 ringed birds found predated in 2023 again do little to support this theory (see below table and the 2018-2022 Seabird Reports); although several more years of ringing data would be helpful and there is no information on the breeding status of those eaten (so they could perhaps still have been unpaired or burrowless birds spending longer on the surface), at least 35 of 72 eaten adults were at least eight years old (48.6%).

The number of Manx Shearwater corpses found between 1957 and 1983 from Gynn (1984) plus data from 1984 to 1991 and 2014 to 2023. The number of Great Black-backed Gull breeding pairs is also included for each year.

	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968
Corpses	2465	1886	924	1354	1089	640	688	1059	857	946	816	841
GBBGU	27	30	30	10	12	5	7	12	8	10	10	3
	1969	**1970**	**1971**	**1972**	**1973**	**1974**	**1975**	**1976**	**1977**	**1978**	**1979**	**1980**
Corpses	829	304	606	1350	1082	869	1051	1266	1913	1820	1153	1024
GBBGU	14	11	16	12	12	7	7	7	6	10	10	10
	1981	**1982**	**1983**	**1984**	**1985**	**1986**	**1987**	**1988**	**1989**	**1990**	**1991**	**2014**
Corpses	1080	1479	1373	1316	1571	1068	1759	1760	1694	1915	2703	4271
GBBGU	11	16	11	14	11	10	11	12	15	16	20	84
	2015	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**			
Corpses	4123	3782	3449	3270	2707	4091	3237	2902	2724			
GBBGU	83	93	93	93	86	83	80	78	66			

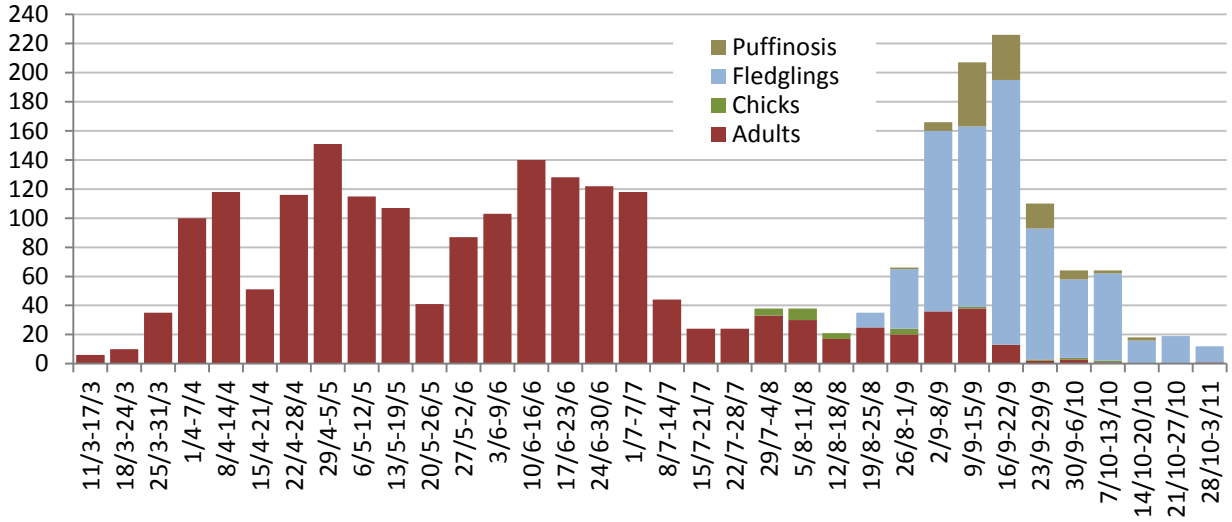
The number of adult and juvenile Manx Shearwater corpses found each year since 2014, along with the number of untouched puffinosised bodies.

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Adults	2931	2702	2299	2071	2228	1618	3008	2132	2104	1859
Juveniles	1287	1324	1398	1289	971	1043	970	967	728	756
Puffinosis	53	97	85	89	71	46	113	138	70	109
Total	**4271**	**4123**	**3782**	**3449**	**3270**	**2707**	**4091**	**3237**	**2902**	**2724**

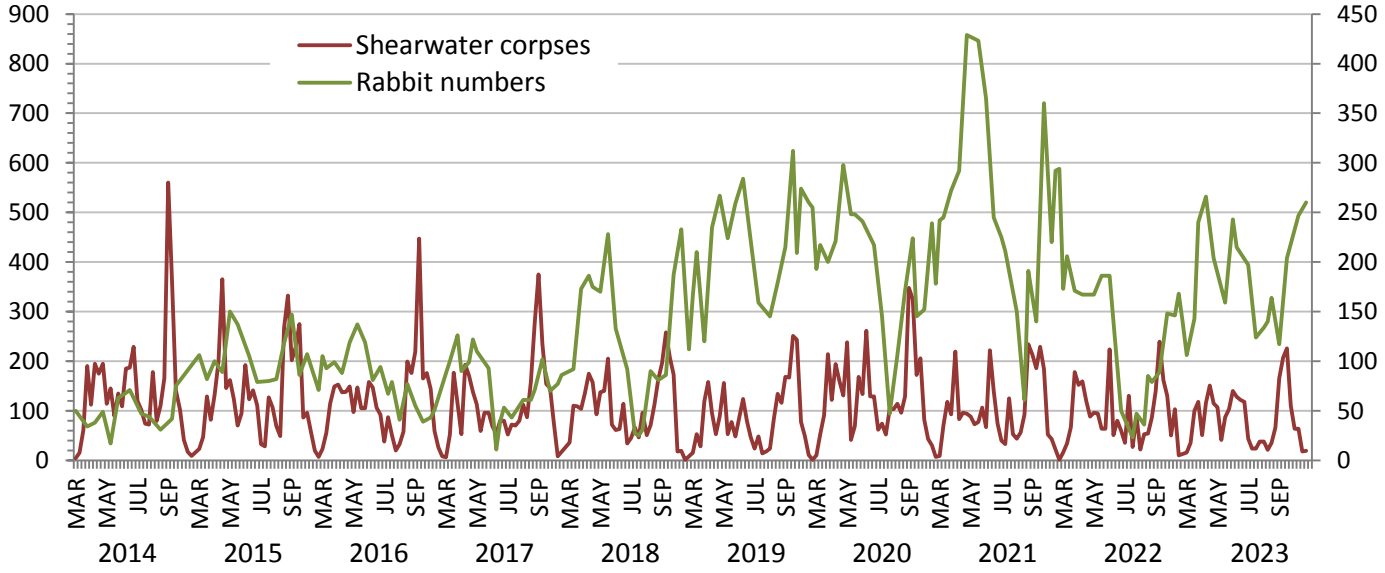
When the 88 ringed shearwaters found eaten in 2023 were marked. Note that the pre-2013 birds were controls ringed elsewhere (as were two ringed as adults in 2021) and that intensive ringing on Skokholm recommenced in 2013.

Pullus 2000	Adult 2004	Adult 2013	Adult 2014	Fledgling 2014	Adult 2015	Fledgling 2015	Adult 2016	Fledgling 2016	Adult 2017	Pullus 2017
1	1	8	10	2	7	1	5	3	3	2
Fledgling 2017	**Adult 2018**	**Fledgling 2018**	**Adult 2019**	**Fledgling 2019**	**Adult 2021**	**Adult 2022**	**Adult 2023**	**Pullus 2023**	**Fledgling 2023**	
5	6	1	3	4	5	3	2	1	15	

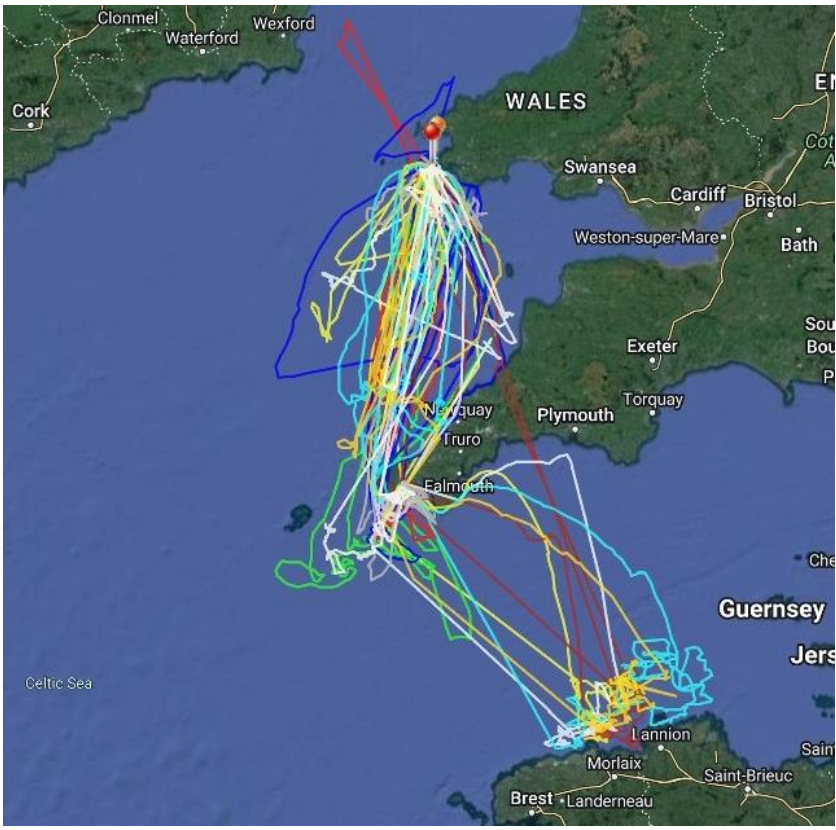
The number of corpses found during each week from 11th March until 3rd November 2023.



The total number of Manx Shearwater carcases found each week 2014-2023 and the number of Rabbits counted in the North Plain census plot during the same period (secondary axis).



The data from the last ten years lends some support to the theory that Rabbit numbers influence Manx Shearwater predation (by providing an alternative food source for the gulls). The North Plain Rabbit count was lowest in 2014, when shearwater mortality and the number of corpses per Great Black-backed Gull pair were at their highest. The Rabbit counts were at their highest in 2019 and 2021, the former the year with the fewest shearwater corpses and the lowest number of corpses per pair, the latter the year with the fourth fewest corpses found. This year saw the fourth highest Rabbit counts and the fifth highest number of corpses per Great Black-backed Gull pair (albeit the second lowest corpse total of the last ten years). The 2020 data did not fit this pattern, with the highest number of adult Manx Shearwater corpses being found in a year with a high Rabbit population (although a COVID-19 dictated reduction in disturbance may have given the gulls longer to hunt). One potential issue with this comparison is that North Plain Rabbit counts are probably not representative of the whole Island, with the effects of Viral Haemorrhagic Disease seemingly differing in different parts of the Island at the same time. Nevertheless it will be interesting to see if the next crash in Rabbit numbers coincides with an increase in Manx Shearwater carcases.



There were 20 chick rearing adults tracked from the Lighthouse Study Plot, with Oliver Padget and his team from the Oxford Navigation Group fitting and retrieving devices from 24th July to 9th August. Two different types of GPS device were used for this short-term deployment, both new technologies which will improve data quality. Ten were Ornitela GPS-GSM devices which save GPS locations ascertained as normal using satellites, but then download these via the mobile GSM (3G) network when birds come close to the coast; this means that updates are received every few hours if shearwaters are in mobile signal. Despite not needing to retrieve these devices to obtain data, all ten were recovered after one or several foraging trips. The second device type was the new Oxford snapperGPS. These take 'snapshots' of GPS signals but, rather than process their location on-board, locations are computed after retrieval; this means that the devices use far less power than normal, allowing very high temporal resolution data to be collected. All ten snappers were also retrieved. As with previous studies, birds visited the waters earmarked for the Erebus wind farm and similar future projects (the map opposite shows GPS-GSM tracks linked by straight lines (birds did not fly over Cornwall)).

The first fledgling to be encountered was along the Lighthouse Track at 23:30 on 17th August, this four days earlier than the 2013-2022 mean and matching one in 2021 as the earliest to be logged during this period (two on the 27th in 2018 were the latest). The first fledgling showing signs of puffinosis was along the Lighthouse Track on the 28th, this three days later than the first of last year but one day earlier than the 2013-2022 mean. Puffinosis is a mysterious affliction which had been linked to the actions of a coronavirus, this leading to the development of conjunctivitis and blistered feet, further bacterial infection and problems with limb control (Nuttall and Harrap, 1982); it is typically fatal. A December 2022 paper concluded that, rather than being the result of a virus, the bacterial infection may actually occur following prolonged exposure to caustic faecal ammonia which

causes foot dermatitis, this similar to the Foot Pad Dermatitis seen in chickens (Esmonde *et al*., 2022). Foot Pad Dermatitis occurs in chickens kept in poorly ventilated conditions, where respiration and excretion lead to high moisture levels which exacerbate the impact of faecal ammonia burns (Esmonde *et al*., 2022). Puffinosis has long been associated with the damper areas of Skokholm, conditions which may lead to a similar build-up of moist ammonia. In an attempt to achieve a better understanding of how puffinosised birds are distributed across the Island during the course of the autumn and of how the number of infected individuals changes from year to year, a transect walked by Island staff over eight September nights was established in 2015 (the 2015 Seabird Report gives details of the route). The position of each fledgling is recorded using a GPS unit before they are inspected for signs of puffinosis.

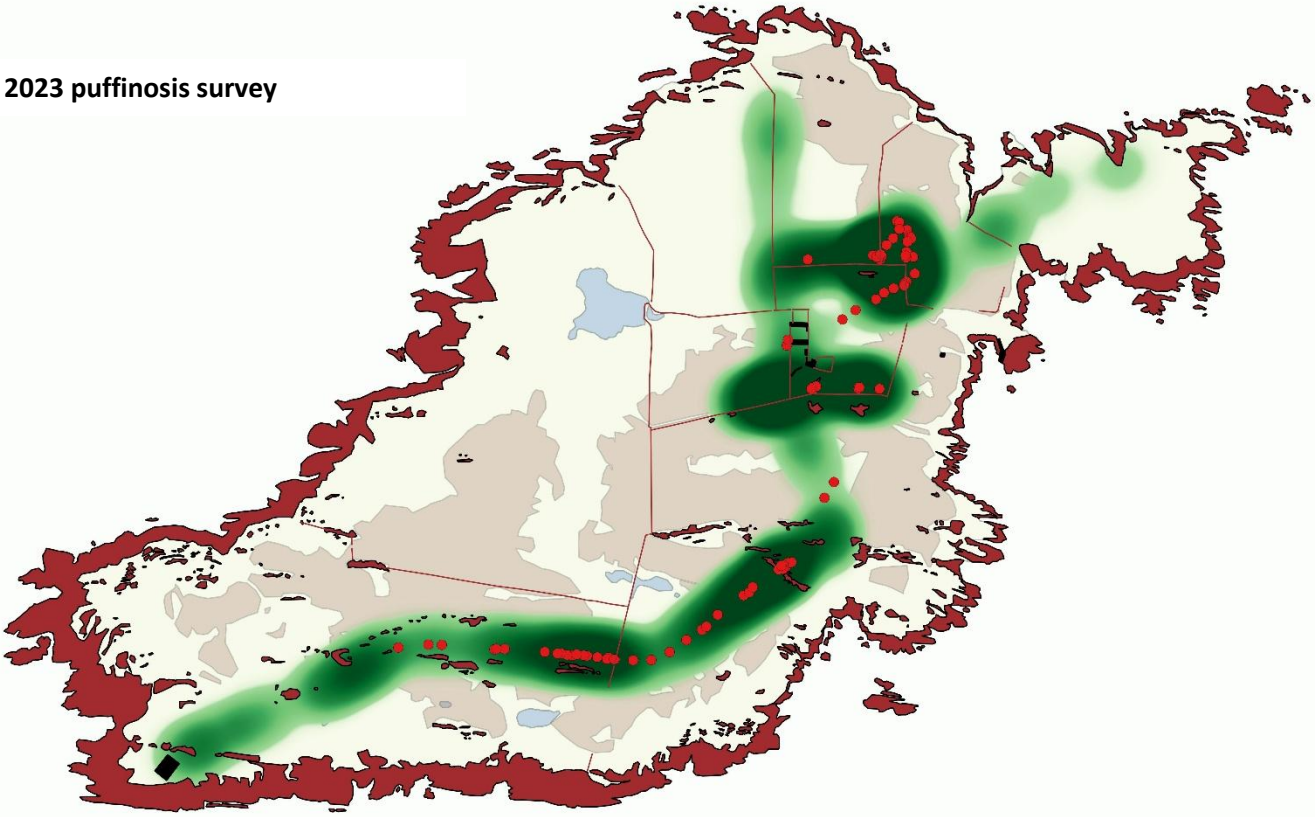
The number of shearwater fledglings located along the transect is likely to be different between years, not just because of fluctuations in productivity, but more critically due to differences in the weather and moon cycle which influence their surface behaviour. Over the eight visits there were 42 more fledglings encountered this year than in 2021, with a total of 943 being 15.3% up on the 2015-2021 mean (817.57 ±sd 181.86). An eight visit total of 83 apparently infected birds matched that of 2021 and was 24.8% down on the mean (110.43 ±sd 74.53), the proportion of birds showing signs being the second lowest to date (there was a high of 29.1% in 2015 and a low of 8.7% in 2018, the 2015-2021 mean being 13.5%). As in previous years, puffinosised birds were primarily distributed in the wetter areas of Skokholm, away from more exposed aspects which also typically lack Bracken. Indeed a drier northerly route, which held 270 fledglings over eight 2020 nights, only produced one bird showing signs of puffinosis (0.4%); the infected bird was along North Pond Wall, close to the Farm where a small number of similar birds have been seen previously (see lower map below).

The number of fledgling Manx Shearwaters encountered along the transect between 2017 and 2023, along with the number which showed signs of puffinosis (also given as a proportion of the total). Restrictions put in place to limit the spread of any potential HPAI outbreak meant that birds could not be adequately inspected in 2022, the puffinosis survey being suspended for that year.

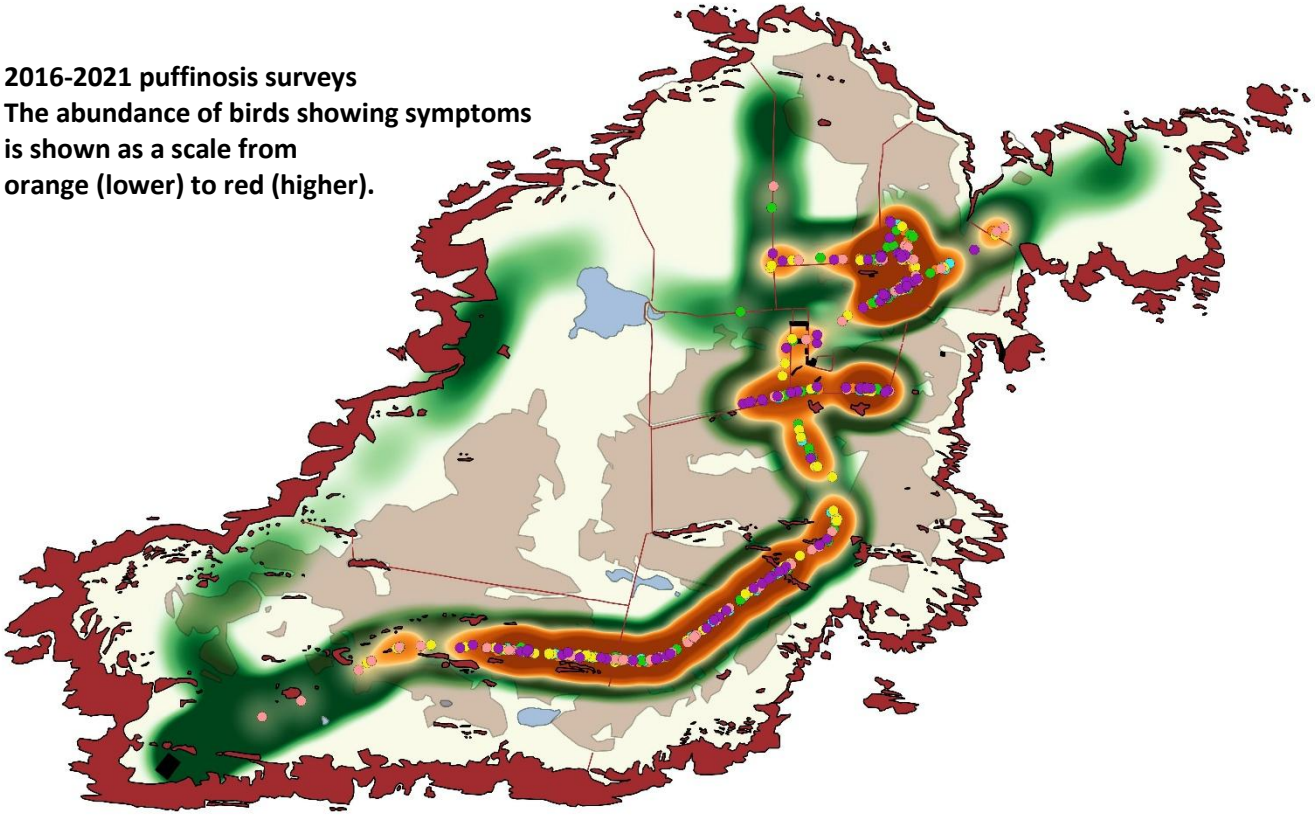
2023	1st-2nd	4th-5th	7th-8th	12th-13th	13th-14th	14th-15th	18th-19th	20th-21st	Total
Birds	56	127	174	196	140	126	76	48	943
Puffinosised	1	5	11	29	17	11	7	2	83
% Puffinosised	1.8	3.9	6.3	14.8	12.1	8.7	9.2	4.2	8.8
2021	**1st-2nd**	**4th-5th**	**7th-8th**	**11th-12th**	**13th-14th**	**16th-17th**	**18th-19th**	**20th-21st**	**Total**
Birds	147	143	228	152	111	75	29	16	901
Puffinosised	9	10	16	14	11	9	10	4	83
% Puffinosised	6.1	7.0	7.0	9.2	9.9	12.0	34.5	25.0	9.2
2020	**1st-2nd**	**4th-5th**	**7th-8th**	**11th-12th**	**13th-14th**	**16th-17th**	**18th-19th**	**20th-21st**	**Total**
Birds	52	101	201	235	118	111	68	55	941
Puffinosised	1	5	2	23	14	14	15	10	84
% Puffinosised	1.9	5.0	1.0	9.8	11.9	12.6	22.1	18.2	8.9
2019	**1st-2nd**	**4th-5th**	**7th-8th**	**11th-12th**	**13th-14th**	**16th-17th**	**18th-19th**	**20th-21st**	
Birds	120	182	100	70	55	81	34	49	691
Puffinosised	6	2	11	16	9	9	6	6	65
% Puffinosised	5.0	1.1	11.0	22.9	16.4	11.1	17.6	12.2	9.4
2018	**1st-2nd**	**4th-5th**	**7th-8th**	**9th-10th**	**12th-13th**	**15th-16th**	**18th-19th**	**21st-22nd**	
Birds	72	142	139	197	155	167	88	48	1008
Puffinosised	2	3	11	16	23	21	10	2	88
% Puffinosised	2.8	2.1	7.9	8.1	14.8	12.6	11.4	4.2	8.7
2017	**1st-2nd**	**4th-5th**	**8th-9th**	**11th-12th**	**14th-15th**	**17th-18th**	**20th-21st**	**23rd-24th**	
Birds	44	77	100	115	66	43	42	21	508
Puffinosised	4	13	16	10	4	16	14	1	78
% Puffinosised	9.1	16.9	16.0	8.7	6.1	37.2	33.3	4.8	15.4

The 2023 and 2016-2021 puffinosis surveys. Manx Shearwater fledgling density is shown in green, with the darker areas holding more birds (the northern footpath between Middle Heath and the Table was only surveyed in 2020). Each puffinosised bird encountered over the eight visits is marked by a circle, red in 2023, pink in 2021, lime in 2020, blue in 2019, yellow in 2018, orange in 2017 and purple in 2016. The 2018 Bracken distribution is also shown.

2023 puffinosis survey



2016-2021 puffinosis surveys
The abundance of birds showing symptoms is shown as a scale from orange (lower) to red (higher).



Given that there is seemingly a link between wetter, poorly drained areas and diseased birds, one possible explanation for the lower proportion of puffinosised individuals encountered in recent years is that they all proved to be comparatively dry breeding seasons, although the more specific period during which wet conditions may lead to puffinosis is still unknown. That the proportion of infected birds was lowest in 2018, 2020, 2021 and 2023, the four years which have seen the lowest totals of predated juveniles (see above), is intriguing; it is quite probable that puffinosised birds are easier for Great Black-backed Gulls to catch, potentially leading to higher mortality in high puffinosis years (it would often be difficult to tell if an eaten bird had been diseased). However the number of juvenile corpses located in 2015, the worst puffinosis year of this eight year study, was not significantly higher than in 2016 and 2017 when the proportion of puffinosised birds was lower.

Of the 113 study plot fledglings, 22 (19.5%) had departed their natal burrows by 2nd September (49.6% had gone by the 4th in 2021, whilst there was no check last year due to HPAI concerns). Seawatching during the month produced daycounts of 14,000 on the 1st, 16,000 on the 2nd and 10,150 on the 3rd, although there were no counts of more than 578 after the 6th and 171 on the 28th was the high during the last third of the month; the September peak was the second highest to date, only down on the 20,115 logged on the 8th in 2018. Although birds were regularly calling at night until 11th October, the last grounded adults to be encountered along the transect were recorded on 18th September (a bird ringed in April 2013 and not seen since and a bird ringed in May 2014 and only seen in 2014 and 2023); these were one day later than the 2014-2021 last ringed adult mean.

There were 48 at sea on 1st October, with seven along the Lighthouse Track that night taking the daycount to 55, this the second highest in this month (there were 83 on the 5th in 2014). Up to seven were at sea on three further October dates to the 6th, whilst juveniles were either seen after dark or found freshly eaten on all but one date to the 11th. There followed a juvenile at the Well on the 13th, a fresh kill on the 20th and further nocturnal juveniles on the 22nd and 24th, the latter the last to be seen on the ground in 2023 (11 days later than the last of 2022). One in Broad Sound on the 29th was the last to be seen at sea, whilst the only November record was of one calling over Spy Rock after dark on the 4th; there have been November records in 13 previous years, including eight of the last nine, with a peak nocturnal count of 11 on the 3rd in 2015, peak seawatching counts of seven on the 3rd in 2018 and on the 15th in 2022 and late youngsters on the 14th in 2014 and on the 22nd in 2021 (the latter of which was eaten by a Raven). One heading west through Broad Sound on the 1st in

2021 remains the only December record. One of the 897 ringed birds to fledge Skokholm this year was found on the mainland (0.11%), this matching the 2014-2021 mean (see below for details).

Ringing recovery EA15047
Originally ringed as an adult, LITTLE SALTEE ISLAND, WEXFORD, IRELAND 3rd August 2021
Recovered as an adult, SKOKHOLM 11th June 2023
Finding condition Fresh dead, eaten by Great Black-backed Gull
Distance travelled 101km at 120 degrees (ESE)
Days since ringed 677

Ringing recovery EA46557
Originally ringed as a non-breeding adult, LIGHTHOUSE PLOT 4A, SKOKHOLM 29th May 2020
Previously recovered as a breeding adult, LIGHTHOUSE 19, SKOKHOLM 20th May and 1st June 2023
Recovered as an adult, BLACKPILL, SWANSEA 16th July 2023
Finding condition Fresh dead alongside 35 dead Guillemot and one dead Razorbill
Distance travelled 92km at 97 degrees (E)
Days since ringed 1143

Ringing recovery EG64898
Originally ringed as an adult, COPELAND, COUNTY DOWN, NORTHERN IRELAND 18th July 2004
Recovered as an adult, SKOKHOLM 8th April 2023
Finding condition Fresh dead, eaten by Great Black-backed Gull
Distance travelled 334km at 178 degrees (S)
Days since ringed 6838

Ringing recovery EM54384
Originally ringed as a juvenile, MANX SHEARWATER TRANSECT, SKOKHOLM 15th September 2023
Recovered as a juvenile, WARMFIELD, WAKEFIELD, WEST YORKSHIRE 23rd September 2023
Finding condition Unknown species found seemingly sick and perhaps destroyed
Distance travelled 340km at 50 degrees (NE)
Days since ringed 8
Storm force southwesterlies had battered Skokholm on the 19th and 20th September. Nevertheless this was a disappointing end for a bird which perhaps just needed returning to the coast.

Ringing recovery EY72026
Originally ringed as an adult, MANX SHEARWATER TRANSECT, SKOKHOLM 15th August 2013

Recovered as an adult, BLACK ROCK SANDS, MORFA BYCHAN, GWYNEDD 20th April 2023
Finding condition Fresh dead on beach, no obvious oiling or injury
Distance travelled 153km at 30 degrees (NNE)
Days since ringed 3535

Ringing recovery EY72140
Originally ringed as a juvenile, MANX SHEARWATER TRANSECT, SKOKHOLM 30th August 2013
Recovered as an adult, PUERTO SAN ANTONIO ESTE, ARGENTINA 7th April 2023
Finding condition Unknown species dead for more than a week
Distance travelled 11,802km at 210 degrees (SSW)
Days since ringed 3507
This is the farthest south a Skokholm ringed bird has been encountered since ringing recommenced. Perhaps surprisingly there have only been 33 Manx Shearwater ringed in Britain or Ireland and recovered in Argentina, including a Skokholm bird recovered in February 2022; this is far fewer than in Brazil (290), but more than in Uruguay (26). There have been 17 further Skokholm ringed Manx Shearwater found dead or moribund in South America since 2013; there was one in September 2014, two in November 2015, two in September and one in October 2016, singles in September and October 2017, one in November 2018, singles in March and November 2019, two in September 2020, one in September 2021 and singles in February, August and September last year. They have all been found in Brazil, bar the November 2018 casualty found in Uruguay and the February 2022 bird in Argentina. Assuming that birds ringed as adults have already survived at least two winters, four have now been found in their first winter, three in their second winter, two in at least their third winter, four in at least their fourth winter, one in at least its fifth winter, one in at least its sixth winter, one in at least its seventh winter, one in its tenth winter and one in at least its tenth winter.

Ringing recovery EZ16102
Originally ringed as an adult, MANX SHEARWATER TRANSECT, SKOKHOLM 11th July 2015
Recovered as an adult, SKOMER ISLAND, PEMBROKESHIRE 24th July 2023
Finding condition Dead, 'no information about how long, taken by other species of bird'
Distance travelled 4km at 343 degrees (NNW)
Days since ringed 2935

Ringing recovery EZ86130
Originally ringed as a juvenile, SKOKHOLM 12th September 2017
Recovered as an adult, POBBLES BEACH, SWANSEA 16th July 2023
Finding condition Dead, washed up with five other 'similar birds'
Distance travelled 83km at 101 degrees (ESE)
Days since ringed 2133
It is concerning that three adult birds were found moribund on Welsh beaches this year, this more than is typical and perhaps the result of avian influenza (although none were tested to confirm this).

Ringing recovery FB04821
Originally ringed as a pullus, SKOMER ISLAND, PEMBROKESHIRE 2nd June 2000
Recovered as an adult, MANX SHEARWATER TRANSECT, SKOKHOLM 11th June 2023
Finding condition Fresh dead, eaten by Great Black-backed Gull
Distance travelled 4km at 163 degrees (SSE)
Days since ringed 8409

Ringing recovery FB58748
Originally ringed as an adult, BARDSEY ISLAND, GWYNEDD 7th July 2021
Recovered as an adult, SKOKHOLM 28th June 2023
Finding condition Fresh dead, eaten by Great Black-backed Gull

Distance travelled 125km at 196 degrees (SSW)
Days since ringed 721

Balearic Shearwater *Puffinus mauretanicus* **Aderyn Drycin y Baleares**
Scarce or Uncommon first recorded in 1960
Earliest 15th May 1997 (1st August 2023) **Latest** 14th November 2019 (27th September 2023)

One heading northwest off the Lighthouse on the morning of 1st August was eight days later than the first two of last year, but 13 days earlier than the 2013-2022 first bird mean; one in 1997 is the only May record, whilst there have been 18 July bird-days. One west on the evening of the 31st took the all-time August bird-days total to 93, 25 of which have been since 2013. September saw one off Crab Bay on the 19th and two in Broad Sound on both the 26th and 27th; the all-time September bird-days total now stands at 120, 32 of which have been since 2015 (a September 2011 total of 28 bird-days included an all-time record daycount of ten on the 14th). An October bird-days total of 40 and a lone November record were not added to. There were thus seven Balearic Shearwater bird-days this year, a total matching the 2013-2022 mean of 6.6 but down on 14 previous years (including highs of 15 in 1994 and 2016, 21 in 1990 and 29 in 2011).

Gannet *Morus bassanus* **Hugan**
Very Abundant but Uncommon between November and March

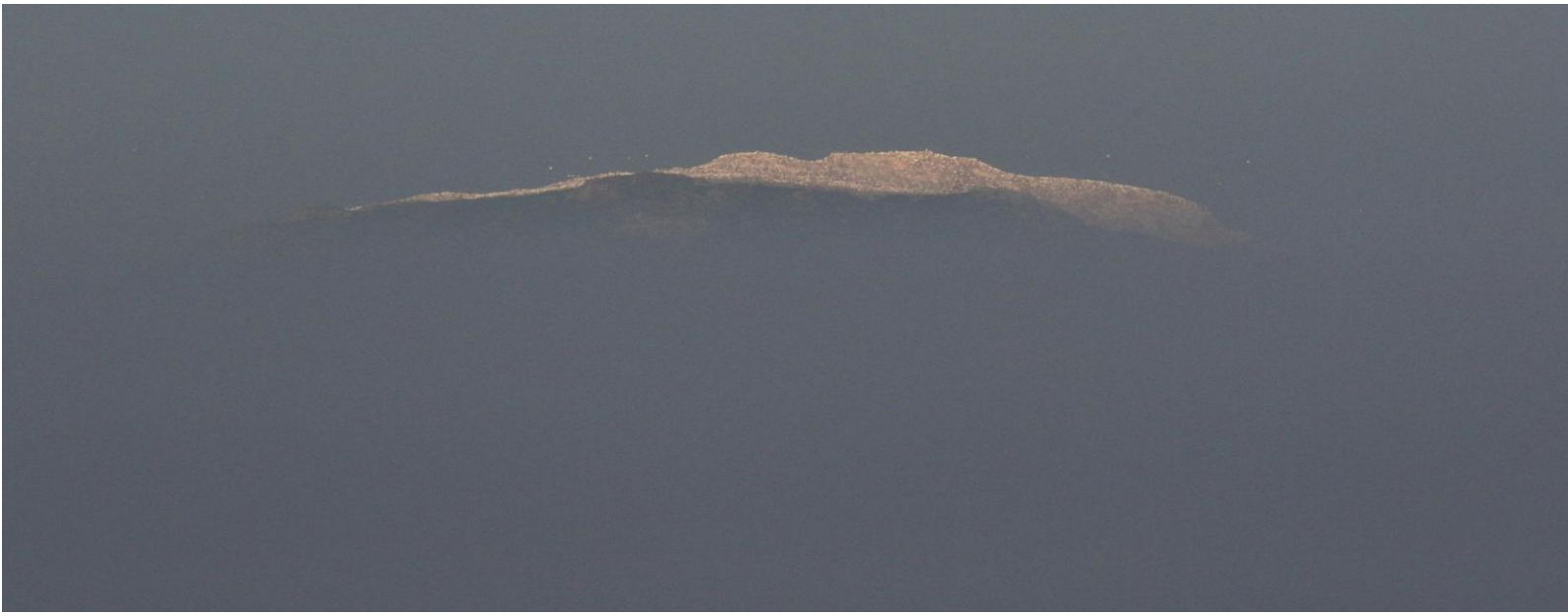
Along with sightings of approximately 12 sick birds, there were 51 dead Gannet seen from Skokholm between 16th May and 26th October last year, with one in May, one in July, 32 in August, 16 in September and one in October, whilst an additional long dead bird was found near the Bluffs on 5th December; although a very small number of dead Gannet are encountered most years, the 2022 deaths were primarily the result of a devastating outbreak of the H5N1 subtype of avian influenza which saw aerial counts of the Grassholm colony go from 34,491 pairs in summer 2022 to 16,482 pairs in July this year (BirdGuides, 2023). The last time the Grassholm count was so low was in 1969 when 16,128 pairs were counted. There were no dead Gannet seen from the Island this year, this mirroring a lack of records from elsewhere in Pembrokeshire. Despite the catastrophic decline, Skokholm counts during the first three months of the season were comparable with recent years, the March bird-days total being somewhat down on a 2013-2022 mean of 118.9, the April total slightly up on a mean of 454.6 and the May total slightly down on a mean of 979.1. A June bird-days total of 607 was the second lowest of the last decade, down on a 2013-2022 mean of 1031.7.

The total number of Gannet bird-days logged each month, along with the maximum monthly daycount. Counts from 2019 to 2022 are included for comparison.

	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
2023	83	473	931	607	3272	4107	1763	356	109
2022	137	378	649	637	22,219	5611	4081	701	253
2021	208	451	685	639	1452	3340	2684	1780	211
2020	99	416	445	665	1387	3584	2662	670	182
2019	207	505	1048	1084	1687	6002	3911	865	159
2023	26	68	94	44	478	1394	248	61	22
2022	12	45	122	62	5838	940	458	204	35
2021	36	46	161	198	468	549	662	236	36
2020	27	92	83	195	177	456	330	128	49
2019	31	69	150	145	212	704	633	207	41

Last July saw a huge spike in numbers, this perhaps linked to the breeding season collapse of Gannetries around the UK; numbers were again high this July, a bird-days total of 3272 being the third highest to date. August counts were typical bar the 1394 logged on the 1st, this the fifth highest

daycount to be recorded in this month, only down on the 1500 of 1960 and three counts of up to 2144 in 2013. September counts were a closer reflection of the Grassholm crash; a September bird-days total of 1763 was the lowest of the last 13 years, down on a 2013-2022 mean of 4598.6, whilst a peak daycount of 248 on the 19th was the lowest to be logged during the same period. Similarly the October bird-days total and a peak daycount of 61 on the 10th were both less than half the respective 2013-2022 means. Despite a staff presence throughout the month, the November tallies were similarly down. One over the South Coast Cliffs on 15th June and different birds over the Neck and Spy Rock on 19th September were the only Gannets seen over Skokholm this year.



Shag *Phalacrocorax aristotelis* **Mulfran Werdd**
Common Resident and Irregular Scarce Breeder last attempted to breed in 2013
2018: 1 control

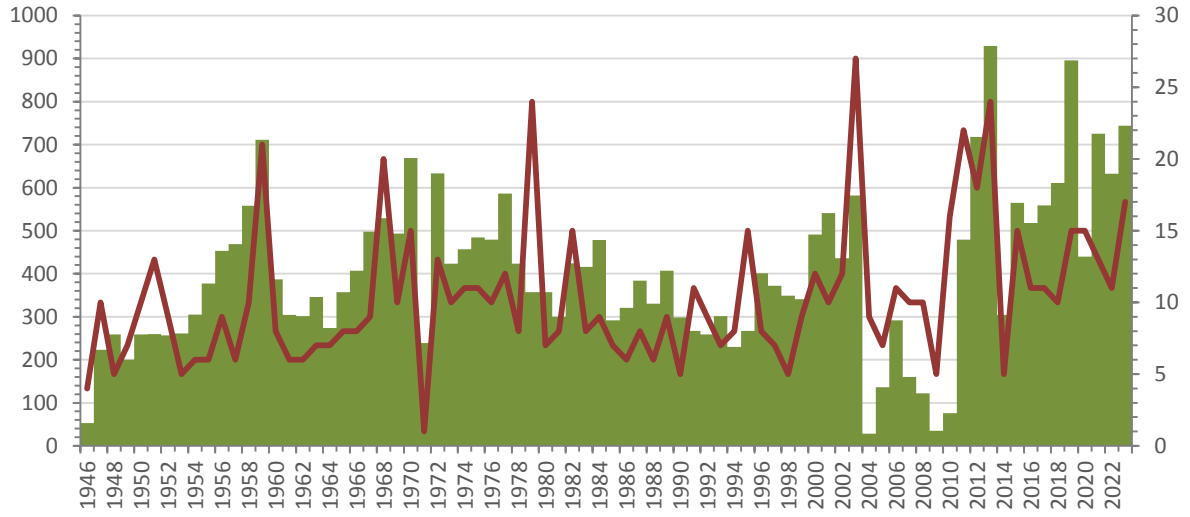
Severe winter weather resulted in a 2014 bird-days total which was 67.3% down on that of 2013, since when the number of Shag using the waters around Skokholm has been gradually recovering. Following a typical March, this April saw the second highest post-crash bird-days total and daycounts of nine on the 21st and 26th and ten on the 22nd, the latter matching counts in 1947, 1950, 1959 and 2011 as the second highest in this month (there were 11 on the 18th in 1979). May counts were more in line with those of late, a bird-days total of 83 close to a 2013-2022 mean of 75.3 and a peak daycount of seven on the 13th matching a mean of 7.5 logged during the same period. There was again no indication of a breeding attempt this season, with the Smith's Bay site last used unsuccessfully in 2013 showing no signs of occupation; Shags last bred successfully in 1987 when a pair fledged two young. Both a June bird-days total of 59 and a maximum daycount of seven on the 7th were the highest since the 2013-2014 crash, the former well up on a 2013-2022 mean of 32.3. Although a July bird-days total of 94 was the highest since 2012, peak daycounts of seven on the 8th and 27th and eight on the 13th were down on those logged in three of the last four years. As is typically the case, numbers increased in August, however daycount highs of ten on the 1st and nine on the 25th were down on those logged in all but two of the last eight years (there were all-time August highs of 27 in 2003, 22 in 2011 and 17 in 2013). Numbers remained similar during September bar a daycount of 17 on the 21st (14 of which were around the Neck, including 11 on the Stack which remains the usual site for the largest Skokholm gatherings); this daycount maximum was the highest to be logged in any month since 2013 when counts peaked in September at 24. Numbers again dropped in October, with a bird-days total of 81 the second lowest of the last five years (the 146 bird-days of 2013 is the highest October tally to date), whilst the November total matched the

lowest of the last five years. A 2023 March to November bird-days total of 743 was up on a 2013-2022 mean of 613.7 and was the second highest since 2013. Not all birds seen around Skokholm are associated with the Middleholm colony; a juvenile found in the Lime Kiln in November 2018 had been ringed on Ynys Gwylan-Fawr, Gwynedd and a bird with a green ring was found in May 2019 (the latter was too distant for the inscription to be read).

The total number of Shag bird-days logged each month, along with the maximum monthly daycount. Counts from 2019 to 2022 are included for comparison.

	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
2023	30	79	83	59	94	132	130	81	55
2022	26	60	69	24	90	108	133	57	55
2021	56	39	62	26	57	140	143	105	76
2020	18	30	22	19	45	75	74	96	56
2019	29	89	150	32	82	152	168	102	88
2023	4	10	7	7	8	10	17	7	7
2022	4	7	8	6	9	11	10	4	6
2021	6	4	6	4	10	13	12	9	8
2020	4	5	4	6	7	15	11	9	5
2019	3	9	9	3	9	15	13	12	8

The total number of Shag bird-days logged in each year since 1946 (green), along with the peak daycount recorded in each of those years (secondary axis).



Cormorant *Phalacrocorax carbo* **Mulfran**
Common Visitor particularly in late August and September, but has never bred

Cormorants were again common, with the majority of non-passage sightings being of birds on the Stack, in South Haven and in Crab Bay. An annual bird-days total of 752 was up on a 2013-2022 mean of 601.6 and only down on two years during this period (there were 867 in 2019 and 800 last year). As is typically the case, spring passage was not as pronounced as that observed in autumn, indeed this year saw no records of more than two flying together. There were also significantly fewer autumn passage birds, this reducing the overall 2024 bird-days total; the numbers present in the waters around the Island were actually some of the highest to date. Following a typical March, there were above average totals for the next four months; an April bird-days total of 62 was up on a 2013-2022 mean of 44.6 and the second highest total since 1997, a May bird-days total of 96 was up on a mean of 58.6 and the third highest total since 1996, a June bird-days total of 153 was the highest ever (with daycounts of 12 on the 16th and 26th only down on those logged in three Junes) and a July bird-days total of 170 was also the highest ever (with 14 at the Stack on the 2nd also only

down on daycounts logged in three previous Julys). There were just seven autumn dates when three or more seemingly passage birds were noted, this the lowest total of the last 11 years (the 2013-2022 mean is 12.9, with a high of 17 dates in 2019); as previously noted by both Betts (1992) and Thompson (2007), the majority of passage birds were again heading in a southeasterly direction. The peak counts of autumn passage birds were of 17 southeast on 13th September, seven southwest on 22nd September and nine southeast on 12th October; the peak was the lowest of the last 11 years, down on highs of 97 in 2013, 48 in 2014 and 51 in 2016 and a 2013-2022 mean high of 37.6 (the only daycount up on that of 28th September 2013 is the 107 of 12th September 2003). Owing primarily to this lack of passage birds, autumn totals were down on recent years; an August bird-days total of 117 was down on four of the last five years and a September total of 107 was the second lowest of the last 11 years. Most birds seemingly head inland for the winter, indeed there were sightings on just seven October dates, of up to two on five November dates and of one on 1st December.

The total number of Cormorant bird-days logged each month, along with the maximum monthly daycount. Counts from 2019 to 2022 are included for comparison.

	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
2023	19	62	96	153	170	117	107	21	6
2022	27	51	76	74	169	244	124	15	15
2021	50	47	33	41	74	143	117	68	14
2020	21	18	20	26	22	69	146	33	7
2019	33	67	99	44	105	158	258	67	33
2023	4	7	7	12	14	8	18	9	2
2022	4	5	6	7	12	27	17	3	12
2021	8	7	4	7	8	17	11	22	3
2020	7	4	3	3	4	15	35	7	2
2019	6	5	18	5	11	12	36	21	8

Spoonbill *Platalea leucorodia* **Llwybig**
Rare Summer Visitor 15 previous records, all of singles bar two together in 1988 and 2009

On 6th June a first-summer arrived over Purple Cove before spiralling down above Spy Rock, dangling legs suggesting that it might land before it rose and headed east (KT, GE *et al*.). The majority of Skokholm sightings have also been in June, with singles in 1994 and 2001, one on two dates and two on the 9th in 2009 and further singles in 2011 and 2017. A subadult on 14th March 2014 is the earliest record, there were May singles in 1996 and 2013, August singles in 1993 and 2013, a September

single in 1996, two on 12th October 1988 (which overwintered on the Cleddau and included a bird ringed in the Netherlands) and further October singles on the 20th in 1957 and the 27th in 2011.

Grey Heron *Ardea cinerea* **Crëyr Glas**
Uncommon but in some years Scarce

There were no sightings between March and May for the fourth time in ten years; the all-time March bird-days total remains at 11, the April total at 26 and the May total at 30. It became the 11th consecutive June with a record, with one on the evening of the 14th taking the all-time bird-days total for this month to 193. July and August were also quiet, with singles on 4th July and the 27th and 28th August taking the all-time totals to 332 and 363 respectively. Eight, seven of which were together, arrived from the east at 2000hrs on 2nd September, the seven birds probably those which arrived from Skomer the following day (before heading out towards Grassholm); a daycount of eight matched a count in June 2017 as the highest since 11 were logged on 13th September 2000, indeed daycounts of ten in August 1981 and nine in August 1990 are the only others up on the 2023 peak. There were sightings on a further seven September dates, including five together on the 6th which took the bird-days total for the month to a record 27; the number of Grey Heron reaching Skokholm in September is seemingly increasing, with the previous highs being of 14 in 2000 and 2022, 16 in 2014 and 21 in 2020. Similarly two on the 2nd and singles on three dates between the 9th and 15th took the October bird-days total to five, this matching totals in 2017 and 2019 as the highest to date. One high over Broad Sound on the 29th was the 13th November bird-day, five of which have been since 2013. A cumulative 2023 total of 37 bird-days matched that of 2017 as the highest this decade, up on a 2013-2022 mean of 27.8 and only down on the 42 of 1981, 41 of 1988 and 39 of 1990.

Great White Egret *Ardea alba* **Crëyr Mawr Gwyn**
Vagrant three previous records

One at North Pond on 4th April was the first spring bird to be seen on Skokholm (MP). The only other records are of singles on 5th July 2019, 15th October 2020 and 11th October 2021. The first for Pembrokeshire was not logged until 12th April 1988, this a bird found near St. Davids (Donovan and Rees, 1994). The next was a colour ringed bird at Newport in August 2003 and the third a bird at Strumble Head in September 2006, the latter arriving in the year after this species was dropped from the list assessed by the British Birds Rarities Committee. Following a further single in 2008, there have been annual Pembrokeshire records since 2011, including 12 sightings of up to six birds in 2022 and 12 sightings of up to two birds this year (in addition to the Skokholm bird which was the only individual seen prior to July); this increase in records has been mirrored elsewhere in Wales, meaning that Great White Egret no longer fits the assessment criteria of either the Welsh Birds Rarities Committee or the Pembrokeshire Rarities Committee.

Little Egret *Egretta garzetta* **Crëyr Bach**
Rare 35 previous records, usually singles but with eight in September 2014 and seven in June 2021

One at North Pond and later over the Bog on 27th April was perhaps that present in South Haven the following day. Similarly one at North Pond on 21st May was perhaps that seen at the Lighthouse and South Pond the following evening, whilst one at North Pond on the evening of 31st May was the last of the spring. A southbound bird on 11th August briefly alighted at North Pond before continuing on its way. Two to the west of the Dip early on 25th October soon headed for the coast, this only the eighth Island record of multiple birds. An annual bird-days total of eight was up on a 2013-2022 mean of 3.8 and only down on the ten of both 2014 and 2021. The first for Skokholm joined the Bread Rock Lesser Black-backed Gulls on 18th May 1983, this followed by three in the Dip on 10th October 1993, two on 1st May 1997 and records in 17 subsequent years. Little Egrets have been seen in every month between March and December inclusive, now with one record in March, three in April, eight in May, four in June, nine in July (two fewer than previously listed due to an error during the 1999 Log digitisation process), five in August, two in September, four in October, three in November and one in December (all now tallying 62 bird-days, 46 of which have been since 2013).

Sparrowhawk *Accipiter nisus* **Gwalch Glas**
Uncommon Visitor occurring in all months, but more frequent outside of the breeding season
3 trapped
1936-1974: 7 trapped, 2013-2022: 12 trapped, 1 retrapped

A first-winter male in the Wheelhouse Heligoland on 4th March was perhaps that seen six days later, a female chasing Blackbirds on the 19th was perhaps the first-winter in the Cottage Heligoland two days later and singles on the 26th and 27th included a young male on the latter date; a March bird-days total of six matched that of last year as the highest since 2003. A female which took a Blackbird on 1st April was probably that present on the 2nd, there was a male on the 13th, a female on each day between the 17th and 20th and a male on the 24th, a bird-days total of eight also matching that of last year as the highest in April since the 19 of 2006. A female on the 14th took the all-time May bird-days total to 75, this including highs of ten in 1993 and nine in 2021, whilst the most recent of 15 June bird-days was in 2015. A spring bird-days tally of 15 was up on a 2013-2022 mean of 7.3 (the 37 of 1993, 20 of 1996 and 26 of 2000 are the only totals up on the 19 of 1982, 1997, 2006 and 2021).

A juvenile male on 15th August was four days later than the 2013-2022 first of autumn mean. A female noted each day between the 24th and 26th August was joined by a male eating a Wren along

the Lighthouse Track on the latter date. It proved the first of the last 11 years in which numbers did not peak in September, the only records being of singles on six dates (four of which were definitely males, including a juvenile in the Cottage Heligoland on the 26th); the September bird-days total was the lowest since 2012, down on a 2013-2022 mean of 18.7 (there were all-time highs of 30 in 2000, 28 in 2014, 26 in 2015 and 23 in 2019). October saw sightings of a single on the 2nd, a male on the 4th, 6th and 7th and a first-winter male on the 20th; a bird-days total of five matched the second lowest of the last 12 years and was well down on highs of 21 in 1956, 19 in 1981, 17 in 1989 and 15 in 2015. The only November records were of a first-winter male on the 6th and a single on the 10th, these taking the all-time November total to 37, 20 of which have been since 2014. An autumn bird-days total of 18 was the lowest since 2012, down on a 2013-2022 mean of 39.4, this a period which saw the five highest autumn totals to date (with 44 in 2014, 66 in 2015, 41 in 2016, 44 in 2019 and 53 last year). Given the mobile and often secretive nature of this species, daycounts of multiple birds are often due to differences in age or sex; rarely is it possible to prove the presence of two birds of the same age and sex, an uncertainty which no doubt leads to undercounting.

Marsh Harrier *Circus aeruginosus* **Boda'r Gwerni**
Scarce recorded in every month from March to November
Earliest 10th March 2015 (7th April 2023) **Latest** 4th November 2018 (20th September 2023)
2013: 1 control

The only spring record was of a subadult male on 7th April; spring sightings in 17 years have totalled 28 bird-days, with 15 bird-days this century and the majority occurring in May. A high male was mobbed by two Short-eared Owl on 6th September, a juvenile went north on the evening of the 15th and one over the Bog on the 20th, watched in front of the sun, was probably a subadult male; the five bird-days of last year is the only higher September total, with sightings in eight years now totalling 16 bird-days. A 2023 bird-days total of four matched that of 2001 and 2011 and was only down on the five of 1995, the seven of 1998, the six of 2015, the 13 of 2018 and the 34 of last year (the 2013-2022 mean is 6.4). There have now been sightings in 26 years, including 12 of the last 14, with at least 49 individuals accounting for 110 bird-days, however probable repeat visits by cream crowns lingering at nearby Marloes Mere have made an accurate count of individuals difficult.

Hen Harrier *Circus cyaneus* **Boda Tinwyn**
Scarce Winter Visitor more regular in October and November than in March and April
Earliest 5th August 2022 (16th October 2023) **Latest** 17th May 2022 (14th March 2023)
1993: 1 control

There were sightings of a ringtail on the 8th, 10th and 14th March, this matching the second highest spring total; of 23 previous bird-days logged between March and May, 18 have occurred since 2012.

A ringtail over the Bog on 16th October was the latest autumn arrival of the last four years, ten days later than the 2013-2022 first of autumn mean (a September bird-days total of 23, 15 of which were in 2017, was not added to). A juvenile female present on 18th October was not the ringtail seen on the 21st but was that seen on the 22nd, whilst photographs confirmed a different juvenile on the 28th; an October bird-days total of five was down on that logged in eight previous years. Singles on 15 November dates included an adult female on eight dates, a stunning male in at least its second winter on the 26th and at least two juveniles; the only higher November totals are of 17 in 1990, 20 in 2003, 17 in 2016, 24 in 2018 and 16 in 2019. A ringtail on 1st December was the last prior to the staff departure and took the all-time tally for this month to 13. A 2023 bird-days total of 24 was up on a 2013-2022 mean of 17.9; there have been higher totals in five years, with peaks of 38 in 2003, 33 in 2016 and 46 in 2018.

Pallid Harrier *Circus macrourus* **Boda Llwydwyn**
Vagrant only one previous record

A stunning first-winter female was present during the morning of 23rd November; having flown west over the Bog to the Lighthouse at 0915hrs and back east along the south coast, it flew west along the north coast to Wardens' Rest at 0940hrs before again quickly returning east (RDB, GE). It was probably the individual present on the Gower from 30th November and at Penclacwydd, Carmarthen between 10th December 2023 and 14th April 2024. This was the second for Skokholm following a juvenile on 12th September last year and only the fourth for Wales following a first-summer male present on Skomer Island, Pembrokeshire between 20th April and 1st May 2013 and an adult female at Connah's Quay, Flintshire on 30th September 2017. Given that the breeding range of this species is expanding out of southeast Europe, it would seem likely that there will be more records.

Red Kite *Milvus milvus* **Barcud Coch**
Rare approximately 36 previous records of up to three birds, but becoming Scarce or Uncommon

The only spring records were of one heading east over the Neck on 12th May and one over the centre of the Island on 28th May; a March bird-days total of ten and an April total of 15 were not added to, whilst the only other May record was present on the 29th in 2020. One which lingered for at least two hours on 2nd October was the only autumn sighting; there have now been two bird-days in August, six in September, eight in October and five in November. An annual bird-days total of three was the lowest since 2017, down on all-time highs of nine in 2020 and 2021 and ten last year; there have been annual records since 2015, these accounting for 47 bird-days, with two in 2012 and one

on 6th June 2000 being the only other sightings. An increase in the Pembrokeshire breeding population is inevitably going to lead to an increase in the number of Skokholm records, although an open sea crossing is seemingly not appealing to a species which is still much more regular on the mainland and islands just offshore.

Buzzard *Buteo buteo* **Bwncath**
Scarce Breeder and Uncommon Visitor
1936-1957: 6 trapped, 2013-2018: 8 pulli trapped

Although a pair yet again held territory in Wreck Cove from March and toured widely, this proved an unobtrusive species which was not recorded every day. It could not be confirmed if the two over Broad Sound on 20th April included Skokholm breeders, with three on the 26th and 29th May being the only daycounts of more than two; there were 12 spring dates last year when the number of Buzzard present exceeded the two Skokholm breeders, this up on a 2013-2022 mean of 8.5 dates (two 2023 dates matches that of 2017 as the lowest total of the last 11 years, down on highs of 15 in 2013 and 14 in 2021). The peak spring daycount was down on a 2013-2022 mean of 4.3 and on a high during this period of six on 16th April 2015 (the latter matching that of 6th April 1988 as the highest in spring since nine on 24th May 1955, whilst 12 on 10th April 1940 and ten on 20th May 1955 are the highest spring daycounts). For a fifth year, the rocky shelf which held the nest in each year between 2013 and 2018 was eschewed in favour of a narrower ledge on a taller section of near-vertical cliff. Three eggs were noted on 16th May, two had hatched by the 25th and both youngsters were close to fledging on 27th June. A fledgling was over South Haven on 5th July, but it was not until 4th August that both young were seen together. It was suggested in the 2019 Annual Report that the switch in nest site was perhaps brought about by a different adult being part of the pair and that the change had been a successful one; although three fledged in 2019 and 2022, two 2023 fledglings matches that of 2020 and 2021 and is up on a 2013-2022 mean of 1.7 (although the Wreck Cove pair also managed to fledge young in each year between 2013 and 2018, only in 2015, when two fledged, did they produce anything more than a singleton). There were peak autumn daycounts of five on both the 1st and 16th September (it could not be confirmed if six were present on 24th October, only four making it into the Log); the all-time autumn highs are of 11 in 1947, 16 in 1951 and eight in 1952, 1989 and 2013. Four were still present on 15th November and three were together on the 25th.

Short-eared Owl *Asio flammeus* **Tylluan Glustiog**
Uncommon described in 1936 as a ‘rare visitor’, listed by Thompson as Scarce but has now bred once
1 trapped
1957-1969: 5 trapped, 2017: 3 pulli trapped

The only record during the first half of the year was of one which flushed from near Migration Rocks

before heading northeast over the Farm on 22nd June, this becoming the 34th June with a sighting; there have now been 105 June bird-days, including 47 since 2013 and a high of 21 in 2017 when the only Skokholm breeding attempt occurred. There were no further sightings until 6th September when two owls included a juvenile female netted near North Pond, this the first fully grown bird to be ringed since 1969. Sightings on seven further September dates included at least two on the 7th, 9th and 10th which took the bird-days total to 12; this matched the September tallies of 1989 and 1992 as the highest since the 21 of 1975, indeed 14 in 1957 and 1960 are the only other higher totals in this month. October saw singles on the 14th and 16th and a minimum of three in the vicinity of South Pond and the South Coast Cut after dark on the 20th, the latter the highest autumn daycount since four were present in September 2017 (the all-time daycount highs are of six on 22nd September 1948, 9th October 1957, 3rd October 1989 and 7th November 2016 and of nine on 14th November 1989). There have been more sightings in October than in any other month, with 359 previous bird-days including highs of 25 in 1957 and 2015 and 30 in 1989. Singles on the 21st and 26th November were the last of the year. A 2023 bird-days total of 20 was down on six of the last ten years, a 2013-2022 mean of 33.7 and highs of 72 in 1989, 59 in 2015 and 76 in 2017. A total of eight eaten Storm Petrel were found between 22nd June and 10th September, all seemingly taken by Short-eared Owls; this was down on the total logged in six of the last ten years, a 2013-2022 mean of 27.2 and on a high of 98 recorded during the year in which Short-eared Owls bred.

Hoopoe *Upupa epops* **Copog**
Rare more regular in spring, with only 11 previous autumn records (most recently in 2017)
Earliest 12th March 1940 (6th September 2023) **Latest** 31st October 2017 (15th September 2023)
1 trapped
1940: 1 trapped

One on 6th September, found at the Farm by builders working on the Lighthouse windows, fed behind the Gator before relocating to the Hills (ET, DM *et al*.). What was perhaps the same juvenile was near South Pond on the 9th (PB *et al*.) and 10th and between North Plain and Home Meadow on the 11th and 12th. Having gone missing on the 13th, it was trapped in the Well 9 Mist Net on 14th September, this just the second to be ringed following a bird in 1940. It was last seen on North Plain on the 15th. One present on Skomer Island on the 6th, 7th and 15th September was probably a different Hoopoe. Assuming that the 2023 sightings concern a lone bird, this was approximately the 45th individual to be logged, the first of which was present in May 1928. There have now been 109

bird-days recorded over 32 years, with 15 since 2013 and a high of ten in April 1977 when a record three individuals were present on the 17th (two have been logged in at least nine years, most recently in 2016, although two have only been seen on the same date in 1960 and 1977).

Kingfisher *Alcedo atthis* **Glas y Dorlan**
Rare 16 previous records, all of singles and only one of which has lingered for more than a day
1948: 1 trapped

One in South Haven on 13th May soon flew up Well Stream, this the first May record for Skokholm and the first to be seen prior to 28th June (MC). One found in Crab Bay on 22nd September was relocated in South Haven and Peter's Bay later that day, this the second latest sighting following one on 29th September 1975 (MK *et al*.); a juvenile present on the 19th and 20th last year is the only other September record. With the exception of the May, June and September sightings listed above, all arrivals have occurred between 6th July (1963) and 28th August (2000). This becomes only the second year with two records, the other being 2022.

Wryneck *Jynx torquilla* **Pengam**
Scarce Migrant regular in autumn but rare in spring with only ten records of up to two birds
Earliest 3rd April 1995 (19th April 2023) **Latest** 12th November 2014 (**21st November 2023**)
2 trapped
1949-1975: 11 trapped, 2013-2022: 8 trapped, 2 retrapped

One present in the Cottage Garden on the evening of 19th April was only the 12th individual to be found in spring and the fourth spring bird of the last nine years (LD *et al*.); it was not seen again (seven of the previous spring records have been present for more than a day). Two in the vicinity of Sugar's Delight on 8th September were nine days later than the first of last autumn; there have been 17 August bird-days, the earliest of which arrived on the 23rd in 2017, and 48 earlier September bird-days (including 27 since 2018). Sightings of up to two on 13 further September dates included a juvenile trapped in the Stream Net on the 13th which was probably the ringed bird present in Crab Bay on the 19th and at Migration Rocks on the 21st and 26th; a September bird-days total of 16 was

only down on the 35 of 2021 (when record daycounts peaked at four on two dates). Singles on nine October dates were all seen between the West Knoll, Boundary Hill and the Well, with a juvenile in the Well Heligoland on the 14th responsible for the three subsequent sightings (a distinctive tail, with one half only half grown, allowed it to be recognised). The same bird had almost finished growing its tail on 3rd November, making it harder to recognise as an individual, however sightings of a single between the Cottage Garden and North Pond on 12 further November dates to the 21st were almost certainly of the ringed bird, indeed a ring was seen on two dates; this becomes the latest Island sighting, with the only other November record being of one which lingered to the 12th in 2014. It is possible that only two individuals could account for all of this autumn's sightings, but it would seem likely that at least three were present. There have now been 311 bird-days, including the first on 6th May 1938, all in 42 years and with at least 23 individuals accounting for 152 bird-days since 2013. The 39 bird-days logged this year was up on a 2013-2022 mean of 11.3 and only down on the 45 of 2021 (17 in 1986, 20 in 2013 and 16 in 2014 are the next highest totals).

Kestrel *Falco tinnunculus* **Cudyll Coch**
Uncommon recorded in all months but more regular during the post-breeding period
1936-1973: 8 trapped, 2013: 1 trapped

A lone bird on 4th April was the only spring record; although never common in the first half of the year, the 2013-2022 spring bird-days mean is 8.7, with a high during this period of 29 in 2013. There were no July sightings for only the second time since 2013, one on 6th August being the second latest autumn arrival of the last 11 years. Singles on three further dates from the 24th led to the lowest August bird-days total since 2017. Daily sightings between the 2nd and 6th September were of singles bar two together on the 5th, whilst further singles on the 10th, 21st and 23rd took the total to nine, this the lowest tally for at least 13 years and well down on a 2013-2022 September bird-days mean of 28.8 (there were all-time highs of 73 in 1975, 54 in 1989 and 69 in 1992). Following a single on the 1st, daily sightings between the 13th and 28th included two birds on nine dates and took the October total to 26; although down on a 2013-2022 mean of 30.6, this was the highest October tally since 2020 (there was a high during this period of 51 in 2016 and all-time highs of 60 in 1973 and 70 in 1975). Despite a staff presence throughout the month, the only November record was of a single on the 25th; the 2013-2022 November bird-days mean is 15.4, this a period which included all-time

highs of 33 in 2020 and 29 in 2021. A male on 1st December was the last of the year and made this the 13th year with a sighting in this month. A total of 42 bird-days were recorded in 2023, this well down on a 2013-2022 mean of 99.2 and the lowest total logged during this period (down on the 47 of 2019 and well off highs of 127 in 2015 and 143 in 2020); the highest annual totals are the 211 of 1973, 152 of 1974, 180 of 1975 and 199 of 1989. The largest daycounts remain the five noted in September 1975, August 1989 and September 2014, whilst the highest monthly totals are the 73 of September and 70 of October 1975 and the 69 of September 1992.

Merlin *Falco columbarius* **Cudyll Bach**
Uncommon recorded in every month but with only four June and 11 July bird-days
1949-1976: 9 trapped, 2013-2021: 5 trapped

Following a female on the 3rd and a first-winter male on the 18th, daily March singles between the 27th and 31st included a definite female on two dates; there have been seven higher March bird-day totals since 2013. The same female could have been responsible for sightings on nine April dates to the 14th, with the sex confirmed on six occasions; a bird-days total of nine was down on a 2013-2022 mean of 18.9, this a period which included all-time April highs of 30 in 2018 and 2019 and 28 in 2021. The only May encounter was with a single on the 3rd; sightings in 29 previous Mays, including eight of the last 12, total 142 bird-days, with highs of 29 in 1968, 14 in 1972 and 17 in 2021. There have been 109 later May or June bird-days, including 31 since 2013. The last June bird was in 2002 and the last of July in 1982.

It proved the sixth successive year without an August record, the first of autumn not arriving until 26th September; this female was 15 days later than the first of last autumn and nine days later than the 2013-2022 first of autumn mean (the earliest during this period was logged on 15th August in 2017). A single on the 29th was the only other September sighting, a bird-days total of two close to a 2013-2022 mean of 3.1. Merlin were encountered on 19 October dates, with a first-winter male present on six dates, a female on eight dates and two birds confirmed on three dates; an October bird-days total of 22 was close to a mean of 20.8 (the all-time highs are of 30 in 1967, 28 in 2017, 38 in 2019 and 28 in 2020). A staff presence throughout November allowed for sightings on 17 dates, with six male bird-days to the 16th, females on eight dates, two birds present on the 4th, 15th and 28th and three present on the 16th; daycounts of three have been noted on 13 previous occasions (once

in September 1977, once in April and four times in November 2017, five times in October 2019, once in October 2020 and once in October 2021), whilst a record four were seen on 7th October 1968 and 23rd October 2018. A November bird-days total of 22 matched that of 2021 as the highest on record, although staff have not always been present during this period (the 2013-2022 November bird-days mean is 13.1). A female and a first-winter male on 1st December were the last to be seen prior to the staff departure. A 2023 bird-days tally of 65 was the lowest since 2016 and down on a 2013-2022 mean of 72.1; five of the six highest annual bird-day totals have come in the last seven years, the all-time peaks being of 118 in 1968, 105 in 2017, 84 in 2018, 104 in 2019, 74 in 2020 and 112 in 2021.

Peregrine *Falco peregrinus* **Hebog Tramor**
Scarce Breeder and Uncommon Visitor resumed breeding in 1988 following a 56 year absence
2013-2020: 4 pulli trapped, 1 control

Although an adult was alarming at Near Bay on 6th March (this a nest site last used in 2020), a male was chasing a Raven in North Haven on 8th March and a male lingered around the 2022 Crab Bay nest site on 18th April, the traditional area of the Bluffs was selected for a 2023 nest attempt. Birds were occasionally seen around the ledge last used in 2021 from 17th March, the female was regularly present from 18th April, the pair were frequently there from 24th April and birds were apparently incubating from the end of the month (although views were obscured by rocks). Both adults were seemingly missing on 2nd May and a check of the ledge the following day revealed an empty scrape; it was unclear what led to a sixth successive failure, the rapid loss of this year's eggs in contrast to 2022 when they survived the length of a typical incubation prior to going missing. It has been postulated in recent reports that an increase in the number of Peregrines present on Skokholm may be impacting productivity by increasing the time that the breeding birds spend away from the nest; this was particularly the case between 2015 and 2017 as an unprecedented second pair prospected and later attempted to breed. Although only one pair have bred in each year since 2017, they are regularly seen attending to visiting birds, a distraction which may leave their nest vulnerable. Additional non-breeding singles were logged on nine dates between 4th April and 15th May, whilst both a first-summer female and a first-summer male were present on the 7th, 9th and 10th May; there were additional birds present on 22 occasions during the first three months of last season and on ten occasions in 2021. A bird with an orange ring watched flying towards the mainland on 10th May was perhaps that seen over Skomer Island on 8th October and 11th November.

The number of breeding pairs, their location and fledging success since 2006.
TB = The Bluffs, SC = South Coast, NB = Near Bay, CB = Crab Bay

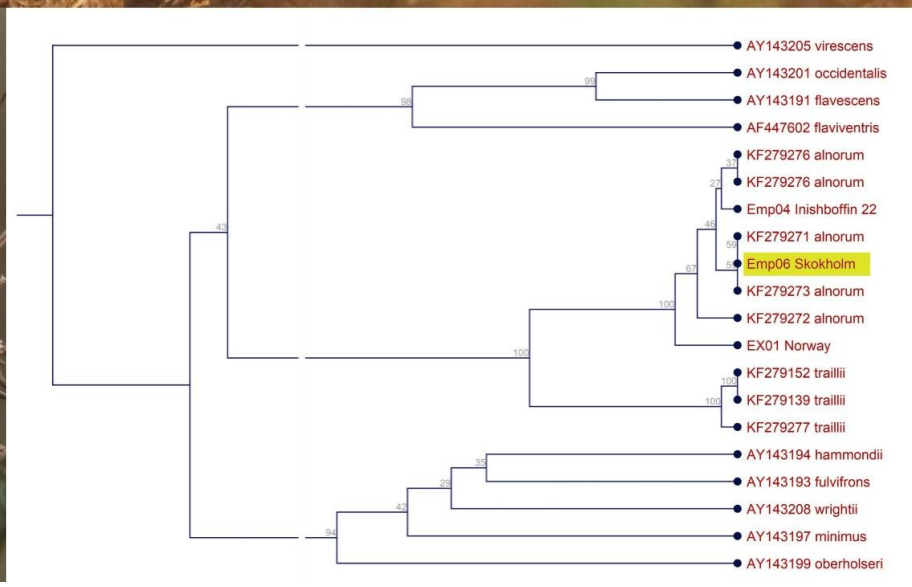
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Pairs	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1
Site	TB	SC	SC	TB	TB	TB	TB	TB	TB	TB	TB SC	NB SC	TB	TB	NB	TB	CB	TB
Fledglings	2	1	2	1	0	4	2	3	0	0	1	1	0	0	0	0	0	0

Sightings on ten June dates were all of singles bar two on the 2nd when a first-summer female was present, this perhaps the bird also logged on the 24th. Only adults were confirmed during July, with sightings on ten dates being of singles bar two talon grappling on the 8th. The two adults could also have accounted for sightings of up to two on 14 August dates, with no younger birds identified during this period; an August bird-days total of 16 was the second lowest of the last 13 years, down on a 2013-2022 mean of 34.1 and on all-time highs of 63 in 1993, 56 in 2013, 60 in 2015 and 61 in 2016. Similarly a September bird-days total of 20 was the second lowest of the last 13 years, down on a 2013-2022 mean of 40.9 and on all-time highs of 55 in 2014, 56 in 2015 and 60 in 2016; all of the sightings could be attributed to the resident pair. An adult male was seen on 11 October dates and an unsexed adult on an additional four dates, whilst unaged birds on four further dates took the

bird-days total to 19, this down on a 2013-2022 mean of 28.7. A staff presence throughout November allowed for encounters with lone adults on four dates (the torn remains of a drake Mallard suggesting that birds were also missed), whilst there were no sightings between 22nd November and 3rd December. Unusually there were no 2023 records of juveniles from elsewhere.

Alder Flycatcher *Empidonax alnorum* **Gwybedog y Wernen**
Vagrant no previous Welsh records
1 trapped

Hurricane Lee, having collected southbound migrants departing the eastern seaboard of North America on the nights of the 15th and 16th September, rapidly tracked east, bringing storm force winds and heavy rain to Wales on the night of the 19th. The morning of the 20th saw a juvenile Lesser Yellowlegs make a brief appearance at Orchid Bog, whilst the second North American species of the day was not found until 1720hrs. It initially proved difficult to secure good views of an *Empidonax* Flycatcher feeding in the Bracken around the Cutting, although it did occasionally sit up, allowing for a series of photographs (DW *et al*.). A DNA carrying faecal deposit, which would have been particularly helpful for confirming the identity of a bird in this difficult genus, was not located.



An analysis of photographs and consultations with experienced observers that evening suggested that the bird was a first-winter Alder Flycatcher, probably a male, with the dull plumage, long (but

not strikingly long) wings and unremarkable, proportionately sized head, bill and eye all appearing typical. Pleasingly it was still present in the vicinity of the Cutting and East Bog the following day and worked its way north at 1500hrs, soon finding its way into the Well 9 Mist Net. In the hand examination revealed a bill tip to nares of 7.6mm, a longest primary to primary six of 5.8mm and a fifth primary which was 1.5mm longer than the tenth, these measurements all pointing to Alder Flycatcher (the subsequent DNA analysis of a dropped feather confirmed the identification, whilst a 71mm wing chord strongly suggested that it was a male). It was back between Boundary Hill and East Bog on the 22nd, with 32 birders successfully twitching it at the latter site the following day. Having again frequented Boundary Hill on the 24th, it was watched heading up towards the West Knoll Pig Sty. It was not seen again for three days, this a period of increasingly strong winds from the southerly quarter and regular heavy showers. Surprisingly it was refound in the West Knoll Elders on the 28th, its British ring obvious, before it worked its way back to East Bog. It was last seen on the morning of 29th September having been encountered on seven dates of its ten day stay. This was the first Welsh record and just the third for Britain following birds in Nanjizal Valley, Cornwall on the 8th and 9th October 2008 and at Blakeney Point, Norfolk, between the 25th and 27th September 2010 (an unidentified *Empidonax* was in Caernarfonshire on the 23rd and 24th September this year, whilst there have been single British records of Acadian Flycatcher in 2015 and Yellow-bellied Flycatcher in 2020). The Skokholm Alder Flycatcher and Bobolink (see below), both long-distance migrants bound for South America, occurred as part of an unprecedented arrival of Nearctic landbirds, with approximately 99 individuals of 27 species reaching Britain and Ireland during the autumn, over 60% of which were brought about by the passage of Hurricane Lee (Lees *et al*., 2024).

Red-backed Shrike *Lanius collurio* **Cigydd Cefngoch**
Rare ten spring and 16 autumn records
Earliest 17th May 1988 (28th May 2023) **Latest** 12th October 1981
1 trapped
1936-1976: 10 trapped, 2016: 2 trapped

A spectacular male in the Well Heligoland during the afternoon of 28th May was only the sixth to be seen in this plumage following birds between the 7th and 8th September 1960, on 19th September 1961, on 10th October 1974, between the 17th and 19th May 1988 and on 23rd May 1989 (RD, ALR).

There have been nine previous spring records, all logged in a relatively narrow window between 17th May (1988) and 6th June (a female in 1967 which had lingered from the 5th and a female in 1996). Surprisingly a juvenile was ringed on 30th June 1957. Of 16 previous autumn singles, all logged between 5th August (1949) and 12th October (1981), only six have lingered for more than a day; two day stays were recorded in September 1960, August 2016 and September 2019, whilst one was present for six days in September 1966, one for eight days in October 1981 and one for nine days in September 1955. Note that the number of Skokholm records listed in 2019 (the last year in which this species was recorded) declined by three during the 2020 Welsh Birds Rarities Committee review.

Golden Oriole *Oriolus oriolus* **Euryn**
Vagrant just four previous live records and one additional set of feathers

One seen in flight over Crab Bay during the morning of 3rd May lingered around Spy Rock for long enough to allow the majority of Island residents to catch up with what is a remarkably rare Skokholm species (IB *et al*.); a blustery day of easterlies made for challenging birding, indeed the last views were as it flew north to the West Knoll Pig Sty within 30 minutes of its discovery. The first Skokholm record was of a nearly complete set of feathers belonging to a first-summer male on 28th May 1966 (found 'near where a Buzzard had been roosting regularly'); it is possible however that this bird was killed away from the Island. The first live record was of a subadult male on 25th May 1982. There followed an adult male on 27th May 1990, a female on 5th June 1994 and a single on 11th May 2016 which was not an adult male. Given the regularity with which this species appears in Pembrokeshire and other coastal locations in Wales, it is perhaps strange that there are so few Skokholm records.

Chough *Pyrrhocorax pyrrhocorax* **Brân Goesgoch**
Scarce Breeder and Uncommon Visitor bred in 1928 and then annually since 1992
1 trapped
1964: 1 trapped, 2020: 1 trapped

Observations during the pre-breeding period revealed the presence of ten residents which would regularly flock together before returning to their territories; all ten were together on the 1st, 2nd, 4th, 7th and 27th March and on the 2nd and 6th April, whilst smaller groups were noted most other days. The presence of an additional two birds was confirmed on the 28th and 29th March, up to three extra birds were logged on three April and four May dates (additionally two were watched flying to the

Deer Park on 15th April) and up to four extra birds were present on ten June dates, the highs logged on the 1st, 7th and 18th. A long dead adult was found to the south of Spy Rock on 16th May. Spring survey work located the five breeding pairs, this one more than the record tally present in both 2021 and 2022. The Steep Bay pair watched carrying nest material between 25th March and 26th April, were feeding young in May and were alarming near Twinlet on 6th June. A pair were nest building from 4th April in the Little Bay fissure regularly visited by a non-breeding pair from 16th May last year; there were audible chicks at this site between 18th May and 7th June. A pair at the Dip Gully site last occupied in 2021 were nest building on 11th April and feeding young during May. A pair nest building at a new site to the east of Wallsend Bay on 13th April were seen with a faecal sac on 4th June. The Peter's Bay pair were changing over on incubation duties from 30th April and were delivering chick food from 13th June. The first fledgling of the year was above Fossil Bay from 25th June, this the only youngster to be seen with the Wallsend pair and one day later than the 2013-2022 first fledgling mean. The Dip pair appeared with two fledglings from 4th July; despite chicks having hatched at the other three sites, these were the only other fledglings seen this year. The Steep Bay pair were invariably together from 6th June, whilst the Peter's Bay pair were together at Migration Rocks on 28th June (a distinctive swollen foot confirming their identity), their chicks seemingly having perished by this date. The Little Bay pair were alarming on 8th July and were watched regularly returning to a silent nest site from the 28th (they were seemingly removing nest material on 8th August).

The number of Chough pairs, the total number of fledged young and productivity 2005-2023.

2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
1	1	2	2	2	2	2	3	3	2	2	2	2	2	2	3	4	4	5
3	1	5	4	3	2	4	0	2	3	2	5	8	2	5	6	7	9	3
3.0	1.0	2.5	2.0	1.5	1.0	2.0	0.0	0.7	1.5	1.0	2.5	4.0	1.0	2.5	2.0	1.8	2.3	0.6

A total of three 2023 fledglings was the lowest since the two of 2018 and down on a 2013-2022 mean of 4.9. Owing in part to the record number of breeding pairs, a 2023 productivity figure of 0.60 fledglings per pair was the poorest since 2012 when three pairs failed to fledge young; between 2013 and 2022, mean productivity has been 1.92 ±se 0.31 fledglings per pair, with highs of 2.50 in 2016 and 2019 and 4.00 in 2017, these all years in which only two pairs bred). There were no July daycounts in excess of the ten breeders and their three fledglings, whilst the only such counts in August were of 14 on the 3rd and 25th, 23 on the 16th and 19 on the 19th; peaks of 26 and 30 in 2017

are the only higher August daycounts. Up to 13 Chough were present in September, with a flock of 11 logged on the 2nd and 8th, a flock of 12 in Crab Bay on the 23rd and an adult female trapped in the Garage Heligoland on the 9th (which was seen regularly around Twinlet to 29th November). Numbers increased in October, with peaks of 33 on the 8th (29 were together at Spy Rock, with four at the Dip at the same time), 29 on the 10th (27 were together at the Lighthouse, with two on Home Meadow at the same time) and 17 on the 25th (15 of which were at the Lighthouse); the only higher daycount is the 35 of 9th October 2021, with the other peaks being of 32 on 28th September 1965, 30 on 29th August 2017 and 31 on 8th October 2022. No more than eight were confirmed on each November day to the 25th, whilst daily sightings between the 26th and 2nd December peaked at just six.

Jackdaw *Coloeus monedula* **Jac-y-Do**
Uncommon Breeder and Fairly Common Visitor
57 trapped, 84 retrapped
1936-1976: 89 trapped, 2011-2022: 177 trapped, 45 retrapped

It has always proven difficult to assess the number of breeding Jackdaw due to semi-colonial nesting, their secretive habits and hidden nests. Following their colonisation in 1965, counts rose to between 50 and 60 pairs between 1974 and 1976, dropped to 16 to 20 pairs between 1982 and 1988, dropped again to between six and 14 pairs from 1989 to 1996, were estimated at between 15 and 26 pairs during the period 2011 to 2021 and reached 27 pairs last year. This year saw at least 26 pairs, with the majority nesting colonially in the crevices and burrows of South Haven (6) and the Quarry (8), but with further pairs again in Peter's Bay (2), near Little Bay Point (2), at Middlerock (1), near Frank's Point (2) and in Hog Bay (2). There were additional pairs in Calf Bay (perhaps the pair from Rat Bay), in Dumbell Bay and to the south of Wreck Cove. A nest was not found in Smith's Bay. Daycounts again suggested that there were more present during the breeding season than were found nesting, whilst birds were seen arriving from the mainland on occasion. There were 28 Jackdaw retrapped during 2023 which had been ringed in previous years; one was in its first summer, four in their second, six were in at least their second, six were in at least their third, one was in its fourth, two in at least their fifth (one of which was found dead), one was in at least its seventh summer, two in their eighth and three in at least their ninth. Additionally EY41809 was found dead in its tenth summer and EY41961 was retrapped on 23rd June, the latter having worn a ring for nine years, 11 months and 19 days (this well off the current British longevity record of 19 years, five months and eight days). Four, all ringed in 2015, had their rings replaced due to wear.

The total number of Jackdaw bird-days logged each month, along with the maximum monthly daycount. Counts from 2019 to 2022 are included for comparison.

	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
2023	1371	1184	1385	1345	1355	1116	776	1482	793
2022	2250	1272	1366	1177	1489	1163	486	1077	431
2021	2620	1933	1335	1728	1479	1867	497	829	952
2020	838	1663	1272	2037	1156	1177	271	1031	397
2019	874	1201	1279	1716	1869	1313	301	1382	254
2023	84	90	90	79	115	125	74	121	106
2022	134	90	62	60	95	96	106	132	86
2021	149	155	102	93	83	120	73	80	134
2020	89	103	66	116	70	141	44	162	74
2019	115	66	62	107	148	95	48	381	94

Pairs were not seen with nest material until 11th April, this 16 days later than last year (the delay perhaps due to a period of very wet weather). Although 90 were present on 20th April and 28th May, no more than 54 were logged each day between 21st April and 8th May, with no more than 60 logged to the 24th, this a typical drop in numbers seen during the incubation period. The first fledgling of the

year was stood on the Lighthouse hot water panels on 12th June, this the latest first fledgling since three on the 16th in 2013 (between 2013 and 2022 the mean first fledgling appeared on 7th June, with the earliest two on the 3rd in 2018). Fish dropped by Puffins were again an important food source for some birds; although the majority were found following gull attacks, a small number of Jackdaw again attempted to steal directly from the Puffins (usually unsuccessfully, but with more successful steals than in any year since 2013 (see the Puffin section)). It again proved impossible to confirm the number of fledglings present in the mobile and nervous post-breeding flocks, although minimum counts of ten between South Haven and the West Knoll, five in Crab Bay and eight in the vicinity of the Quarry were made; a total of 23 fledglings was two up on last year but otherwise the lowest tally of the last ten years, down on a 2014-2022 mean of 28.9 ±sd 5.3.

Seemingly poor productivity was reflected in the July and August daycounts; although a July peak of 115 on the 3rd was the highest in four years and an August peak of 125 on the 9th was the highest in three years, the July bird-days total was the second lowest of the last nine years and the August total the lowest of the last 12 years. The 9th August count was the highest of the autumn, this the lowest maximum since the 100 of 2012, down on a 2013-2022 peak autumn daycount mean of 186.0 and highs during this period of 189 in 2017 and 381 in 2019 (the latter was only down on the 500 of 24th October 1993). The customary exodus for the mainland saw no more than 21 logged each day between 20th August and 1st September, with no sightings at all on seven dates. September daycount highs of 74 on the 13th and 28th and of 72 on the 15th were typical, however a bird-days total of 776 (the highest of the last eight years) reflected a more regular presence. Similarly October highs of 102 on the 10th, 114 on the 12th and 121 on the 16th were down on a 2013-2022 mean October high of 163.0, but a bird-days total of 1482 was up on a mean of 1139.3 logged during the same period. There were ten November dates without a sighting and fewer than ten logged on a further six dates, however peaks of 100 on the 11th, 106 on the 25th and 101 on the 28th took the number of 21st century three-figure November daycounts to only nine.

Rook *Corvus frugilegus* **Ydfran**
Scarce daycounts of up to 25 in 70 previous springs and of up to 21 in 36 previous autumns

It became the eighth consecutive April with a Rook, with sightings on seven dates from the 15th all of flyover singles bar five heading west together on the 20th and two over the Sugarloaf on the 28th; an April bird-days total of 12 was down on the 28 of 2017 and on seven totals of between 16 and 47 logged between 1930 and 1961. There were May singles on the 12th, 13th and 25th, the May bird-days total only down on the eight of 1960, nine of 1961, five of 2016 and 17 of 2017. There have now been 119 spring bird-days logged over 15 years this century, with a high of 45 in 2017 the only total up on the 15 of this spring (a single seen on 41 dates between 4th April and 16th May 2017 was eventually eaten by a Great Black-backed Gull). The only autumn records were in October, with two on the 2nd, 17 east together on the 15th and two on the 25th; the only higher daycounts are of 20 in March 1929, 25 in April 1953 and 21 in October 2002, whilst a bird-days total of 21 matched that of 2002 as the highest to be logged in this month and took the all-time October bird-days total to 137. A 2023 bird-days total of 36 was up on a 2013-2022 mean of 10.8; there have only been three higher annual tallies, with 42 in 1951, 50 in 1953 and 45 in 2017 (36 were also logged in 1930).

Carrion Crow *Corvus corone* **Brân Dyddyn**
Uncommon Breeder and Uncommon Visitor
7 trapped (including 4 pulli), 1 control
1936-1975: 148 trapped, 2013-2022: 22 trapped (including 18 pulli), 1 retrapped

There were 12 nesting pairs mapped in 2023, this the highest 21st century total, up on a 2013-2022 mean of 9.3 and matching the all-time high. Although prior to 1963 there were up to 12 pairs nesting on Skokholm, this had declined to just two by 1982, there was no breeding at all in 1984, 1985 and

between 1991 and 1995 and there were only between two and five pairs from 1996 to 2012. Territories were held near Wardens' Rest, in Steep Bay, North Gully and Little Bay, on Rat Island and the Little Neck, in Peter's Bay, Hog Bay, Winter Pond Gully and Dip Gully, on the Hills and in an Elder at Orchid Bog (the latter the first tree nesting pair for at least 11 years). Between one and 16 birds additional to the Skokholm breeders were present on five days in March and on three days in April, with daycount highs in March of 29 on the 7th and 27th and in April of 40 on the 6th and 31 on the 25th; the peak spring daycount was a Skokholm record, up on the 34 of 23rd March 2019, the 35 of 1st March 2021 and 10th March 2022 and the 36 of 12th March 2022. The high density of birds perhaps led to more confrontations; two were seen with missing tails on 3rd May and three had short, regrowing tails by 8th June. There were again regular sightings of a pair working the auk ledges, with one Crow dragging Guillemots to sea by their tails, this allowing the partner to move in for the egg.

The first fledglings of the year were at the Hills on 24th May, these 15 days later than the first of last year (which also fledged the Hills). The Hog Bay pair fledged three, the Winter Pond Gully, Hills and Orchid Bog pairs fledged two and three pairs fledged a singleton, whilst there was no sign of fledged young in five territories. The resulting productivity value of 1.00 was up on three of the last ten years but down on a 2013-2022 mean of 1.30 ±se 0.20 (there were highs during this period of 1.88 in 2015 (when eight pairs bred) and 2.27 in 2021 (when there were 11 pairs). Despite the high number of breeders and their fledglings, most again proved unobtrusive during the post-fledging period, with no more than 23 logged on each date between 1st June and 16th August. Daycounts then increased, with six August counts of 36 or more between the 19th and 24th including highs of 40 on the 19th, 48 on the 21st, 49 on the 22nd and 46 on the 23rd; the highest previous August daycount was the 38 of 2021. The only September daycounts to exceed the total number of Skokholm breeders and their offspring were of 37 on the 14th and 38 on the 18th, the peak only down on September highs of 40 in 2020 and 44 last year. There were nine October daycounts in excess of the 36 Skokholm birds, all logged prior to the 17th and with highs of 41 on the 8th and 11th, 50 on the 9th and an unprecedented 72 on the 15th (all of which were feeding between North Plain and North Pond); the highest previous Skokholm daycounts are of 48 on 9th November 2014 and 18th October 2020, 49 on 22nd October 2020 and 47 on 9th October 2021. There were fewer present in November, although five counts of between 29 and 35 were logged; there have only been higher daycounts in three Novembers.

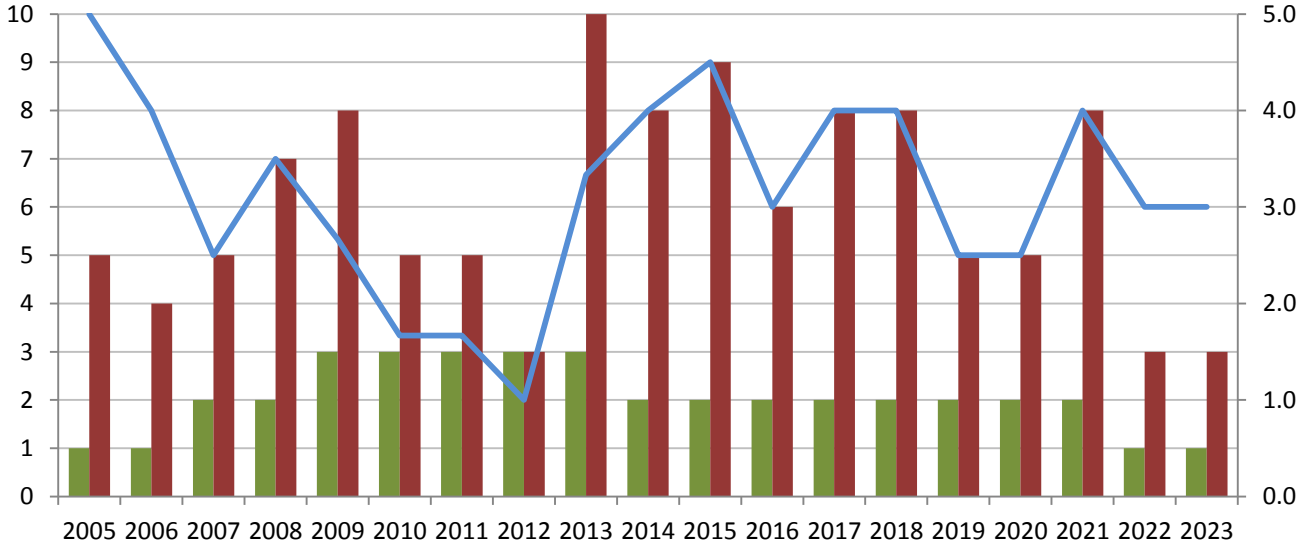
Ringing recovery FJ03264
Originally ringed as a pullus, GORSE HILL, SKOMER ISLAND, PEMBROKESHIRE 26th May 2019

Recovered as an adult, WHEELHOUSE HELIGOLAND, SKOKHOLM 24th October 2023
Distance travelled 4km at 163 degrees (SSE)
Days since ringed 1612

Raven *Corvus corax* **Cigfran**
Scarce Breeder and Uncommon Visitor
1 trapped
1936-1965: 67 trapped, 2022: 1 trapped

Although the pair toured widely, it soon became apparent that only two Raven were present this spring, these including the female ringed last November; there were three pairs between 2009 and 2013 and two pairs nested in 1966 and in ten years between 2007 and 2021, whilst a single pair has been present in every other year since 1928. As has been the case since 2017, the ledge hidden by a buttress of rock on the eastern side of North Haven was selected for a nest. Food deliveries were witnessed between 25th March and 18th April, however it was not until 13th May that two fledglings were recorded, these six days later than both the first of last year and the 2013-2022 first fledgling mean (the earliest during this period were logged on 30th April in 2014 and 2015, the latest on 17th May 2020). Although it was suspected, it was not until 1st June that three fledglings were confirmed, this matching the 2012 and 2022 tallies as the lowest of the last 19 years (mean productivity has only been higher in nine of these years). Between 2009 and 2013, when three pairs bred, mean productivity was 2.07, with 1.67 or fewer fledglings per pair logged in three of those years, this compared with a 2014-2022 mean of 3.50; it is tempting to conclude that a higher density of breeding birds impacts productivity. It was first noted on 31st May that one of the fledglings had a severe lesion at the base of its beak, this bird seen alone at Little Bay on 6th June and very approachable when found at the Sugarloaf on the 22nd. Although it was occasionally seen with its siblings during July, it was alone along the north coast on the 16th and 17th as the family of four fed around Crab Bay. Despite its lethargic demeanour, very regular encounters during the following months showed that 'Scabz' was clearly feeding, albeit often on well used shearwater corpses.

The number of Raven breeding pairs (green) and the number of fledged young between 2005 and 2023, along with productivity (blue and secondary axis).



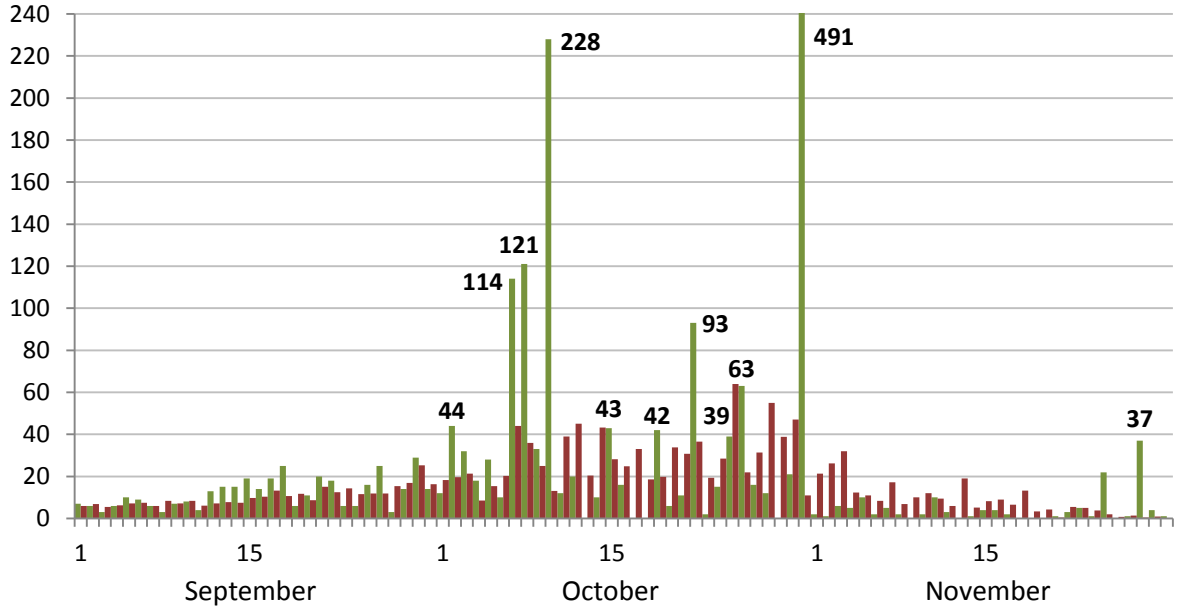
An additional adult on 3rd June was the only confirmed visitor during the first half of the year, this an unusually low total (there were spring daycount highs of 14 in March 1986, March 2003 and May 2013, 21 in March 2021 and 18 in March last year). At least seven Raven were present on 6th August, four of which headed for the mainland, there were six on 16th August, eight on the 5th and 7th September and seven together on 23rd September, these counts including the only birds known to

have arrived from elsewhere this autumn; between 2013 and 2022 the peak autumn daycount averaged 14.2 (with a high of 25 in September 2016), whilst the all-time daycount highs, all logged in September, are of 35 on the 22nd in 1983, 33 on the 19th in 2005 and 50 on the 14th in 2008. With the exception of an extra juvenile on the 4th and 10th October, the only birds confirmed between 24th September and 3rd December were two adults and Scabz. The adults were surprisingly tolerant of the juvenile, indeed they were still seemingly providing food on 21st October and the three were together at North Plain on 2nd December and at the Lighthouse on the 3rd. Scabz was ringed on 22nd November following a foray into the Garage Heligoland.

Skylark *Alauda arvensis* **Ehedydd**
Uncommon Breeder and Common Visitor
1 trapped
1936-1976: 299 trapped, 2015-2019: 17 trapped (including 4 pulli), 3 retrapped

There was again little evidence of a spring passage, with maximum daycounts of 21 in March, 18 in April and 19 in May being attributable to the Skokholm breeders; the March peak was the highest spring daycount since 2018, but well down on a 21st century spring high of 40 in 2017 and counts of up to 70 in the 1960s. A total of 13 territories were registered regularly during April and May, this matching that of last year as the lowest since 2015 and down on a 2013-2022 mean of 14.60 ±sd 3.47 (there were highs during this period of 21 in 2017 and 19 in 2018); the number of territories mapped between 2002 and 2015 was lower, ranging between three and 12, however numbers were previously higher, with between 16 and 29 mapped between 1978 and 1996, 35 mapped in 1974 and between 38 and 48 mapped between 1965 and 1971 (with the high in 1966). Adults were seen collecting food from 3rd June, this three days later than the first of last year, chicks were seen to be fed in 11 territories and the first fledgling was encountered on 17th June, this 14 days earlier than last year. Given the number of overlapping territories and the secretive nesting habits of this species, it again proved impossible to accurately assess productivity, however fledglings were noted at just five sites (two fewer than last year). No more than 17 were seen on any date between 7th July and 14th September, whilst a high of 29 on the 29th was down on a 2013-2022 September mean of 39.8 (the all-time September daycount highs are of 59 in 1959, 58 in 2018 and 68 in 2020).

The number of Skylark logged on each autumn day (green) compared with the 2013-2022 average. 2023 daycounts of 35 and above are labelled. Note that the 31st October count exceeds the axis.



There were ten or fewer Skylark noted on eight October dates (this was between 14 and 18 dates between 2017 and 2022), however 12 daycounts in excess of 30 led to a bird-days total of 1552, this the highest of the last 11 years and up on a 2013-2022 mean of 911.6 (there was a high of 1388 last year). There were October daycount highs of 114 on the 7th, 121 on the 8th, 228 on the 10th and 491 on the 31st, the peak being up on a 2013-2022 mean October high of 187.4 and the highest since 700 were logged on 20th October 1988 (indeed the only other daycounts up on this year's maximum, all logged in October, are of 1200 on the 21st in 1956, 601 on the 15th in 1959 and of 500 on the 13th and 27th in 1964 and on the 17th in 1968). There were sightings on all but six November dates, with highs of just ten on the 5th and 11th, 22 on the 25th and 37 on the 28th; the November high was the third lowest of the last 11 years, down on a 2013-2022 mean of 77.6, highs during that period of 94 in 2018 and 221 last year and on all-time highs of 450 on the 8th and 400 on the 12th in 1967 (200 on the 1st in 1970 is the next highest November count). There were four on 29th November, one the following day and no sightings during the first three days of December.

Sand Martin *Riparia riparia* **Gwennol y Glennydd**
Fairly Common and Common in some years with daycounts of up to 400 in spring and 500 in autumn
Earliest 8th March 2000 (17th March 2023) **Latest** 25th October 1971 and 1997 (23rd September 2023)
1960-1967: 8 trapped, 2018-2020: 12 trapped

One south on 17th March was ten days earlier than the first of last year and six days earlier than the 2013-2022 first of spring mean; although there have been a further eight bird-days logged on the 17th this century (including four in 2020), the only earlier records are of one on the 11th in 1997, one on the 10th in 1983 and two on the 8th in 2000. Another ten the following day took the all-time March bird-days total to 487, 115 of which have been since 2014 (there were highs of 41 in 1965 and 40 in 2019). Counts on 20 April dates were all of eight or less bar 26 on the 7th, 16 on the 16th, 12 on the 17th and 22 on the 23rd; the peak daycount was up on a 2013-2022 April mean of 20.5 (there was a high during this period of 73 in 2017 and all-time highs of 250 in 1954 and 200 in 1990). An April bird-days total of 126 was up on a 2013-2022 mean of 78.8; there was a high during this period of 189 in 2017 and all-time April highs of 380 in 1951, 313 in 1952 and 327 in 1954. Encounters on only seven May dates to the 16th were of no more than three; both a bird-days total of 15 and the daycount maximum were down on the 2013-2022 means, the former down on 47.4 and all-time highs of 792 in 1948 and 570 in 1989, the latter down on 15.0 and all-time highs of 300 in 1948, 350 in 1959 and 400 in 1989. There were June records of one on the 6th, seven on the 20th and six on the 22nd, the peak only down on that logged in three Junes and the bird-days total only down on that logged in six; there were June bird-day highs of 27 in 1964, 67 in 1969 and 22 in 1991.

The total number of Sand Martin bird-days logged each month (2022 to 2020 in parentheses), along with the maximum monthly daycount (2022 to 2020 in parentheses).

March	April	May	June	July	August	September	October
11	126	15	14	12	0	74	0
(2, 17, 6)	(61, 100, 59)	(34, 12, 32)	(1, 1, 0)	(11, 5, 9)	(162, 48, 56)	(298, 257, 120)	(5, 8, 2)
10	26	3	7	10	0	25	0
(1, 6, 4)	(11, 18, 17)	(10, 3, 8)	(1, 1, 0)	(4, 4, 7)	(64, 8, 36)	(144, 77, 44)	(2, 7, 2)

July saw one on the 11th, ten on the 20th and one on the 27th; there have been higher daycounts in 15 Julys and 23 higher totals, with peaks of 94 in 2016 and 211 in 2017. Alarmingly there were no Sand Martin recorded in August, this lack of records probably only repeated in 1973, 1985 and 2006; the 2013-2022 August bird-days mean is 91.0, with a high of 309 in 2018, whilst the other all-time highs are of 472 in 1969 and 261 in 1953. A September bird-days total of 74 was also disappointing, with sightings on 13 dates all of eight or less bar 25 heading east on the 5th; there have been higher daycounts in 38 Septembers, including eight of the last nine and with highs of 500 in 1967 and 300 in both 1997 and 2007, whilst the 2013-2022 September bird-days mean is 138.4, this period including seven totals up on that of this year (the all-time September highs are of 1455 in 1967, 492 in 1997 and 554 in 2002). The last five of the year were logged on 23rd September, this the fifth of the last 11 years without an October sighting; there have been 1142 bird-days later than the last of this year (including 139 since 2013), 253 of which were in October (including 21 since 2013).

Swallow *Hirundo rustica* **Gwennol**
Scarce Breeder and Very Abundant Migrant
Earliest 11th March 2000 (26th March 2023) **Latest** 1st December 2022 (27th October 2023)
81 trapped (including 19 pulli), 23 retrapped
1936-1976: 234 trapped, 2010-2022: 1114 trapped (including 166 pulli), 129 retrapped, 13 controls

Two northeast along the north coast on 26th March were four days earlier than the first two of last year and three days earlier than the 2013-2022 first bird mean; there have been 19 earlier bird-days, including nine since 2016. One on the 27th and two on the 30th took the all-time March bird-days

total to 164, 27 of which were in 1958 and 44 of which were in 2019. Sightings on all but one April date from the 3rd included highs of 96 on the 15th, 306 on the 16th and 520 during a wet 23rd, the latter the third highest April daycount and up on a 2013-2022 mean high of 142.3 (there were 1000 on the 20th in 1953 and the 29th in 1990). Similarly an April bird-days total of 1595 was up on a 2013-2022 mean of 788.7 and was only down on the 1642 of 1952 and the 1943 of 1953. Conversely May counts were down, with a bird-days total of 835 being the second lowest of the last 12 years, down on a 2013-2022 mean of 1332.8; the first nine days of the month saw five daycounts of between 62 and 67, with the 6th May maximum down on a 2013-2022 mean high of 248.7 and a peak during this period of 861 on the 1st in 2019 (the highest May daycounts are of 2000 in 1953, 3000 in 1989 and 1500 in 1997). No more than 28 were noted each May day from the 18th and 22 on the 2nd was the only June daycount of more than 15. One took up residence at the Smoke Room from 22nd April and birds were collecting mud for a Wheelhouse nest on 23rd May, this 12 days later than the first nest building witnessed last year. Five pairs attempted to breed this year, this down on the six of last year but matching the number present between 2019 and 2021 and the 2013-2022 mean (seven pairs in 2007 is the record). There were two returning Swallow logged this summer; ARR7762 was ringed as a chick at the Red Hut last June and ARR7777 was ringed as a breeding male on 11th July last year.

The total number of Swallow bird-days logged each month, along with the maximum monthly daycount. Counts from 2022 to 2019 are included for comparison.

	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
2023	5	1595	835	340	283	570	2483	912	0
2022	2	747	957	358	528	1100	10,996	2612	1
2021	10	918	1385	281	332	986	5371	1124	5
2020	0	433	658	280	311	862	6797	2180	1
2019	44	1023	1794	237	360	649	5565	1898	0
2023	2	520	67	22	15	79	454	368	0
2022	2	201	91	17	36	158	4752	1939	1
2021	10	142	226	20	20	83	1463	727	2
2020	0	78	47	19	32	113	1127	736	1
2019	34	193	861	12	29	160	1164	1105	0

The nest to the north of the Wheelhouse only contained two large chicks on 2nd July, both of which fledged on the 7th. Although the Smoke Room pair were nest lining from 27th May, no eggs were seen at this site until July; the male was regularly singing from 7th July, four eggs were present on the 23rd, they had hatched by 3rd August and all four fledged on the 29th (when one got as far as the Well Heligoland!). A pair nest lining outside of Chain Locker on 2nd June seemingly only produced one egg; this had hatched by the 30th and the chick had fledged by 19th July. The Red Hut pair had four eggs on 8th June but only two chicks by 8th July, both of which fledged three days later. A fifth pair nest building on a hidden section of Purple Cove cliff between the 12th and 21st June were collecting mud from North Pond (six mud deliveries were made in 22 minutes and 30 seconds on the 16th); sadly no further activity was recorded. The Wheelhouse pair had three second brood eggs by 1st August and four chicks by the 20th, all of which went on to fledge. Both the Central Block and Red Hut pairs were again nest building on 22nd July; the former pair had four eggs by 3rd August, all of which hatched and fledged by the 30th, the latter pair 4 eggs by 1st August, two eggs by the 10th and two fledglings on the 30th. A total of 19 fledglings was down on the last two years but up on a 2013-2022 mean of 17.0 (there were peaks during this period of 20 in 2013 and 2021, 23 in 2016 and 27 last year, but lows of just eight in 2014 and 12 in 2020). A productivity figure of 3.80 fledglings per pair was up on a 2013-2022 mean of 3.56 ±se 0.36 (there have been five years this decade with poorer productivity, whilst the highs are of 4.00 in 2013, 2018 and 2021, 5.75 in 2016 and 4.50 last year).

Three juveniles trapped on 20th July were from elsewhere, as was one on 2nd August, whilst 79 on 16th August was the first daycount well in excess of the number of breeders and their fledglings.

There were further August highs of just 32 on the 26th and 36 on the 30th, a bird-days total of 570 being the lowest to be logged in August since 2014 and well down on a 2013-2022 bird-days mean of 880.5. There were 25 or fewer noted on 12 September dates (14 dates last year), but seven daycounts of at least three-figures (12 last year) including highs of 231 on the 5th, 454 on the 13th and 307 on the 21st; the peak September daycount was the lowest of the last 12 years and massively down on a 2013-2022 mean high of 4860.3 (the all-time highs are the 10,000 of 1992 and 1993, 12,000 of 2014 and 12,979 of 2017). Similarly a September bird-days total of 2483 was the lowest since 2011, down on a 2013-2022 mean of 11,303.4 (the highs are of 18,664 in 1993, 30,693 in 2014 and 18,018 in 2017). Sightings on 19 October dates to the 27th included highs of 368 on the 1st, 151 on the 9th and 90 on the 13th, but no more than three on four dates from the 21st; an October bird-days total of 912 was the lowest since 2018, down on a 2013-2022 mean of 1224.1 and on all-time highs of 3337 in 1952, 4047 in 1998 and 3686 in 2002. There was no November record for the first time in four years; there have been 115 bird-days later than the last of this year, including 24 in November, one in December and 42 since 2013.

Ringing recovery ARR7920
Originally ringed as a pullus, WHEELHOUSE SOUTH, SKOKHOLM 15th August 2022
Previously recovered as a juvenile, COURTYARD NET, SKOKHOLM 29th August 2022
Recovered as an adult female, WINTERTON, NEAR MARLOES, PEMBROKESHIRE 25th July 2023
Finding condition Intentionally taken by ringer
Distance travelled 10km at 56 degrees (ENE)
Days since ringed 344

House Martin *Delichon urbicum* **Gwennol y Bondo**
Common Migrant with a spring daycount high of 330 in 1948 and an autumn high of 710 in 2013
Earliest 20th March 1988 (28th March 2023) **Latest** 29th October 1975 (13th October 2023)
1938-1969: 23 trapped, 2015-2022: 16 trapped

One heading northeast lingered for a while at North Pond on 28th March; this was ten days earlier than the 2013-2022 first bird mean and the first to be seen in March since 2000, indeed there have only been March records in eight previous years and only six earlier bird-days. There were no further sightings until 10th April when four were logged, whilst counts on 12 further April dates included highs of seven on the 22nd and 17 on the 23rd; although massively down on a spring record of 330 logged on the 18th in 1948, there have surprisingly only been higher daycounts in seven Aprils (with 52 in 2016 and 37 in 2017 the next highest counts). An April bird-days total of 65 was only down on five previous years, including highs of 357 in 1948, 118 in 2016 and 81 in 2017. House Martin were logged on 27 May dates, with 17 on the 15th, 27 on the 20th and 21 on the 23rd being the only daycounts of more than 15; although the peak daycount was down on a 2013-2022 mean of 42.2 (there was a high during this period of 119 in 2016 which was only down on the 150 of 1989), a bird-days total of 222 was up on a mean of 195.6 logged during the same period (there were all-time highs of 315 in 1948, 361 in 2016 and 313 in 2018). June proved typically quiet, with 17 bird-days logged over five dates prior to the 10th; there have been higher June totals in 39 years, with peaks of 52 in 1951, 101 in 1955 and 170 in 1969 (the 21st century high is of 44 in 2018).

The only sightings during a typically quiet July were of singles on the 5th and 28th; there have now been 262 bird-days in this month, 86 of which have been since 2012. August was an exceptionally poor month for passage hirundines, with no Sand Martin logged for the first time since 2006 and fewer Swallow than in any year since 2014; this was also the case for House Martin, with no August records for the first time since 2012 (the 2013-2022 August bird-days mean is 30.2). September counts were similarly disappointing, with records on only 11 dates (the fewest since 2018), highs of just six on the 1st, ten on the 13th and 22 on the 29th and a bird-days total of 67; both the daycount maximum and the total were the poorest of the last 12 years, the former down on a 2013-2022

mean of 170.3 and the latter down on a mean of 313.0 logged during the same period (there were September bird-day highs of 561 in 1959, 782 in 2013 and 675 in 2014). The only October sightings were of 41 on the 1st, three on the 2nd and 8th, two on the 9th and a single on the 13th; the peak daycount was fractionally up on a 2013-2022 mean of 38.2, however a bird-days total of 50 was down on a 2013-2022 mean of 60.6 (the highs are the 207 of 1939, 276 of 1952 and 179 of 2020). There have been 179 later bird-days, including 51 this century and 36 since 2013.

Long-tailed Tit *Aegithalos caudatus* **Titw Cynffon-hir**
Rare just 11 previous records, all bar one between 7th October and 10th November
1936-1976: 1 trapped

A troop of nine in the vicinity of the Well on the morning of 3rd November soon headed south (GE, RDB); this becomes the highest Skokholm daycount, up on the eight of 28th October 1973. The ten additional records are of two on 11th October 1957, three on the early date of 22nd August in 1969, three on the 7th and a single on the 24th and 25th October 1975 (the latter the only bird to be ringed), one on 9th November 1980, three on 24th October 1993, one on 12th October 2004, five on 1st November 2015, four on 8th November 2017 and one on 10th November 2019.

Western Bonelli's Warbler *Phylloscopus bonelli* **Telor Bonelli**
Vagrant three previous records along with an additional unidentified Bonelli's Warbler
1 trapped
1948: 1 trapped, 2017-2021: 2 trapped

A fresh juvenile Bonelli's was trapped in the Well 6 Mist Net at 0830hrs on 23rd August (ACC, RD *et al*.). In the hand biometrics suggested that the bird was a Western Bonelli's, with a straightened wing chord of 63.5mm (typical for Western but at the extreme lower end for Eastern) and a second primary length intermediate between a slightly emarginated sixth and the seventh (the second would usually be between the fifth and sixth in Eastern). Although the diagnostic call of this cryptic species was not heard following its release, the identification was confirmed via the mitochondrial DNA analysis of a dropped feather. This becomes the fourth Western Bonelli's and fifth Bonelli's for Skokholm. The remains of the first for Britain, trapped and killed on 31st August 1948 and identified as a female by R. Wagstaffe of the Yorkshire Museum, were confirmed as Western when the Bonelli's Warblers were split in 1997 (it had a straightened wing of 60.5mm). The second Bonelli's

Warbler, coincidentally found on 31st August but in 1991, was accepted as such but could not be assigned to a species when the nominate form was split from *P. orientalis*. The second Western bird for Skokholm was found at the Farm on 24th September 2017 and was trapped in the Courtyard Net (it had a wing chord of 61mm), whilst the third was found near the Workshop on 2nd June 2021 and trapped in the Well Heligoland (it also had a wing chord of 61mm). There had been 178 accepted British records of Western Bonelli's Warbler up until the end of 2022, with 24 of these occurring in spring; given that the British climate is expected to become more suitable for this species (Huntley *et al*., 2007), it would seem likely that more will arrive to Skokholm in the next few years.

Willow Warbler *Phylloscopus trochilus* **Telor yr Helyg**
Abundant Migrant although only Common in some years
Earliest 23rd March 1972, 1997 & 2017 (**19th March 2023**) **Latest** 10th November 2020 (24th October 2023)
360 trapped, 45 retrapped, 3 controls
1933-1976: 11,698 trapped, 2010-2022: 7555 trapped, 901 retrapped, 14 controls

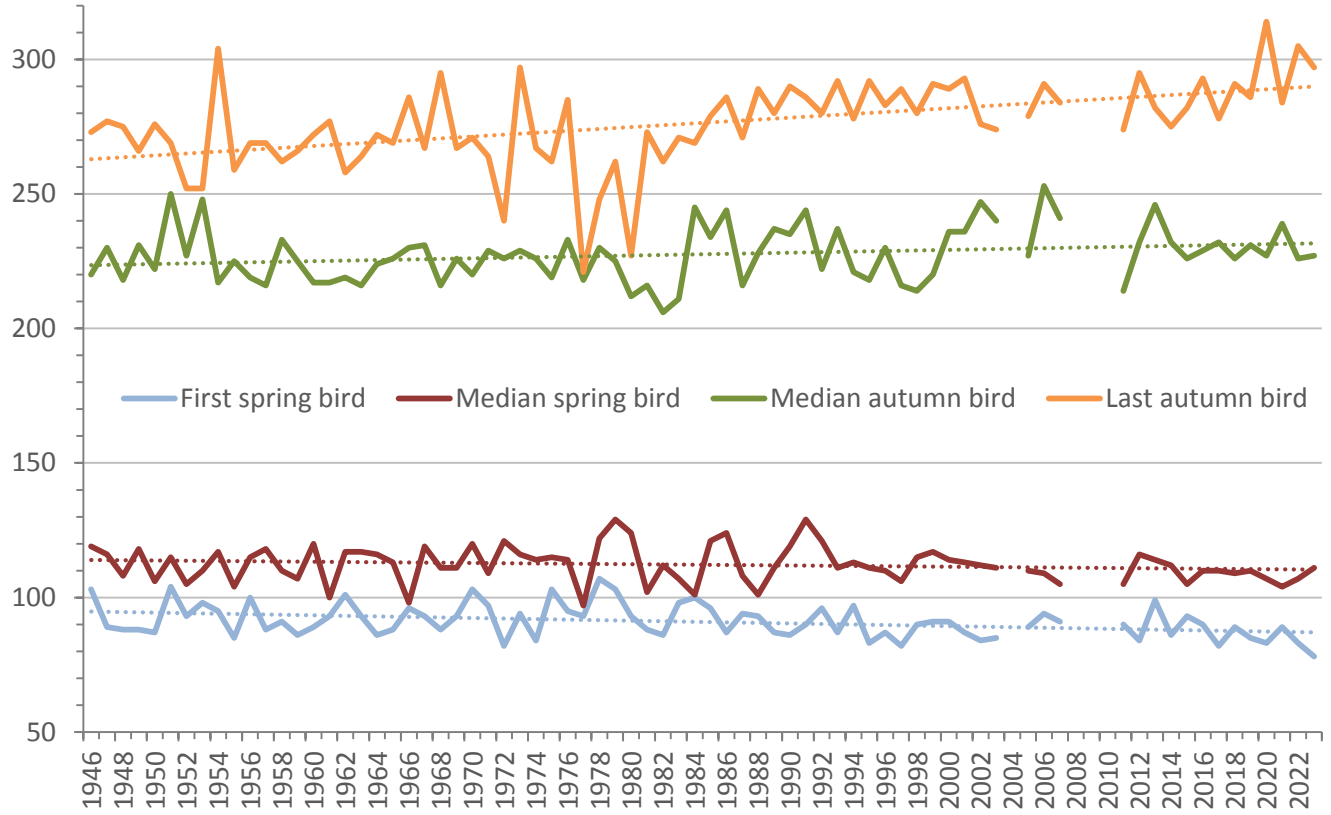
A singing bird trapped in the Wheelhouse Heligoland on 19th March becomes the earliest Island record by four days, this nine days earlier than the 2013-2022 first bird mean. Another male trapped in the same place two days later would also have become the earliest record; an analysis of the digitised Birdlog data reveals that the first individual of spring is arriving significantly earlier than it did only six decades ago (see chart below). Nevertheless the only other March sightings were of singles on five dates from the 24th, a March bird-days total of seven being down on a 2013-2022 mean of 13.3 and on five years during this period. Records on all but three April dates included 14 counts of fewer than ten (11 last year), but highs of 103 on the 17th, 30 on the 18th and 63 on the 22nd which took the total to 398; the peak April daycount was close to a 2013-2022 mean of 108.0, however the bird-days total was the third lowest this decade, well down on a 2013-2022 mean of 548.4 (the all-time April bird-day highs are the 1033 of 1953, the 1089 of 2012 and the 954 of 2017). Half of the birds counted in spring had gone through by 21st April, this four days later than last year and the latest of the last nine years; nevertheless an analysis of the Birdlog data suggests that the median spring bird is passing through earlier than it did in the early post-War years. An Individual resembling the subspecies *P. t. acredula* was in Purple Cove on 16th April, however subspecific identification of extralimital races is considered problematic (Sokolovskis *et al*., 2019); a confirmed example of *P. t. acredula* is yet to occur in Wales (Thorpe and Stratford, 2020). Sightings on 23 May

dates were of five or less bar highs of 17 on the 1st and eight on the 4th; the peak May daycount was down on a 2013-2022 mean of 21.5 and a bird-days total of 80 was down on a 2013-2022 mean of 99.0. At least two males and two females were responsible for daycounts of up to two on nine June dates to the 10th, whilst a different adult female on the 30th took the total to 12; there have been five higher June totals, with a peak of 26 in 2013. As noted previously, nearly all spring birds moved through quickly, indeed only three of the 173 ringed during the period were encountered again; two were present the day after ringing and a probable female lingered for 18 further days.

The total number of Willow Warbler bird-days logged each month, along with the maximum monthly daycount. Counts from 2022 to 2019 are included for comparison.

	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
2023	7	398	80	12	94	300	107	11	0
2022	19	367	50	2	284	667	369	0	1
2021	44	410	72	10	318	575	647	13	0
2020	4	411	65	4	168	614	118	27	7
2019	23	322	101	17	105	312	173	14	0
2023	1	103	17	2	16	71	22	3	0
2022	6	62	13	1	55	100	227	0	1
2021	30	110	13	2	110	103	134	3	0
2020	2	54	11	2	24	113	10	2	1
2019	8	38	32	4	31	32	29	3	0

The number of days into the year that the first and last Willow Warblers were logged 1946-2023 and the number of days after which the median spring and autumn birds went through.



There were no further records until 17th July when two birds included the first definite juvenile of the year; this was eight days later than the first of last year and five days later than the 2013-2022 first juvenile mean. Birds were logged on 13 subsequent July dates, with highs of just 16 on the 25th and 14 on the 27th taking the bird-days total to 94; the peak July daycount was the lowest since 2017

(there were post-1963 highs of 101 in 2014 and 110 in 2021), whilst the bird-days total was the lowest since 2015, down on a 2013-2022 mean of 173.9. There were sightings on all but three August dates, with 19 daycounts of fewer than ten (there were 12 such counts last year), but highs of 30 on the 14th, 25 on the 15th and 71 on the 23rd which led to a bird-days total of 300; the peak daycount was close to a 2013-2022 mean of 77.2 (there were highs of 700 in 1939, 3000 in 1948 and 1000 in 1958, whilst the 21st century high is the 159 of 2018), however the bird-days total was the lowest since 2013 and down on a 2013-2022 mean of 505.1 (there was a high during this period of 785 in 2018, whilst the all-time highs are of 3938 in 1948, 1162 in 1958 and 2121 in 1975). The median autumn passage bird went through on 15th August, this one day later than last year. The Birdlog data reveals that the median autumn bird is passing significantly later, a trend which mirrors the shift in the date on which the last bird is logged; documented changes in phenology linked to climate change frequently cite earlier spring arrival dates, however the Skokholm Willow Warbler data suggests that it is departure dates which are changing more rapidly (see chart above).

Willow Warbler were encountered on 20 September dates, with highs of just 22 on the 2nd and 19 on the 8th and no more than six thereafter; the peak was down on a 2013-2022 mean of 68.0 and massively down on all-time September daycount highs of 300 in 1951, 250 in 1953 and 227 last year. A September bird-days total of 107 was down on a 2013-2022 mean of 271.8 and on all but one year during that period (there were highs of 828 in 1951, 475 in 1953, 550 in 2014 and 647 in 2021). October saw three on the 1st and 2nd, two on the 3rd, the same individual on both the 15th and 16th and a different bird on the 24th which was the last of the year; there have been 288 previous October bird-days, including records in every year between 2011 and 2021 tallying 102 bird-days, whilst only four individuals account for 14 later bird-days (two of which have been present in November). As was noted in previous reports, autumn birds frequently lingered for longer periods; of 187 ringed during the autumn, 21 were reencountered, with five present for a further day, eight present three or four days later, one present five days later, two present nine days later and further singles present for 11, 13, 17, 17 and 23 days after ringing.

Ringing recovery NHD472
Originally ringed as a juvenile, ERME VALLEY, HARFORD, DEVON 17th August 2021
Recovered as an adult, WELL HELIGOLAND, SKOKHOLM 23rd May 2023
Distance travelled 170km at 326 degrees (NNW)
Days since ringed 644

Ringing recovery NVA668
Originally ringed as an adult, PORTLAND BILL, DORSET 21st May 2022
Recovered as an adult, COTTAGE HELIGOLAND, SKOKHOLM 16th April 2023
Distance travelled 236km at 304 degrees (NW)
Days since ringed 330

Ringing recovery PAE435
Originally ringed as an adult, LUNDY ISLAND, DEVON 4th May 2023
Recovered as an adult, WHEELHOUSE HELIGOLAND, SKOKHOLM 10th May 2023
Distance travelled 74km at 324 degrees (NW)
Days since ringed 6

Ringing recovery PCE607
Originally ringed as a juvenile, WHEELHOUSE HELIGOLAND, SKOKHOLM 1st August 2022
Recovered as a juvenile, JAIZUBIA, HONDARRIBIA, GUIPÚZCOA, SPAIN 19th August 2022 (sic)
Finding condition Intentionally taken by ringer
Distance travelled 962km at 165 degrees (SSE)
Days since ringed 18

Ringing recovery PCH028
Originally ringed as a juvenile, WELL 6 MIST NET, SKOKHOLM 2nd September 2022
Recovered as an adult, CALF OF MAN, ISLE OF MAN 1st May 2023
Finding condition Intentionally taken by ringer
Distance travelled 265km at 7 degrees (N)
Days since ringed 241

Chiffchaff *Phylloscopus collybita* **Siff-saff**
Abundant Migrant although only Common in some years. Bred successfully for the first time in 2015
Earliest 19th February 1998 (18th March 2023) **Latest** 14th December 2000 (26th November 2023)
195 trapped, 84 retrapped
1934-1976: 2573 trapped, 2010-2022: 2942 trapped, 1212 retrapped, 20 controls

An arrival of at least 17 birds on 18th March was the third highest daycount to be logged this early in the year, however these were seven days later than the 2013-2022 first bird mean; there is of course a possibility that early birds may come and go prior to an arrival of staff which this year occurred on 1st March. Daycounts on an additional 12 March dates failed to exceed nine, these taking the bird-days total to 57 (the 2013-2022 mean March total is 84.7, the all-time highs the 207 of 1989, 169 of 2017 and 195 of 2019). Daily April sightings were all of ten or less bar 18 on the 17th and 15 on the 18th; the peak April daycount was down on a 2013-2022 mean of 33.5 and on seven years during that period (there were all-time highs of 75 in 1953, 72 in 2015 and 94 in 2018). An April bird-days total of 151 was similarly down on a 2013-2022 mean of 242.9, the last four years having seen the lowest April totals of the last 12 years (the all-time highs are 285 in 1991, 369 in 2015 and 575 in 2018). Frustratingly a ringed 'Siberian' *P. c. tristis* present at the Well on the 23rd and 24th April was not trapped, whilst a second bird of this race was ringed on the 26th; records of this subspecies are increasing but remain scarce in spring (a record three were ringed last April), whilst birds present between the 28th and 31st May 2017 and on 11th April 2020 are the only spring records confirmed via mitochondrial DNA analysis. Numbers remained low in May, with sightings on all bar one date but highs of just seven on the 27th and six on the 30th; the peak daycount matched the lowest since 2012, whilst a bird-days total of 94 was down on a 2013-2022 May mean of 149.4 and on all but one year during this period which includes the five highest May tallies to date (the 307 of 2018 is the high).

The total number of Chiffchaff bird-days logged each month, along with the maximum monthly daycount. Counts from 2022 to 2019 are included for comparison.

	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
2023	57	151	94	52	15	38	68	114	21
2022	53	76	65	25	19	13	76	149	85
2021	123	134	110	75	15	5	182	278	26
2020	73	138	100	44	19	28	140	66	47
2019	195	226	107	20	7	16	251	113	3
2023	17	18	7	6	1	5	7	14	3
2022	8	8	7	2	2	2	14	12	9
2021	36	15	10	8	2	1	49	22	5
2020	22	14	8	4	2	6	20	9	4
2019	29	21	16	3	2	4	65	9	1

June highs of five on the 2nd and 7th and six on the 3rd were followed by 18 daycounts of no more than two which could be attributed to the same four individuals; a June bird-days total of 52 was down on a 2013-2022 mean of 65.6, albeit being up on anything logged prior to 2014 (there were highs of 97 in 2015 (when a pair bred successfully), 225 in 2018 and 75 in 2021). Of 125 ringed during the first half of the year, 19 were retrapped, with four retrapped the day following ringing, five retrapped after two or three days, one retrapped after five days, two after nine days and further

birds after 11, 12 and 15 days; additionally males lingered between 20th May and 23rd June, 26th May and 11th August and 15th June and 16th August, whilst an unsexed bird was present between 27th May and 14th July. A recent increase in spring numbers, coupled with maturing Well vegetation, has led to breeding; in 2014 a pair lingered between May and October but were not successful with any nest attempt, in 2015 a pair successfully fledged at least one, in 2017 a bird observed nest building was not known to progress beyond that stage, in May 2018 birds were building in two locations (although there was no indication that either attempt progressed), lone males remained throughout the summer in 2020 and 2021 and a lone bird, probably a female, did likewise last summer. Despite the high number of lingering birds, there was no indication of a 2023 breeding attempt. Singles on 15 July dates were all attributable to three ringed individuals, whilst three logged on both the 1st and 2nd August probably included the first arrivals of the autumn. Sightings on 24 August dates included the first juvenile of the year on the 16th (this bird already well on with its post-juvenile moult), and a high of five on the 24th; an August bird-days total of 38 was up on a 2013-2022 mean of 28.0 and the fourth highest tally in this month (there were 56 bird-days in 1999, 71 in 2017 and 93 in 2018).

Chiffchaff were noted on 24 September dates, with seven on the 9th the only daycount of more than five; the peak was down on a 2013-2022 September mean of 53.0 (indeed it was the lowest during this period which includes all-time highs of 128 in 2013 and 133 in 2014), whilst a bird-days total of 68 was the lowest in 13 years, down on a 2013-2022 mean of 224.1 (this decade includes seven of the nine highest September tallies and all-time highs of 404 in 2013 and 482 in 2014). Numbers increased in October, with daily sightings and highs of eight on three dates, nine on the 9th and 14 on the 12th which took the bird-days total to 114; the peak count was down on a 2013-2022 mean of 25.3 and the total was down on a mean of 195.5 logged during the same period, however there have only been 11 higher October tallies, eight of which have been since 2013 (there were highs of 307 in 2014, 292 in 2018 and 278 in 2021). Sightings on 18 November dates were all of singles bar two on the 13th and three on the 15th; a bird-days total of 21 was down on that logged in 11 previous Novembers and highs of 109 in 2014 and 112 in 2015 (the 2013-2022 mean is 49.2). One ringed on 26th November was the last of the year; although birds no doubt arrive after the departure of staff, there have only been 29 later bird-days, including 16 in December. Of 70 ringed during the autumn, 13 were retrapped on a later date; there were five retrapped after a day and singles were still present after two, four, six, eight, ten, 11, 28 and 36 days.

The first two 'Siberian' *P. c. tristis* of the autumn were together in the Courtyard on 24th September, these ten days earlier than the first of last autumn. The only other record was of a first-winter found

in the Courtyard and later trapped in the Wheelhouse Heligoland on 22nd November (photograph above). This subspecies is now expected in autumn, indeed a total of three individuals in the second half of 2023 was up on a 2013-2022 mean of 2.2 (there were highs of five in 2014 and four in 2021). The only autumn birds to have been confirmed via the mitochondrial DNA analysis of dropped feathers remain singles present on 2nd November 2014, between the 22nd and 24th October and on 1st November 2015 and between the 15th and 20th November 2016 (see above for the confirmed spring records).

Sedge Warbler *Acrocephalus schoenobaenus* **Telor yr Hesg**
Common Migrant and Uncommon Breeder previously a Scarce Breeder
Earliest 31st March 2021 (17th April 2023) **Latest** 2nd November 2019 (1st October 2023)
118 trapped, 40 retrapped, 1 control
1934-1976: 1984 trapped, 2010-2022: 1598 trapped, 913 retrapped, 22 controls

Although there have only been 26 earlier bird-days, including 13 since 2015, one at the Well on 17th April was three days later than the first of last year and four days later than the 2013-2022 first bird mean. Sightings on nine further April dates included a high of nine on the 30th which took the bird-days total to 35; there have been higher April daycounts in 13 years (17 in 2017 is the maximum), whilst the total was up on a 2013-2022 mean of 30.4 and the seventh highest to date (the five highest April totals have occurred in the last 13 years, with a peak of 46 in 2011 and 2014). Birds were again seen on each May date, although the first returning ringed bird was not logged until the 7th (this ten days later than the first of last year and the first four of 2021). May daycount highs of 12 on the 12th and 26th and 14 on the 13th took the total to 254; the peak daycount and birds-days total were down on respective 2013-2022 May means of 20.8 and 305.5 (100 in 1952 and three counts of between 90 and 250 in 1953 are the only May daycounts of more than 55, whilst the all-time bird-day highs are of 575 in 1953, 376 in 1967 and 365 in 2019). Of 41 new birds encountered in April and May, two were retrapped over a month later and were probably Skokholm breeders (as was perhaps also the case with two lingering adult females ringed in July). Additionally six birds ringed in 2022, two as adults, three as juveniles and one as an Orchid Bog chick, all returned in 2023.

The number of Sedge Warbler territories 2006-2023 (where data exists).

2006	2007	08-09	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
3	4	-	4	13	4	8	9	7	11	13	15	15	15	14	15	14

There were a minimum of 14 breeding territories, this one down on the record number mapped both last year and between 2018 and 2020. Birds were nest lining at East Bog on 9th June, this 19 days later than the first of last year, and chicks were being fed on Isthmian Heath from 28th June, this also 19 days later than the first 2022 observation. However the first fledgling was present on 3rd July; although perhaps from elsewhere, this was five days earlier than the first of last year (albeit three days later than the 2017-2022 mean). Two tailless youngsters at East Bog on 5th July were certainly Skokholm birds. Productivity again proved impossible to calculate, primarily due to youngsters frequenting dense cover, closely positioned territories and the early arrival of fledglings from elsewhere. There were 45 juveniles ringed during July, this up on a 2013-2022 mean of 36.7 (there was a high of 68 in 2018 and lows of 20 in 2013 and just five in 2020, the latter no doubt due in part to a COVID-19 dictated reduction in trapping effort). Skokholm breeders were still feeding young at Orchid Bog on 11th August, this three days earlier than the last observed food delivery of 2022. Although the appearance of birds in unusual locations and a steady turnover of unringed individuals were again indicative of an autumn passage, peak August daycounts of 14 on the 4th and 11 on the 9th were the lowest of the last eight years (there were all-time August highs of 100 in 1948, 50 in 1951, 45 in 1966 and 43 in 2018). An August bird-days total of 153 was the lowest of the last 11 years, down on a 2013-2022 mean of 260.3 (there were all-time highs of 335 in 2016, 409 in 2018 and 302 in 2022). Counts on 16 September dates to the 18th were of no more than seven, however a

bird-days total of 45 was only down on that logged in nine previous years (there were all-time highs of 75 in 2013, 72 in 2014 and 130 in 2021). One at North Pond on 1st October was the last of the year; there have been 30 later bird-days, including ten this century and one present on the 1st and 2nd November 2019. There were 72 juveniles ringed during the autumn, this the third lowest total of the last 11 years and down on a 2013-2022 mean of 95.0 (a high of 199 was recorded in 2018).

Ringing recovery AAZ7550
Originally ringed as a juvenile, TEIFI MARSHES, CEREDIGION 19th July 2023
Recovered as a juvenile, COTTAGE HELIGOLAND, SKOKHOLM 23rd July 2023
Distance travelled 62km at 227 degrees (SW)
Days since ringed 4
This is only the second Sedge Warbler exchange with the Teifi Marshes in 11 years following an adult in 2013 which made the journey north in under 22 May hours.

Ringing recovery ACY8408
Originally ringed as a juvenile, WELL HELIGOLAND, SKOKHOLM 23rd July 2023
Recovered as a juvenile, DONGES, LOIRE-ATLANTIQUE, FRANCE 26th August 2023
Finding condition Intentionally taken by ringer
Distance travelled 541km at 155 degrees (SSE)
Days since ringed 34
This is the second consecutive year in which a Skokholm ringed juvenile has reached this French site, last year's movement taking only seven days.

Ringing recovery ACY8412
Originally ringed as a juvenile, WELL HELIGOLAND, SKOKHOLM 23rd July 2023
Recovered as a juvenile, TRUNVEL, TREOGAT, FINISTÈRE, FRANCE 8th August 2023
Finding condition Intentionally taken by ringer
Distance travelled 429km at 172 degrees (S)
Days since ringed 16
This is also the second consecutive year in which we have exchanged a Sedge Warbler with this French site; a male ringed at Trunvel on 18th August 2021 was on Skokholm between 17th May and 15th July 2022. That the three birds listed above were all processed on 23rd July is some coincidence.

Melodious Warbler *Hippolais polyglotta* **Telor Pêr**
Scarce almost annual 1955-1983 but less frequent subsequently and only eight spring records
Earliest 15th May 2015 **Latest** 12th October 1955 (18th August 2023)
1 trapped
1936-1976: 37 trapped, 2011-2020: 6 trapped, 3 retrapped

A juvenile trapped in the Wheelhouse Heligoland on 18th August had good fat reserves, indeed it was over a gram heavier than any of the birds ringed between 2015 and 2020 (RD *et al*.); it was not seen the next day. Following the first for Skokholm in October 1955, there were records in every year to 1971, with highs of four individuals in 1960 and six in autumn 1962 (all ten of which were ringed). There were five birds in autumn 1974 (four of which were ringed) and then up to two birds in 12 years to 1996, however the only sighting between 1997 and 2010 was of a single logged on the 30th and 31st May 2002. More recently there were two in 2011 (singles between 31st July and 1st August and between the 19th and 21st August), three in 2012 (singles between 28th August and 3rd September, the 15th and 17th September and on 6th October), one on 15th May 2015, one between 28th September and 8th October 2017, one between the 2nd and 5th September 2018 and two in 2020 (singles on the 2nd and between the 10th and 19th September). There have now been 65 Skokholm Melodious Warblers accepted by the Welsh Birds Rarities Committee, all logged over 39 years.

Reed Warbler *Acrocephalus scirpaceus* **Telor y Cyrs**
Uncommon Migrant previously Scarce. Bred for the first time in 2016, fledging at least three
Earliest 17th April 2015 (27th April 2023) **Latest** 30th October 1997 (12th October 2023)
21 trapped, 2 retrapped
1947-1976: 15 trapped, 2011-2022: 112 trapped (including 4 pulli), 56 retrapped, 2 controls

One in the Well Heligoland on 27th April arrived on the same date as the 2013-2022 first bird mean; it was seen at the Well the following day, taking the all-time April bird-days total to just 25. One in the Well Heligoland on the 28th was surprisingly the only May record; although there have only been sightings in 29 previous Mays, the 2013-2022 bird-days mean is 10.0, with 2015 the only year during this period without a sighting (there were bird-day highs of 42 in 2017 (when a male which had bred successfully in 2016 lingered throughout the month) and 13 in 2019). There was no June record for the first time since 2015, the all-time June total remaining at 100; the 2013-2022 bird-days mean is 7.6, with highs of 30 in 2016 (when Reed Warbler bred for the first time), 25 in 2017 (again primarily the 2016 male) and eight in 2019. One trapped in the Cottage Garden on 19th July was almost certainly the ringed bird seen on the 22nd (it was a juvenile, as were all birds handled this autumn);

there have been records in eight previous Julys, with bird-day highs of four in 2005 and 2022, 42 in 2016 and 16 in 2017. Singles ringed on the 22nd and 27th August probably accounted for sightings of singles on the 29th and 31st; an August bird-days total of four was less than half a 2013-2022 mean of 9.5 but matched the eighth highest in this month. A ringed bird was seen on 1st September, this the last prior to an unprecedented arrival on the 6th which saw six ringed and an unringed bird at the Lime Kiln; a daycount of seven was up on the four of August 2016 and May 2018 and the five of September 2018. Two different birds were ringed on the 7th, three on the 8th included two new birds and one ringed on the 6th and four on the 9th included another two new individuals, one ringed on the 7th and an unringed bird so emaciated it could be picked up by hand. Daycounts of up to three on a further seven September dates to the 21st included another three ringed between the 13th and 14th. A September bird-days total of 28 was a new high, up on the 16 logged in 2016, 2018 and 2019. One was at East Bog on 2nd October and one trapped in the Library Net on the 12th was the last of the year; the latter was on the same date as the last of 1993, 2021 and 2022, whilst there have been later birds in four years.

Grasshopper Warbler *Locustella naevia* **Troellwr Bach**
Uncommon Migrant not always recorded in autumn
Earliest 7th April 1961 and 1966 (17th April 2023) **Latest** 7th November 1968 (1st August 2023)
5 trapped
1936-1976: 360 trapped, 2011-2022: 71 trapped

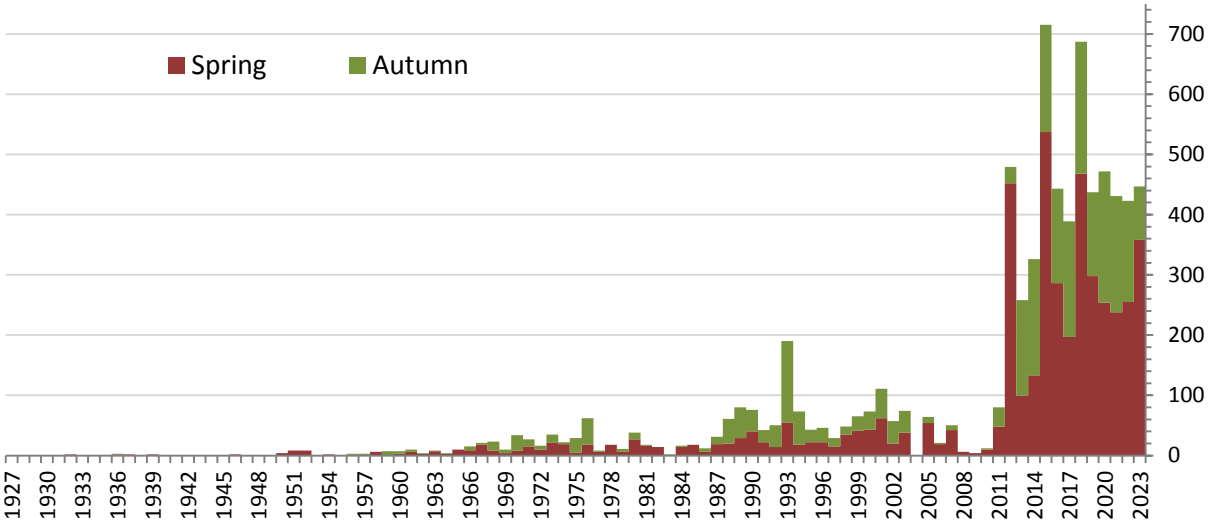
Three on 17th April, two of which were trapped in the Well Heligoland, were four days later than the first of last year but two days earlier than the 2013-2022 first bird mean; there have been 68 earlier bird-days, including 19 in 1966 but just eight since 2013 (two earlier 2003 records added erroneously during the Log digitisation process have now been removed). Two on the 18th included an unringed bird in the Well 9 Mist Net, two were present on the 27th (with one on Isthmian Heath and another from the Well Heligoland), one was at the Well on the 28th and two were again logged on the 29th (the fifth to be ringed was the fourth from the Well Heligoland); an April bird-days total of ten was up on a 2013-2022 mean of 6.9, this a period which included a post-1990 high of 25 in 2017 (there have been 23 April totals of more than ten, with all-time highs of 68 in 1966, 80 in 1967, 60 in 1971 and 34 in 1990). There were no May records for only the second time since 2012; there were record May totals of 73 in 1960, 38 in 1967 and 54 in 1970, whilst the post-1991 high is of ten in 2001 and the 2013-2022 May mean is 2.0. The only autumn record was of one seen at the Well on 1st August; there have now been 102 August bird-days, with 66 between 1966 and 1970 and only 12 over eight years this century. There was no September record for the second time since 2012, the all-time bird-days total remaining at 194 (there were 137 September bird-days between 1966 and 1971, but only 19 this century and 16 since 2013). A lone autumn bird-day was down on a 2013-2022 mean of 2.8; between five and 39 bird-days have been logged in nine autumns (all between 1960 and 1972, bar five in 2013 and seven in 2016) whilst a remarkable 99 were recorded in the autumn of 1970.

Blackcap *Sylvia atricapilla* **Telor Penddu**
Common but recorded by both Thompson and Betts as Uncommon and Scarce prior to the 1960s
Earliest 9th March 1997 (18th March 2023) **Latest** 2nd December 1996 (21st November 2023)
243 trapped, 47 retrapped, 2 controls
1936-1976: 211 trapped, 2011-2022: 2201 trapped, 288 retrapped, 6 controls

Two first-years, one of each sex, were trapped on 18th March, these six days earlier than the first of last year and nine days earlier than the 2013-2022 first bird mean; males on the 15th in 2012 and on the 9th in 1997 are the only earlier records. However a male on the 31st was the only other March sighting, a bird-days total of three being down on five of the last six Marches and a 2013-2022 mean of 4.6 (there were highs of 14 in 2019 and ten in 2021). Following a male on the 1st, two males on the 2nd and a female on the 5th, there were sightings on every April date from the 15th including highs

of 24 on the 17th, 52 on the 18th, 32 on the 21st and 27 on the 28th; there was also a count of 52 in April 2015, whilst the only higher Skokholm daycounts, all logged in April, are of 65 in 2012, 129 in 2015, 68 in 2017 and 73 and 164 in 2018. An April bird-days total of 285 was up on a 2013-2022 mean of 214.9 and was only down on the 469 of 2015 and 413 of 2018; there were 488 April bird-days to the end of 2011, but now 2710 since. Sightings on 27 May dates were all of four or less bar five on the 2nd and 13th and eight on the 12th which took the bird-days total to 62; although there have been higher daycounts in seven Mays, with a peak of 50 in 2012, the only higher May totals are the 170 of 2012, 63 of 2015 and 122 of 2016. Sightings of no more than two on six June dates to the 9th included five different birds ringed; there have been four June totals up on the eight of this year, with a record 19 in 2020. As noted for other species, Blackcaps typically moved through quickly during spring; of 203 ringed during the period, 18 were retrapped, with nine still present the next day, four present two or three days later, singles present four, six, seven and eight days later and female ACY8116 present from 24th April to 20th May (a 27 day stay which saw an increase from 13.8g to 17.3g, the former the lightest Blackcap measurement of the year).

The total number of Blackcap bird-days logged in each spring and autumn since 1927.



Although the spring bird-days total was the fourth highest to date, the autumn total was the poorest since 2012. There were no July sightings for the first time since 2016, the all-time July total remaining at 55. There was an adult female on 4th August, singles on the 11th, 15th and 21st, the first definite juvenile of the year ringed on the 24th, two on the 27th and one on the 30th; the first juvenile was the latest since 2016 when youngsters were not encountered until 14th September (one ringed on 16th June 2020 is the earliest yet recorded, the only other June juveniles being logged on the 20th in 2014 and on the 27th in 2019). An August high of two matched the record, whilst a bird-days total of eight was a new high, up on the six of 2011 and taking the all-time August total to 44.

The total number of Blackcap bird-days logged each month, along with the maximum monthly daycount. Counts from 2022 to 2020 are included for comparison.

	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
2023	3	285	62	8	0	8	21	53	7
2022	6	186	59	4	2	3	73	65	25
2021	10	192	34	2	2	3	70	100	18
2020	8	189	38	19	1	3	115	76	23
2023	2	52	8	2	0	2	5	10	2
2022	4	40	16	1	1	1	17	8	5
2021	6	33	8	1	1	1	23	23	4
2020	3	32	5	4	1	1	34	9	2

Blackcap were logged on just eight September dates, this 13 fewer than last year, with highs of four on the 9th and 21st and five on the 22nd being the lowest since 2012; higher daycounts in 12 years, including each of the last ten, peaked at 34 in 2020 and 23 in 2021. A September bird-days total of 21 was similarly the lowest since 2012, down on a 2013-2022 mean of 71.2 and all-time highs of 84 in 2019 and 115 in 2020. One found dead on 23rd September had perhaps been impacted by the rough weather which deposited the Alder Flycatcher and Bobolink. Numbers increased in October, with sightings on 20 dates (five fewer than last year) and highs of ten on the 12th, six on the 14th and five on the 15th which took the bird-days total to 53; there have been higher daycounts in nine Octobers, with peaks of 20 in 1989 and 2018 and 23 in 2021, whilst the total was down on a 2013-2022 mean of 90.5 and on all but one year during that period (although the 11th highest October total to date, it was well down on all-time highs of 104 in 1993, 107 in 2017 and 127 in 2018). Despite a staff presence throughout the month, no more than two were logged on just five November dates; a bird-days total of seven was down on a 2013-2022 mean of 14.1, albeit matching the 13th highest to date. Females in Winter Pond Gully and the Courtyard on 21st November were the last of the year; there have been 25 later bird-days logged over seven years, including 11 in 1996 and five in 2022. Of only 40 ringed during the autumn, five were retrapped subsequently, with one present two days later, two three days later and further birds present four and six days later.

Ringing recovery ACY7614
Originally ringed as a first-winter female, WELL HELIGOLAND, SKOKHOLM 29th September 2022
Recovered as a first-summer female, LUNDY ISLAND, DEVON 17th April 2023
Distance travelled 74km at 144 degrees (SE)
Days since ringed 200

Ringing recovery ARL7331
Originally ringed as a first-winter female, OXWICH MARSH, SWANSEA 26th September 2020
Recovered as an adult female, WHEELHOUSE HELIGOLAND, SKOKHOLM 15th April 2023
Distance travelled 80km at 281 degrees (WNW)
Days since ringed 931

Ringing recovery ARV1225
Originally ringed as a first-winter male, NANJIZAL, LAND'S END, CORNWALL 10th October 2021
Recovered as an adult male, WELL HELIGOLAND, SKOKHOLM 18th April 2023
Distance travelled 184km at 9 degrees (N)
Days since ringed 555

Garden Warbler *Sylvia borin* **Telor yr Ardd**
Uncommon Migrant although Scarce between 2005 and 2012, in 2017 and in 2018
Earliest 6th April 1966 (28th April 2023) **Latest** 2nd November 1968 (12th October 2023)
5 trapped
1934-1976: 174 trapped, 2013-2022: 36 trapped, 7 retrapped

One in the Wheelhouse Heligoland on 28th April was one day earlier than the first two of last spring and four days earlier than the 2013-2022 first bird mean; there have been 41 earlier bird-days, including eight this century. The lone April bird-day took the all-time total for this month to 60, these logged over 25 years. There were no further sightings until 27th May when one was netted at the Well; although there have been annual May sightings since 2011, the 2013-2022 bird-days mean is only 3.1 (with a high of six in 2016 and 2019), indeed there have only been eight two-figure May totals including highs of 14 in 1985, 17 in 1988 and 62 in 1993 (the peak total including 30 grounded by fog on the 10th and 15 the following day, these the only daycounts in any month to be up on the ten of 3rd May 1988 and the seven of 6th May 1985). The last of 13 June bird-days was in 2013, whilst one on the 26th in 2014 remains the only July record. A juvenile in the Courtyard Net on 25th August

was the first of the autumn, this taking the all-time August tally to 65. The only September birds were logged on the 3rd, when a juvenile was in the Library Net and another was in the Quarry; although peak autumn passage occurs in September, the record totals are of only 21 in 1969, 18 in 1971 and 15 in 1988, whilst the 2013-2022 mean is 4.5 (with a high of 14 in 2014). Singles at Boundary Hill on the 1st and in the Well 9 Mist Net on the 12th took the all-time October bird-days total to 124, only ten of which have been this century; there have been 37 bird-days later than the last of this year, including six since 2013. An autumn bird-days total of five was down on a 2013-2022 mean of 5.9, recent peaks of 17 in 2014 and 13 in 2015 and all-time highs of 22 in 1968, 26 in 1969 and 31 in 1971.

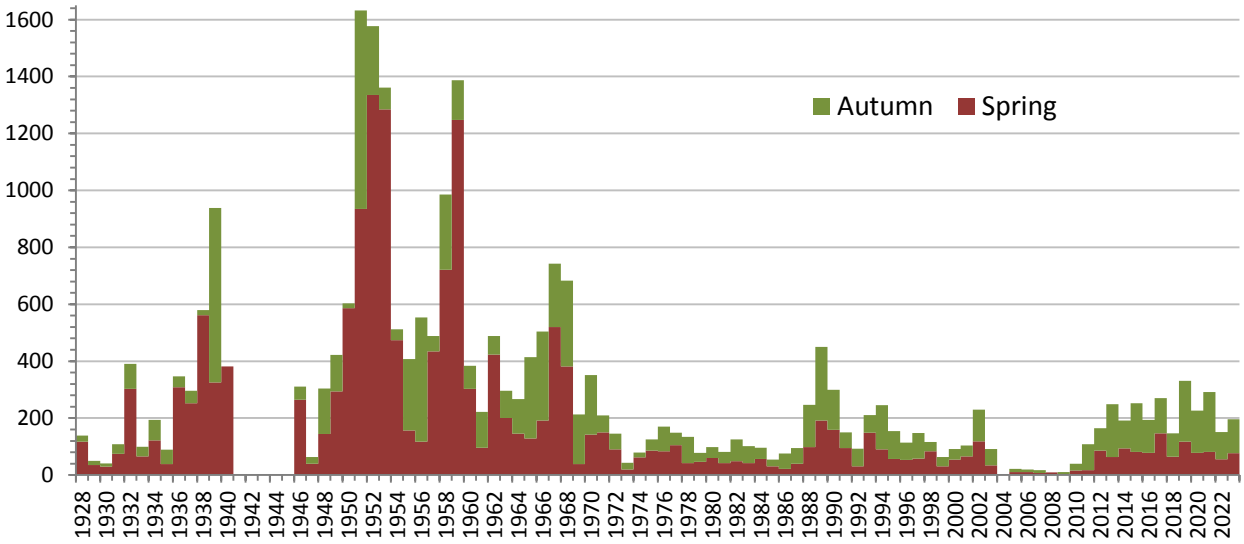
Lesser Whitethroat *Curruca curruca* **Llwydfron Fach**
Scarce Migrant not recorded every year
Earliest 20th April 2016 (1st May 2023) **Latest** 3rd November 1927 (15th October 2023)
5 trapped, 9 retrapped
1937-1976: 31 trapped, 2011-2022: 26 trapped, 9 retrapped

A first-summer trapped in the Wheelhouse Heligoland on 1st May arrived on the same date as the first two of last year; there have been 13 earlier spring bird-days, most recently with singles on 30th April in 2017 and 2019. Another young bird in the Well 9 Mist Net on 24th May took the all-time spring bird-days total to just 91, 20 of which have been since 2013. It became the 17th September with a record, a lone bird at the Pig Sty on the 14th taking the all-time bird-days total to 41. One near the new Petrel Station on 1st October was perhaps the juvenile netted at the Well the following day; it remained until at least the 12th, during which time it increased in mass from 10.5g to 13.3g. Although October can produce Siberian Lesser Whitethroat, a second juvenile ringed on the 4th was seemingly also of the nominate subspecies; there have been two DNA confirmed Skokholm records of Siberian *C. c. blythi*, one present between the 3rd and 5th October 2014 and one between the 23rd and 25th October last year. The bird ringed on the 4th lingered to at least the 7th, whilst an additional unringed bird on the 5th led to three being logged that day; a daycount of three matches those of 8th May 2002 and 8th October 2013 as the highest to date (there have only been 16 dates prior to this year with multiple birds). Two were logged on 6th October, whilst three the following day included a juvenile in the Well Heligoland which would linger to the 15th and appeared a closer match for a *C. c. blythi* (although a DNA sample was not obtained). There was no suggestion that any additional birds arrived this autumn, with two ringed individuals logged on all but one date to the 15th. There have now been 134 autumn bird-days, with highs of eight in 1990, 23 in 2013 (when at least four different individuals were logged over 16 October dates) and 28 this year.

Whitethroat *Curruca communis* **Llwydfron**
Fairly Common Migrant previously Common and has bred in nine years (most recently in 2019)
Earliest 5th April 1966 (17th April 2023) **Latest** 30th October 1968 (21st September 2023)
52 trapped, 17 retrapped
1934-1976: 5924 trapped, 2010-2022: 622 trapped, 167 retrapped, 8 controls

One at Migration Rocks on 17th April was one day later than the first of last year and one day earlier than the 2013-2022 first bird mean; the first has arrived between the 16th and 21st April in each of the last 11 years, whilst there have been 66 bird-days earlier than the first of this year (including 21 in 1938, 24 in 1966 and only six this century). One was in Crab Bay the following day, whilst counts on eight further April dates from the 21st were of no more than three bar 26 on the 27th and six on the 28th; the peak was the highest spring daycount since 60 were logged on 6th May 2002 and the highest April daycount since 28 were logged in 1957 (there were all-time April daycount highs of 200 in 1946 and 1951, whilst the post-1961 peak had not exceeded the ten of 1966, 2017 and 2020). Nevertheless an April bird-days total of 47 was down on the 49 of 2020, albeit more than double a 2013-2022 mean of 22.0. Whitethroat were noted on 13 May dates, with highs of just three on the 4th and four on the 6th taking the total to 23, this the second lowest of the last 12 years and down on a 2013-2022 mean of 52.4; there were recent totals of 78 in 2012 and 100 in 2017, whilst historically May has proven the most productive month of the year, with daycount highs of 500 in 1952 and 1959 leading to record monthly totals of 1215 and 1223 respectively. There was no indication of a breeding attempt, with up to two present during the first two days of June and a singing male lingering between the 23rd and 26th; a June bird-days total of seven was down on a 2013-2022 mean of 11.3, a high during this period of 30 in 2021 and all-time highs of 40 in 1988, 60 in 1989 and 55 in 1990. Territorial males built cock-nests in 2014, 2015 and 2017 and one sang throughout June 2021, whilst the first confirmed breeding since 1998 saw a pair fledge two in 2019.

The total number of Whitethroat bird-days logged in each spring and autumn since 1928.



A moulting adult female in the Cottage Heligoland on 6th July put on 1.6g over the following week and lingered until at least 2nd August, whilst the first juvenile of the year was ringed on the 14th, this five days later than the 2013-2022 first mainland juvenile mean. Another juvenile on 24th July was perhaps only the third individual of the month, whilst daily sightings from the 27th peaked at three on the 27th and 31st and four on the 29th; a July bird-days total of 23 was down on a 2013-2022 mean of 37.3 and an all-time high of 90 in 2019. Whitethroat were logged on all but five August dates, with highs of six on the 16th and ten on the 23rd taking the bird-days total to 76; although the peak daycount matched the fourth highest since 1968 (there were highs of between 11 and 17 between 2015 and 2020), the total was close to a 2013-2022 mean of 72.4 (there were highs during the

period of 117 in 2019 and 106 in 2021, whilst the all-time August highs are of 595 in 1939, 223 in 1955 and 228 in 1966). September saw up to three on seven dates to the 9th and further singles on seven dates to the 21st, a bird-days total of 20 being down on a 2013-2022 mean of 33.8 and on all but two years during that period (September daycounts peaked at 250 in 1951, 120 in 1956 and 70 in 1965, whilst the record tallies are of 682 in 1951, 405 in 1956 and 159 in 1969). There have been 499 later bird-days, including 61 this century and 91 in October.

Dartford Warbler *Curruca undata* **Telor Dartford**
Vagrant three previous records

A vocal bird along North Pond Wall on 6th September soon moved to an Elder to the south of North Pond (NW *et al*.). The only other Island records are of a female at the Well on the 1st and 2nd June 1981, a juvenile in South Haven on 17th October 2015 and one at Orchid Bog on 27th October 2017. The first Dartford Warblers to be found nesting in Pembrokeshire were mapped during the first year of the 2003-2007 Breeding Birds Survey, whilst records in each subsequent year peaked at 23 pairs in 2017, eight of which were confirmed as breeding and 11 of which were probably breeding (Young-Powell, 2017). Cold weather in early 2018 severely impacted the population, indeed only one breeding pair was confirmed that year (Haycock, 2023c), however numbers have again increased and birds were recorded at ten sites in 2022 (the closest of which was to the west of the Castlemartin Range, this approximately 20km from Skokholm).

Western Subalpine Warbler *Curruca iberiae* **Telor Brongoch y Gorllewin**
Vagrant two previous records, along with 13 previous 'Subalpine Warbler'
1 trapped
1953-1976: 3 'Subalpine Warbler' trapped, 2013-2021: 2 Western and 2 'Subalpine Warbler' trapped

A well-worn, first-summer male taken from the Wheelhouse Heligoland at 1020hrs on 24th June had the extensive rufous underparts and restricted white tip to the second-outermost tail feather typical of this recently separated species (GE *et al*.). A straightened wing chord of 58mm was 1mm more than a DNA confirmed female present on 18th July 2021 and matched that of a DNA confirmed female ringed on 8th May 2020. The mitochondrial DNA analysis of a dropped feather confirmed the identification of the 2023 bird as that of a monotypic Western Subalpine Warbler, with a cytochrome b gene sequence matching that of several birds from France and Spain; this becomes the third Skokholm and fourth Pembrokeshire record and our 11th 'Subalpine Warbler' in 11 years, with all

three species encountered in the last three years. There have been 13 previous records of birds in the Subalpine Warbler complex which have not been identified to species level. The first for Skokholm and Wales was a first-winter female trapped on 1st October 1953, this one of only two autumn records (the other a female or first-winter present on 3rd November 2001). A first-year male was trapped on 3rd May 1970 and an adult male was trapped on 7th June 1976, whilst accepted records after the closure of the Bird Observatory are of a female on 11th May 1990, a male on 15th May 1992, an unsexed bird on 29th May 1994, different females on the 7th and 29th May 1995, an unsexed bird between the 2nd and 8th April 2001 and a male on the 4th and 5th May 2003 (the latter two are the only birds seen on more than one date). A first-year female trapped on 16th May 2013 was probably a Western Subalpine Warbler (with a 58.5mm wing), but feathers were not retained for analysis, whilst feathers from a female trapped on 13th May 2016 (with a 63mm wing) were retained, however these have gone missing prior to DNA analysis. Additionally a Moltoni's Warbler was present between the 17th and 29th May 2022 (with a wing chord of 62mm) and there have been five acceptable records of Eastern Subalpine Warbler, all logged between 2014 and 2021 and with the three ringed birds having wing lengths of 63mm or 64mm.

Firecrest *Regulus ignicapilla* **Dryw Fflamben**
Scarce Migrant recorded in 44 years since 1949, including 27 since 1988. More regular in autumn
2 trapped, 1 retrapped
1936-1976: 23 trapped, 2013-2022: 25 trapped, 16 retrapped

A male found in the Courtyard on 15th March was later trapped in the Wheelhouse Heligoland, this becoming just the ninth year with a record in this month. There were no further spring sightings; perhaps surprisingly there have only been 37 bird-days logged between 11th March and 13th June inclusive, now with ten since 2013. There is yet to be a sighting in July or August, with one on 8th September 2015 the earliest autumn record. One with an injured eye present on 10th September was three days earlier than the first two of last autumn and 11 days earlier than the 2013-2022 first of autumn mean (the latest during this period was logged on 7th October 2016, whilst there were no autumn records in 2013 or 2021). A first-winter female netted at the Well on 8th October was retrapped at the Farm on the 9th and was almost certainly the ringed bird seen at the Well on the 10th and 11th. A total of two autumn individuals was down on a 2013-2022 mean of 3.8 and on four years during that period (there were highs of 11 in 2015, ten in 2017 and six last year). Similarly a

total of five autumn bird-days was down on a 2013-2022 mean of 9.9 and on all-time autumn highs of 28 in 1967, 27 in 1968, 39 in 2015, 20 in 2017 and 13 last year. There have been more birds ringed in five previous years, with six in both 1967 and 1968, eight in 2015, four in 2017 and three last year.

Goldcrest *Regulus regulus* **Dryw Eurben**
Common but only Fairly Common in some years
70 trapped, 8 retrapped
1938-1976: 431 trapped, 2010-2022: 946 trapped, 253 retrapped

One on the 17th was one day later than the first two of last March and five days later than the 2013-2022 first spring bird mean; although it is possible that birds may come and go prior to the staff arrival, the earliest Skokholm records are of singles on the 2nd and 5th March 2021 and of two on the 5th in 2014. Daily sightings to the 20th peaked at four on the 19th, whilst five present on both the 26th and 27th were the only other March birds and took the total for the month to 18 (the 2013-2022 mean is 26.4 and the all-time highs are 124 in 1974, 94 in 1989, 60 in 2017 and 57 in 2021). April was similarly quiet, with a high of six on the 2nd but singles on the 1st, 5th and 18th being the only others encountered; a bird-days total of nine was down on five of the last ten Aprils, a 2013-2022 mean of 19.8 and all-time highs of 112 in 1972, 101 in 1975 and 84 in 2018. A female ringed on 21st May had already bred; the all-time May bird-days total is now 66, 24 of which have been this century. None of the eight Goldcrest ringed during the spring were retrapped subsequently.

One at Frank's Point on 25th August was a week later than the first of last autumn, however daily sightings to the 30th, including six on the 26th and three on three dates, took the August bird-days total to 17; the 18 of 2017 is the only higher August daycount, the 19 of 2015 and 31 of 2017 the only higher tallies. September was disappointing by comparison, with sightings on all bar three dates but highs of just 13 on the 18th and seven on the 22nd and 25th; the peak was down on a 2013-2022 mean of 31.0 and on that logged in 27 previous Septembers, whilst a bird-days total of 92 was the second lowest of the last 11 years, down on a 2013-2022 mean of 228.7 and all-time highs of 458 in 1988, 494 in 1989, 728 in 2017 and 355 in 2019. Sightings on 23 October dates included highs of 11 on the 2nd, 53 on the 12th, 26 on the 13th and 11 on the 21st; the peak October daycount was the fifth highest to date, only down on three counts of between 60 and 70 logged between 1988 and 1990 and an impressive minimum of 250 in 1959. However an October bird-days total of 179 was down on

a 2013-2022 mean of 209.3 and on seven years during that period (there were all-time highs of 346 in 1975, 452 in 1988 and 344 in 2017). Surprisingly one at the Well on 1st November was the last of the year; although there were no November sightings in 2018 and 2020, the 2013-2022 bird-days mean is 18.9, with all-time highs of 56 in 2015, 31 in 2019 and 57 last year. Of 62 Goldcrest ringed during the autumn, five were definitely present for more than a day, with one retrapped the following day and further birds retrapped two, three, five and six days later.

Wren *Troglodytes troglodytes* **Dryw**
Fairly Common Breeder only recorded as a Common Winter Visitor prior to first breeding in 1988
59 trapped, 70 retrapped
1934-1976: 928 trapped, 2010-2022: 934 trapped, 692 retrapped

The 66 territorial males mapped this year included 63 registered on multiple visits and three singing in discrete areas on only one date which could not be linked to an adjacent territory. Although two down on last year and the lowest tally of the last five years, this was the fifth highest total yet recorded and up on a 2013-2022 mean of 62.5. The last 13 years, all with over 50 territories, are remarkable for the fact that the previous peak in numbers was the 19 mapped in 1994 (six years after breeding was first recorded in Crab Bay); the most recent survey prior to the renovation period located ten territories in 2007. The reason for this substantial increase in territorial males is unclear. Nest building was first noted at the Pissoir on 2nd May, young were being fed at the Well on 11th June and the first fledgling to be encountered was at the Ram on 17th June; the first fledgling was eight days later than the first of last year and nine days later than the 2013-2022 mean (the earliest during this period were logged on 30th May 2018 and the latest on 27th June 2021). Prior to their establishment as a Skokholm breeding species, Wren were considered a common winter visitor (with a substantial October arrival which saw daycounts peak at up to 200 in 1974); it is arguable that an autumn arrival is still evident in some years (see table below), although it is possible that increasingly active residents are more likely to be encountered during this post-moult period.

Of 14 Wren ringed in previous years and retrapped in 2023, nine ringed as juveniles in 2022 had survived their first winter, whilst three ringed as juveniles in 2021 and one ringed as a first-summer in April 2022 had survived a second winter. Additionally male KYP457, which had been trapped in the Stream Net and ringed as a juvenile on 5th October 2019 and retrapped in the Library Net on five

occasions in 2020, was retrapped in the Garden Net on 26th May after three years, seven months and 21 days; the oldest known British Wren wore a ring for seven years, nine months and 20 days, whilst the oldest Skokholm bird reached five years and three days.

The number of Wren bird-days logged each month 2020-2023. Note that March recording began on the 16th in 2020.

	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
2023	552	889	1085	740	570	504	658	861	454
2022	849	717	808	638	587	530	417	712	590
2021	1253	1381	1173	1041	732	567	734	652	583
2020	575	1558	1238	1064	544	662	824	820	659

Starling *Sturnus vulgaris* **Drudwy**
Very Abundant bred from 1946, peaking at 53 pairs in the 1960s, with the last known pair in 2006
7 trapped
1937-1976: 1082 trapped, 2013-2022: 113 trapped

Sightings on 15 March dates were of no more than five, this down on a 2013-2022 mean high of 68.3, a peak during this period of 192 in 2018 and all-time highs of 1500 in 1947 and 1000 in 1960. A March bird-days total of just 32 was similarly down on a 2013-2022 mean of 605.8 and well down on all-time highs of 2360 in 1947, 4131 in 1958 and 2283 in 1964. A ringed bird seen on 27th March had perhaps been trapped on Skokholm last autumn, this probably the ringed male seen under the eaves of the Wheelhouse on 18th April. An unringed bird on the 1st and 2nd and a single on the 25th were the only other April sightings, a bird-days total of four being down on a 2013-2022 mean of 24.6 and a high during this period of 113 in 2018; the breeding years saw April daycount highs of 200 in 1958 and 1967 and 500 in 1960, with the total reaching 1587 in 1958 and 1475 in 1965. May records are now scarce, indeed singles on the 12th and 27th were the only sightings this year and no birds were logged at all in 2004, 2009, 2012, 2015 and 2021. Following singles on the 4th and 15th, there were Starlings on all but two June dates from the 17th and highs of 12 on the 18th and eight on the 26th which took the total to 64; although the June total was the fourth highest since 2006, it was massively down on peaks of 1263 in 1964, 1202 in 1966 and 1461 in 1989 (the latter including 12 dates when Starling were only listed as 'present'). The first juvenile of the year arrived on 2nd July, this ten days later than the first of last year and 11 days later than the 2017-2022 first juvenile mean; only three juvenile plumaged birds were noted during the first three years of this period, this a sad reflection of a Pembrokeshire breeding population which declined by 90% between 1988 and 2007 (Rees, 2012). Sightings on all but three July dates peaked at 13 on the 2nd and 12 on eight dates, a bird-days total of 269 being the lowest of the last four years but otherwise the highest since 2006; daycount highs of 120 in 2020 and 93 in 2021 took the July totals to 1977 and 1825 respectively (intriguingly these the two years in which COVID-19 restrictions changed human behaviour across the County), whilst the July bird-day high is the 4516 of 1989 (this again including six dates without a numerical Birdlog entry).

Counts on all but two August dates peaked at 12 on nine dates to the 16th and 13 on the 15th which took the bird-days total to 273; this was again the lowest tally of the last four years, but otherwise the highest since 2007 (there was a recent bird-days high of 1948 in 2021, the all-time highs being 4833 in 1987, 3942 in 1989 and 4095 in 1991). As has proven to be the case in the majority of recent years, September proved exceptionally quiet, with up to two noted on five dates to the 6th; although the September total has now been of between zero and eight in nine of the last ten years, it was 346 in 2021, whilst daycounts were in three-figures as recently as 2000 and bird-day totals were in four-figures in most years to 1998. Following singles on five dates between the 9th and 16th, daily October sightings from the 17th peaked at 80 on the 22nd, 60 on the 25th and 131 on the 26th; although there have only been higher daycounts in five Octobers this century, including a peak of 540 in 2019, a

bird-days total of 567 was down on a 2013-2022 mean of 717.3 and massively down on a record 6936 logged in 1990 (when the birds present were not counted on six dates, but daycounts peaked at 1500). Numbers again increased in November, with singles on the 1st and 2nd followed by daily sightings, 20 three-figure daycounts from the 6th and highs of 429 on the 7th, 500 on the 8th, 620 on the 11th and 443 on the 17th which took the bird-days total to 6298; there have only been higher November daycounts in 14 years, with peaks of 5000 in 1968, 10,000 in 1970 and 5204 in 2021, and larger totals in five years, with highs of 12,099 in 2018 and 18,894 in 2021. Daily three-figure December counts to the departure of staff on the 3rd peaked at 383 on the 2nd.

Ring Ouzel *Turdus torquatus* **Mwyalchen y Mynydd**
Scarce previously Uncommon and more regular in spring
Earliest 15th March 1955 (18th April 2023) **Latest** 21st November 1989 (20th October 2023)
1934-1976: 52 trapped, 2015-2021: 3 trapped, 3 retrapped

A female on 18th April was five days earlier than the first three of last year, but 12 days later than the 2013-2022 first bird mean; there have been 403 earlier bird-days, including 120 in March. A male along the north coast cliffs on the 20th was perhaps different to an unsexed bird in Horse Bottom the following day. A spring bird-days total of three was down on a 2013-2022 mean of 3.9, highs during this period of 18 in 2015 and nine in 2016 and well down on all-time highs of 38 in 1964, 34 in 1967, 31 in 1971 and 44 in 1974 (there were daycount highs of ten in April 1967 and eight in March 1974). There have now been spring records in 76 years totalling 646 bird-days, this including just 91 bird-days in 16 springs this century; the decline in records has mirrored the status of this species nationally, with a 43% drop in the number of British breeding pairs occurring over 40 years and an 11% drop in the Welsh population occurring between 1999 and 2012 (Bladwell *et al*., 2018). A mobile bird on the 17th was the only September record, whilst October saw a bright bird on the 2nd, a male at East Bog on the 12th which was probably that at the Well on the 13th and a drab bird at Spy Rock on the 20th which was the last of the year; a total of five autumn bird-days was the highest since the six of 2002 and matched the 16th highest autumn tally (the peaks are of 13 in 1959, 23 in 1966 and 19 in 1991, with a daycount high of eight in October 1966). There have now been autumn records in 51 years totalling 221 bird-days and with just 27 bird-days in ten autumns this century.

Blackbird *Turdus merula* **Mwyalchen**
Common Visitor and Uncommon Breeder peaking at nine pairs in 1990, 2021 and 2022
58 trapped, 101 retrapped
1934-1976: 1750 trapped, 2010-2022: 756 trapped (including 16 pulli), 476 retrapped, 2 controls

Although spring daycounts again failed to exceed the total number of breeding birds, there was evidence that migrants were passing through; given that the majority of the Skokholm breeders and

first-winters were already ringed, it would seem likely that eight females and a male ringed between 2nd March and 1st May (but not encountered thereafter) were passage birds. Of 12 known to have survived from previous years, four males and two females survived their first winters, a male survived a second winter, two females and a male survived a third, a male survived at least a third and female LL37525, ringed as a youngster in June 2019, survived a fourth winter but was found freshly dead at the Top Tank on 18th March after three years, nine months and 12 days; the oldest Skokholm Blackbird was last seen in April 2021 (this had a ring for eight years and 24 days and survived nine winters), whilst the British longevity record stands at 15 years, two months and five days. A female trapped on 22nd April had healed a severe flank wound, an injury matching those seen regularly in autumn which are assumed to occur as birds narrowly avoid raptors. A female nest building in the Old Well Bramble from 28th March was eaten by a Sparrowhawk on 1st April. Nevertheless there were nine breeding territories mapped, this two more than in 2015, 2016 and 2020 and matching the 1990, 2021 and 2022 tallies as the highest to date; pairs bred near the Wheelhouse, the Cottage, the Well, Orchid Bog, East Bog, the Cutting, South Pond, Gull Rock and the West Knoll. Chicks were being fed at the Well from 17th April, however these seemingly perished with the first four flying fledglings appearing near the Wheelhouse on 7th May; these were seven days earlier than the 2013-2022 first fledgling mean (the earliest during this period were logged on 24th April 2021, the latest appearing on 27th May in 2013 and on the 23rd in 2019).

Productivity again proved difficult to calculate due to overlapping territories, second broods and potentially the arrival of youngsters from elsewhere, however adults were seen feeding chicks in all nine territories, approximately 21 first brood fledglings were recorded across eight territories (only the Cutting pair seemingly failed) and eight second brood fledglings were encountered. Productivity was thus estimated at a minimum of 3.22 fledglings per pair, this up on a 2013-2022 mean of 2.68 ±se 0.23 and on all but three years during this period (the peak was the 3.67 of 2019, the lows 2.17 in 2014 and 1.29 in 2015). As was noted by Betts, Thompson and in recent reports, the number of sightings declined during the period of post-breeding moult; there were monthly totals of 152 in August and 243 in September (198 and 153 respectively last year), whilst only three were ringed in September (with an adult male on the 21st almost certainly from elsewhere). October daycount highs of 26 on the 13th, 22nd and 28th and 24 on the 31st were down on a 2013-2022 mean high of 30.2 (with a peak of 72 in 2017), however a bird-days total of 489 was well up on a mean of 255.5 logged during the same period, indeed it was the highest October tally since the 578 of 1994 (when Blackbird were only logged as ‘present’ on five dates); the all-time October peaks are of 2314 in 1964 (which included what was described in the 1964 Annual Report as an ‘avalanche’ of 1000 on

the 18th), 1136 in 1975 and 1075 in 1993. It was not until 1st November that the first larger bird was trapped (a bird with a wing chord of 135mm or more); this was the latest such arrival of the last ten years, 17 days later than the 2013-2022 first of autumn mean. A further four adult males with wings of between 136mm and 138mm were trapped during the month, as were five adult females (four of which had wings of 132mm or more). There were no birds of 138.5mm or more for the first time in 11 years and no birds of 140mm or more for the fourth time in 11 years. This apparent lack of arrivals from further north was reflected in the November daycounts; peaks of 34 on the 12th, 25 on the 21st and 29 on the 22nd were down on those recorded in eight of the last nine years (there were highs of 121 in 2015, 52 in 2018 and 70 in 2021, whilst the all-time high is of 300 in 1939).

Fieldfare *Turdus pilaris* **Socan Eira**
Uncommon or Fairly Common Winter Visitor
Earliest 14th September 1977 (12th October 2023) **Latest** 13th June 1980 (14th April 2023)
4 trapped
1940-1976: 8 trapped, 2016-2022: 19 trapped

One at North Plain on the 18th made this the 53rd March with a record. The only other spring sighting was of a single at Howard's End on 14th April; there have been 115 later spring bird-days, with 94 in April, 19 in May and two in June, whilst one on 8th May 1996 is the most recent. Four arrived on 12th October, these seven days earlier than both the first 85 of last autumn and the 2013-2022 first of autumn mean (three on 11th October 2013 and one on the same date in 2014 are the earliest during this period, three on 5th November 2021 are the latest, whilst there have been 223 earlier autumn bird-days including 105 in 2004 and four in September). There followed sightings on a further eight October dates, with eight on the 17th and four on the 18th the only daycounts of more than two; there have been higher daycounts in just four Octobers this century, albeit with six daycounts of between 55 and 289 last year, whilst a bird-days total of 24 was down on that logged in 23 previous Octobers, including highs of 282 in 1966, 330 in 1971, 154 in 1993 and 815 last year. Singles on the 1st, 3rd, 5th, 11th, 15th and 16th were the only Fieldfare logged in November, the bird-days total down on a 2013-2022 November mean of 34.6 and on all but one year during that period (the all-time highs are of 332 in 1967, 143 in 1968 and 146 in 2015).

Redwing *Turdus iliacus* **Coch Dan-aden**
Common Winter Visitor
Earliest 20th September 2001 (9th October 2023) **Latest** 18th June 1979 (1st April 2023)
21 trapped, 4 retrapped
1936-1976: 156 trapped, 2013-2022: 206 trapped, 8 retrapped

Singles on the 1st, 2nd and 9th, at least two vocal birds on the night of the 18th and a first-winter ringed on the 30th were the only March records, a bird-days total of six being down on all but one of the previous ten years; the all-time March bird-day highs are of 474 in 1955, 401 in 1962 and 852 in 1965, whilst the 2013-2022 mean is 45.6 (this period including a 'Beast from the East' generated high of 258 in 2018). One at the Farm on the morning of 1st April was the last of the spring; there have been 304 previous April bird-days logged over 51 years, with 134 of these since 2013 (the last of 11 May bird-days were in 2014 and 2017, whilst singles were logged in the Junes of 1929 and 1979). Three on the night of 9th October were ten days later than the first three of last autumn and one day later than the 2013-2022 first of autumn mean; there have been 937 earlier bird-days, including 617 in 1973 and 16 in September. Sightings on all but three October dates from the 11th peaked at 13 on the 12th and 12 on the 22nd, these the lowest October highs of the last 11 years; there were October daycounts of 233 in 2021 and 134 last year, whilst the all-time highs are of 400 in 1958, 350 in 1973 and 1124 grounded by thick fog on the 26th in 2017. An October bird-days total of 97 was down on a 2013-2022 mean of 329.4 and on all but one year during that period; there were all-time highs of 1077 in 1958, 1781 in 1973 and 1214 in 2017. Redwing were noted on 25

November dates, with 26 on the 12th the only daycount of more than seven; the peak was down on a 2013-2022 November mean of 52.9, whilst a bird-days total of 89 was down on a mean of 255.3 logged during the same period (although staff were not always present throughout). There were all-time November bird-day highs of 915 in 1968 (when staff departed on the 18th), 379 in 1994 (when staff departed on the 20th) and 1016 in 2021 (when staff were present throughout). The three individuals retrapped during the autumn all increased in mass; birds increased by 3.3g in two days, by 4.4g in five days and by 6.6g in three days.

Song Thrush *Turdus philomelos* **Bronfraith**
Common Visitor breeding has not been recorded but some return in successive winters
20 trapped, 2 retrapped
1934-1976: 447 trapped, 2013-2022: 392 trapped, 37 retrapped

Sightings on ten March dates to the 14th peaked at six on the 5th (when one was killed by a Sparrowhawk at the Lighthouse) and totalled 23 bird-days; although down on a 2013-2022 March bird-days mean of 31.6 and all-time highs of 249 in 1940, 212 in 1962 and 961 in 1965, there have only been 20 higher March bird-day totals (the peak March daycounts are of 100 in 1931 and 1962 and 350 following a cold weather movement in 1965). One at Spy Rock on the 6th was the 303rd bird-day to be recorded in April, these all logged over 61 years and with highs of 27 in 1987, 29 in 2000 and 34 in 2015 (the 2013-2022 April bird-days mean is 7.3). There was no May sighting for the fifth time in ten years, the all-time bird-days total remaining at 48 (with two in 2000 the only daycount of more than one). The all-time June bird-days total remains at 46, nine of which have been since 2018.

There was no July sighting for the sixth time in 11 years, the all-time bird-days total remaining at 102, 27 of which have been since 2013 and 13 of which were in 1979. Similarly there was no August record for a fourth time in 11 years, the all-time total remaining at 103 (28 of which were in 2002 and 2003 and 28 of which were since 2013). A September total of 151 was not added to for the sixth time in 11 years (there were highs of ten in 1966, 20 in 1972 and 18 in 2002). One at East Bog on 8th October was thus the first since April. There followed daily October sightings between the 10th and 13th, peaking at four on the 12th, and from the 18th, with highs of 14 on the 25th and eight on the 31st which took the total for the month to 69; the peak October daycount was down on a 2013-2022 mean of 39.5 and on that logged in all but three years during this period, whilst the total was the lowest of the last 11 years, down on a 2013-2022 mean of 162.3 (there were October daycount highs of 100 in 1939, 1964 and 1966 and of 142 grounded by thick fog in 2017, whilst the total peaked at 698 in 1966, 577 in 1975 and 962 in 1993). Song Thrush were encountered on all bar one November date, with highs of 12 on the 12th, 21 on the 25th and 14 on the 30th taking the total to just 176; despite the fact that staff have not always been present throughout the month, the peak daycount was the lowest of the last 11 Novembers and down on a 2013-2022 mean of 52.0, the bird-days total the lowest during the same period and down on a mean of 471.3 (there were all-time bird-day highs of 614 in 1967, 788 in 2019 and 663 in 2021). Daily December sightings to the departure of staff on the 3rd peaked at 25 on the 1st; the December daycount record is the 400 noted by Lockley in 1927. Ringing has shown that a small number return to Skokholm in successive winters (although their breeding grounds remain unknown); this was again the case this year, with a juvenile taken from the Wheelhouse Heligoland on 2nd December 2022 retrapped in the Well Heligoland on 24th October.

Mistle Thrush *Turdus viscivorus* **Brych y Coed**
Scarce but not recorded every year
1936-1976: 3 trapped, 2022: 1 trapped

The only record was of one which spent the morning of 1st December around Home Meadow; primarily due to the fact that staff are rarely present this late in the year, the only other December sighting is of one logged by Lockley on the 17th in 1929. There have now been records in 57 years,

accounting for 217 bird-days, with sightings in every month bar January but the majority noted in March (40 bird-days in 12 years), April (23 in 14), October (94 in 29) and November (29 in 15).

Spotted Flycatcher *Muscicapa striata* **Gwybedog Mannog**
Fairly Common Passage Migrant
Earliest 19th April 1966 (9th May 2023) **Latest** 23rd October 1968, 2001 & 2021 (10th October 2023)
41 trapped, 2 retrapped
1934-1976: 1619 trapped, 2010-2022: 347 trapped, 16 retrapped

One on 9th May was the latest arrival of the last 11 years but only four days later than the 2013-2022 first bird mean; the first in each of the previous ten years arrived between 30th April and 8th May, whilst there have been 316 bird-days earlier than the first of 2023 (including 34 in April). Following a single on the 11th, there were sightings on all but two May dates from the 19th, with highs of seven on the 23rd, 13 on the 25th and eight on the 31st taking the total to 60; there have been higher daycounts in only 13 previous Mays, with peaks of 40 in 1958, 30 in 1959 and 35 in 1982, whilst the total was up on a 2013-2022 May mean of 47.5 and was the 15th highest to date (there was a 21st century peak of 72 in 2016 and all-time highs of 133 in 1962, 145 in 1967 and 104 in 1991 and 1994).

There were 13 June bird-days, with seven present on the 1st, three the following day and singles on

the 7th, 9th and 13th; although the June total was close to a 2013-2022 mean of 11.6, there have only been higher tallies in 18 years (including peaks of 29 in 1971, 1977 and 1991, 35 in 2015 and 23 in 2019), whilst the maximum June daycount was only down on the eight of 1939 and 2015 and the ten of 1991. Spring birds moved through quickly, indeed none of the 37 ringed individuals were recorded on more than one date. One at the Farm on 22nd August was 11 days later than the first of last autumn and 28 days later than the first of 2021. There followed sightings of up to two on four dates which took the total for the month to just seven, this the lowest of the last nine Augusts and down on a 2013-2022 mean of 22.4; there were August bird-day highs of 87 in 1964 (which included a record daycount of 40), 85 in 1971 and 80 in 1976. September proved alarmingly poor, with singles on the 6th and 7th, two on the 12th and one on the 13th which was probably the juvenile ringed the previous day; a total of five September bird-days was down on a 2013-2022 mean of 40.4 and on every year during this period (the daycount highs are of 25 in 1951, 1952 and 1969, 30 in 1969 and 21 in 2004 and 2021, whilst there have been peak September totals of 166 in 1969, 68 in 2002 and 91 in 2013). One at the Well on 6th October was perhaps the adult trapped there the following day, this bird retrapped on the 8th (when it had increased from 13.0g to 14.2g) and on the 9th (14.5g) and no doubt the ringed bird present in the Courtyard on the 10th; there have been 25 later bird-days, including 11 this century.

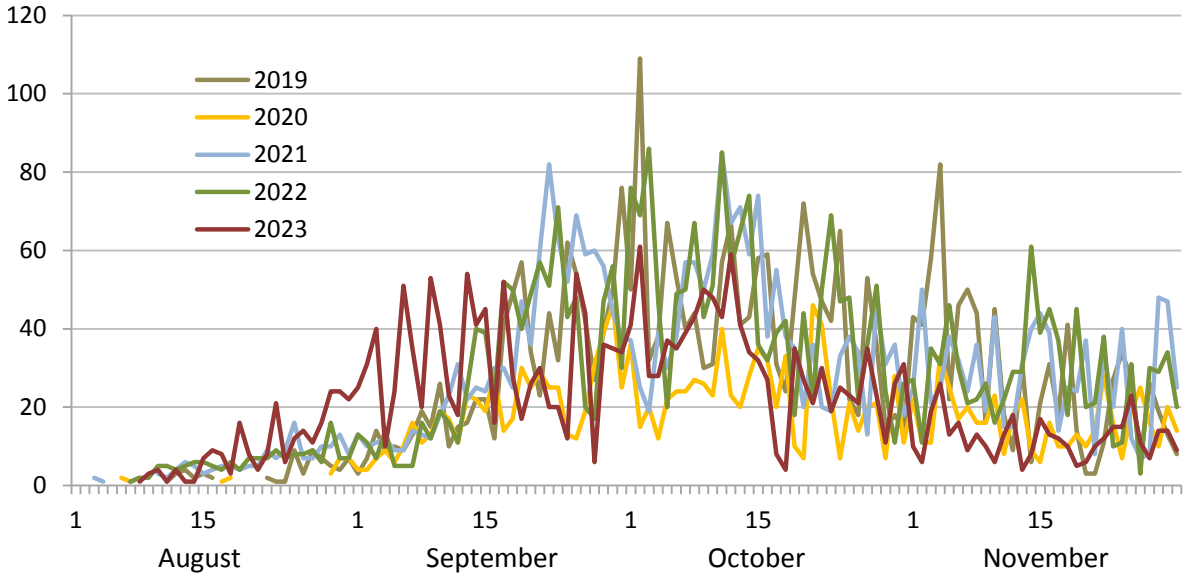
Robin *Erithacus rubecula* **Robin Goch**
Abundant Winter Visitor and Passage Migrant bred in 1939, 1940 and 1980
105 trapped, 82 retrapped
1934-1976: 956 trapped, 2010-2022: 968 trapped, 853 retrapped, 3 controls

Daily March sightings to the 27th included two ringed as juveniles in 2022 which were last seen on the 5th, one ringed as a juvenile in 2021 last seen on the 3rd and AKL5126, ringed as a juvenile in October 2020 and last seen on the 14th (it had not been retrapped in either autumn 2021 or in 2022). There were March daycount highs of 12 on the 3rd, 11 on the 4th and 10th and ten on the 5th and 7th, but no more than two from the 20th; the only March daycounts up on this year's peak are of up to 16 in 2003 and up to 15 in 2016 (12 were also logged in 1972, 1996 and 2016). A March bird-days total of 154 was up on a 2013-2022 mean of 96.3 and only down on the 198 of 2016. Nevertheless a later spring passage was almost none existent, with two on the 4th and one on the 17th the only April records; the April bird-days total was the second lowest of the last 11 years, down on a 2013-2022 mean of 29.3 and well down on all-time highs of 54 in 2013 and 132 in 2015 (when daycounts peaked at 17). At least one of the two first-year females ringed on 21st May had probably bred already, this perhaps not the case for the first-year female ringed two days later; this was the 48th May with a record (with sightings in nine of the last 12), whilst the 2013-2022 bird-days mean is 3.5. There were June sightings of one at the Well on the 3rd and females on the 5th and 13th, the latter two having seemingly already bred this year and having both survived at least two winters; there have been 47 previous June bird-days, with 23 of these in the breeding years and nine since 2012.

There were no further sightings until one was found at the Well on 6th August, this one day later than the first of last autumn and two days later than the 2013-2022 first of autumn mean. Daily sightings from the 8th were of no more than four to the 14th but peaked at 21 on the 23rd, 24 on the 29th and 30th and 22 on the 31st; there were three daycounts of between 30 and 40 in August 1993, with 35 in 2015 and 25 in 2016 being the only others up on the 2023 high. An August bird-days total of 229 was up on a 2013-2022 mean of 118.3 and an all-time record. September proved much more typical, with highs of 53 on the 9th, 54 on the 13th and 25th and 52 on the 17th taking the tally to 941; the peak daycount was down on a 2013-2022 mean of 75.2, on that logged in all but one year during this period and on all-time highs of 100 in 1993 and 1995, 150 in 1994 and 128 in 2014, whilst the total almost matched a 2013-2022 mean of 935.4 (although there have only been four September tallies up on that of this year, all logged since 2014 and peaking at 1649 in that year, Robin were routinely under-recorded in the past, just being logged as present following quiet or average days

(the peak daycount is perhaps thus more informative)). Numbers again peaked in October, with highs of 61 on the 2nd, 50 on the 9th and 59 on the 12th which took the bird-days total to 985; the total was down on a 2013-2022 mean of 1218.1 (indeed it was only up on three of the years during this period), however the peak daycount was only down on that logged in 12 previous Octobers, including all-time highs of 150 in 1994, 118 in 2014 and 109 in 2019.

The number of Robin recorded on each autumn day between 2019 and 2023.



Daily November sightings totalled only 364 bird-days, this down on tallies of 813 in 2019, 485 in 2020, 846 in 2021 and 837 last year (these all Novembers in which staff were present throughout). Peak November daycounts of just 19 on the 3rd, 26 on the 4th and 23 on the 25th were down on a 2013-2022 mean high of 52.5 and well down on all-time highs of 70 in 1995, 63 in 2014, 91 in 2015 and 82 in 2019. Daily counts during the first three days of December peaked at 16 on the 1st. Five birds handled during the autumn had been encountered on Skokholm previously; three had been ringed as juveniles in 2022 (two of which had also been encountered this spring) and two had been ringed as juveniles in September 2021 (both had also been retrapped in autumn 2022 and one had been retrapped this spring). Of an additional 95 ringed during the autumn (all bar two of which were juveniles), at least 17 lingered, with four retrapped one or two days later, singles four, five and 14 days later, five between 25 and 35 days later and further singles 44, 49, 63, 74 and 84 days later.

Bluethroat *Luscinia svecica* **Bronlas**
Rare 14 previous records, six of which have occurred in spring
1936-1976: 6 trapped, 2017-2020: 2 trapped

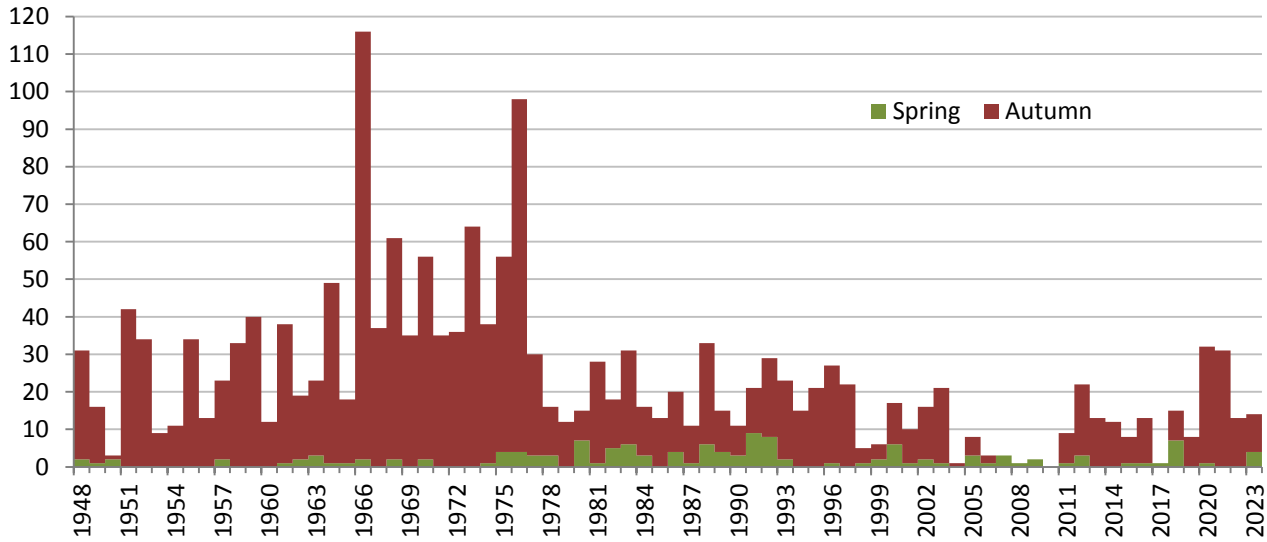
A first-winter which frequented the area between the Knoll and the West Knoll during the afternoon of 12th October was found just minutes before the last 2023 volunteers departed the Island (GE *et al.*); this was the third in seven years but the first autumn sighting since 1992. Of the 14 previous records, the first seven between 1955 and 1968 were all in autumn, whilst six of the latter seven were in spring. Following the first for Skokholm, a first-winter male *L. s. svecica* on 10th October 1955, there was a first-winter *L. s. svecica* between the 12th and 15th September 1956, a first-winter male on 15th September 1964, an apparent female on 24th September 1964, another first-winter male *L. s. svecica* on 29th September 1964 (taking the year total to an unprecedented three individuals), one seen on 11 dates between 16th September and 1st October 1967 and the only Skokholm record of *L. s. cyanecula* on 20th October 1968. Male *L. s. svecica* logged on 21st May 1975, 15th May 1982 and 14th May 1985 were followed by an unraced male on 27th September 1992, a male *L. s. svecica* on 29th June 1995 and an unraced male on 27th May 2017 which may have been a

White-spotted *L. s. cyanecula* lacking a white spot or a Blue-throated, Spanish breeding *L. s. azuricollis* (a retained feather held by Professor Martin Collinson at the University of Aberdeen will hopefully provide a sufficiently distinctive genetic signature in the future). Most recently a splendid first-summer male Red-spotted Bluethroat was ringed on 20th May 2020.

Pied Flycatcher *Ficedula hypoleuca* **Gwybedog Brith**
Uncommon Migrant more frequent in autumn and sometimes absent in spring
Earliest 10th April 1993 (17th April 2023) **Latest** 17th October 1988 (8th September 2023)
7 trapped, 2 retrapped
1934-1976: 385 trapped, 2011-2022: 59 trapped, 10 retrapped, 1 control

There were perhaps only two spring individuals, with two females present on both the 17th and 18th April including one ringed on each date; males on the 10th and 14th in 1993 and on the 15th in 2015 are the only earlier sightings. This species is nearly always scarce in spring, with 39 of 145 all-time bird-days logged this century and highs of seven in 1980 and 2018, eight in 1992 and nine in 1991.

The total number of spring and autumn Pied Flycatcher bird-days logged between 1948 and 2023.



A juvenile taken from the Cottage Heligoland on 18th August was three days earlier than the first of last autumn, but five days later than the 2013-2022 first of autumn mean (the earliest during this period was logged on 22nd July 2021, with one on the 24th in 1994 the only other in July). Two on 23rd August included another juvenile ringed, one was in Peter's Bay on the 28th and one at Spy Rock on the 29th took the total for the month to five, this close to a 2013-2022 mean of 6.2 but well down on a high during that period of 25 in 2020 and on August peaks of 86 in 1966, 47 in 1968 and 79 in 1976. Three on 6th September included two mist netted juveniles, one of which was still present the following day (having increased from 10.0g to 12.8g in just under 36 hours), whilst another juvenile netted on the 8th was the last of the year; although matching the second highest September daycount since 1988 (there were four in 1992 and 2022), the peak was well down on six double-figure counts which reached 20 in 1948. A September bird-days total of five was down on a 2013-2022 mean of 6.3 and well down on all-time highs of 41 in 1951, 33 in 1959 and 34 in 1961. There have been 554 bird-days later than the last of this year, including 40 in October. A total of ten autumn bird-days was down on the 31 of both 2020 and 2021, but almost matched a 2013-2022 mean of 13.5; there have been 56 higher autumn totals (ten this century), with peaks of 114 in 1966, 64 in 1973 and 94 in 1976 (but no more than 31 thereafter).

Black Redstart *Phoenicurus ochruros* **Tingoch Ddu**
Uncommon Migrant has probably overwintered on occasion
1934-1976: 105 trapped, 2013-2022: 29 trapped, 5 retrapped

There were early signs that this was to prove a very poor year, with one around Home Meadow on the 27th the only March sighting; the 2013-2022 March bird-days mean is 9.2, whilst the all-time March highs are of 241 in 1948 (when daycounts peaked at 50), 101 in 1949, 39 in 1983, 56 in 1995 and 28 in 2021. The only April records were of a single around the Knoll on the 5th and 6th and an apparent female near the Lighthouse on the 28th; although an April bird-days total of three was close to a 2013-2022 mean of 4.4, it was down on 31 previous years and highs of 32 in 1949, 24 in 1958 and 21 in 1991. There were no May records, the all-time bird-days total remaining at 72, 21 of which have been since 2013 (2016 and 2023 are the only years during the latter period without a record). A June bird-days total of 17, which includes seven over four years since 2013, was not added to. There have been singles in six Julys (with four since 2011), up to two bird-days in the Augusts of 1973 and 2003 and ten September bird-days across six years between 1964 and 2001. More surprisingly, it became the first October of the last ten without an October sighting, the all-time bird-days total remaining at 922 (there were 53 October bird-days between 2014 and 2022, with 18 in 2017 the peak, and all-time highs of 243 in 1968, 92 in 1975 and 86 in 1988). Singles at the Bluffs and the Knoll

on 11th November were 22 days later than the 2014-2022 first of autumn mean. Despite a staff presence until 3rd December, there were no more records, a November bird-days total of two being down on a 2013-2022 mean of 8.8 and well down on all-time highs of 38 in both 1968 and 1992, 19 in 1980 and 24 last year. There were no Black Redstarts ringed for the first time since the Bird Observatory was reaccredited, as was the case in five years between 1956 and 1976.

Redstart *Phoenicurus phoenicurus* **Tingoch**
Uncommon Migrant
Earliest 1st April 1991 (18th April 2023) **Latest** 3rd November 2022 (1st October 2023)
9 trapped
1935-1976: 393 trapped, 2013-2022: 52 trapped, 6 retrapped

Females at the Lighthouse and in Crab Bay and a male in the Wheelhouse Heligoland were the first of the year, these on 18th April and six days later than the 2013-2022 first bird mean (the earliest during this period was logged on the 2nd in 2019 and the latest on the 22nd in 2017 and 2022); there have been 119 bird-days earlier than the first of this year. A different first-summer male was ringed the following day, this followed by daily sightings of two birds to the 22nd which involved at least two females and another first-summer male. A female in the Well Heligoland on the 27th took the April bird-days total to 11, this up on both a 2013-2022 mean of 4.1 and a 21st century high of eight in 2014, indeed it was only down on the 12 of 1963, the 51 of 1966 (which included an April daycount high of seven) and the 14 of 1976. There were no May birds for the first time since 2014, however a first-summer male trapped on the 1st was the first June bird since 1995 and made this just the 18th year with a sighting in this month. A spring bird-days total of 12 was up on a 2013-2022 mean of 6.8, but down on a high during that period of 13 in 2015 and on all-time highs of 26 in 1964, 1967 and 1988, 36 in 1991 and 55 in 1966.

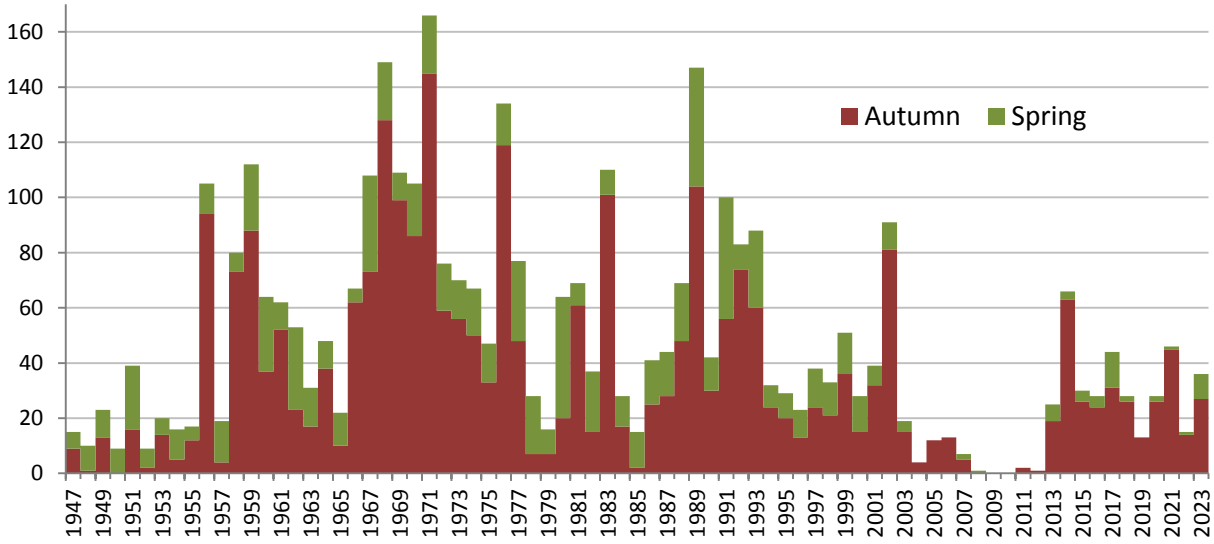
A juvenile female in the Wheelhouse Heligoland on 2nd September arrived on the same date as the first of last autumn and was nine days earlier than the 2013-2022 first of autumn mean. At least one was around the Farm on the 10th, one at the Knoll on the 16th was perhaps the young female trapped on the 17th and still present on the 18th, whilst one on the 20th took the September tally to six; eight in 2014 and nine in 2020 are the only higher September bird-day totals this century, however there were 20 higher tallies between 1956 and 1998, peaking at 25 in 1966, 1967 and 1972 and 37 in 1988. A first-winter male found in South Haven and later netted at the Well on 1st October was the last;

there have been 188 later bird-days, only 22 of which have been this century (but with three of four November bird-days logged last year). An autumn bird-days total of seven was up on a 2013-2022 mean of 5.3; although never common, this species was, as noted for that other denizen of Welsh woodland the Pied Flycatcher, more regular in the past, with autumn highs of 55 in 1966, 43 in 1968 and 39 in 1988 (the latter including 20 on 21st September which remains one of only two double-figure daycounts, the other being of 11 on 10th May 1993).

Whinchat *Saxicola rubetra* **Crec yr Eithin**
Uncommon Migrant previously Fairly Common
Earliest 8th April 1997 (21st April 2023) **Latest** 2nd November 2014 (8th October 2023)
3 trapped
1936-1976: 326 trapped, 2013-2022: 21 trapped, 4 retrapped

Three on 21st April included two first-year males seen in the hand; these were ten days earlier than the 2013-2022 first bird mean, indeed the most recent of 23 earlier bird-days was in 1997. Singles on the 22nd and 27th took the April bird-days total to five, this matching the 12th highest to date (there were peaks of 11 in 1962 and ten in 1971). May saw a female at North Pond on the 8th, two on the 27th (which included a first-summer female netted at the Well) and a female on the 31st; peak spring passage has often occurred in this month, with 28 two-figure May totals and highs of 40 in 1980, 43 in 1989 and 42 in 1991. A spring bird-days total of nine was up on a 2013-2022 mean of 3.6 and was the fourth highest this century; double-figure spring totals were previously the norm, with 41 such tallies between 1949 and 2002, eight of which were of 25 or more including highs of 35 in 1967, 44 in 1980 and 1991 and 43 in 1989 (there were maximum spring daycounts of seven logged in the Mays of 1960 and 1989).

The total number of Whinchat bird-days logged in each spring and autumn since 1947.



One at Steep Bay on 5th September was 14 days later than the 2013-2022 first of autumn mean (the earliest during this period arrived on 12th August 2017, the latest on 4th September 2014); all 29 July bird-days were recorded over 18 years last century, whilst there have been 474 August bird-days, including 31 since 2013. Sightings on 12 further September dates to the 23rd included highs of five on the 7th and 15th which took the total to 25 (the 2013-2022 September mean is 19.8, with highs during this period of 48 in 2014 and 36 in 2021); unsurprisingly numbers were greater historically, with daycount highs of 17 in 1958, 40 in 1968 (the all-time daycount record) and 20 in 1992 and bird-day highs of 88 in 1956, 114 in 1968 and 91 in 1969 and 1971. Singles on the 3rd and 8th October were the last, these taking the all-time October bird-days total to 368, 59 of which have been since 2013; there have been 159 later autumn bird-days, including one in November and 27 since 2013. An

autumn bird-days total of 27 was close to a 2013-2022 mean of 28.7, but massively down on highs of 128 in 1968, 145 in 1971, 119 in 1976 and 104 in 1989.

Stonechat *Saxicola rubicola* **Clochdar y Cerrig**
Fairly Common bred in 1928, 1932, 2021 and 2022
9 trapped, 2 retrapped
1934-1976: 340 trapped, 2013-2022: 150 trapped, 16 retrapped

Following a male present on the 3rd and 4th, daily March sightings of up to three females and three males between the 15th and 30th led to daycount highs of five on the 18th and 19th; a March bird-days total of 41 matched that of 2020 and was only down on highs of 105 in 1958, 52 in 2016 and 50 in 2022. The last March record of a male was on the 24th, however a bird of this sex appeared at Orchid Bog on 2nd April, this followed by a female at South Pond on the 9th, a pair there the following day but not thereafter and singles on seven further dates from the 19th which included a female ringed on the 21st and a male at the Well on the 27th. An April bird-days total of 11 was unsurprisingly down on the 22 of 1928, the 25 of 1932, the 45 of 2021 and the 26 of last year (as birds bred in these years), however it was otherwise only down on the 16 of 1970 and the 22 of 1975. The ringed female was probably responsible for sightings on 12 May dates to the 19th, whilst a male on the 29th took the total for the month to 13; this was the highest May total to be recorded in a year without breeding, albeit well down on the 66 of 2021 and the 25 of last year. Following June sightings of a female on the 7th and 8th, the first mainland juvenile of the year arrived on the 23rd, this seven days later than the first of last year but three days earlier than the 2013-2022 mean (the earliest juvenile during this period arrived on the 9th in 2020, the latest on 26th July 2018). Sightings on four further June dates included three juveniles together at the Well on the 26th, however a June bird-days total of ten was down on that logged in four of the last five years.

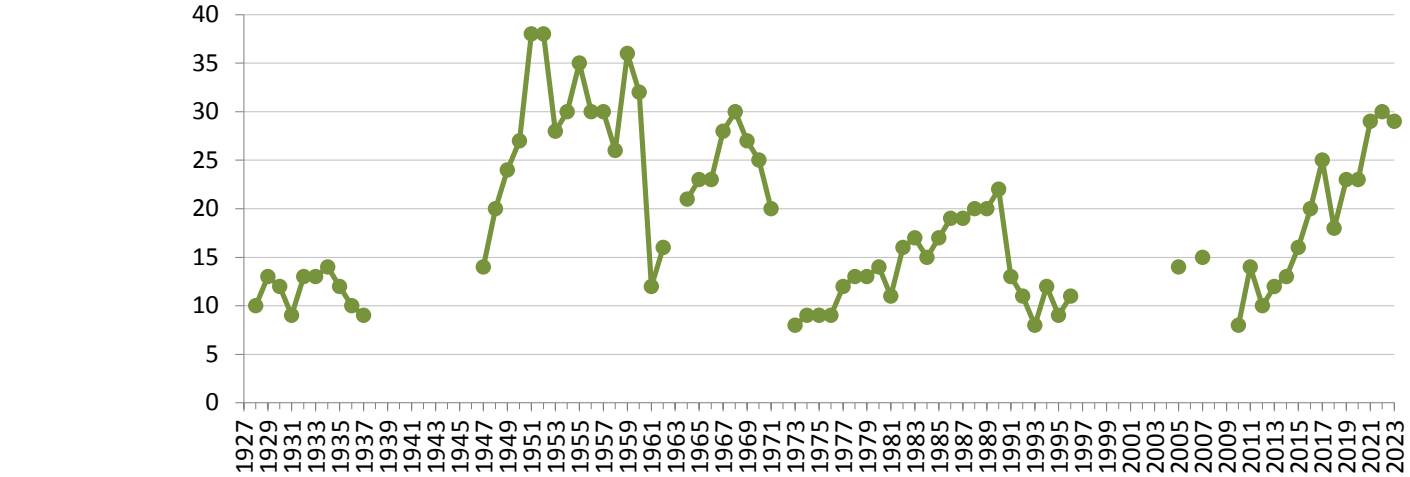
Perhaps surprisingly, the only July records were of juveniles on the 8th, 18th, 22nd, 23rd and 27th, the total the second lowest of the last nine years. August juveniles on the 11th, 13th, 20th, 25th and 26th led to a total typical of a year without breeding (there were 120 bird-days in 2021 and 25 last year). Numbers increased in September, with sightings of no more than four on 15 dates to the 22nd and counts on six further dates which peaked at 14 on the 25th and six on the 30th; although the peak daycount was the highest in this month since 1974, a bird-days total of 65 was down on all-time highs of 87 in 2016, 110 in 2020 and 137 in 2021. October proved to be the most productive ever, with sightings on all but one date and seven double-figure daycounts which reached 16 on the 10th, 24 on the 12th and 18 on the 13th, the peak the second highest to be logged in any month (only down on the 25 of 10th October 1961). An October bird-days total of 201 was up on a 2013-2022 mean of 119.5 and higher than any previous monthly total (with 185 in October 2016 and 163 in October 2014 the highs). It was also an unprecedented November, with sightings on all but two dates and highs of eight on the 3rd and 4th and nine on the 8th which took the total to 113; although the peak daycount was down on a November high of ten logged in 2001, the total was a new record, up on the 83 of 2014, the 71 of 2016 and the 96 of last year. Up to two pairs were present into December.

Wheatear *Oenanthe oenanthe* **Tinwen y Garn**
Abundant Migrant and Uncommon Breeder
Earliest 2nd March 2003 (17th March 2023) **Latest** 13th November 1999 (22nd October 2023)
133 trapped (including 11 pulli), 113 retrapped/resighted, 3 controls
1934-1976: 3636 trapped, 2011-2022: 695 trapped (inc 60 pulli), 419 retrapped/resighted, 4 controls

Three, including two colour ringed males, arrived on 17th March, these a week later than the first of last year and six days later than the 2013-2022 first bird mean (the extremes during this period were 4th March 2021 and 18th March 2019); there have been 414 bird-days earlier than the first of this year, including 80 since 2013. There followed daily March sightings, with highs of 22 on the 22nd and

21 on the 26th and 28th taking the bird-days total to 186; despite the late arrival, the peak March daycount was close to a 2013-2022 mean of 23.8 (albeit well down on highs of 200 in 1930, 110 in 1949 and 150 in 1958), whilst the bird-days total was up on a mean of 149.3 logged during the same period (the highs are of 303 in 1949, 320 in 1950 and 263 in 1958). All April daycounts were of 43 or less bar 56 on the 18th, 46 on the 19th, 121 on the 20th, 76 on the 21st and 75 on the 22nd which took the total to 1078, this up on a 2013-2022 mean of 844.7 and only down on two of the Aprils during this period (there was a high of 1197 in 2015); there have been higher daycounts in four of the last eight Aprils, whilst the highs are two counts of 1200 in 1938, 250 in 1954, 165 in 1999 and 156 in 2022. The majority of early migrants were nominate birds, with the first five Greenland-types noted on 18th April, seven days later than the first of last year. There followed at least 123 *O. o. leucorhoa* bird-days logged over 26 dates to 20th May, with April highs of 48 on the 20th, 16 on the 21st and nine on the 22nd; there were 93 *O. o. leucorhoa* bird-days in spring 2022, with a high of 22 on 24th April. On 17th April female F77, a returning 2022 juvenile, became the first British Wheatear to be fitted with a geologger and the first British songbird to be fitted with an accelerometer. A further 19 tags were deployed during the spring, these designed to stay with the birds until they return in 2024.

The number of Wheatear breeding territories located each year 1927-2023 (where data exists).



Survey work during the spring revealed 29 breeding pairs (additionally a female and two males lingered but seemingly did not breed, whilst two colour ringed males returned but either quickly left or perished); this was one less pair than mapped last year, but matched the 2021 total as the 11th

highest to date (there were highs of 36 in 1959 and 38 in 1951 and 1952, whilst the 1928-2022 mean is 18.42 ±sd 8.14). Chick provisioning was first seen at Wallsend on 16th May, this the same date as the 2013-2022 first delivery mean; the latest first food delivery during this period was noted on the 22nd in 2013, the earliest on the 10th last year. The first fledgling to be seen was at Wallsend on 27th May, this one day earlier than the 2013-2022 first fledgling mean; the latest during this period were logged on 5th June 2013, the earliest on 23rd May in 2014 and 2022. The high number of breeding pairs, coupled with a protracted breeding season and mobile young, made an accurate assessment of productivity impossible. There were however 89 chicks (which went on to fledge) or recent fledglings ringed before 28th July, this four fewer than last year; the resulting minimum productivity figure of 3.07 fledglings per pair was up on five of the last ten years and fractionally up on a 2013-2022 mean of 3.04 ±se 0.22 (there was a high of 4.00 in 2015 and a low of 1.96 in 2020). Ian Beggs' study into the survival, movements and behaviour of the Skokholm Wheatears remains the subject of a Masters project with the University of South Wales; as part of this work cameras were again installed over nests during the chick provisioning period, these in two purpose built boxes (see the 2019 Annual Report for further details and a map showing box positions). Of the known age breeding birds, male A31 was again the oldest (ringed as a juvenile on 22nd July 2015, he had survived eight winters); observations suggested that he again paired with A27, this the oldest known female (ringed on 25th April 2017, she had survived at least seven winters). Seven Skokholm colour ringed birds were on Skomer Island this summer (five 2022 fledglings and two 2021 fledglings).

The Lundy breeding ringed male which lingered during its 2022 moult had returned to Skokholm by 23rd July (see below). Juvenile H18, ringed at North Gully on 23rd June and seen on the Marloes Peninsula Deer Park at 1815hrs on 25th July, was retrapped in the Garage Heligoland on 27th July, this the first example of a Skokholm Wheatear crossing Broad Sound twice in a season. There were August highs of 55 on the 1st and 16th, 58 on the 10th and 51 on the 12th, although no more than 22 were seen each day from the 22nd; the peak August daycount was the second highest since 1952 (down on the 62 of 2018 and well down on all-time highs of 200 in 1936 and 154 in 1950), however a bird-days total of 886 was the lowest of the last three years (albeit up on a 2013-2022 mean of 716.9). It proved a quiet September, with daily sightings but only ten double-figure daycounts and highs of just 16 on the 5th, 20 on the 10th and 18 on the 20th which took the bird-days total to 235; the peak September daycount matched that of 2016 as the second lowest of the last 11 years (the 2013-2022 mean high is 56.8), whilst the total was well down on a 2013-2022 mean of 417.4 (there was a low during this period of 208 in 2017, whilst the all-time highs are of 1078 in 1951, 728 in 1958 and 782 in 2021). The last ringed Skokholm bird was seen on 9th September, this four days earlier than the last of 2022 and one day later than the 2018-2022 mean. Sightings on 13 October dates were all of four or less bar ten on the 12th and five on the 13th; an October bird-days total of 42 was down on a 2013-2022 mean of 70.8 and on the tally logged in all but three years during this period (the all-time highs are 239 in 1961, 262 in 1976 and 290 in 2013). A large northern bird at the Sugarloaf on 22nd October was the last, this eight days earlier than the last of 2022 and four days earlier than the 2013-2022 last bird mean; the earliest last bird during this period was on 16th October 2016 and the latest on 6th November 2015, whilst there have been 155 later than the last of this year, including 11 in November and 27 since 2013. Apparent *O. o. leucorhoa* were noted on 15 dates from 31st August, with September highs of six on the 13th and 17th and ten on the 20th which took the autumn bird-days tally to 42 (there were 71 in 2021 and 50 last year).

Ringing recovery Left tarsus orange over orange, right tarsus yellow and black stripe over AHX2316
Originally ringed as an adult male, LUNDY ISLAND, DEVON 28th May 2022
Previously recovered as an adult male, WINTER POND, SKOKHOLM 1st, 7th and 17th July 2022
Previously recovered as a breeding adult male, LUNDY ISLAND, DEVON June 2023
Recovered as an adult male, WINTER POND, SKOKHOLM 23rd and 27th July and 24th August 2023
Finding condition Colour rings read in field
Distance travelled 72km at 324 degrees (NW)

Days since ringed 421, 425 and 453
An interesting occurrence of repeated post-breeding dispersal, in a direction contrary to that in which it will migrate, with at least some of the primary moult occurring on Skokholm in both years.

Ringing recovery Left tarsus white on green F45, right tarsus TX22194
Originally ringed as a pullus, NORTH PLAIN, SKOKHOLM 7th July 2022
Recovered as an adult female, LUNDY ISLAND, DEVON 3rd April 2023
Finding condition Colour ring read in field
Distance travelled 72km at 144 degrees (SE)
Days since ringed 270
This bird was not seen again. 2022 nestlings TX22191 and TX22197 were on Skomer Island this year.

House Sparrow *Passer domesticus* **Aderyn y To**
Scarce although not recorded every year; most recently absent in 2010 and 2016
1955-1976: 20 trapped, 2013-2022: 9 trapped

What was assumed to be the same male, seen at the Farm, the Lighthouse and then again at the Farm on 18th April, made this the 40th spring with a record. Five together on 10th October was the largest group ever seen on Skokholm, up on the four present on 22nd October 1966, 30th September 1976 and 11th October 2021. It is tempting to think that the five which visited the Lighthouse twice on the 16th and which moved between the Red Hut and East Bog on the 22nd were the same returning individuals, whilst a male lingering around the Farm on the 30th took the October bird-days total to a record 16 (the only previous double-figure monthly totals are the ten of May 1972 and the 11 of May 1977). A total of 17 2023 bird-days was up on a 2013-2022 mean of 2.6 and a new high, up on the eight of 1967, 1975 and 2021, nine of 1976, 11 of 1966 and 1977 and 13 of 1972. There were just nine House Sparrow bird-days prior to 1957, then records in all but two years until 1978 (totalling 109 bird-days), birds in ten of the years between 1979 and 2004 (totalling 24 bird-days) and birds in all but three years since 2005 (now totalling 56 bird-days). May is still the most productive month, with 58 bird-days (but just two since 1991), whilst October is the busiest autumn month with 54 bird-days (including 33 since 2011). There is yet to be an August sighting.

Dunnock *Prunella modularis* **Llwyd y Gwrych**
Uncommon Winter Visitor and Irregular Scarce Breeder formerly Uncommon with up to 12 pairs
7 trapped, 12 retrapped
1934-1976: 396 trapped, 2012-2022: 82 trapped, 128 retrapped, 1 control

Ringing showed that at least two birds overwintered, with female TY54003 and male TY54004 both

retrapped this spring having been ringed as juveniles last year. Bar a daycount of three on the 12th, encounters on 28 March dates were potentially all with these two. Sightings on all but one April date were of two on nine occasions, with the male singing regularly between the Farm and the Well and one carrying something, probably nest material, into the Wheelhouse Bramble on the 18th. The male was last retrapped on 3rd May, whilst the female had an engorged brood patch on the 14th, these two again no doubt responsible for sightings on 25 May dates. Following two on the 1st and 2nd, encounters became less frequent in June, with singles on nine dates from the 9th including a singing male on seven dates (unusually the male was at Boundary Hill on the 24th). A spring bird-days total of 126 was up on the two of last year and a 2013-2019 mean of 58.1, this a period in which Dunnock did not breed, but was similar to the 114 of 2020 and the 1999 of 2021 when they did. Up to seven pairs bred annually between 1928 and 1939, there were up to 12 pairs between 1964 and 1981 and up to two pairs in eight years between 1987 and 1993, while more recently there were three pairs in 2012, a pair fledged at least three in 2020 and two females fledged at least four in 2021. There was no indication that a 2023 breeding attempt had been a successful one.

July singles on 12 dates included a singing male on ten occasions, whilst sightings on nine August dates included a singing male on six dates to the 8th, two together on the 9th and 17th and one in Crab Bay on the 21st; there were August sightings in two of the post-2012 non-breeding years, the latter of this August's sightings perhaps also an arrival from the mainland (the 2013-2022 mean first autumn arrival in a non-breeding year was on 6th September). Nevertheless there was no evidence that counts of up to two on 11 September dates included mainland birds; the female was retrapped during her post-breeding moult on the 8th, whilst a male was singing on two dates. Sightings on all but one October date included four on the 8th, this the first definite arrival from elsewhere, and highs of nine on the 11th, eight on the 12th and seven on the 14th and 15th; the October daycount maximum matched a 2013-2022 mean of 9.3 (there were peaks of 30 in 1930 and 1931 and 50 in 1994, with 14 in 2015 the highest since 1994), whilst a total of 99 bird-days matched a 2013-2022 mean of 99.7 (there were all-time highs of 189 in 1988 and 480 in 1994, this despite Dunnock only being logged as present on 16 dates in 1988 and 13 dates in 1994). Sightings on 17 November dates included a high of six on the 11th (when the resident female was retrapped) and daycounts of no more than two from the 19th; although only down on that logged in ten previous Novembers, including highs of 25 in 1931 and 20 in 1988, the peak daycount matched a 2013-2022 mean of 6.2. Only seven juveniles were ringed during the autumn, with four in October and three in November.

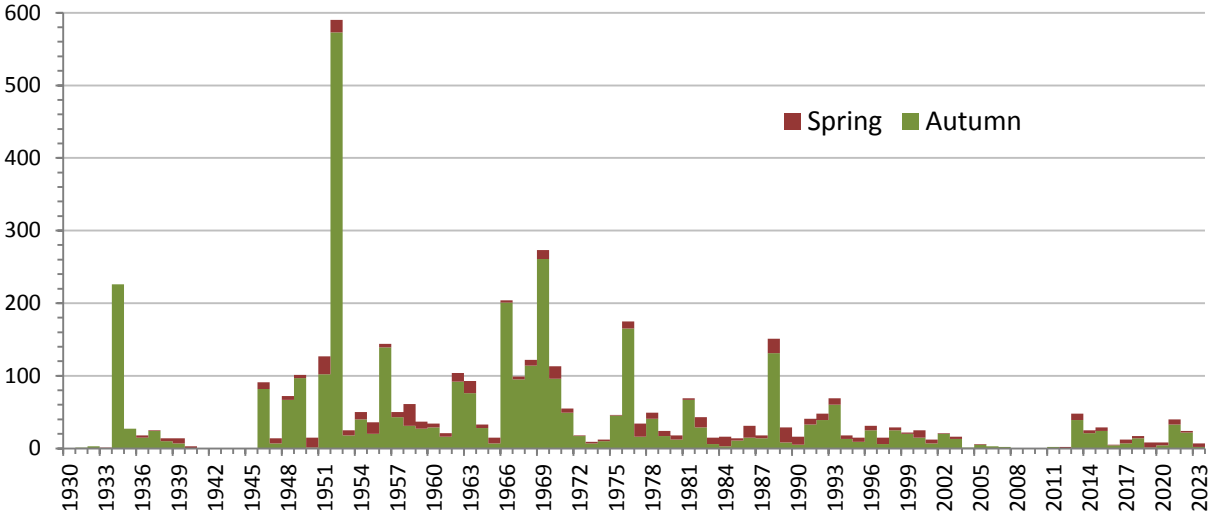
Yellow Wagtail *Motacilla flava* **Siglen Felen**
Uncommon previously Fairly Common, or Common on occasion, and more regular in autumn
Earliest 10th March 1966 (20th April 2023) **Latest** 18th November 1967 (17th September 2023)
1934-1976: 81 trapped, 2013-2022: 3 trapped

One over Western Plain on 20th April was five days earlier than the 2013-2022 first bird mean; there have been 37 earlier bird-days, including two in March and four since 2013. A male *M. f. flavissima* was in the Dip on 2nd May and one went over the Lighthouse and East Bog on the 12th, whilst a striking male at the Dip on the 20th had ear coverts darker than a typical *M. f. flava*, the head pattern a closer match for '*dombrowskii*', a hybrid form found in Eastern Europe (GE, below photographs). A 2020 review of *M. f. flava* records found 23 to be acceptable, with 17 males in spring (31 bird-days) and six in autumn (six bird-days), whilst the only accepted Skokholm records of Grey-headed *M. f. thunbergi* are of males in the Mays of 1978, 1987, 1989 and 1990. One at East Bog the following evening took the spring bird-days total to just five, this nevertheless up on five of the last ten years and matching a 2013-2022 mean of 4.7; nine in 2013 is the highest post-2000 spring tally, however the 1950-1990 mean high was 10.0 and the all-time highs are 25 in 1951, 30 in 1958 and 21 in 1989.

One heading west over the Bluffs on 5th September was 15 days later than the 2013-2022 first of autumn mean; there have been 58 bird-days in July, only five of which have been since 1990, and records in 68 Augusts (including seven of the last 11) totalling 2124 bird-days and with daycount highs of 50 in 1949, 1952 and 1969 and of between 75 and 150 on four dates in 1952 (September daycounts of 50 in 1951 and 31 in 1966 are the highest to be recorded outside of August). One on North Plain on the 17th was the only other record this year, a September bird-days total of two being down on a 2013-2022 mean of 9.9, a high during this period of 26 in 2021 and on 67 September tallies (the all-time highs are of 136 in 1934, 84 in 1951 and 94 in 1956). There have been 495 later bird-days, including 131 in October, three in November and 68 since 2013. A total of two autumn bird-days was the second poorest of the last 11 years, down on a 2013-2022 mean of 16.9, peaks during that period of 39 in 2013 and 33 in 2021 and well down on now almost unimaginable highs of 226 in 1934, 573 in 1952 and 261 in 1969. Although numbers fluctuate markedly between years and

historical highs were probably in part due to the presence of livestock tempting passage birds down to feed, there are clearly far fewer Yellow Wagtail passing Skokholm than there were 60 years ago.

The total number of Yellow Wagtail bird-days logged in each spring and autumn since 1930.



Grey Wagtail *Motacilla cinerea* **Siglen Lwyd**
Uncommon Visitor Scarce in spring but occasional double-figure daycounts in autumn
1938-1976: 8 trapped, 2013-2021: 4 trapped, 1 control

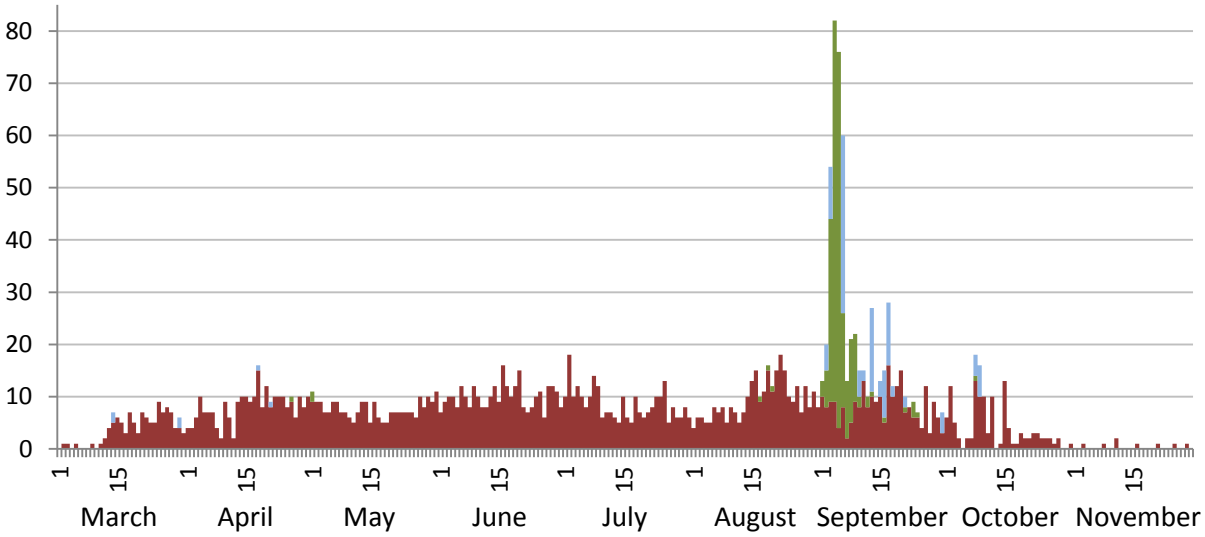
There were no spring sightings for the fifth time in 12 years and a fourth time in five years; six of 34 March bird-days have been logged since 2013, whilst 11 of the 43 bird-days recorded between 1st April and 28th June have been in the same period. A July bird-days total of 17, 11 of which have been this century, was not added to. More surprisingly an August total of 155, which includes sightings in seven years since 2015 totalling 33 bird-days, was also not added to. One at the Lighthouse on 1st September was thus the first of the year, this the latest autumn first since one on the 2nd in 2014 and 23 days later than the 2013-2022 first of autumn mean. Sightings on 11 further September dates to the 23rd were of two or less bar the four which went over on the 3rd; the peak daycount matched the lowest of the last 11 Septembers, this down on a 2013-2022 mean of 8.3 and all-time highs of 25 in 1960 and 12 in 2014. A September bird-days total of 19 was the lowest of the last 11 years, down on a 2013-2022 mean of 48.7 and on all-time highs of 63 in 1960, 110 in 2014, 58 in 2020 and 57 last year. October proved more typical, with encounters on ten dates to the 31st, highs of three on the 2nd and four on the 15th and a bird-days total of 15; the 2013-2022 mean October high is 4.1, the mean total for the same period being 20.0 (the highs are of 28 in 1975, 32 in 2015, 39 in 2016 and 24 in 2018 and 2021). A November bird-days total of 28, 16 of which have been over seven post-2013 years, was not added to. An annual bird-days total of 34 was down on a 2013-2022 mean of 75.7 and on every year during that period (including a low of 62 in 2013); the all-time annual bird-day total highs are of 90 in 1960, 126 in 2014, 76 in 2016, 83 in 2020 and 75 last year, recent years proving productive for a species described in 1939 as a 'curiously rare visitor' and by Thompson (2007) as usually providing only 'a handful of autumn records each year'.

Pied Wagtail *Motacilla alba* **Siglen Fraith**
***M. a. yarrellii* Scarce Breeder and Fairly Common Visitor**
White Wagtail *M. a. alba* Common Migrant flyovers unassigned to race are also Common
***M. a. alba* Earliest** 11th March 1997 (26th April 2023) **Latest** 29th October 1988 (8th October 2023)
50 trapped (including 13 pulli), 60 retrapped
1934-1976: 286 trapped, 2011-2022: 297 trapped (including 55 pulli), 118 retrapped, 3 controls

A ringed female on the 2nd and 3rd, a male on the 5th and a further single on the 9th were the only

March records prior to daily sightings from the 11th which peaked at nine on the 25th and eight on the 27th; the peak March daycount was close to a 2013-2022 mean of 8.4 and a bird-days total of 110 was a little up on a mean of 99.8 logged during the same period (there were all-time March highs of 137 in 2007 and 154 in 2021). The first White Wagtail was the latest of the last 11 years (by 13 days), with one around the Table on 26th April being 31 days later than the 2013-2022 first bird mean; there have been 924 earlier bird-days, including 57 in March and 141 since 2013. It went on to prove a very poor spring for records of the nominate subspecies, with two at North Pond on 1st May the only others seen; a spring bird-days total of three was down on a 2013-2022 mean of 24.9 and on every year during this period (there were lows of seven in 2014 and six in 2019, highs of 75 in 2013 and 49 in 2016, whilst the only spring tallies higher than that of 2013 are the 80 of 1988 and the 122 of 1989). A *M. a. yarrellii* daycount of 15 on 18th April (there was also an additional unraced flyover) was the only indication that birds were present other than the Skokholm breeders.

The number of Pied Wagtail *M. a. yarrellii* (maroon), White Wagtail *M. a. alba* (green) and unraced *M. alba* wagtail (blue) logged each day during the 2023 season.



Pied Wagtail were nest building in the Cottage Bramble on 15th April, this earlier than in any of the last eight years (the 2015-2022 first nest material mean is 21st April, with the earliest on the 16th in 2020 and the latest on 4th May 2022). Seven breeding pairs were subsequently mapped, this up on a 2013-2022 mean of 4.8 and matching the record set in 2020 and 2021 (there were five pairs in each year between 2017 and 2019 and six pairs in 2006, 2007 and 2022). Three retrapped adults had been ringed in previous years; females ARR7359 and ARR7630, both ringed as first-summers in April 2022, were on territories around the Farm, as was male ACY7649 which was ringed as a juvenile in October 2022. Faecal sac removal in the Courtyard on 9th May was eight days earlier than the first evidence of a 2022 chick and ten days earlier than the first of 2021. Five fledged the Courtyard nest on 24th May, whilst 11 first brood fledglings were seen with a further five successful pairs by 17th June; only the Cottage pair seemingly failed at the first attempt, with a rock falling onto their nest by 13th May (this possibly due to heavy rain and seemingly not impacting the adults which were nest lining in the wall behind Eclipse on 21st May). The Cottage pair fledged two on 24th June and were again feeding chicks by 3rd August. The pair near the Cutting were nest lining on 22nd June, but were not seen to feed young, and the Lighthouse pair had at least four eggs on 2nd July, although this nest was empty on the 11th. The Courtyard pair fledged a further four on 7th July and the Cottage pair fledged four on 17th August. There was no indication of further nest attempts in the other three territories. A total of 26 fledglings was five up on last year and matched that of 2019 as the highest total this decade (the 2013-2022 mean is 17.1). Nevertheless a 2023 productivity figure of 3.71 fledglings per pair was down on that logged in four of the last ten years, a 2013-2022 mean of 3.82 ±se 0.37 and highs during this period of 5.00 in 2013, 5.25 in 2016 and 5.20 in 2019.

There were no autumn daycounts in excess of the 40 breeding *M. a. yarrellii* and their fledglings, with peaks of just 18 on 2nd July and 22nd August being down on a 2013-2022 mean high of 27.7 and highs during this period of 37 in 2016 and 2018 and 48 in 2021 (the only autumn daycounts of more than 60 are the 120 of 19th September 1997 and the 70 of 1st September 2011). No more than 16 *M. a. yarrellii* were logged on each September date, the peak down on a 2013-2022 mean of 23.5, whilst sightings on all but four October dates peaked at 13 on the 8th and 15th but were of no more than four thereafter. A White Wagtail on 17th August was two days later than the first of last year and one day earlier than the 2013-2022 first of autumn mean. There were a further 262 *M. a. alba* logged during the autumn, including September highs of 35 on the 3rd, 73 on the 4th, 72 on the 5th and 18 on the 6th; the peak autumn daycount was up on a 2013-2022 mean of 17.9, but down on that logged in eight previous years including September highs of 150 in 1931, 200 in 1988 and 120 in 1991 (80 in September 2002 is the most recent higher daycount). The *M. a. alba* autumn bird-days total was up on a 2013-2022 mean of 107.3, albeit down on that logged in 15 previous years, a 21st century high of 266 in 2015 and all-time highs of 795 in 1987, 1712 in 1988 and 1134 in 1991. There were an additional 114 unraced flyovers noted between 2nd September and 9th October, with September highs of 34 on the 6th, 16 on the 13th and 12 on the 17th; the total was the lowest since 2016, down on a 2013-2022 mean of 294.1 and on highs during this period of 557 in 2013 and 466 in 2014. The last White Wagtail of the year was on North Plain on 8th October, this 13 days later than the last of 2022; there have been 98 later bird-days, including just two this century. Pied Wagtail were logged on eight November dates to the 30th, with two on the 11th the only record of more than a single; the November total was down on a 2013-2022 mean of 12.0, this despite the fact that staff have sometimes departed mid-month (there was an all-time high of 23 in 2021).

Meadow Pipit *Anthus pratensis* **Corhedydd y Waun**
Very Abundant Visitor and Uncommon Breeder
238 trapped, 108 retrapped
1934-1976: 4456 trapped, 2010-2022: 1818 trapped (including 5 pulli), 510 retrapped

Sightings on all bar one March date were of no more than four to the 8th, with numbers increasing to 28 on the 14th and 43 on the 17th before highs of 75 on the 18th, 80 on the 26th and 94 on the 27th; the peak March daycount was down on a 2013-2022 mean of 109.4 and on six years during that period (there was a recent high of 183 in 2019 and all-time highs of 250 in 1950, 1955 and 1988 and 350 in 1990). Conversely April highs of 84 on the 4th, 138 on the 13th, 86 on the 14th and 88 on the 22nd were up on a 2013-2022 mean April high of 81.2, indeed the peak was the highest since 1990 and only down on that logged in six previous Aprils (including 200 in 1949, 1951 and 1990 and 700 in 1988). Nevertheless an April bird-days total of 1559 was close to a 2013-2022 mean of 1474.1 and down on the total logged in four Aprils during this period (there was a peak of 2142 in 2019). Survey work during April and May revealed 41 breeding territories and an additional four singing males encountered on only one visit; the total number of territorial males was up on the 42 of last year and on a 2013-2022 mean of 37.2 (there was a high of 50 in 2016 and a low of 28 in 2013 and 2014).

The total number of Meadow Pipit bird-days logged each month, along with the monthly maximum. Counts from 2020 to 2022 are included for comparison.

	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
2023	966	1559	1085	1008	1201	1606	1770	1816	115
2022	1319	1076	814	689	1168	1300	1810	1419	119
2021	1477	1646	1240	1014	1243	1761	2614	1607	121
2020	1285	1888	1393	1402	1575	2338	3942	1229	106
2023	94	138	60	60	71	114	152	200	14
2022	111	74	46	36	65	80	187	220	17
2021	138	83	69	54	70	92	175	177	23
2020	111	82	75	74	79	152	293	177	19

Adults were first seen carrying food on 11th May, this five days earlier than last year and three days earlier than the 2015-2022 mean. The first fledgling was encountered on 27th May, this the earliest since birds on 15th May 2014 (the 2013-2022 first fledgling mean is 4th June, with the latest during this period on 28th June 2013). There were 18 retrapped which had been ringed in previous seasons, this compared with 19 in 2019, 14 in 2020 and 15 in both 2021 and 2022; six had survived their first winter, seven a second, two had survived at least three winters, one had survived a fourth winter, one at least a fourth and S147977, ringed as a first-summer on 23rd April 2018, was retrapped as an adult female on 27th May having survived six winters (she had worn a ring for five years, one month and five days, this short of the British record of seven years, nine months and ten days and the Skokholm record of seven years and 17 days (the latter ringed in 1968)).

As is typically the case, numbers increased in August, albeit not to the extent seen in several recent years; there were daycounts of 114 on the 20th, 113 on the 21st and 91 on the 23rd, the peak down on a 2013-2022 mean of 125.2 and on five years during this period (including all-time highs of 179 in 2017 and 205 in 2018). Chicks were still being fed at South Pond on 10th August. A total of two September daycounts in excess of 100 individuals was one fewer than recorded last year, seven fewer than in 2021 and 18 fewer than in 2020, with highs of 102 on the 9th and 152 on the 13th contributing to a bird-days total of just 1770; both the peak September daycount and the bird-days total were the lowest of the last 11 years, the former down on a 2013-2022 mean of 448.5 and on all-time highs of 1000 in 1988, 1080 in 1990 and 1353 in 2013, the latter down on a 2013-2022 mean of 3343.3 and a high during this period of 4474 in 2019. There were October highs of 200 on the 2nd, 191 on the 9th and 157 on the 12th, with the bird-days total reaching 1816 despite the fact that no more than 26 were logged on each date from the 17th; although the peak daycount was down on the 220 of last October and close to a 2013-2022 mean of 184.3, the October tally was the highest since 1994, up on a 2013-2022 mean of 1407.2. Counts on all but six November dates included just four double-figure tallies and highs of 14 on the 3rd and 12 on the 23rd; the peak was down on that logged in ten Novembers this century, a 2013-2022 mean high of 23.3 and a record 70 in 1989.

Tree Pipit *Anthus trivialis* **Corhedydd y Coed**
Uncommon although Scarce between 2004 and 2012 and more regular in autumn
Earliest 16th March 1966 (16th April 2023) **Latest** 13th October 1959 (17th September 2023)
1936-1976: 123 trapped, 2013-2021: 12 trapped, 2 retrapped

One singing at Windmill Rocks on 16th April was seven days earlier than the first of last year and

three days earlier than the 2013-2022 first bird mean; there have been 27 earlier bird-days, including four since 2013 and three very early singles in March 1966. One at Orchid Bog on the 17th and flyovers on the 18th and 22nd took the bird-days total to four, this only down on that logged in five previous Aprils (there were highs of nine in 1948, 2015 and 2017). However there were no further spring sightings, with no May record for the third year in 12; a spring bird-days total of four was thus down on a 2013-2022 mean of 5.6 and on four years during that period (the all-time highs are of 17 in 1960 and 2015, 18 in 1990 and 21 in 1987, the record spring daycount the four logged in 1938, 1970 and 1987). One at Green Heath on 25th August was 13 days later than the first of last autumn and eight days later than the 2013-2022 first of autumn mean (the earliest during this period was present on 6th August 2018, the latest on the 24th in 2022). One between North Plain and Orchid Bog on the 30th was the only other August sighting, a bird-days total of two being down on that logged in each of the last eight years and on all-time August highs of 45 in 1959, 30 in 1966, 33 in 1976 and 29 in 2018. Numbers increased in September, with three on the 2nd, one on the 3rd, four on the 5th, singles on the 6th and 8th, two on the 13th, three on the 14th and a final grounded single on the 17th; a bird-days total of 16 was up on a 2013-2022 mean of 10.5 but down on that logged in 12 previous Septembers, including highs of 39 in 1958, 37 in 1969 and 45 in 2021 (the latter included 12 on the 2nd, this matching that of 7th September 1966 and 25th August 1973 as the highest daycount in any month). The last of the year was eight days earlier than the last of 2022; there have been 137 later bird-days, including 21 in October and 26 since 2013.

Water Pipit *Anthus spinoletta* **Corhedydd y Dŵr**
Vagrant two previous records

One fed on an unusually waterlogged Home Meadow late on the morning of 3rd November; it lingered with Rock Pipits for nearly 20 minutes before heading west (RDB, GE). This was just the third for Skokholm and the first since a breeding plumaged bird on North Plain on 1st May 1994. The only other sighting was of one found feeding on the 'flooded thriftland' around the Dip on 30th October 1988 and relocated on Home Meadow the following day (this one year after the BOU officially split this species from Rock Pipit). A bird trapped on 18th July 1934 and retrapped on 16th April 1936 was considered at the time to be *A. s. spinoletta*, however this identification was retracted in the 1937 Annual Report (this record was erroneously included in the 'Birds of Wales' (2021)). The 1937 text makes no reference to one ringed on 8th October 1933, a record which should perhaps also now be considered uncertain; this stance was adopted by Betts who in the 1988 Annual Report believed the bird of that year to be a first for Skokholm.

Rock Pipit *Anthus petrosus* **Corhedydd y Graig**

Uncommon Breeder and Scarce Visitor with a high of 67 pairs (1959) and a low of 17 pairs (1983)
148 trapped, 96 retrapped, 3 resighted
1934-1976: 2667 trapped, 2010-2022: 399 trapped (including 2 pulli), 121 retrapped

There were no spring birds resembling Nordic breeding *A. p. littoralis* for a ninth consecutive year, indeed there was again no indication that the birds logged this season were anything other than the Skokholm breeders and their offspring; there are records of *A. p. littoralis* logged in seven previous years, most recently with one on 22nd March 2014. Spring survey work revealed 56 territories, this five more than mapped last year and up on a 2013-2022 mean of 45.9 (there were highs during this period of 53 in 2016 and 61 in 2017, but lows of 32 in 2013 and 34 in 2014). No inland territories were mapped this year. Male 2774584, spring trapped in July, was the only retrap from a previous year; it had survived its first winter, this mirroring the only 2022 adult retrap which was also of a first-summer. This poor adult retrap rate inspired the launch of a colour ringing project this year.

Birds were first seen provisioning chicks at the Lighthouse and along the south coast on 18th May, this seven days later than the 2016-2022 mean (the earliest during this period were feeding chicks on 3rd May 2017, the latest on 19th May 2018). For a second year running, the first fledglings of the

year were found near the Bluffs, this time on 30th May; these were three days later than the 2013-2022 mean (the earliest during this period were logged on 14th May 2014 and the latest on 10th June last year (the earliest Meadow Pipit fledglings were also in 2014)). A striking leucistic youngster was near Howard's End on 16th June (photograph above). The last adult to be seen carrying food was in Crab Bay on 6th August, this 24 days later than the last of 2022. Daycounts increased during the autumn as birds made their customary move up onto the plateau, with highs of 91 on 25th September, 88 on 28th September and 104 on 9th October; the peak autumn daycount was down on a 2013-2022 mean high of 117.4 and on that logged in six of the last ten years (there were lows during this period of 78 in 2018 and 76 in 2022, highs of 165 in 2014 and 145 in 2015, whilst a record daycount of 400 was logged in September 1934).

Chaffinch *Fringilla coelebs* **Ji-binc**
Fairly Common to Abundant listed by both Betts and Thompson as Common to Very Abundant
6 trapped
1934-1976: 288 trapped, 2013-2022: 85 trapped, 15 retrapped

Singles early on the 12th and 19th led to a March bird-days total which matched that of last year as the second lowest of the last 13 years; although Chaffinch are logged in the majority of Marches, including annually between 1955 and 1977, 1979 and 2003 and since 2011, they are becoming less common, the mean March totals for these three periods being 59.9, 15.2 and 10.4 (with 195 in 1932, 374 in 1960, 137 in 1969 and 436 in 1976 the only March totals of more than 70). One on the 16th and 17th made this the ninth of the last 13 Aprils with a record; there have been April records in 76 years, with a post-War bird-days mean of 5.8, a 2013-2022 mean of 3.9 and all-time highs of 91 in 1934 and 43 in 1981. Two on 9th October were six days later than the first ten of last autumn and 11 days later than the 2013-2022 first of autumn mean (the earliest during this period were present on 5th September 2015, this ignoring the unprecedented stay of a female between 19th May and 14th October 2019); there have been records in 30 previous Septembers, including six of the last nine. Counts on a further 14 October dates peaked at 34 on the 20th, 15 on the 23rd and 26 on the 25th; there have been higher daycounts in six Octobers this decade (the 2013-2022 mean high is 111.9), with all-time highs of 3200 in 1966 and 2000 in 1988, whilst a bird-days total of 120 was down on a 2013-2022 mean of 275.8 and a recent high of 1100 in 2018 (the latter was the highest total in any month since the 1627 of October 1993 and the 11th highest monthly total to date (there were a record 5054 in October 1966)). Bar a count of nine on the 11th, sightings on all but two November dates to the 28th were of no more than five; despite a staff presence throughout the month, a bird-days total of 62 was down on a 2013-2022 mean of 234.9 and was the second lowest to be logged during this period (the all-time highs are of 1905 in 1967, 3267 in 1968, 1171 in 1970 and 804 in 2017). A male at the Well on 1st December was the last prior to a staff departure on the 3rd.

Brambling *Fringilla montifringilla* **Pinc y Mynydd**
Uncommon although Scarce on occasion and with records in only 17 springs
Earliest 3rd October 1964 (21st October 2023) **Latest** 23rd May 2022
1954-1967: 6 trapped, 2013-2022: 5 trapped

An all-time spring bird-days total of 38, which includes six since 2018, was not added to; there have been singles in the Februarys of 1956 and 1963, 19 bird-days over nine Marches (with a high of four in 1960), 14 bird-days over nine Aprils (with a high of five in 1949) and one present on three May dates last year. One over the south coast on the morning of 21st October was seven days later than the first of last autumn and four days later than the 2013-2022 first of autumn mean (the earliest during this period was logged on 10th October 2017, whilst one on the 4th in 2020 was the only first not present until November); there have been 171 autumn bird-days earlier than the first of 2023, with 18 in 1959, 45 in 1966, 18 in 1992 and 16 since 2013. The only other autumn record was of one over with Chaffinches on 25th October; there was no November record for just the second time in 11

years. An autumn bird-days total of two was down on a 2013-2022 mean of 15.5 and on all but two years during this period (there were highs of 42 in 2017 and 41 in 2021); there have been six autumn totals up on that of 2017, all recorded between 1966 and 1975 and of 107 or more, these including highs of 1382 in 1966, 160 in 1967 and 223 in 1973 (the former including an unprecedented minimum of 800 on 22nd October, with 90 on 24th October 1971 the highest post-1966 daycount).

Common Rosefinch *Carpodacus erythrinus* **Llinos Goch**
Rare at least 30 individuals logged over 23 years, accounting for 71 bird-days
Earliest 3rd May 1970 (1st October 2023) **Latest** 12th October 1995 (6th October 2023)
2 trapped
1949-1974: 4 trapped, 2011-2022: 9 trapped, 1 retrapped

There were no spring sightings this year; there have been 11 spring birds over ten years accounting for 18 bird-days, with three since 2013 including a red male ringed on 29th May 2021 which was killed in Ireland on 5th June 2022. A first-winter netted in the Courtyard at 1530hrs on 1st October was followed by another first-winter netted at the Well one hour later (EB, RD *et al*.); this was only the third occurrence of multiple birds on the same date following two on 16th June 1992 and three on 11th October 2001. One at North Pond the following day was definitely ringed, as was one seen at North Pond and in the Courtyard on the 5th, however one in the Courtyard on the 6th was unringed and the third of the year (RD); three 2023 individuals matches the record annual totals of 1991 and 2001 (although only two were accepted by the Welsh Birds Rarities Committee, three individuals were also listed in the 1995 Annual Report; as was the case both in 2023 and in several previous years, it has been shown that ringed birds can go missing for a few days, this informing the conservative appraisal of the 1995 records). Singles in 1949 (the second for Wales), 1969, 1970 and 1974 were the only Common Rosefinch logged prior to 1989, however there have now been at least 33 individuals and 76 bird-days, including 13 individuals and 38 bird-days since 1st September 2011.

Greenfinch *Chloris chloris* **Llinos Werdd**
Uncommon or even Scarce, but recorded by both Betts and Thomson as Fairly Common or Common
1934-1976: 98 trapped, 2011-2021: 6 trapped, 1 retrapped

There were no spring records for the fifth time in 11 years; there have been 651 bird-days noted

during the first half of the year, with 73 this century and only 13 since 2013. One first seen at the Well on 22nd October was 11 days later than the first three of last autumn and five days later than the 2014-2022 first of autumn mean (there were no autumn birds in 2020, with the firsts during this period otherwise arriving between the 6th and 29th October). The only other autumn records were of one at the Well on the morning of 25th October and one chased over the Lighthouse by a Merlin on 1st December, these taking the autumn bird-days total to just three. Although historical counts have fluctuated, a 2013-2022 autumn bird-days mean of 5.3 is well down on totals which have exceeded 200 on 12 previous occasions (most recently in 2003) and on highs of 582 in 1939, 334 in 1957, 525 in 1966 and 422 in 1976 (the former including a record daycount of 300 east on 18th October). Since the nine bird-days noted in 2005, there have now been records in 15 years totalling only 122 bird-days. This significant decline is likely linked in part to the spread of trichomonosis, a disease caused by the protozoan parasite *Trichomonas gallinae* which led to a 59% drop in the British population in just ten years (Massimino *et al*., 2017).

Linnet *Linaria cannabina* **Llinos**
Common bred in 1929, 1997 and 1998
8 trapped
1936-1975: 63 trapped, 2011-2022: 53 trapped

Sightings on seven March dates included a high of just six on the 19th; a bird-days total of 19 was down on each of the last four Marches but close to a 2013-2022 mean of 22.5 (there was a high during this period of 51 in 2021, this down on five previous years). As is typically the case, spring counts peaked in April, with sightings on all but three dates, seven daycounts of at least double-figures (six last year) and highs of 121 on the 16th, 40 on the 17th and 14 on the 18th which took the bird-days total to 298; the peak daycount was a new spring record, up on the 68 of 14th April last year, however the total was down on April highs of 333 in 1960 and 326 in 2021 (the 2013-2022 bird-days mean is 179.1). Sightings on 27 May dates were all of three or less bar six on the 2nd and five on the 11th; a bird-days total of 58 more than doubled a 2013-2022 mean of 27.9, but was down on that logged in ten previous years (the May high is the 276 of 1960). Although daycounts were of no more than four, sightings on 28 June dates led to a bird-days total of 47, this up on a 2013-2022 mean of 6.9 and only down on four June tallies (including a high of 67 in 1997). Similarly daycounts of up to five on 20 July dates led to a bird-days total of 42, this only down on that logged in six years between 1965 and 1997. Although males occasionally sang in May and June, there was again no indication of a breeding attempt. Four singles in August was a more typical showing. Encounters on eight September dates were all with two or less bar the 11 of the 23rd; perhaps surprisingly given the busy spring and summer, a September bird-days total of just 19 was the lowest since 2011, well down on a 2013-2022 mean of 150.4 and on all-time highs of 259 in 1994, 270 in 2015, 242 in 2018 and 212 last year. October sightings on 13 dates included highs of 46 on the 2nd, 49 on the 8th and 210 on the 12th; although the peak daycount was only down on that logged in four previous Octobers (there were highs of 250 in 1967, 239 in 2016 and 452 in 2021, the latter the highest in any month), a bird-days total of 458 was down on a 2013-2022 mean of 536.8 and on that logged in five years during this period (there were highs of 911 in 1959, 939 in 1975 and 906 in 2021). Records on six November dates included 23 on the 11th, 14 on the 16th and one on the 21st which was the last of the year; the peak daycount and a bird-days total of 43 were down on respective 2013-2022 means of 29.7 and 55.0 (an all-time daycount high of 113 in 2016 led to a record total of 188).

Lesser Redpoll *Acanthis cabaret* **Llinos Bengoch Leiaf**
Uncommon recorded by both Betts and Thompson as Scarce
3 trapped
1950-1976: 16 trapped, 2013-2020: 21 trapped, 1 retrapped

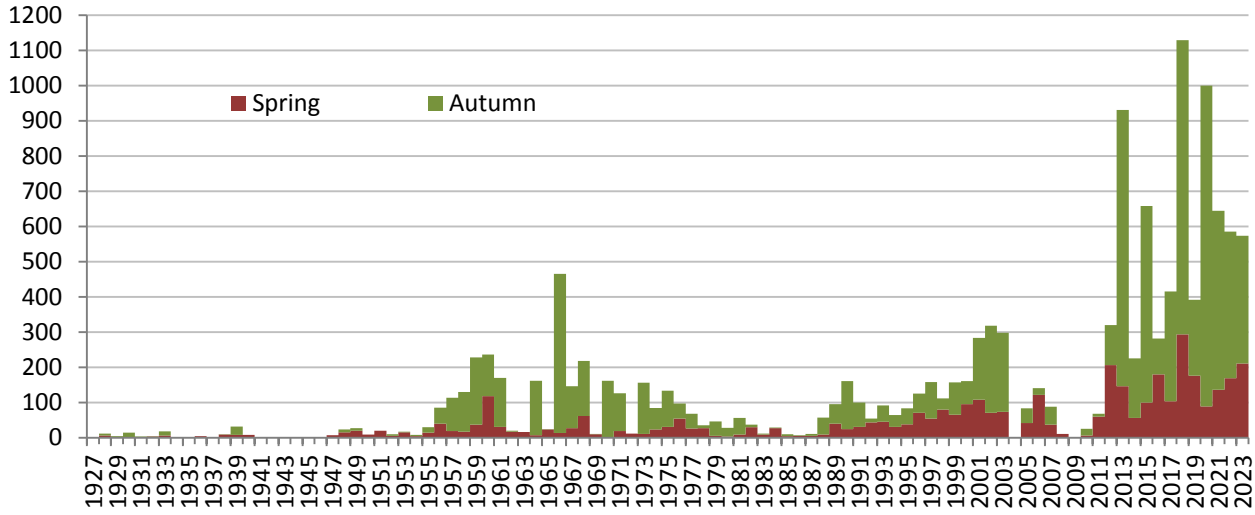
One at the Farm on 7th April was ten days earlier than the 2013-2022 first bird mean; singles in the

Marches of 2002, 2003 and 2022 are the only earlier records. There were no further April sightings, the all-time tally rising to 58, 32 of which have been since 2014. The vast majority of May records were of flyovers, with sightings on eight dates peaking at three on the 13th when two Lessers were ringed (a third was ringed on the 31st); a May bird-days total of 11 was only down on the 29 of 2002, 24 of 2013, 54 of 2016, 16 of 2018 and 20 of 2021. Intriguingly one seen each day between the 15th and 21st June was ringed; it was not retrapped to confirm if it was one of those ringed in May. A June bird-days total of seven was only down on the ten of 1981 and took the all-time total for this month to 51, 23 of which have been since 2013. A flyover on the 20th took the all-time September bird-days total to 80, 41 of which have been since 2013. Flyovers on the 8th, 12th and 21st took the all-time October bird-days total to 209, this including 43 in 1959 and 67 since 2013. Of the 690 bird-days now recorded since the first four in 1950, 346 have occurred in spring (including 187 since 2013) and 344 have occurred in autumn (including 134 since 2013). The highest daycounts are of 17 in October 1959 and September 1972, 21 in May 2016 and 16 in October 2017.

Goldfinch *Carduelis carduelis* **Nico**
Common but recorded by both Betts and Thomson as Fairly Common
27 trapped
1947-1976: 68 trapped, 2011-2022: 222 trapped, 5 retrapped, 3 controls

One in the Courtyard on 25th March was four days later than the 2013-2022 first bird mean. One on the 27th was the only other March sighting, a bird-days total of two the lowest since 2015. Although sightings on 24 April dates were of no more than six to the 15th, subsequent highs of 37 on the 16th, 11 on the 20th and 21 on the 25th took the bird-days total to 134; both the peak daycount and the total were April records, both topping those of 2018 when a daycount of 21 took the total to 116. May proved more typical, with sightings on 22 dates peaking at seven on the 2nd and eight on the 13th; the peak May daycount was close to a 2013-2022 mean of 10.2, whilst a bird-days total of 65 was close to a mean of 59.6 logged during the same period (the May daycount highs are the 16 of 2013 and the 23 of 2018, the bird-day highs the 91 of 2013, 113 of 2016 and 136 of 2018). Up to two on seven dates to the 22nd took the all-time June bird-days total to 275, 163 of which have been since 2012. A spring bird-days total of 211 was only down on the 293 of 2018.

The total number of Goldfinch bird-days logged in each spring and autumn since 1927.



An all-time July bird-days total of 57 (46 of which have been since 2011) was not added to, however sightings of up to two adults and a juvenile on each date between the 20th and 24th led to an August total of 11, this only down on the 18 of 2015 and taking the all-time August tally to 49. September proved disappointing, with four over on the 9th and singles on the 26th, 28th and 29th the only birds logged; a September bird-days total of seven was down on a 2013-2022 mean of 108.5 and on all but

one year during this period (there was a low of six in 2019 and all-time highs of 237 in 2018, 328 in 2020 and 251 last year). Numbers increased in October, with sightings on 22 dates and highs of 24 on the 9th, 184 on the 12th, 14 on the 13th and 40 on the 21st taking the bird-days total to 333; the only higher daycounts in any month are the 285 of 14th October 2013 and the 279 of 10th October 2021, however the total was close to a 2013-2022 October mean of 323.2 (this period including the four highest October tallies and a record 746 bird-days in 2013). November saw four on the 3rd, singles on three dates and two on the 24th and 29th which were the last of the year; a November bird-days total of just 11 was well down on a 2013-2022 mean of 40.5 and down on all but one year during this period (there was an all-time high of 138 in 2015). Nevertheless an autumn bird-days total of 362 was the eighth highest to date, albeit being down on a 2013-2022 mean of 481.3 and on six years during this period (there were all-time highs of 785 in 2013, 836 in 2018 and 911 in 2020).

Siskin *Spinus spinus* **Pila Gwyrdd**
Uncommon sometimes Scarce and with records in just 14 springs
4 trapped
1959-1975: 37 trapped, 2017-2021: 7 trapped

There were no spring sightings for the first time in six years; along with a single on 24th January 1998, there have been eight March bird-days (seven of which were in 2022), 31 April bird-days (including 26 since 2012 and 13 in 2021), nine May bird-days (with seven since 2012) and four June bird-days. Singles in 1977, 1986 and 2015 remain the only July records and there is yet to be an August Siskin.

Three on 2nd October were the first of the autumn, these eight days earlier than the first six of last autumn but eight days later than the 2013-2022 first of autumn mean; there have been nine bird-days on 1st October and 332 in 15 Septembers (with 63 in 1997, 111 in 2015 and 74 in 2020). Daily sightings between the 7th and 25th included highs of 28 on the 8th, 80 on the 12th, 16 on the 15th and 40 on the 16th, whilst a further single on the 28th and three on the 30th (one of which was roosting in Bracken above Crab Bay) took the October total to 262; there have been higher daycounts in five years (all logged in October), with 98 last year and highs of 100 in 1959, 1200 on the 26th and 800 on the 27th (all grounded by fog) in 1988 and 180 in 1993. The October bird-days total was up on a 2013-2022 mean of 68.9 and only down on highs of 2156 in 1988, 405 in 1993 and 270 last year (the next highest total is the 210 of 1975). The only November sightings were of one on the 3rd, three on the 11th and a male in the Courtyard on the 26th which was the last of the year; there have now been 209 November bird-days, including 126 since 2015. Siskin have now been noted in 44 years, including 1949 when the first 11 were logged; the most recent year without a record is 2014.

Snow Bunting *Plectrophenax nivalis* **Bras yr Eira**
Scarce but only eight records in the first half of the year
Earliest 17th September 1999 (31st October 2023) **Latest** 9th June 2022
1967-1968: 6 trapped, 2014: 1 trapped

Two found above Little Bay on 31st October were 16 days later than the first of last autumn and 23 days later than the first of 2021 (GE); there have been 282 autumn bird-days earlier than the first of this year, including 34 in September. The only other sighting was of one in flight between the Cutting and Frank's Point on 10th November (RDB); this was the 127th bird-day to be logged in this month, 41 of which were in 1967 and 57 of which were in 1968. An autumn bird-days total of three matched a 2013-2022 mean of 3.1 but was down on four years this decade and highs during the period of seven in 2014 and 2021 and eight in 2019; there are seven autumn totals higher than that of 2019, with peaks of 44 in 1961, 63 in 1967, 128 in 1968 and 26 in 1975, whilst the record daycounts are of 17 in 1961 and 15 in 1967 (but with no more than four after 1968). The only records during the first half of the year are of a young male on 28th March 1932, a male on the 10th and 11th March 1958, a male daily between the 22nd and 25th April 1959 and further singles on 22nd March 1969, 29th March 1981, 31st January and 2nd February 1998, 17th March 2006 and 9th June last year.

Reed Bunting *Emberiza schoeniclus* **Bras y Cyrs**
Scarce Breeder and Scarce Visitor bred in 1960, in most years 1967-1980 and since 2005
1949-1976: 163 trapped, 2010-2022: 104 trapped, 173 retrapped, 6 controls

A female in the Courtyard on 18th March was the only record during the first half of the year; there was no breeding attempt for the first time in 19 years. The two pairs present last year fledged a total of three young, this matching a 2013-2022 mean productivity figure of 1.48 fledglings per pair but down on that recorded in five years between 2013 and 2018 (when productivity averaged 2.00 fledglings per pair). A mean of 4.9 pairs bred annually between 2013 and 2022, with peaks of seven in 2015, 2016 and 2017, higher numbers and higher productivity perhaps enough to sustain a population which departed the Island each winter. This year's extinction was seemingly mirrored on Skomer Island where the last two pairs were also reportedly lost (although birds were regularly present during the breeding season). Prior to the most recent Skokholm colonisation, Reed Bunting were recorded in small numbers each spring, with six bird-days in 2003, nine in 2002, five in 2001

and six in 2000, the 2023 single matching that logged in 1999. Similarly this was considered a scarce autumn visitor in the non-breeding years, with low counts most Octobers; such small scale arrivals often proved difficult to detect when a breeding population had established, however they were again obvious this year. One around the Farm on the 2nd was the only September record, this followed by singles on the 9th, 20th and 25th October and on the 11th, 22nd, 24th, 25th and 26th November; intriguingly the male at North Pond on the 25th was ringed. An autumn bird-days total of nine was unsurprisingly down on a 2013-2022 mean of 314.9, but was similar to a 1994-2003 mean of 6.2 (these all years without breeding).

Bobolink *Dolichonyx oryzivorus* **Bobolinc**
Vagrant only one previous record

A vocal first-winter found near North Pond on 21st September was the first British record since 2019 and the second for Skokholm following a first-winter on the 13th and 14th October 1999 (RDB *et al*.).

Although this species makes one of the longest migrations of any New World passerine, this somewhere in the region of 10,000km, there have only been 33 previous British records and just three previous Welsh records (with singles at Eglwys Nunydd Reservoir, Gower on 20th September 2010 and on Skomer Island, Pembrokeshire between the 8th and 11th October 2010, these in addition to the 1999 Skokholm bird). This year's Bobolink fed around the North Pond iris beds before relocating to the sedges father north; it was not seen the following day. As discussed in the Alder Flycatcher section above, the September arrival of three North American species with Hurricane Lee occurred as part of an unprecedented influx into Britain, however this was not the first time that two North American passerines had occurred on the same day on Skokholm; a Rose-breasted Grosbeak and a Baltimore Oriole were around the trapping area on 5th October 1967, as were a Swainson's Thrush and a Red-eyed Vireo nine days later! Sadly only the latter two species have been seen here again (in June 2015 and October 2019 respectively).

The Non-avian Report

The 2023 sightings are documented systematically below and, where appropriate, compared with the digitised historical records, Thompson (2007) and observations made since 2012.

Invertebrates

Dragonflies

Skokholm's three largest water bodies are relatively exposed and, in most years, dry up during the warm summer months; Winter and South Ponds are the first to do so, whilst in some years a small wet scrape may remain at North Pond throughout the year. North Pond was empty from 12th July to 29th September this year, whilst Orchid Bog and the small Wheelhouse and Courtyard Ponds again held water throughout the season. On 7th July single 'blue' damselflies were observed in South Haven and at Crab Bay; neither was seen sufficiently well to allow for an identification. Both Blue-tailed and Common Blue Damselfly have been encountered irregularly over the last decade.

Lesser Emperor *Anax parthenope* (Sélys, 1839)
A dragonfly encountered whilst driving the UTV to the Lighthouse during the evening of 4th August was soon identified as a Lesser Emperor. It continued patrolling the Bracken edge in pursuit of a Red Admiral, quickly catching the ill-fated butterfly; staff were amazed as they watched the dragonfly remove the head from its prey, perform a black-flip and feed whilst lying upside-down. This is just a third for Skokholm following singles on 2nd June 2016 and 9th August 2020.

Remarkably a second sighting occurred on 26th August, with one watched feeding along the same stretch of the Lighthouse Track. It is difficult to say whether this was the same insect, which had thus been unobserved for 21 days, or another. Adult dragonflies typically have a one to two week life span, but can live up to six or even eight weeks (British Dragonfly Society, 2023). That it was feeding along the same stretch of track may just be an indication of how favourable that area is for hunting, indeed several Red-veined Darter have been found at this site in the past.

Emperor Dragonfly *Anax imperator* (Leach, 1815)
A female ovipositing at Orchid Bog on 8th July and a late single hunting above the Lime Kiln on 26th September were the only records. With the latter occurring at the end of this species' typical flight season, and with the prevailing weather systems depositing unprecedented numbers of North American passerines in the UK, care was taken to rule out Green Darner *A. junius*. An additional insect, thought to be an Emperor Dragonfly but not seen sufficiently well, was logged on 25th September. An annual total of two was down on the 11 of last year.

Migrant Hawker *Aeshna mixta* (Latreille, 1805)
The first was at Crab Bay on 24th July, this two days earlier than the first of 2022 and just the second July record in at least a decade. There followed two further July singles. One was trapped in the Well Heligoland on 25th August, whilst one in the Quarry on 3rd September was the last of the year. This species was probably responsible for an additional 16 dragonfly-days (one in June, eight in July and seven in September), however views were often brief and the identifications were not confirmed.

Red-veined Darter *Sympetrum fonscolombii* (Sélys, 1840)
A male feeding in the warm shelter of Migration Rocks on 28th May was the only record. With the exception of 2020, this species has been logged annually since the first in 2013, whilst breeding pairs were encountered in 2015, 2017 and 2019.

Common Darter *Sympetrum striolatum* (Charpentier, 1840)
One found along the Lighthouse Track on 24th August was the only sighting. This species has been observed in eight of the last 11 years, whilst historically it was one of the most common species of Odonata on Skokholm; an impressive 923 were logged between July and September 1948 and there were records of breeding in 1956 and 1997. The wings of what was believed to be a Darter were protruding from the bill of a Moorhen at Orchid Bog on 7th June, whilst further unidentified Darters were logged on 13th June and 5th September.

Moths

Whilst some Skokholm moth records date back to 1910, there are several gaps in the historical database which can make contextualising recent findings a challenge. Nevertheless moths have now been studied relatively consistently since 2013, the last 11 years becoming the longest period of regular moth monitoring in the Island's history. There were 17 additions to the Island list this year: **Orange-tipped Nest-moth**, **Brindled Buff**, **Triangle Plume**, **Green Oak Tortrix**, **Dark-barred Straw**, **Silver-striped Marble**, **Drinker**, **Haworth's Pug**, **Treble-bar**, **Canary-shouldered Thorn**, **Alder Moth**, **Straw Underwing** and **Cream-bordered Green Pea** (plus four immigrant species listed below). There were 46 Island scarcities (moths occurring in no more than five previous years), amongst which were just the second ever records of **Tawny Pinion**, **Radford's Flame-shoulder**, **Least Yellow Underwing** and **Kent Black Arches**. The first two **Satin Wave** since 1996, the first **White-spotted Pug** since 1937 and the first **Mouse Moth** and **Brown Rustic** since 1960 were also logged.

It was another exciting year for sightings of rare immigrants. **Banded Sable** was a first for Skokholm and fourth for Pembrokeshire, **Toadflax Pearl** a first for Pembrokeshire and fourth for Wales, **Old World Webworm** a second for Pembrokeshire and third for Wales, **Beautiful Marbled** a first for

Pembrokeshire and second for Wales and **Radford's Flame-shoulder** a third for both Pembrokeshire and Wales. **Vestal** numbers matched last year as the third highest ever, there were two **Olive-tree Pearl**, a record 19 **White-speck**, a **Bordered Straw**, a record 12 **Scarce Bordered Straw** and four **Delicate**. There were mixed fortunes for the regular immigrants; it was a record year for **Convolvulus Hawk-moth** (up 633% on 2022) and **Pearly Underwing** (up 295%), the second best showing for **Dark Sword-grass** (up 271%) and the third best year for **Silver Y** (up 551%), whilst **Rush Veneer** were down 91% on a record 2022 and sightings of **Hummingbird Hawk-moth** dropped by 37%.

Two bucket traps, built and donated by Nick Davison, broadened the moth trapping possibilities this season. The traps use LED strips as a light lure and are powered by single USB power banks, this resulting in very portable traps with power demands significantly lower than the mains powered Skinner Trap. Multiple power banks can be charged on sunny days and saved for periods of poor weather, times when running the mains trap would impact the electricity supply in the buildings.

The 2023 records listed here are the result of both nocturnal trapping and ad hoc field observations. Trapping was carried out using a solar mains powered Skinner Trap situated at various sheltered sites around the Farm (sites reachable using a 50 metre extension cable) and the two LED bucket traps (one deployed at sites around the Farm and one at the Lighthouse). Chris and Mary Perrins ran the moth trap during their June visit and additional trapping was carried out by visiting moth enthusiasts Graham Farmer (using an actinic Heath Trap) and Steve Roberts (using an actinic Skinner Trap). Within the following text 'Nationally Scarce' refers to a species which occurs in between 16 and 100 hectads (10x10km squares) in Great Britain.

The following codes have been used where appropriate: **I** Immigrant, **S** Nationally Scarce and **N** New to Skokholm.

3.001 **Orange Swift** *Triodia sylvina* (Linnaeus, 1761)
Two trapped at the Well on 28th August were the first of the year. A further two were taken in September and four observed after dark included a female along the Lighthouse Track on 17th September which was the last. There were five moth-days in 2022 and a recent peak of 25 in 2018.

3.002 **Common Swift** *Korscheltellus lupulina* (Linnaeus, 1758)
A total of 63 trapped between 14th May and 19th June included peak catches of 11 on 28th May and ten on 3rd June. Three additional field sightings in May took the 2023 tally to 66; there were 89 moth-days last year, this the most to be logged in recent history.

3.003 **Map-winged Swift** *Korscheltellus fusconebulosa* (De Geer, 1778)
A catch of eight on 17th June were the first of the season. A further 67 came to light during the remainder of the month, with highs of 28 at North Haven on the 19th and 29 at the same location on

the 23rd. Three at the Well on the 24th were the last of the year. A moth-days total of 75 is an excellent showing, indeed there were only 12 in 2022.

4.001 **Sorrel Pigmy** *Enteucha acetosae* (Stainton, 1854) S
This Nationally Scarce Nepticulid, the smallest moth in the world, was first recorded on Skokholm in 2014 when its distinctive larval mines were found on the leaves of Common Sorrel *Rumex acetosa* growing near North Pond Hide and in a Manx Shearwater census plot adjacent to the pond. The mines have been encountered every year since. Whilst there was no targeted survey this year, a total of eight vacated mines were on two leaves along North Pond Wall on 25th June and a further two were found the following day.

11.012 **Common Bagworm** *Psyche casta* (Pallas, 1767)
Two larval cases were found on Table Rock on 15th May, this a new site for records of this species but the only sighting this season. No adults were encountered; the apterous case-bearing females crawl to higher positions, such as up the walls of the Lighthouse Garage and surrounding rock, whilst males fly in warm sunshine in search of them. Males have been observed in six of the last 11 years.

12.032 **Orange-tipped Nest-moth** *Tinea semifulvella* (Haworth, 1828) N
A stunning but very flighty individual taken from the Lighthouse moth trap on 9th September was an addition to the Skokholm list. The larvae of this species feed on woollen materials and bird nests.

12.036 **Skin Moth** *Monopis laevigella* ([Denis & Schiffermüller], 1775)
One trapped on 10th June was the only record of the year and just the fourth sighting of this species on Skokholm following records in 2017, 2019 and 2021.

12.039 **Pale-backed Detritus Moth** *Monopis crocicapitella* (Clemens, 1859)
One trapped on 30th May and one in the Wheelhouse on 22nd September were the only sightings. This remains a scarcely encountered species on Skokholm, with two logged last year and 2014, 2016 and 2019 being the only other years with a record.

18.001 **Diamond-back Moth** *Plutella xylostella* (Linnaeus, 1758) I
It was a somewhat better year for records of this tiny migrant on Skokholm. Two trapped on 6th May were the first. A further three were taken from the moth trap during May and June, whilst a total of 48 observed by day included a peak of 15 on 18th June and one on 13th July which was the last, this taking the 2023 moth-days total to 53. The number arriving to the UK fluctuates widely from year to year; on Skokholm a record tally of 4425 was logged in 2016, however there were just two in 2022.

19.010 **Fleabane Moth** *Digitivalva pulicariae* (Klimesch, 1956)
One found on 16th April was just a third for Skokholm following individuals on 20th July 2014 and 22nd July 2017.

28.009 **White-shouldered House-moth** *Endrosis sarcitrella* (Linnaeus, 1758)
One on 23rd April was just a second for Skokholm following one encountered on 21st July 2014. The larvae of this common mainland moth feed on dead plant and animal matter.

28.010 **Brown House Moth** *Hoffmanophila pseudospretella* (Stainton, 1849)
A total of five were trapped between 27th June and 7th September, whilst one was found in the Angel Loft on 25th May and a further three were observed during June. This species has only been noted in seven of the last 11 years, although it is almost certainly overlooked.

32.017 **Brindled Buff** *Agonopterix arenella* ([Denis & Schiffermüller], 1775) **N**
One trapped on 12th September was a first for Skokholm. This is a fairly common Pembrokeshire species, the larvae of which feed on thistles and burdocks.

32.018 **Common Brindled Brown** *Agonopterix heracliana* (Linnaeus, 1758)
One attracted to light on 29th August was the only record of 2023 and the first since four were trapped in 2021. This common umbellifer feeder is probably overlooked on Skokholm, with the only other sightings being logged in 2014, 2016, 2017 and 2020.

32.031 **Hemlock Moth** *Agonopterix alstromeriana* (Clerck, 1759)
One trapped at the Farm on 9th August and another found inside Officer's Mess on 1st December were the only 2023 records. This under-recorded Skokholm species was first discovered in 2013, with the only subsequent records coming in 2014, 2015, 2019, 2020 and 2021.

32.035 **Coastal Buff** *Agonopterix yeatiana* (Fabricius, 1781)
Singletons were taken from the light trap on 10th June and on the 4th and 12th September. These are just the second, third and fourth records for Skokholm following one attracted to the light of the Ringing Hut on 12th September 2014.

32.036 **Parsnip Moth** *Depressaria radiella* (Goeze, 1783)
A total of nine adults were logged between 29th April and 16th August. Moths, usually found hibernating behind mirrors and pictures during late autumn, were notable by their absence, perhaps suggesting that it was a poor year for this species which utilises Common Hogweed *Heracleum sphondylium* as a larval foodplant; there were 26 found indoors during November last year.

35.040 **Brown Moss-moth** *Bryotropha terrella* ([Denis & Schiffermüller], 1775)
A total of four came to light during three trapping sessions between 29th July and 9th August. First discovered on the Island in 2014 when 117 were logged, there have been records in just four subsequent years, with two in 2020 the most recent.

35.130 **Coast Groundling** *Caryocolum vicinella* (Douglas, 1851) **S**
One found near the Lighthouse on 8th July was the first 2023 record of this Nationally Scarce Gelechid. Two in the Crab Bay Hide on 6th August were the only others logged. It is quite possible that this coastal specialist has a larger population than records suggest; although there were no sightings last year, a high of 16 was logged in 2016.

35.146 **Common Groundling** *Teleiopsis diffinis* (Haworth, 1828)
This common and widespread mainland species, whose larvae feed on Sheep's Sorrel *Rumex acetosella*, was first documented on Skokholm in 2014 when eight were taken from the trap. This year a total of 55 were trapped during 29 sessions between 31st May and 12th September, with six on 9th August the biggest catch.

41.002 **Common Masoner** *Blastobasis adustella* (Walsingham, 1894)
This species is a common and active mid-summer visitor to light on Skokholm, although a high percentage often depart the trap prior to being counted. A total of 139 were trapped between 25th July and 12th September, with a peak catch of 36 on 24th August, this the fourth highest tally since 2013; a record 331 were logged in 2020, but only 25 were taken last year.

44.001 **Many-plumed Moth** *Alucita hexadactyla* (Linnaeus, 1758)
One found at the Farm on the night of 9th October, feeding on rotting apples left out for migrant birds, was just a fourth for Skokholm. This follows singles in the Lighthouse Tower on 14th July 2013, in the Lighthouse Kitchen on 21st November 2016 and in the Lighthouse Living Room on 1st September 2018; it was thus the first to be found away from the Lighthouse. It is plausible that this could be a Skokholm breeding species with the larval foodplant, Honeysuckle *Lonicera* spp., being present on sections of comparatively sheltered, Rabbit-free cliff; nevertheless trapping sessions above North Haven, where Honeysuckle is at its densest, have failed to produce a specimen.

45.004 **Triangle Plume** *Platyptilia gonodactyla* ([Denis & Schiffermüller], 1775) N
A pristine second generation individual trapped at the top of Home Meadow on 29th August was a first for Skokholm and just the 16th for Pembrokeshire. The similar Goldenrod Plume was ruled out based on the shape of the first lobe, abdomen shape and the pattern of scales between the triangle and the cleft (this despite the fact that Goldenrod is abundant on Home Meadow). Triangle Plume is a moth of open grassland and waste ground where it uses Colts-foot *Tussilago farfara* as larval food.

45.037 **Dusky Plume** *Oidaematophorus lithodactyla* (Treitschke, 1833)
It was another disappointing year for records of this species, indeed one found resting on Common Fleabane *Pulicaria dysenterica* in the Well Heligoland on 10th August was the only sighting, this matching the poor showings of 2019, 2020 and 2022. The Dusky Plume was discovered on Skokholm in 2016 when a record 22 moth-days were logged.

45.044 **Common Plume** *Emmelina monodactyla* (Linnaeus, 1758)
The first was trapped at the Lighthouse on 17th September. One was taken on Home Meadow on the 22nd and two feeding on apples at the Farm on the night of 9th October were the last. This is only the third year in which there have been multiple sightings; there were six in 2021 and three in 2022.

48.001 **Nettle-tap** *Anthophila fabriciana* (Linnaeus, 1767)
The first of the year was found in Billy's Dyke on 9th May. A total of five were observed in June, there was one in August and one in September. Singles at the Farm on 24th August and 15th September were in a moth trap surrounded by nettles. Ten moth-days is an improvement on the three of 2022 but suggests that the population remains small; this diminutive nettle specialist becomes more obvious as density increases, this being particularly apparent in 2016 when 456 were logged.

49.025 **Barred Fruit-tree Tortrix** *Pandemis cerasana* (Hübner, 1786)
This common mainland species was not found on Skokholm until 2016, however it has been encountered in each year since and is seemingly established as a breeding species. A record total of

58 were trapped over 23 dates between 2nd June and 2nd October, with 18 on 1st September the peak catch; there were 20 moth-days logged last year, whilst the previous high of 39 occurred in 2021.

49.045 **Dotted Cloak** *Eana osseana* (Scopoli, 1763)
This species was recorded for the first time in 2014 when a remarkable 319 were trapped. There followed one in 2015, two in 2016, three in 2017, 17 in 2021 and nine in 2022. A total of 35 were attracted to light between 23rd June and 20th July this year, with a peak of ten on 12th July.

49.059 **Green Oak Tortrix** *Tortrix viridana* (Linnaeus, 1758) **N**
The first for Skokholm was found inside the South Haven Hide by a visitor on 10th June. The moth was incarcerated in a glasses case (the only receptacle to hand) and brought to the Farm where it was transferred to a moth pot for identification. This is a common British species which can sometimes be so abundant that the larvae completely defoliate the host species. Nationally a large number of adults were reported from novel locations in 2023, whilst four Pembrokeshire records were the first since 2020 (these including the Skokholm individual).

49.109 **Garden Straw** *Agapeta hamana* (Linnaeus, 1758)
It was a good year for encounters with this thistle feeder; a total of eight were trapped between 30th May and 12th July, whilst an additional three were found by day on 7th June. This species has been logged in just six of the last 11 years, with the 2023 tally being the second highest on record; a peak of 19, including a single catch of 14, was logged in 2014.

49.111 **Dark-barred Straw** *Eupoecilia angustana* (Hübner, 1799) **N**
A stunning individual trapped on 17th August was another addition to the Skokholm list. There are two mainland forms of this species, with the nominate occupying woodland edges and meadows where its larvae feed on Plantains *Plantago* spp. and Yarrow *Achillea millefolium*, whilst moths of the form fasciella dwell on heathland, with Heather *Calluna* spp. providing the larval food. The Skokholm individual, with its distinctly white forewing, appears to be f. fasciella (the forewing is creamy in f. angustana). This is an uncommon Pembrokeshire find, with just 66 previous records.

49.127 **Thistle Straw** *Aethes cnicana* (Westwood, 1894)
This thistle feeding species is rarely encountered on the Island, indeed one trapped on 14th June was just a sixth for Skokholm and made 2023 only the fourth year with a record. There were three in June 2016, one in June 2019 and one in June 2022.

49.139 **Black-fronted Straw** *Cochylichroa atricapitana* (Stephens, 1852)
There were 63 taken between 14th May and 7th September, this total including a peak catch of nine from Green Heath on 16th August. There were just 18 moth-days last year, whilst an all-time high of 80 was logged in 2016.

49.164 **Thyme Marble** *Celypha cespitana* (Hübner, 1817)
This species has been logged in all bar one year since its discovery in 2014. The first of the season was taken from the light trap on 30th May and a further 16 were trapped over seven June and two July sessions, these including a single on the 26th which was the last. A moth-days total of 17 was down on the 29 of 2022, this remaining the highest tally to date.

49.166 **Common Marble** *Celypha lacunana* ([Denis & Schiffermüller], 1775)
A total of 21 were attracted to light between 31st May and 5th September, with a catch of nine on 24th August this year's high. Although this is one of the commonest members of the Tortricidae to be found here, it is easily overlooked, indeed only three were observed last year.

49.167 **Silver-striped Marble** *Celypha rivulana* (Scopoli, 1763) **N**
One trapped on Home Meadow on 10th June was the first Skokholm record, the triangular mark near the tornus and its size ruling out Thyme Marble. There are 27 confirmed records for Pembrokeshire.

49.193 **Marsh Marble** *Endothenia quadrimaculana* (Haworth, 1811)
One taken on 23rd June was just a second for Skokholm following one trapped on 1st August 2014.

49.194 **Common Lance** *Bactra lancealana* (Hübner, 1799)
Two trapped at the Well on 28th August were the first since two in July 2017. Singles on the 1st and 5th June 2016 are the only other records of this rush eating species.

49.261 **Tree Mallow Tortrix** *Crocidosema plebejana* (Zeller, 1847)
One trapped at the Lighthouse on 10th September was a fourth for Skokholm following the three logged last year. The larvae feed on Tree Mallow *Lavatera maritima*, a plant normally restricted to inaccessible cliffs but which has recently become established in Rabbit-proof areas at the Farm.

49.265 **Hoary Tortrix** *Eucosma cana* (Haworth, 1811)
A total of 49 moth-days logged between 5th June and 25th July included a peak catch of ten on 14th

June. This is the best showing yet recorded for a species not discovered on Skokholm until 2014; there were 15 trapped last year and a previous moth-days high of 23 in 2016.

49.269 **Pied Tortrix** *Eucosma campoliliana* ([Denis & Schiffermüller], 1775)
One taken from a trap at North Haven on 19th June was the only 2023 record of this distinctive micro. A record moth-days total of 18 was logged last year.

49.285 **Thistle Root-borer** *Epiblema scutulana* ([Denis & Schiffermüller], 1775)
It was a quiet year for encounters with this species, indeed only seven were taken between 15th May and 26th August. The highest tally to date was also recorded in 2022 when 15 were logged.

49.294 **Bramble Shoot Moth** *Notocelia uddmanniana* (Linnaeus, 1758)
This species was first encountered on 27th June 2016 when one was attracted to a light trap at the Well. Two were taken in 2017, 2019 and 2022 and a single in 2021, whilst one trapped at East Bog on 15th June made this just the sixth year with a record. This is a distinctive species, an absence of earlier sightings perhaps suggesting that this Bramble feeder is a recent colonist.

52.003 **Lunar Hornet Moth** *Sesia bembeciformis* (Hübner, 1796)
This species was first discovered on Skokholm in 2020 when a vacated exuvia was found protruding from a mature Grey Willow *Salix cinerea* at the Well. A total of 12 vacated exuvia and eight adults were found that year, whilst in 2021 three piles of fresh frass at the same site suggested that live larvae were present. A total of five imagoes were encountered last year (including two in copula), along with ten vacated exuvia. That frass would be observed this year was to be expected; two fresh piles were noted on 21st May, these at the base of known host trees at the Well.

52.016 **Thrift Clearwing** *Pyropteron muscaeformis* (Esper, 1783) **S**
One at Steep Bay on 1st June was the first 2023 record of this Nationally Scarce clearwing. A further 23 were logged over the course of the month, a total which included a peak count of seven on the 9th (two of these were mating, whilst a female was ovipositing at the same site the following day). A single at Hump Head on the 21st was the last to be logged.

54.010 **Five-spot Burnet** *Zygaena trifolii* (Esper, 1783)
For a second year running, the first imago to be encountered was dead, this found at North Pond on 26th June; the first live insect was at South Pond the following day. A total of 124 moth-days were logged in July, these including a daycount high of 20 at North Pond on the 13th and three at North Pond on the 28th which were the last. For a second consecutive year, but for only the second time in 11 years, there were no August records. A 2023 tally of 126 was a small improvement on the 87

moth-days of last year (the latter the poorest total of the last decade), albeit well off recent highs of 1484 and 775 recorded in 2017 and 2018 respectively. Seven caterpillars were found near North Pond on 9th June, whilst one at East Bog on the 14th was the only other larva seen.

62.042 **Thistle Ermine** *Myelois circumvoluta* (Fourcroy, 1785)
A total of eight were attracted to light during six trapping sessions between 31st May and 23rd June. The 14 logged last year was the highest moth-days total to date, indeed the only other records are of three in 1996, two in 1997 and singles in 2015, 2016 and 2018.

62.058 **Spotted Knot-horn** *Phycitodes binaevella* (Hübner, 1814)
There were singles on the 19th, 21st and 27th June and two on 16th August. Two of the 37 previous Pembrokeshire records of this coastal species are from Skokholm (singles on 23rd June 2020 and 22nd June 2022), whilst the majority originate from Ramsey. Some authors suggest that dissection is required to confirm this species; all of the Skokholm records have been based solely on appearance.

62.077 **Rosy Tabby** *Endotricha flammealis* ([Denis & Schiffermüller], 1775)
Four trapped at the Farm on 20th July were the first of the year. A further 30 were attracted to light during two July and seven August trapping sessions, with a peak of nine on 9th August. An additional 24 August moth-days were noted in the field, these taking this year's tally to 58. There were 432 moth-days logged last year, whilst a recent high of 2666 was recorded in 2021 when a minimum of 1000 moths were along the Lighthouse Track on one night alone.

63.005 **Straw-barred Pearl** *Pyrausta despicata* (Scopoli, 1763)
One taken from the trap at the Lighthouse on 7th September was just a fifth for Skokholm. Four were logged over four August dates in 2020, this year thus only the second with a record. Given that the larvae feed on plantains, it is plausible that this could be an under-recorded rare Skokholm breeder.

63.025 **Small Magpie** *Anania hortulata* (Linnaeus, 1758)
One attracted to light on 30th May was the first. A further five were taken from the trap, including a late insect at the Farm on 7th October. All diurnal records came from around the Farm, with one in the Shop on 30th May, 11 in June and five in July. An annual total of 23 moth-days was up on the 19 of last year, but down on recent highs of 79 and 50 logged in 2014 and 2015 respectively. Small Magpie larvae primarily use Common Nettle *Urtica dioica* as a foodplant during August and September, a plant which the Rabbits often decimate in late summer when other resources run low.

63.031 **Rusty-dot Pearl** *Udea ferrugalis* (Hübner, 1796)
It was another good year for records of this regular immigrant. The first was taken from the light

trap on 24th May. A further 31 were trapped during the season, with a peak of 14 on 17th September and one on 25th October the last of the year. Field observations resulted in an additional 23 moth-days in September, 41 in October (11 feeding on rotting apples after dark on the 9th contributing to a daycount high of 13) and one, attracted to a lit window, on the night of 21st November. An annual total of 97 moth-days was the second highest to date; there were 90 last year, whilst a high of 576 moth-days in 2014 included a daycount of at least 150 flushed from vegetation above North Haven.

63.047 **Banded Sable** *Spoladea recurvalis* (Fabricius, 1775) **I N**
A fine example trapped on 12th October was a first for Skokholm and a fourth for Pembrokeshire. Nearby Skomer Island holds two of the three previous county records, all of which were recorded in 2011. Mainly found in the tropics, the first British records of this scarce migrant were documented in 1951; it has since been recorded as far north as Scotland.

63.048 **Olive-tree Pearl** *Palpita vitrealis* (Rossi, 1794) **I**
One found by day on 7th October (on Wall Rock) and another feeding on apples after dark two days later (at the Farm) represent just the seventh and eighth records for Skokholm. A year total of two matches the record showing of 2018. Singles in 2013, 2017, 2019 and 2022 are the only other Skokholm records of this uncommon migrant from southern Europe, whilst the Pembrokeshire total currently stands at 23 (including the first in 2001).

63.050 **Long-legged China-mark** *Dolicharthria punctalis* ([Denis & Schiffermüller], 1775) **S**
Although first noted in 1998, this species was not documented again until 2013, however it has since been recorded annually. The first of the year was trapped at the Farm on 20th June and a further five came to light during the remainder of the summer; one trapped behind the Wheelhouse on 25th July was the last. A singleton found at the Sugarloaf on 5th July was the only field record, taking the 2023 moth-days total to seven. There were three logged last year, whilst a record 26 were documented in 2021. This distinctive, Nationally Scarce species is distributed along the southerly coasts of Britain, the larvae feeding on decaying plant matter (on Skokholm probably that of trefoils and plantains).

63.051 **Toadflax Pearl** *Antigastra catalaunalis* (Duponchel, 1833) **I N**
This smart micro is more charismatically known as the Spanish Dot. One flushed from wet vegetation at the Bluffs and swiftly potted on 13th October was a first for Pembrokeshire. This is a rare migrant from the tropics, the Skokholm moth possibly only the fourth for Wales; the first Welsh record came

from Glamorganshire, whilst this species has also been encountered in Carmarthenshire and Montgomeryshire.

63.052 **Rush Veneer** *Nomophila noctuella* ([Denis & Schiffermüller], 1775) **I**
One in the Courtyard on 26th April was the first sighting of this familiar immigrant. One in Billy's Dyke on 26th June was the first of 21 to be trapped during the season and two on Home Meadow on 20th October were the last; no catch exceeded three. Field records contributed a further 19 moth-days, 11 of which occurred in September, although the peak daycount of four was on 25th August. One on 9th October was the last field sighting of the year, taking the 2023 moth-days total to 41. A record 474 moth-days were logged last year, whilst the 236 of 2016 is the next highest tally.

63.061 **Old World Webworm** *Hellula undalis* (Fabricius, 1781) **I N**
The first for Skokholm, second for Pembrokeshire and third for Wales was taken from a light trap outside of the Wheelhouse Heligoland on 29th September; the only other county record was found in 1987 and the only other Welsh record trapped in Glamorgan in 2011. This is a rare immigrant species from the tropics and southern Europe, with the first British record coming from Devon in 1967.

63.066 **Brown-spot Grey** *Scoparia pyralella* ([Denis & Schiffermüller], 1775)
Previously known as the Meadow Grey, this distinctive micro is regularly encountered on the Island and is often conspicuous amongst Bracken during spring seabird monitoring. Four trapped on 27th

May were the first and a further 245 came to light over four May and 16 June dates (including one in Billy's Dyke on the 22nd which was the last). One on 31st May was the only field record this year.

63.067 **Tawny Grey** *Eudonia lacustrata* (Panzer, 1804)
Two trapped on 22nd June was just a third record for Skokholm following singles in 2016 and 2018.

63.069 **Narrow-winged Grey** *Eudonia angustea* (Curtis, 1827)
Two taken on 24th August were the first. A further three were trapped in August, there were 44 in September (including a record catch of 19 on Home Meadow on the 9th) and three in October (with one on the 16th the last). A moth-days total of 52 is the highest to date, superseding the 17 of 2022.

63.071 **Coast Grey** *Eudonia lineola* (Curtis, 1827) **S**
This lichen feeding, coastal specialist is Nationally Scarce and typically encountered only infrequently on Skokholm. A total of 20 were taken from the trap between 16th June and 24th August, with a peak catch of five on 25th July; this was the second highest tally on record, only down on the 27 of 2014.

63.075 **Pallid Grey** *Eudonia pallida* (Curtis, 1827)
A total of 18 taken from the trap between 5th September and 9th October included a peak catch of 12 on 7th September. There is just one previous Skokholm record, this of a singleton trapped on 27th August 2019. This usually distinctive species, the palest of the Scopariinae, is widely distributed on the British mainland where it tends to inhabit damp areas such as marshes and fens. It is not common in Pembrokeshire, whilst on Skokholm it may be under-recorded; specimens could be discounted as worn individuals of the other, more abundant, species of this subfamily.

63.080 **Garden Grass-moth** *Chrysoteuchia culmella* (Linnaeus, 1758)
A total of 114 were trapped between 10th June and 20th July, with highs of 16 on 14th June and 13 on 23rd June; there were 80 trapped last year. This Crambid is easily disturbed during the day, although it is hugely under-recorded in the majority of years.

63.088 **Satin Grass-moth** *Crambus perlella* (Scopoli, 1763)
One trapped at the Farm on 10th July was the first since 2017 when five moth-days were logged. The only other record is of a single in 2014, 2023 thus just the third year with a sighting.

63.089 **Common Grass-moth** *Agriphila tristella* ([Denis & Schiffermüller], 1775)
Singles taken on the 7th, 9th and 24th August were the only records this year. There was just one in 2022, whilst a recent peak of 26 moth-days was recorded in 2017. Although common across much of the British Isles, this species is infrequently encountered in the Skokholm light trap.

63.093 **Straw Grass-moth** *Agriphila straminella* ([Denis & Schiffermüller], 1775)
A total of six were trapped during three sessions between the 8th and 24th August. One encountered last year was the first since 2020, indeed this species has only been recorded in seven further years, all but one of which were in the 21st century.

63.095 **Chevron Grass-moth** *Agriphila geniculea* (Haworth, 1811)
One trapped on Green Heath on 16th August was the first. A further 35 came to light, with a peak catch of 11 on 9th September and one on 15th September which was the last of the year. A total of 36 moth-days was an improvement on the four of 2022, albeit half the Skokholm record of 75 logged in 2014.

66.010 **Drinker** *Euthrix potatoria* (Linnaeus, 1758) **N**
The first for Skokholm was attracted to the illuminated walls of the Lighthouse during the murky evening of 9th August. It was caught and potted, this allowing it to be confirmed as a male with

deeply combed antennae and brownish orange forewings. Given that this large and distinctive moth is a very common mainland species, it is surprising that it has not been recorded here previously.


69.004 **Convolvulus Hawk-moth** *Agrius convolvuli* (Linnaeus, 1758) I
It was a record breaking year for encounters with this impressive moth. One found resting inside the Wheelhouse Heligoland on 27th August was the first, whilst the first to be taken from the light trap came two days later. A further nine were trapped in September and two in October; bar catches of four at the Lighthouse on 11th September and of two at the Farm on 1st October, all records were of singles. From September onwards, a tiny notch was taken from the termen of a forewing to ensure that any retraps were recognised. There were nocturnal encounters with one at the Well Heligoland on 1st September, one along the Lighthouse Track on the 11th and two (one near Sugar's Delight and one resting on a Fuchsia at the Farm) on the 12th; no notches were taken at night.



Diurnal field records comprised one at the Gap on 15th September, two inside the Well Heligoland on the 18th (these including an individual marked on the 11th), one in the Wheelhouse Heligoland on the

28th and one in the Well Heligoland on 15th October; the latter was the last of the year. A 2023 moth-days tally of 22 is the highest on record by some margin. The first for Skokholm was logged in 1940, however there were no further encounters until one was found in the Well Heligoland in August 2014. There followed one in 2015, nine in 2016, three in 2017, one in 2018, three in 2019, two in 2020, one in 2021 and three last year; this thus becomes the tenth consecutive year with a record.

69.010 **Hummingbird Hawk-moth** *Macroglossum stellatarum* (Linnaeus, 1758)
One nectaring on Red Campion along Isthmian Heath on 14th June was the first of the year. A further three June moth-days were logged, whilst there were 29 in July (including daycounts of three on the 7th, 19th and 21st and a high of five on the 25th), one in August and five in October (with one at the Ram on the 19th the last of the year). A 2023 moth-days total of 39 was down on a record 62 logged last year, but was well up on the six of 2021.

70.009 **Satin Wave** *Idaea subsericeata* (Haworth, 1809)
One trapped on Home Meadow on 10th June and another taken at East Bog on the 15th were the first encounters since a single was attracted to light on 2nd September 1996. The only other Skokholm records were logged in 1937 and 1960, this year's sightings thus the fourth and fifth Island records.

70.011 **Single-dotted Wave** *Idaea dimidiata* (Hufnagel, 1767)
Following records in 1937 and 1960, there was a 54 year absence until six were discovered in 2014. This species has been recorded annually since, although there were just three last year and a moth-days high of 16 in 2021. A total of seven were trapped between 4th July and 16th August this year, these all catches of singles bar the two taken on 3rd August.

70.016 **Riband Wave** *Idaea aversata* (Linnaeus, 1758)
The first record was of four attracted to light on Home Meadow on 10th June. A further five were logged during four June trapping sessions, taking the 2023 tally to nine. Four were trapped last year, whilst the 16 of 2021 is the highest tally on record and included a catch of seven above North Haven.

70.023 **Mullein Wave** *Scopula marginepunctata* (Goeze, 1781)
A total of 21 were taken during 13 trapping sessions between 5th June and 10th September, this the highest tally on record. The previous peak of 14 moth-days was logged last year and 13 were trapped in 2021, this perhaps suggesting that this species is increasing in abundance.

70.038 **Vestal** *Rhodometra sacraria* (Linnaeus, 1767)
Two at Twinlet on 6th September were the first of the year, whilst a further seven field sightings took the September moth-days total to nine. One caught and eaten by a Rock Pipit at Frank's Point on the 9th was the first October field sighting; further singles were in the Courtyard on the 22nd, at East Bog on the 25th and at the Knoll on the 30th, the latter the last of 2023. Light traps produced individuals at the Farm and at the Lighthouse on 10th September, at the Farm on the 18th and at the Lighthouse on 9th October. A year total of 17 moth-days matches that of 2022 as the third highest on record; there were 58 moth-days during the big influx of 2020, whilst 18 in 2016 is the next highest tally.

70.049 **Garden Carpet** *Xanthorhoe fluctuata* (Linnaeus, 1758)
Singles trapped on 3rd June and 4th September were the only records. There were five moth-days in 2016, singles in both 2019 and 2020 and four in both 2021 and 2022, these the only other records this decade. Although common and widespread in the British Isles, a preference for plants in the cabbage family is reflected in a sporadic presence on the Island.

70.051 **Red Twin-spot Carpet** *Xanthorhoe spadicearia* ([Denis & Schiffermüller], 1775)
First brood individuals were trapped on 19th May and 2nd June, whilst a second generation moth was taken on 7th August. A total of seven were recorded last year, with the only other 21st century records being of one in 2013, 14 in 2017 and one in 2021.

70.052 **Dark-barred Twin-spot Carpet** *Xanthorhoe ferrugata* (Clerck, 1759)
It was a quiet year for records of this common Skokholm carpet. A total of 34 were taken between 18th May and 13th August, with a peak catch of eight on 10th June. A total of 93 moth-days were logged last season, whilst the 101 of 2018 is the highest tally on recent record.

70.059 **Yellow Shell** *Camptogramma bilineata* (Linnaeus, 1758)
A total of 13 were attracted to light between 21st June and 27th August. Field sightings totalled 292 moth-days and comprised 122 in June (one on the 2nd was the first, this one day earlier than the first

of 2022), 123 in July, 45 in August and two in September (with a single on the 7th being the last of the year). A 2023 tally of 305 moth-days was down on the 410 of 2022.

70.061 **Common Carpet** *Epirrhoe alternata* (Müller, 1764)
Singles were trapped in Billy's Dyke on 26th June, at the Well on 6th August and at the Farm two days later. A 2023 moth-days total of three matches that of 2022 as the highest to date.

70.097 **Common Marbled Carpet** *Dysstroma truncata* (Hufnagel, 1767)
A first brood moth trapped at the Farm on 8th June was the first since a single in 2019. A second generation insect found inside the Wheelhouse Heligoland during early evening on 20th October was the only other record. A 2023 moth-days total of two matches those of 2016, 2017 and 2018, the three of autumn 2015 remaining as the current Skokholm record.

70.100 **Green Carpet** *Colostygia pectinataria* (Conch, 1781)
One found on the Wheelhouse Kitchen window on 14th September was the sole 2023 record of this less than annual species. The only other records in the database are of singles in 2000, 2013 and 2015, two in 2018 and further singles in 2019 and last year.

70.141 **Double-striped Pug** *Gymnoscelis rufifasciata* (Haworth, 1809)
Two on the 3rd and one on 9th September were the only individuals in the trap. Two more were found on the evening of 17th September, whilst a single feeding on an apple during the night of 24th October was the last. A 2023 moth-days total of six is a new record; there was just one in 2022, whilst five in 2021 was the previous high.

70.146 **Haworth's Pug** *Eupithecia haworthiata* (Doubleday, 1856) **N**
One trapped at the Farm on 27th June was an addition to the Island list. This irregular Pembrokeshire species can be difficult to identify with certainty, however the characteristic orange-brown abdomen markings were clearly present. Given that Old Man's Beard *Clematis vitalba* and cultivated clematis are used as larval foodplants, this individual was certainly a wanderer from elsewhere.

70.155 **Netted Pug** *Eupithecia venosata* (Fabricius, 1787)
Singles trapped on 13th May and on the 16th and 22nd June were the only records of this Sea Campion *Silene maritima* feeding species. There was just one seen last year, whilst a recent high of 11 moth-days was recorded in 2016.

70.160 **White-spotted Pug** *Eupithecia tripunctaria* (Herrich-Schäffer, 1852)
One taken from a trap near the Wheelhouse Pond on 25th July was a rare Skokholm find, indeed it

was the first since 1937. The moth database also includes entries for 1910 and 1912. First generation larvae use the flowers of Elder *Sambucus nigra*, second generation larvae the seeds of species including Common Ragwort *Senecio jacobaea* and Goldenrod *Solidago virgaurea*.

70.173 **Lime-speck Pug** *Eupithecia centaureata* ([Denis & Schiffermüller], 1775)
A total of 47 moth-days were logged between 13th May and 7th September. There were no large catches this year, with four on 8th August being the high. A record total of 161 moth-days was logged last year, whilst there were 106 in 2021.

70.179 **Wormwood Pug** *Eupithecia absinthiata* (Clerck, 1759)
One on 10th June was the first. A further eight came to light, with records on one date in July, three dates in August and one date in September. A moth-days total of nine was up on the four of last year, albeit well down on the 50 of 2014 when Common Ragwort (one of the larval foodplants) was plentiful around the Farm.

70.192 **Treble-bar** *Aplocera plagiata* (Linnaeus, 1758) **N**
A striking second generation individual taken from the Lighthouse trap on 9th September was a first for Skokholm. This is a fairly common Pembrokeshire species, the larvae feeding on St. John's Wort.

70.222 **Brown Silver-line** *Petrophora chlorosata* (Scopoli, 1763)
A total of 316 trapped between 27th April and 27th June included a high of 69 on Home Meadow on 10th June. Field sightings contributed a further 611 moth-days, these comprising 88 in May, 522 in June (including a peak daycount of 157 on the 7th) and one on 11th July which was the last. An annual

moth-days total of 927 is a new record, eclipsing the previous high of 386 logged last year; there were just 62 moth-days in 2021.

70.226 **Brimstone Moth** *Opisthograptis luteolata* (Linnaeus, 1758)
One was trapped at the Farm on 4th September and another was found at Rat Bay on the 15th. These are the first records since one trapped in 2021, whilst a moth-days total of two matches the record logged in both 2018 and 2019.

70.234 **Canary-shouldered Thorn** *Ennomos alniaria* (Linnaeus, 1758) N
A vibrant male trapped at the Farm on 13th September was another addition to the Island list. This is a fairly common Pembrokeshire species which typically occupies woodland and gardens where the larvae feed on deciduous trees.

70.241 **Scalloped Oak** *Crocallis elinguaria* (Linnaeus, 1758)
One taken at the Farm on 7th August was just the seventh for Skokholm; there were two in 2021 and singles in 1937, 1960, 2014 and 2016.

70.287 **Annulet** *Charissa obscurata* ([Denis & Schiffermüller], 1775)
One attracted to lights in the Lime Kiln during Storm Petrel ringing in the early hours of 9th August was the first since July 2017 when two were trapped. This species has been documented in seven further years, with three in 2014 the only other 21st century records.

71.025 **Buff-tip** *Phalera bucephala* (Linnaeus, 1758)
A total of 13 adults were trapped between 2nd June and 20th July, whilst five were observed by day over two dates in May and two dates in June. A moth-days tally of 18 adults was the second highest to date, falling four short of the record set last year. Breeding was again evident; there were 230 caterpillar-days in July (with a peak daycount of 100 on willows in the Wheelhouse Heligoland on the 29th) and 24 caterpillar-days in August.

72.017 **Vapourer** *Orgyia antiqua* (Linnaeus, 1758)
An early male at Twinlet on 21st May was the first to be seen on the wing. A lone male was observed on 31st August, whilst there were five in September and four in October (three of which were on the 2nd). An egg laden cocoon was found along Knoll Wall on 14th June, although neither the flightless female nor the larval stage were encountered for a second consecutive year.

72.019 **Buff Ermine** *Spilosoma lutea* (Hufnagel, 1766)
A total of 447 trapped between 13th May and 13th September was the second highest Skokholm tally; the 636 moth-days of 2022 is the record. There were peak catches of 29 under the Library Net on 4th June, 35 at the Ram on 22nd June and 28 at North Haven on 23rd June. An unusual second generation emergence first noted in 2019 was again recorded, with three September moth-days logged.

72.020 **White Ermine** *Spilosoma lubricipeda* (Linnaeus, 1758)
One trapped at the Farm on 24th May was the first and a further 33 came to light during the season, these including an unusually late single on 30th September. One found in the Wheelhouse on 25th June took the 2023 moth-days total to 35; a recent high of 86 moth-days was logged last year.

72.022 **Muslin Moth** *Diaphora mendica* (Clerck, 1759)
It was another good year for records of this species, with 39 males taken between the 2nd and 19th May. There was a peak catch of 11 near the Cottage on the 14th, whilst diurnal females (seldom encountered here) were observed over the Neck on 30th May and 5th June. A 2023 moth-days total of 41 is the second highest on record, only down on the 54 logged in 2016.

72.024 **Ruby Tiger** *Phragmatobia fuliginosa* (Linnaeus, 1758)
One found at North Pond on 25th May was the first, whilst the only other diurnal record came from the Farm on 10th August. A total of 12 were trapped between 20th July and 31st August, taking the 2023 moth-days total to 14; whilst this was an improvement on the six of last year, it was well off the 2015 record of 49.

72.026 **Garden Tiger** *Arctia caja* (Linnaeus, 1758)
Singles were taken from the light trap on the 26th and 29th July, whilst lone caterpillars were found on Home Meadow on 28th May, 11th June and 16th July and along the South Coast Cut on 2nd August.

This remains a scarcely encountered Skokholm breeder; only one adult was logged in both 2021 and 2022, the recent moth-days high being of just nine in 2014.

72.031 **Cinnabar** *Tyria jacobaeae* (Linnaeus, 1758)
The first adult was trapped at the Farm on 18th May. One on the Neck on 1st June was the first to be seen by day; there were a further 30 logged in June and 39 in July, with the last on the Neck on the 27th. The first five caterpillars were found on the Neck on 16th July and a minimum of 100 were at the same site on the 23rd, these contributing to a July caterpillar-days total of 123. The five caterpillars recorded in August included one on a Manx Shearwater carcase.

72.045 **Common Footman** *Eilema lurideola* (Zincken, 1817)
Although singles trapped at the Lighthouse on the 3rd and 4th September were the only encounters, a moth-days total of two matched the 2022 record. This species has been observed in just four further years, only one of which was during the 21st century.

72.046 **Scarce Footman** *Eilema complana* (Linnaeus, 1758)
One trapped at the Farm on 9th August was the only record. The first three for Skokholm were taken in 2017, whilst singles have been encountered in all bar one subsequent year (2020 drawing a blank).

72.047 **Hoary Footman** *Eilema caniola* (Hübner, 1808) **S**
A total of eight trapped between the 5th and 9th September, including a high of three on the 7th, was a record showing; all but one were taken at the Lighthouse. This Nationally Scarce moth is largely restricted to maritime habitats along the south and west coasts of England and Wales.

72.074 **Beautiful Marbled** *Eublemma purpurina* ([Denis & Schiffermüller], 1775) **I N**
A stunning individual taken on 9th September, in the light trap deployed below Emyr's Wall at the top of Home Meadow, was a second for Wales. Upon release, it flew to a nearby Buddleia where it nectared on the sheltered flower heads closest to the wall. The first British record of this rare immigrant arrived to Dorset in 2001, whilst the only other Welsh record was in Radnorshire in 2019.

73.001 **Spectacle** *Abrostola tripartita* (Hufnagel, 1766)
A total of 26 were trapped between 16th May and 13th August, with no single catch exceeding four individuals. The Skokholm record of 60 moth-days was set last year when the peak catch was the same as this year.

73.015 **Silver Y** *Autographa gamma* (Linnaeus, 1758) I
One at the Farm on 28th April was the first, whilst the first to come to light was at the Well on 6th May. A further 42 were trapped during the season, whilst field observations contributed an additional 568 moth-days. There were 203 diurnal moth-days during July and August, including a high of 48 on 21st July. Field sightings between September and November comprised both diurnal and nocturnal records, with a high of 72 on 8th September. One over the South Haven jetty on 24th November was the last of the year. An annual moth-days total of 612 was the fourth highest on record; there were 627 in 2015, 1474 in 2018 and 684 in 2020. Although this species cannot overwinter, a caterpillar was found on 7th June and pairs were in copula along the Lighthouse Track on 17th September, behind the Wheelhouse on 29th October and above Crab Bay on 30th October.

73.036 **Alder Moth** *Acronicta alni* (Linnaeus, 1767) N
One found by Professor Chris Perrins on 2nd June, resting on the lintel of the Officer's Mess door, was a first for Skokholm.

73.045 **Knot Grass** *Acronicta rumicis* (Linnaeus, 1758)
There were 50 attracted to light between 6th May and 27th August, with peak catches of five on the 7th, 8th and 9th August. Field observations contributed a further three moth-days, whilst caterpillar records in each month between June and October totalled seven. An annual moth-days total of 53 breaks the Skokholm record of 51 set last year.

73.053 **Chamomile Shark** *Cucullia chamomillae* ([Denis & Schiffermüller], 1775)
A lone insect trapped at the Well on 6th May was the only 2023 record of this scarce Skokholm species. One was also taken last year, whilst a high of four was recorded in 2019.

73.055 **Star-wort** *Cucullia asteris* ([Denis & Schiffermüller], 1775) **S**
A total of 34 came to light between 24th May and 26th June, with a peak catch of six above North Haven on 19th June. This impressive tally is the highest on record for this Nationally Scarce coastal specialist; there were 21 moth-days last year, whilst a previous high of 25 was logged in 2016.

73.064 **Mouse Moth** *Amphipyra tragopoginis* (Clerck, 1759)
One found resting inside the Ringing Hut on 7th August was just a fifth for Skokholm and the first to be found since 1960. The database also holds records from 1910, 1912 and 1937.

73.074 **Bordered Straw** *Heliothis peltigera* ([Denis & Schiffermüller], 1775) **I**
One trapped at the Farm on 14th May was the sole 2023 record of this scarce immigrant. This species has only been documented in eight further years, with three last year and a high of eight in 2015.

73.076 **Scarce Bordered Straw** *Helicoverpa armigera* (Hübner, 1808) **I**
It was a record year for sightings of this delightful immigrant. Three trapped at the Lighthouse on 9th September were the first. A further six came to light during the autumn, with two on 9th October the last. Additional nocturnal field sightings of one on Isthmian Heath on 18th September and singles on the 8th and 9th October, feeding on apples left in the Wheelhouse Heligoland for migrant birds, took the 2023 moth-days tally to 12. The previous moth-days high of four was logged last year.

73.085 **Marbled Green** *Nyctobrya muralis* (Forster, 1771)
Despite being a reasonably common maritime moth, this species remains a relatively scarce find on Skokholm. Singles were trapped on 26th July and 7th September and one was outside Chain Locker on 12th September. There were nine moth-days in 2022 and an all-time high of 18 was recorded in 2017.

73.087 **Small Mottled Willow** *Spodoptera exigua* (Hübner, 1808) I
One trapped at the Lighthouse on 9th September was the sole 2023 record. Two attracted to light last year were the first since 2018 when a record four were logged. Annual sightings between 2015 and 2017 are the only others in the Skokholm database.

73.102 **Brown Rustic** *Rusina ferruginea* (Esper, 1785)
The third Skokholm record, the first since 1960, was of a male trapped at the Farm on 8th June. This is nevertheless a common Pembrokeshire species.

73.109 **Straw Underwing** *Thalpophila matura* (Hufnagel, 1766) N
One trapped near the Farm Garage on 16th August was a first for Skokholm and just a 16th for Pembrokeshire.

73.113 **Angle Shades** *Phlogophora meticulosa* (Linnaeus, 1758)
The first was not taken until 13th May when one was in the trap at the Farm. A further 33 came to light, although no single catch exceeded five individuals. Field sightings contributed an additional 190 moth-days, 109 of which occurred in October (104 of these were found after dark, feeding on rotting apples left out for migrant birds at the Farm). A caterpillar was at the Farm on 24th July. A lone adult along the Lighthouse Track on the night of 12th November was the last, taking the 2023 moth-days total to 224; this was up on the 187 of last year and the second highest tally on record,

only down on the 297 of 2021. The lure of sugary apples has no doubt resulted in more insects being observed over the last three years.

73.114 **Small Angle Shades** *Euplexia lucipara* (Linnaeus, 1758)
It was another good year for records of this dead leaf mimic, indeed 26 were trapped between 7th May and 27th September. There were two diurnal records in July and three unusually late imagoes were feeding on apples over the nights of the 9th and 10th October. A 2023 moth-days tally of 31 was the second highest to date; there were 38 last year, whilst 24 in 2016 is the next highest total.

73.121 **Frosted Orange** *Gortyna flavago* ([Denis & Schiffermüller], 1775)
A single taken at the Lighthouse on 4th September was the first since 20th September 2020. Despite being a fairly regular Pembrokeshire find, this species has occurred on Skokholm in just five further years, with two moth-days in 2017 the highest count.

73.123 **Rosy Rustic** *Hydraecia micacea* (Esper, 1789)
A total of eight trapped between 8th August and 12th September matched the Skokholm record set in 2021; there was just one last year, whilst five in 2016 is the next highest tally.

73.131 **Flounced Rustic** *Luperina testacea* ([Denis & Schiffermüller], 1775)
It was a record year for encounters with this late-summer moth, with 30 attracted to light between 13th August and 9th September including peak catches of five on both the 24th and 29th August. There were just three trapped in 2022, whilst the previous high was the 15 moth-days of 2016.

73.134 **Large Wainscot** *Rhizedra lutosa* (Hübner, 1803)
A lone insect trapped at the Farm on 12th October was the only record this year. Seven were logged last year, whilst a record 27 moth-days were recorded in 2021. This species was first encountered in 2011 and not observed again until 2016, however it has proven an annual find during late autumn trapping sessions since 2019.

73.141 **Brown-veined Wainscot** *Archanara dissoluta* (Treitschke, 1825)
One at the Well on 6th August was the only record, but an 11th for Skokholm and just the second to be taken from a trap following one last year. This species was first discovered in 2019 when eight were observed at the Well over the nights of the 22nd and 23rd August. One was found there in 2020.

73.144 **Small Wainscot** *Denticucullus pygmina* (Haworth, 1809)
Six trapped at the Well on 28th August and two at the Farm the following night were the only records. Nevertheless the moth-days tally was the third highest to date, just one short of the nine logged in both 2017 and 2021.

73.151 **Webb's Wainscot** *Globia sparganii* (Esper, 1790) **S**
Singles taken on the 6th, 24th and 26th August were the first since 2021. This species has now been recorded in seven of the ten years since its discovery in 2014, with the 2023 moth-days total of three being a new annual high.

73.162 **Dark Arches** *Apamea monoglypha* (Hufnagel, 1766)
It was a quiet year for records of this species, indeed the moth-days tally was the second lowest of the last decade. A total of 48 were taken from light traps over 23 dates between 8th June and 9th September, with no catch exceeding seven individuals. There were 122 last year, whilst a recent high of 578 was recorded in 2017. Interesting individuals displaying the darker colouring and plainer markings of f. aethiops were noted on the 12th and 29th July and on 24th August.

73.163 **Light Arches** *Apamea lithoxylaea* ([Denis & Schiffermüller], 1775)
Nine were trapped, with the first at North Haven on 16th June and the last two at the Farm on 12th July. One found at the Garage by day on 26th June took the moth-days total to ten. Although down on both the 22 of last year and a 2021 record of 23, the 2023 tally is the third highest to date.

73.186 **Beaded Chestnut** *Agrochola lychnidis* ([Denis & Schiffermüller], 1775)
A moth-days total of nine was the highest ever Skokholm tally. There were singles trapped on 30th September and 15th October, two trapped on 9th October and five found feeding on apples at the Farm over three October nights (including one on the 22nd which was the last). A single 2021 record was the first since 1960.

73.189 **Red-line Quaker** *Leptologia lota* (Clerck, 1759)
Singles trapped on the 5th and 12th October and one found feeding on apples at the Farm on the night of 9th October led to a record moth-days total. This common mainland species was first

discovered on Skokholm in 2017 when two moth-days were logged, whilst the only other record is of a lone insect trapped on 4th October 2019.

73.192 **Brick** *Sunira circellaris* (Hufnagel, 1766)
One found at the Farm on the night of 8th October, feeding on rotting apples, was the sole 2023 sighting and the first since a single trapped on 23rd October 2020. A record three were taken in 2018, whilst 1937, 1960 and 1996 are the only other years in which there was an encounter.

73.193 **Lunar Underwing** *Omphaloscelis lunosa* (Haworth, 1809)
A total of 16 came to light, with the first two on 30th September and the last on 11th October. A single at the Farm on the night of 8th October, also feeding on apples, took the moth-days total to a disappointing 17; this was the lowest tally since three were logged in 2015 and well short of an all-time high of 133 recorded last year.

73.200 **Tawny Pinion** *Lithophane semibrunnea* (Haworth, 1809)
Nocturnal checks of apples at the Farm again proved fruitful on 8th October, with a lone Tawny Pinion being the first since 13th April 2021 and just a second for Skokholm.

73.210 **Satellite** *Eupsilia transversa* (Hufnagel, 1766)
One in Lockley's Cottage during the cold night of 8th March, which fell from around the flue of the recently lit wood burner, was just a third for Skokholm following singles trapped on the 21st and 25th October 2019. This is thus the first confirmed record of an overwintering adult.

73.233 **Black Rustic** *Aporophyla nigra* (Haworth, 1809)
Singles were taken from the light trap on the 5th and 15th October, whilst nocturnal checks of the Farm apples during nights between the 8th and 11th October produced a further four moth-days. A 2023 tally of six was a Skokholm record; the four moth-days of 1996 and 2017 is the previous high.

73.235 **Feathered Ranunculus** *Polymixis lichenea* (Hübner, 1813)
A total of 55 came to light between 9th September and 20th October, with highs of seven at the Farm and nine at the Lighthouse on 9th October. This fell short of the 81 moth-days logged last year, but was nevertheless the third highest tally to date; there were 62 in 2017.

73.236 **Black-banded** *Polymixis xanthomista* (Hübner, 1819) **S**
This Nationally Scarce species is restricted to clifftops and beaches along the southwest coasts of England and Wales. Singles were taken at the Farm on the 2nd and 10th September and at the Lighthouse on 3rd September. A moth-days total of three matches that of 2021 as the second highest of the 21st century; there was only one last year, whilst a recent high of 16 was logged in 2014.

73.237 **Large Ranunculus** *Polymixis flavicincta* ([Denis & Schiffermüller], 1775)
A total of 11 were trapped over seven dates between 12th September and 8th October, whilst one on the night of 11th October, found feeding on apples at the Farm, was the last of the season. A 2023 moth-days total of 12 was the second highest on record; there were 21 moth-days in 2021, with the next highest tally being the 11 of 2000 (there were five recorded last year).

73.242 **Clouded Drab** *Orthosia incerta* (Hufnagel, 1766)
One found inside the Wheelhouse Kitchen on 8th April made this the second consecutive year with a sighting. One in 1992 is the only other Skokholm record of this common Pembrokeshire species.

73.249 **Hebrew Character** *Orthosia gothica* (Linnaeus, 1758)
One trapped on 6th May was the only 2023 record of this scarcely encountered species. Three were taken in both 2020 and 2022, whilst seven in 2017 is the highest annual total.

73.254 **Antler Moth** *Cerapteryx graminis* (Linnaeus, 1758)
The number encountered over the last decade has followed an interesting pattern; there were two in 2014, one in 2015, three in 2016 and seven in both 2017 and 2018, the population then seemingly peaking in 2019 with 64 moth-days logged, this followed by a drop to 34 in 2020, 18 in 2021 and just two last year. One attracted to light at the Farm on 16th August was the only 2023 record and continued what appears to be a dramatic decline in numbers. An increase and subsequent decrease in the distribution of rank grassland has been seen around the Farm in recent years, a pattern probably linked to disease triggered fluctuations in Rabbit numbers; it is possible that recent ups and downs in Antler Moth catches have mirrored these habitat changes.

73.267 **Bright-line Brown-eye** *Lacanobia oleracea* (Linnaeus, 1758)
It was a record year for encounters with this common Skokholm breeder. A phenomenal 1203 were trapped between 13th May and 10th September, this including peak catches of 392 and 157 taken in a trap above North Haven on the 19th and 23rd June respectively. An additional three were logged between the 9th and 11th October, these feeding on rotting apples after dark. The 2023 total of 1206 moth-days exceeds the previous high of 807 (recorded last year) by quite some margin, whilst the next highest tally is the 311 of 1996. The availability of the larval foodplants orache *Atriplex* spp. and goosefoot *Chenopodium* spp. increases dramatically during the summer, particularly during dry seasons when they proliferate in waterless ponds.

73.271 **Broom Moth** *Ceramica pisi* (Linnaeus, 1758)
Two taken from the Well light trap on 6th May were the first of the year. A further 196 were trapped during the season, with a second generation moth at the Farm on 11th October the last. An additional late adult, feeding on apples at the Farm on the night of 8th October, took the moth-days total to 199. Five caterpillars were found during July. The moth-days total was the second highest of the last 11 years, this the third best showing of all time; there were 209 moth-days logged in 1997 and a Skokholm record of 367 in 2016.

73.276 **Campion** *Sideridis rivularis* (Fabricius, 1775)
It was a much quieter year for records of this common Skokholm breeder. A total of 286 moth-days were logged, with the first on 6th May, the last on 15th September and peak catches of 27 taken on both 8th June and 20th July. This was well below the Skokholm record of 819 moth-days logged last year, albeit more comparable to the second and third highest tallies of 378 in 1996 and 314 in 2021.

73.278 **Barrett's Marbled Coronet** *Conisania andalusica* (Staudinger, 1859) **S**
This Nationally Scarce species, which in the British Isles is very much restricted to the coasts of south Wales, southern Ireland and southwest England, is usually an infrequent find on Skokholm. However a total of 26 were trapped between the 10th and 26th June this year, of which ten were taken above North Haven on the 16th; this was a new Island record, up on the seven moth-days of 2016, indeed this species has been recorded in just six of the last 11 years.

73.281 **Lychnis** *Hadena bicruris* (Hufnagel, 1766)
Although possibly overlooked amongst larger catches of worn Campion, this year a total of five fresh imagoes were identified during four trapping sessions between 8th May and 10th June; this matched the 2022 total but was less than half the record 14 moth-days logged in 2020.

73.283 **Marbled Coronet** *Hadena confusa* (Hufnagel, 1766)
One trapped on 27th April was the first 2023 record of this breeding coastal Noctuid. A further 100 came to light, with two taken on 4th July the last of the year. A North Haven catch of 14 on 19th June was the largest. A moth-days total of 101 was down on both the 125 of 2022 and a recent high of 193 recorded in 2016 (this previously documented erroneously as 196).

73.286 **Pod Lover** *Hadena perplexa capsophila* ([Denis & Schiffermüller], 1775)
Although this coastal subspecies is typically found in Ireland and the Isle of Man, Skokholm moths appear a better match for this than any other form of Tawny Shears. A total of 465 moth-days logged between 2nd May and 10th September included peaks of 37 at the Lighthouse Smoke Room on 7th May, 36 and 59 above North Haven on the 16th and 18th June and 46 at the Well on 17th June. Although down on the 492 of last year, the 2023 tally was the second highest to date, up on the 395 moth-days logged in 2021.

73.291 **Common Wainscot** *Mythimna pallens* (Linnaeus, 1758)
A total of 16 were trapped this season, with two at the Farm on 27th August the first and a singleton at the Lighthouse on 17th September the last. This was an impressive showing for this species on Skokholm, indeed it was a new record; there were just four trapped last year, whilst the five moth-days of 1998 is the previous high.

73.293 **Smoky Wainscot** *Mythimna impura* (Hübner, 1808)
Although normally a more regular find than its close relative the Common Wainscot, singles taken on

12th July and 3rd August were the only records this year. Nine Smoky Wainscot were logged last year, whilst 39 in 2021 appears to be the highest annual count.

73.295 **Delicate** *Mythimna vitellina* (Hübner, 1808) I
It was a good autumn for records of this smart immigrant. One trapped at the Farm on 9th September was the first, singles were taken from the Lighthouse trap on the 10th and 17th September and one feeding on apples at the Farm during the night of 8th October was the last. There have now been sightings in six of the last 11 years, with a 2023 moth-days tally of four being the second highest to date; there were three logged last year and a record five in 2017.

73.296 **White-speck** *Mythimna unipuncta* (Haworth, 1809) I
It was a record year for this immigrant on Skokholm. One found at East Bog during the night of 1st August was the first and the earliest ever (one on 1st September 2017 being the next earliest). One along the Lighthouse Track during the night of 11th September was the next, whilst one taken at the Lighthouse two days later was the first to be trapped. Singles were trapped during three further September and two October sessions. October checks of the apples at the Farm produced counts of three on the 8th, four on the 9th, two on the 11th and singles on the 26th and 27th, the latter being the last of the year. A 2023 moth-days total of 19 was well up on the three of last year and a previous moth-days high of six logged in 2000.

73.300 **L-album Wainscot** *Mythimna l-album* (Linnaeus, 1767) S
Singles taken from the light trap at the Farm on 26th August and at the Lighthouse on 9th September were the only records, this becoming the second consecutive year with a sighting. This species was

first recorded in 2018 when a very worn female was found (identification and sex were confirmed via subsequent dissection), whilst there were four moth-days logged in 2019 and five in 2022.

73.301 **Shoulder-striped Wainscot** *Leucania comma* (Linnaeus, 1761)
One trapped on Home Meadow on 10th June made 2023 the second straight year with a record following a single last year. Indeed this was just a fourth for Skokholm following further singles in 1992 and 2018.

73.307 **Pearly Underwing** *Peridroma saucia* (Hübner, 1808)
A total of 30 came to light between 1st September and 11th October, with a peak catch of seven on 17th September. Field sightings contributed a further 45 October moth-days, these all of moths found feeding on apples after dark (17 on the 8th was the highest single count). A 2023 moth-days total of 75 is a phenomenal showing; the 19 logged last year was the previous record tally.

73.317 **Heart & Dart** *Agrotis exclamationis* (Linnaeus, 1758)
Although this species has been regarded of late as a scarce Skokholm resident, it appears to be increasing in abundance. There were 117 taken from the light traps between 28th May and 20th July, including highs of 18 at North Haven on 19th June and of 12 at Billy's Dyke on 26th June. This more than doubled the 50 moth-days logged last year and was the highest tally to date (the previous high of 57 was recorded in 1996).

73.319 **Turnip Moth** *Agrotis segetum* ([Denis & Schiffermüller], 1775)
The first of the year came to light at the Well on 6th May. A further 11 were taken over two June, four August and four September dates, with one at the Lighthouse on the 11th the last to be trapped. Additional nocturnal field sightings of two at East Bog on 3rd August, seven in September and 32 in

October (all of which were feeding on apples at the Farm) took the moth-days total to 53. A record 81 moth-days were logged last year, whilst 11 in 2019 is the next highest tally.

73.324 **Crescent Dart** *Agrotis trux* (Stephens, 1829)
This moth of cliffs and rocky shores is found locally along the southwest coasts of Britain. A total of 116 were trapped between 21st June and 17th August, with July highs of 16 on the 12th, 14 on the 20th and 18 on the 29th. This was a poorer showing than observed recently; there were 208 logged last year, whilst the all-time high of 224 was recorded in 2021.

73.325 **Shuttle-shaped Dart** *Agrotis puta* (Hübner, 1803)
A lone insect trapped at the Farm on 5th June was just the third for Skokholm following singles taken at Billy's Dyke on 6th August 2016 and at the Farm on 4th June 2021.

73.327 **Dark Sword-grass** *Agrotis ipsilon* (Hufnagel, 1766)
The first of the season was trapped on 6th May. A further 41 came to light, these over one date in May, two dates in June, three dates in July, three dates in August, 11 dates in September and one date in October; there were highs of seven on both 29th July and 17th September. Nocturnal field sightings of two at East Bog on 3rd August, one along the Lighthouse Track on 12th September and 44 feeding on apples at the Farm in October (including a peak count of 13 on the 9th) took the 2023 moth-days tally to 89; this was the best showing since 2017 when a record 90 were logged.

73.328 **Flame** *Axylia putris* (Linnaeus, 1761)
A total of seven were trapped between the 5th and 21st June. There have now been records in seven of the last 11 years, with the 2023 tally the second highest to be logged during this period; there was just one last year, whilst the recent high of 15 was recorded in 2016. Higher historical counts include 180 moth-days in 1996 and 142 in 1997.

73.329 **Flame Shoulder** *Ochropleura plecta* (Linnaeus, 1761)
The first was trapped on 14th May and the last on 9th September, with an annual moth-days total of 30 being up on the 24 of last year. A record 52 moth-days were logged in 2017, whilst the next highest totals are the 41 of 1998 and the 49 of 2014.

73.330 **Radford's Flame Shoulder** *Ochropleura leucogaster* (Freyer, 1831)
One attracted to a trap deployed outside the Wheelhouse Heligoland on 27th September was just a second for Skokholm and third for Wales; the first Welsh records of this rare immigrant were trapped last year, with one in the Cottage Garden on 2nd June and one in Mark Burton's Marloes garden on 31st October. Unfortunately, this year's individual was accidentally beheaded whilst being potted by an excited trapper. This species is becoming much more regular in the southern counties of Britain; it seems likely that it will also become more regular on Skokholm during autumn influxes.

73.333 **Ingrailed Clay** *Diarsia mendica* (Fabricius, 1775)
One trapped at the Well on 21st June was the only record, 2023 becoming the sixth year of the last 11 and the tenth year ever with a sighting. One was taken in 2022, whilst the three moth-days of 2021 was the first time that multiple insects had been recorded in a season.

73.334 **Small Square-spot** *Diarsia rubi* (Vieweg, 1790)
A total of 38 came to light between 24th May and 12th September, this down on the 62 of last year which was the highest tally of the last decade. An all-time moth-days high of 66 was logged in 1998.

73.336 **Red Chestnut** *Cerastis rubricosa* ([Denis & Schiffermüller], 1775)
Perhaps owing to the early spring flight season, Red Chestnut are only encountered infrequently on Skokholm. This year the moth trap produced catches of three on 27th March and on the 14th and 15th April. A 2023 moth-days total of nine was up on the five of last year, albeit less than half the record of 22 logged in 2020.

73.341 **Northern Rustic** *Standfussiana lucernea* (Linnaeus, 1758)
One trapped in Billy's Dyke on 22nd June continued a recent run of encounters with this coastal species. There was a lone insect last year, whilst two in 2021 were the first since 1968.

73.342 **Large Yellow Underwing** *Noctua pronuba* (Linnaeus, 1758)
One attracted to light on 10th June was the first, this followed by a further 110 moth-days including one taken on 11th October which was the last. Field sightings contributed an additional 20 moth-days, taking the 2023 total to 131, this 28 down on that of last year.

73.345 **Lesser Yellow Underwing** *Noctua comes* (Hübner, 1813)
One trapped at the Farm on 15th September was the first since 2021 when two were taken. This common mainland species has never been encountered in large numbers on Skokholm, with the five moth-days of 2017 being the recent peak and the nine of 2000 seemingly the all-time high.

73.346 **Least Yellow Underwing** *Noctua interjecta* (Schawerda, 1919)
The second for Skokholm was trapped at the Farm on 8th August. The only other example to be seen here was taken on 14th August 1998.

73.357 **Square-spot Rustic** *Xestia xanthographa* ([Denis & Schiffermüller], 1775)
Four were trapped over four nights between the 7th and 18th September, the total being one down on that of last year. This species is rarely encountered in large numbers, with the 27 moth-days of 2017 the highest tally to date.

73.359 **Setaceous Hebrew Character** *Xestia c-nigrum* (Linnaeus, 1758)
It was another good year for encounters with this Nettle eating species. A total of 109 were trapped between 4th June and 9th October, with peak catches of ten on both 27th August and 9th September. A further five were observed feeding on apples at the Farm during October nights, these taking the moth-days total to 114. The 2023 tally was just three short of the record set last year.

73.361 **Double Square-spot** *Xestia triangulum* (Hufnagel, 1766)
One trapped at Billy's Dyke on 26th June shared the trap with a Kent Black Arches and was just the fourth example to be seen on Skokholm. Two were taken on 23rd July last year, whilst one on 25th July 2014 was the first. None of these individuals have had their genitalia dissected.

74.002 **Kent Black Arches** *Meganola albula* ([Denis & Schiffermüller], 1775) **S**
One found in the trap at Billy's Dyke on 26th June was a second for Skokholm following a particularly worn individual attracted to light on 11th July 2021. The 2021 individual was just a seventh for

Pembrokeshire and only the third to be recorded since 2000, whilst the former total now stands at 11 (including this year's Skokholm moth).

74.011 **Cream-bordered Green Pea** *Earias clorana* (Linnaeus, 1761) **N S**
A stunning individual trapped at East Bog on 21st June was a fantastic addition to the Skokholm moth list. There are just 33 Pembrokeshire records, all of which have occurred since 2001.

Aggregates and species groups

70.161/90 **Golden-rod** / **Grey Pug** *Eupithecia virgaureata/subfuscata* (Doubleday, 1861/Haworth, 1809)
It was decided in 2022 that Grey Pug and Golden-rod Pug would be treated as an aggregate, the two species regularly proving difficult to tell apart. A total of three were taken between the 8th and 26th June, this one down on the 2022 tally.

73.096/97 **Uncertain** / **Rustic** *Hoplodrina octogenaria/blanda* (Goeze, 1781/[Denis & Schiffermüller], 1775)
A total of 343 were attracted to light between 24th May and 9th September, with peak catches of 55 on 25th July and 45 on 9th September. Six at East Bog on the night of 3rd August took the moth-days total to 349; there were 1110 moth-days last year, whilst a record 2224 were logged in 2021.

73.169/70 **Common** / **Lesser Common Rustic** *Mesapamea secalis/didyma* (Linnaeus, 1758/Esper, 1788)
A total of 41 moths were taken over 18 nights between 26th June and 4th September, with a peak of nine on 6th August. Whilst up on the 13 of last year, this fell well below a recent high of 235 in 2017.

73.312/13 **Square-spot S** / **White-line Dart** *Euxoa obelisca/tritici* (Tutt, 1902/Linnaeus, 1761))
Four individuals identified as Square-spot Dart in 2020 were retained and dissected by then County Moth Recorder Robin Taylor, their genitals confirming that all four were correctly assigned to

species. Nevertheless, given the possible confusion between this and White-line Dart, these species have been lumped since 2020. A total of 153 were trapped during 22 sessions between 9th August and 13th September this year, this well up on the 21 of last year and the highest number yet recorded; a 2000 moth-days total of 143 is the next highest tally.

Butterflies

All butterfly sightings were again recorded during Birdlog. An account of each species encountered is listed systematically below, with the totals for the period 2018 to 2023 included in tables to allow for comparisons to be made. The 'Maximum Daycount' refers to the highest number of individuals seen on any one day in a particular month and 'Butterfly-days' are the cumulative number of butterflies seen in a defined period of time (thus the same individual may be included for multiple dates). For each of the regularly occurring species, the earliest and latest records from the last ten years, the highest and lowest annual totals from the same period and the 2013-2022 butterfly-days mean are listed below the species title.

Orange-tip *Anthocharis cardamines* (Linnaeus, 1758)
A male found in South Haven on 12th May, this a day of gentle northerlies, was the first since a female observed in the Courtyard on 20th April 2020. This becomes just the fifth 21st century year with a sighting, with the next most recent on 6th June 2010. There have been records in a further 17 years, with the ten butterfly-days of 1976 the peak tally.

Large White *Pieris brassicae* (Linnaeus, 1758)
High 487 in 2020 **Low** 73 in 2015 **2013-2022 mean** 228.4 ±sd 123.3
Earliest 13th April 2022 **Latest** 29th September 2018 and 2022

One on 26th May was the first. The number of sightings increased in July, with mating noted at Twinlet on the 8th, however it was not until September that counts peaked. Daycount highs of 11, logged on 8th July and the 2nd and 4th September, were the lowest maxima since a high of nine in 2015, indeed they were the second lowest of the last 11 years. Four on 23rd September, including two watched flying in off the sea, were the last of the year. A 2023 butterfly-days total of 128 was 37% down on last year's tally and 44% below the ten year mean.

Month	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
2023 Maximum Daycount	0	0	3	1	11	2	11	0	0
2022	0	2	3	0	3	37	18	0	0
2021	0	1	2	0	14	14	24	0	0
2020	0	0	4	2	2	15	105	0	0
2019	0	0	1	1	18	14	4	0	0
2018	0	0	2	4	84	9	25	0	0
2023 Butterfly-days Total	0	0	7	1	35	15	70	0	0
2022	0	4	9	0	17	106	68	0	0
2021	0	2	3	0	51	47	107	0	0
2020	0	0	6	5	9	17	450	0	0
2019	0	0	1	1	63	63	18	0	0
2018	0	0	6	6	219	49	104	0	0

Small White *Pieris rapae* (Linnaeus, 1758)
High 507 in 2022 **Low** 11 in 2017 **2013-2022 mean** 150.6 ±sd 154.1
Earliest 13th April 2022 **Latest** 13th October 2016

A lone insect in Crab Bay on 12th May was the first. Following a typically quiet June, numbers rose in

July, indeed the 162 butterfly-days logged was a record tally for this month (the 2013-2022 July butterfly-days mean is 18.4 ±sd 21.3). The bulk of this total was made up of a minimum of 46 on the 7th (most of which seemingly arrived that afternoon) and a record July daycount of 65 the following day (which included 37 along the North Coast and females egg laying on Kale in the Courtyard raised bed); the 2013-2022 mean July daycount high is 5.5 ±sd 4.0. A typical September showing included two on the 22nd which were the last of the year. A 2023 butterfly-days total of 268 was 78% up on the ten year mean, but 47% down on that of last year (the 2022 total being the highest since 1995).

Month	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
2023 Maximum Daycount	0	0	4	2	65	2	16	0	0
2022	0	2	2	0	6	115	118	1	0
2021	0	2	1	0	6	2	7	0	0
2020	0	2	5	1	6	4	24	0	0
2019	0	2	1	0	7	77	3	0	0
2018	0	0	0	1	8	15	9	0	0
2023 Butterfly-days Total	0	0	18	5	162	12	71	0	0
2022	0	9	8	0	22	250	217	1	0
2021	0	3	1	0	6	10	17	0	0
2020	0	4	5	1	7	16	53	0	0
2019	0	2	1	0	25	154	15	0	0
2018	0	0	0	1	44	70	35	0	0

Green-veined White *Pieris napi* (Linnaeus, 1758)
High 187 in 2018 **Low** 0 in 2022 **2013-2022 mean** 62.7 ±sd 61.9
Earliest 21st April 2014 **Latest** 1st October 2015

Singles on 29th June and 3rd September were the only sightings, a 2023 butterfly-days total of two being the second worst showing of the last 11 years, only up on a 2022 which saw no records at all. The 18 butterfly-days of 2021 is the next lowest tally, whilst 2018 saw a recent high of 187 butterfly-days and 2013 saw the biggest daycount of the last decade, this the 24 logged on 21st July.

Month	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
2023 Maximum Daycount	0	0	0	1	0	0	1	0	0
2022	0	0	0	0	0	0	0	0	0
2021	0	0	0	1	4	2	1	0	0
2020	0	1	0	0	1	10	2	0	0
2019	0	1	1	0	13	2	2	0	0
2018	0	0	3	5	10	15	1	0	0
2023 Butterfly-days Total	0	0	0	1	0	0	1	0	0
2022	0	0	0	0	0	0	0	0	0
2021	0	0	0	1	8	7	2	0	0
2020	0	1	0	0	1	15	4	0	0
2019	0	1	3	0	27	5	3	0	0
2018	0	0	9	15	74	88	1	0	0

Clouded Yellow *Colias croceus* (Geoffroy, 1785)
One at North Pond on 21st September was the first. Three on 8th October included one found roosting that night, this alongside the Lighthouse Track near Sugar's Delight (below photograph). One flitting over Home Meadow on 9th October was the last of the year. Clouded Yellow have now been recorded in eight of the last 11 seasons, with a 2023 butterfly-days total of five being down on the 12 of last year and a recent high of 13 logged in 2014. These latest peaks were dwarfed by that of 1947; an impressive 246 butterfly-days were recorded between June and October that year, 170

of which arrived in August (including a peak daycount of 42 on the 21st). The same year saw an estimated 36,000 appear on UK shores, this one of the most famous 'Clouded Yellow Years'.

Wall *Lasiommata megera* (Linnaeus, 1767)
August singles were recorded in the Quarry on the 23rd, along the North Coast on the 24th and along the South Coast on the 25th. A 2023 butterfly-days total of three is the highest since the 11 of 2005; there were singles on 11th August last year and on 24th September 2019, whilst the only other recent sighting was of one at the Lighthouse on 28th August 2013.

Speckled Wood *Pararge aegeria* (Linnaeus, 1758)
It proved the fifth consecutive year, and the ninth of the last 11 years, with a record; what were probably the same two individuals were together at North Haven on both the 5th and 6th September. A butterfly-days total of four matches that of 2013, the five of 1987 being the only higher tally.

Meadow Brown *Maniola jurtina* (Linnaeus, 1758)
High 15,288 in 2018 **Low** 1873 in 2020 **2013-2022 mean** 4605.5 ±sd 3958.4
Earliest 9th June 2016 and 2020 **Latest** 18th September 2015

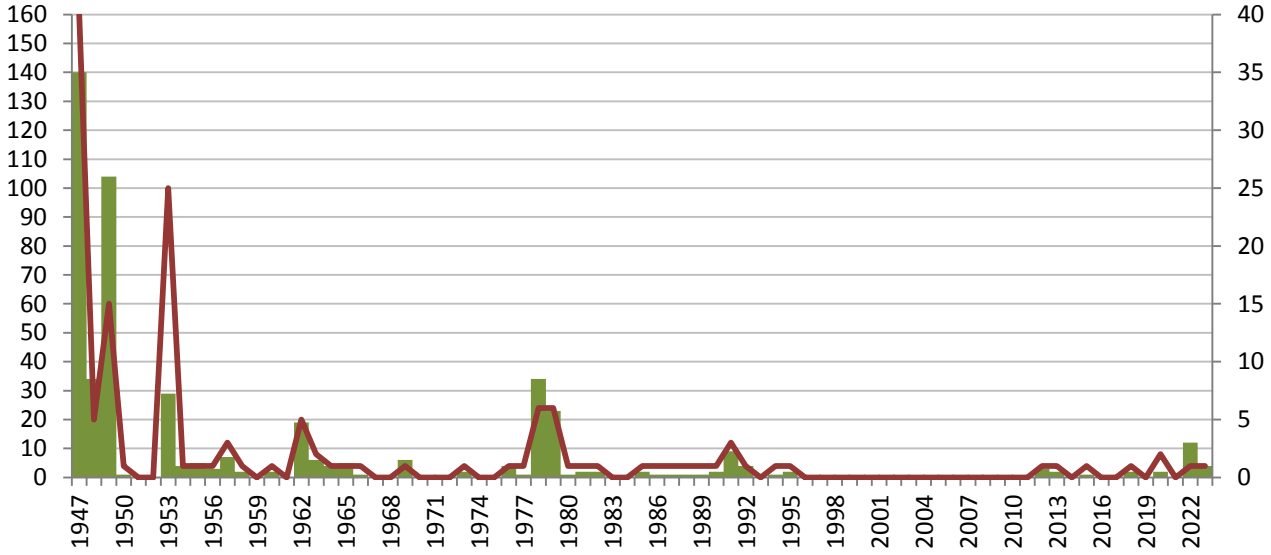
One found between the Well and the Red Hut on 13th June was the first. Numbers increased during the last ten days of the month, indeed a minimum of 80 on the 10th matched the third highest June daycount (recorded in 2015). As is typically the case, the number of insects on the wing peaked in July, although both a maximum daycount of 105 on the 12th and a butterfly-days total of 1350 were the second poorest of the last 11 Julys, the latter 65% down on the 2013-2022 July mean (3885.2 ±sd 3730.3). A lone insect at the Red Hut on 2nd September was the last of the season.

Month	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
2023 Maximum Daycount	0	0	0	80	105	41	1	0	0
2022	0	0	0	29	140	50	0	0	0
2021	0	0	0	10	160	160	0	0	0
2020	0	0	0	39	95	67	1	0	0
2019	0	0	0	36	383	85	1	0	0
2018	0	0	0	265	1368	106	0	0	0
2023 Butterfly-days Total	0	0	0	459	1350	210	1	0	0
2022	0	0	0	96	2043	252	0	0	0
2021	0	0	0	23	1737	558	0	0	0
2020	0	0	0	186	1206	480	1	0	0
2019	0	0	0	130	3058	278	2	0	0
2018	0	0	0	833	13986	469	0	0	0

A 2023 total of 2020 butterfly-days was also the second lowest of the last 11 years, 16% down on that of 2022 and 56% below the mean. Despite this, Meadow Brown was, for a second consecutive year, the most abundant butterfly on Skokholm, this a title it has held in seven of the last 11 seasons.

Dark Green Fritillary *Speyeria aglaja* (Linnaeus, 1758)
One at the Lime Kiln on 28th June was the first of the year; a single the following day, flying a circuit between the Lime Kiln, Orchid Bog and the Well, may have been the same insect. July saw singles in South Haven on the 2nd and near the Wheelhouse Heligoland on the 15th, whilst a possible was reported on the 6th. A 2023 butterfly-days total of four was down on the 12 of last year, but matched that of 1992 as the second best showing since the nine of 1991.

The total number of Dark Green Fritillary butterfly-days (green) and the maximum daycount (secondary axis) logged in each year since 1947.



Red Admiral *Vanessa atalanta* (Linnaeus, 1758)
High 3598 in 2014 **Low** 890 in 2015 **2013-2022 mean** 1515.7 ±sd 803.9
Earliest 10th March 2014 **Latest** 21st November 2023

Two on 17th April were the first, these on the same date as the first of 2022. An increase in numbers between the 6th and 10th June, which included a high of 61 on the 9th, was seemingly the result of both an emergence of Skokholm bred butterflies and a passage from elsewhere. A July butterfly-days total of 193 was just above average, this including two emerging on the 27th; a further two were watched taking to the wing around the Farm on 1st August. Of the 30 logged on 4th August, one ill-fated insect was watched as it was hunted and then consumed by a Lesser Emperor to the west of Migration Rocks (see the Lesser Emperor entry above). Numbers peaked in September, with a total of 484 butterfly-days including 85 on the 8th which was the highest daycount this year. A late single at the Farm on the 21st was the only November sighting and the last of the year; one on the 23rd in 1989 is the only later record. A 2023 butterfly-days total of 1520 was 11% down on that of 2022 and just four butterfly-days up on the ten year average.

Month	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
2023 Maximum Daycount	0	2	26	61	26	30	85	23	1
2022	0	4	3	15	22	272	65	24	1
2021	1	5	2	9	24	24	57	13	1
2020	0	2	16	70	15	87	227	28	2
2019	0	1	7	37	48	38	35	7	3
2018	0	3	6	13	19	33	21	4	0

2023 Butterfly-days Total	0	2	65	298	193	348	484	129	1
2022	0	10	24	132	224	936	302	76	2
2021	2	25	6	54	182	323	535	84	1
2020	0	9	48	308	125	722	624	58	4
2019	0	3	49	209	229	352	304	51	3
2018	0	3	25	100	223	371	240	32	0

Painted Lady *Vanessa cardui* (Linnaeus, 1758)
High 5894 in 2019 **Low** 140 in 2020 **2013-2022 mean** 1138.3 ±sd 1733.7
Earliest 13th April 2015 **Latest** 22nd November 2014

One on 6th May was the first in a poor year. Numbers peaked in July, with a total of 86 butterfly-days including 13 on the 27th which was the highest daycount of the season. A second peak in September saw a further 70 butterfly-days logged, with ten on the 21st a disappointing high. A lone insect in South Haven on 22nd October was the last, taking the 2023 total to just 242; this was the fourth lowest tally of the last 11 years, 85% down on that of last year and 79% below the ten year mean.

Month	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
2023 Maximum Daycount	0	0	4	5	13	4	10	3	0
2022	0	0	6	19	16	309	88	2	1
2021	0	1	2	8	3	27	8	2	0
2020	0	0	1	3	1	8	9	0	0
2019	0	0	2	208	72	614	218	5	3
2018	0	7	7	28	8	92	48	2	0
2023 Butterfly-days Total	0	0	16	25	86	30	70	15	0
2022	0	0	40	101	78	885	469	8	1
2021	0	1	2	57	15	192	56	3	0
2020	0	0	2	11	1	55	71	0	0
2019	0	0	2	943	639	2870	1414	22	4
2018	0	7	21	184	75	615	257	12	0

Peacock *Inachis io* (Linnaeus, 1758)
High 387 in 2015 **Low** 34 in 2021 **2013-2022 mean** 133.4 ±sd 108.0
Earliest 10th March 2015 **Latest** 3rd December 2019

One at the Farm on 2nd April was the first in a below average year. Breeding was confirmed in June, with at least 30 caterpillars noted on a small clump of nettles near Migration Rocks on the 8th. The

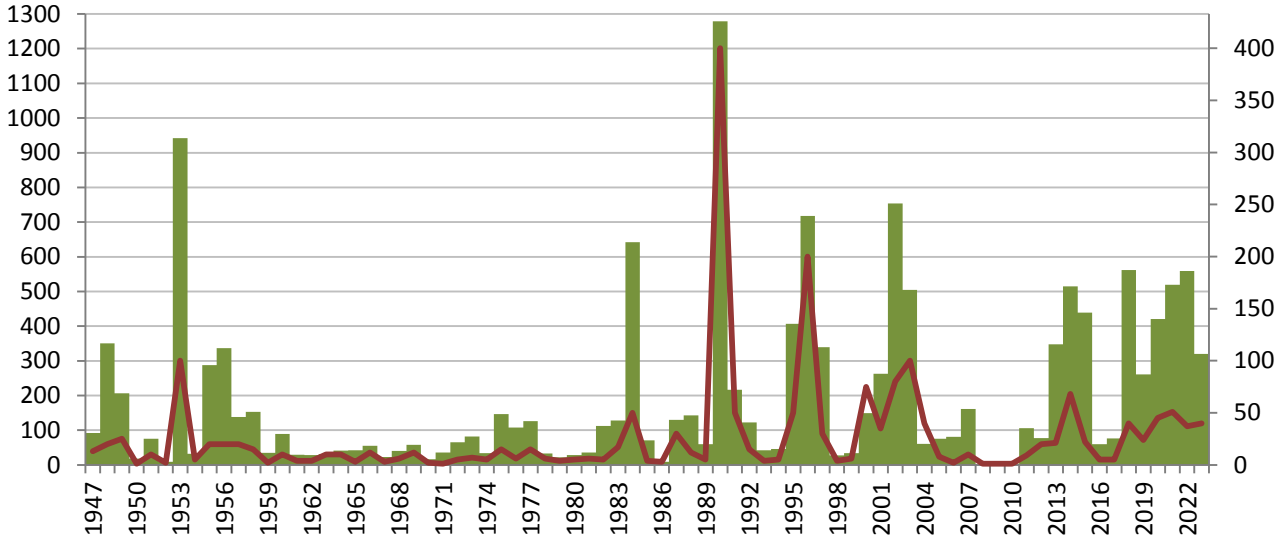
following day saw a minimum of 200 counted, although nearly all of the suitable leaves in the area had been eaten; in an effort to improve their chances, 120 caterpillars were relocated to a larger patch of nettles in the Courtyard. Following a count of 300 caterpillars near Migration Rocks on the 10th, a further 140 were relocated to the Courtyard; the first of these began to pupate on the 16th. The number of adults on the wing peaked in July; the 80 butterfly-days logged included one emerging inside the Wheelhouse Heligoland on the 9th and a high of ten on the 16th. Numbers dropped sharply in August, whilst a chrysalis inside Bridge was found to be covered in tiny parasitic wasps on the 25th. One at Little Bay on 19th October was the last and took the 2023 butterfly-days tally to 114, this 15% down on the 2013-2022 mean.

Month	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2023 Maximum Daycount	0	3	1	0	10	3	1	1	0	0
2022	0	3	2	1	10	8	2	0	0	0
2021	1	2	0	0	4	2	1	0	0	0
2020	2	5	3	3	11	4	2	0	1	0
2019	0	4	3	0	11	12	2	2	1	1
2018	1	0	1	1	4	6	0	0	0	-
2023 Butterfly-days Total	0	10	1	0	80	20	1	2	0	0
2022	0	9	5	4	66	51	3	0	0	0
2021	1	7	0	0	18	7	1	0	0	0
2020	4	31	8	6	71	20	6	0	1	0
2019	0	13	4	0	44	27	7	4	3	1
2018	2	0	1	4	14	17	0	0	0	-

Small Tortoiseshell *Aglais urticae* (Linnaeus, 1758)
High 562 in 2018 **Low** 60 in 2016 **2013-2022 mean** 376.0 ±sd 187.9
Earliest 9th March 2014 **Latest** 14th November 2018

One at Orchid Bog on the 15th was the first of seven April butterfly-days, whilst there were no May sightings at all this year. Irregular encounters during June and July peaked at eight on 22nd June. An increase in numbers was noted from 25th August, indeed this proved the most productive month of the year with 131 butterfly-days tallied. However the highest daycount occurred in September, the 40 logged on the 2nd including 21 on the Neck and being the second highest September count of the last 11 years. A lone insect in Crab Bay on the 20th was the last, taking the 2023 butterfly-days total to 320; this was 43% down on that of last year and 56 butterfly-days down on the 2013-2022 mean.

The total number of Small Tortoiseshell butterfly-days (green) and the maximum daycount (secondary axis) logged in each year since 1947.



Month	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
2023 Maximum Daycount	0	4	0	8	6	23	40	0	0
2022	1	1	1	13	24	37	14	3	0
2021	1	3	1	8	8	51	43	1	0
2020	0	2	2	14	12	45	35	0	0
2019	1	1	1	3	4	24	22	1	0
2018	0	2	3	11	14	40	15	1	1
2023 Butterfly-days Total	0	7	0	48	30	131	104	0	0
2022	1	3	1	48	97	373	33	3	0
2021	1	10	1	23	53	312	118	1	0
2020	0	8	5	62	44	202	100	0	0
2019	4	2	1	5	40	124	84	1	0
2018	0	3	9	40	122	294	92	1	1

Comma *Polygonia c-album* (Linnaeus, 1758)

It proved a record year. One in the Courtyard on 7th July was the first, this followed by a further 21 July butterfly-days, including a high of four on the 8th; all sightings came from near the Farm. Comma have a fascinating lifecycle, with adults emerging from hibernation in March and producing a generation which are on the wing during late June and July; two forms emerge during this period.

The nominate form has dark undersides, these butterflies going on to hibernate, whilst the form *hutchinsoni* have lighter undersides, brighter uppersides and go on to produce another generation (UKButterflies, 2023). At least one of the insects logged this July was of the form *hutchinsoni*. There were no further sightings until September, when singles were found at the Well on the 7th and at the Farm on the 8th and 11th. Given that it takes eight to ten weeks to produce a new generation and that Common Nettle, the larval foodplant, is widely available around the Farm and Home Meadow, it is tempting to think that the September records were the result of breeding on Skokholm. A 2023 butterfly-days total of 25 was well up on the four of last year and the previous high of six tallied in 1950.

Small Copper *Lycaena phlaeas* (Linnaeus, 1761)
High 5775 in 2013 **Low** 1124 in 2016 **2013-2022 mean** 2289.0 ±sd 1333.1
Earliest 19th April 2015 and 2020 **Latest** 30th October 2018

Two at the Farm on 2nd May were the first, with 21 on the 13th the first two-figure daycount as numbers increased. Counts dropped sharply in early June and a second generation emergence was evident from mid-July, with numbers peaking at 38 on the 25th. Another sharp drop was observed from 8th August before a third generation took to the wing in September. Double-figure daycounts on 19 September dates, including a 2023 high of 58 on the 21st, contributed to a butterfly-days tally of 615, this the highest September total since 2020. A small number of butterflies flew into October, with four on the 9th the last of the year. A 2023 butterfly-days tally of 1384 was the third lowest of the last 11 years and 40% down on the ten year mean.

Month	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
2023 Maximum Daycount	0	0	21	8	38	36	58	7	0
2022	0	0	4	2	40	38	128	9	0
2021	0	13	26	13	158	65	61	44	0
2020	0	3	16	4	32	22	199	26	0
2019	0	1	21	8	40	30	241	22	0
2018	0	0	16	16	161	226	96	53	0
2023 Butterfly-days Total	0	0	186	69	317	170	615	27	0
2022	0	0	41	5	315	339	606	30	0
2021	0	28	265	79	1081	507	486	88	0
2020	0	9	152	12	237	165	1537	69	0
2019	0	2	237	57	345	260	1285	84	0
2018	0	0	93	92	767	941	665	198	0

Common Blue *Polyommatus Icarus* (Rottemburg, 1775)
A first brood male near the Red Hut on 3rd June was the first, with a male along the North Coast on the 13th being the only other sighting that month. There were three second generation males on 16th August and a further nine males observed over five dates during the month. A lone male was present on 1st September and one at North Pond on the 8th was the last. Sadly no females were encountered this year. A butterfly-days total of 16 was the highest since the 17 of 2018 and the third highest tally of the last 11 years.

Hippoboscidae

For a third year, we participated in the National Flat Fly Mapping Project run by UK Hippoboscidae Recorder Denise Wawman since 2021; a summary of previous Hippoboscidae studies on Skokholm (which date back to 1937) and the results of sampling in 2021 are included in the Skokholm Annual Report 2021, whilst the results of sampling in 2022 are included in the Skokholm Annual Report 2022. This year saw a total of 12 Flat Flies taken from four host species between 23rd June and 12th

October, whilst two were collected where the host was unknown (nine were taken from eight species last year and 19 were taken from eight species in 2021). The following results were kindly provided by Denise.

The different Flat Fly species encountered on Skokholm in 2023.

Host Species	Species of Flat Fly	Number of Flat Flies taken	Number of birds from which they were taken
Jackdaw	*Ornithomya avicularia*	1	1
Pied Wagtail	*Ornithomya avicularia*	1	1
Pied Wagtail	*Ornithomya chloropus*	1	1
Pied Wagtail	*Ornithomya fringillina*	1	1
Meadow Pipit	*Ornithomya chloropus*	5	5
Robin	*Ornithomya chloropus*	1	1
Unknown	*Ornithomya avicularia*	1	N/A
Unknown	*Ornithomya chloropus*	1	N/A

Amphibians

Common Frog *Rana temporaria*

Spawn has only been encountered irregularly for more than a decade; although this perhaps reflects low numbers, Skokholm's mild maritime climate may allow Frogs to reproduce as early as January, any tell-tale signs of breeding thus gone by the time that staff return. No spawn was found in 2023, however it proved an excellent year, at least by recent standards, for nocturnal observations of adults. One at Migration Rocks in the early hours of 19th July was the first. Two were along the Lighthouse Track on 13th August, as was a single on 25th September. Following one to the north of the South Coast Cut on the 11th, encounters became more regular in late October; a single was in the same location on the 22nd, a post-2012 daycount record of three was logged on the 23rd (an adult was between the Knoll and East Bog, a juvenile was in a flooded rut east of the South Coast Cut and a large reddish adult was between the South Coast Cut and Migration Rocks) and an adult was in a large puddle near the South Coast Cut on the 31st. A large adult near the South Coast Cut on the evening of 18th November was the last. A 2023 frog-days tally of 11 was the highest for at least 11 years; the previous high of three was recorded in 2017. Just one was found in each year between 2013 and 2016 (the 2015 record being of a dead Frog) and in 2018, 2020 and 2022, whilst two were seen in 2019 and 2021. An increase in sightings hopefully suggests that the population is on the rise.

Mammals

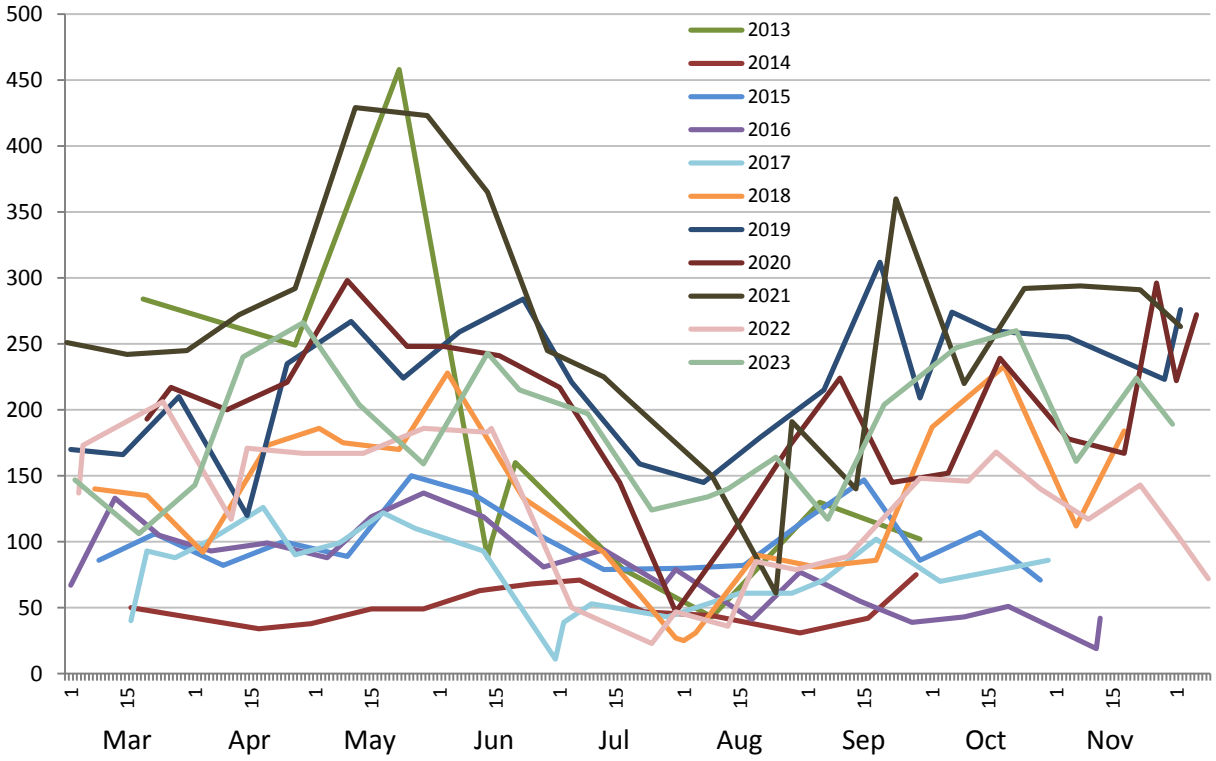
European Rabbit *Oryctolagus cuniculus*

Adults and juveniles, either seemingly diseased and showing symptoms of Rabbit Viral Haemorrhagic

Disease (see Annual Report 2022 for details) or intact but dead, were found at various locations during the 2023 season. The first sick animal was at Twinlet on 19th March. There followed one sick adult in April and three dead juveniles and three sick animals in May. Disease seemingly peaked in June, with four sick and 15 dead Rabbits found. There were three sick and two dead animals in July, whilst an adult, found dead near the Wheelhouse on 26th September, was the last of the year. A total of 33 sick or dead Rabbits was again likely an undercount; as in the previous two years, strong cadaverine odours emitting from areas with no dead surface animals suggested that Rabbits were dying underground. The 2023 total was three down on that of last year and matched that of 2021.

Rabbits were first monitored from a fixed point on the Knoll in the mid-1990s when an outbreak of RVHD caused a significant drop in the population (see the Annual Report 2022 for details). Since a population crash in 2013, Rabbits have been counted from the same point every two weeks. The two adjacent North Plain plots were surveyed on 21 evenings between 2nd March and 30th November this year. The counts discussed below are the total number of animals recorded across both plots (this an area of approximately seven hectares).

The total number of Rabbits logged during evening counts of the North Plain study area between 2013 and 2023.



A total of 147 Rabbits were present during the first survey on 2nd March, this very similar to the first count of 2022. The 266 animals logged on 28th April was the 2023 peak, this figure 29% up on a 2022 high of 206 counted on 24th March and 10% up on the 2013-2022 mean maxima (242.4 ±sd 130.0). The 106 counted on 18th March was the lowest 2023 total, this 361% up on last year's minimum, 144% above the 2013-2022 mean low (43.5 ±sd 33.4) and the second highest low of the last 11 years. A difference of 160 between the highest and lowest 2023 counts was 20% lower than the ten year mean range (198.7 ±sd 118.4). A total of 189 animals were in the plots on 30th November, this the last count of the year and 78% up on a similarly timed 2022 tally (the 106 of 1st December).

Bats

Bats have been surveyed using an SM2 since 2014 and with an additional SM4 since 2019; these automated detectors are left in situ to record echo-locating animals which pass within their range.

To maintain consistency with the previous ten years, the SM2 was again located at the Well (housed in the Well Hide and with the microphone facing due east). The SM4 was moved from North Pond Hide, it's home for the past three years, to the exterior rails outside the lantern of the Lighthouse, this to ascertain if bats are passing the extreme southwest corner of Skokholm. Disappointingly a fault with the internal battery system in the Well detector meant that the device was not functioning during the summer and early autumn, whilst difficulties in keeping the Lighthouse detector charged also resulted in intermittent recording during the season.

In the following text a 'pass' refers to each occasion that the detector was triggered into recording. Passes are allocated to a particular species when certain parameters are met within the call.

Common Pipistrelle *Pipistrellus pipistrellus*
A small bat was observed flying outside the Central Block at dusk on 7th April; the SM4 had not yet been deployed and so was temporarily set up at the End Bench where it made 72 recordings of a Common Pipistrelle between 2145hrs and 2211hrs. An additional 11 passes were recorded by the SM4 at the Lighthouse between 2304hrs and 2310hrs on 31st May. First logged here in 2014, this species also triggered the detectors in 2021 and 2022, this thus becoming just the fourth year with an encounter (albeit the third consecutive year). Whilst deployed at the Well on 6th September, the SM2 made three recordings where it could not be determined if the calls were from a Common or a Soprano Pipistrelle, these attributed to '50kHz Pipistrelles'.

***Myotis* sp.**
One of the *Myotis* species was recorded at the Well at 0010hrs on 18th May. Although it was not possible to identify the recording to species, this was the first of this genus to be logged since 2014.

Noctule *Nyctalus noctula*
A total of 335 passes were recorded at the Well between 5th May and 11th October, with five in May, 328 in September and two in October. Two July passes were logged at the Lighthouse. A further 83 recordings were made at the Well where it could not be determined if the call was made by a Noctule or a Leisler's Bat.

Seals

Atlantic Grey Seal *Halichoerus grypus*
Grey Seals are present in the waters around Skokholm throughout the year. The rocks in South Haven and Crab Bay are the two main low tide haul-outs and it is here where the majority of non-breeding adults congregate. Daycounts are regularly supplemented by small numbers seen elsewhere around the Island, primarily from the Neck.

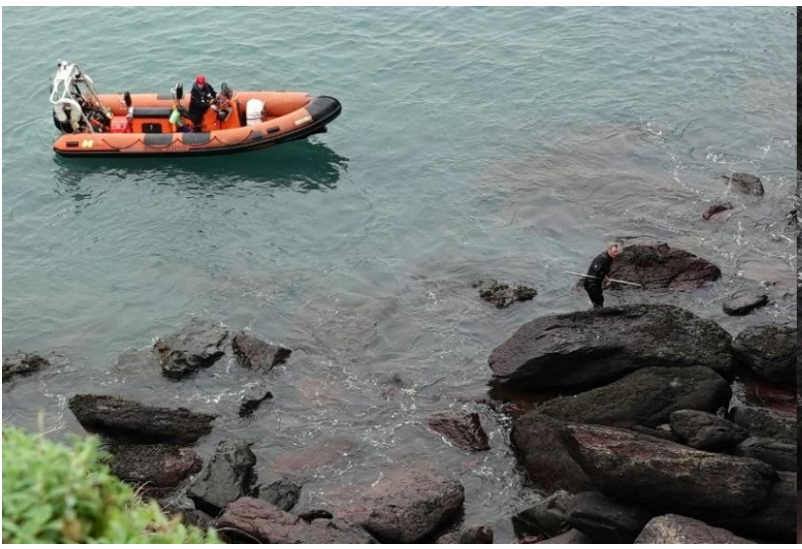
One in South Haven on 2nd March was the first to be logged, whilst a bull hauled out to the north of the Quarry on 2nd December was the last. For the first time in 11 years, numbers peaked in May; a seal-days total of 745 was 42% up on that of last May and 90% up on the May mean (393.0 ±sd 111.6). The last ten years have seen numbers peak in July on seven occasions and in August on three occasions, with the 2023 May total being 21% down on the July 2022 high, but 8% up on the 2013-2022 peak monthly total mean (685.0 ±sd 139.6). The maximum 2023 daycount did, however, fall in July, with 52 animals being present on the 21st (there were 21 in South Haven, 29 in Crab Bay and two around the Neck); this total was 4% below the maximum 2022 daycount, but 6% above the 2013-2022 mean daycount high (48.9 ±sd 6.8). The total number of Grey Seal recorded around the Island rose steadily between 2013 and 2018, plateaued in 2019 and declined somewhat in 2020 and 2021, the recent drop likely due in part to reduced observer numbers during the Covid-19 years. This year saw a seal-days total of 3471, this the third highest tally of the last 11 years and 13% up on the 2013-2022 mean (3064.2 ±sd 488.5); there were 3751 seal-days recorded in 2022 and a high of 3638 logged in 2018.

An animal with flipper tag 80256 was found loafing near the Anticline on 2nd July. This Grey Seal had been taken in by the RSPCA as an underweight Tenby orphan in August 2017 and released back into the wild at Combe Martin, Devon on 12th December 2017. It had previously been observed from Skokholm on 11th November 2018.

The total number of Grey Seal logged each month, along with the maximum monthly daycount. Counts from 2018 to 2022 are included for comparison.

Month		Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Monthly	2023		39	216	745	591	662	647	419	123	28	1
Total	2022		44	300	524	633	937	746	470	82	8	7
	2021	1	69	182	293	412	555	585	466	263	109	4
	2020		14	186	271	410	456	465	428	246	40	3
	2019		48	199	518	616	735	548	487	262	50	3
	2018		34	105	505	662	806	767	464	245	50	
Maximum	2023		13	30	44	43	52	40	31	25	7	1
Daycount	2022		6	29	53	53	54	43	27	12	1	
	2021	1	10	29	26	43	49	45	51	25	10	
	2020		4	38	25	45	39	39	27	26	9	
	2019		9	24	37	37	47	42	35	25	11	
	2018		9	20	31	49	49	41	38	22	9	

A dead pup floating off the Bluffs on 11th August was the first to be seen this season, although its birthplace was unknown. What was probably the first Skokholm-born animal, an older pup but still with a cow in attendance, was found in Peter's Bay on 24th August. A second live pup was in North Haven on 4th September and a third was in Peter's Bay three days later. A fourth pup was in North Haven on the 15th and a fifth in Seal Bay on the 17th, whilst on the 22nd a sixth live pup was found alongside a freshly dead pup in North Haven. The last live pup of the year was seen in Hog Bay from a passing boat on the 29th, this taking the total to eight (seven live and one Skokholm-born dead); the 2023 tally was three up on that of last year, 40% up on the 2013-2022 mean (5.7 ±sd 3.65) and the fourth highest of the last 11 years.



An additional dead pup found floating off South Haven on 10th September, and observed again on each of the following two days, seemingly had remnants of orange paint on its coat, this a method used for monitoring numbers on Skomer. A moulted Skokholm pup (identified by its fur pattern), wedged under a boulder in the eastern arm of North Haven on 7th October, was still trapped there two days later; this was rescued by Mark Burton of Natural Resources Wales who passed on a survey

RIB on the 9th (the pup seemingly had no external injuries and was last seen heading out to sea). A dead weaner, with both head and tail neatly removed, was off South Haven on 12th November.

Cetaceans

An account of each species encountered this year is listed systematically below, with the totals for the period 2018 to 2023 included in tables to allow for comparisons to be made. The Maximum Daycount refers to the highest number of individuals seen on any one day in a particular month and cetacean-days are the cumulative number of animals seen in a defined period of time (thus the same individual may be included for multiple dates). Additionally the number of days with a sighting is recorded for each month.

Harbour Porpoise *Phocoena phocoena*

One off the Lighthouse on 3rd March was the first in a poor year, indeed a 2023 porpoise-days total of only 49 was the lowest of the last 11 years, this 57% down on that of last year and 74% down on the 2013-2022 mean (184.8 ±sd 99.6). Despite a comparable seawatching effort, Harbour Porpoise were seen on 43% fewer days than in 2022 and on 56% fewer days than the ten year mean (61.2 ±sd 24.2). July was the peak month for sightings, with 13 porpoise-days logged over seven dates, however a maximum daycount of five animals was 33% below the 2013-2022 mean July high (7.5 ±sd 3.3). The 2023 peak monthly total was 63% down on a 2022 high of 35 porpoise-days logged in both August and September. A lone adult off the Lighthouse on the evening of 28th November was the last of 2023. The number of animals being observed in Skokholm waters is declining; worryingly the last five years have been the poorest of the last 11. No calves were observed this year.

The total number of Harbour Porpoise logged during each recording month between 2018 and 2023, along with the maximum daycount made each month and the number of days during each month on which there was a sighting.

Month	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2023 Monthly Total	7	8	6	0	13	7	5	0	3	0
2022	2	6	9	2	24	35	35	0	2	0
2021	7	12	3	8	8	12	6	1	6	0
2020	0	6	14	2	13	18	6	6	6	0
2019	16	13	19	0	49	9	12	5	1	1
2018	1	14	17	54	27	43	38	5	1	
2023 Maximum Daycount	5	3	2	0	5	5	2	0	1	0
2022	2	3	3	2	8	7	12	0	2	0
2021	3	3	2	3	2	3	2	1	6	0
2020	0	4	9	1	4	3	2	4	6	0
2019	11	5	5	0	12	2	4	3	1	1
2018	1	4	4	8	5	11	11	5	1	
2023 No. of Days Recorded	3	4	5	0	7	2	3	0	3	0
2022	1	4	4	1	9	11	16	0	1	0
2021	3	7	2	4	6	6	3	1	1	0
2020	0	2	3	2	7	10	3	3	1	0
2019	3	5	8	0	12	5	6	2	1	1
2018	1	4	9	12	14	14	11	5	1	

Short-beaked Common Dolphin *Delphinus delphis*

A pod of 20 seen from the Lighthouse on 4th March was the earliest Skokholm record to date; a pod of eight on 7th March 2021 and two on 13th March 1983 are the next earliest sightings, whilst 1963 and 2020 are the only other years with a March record. As is typically the case, numbers peaked during the summer months, with the 111 dolphin-days of August being this year's monthly high. A count of 21 animals (across four pods) on 16th August was the peak 2023 daycount; this was 83%

down on a 2022 maximum of 120 and 69% below the ten year mean high (67.0 ±sd 31.1). A pod of nine in Broad Sound on the 29th took the dolphin-days total for November to 13, this the second highest November tally of the last 11 years (indeed Common Dolphin have only been sighted off Skokholm in four Novembers since 2013). A 2023 dolphin-days total of 354 was the lowest tally since 2019, the third lowest tally of the last 11 years and 40% below the ten year mean (586.5 ±sd 288.1).

The first two calves of the year were observed on 3rd August and further singles were noted on the 4th and 23rd August. A total of four calf-days was well below the record count of 30 logged last year.

The total number of Short-beaked Common Dolphin logged during each recording month between 2018 and 2023, along with the maximum daycount made each month and the number of days during each month on which there was a sighting.

Month	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2023 Monthly Total	20	16	7	22	82	111	83	0	13	0
2022	0	0	6	16	274	268	654	36	3	11
2021	39	16	0	45	87	87	90	35	39	0
2020	4	0	0	15	90	148	165	26	0	9
2019	0	6	0	5	57	95	77	20	7	68
2018	0	0	0	23	25	309	161	16	0	
2023 Maximum Daycount	20	12	5	15	12	21	20	0	9	0
2022	0	0	6	10	95	62	120	14	3	11
2021	31	9	0	25	19	46	30	15	10	0
2020	4	0	0	12	23	27	43	6	0	9
2019	0	6	0	3	10	16	28	10	7	68
2018	0	0	0	14	10	45	21	8	0	
2023 Days Recorded	1	3	2	3	15	13	8	0	2	0
2022	0	0	1	2	14	17	16	3	1	1
2021	2	3	0	3	11	11	6	3	5	0
2020	1	0	0	2	10	12	14	6	0	1
2019	0	1	0	2	11	14	7	2	1	1
2018	0	0	0	3	5	18	20	4	0	

Risso's Dolphin *Grampus griseus*

The only definite 2023 sighting was of two animals heading northwest through Broad Sound on 2nd June. A pod of four large dolphins, thought to be this species but seen too briefly to allow for a positive identification, was logged on 24th August. Pods of six and four were noted last year, whilst Risso's Dolphin have now been observed in ten of the last 11 years.

Fish

European Eel *Anguilla anguilla*
Two large fish in Well Stream on 2nd May were the first and a smaller individual was found near the Ram on the 11th. There were 16 eel-days logged at Orchid Bog during August, with a peak daycount of eight on the 22nd. Of the 16 recorded in September, one at Orchid Bog on the 4th was observed pulling a Manx Shearwater carcase from a Herring Gull. There were ten in October, with a small individual in the Ram Pool on the 8th the last of the year. Eels are only encountered irregularly, with an increase in sightings occurring in years when staff or guests lamp the waterbodies after dark.

Additional Species

Field Bird's Nest Fungus *Cyathus olla*
Three fruiting bodies found outside Eclipse on 17th November were seemingly the first for Skokholm.

Elegant Sea Anemone *Cylista elegans*
Two were found in a small elevated rockpool during North Haven Storm Petrel surveys on 8th July.

Portuguese Man O' War *Physalia physalis*
One floating towards the shore of Hog Bay on 8th October was just the second Skokholm record of this hydrozoan. The first came in 2017 when four were observed in the shallow waters of Crab Bay on 4th October; a desiccated individual later blew across the Island during Storm Ophelia, this becoming lodged in the Bracken above Crab Bay on the 19th.

German Wasp *Vespula germanica*
Encounters with Vespula wasps are unusual and most are too brief to allow for an identification to be

made. A single insect was observed chewing the wood of the Well Hide on both the 28th and 29th May. Photographs showed a straight lower edge to the triangular spot on the episturnum and a pronotum of irregular width, these confirming the individual as a German Wasp.

Observers, Photographers and Literature Cited in the Text

Observers cited in the text. Many other people provided records at the evening log, far more than can be listed here. We are hugely grateful to everybody who contributed during the 2023 season.

ACC	Amelia Corvin-Czarnodolski	ET	Edd Tadman	MK	Mollie Kirk
ALR	Alison Rees	GE	Giselle Eagle	MP	Mike Penny
CJ	Chris Jones	HS	Hannah Stone	NW	Noah Walker
DJ	David Jackman	IB	Ian Beggs	OP	Ollie Padget
DM	Dave Mcphail	JA	John Allen	PB	Phil Brennan
DW	Daniel Woollard	KT	Kim Turtle	RD	Richard Dobbins
EB	Ellyn Baker	LD	Louis Driver	RDB	Richard Brown
EGB	Eleanor Biggs	MC	Matt Carroll		

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