SOTEAG

Ornithological Monitoring Programme

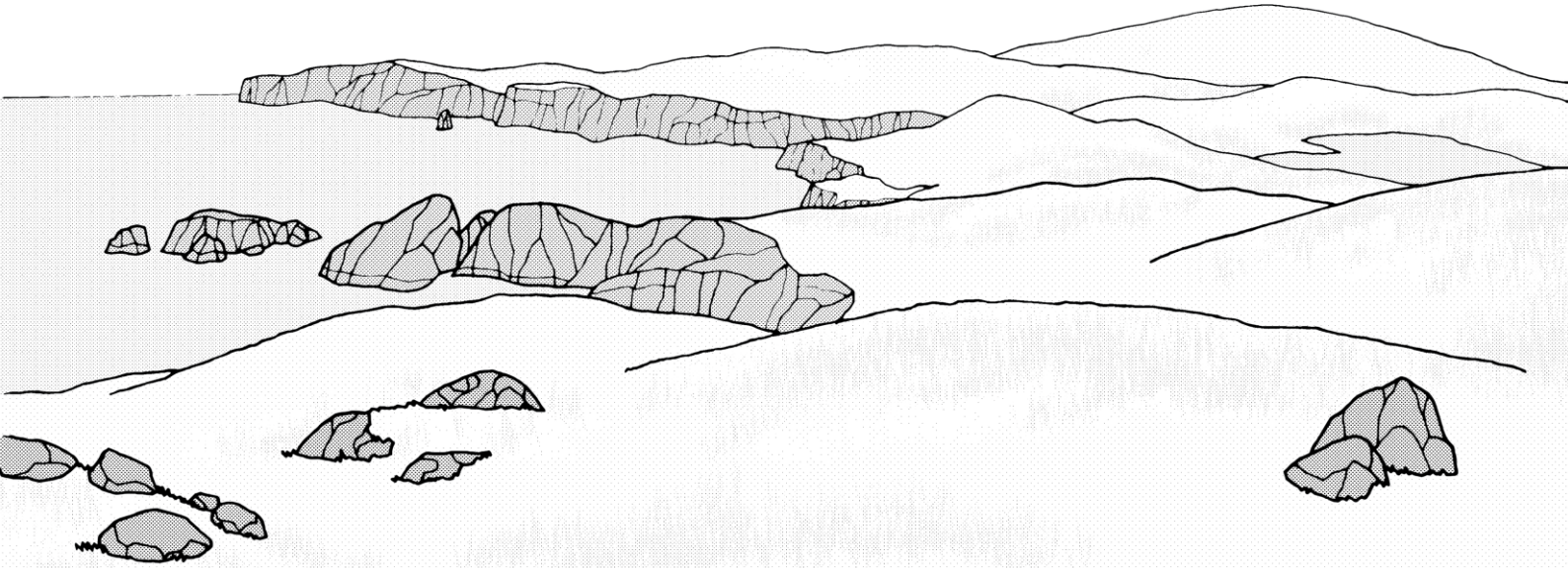
in Shetland

2025

A report to the Shetland Oil Terminal

Environmental Advisory Group

By the University of St Andrews



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2025 Report

A Shetland Oil Terminal Environmental Advisory Group annual report

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SOTEAG ORNITHOLOGICAL MONITORING PROGRAMME

2025 REPORT

Will Miles & Roger Riddington

The Scottish Oceans Institute, School of Biology, University of St Andrews.

2025 Summary

Seabird population counts and breeding success across Shetland were mostly higher than in 2024, often similar to recent average levels, and even above the long-term average in some cases, for example Kittiwake breeding success. Although there have been many declines over the decades, in the short-term, 2025 was a welcome return to relative normality after the exceptionally poor 2024 breeding season. Across all sites, there was no evidence of unusually high seabird death rates attributable to bird flu in 2025.

1. Population and breeding success monitoring of cliff-nesting seabirds

Northern Fulmar *Fulmarus glacialis*. Population counts of apparently occupied nest sites (AOS) had increased at all four monitored sites compared with 2024 (range: +1.9% to +13.6% change), and were lower than the long-term mean at one site but above it at three (range: -17.3% to +22.5%). Mean breeding success across the four sites was 0.32 chicks fledged per AOS, the same as in 2024 and 2023 but 14.2% lower than the long-term mean.

European Shag *Gulosus aristotelis*. Population counts of apparently occupied nests (AON) had decreased at two of the five monitored sites but increased at three compared with the most recent previous count (range: -51.9% to +230.3% change), and were below the long-term mean at four sites and above it at one (range: -54.8% to +3.7%). Breeding success at the two monitored sites was the same at one but had increased at the other compared with 2024 (range: 0.0% to +105.7% change), but was below the long-term mean at both sites (range: -35.7% to -19.7%).

Black-legged Kittiwake *Rissa tridactyla*. Population counts of apparently occupied nests (AON) had increased at all three monitored sites compared with 2024 (range: +3.7% to +37.4% change), and were below the long-term mean at one site but above it at two (range: -4.6% to +20.1%). Breeding success had increased at all five sites compared with 2024 (range: +90.0% to +185.0% change), and was above the long-term mean at all sites (range: +40.0% to +112.5%).

Common Guillemot *Uria aalge*. Population counts (individuals) had decreased at one of the four monitored sites but increased at three compared with 2024 (range: -12.5% to +54.9% change), and were lower than the long-term mean at three sites but above it at one (range: -97.9% to +20.4%). Guillemot breeding success at the monitored plot was 0.44 chicks fledged per apparently incubating pair, 340.0% higher than in 2024 but 18.5% below the long-term mean.

Razorbill *Alca torda*. Population counts (individuals) had decreased slightly at one of the four monitored sites but increased at three compared with 2024 (range: -1.8% to +36.6% change), and were lower than the long-term mean at three sites but above it at one (range: -80.9% to +81.1%). Breeding success at the monitored site was 0.20 chicks fledged per breeding pairs, up from zero in 2024 but 53.5% lower than the long-term mean.

2. Population monitoring of pre-breeding Black Guillemots *Cepphus grylle.* Population counts (individuals in breeding plumage) had increased at seven of the ten monitored sites but decreased at two compared with the most recent previous count (range: -4.3% to +28.8% change), and were lower than the long-term mean at seven sites but above it at two (range: -42.4% to +9.6%).

3. Population monitoring of breeding Red-throated Divers *Gavia stellata*. The population count of 25 AOT at the Northmavine monitoring area was 16.8% lower than in 2024 but 17.9% higher than the long-term mean. The population count of 14 AOT at the Tingon monitoring area was 12.5% lower than in 2024 and 17.6% lower than the long-term mean.

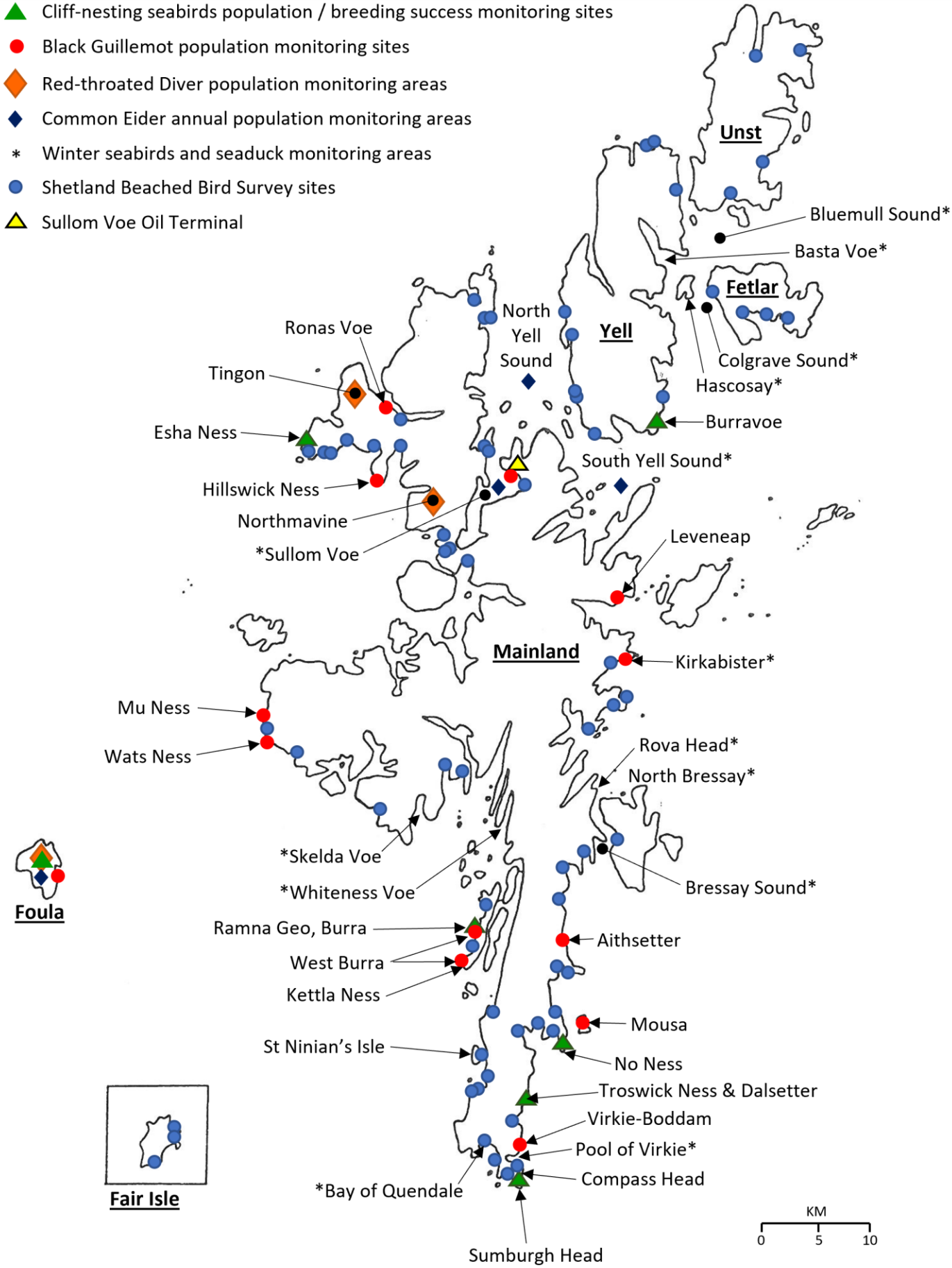
4. Population monitoring of moulting Common Eiders *Somateria mollissima*. The combined total population count of 313 Eiders in the three core survey areas was 12.1% lower than in 2024 but 2.4% above the long-term mean. Three additional survey areas were counted in 2025: the Burra and Trondra, Scalloway Islands, and Gletness to Lunna Holm areas. Counts had decreased in two but increased in one of these areas compared with the most recent previous count, in 2023 (range -11.9% to +69.7% change), and were higher than the long-term mean in all three (range: +3.2% to +213.7%).

5. Population monitoring of wintering seaduck and diving seabirds. The winter of 2024/25 was extremely unsettled in Shetland, with frequent high winds causing heavy sea swells virtually continuously. Three survey areas could be completed: the Hascosay, Bluemull and Colgrave Sounds, south Unst and Basta Voe area, the Whiteness Voe to Skelda Voe area, and the Pool of Virkie to Bay of Quendale area. Counts of the regular wintering species were highly variable but generally fell within the normal range. High counts compared with recent years of Common Eider and Long-tailed Duck in the Hascosay, Bluemull and Colgrave Sounds, south Unst and Basta Voe area were notable.

6. The Shetland Beached Birds Survey. The number of oiled seabirds found per km of beaches surveyed remained very low (0.009 oiled corpses per km). The total number of seabirds found (oiled and unoiled) per km surveyed was 1.88, 34% lower than in 2024 (2.84). It was generally a quiet year on the beaches, with no wrecks or major mortality events in any species.

In summary, there was no evidence that the operation of the Sullom Voe Terminal, or its associated tanker traffic, had any detrimental impacts on Shetland's seabirds during 2025.

Location map of ornithological monitoring sites



1. Population and breeding success monitoring of cliff-nesting seabirds

1.1. Summary of winter and breeding season weather and sea conditions

The winter of 2024/25 was generally very windy, wet and unsettled in Shetland, as had occurred during the winters of 2021/22, 2022/23 and 2023/24 (e.g., see Harris *et al.* 2022). Such unsettled conditions with only short intervals of light winds meant that large sea swells developed but rarely calmed down, and the sea remained rough virtually continuously from November 2024 to March 2025. April, May, June, July and August, however, on the whole were relatively calm and dry, and as such it was an unusually good spring and summer for fine weather and sea conditions. The two notable exceptions to this were a southwesterly gale on 4th June and then Storm Floris, a fast-moving weather system of extremely heavy rain and strong winds (gusts up to 100mph), that passed through Shetland on the 4th and 5th August.

Table 1.1. Conditions during the annual population counts of Northern Fulmars, Common Guillemots and Razorbills at the four monitored sites in 2025, including observer, date, time, wind (direction and force), general sea state and cloud conditions (0–8 cloud coverage score).

Burravoe, Yell	Observer: Roger Riddington			
Date	**Time (BST)**	**Wind**	**Sea state**	**Cloud cover**
2nd June 2025	0900–1000	SW 4	Light	7/8
6th June 2025	0925–0955	SW 3	Light	6/8
9th June 2025	0935–1005	E 2-3	Light	8/8
11th June 2025	1000–1030	SE 3	Light	5/8
17th June 2025	1430–1510	SW 4-5	Light	4/8
Esha Ness	Observer: Roger Riddington			
Date	**Time (BST)**	**Wind**	**Sea state**	**Cloud cover**
2nd June 2025	1300–1500	SW 5	Rough	7/8
6th June 2025	1245–1455	SW 3	Rough	3/8
9th June 2025	1200–1410	E 3	Moderate	8/8
11th June 2025	1240–1430	SE 4	Light	5/8
17th June 2025	1010–1200	SW 4-5	Rough	5/8
Troswick Ness	Observer: Will Miles			
Date	**Time (BST)**	**Wind**	**Sea state**	**Cloud cover**
1st June 2025	1015–1120	SW 3	Moderate	3/8
6th June 2025	0905–1005	W 1	Light	3/8
9th June 2025	0900–1000	E 1	Light	8/8
11th June 2025	0940–1040	E 2	Light	3/8
13th June 2025	1000–1100	SE 1-3	Rough	3/8
Sumburgh Head	Observer: Will Miles			
Date	**Time (BST)**	**Wind**	**Sea state**	**Cloud cover**
1st June 2025	1300–1500	S 3-4	Moderate	5/8
6th June 2025	1355–1525	S 1	Light	1/8
9th June 2025	1030–1215	E 1	Light	7/8
11th June 2025	1305–1420	E 2-3	Light	8/8
13th June 2025	1300–1435	SE 1-3	Rough	1/8

1.2a. Northern Fulmar *Fulmarus glacialis* population monitoring

Annual monitoring at 4 sites, started in 1976, 1976, 1978 and 1990.
Each site is counted five times per year (AOS and Individuals) and means calculated. Monitoring period: 1st to 21st June.

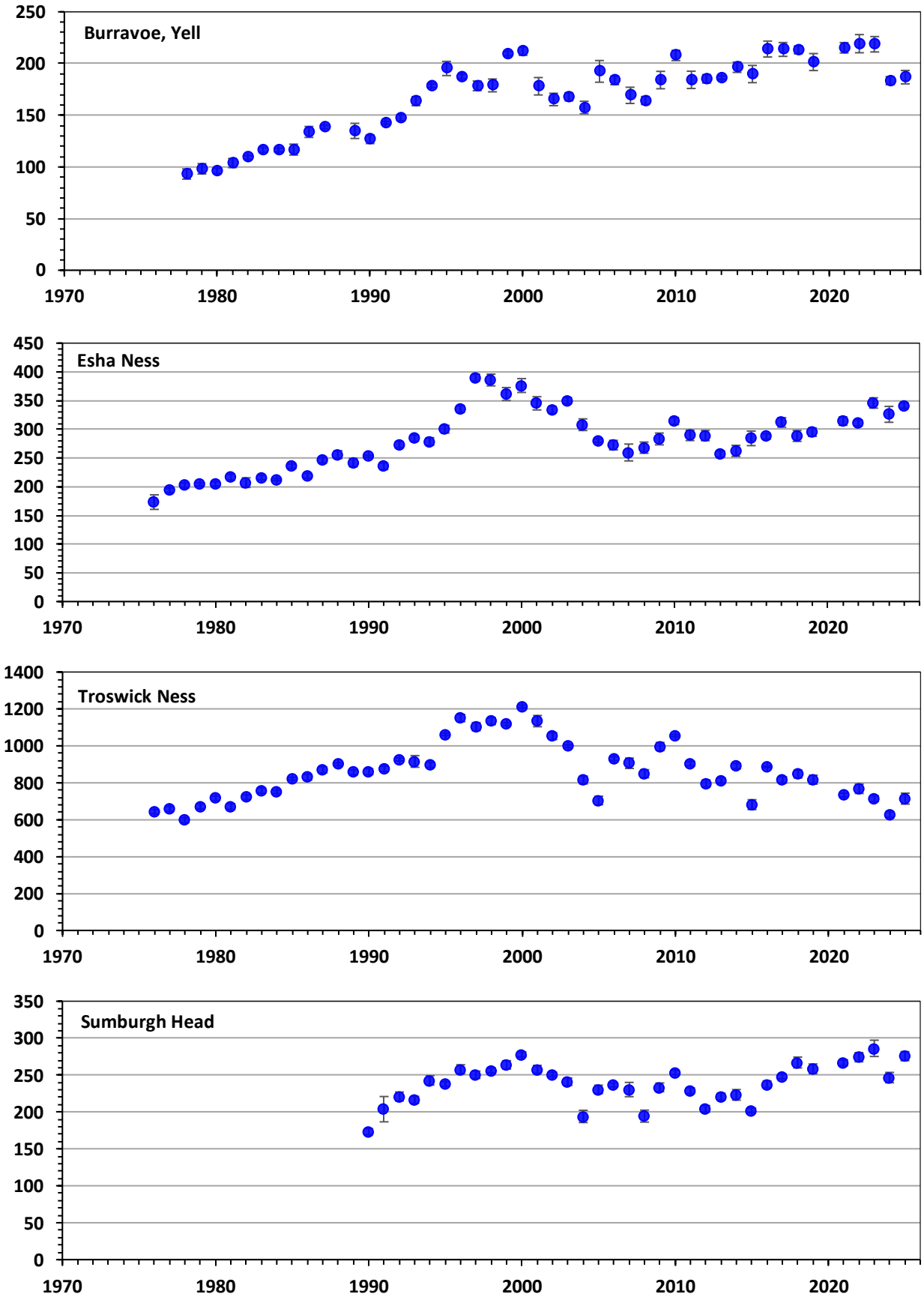
In 2025, the mean number of AOS and of individuals had increased at all four monitored sites in comparison with 2024 (**Table 1.2**, **Figure 1.1**). Mean AOS at Burravoe was 187, 1.9% up on 2024 (183) and 11.1% above the 1978-2024 long-term mean (168). At Esha Ness, mean AOS was 341, 4.7% up on 2024 (326) and 22.5% above the 1976-2024 long-term mean (279). At Troswick Ness mean AOS was 714, 13.6% up on 2024 (629) but 17.3% lower than the 1976-2024 long-term mean (864). Mean AOS at Sumburgh was 276, 11.8% up on 2024 (183) and 15.8% above the 1990-2024 long-term mean (238).

The size of the monitored population at Burravoe, Esha Ness and Sumburgh has gradually increased during the last 15 years, although at Troswick Ness numbers have slightly decreased during this period (**Figure 1.1**). Reasons for the increase at each site in 2025 are uncertain, but one possibility is that a relatively high proportion of adults were in low reproductive condition in 2024 and did not breed - possibly a sabbatical year following three consecutive winters of severe weather and sea conditions - but in 2025 more adults were in better condition to breed. Another possible contributing cause of poor condition in late 2023 and 2024 was the summer 2023 marine heatwave, during which global ocean temperatures were exceptionally high, with record-breaking high temperatures in the North Atlantic, widespread low phytoplankton productivity, and knock-on food shortages and productivity effects across the wider marine food web including in seabirds (Smith *et al.* 2025). Since 1976, there has been a broadly similar pattern of long-term population change across the four sites, comprising population increase until 2000, decrease from 2000 to c.2006, and population increase (but at Troswick a slight decrease) thereafter (**Figure 1.1**). In comparison with the other monitored cliff-nesting species, the population monitoring sample size of Fulmars is high at all the monitored sites (mean AOS >180 at all sites).

Table 1.2. Fulmar population summary statistics for counts of apparently occupied nest sites (AOS) and individual birds (Individuals) at the four monitored sites, 2024–25: total counts (n), range, mean, standard deviation (SD), standard error (SE) and % change since 2024 (% Ch.). Sites are listed from north to south.

Colony	Unit	Year	n	Range	Mean	SD	SE	% Ch
Burravoe, Yell	AOS	2024	5	169–192	183	8.68	3.88	
		2025	5	171–204	187	14.53	6.50	+1.9
	Individuals	2024	5	185–229	213	17.44	7.80	
		2025	5	190–248	222	26.19	11.71	+4.1
Esha Ness	AOS	2024	5	277–354	326	30.90	13.82	
		2025	5	328–351	341	10.26	4.59	+4.7
	Individuals	2024	5	287–416	379	53.53	23.94	
		2025	5	384–457	423	31.11	13.91	+11.4
Troswick Ness	AOS	2024	5	584–678	629	33.46	14.97	
		2025	5	603–779	714	66.21	29.61	+13.6
	Individuals	2024	5	656–963	833	113.18	50.61	
		2025	5	910–1041	972	48.94	21.88	+16.6
Sumburgh Head	AOS	2024	5	220–257	247	6.99	0.06	
		2025	5	256–291	276	13.69	6.12	+11.8
	Individuals	2024	5	255–337	301	36.53	16.34	
		2025	5	310–395	346	33.86	15.14	+15.2

Figure 1.1. Mean population counts of Northern Fulmar apparently occupied nest sites (AOS) and standard errors, at the four monitored sites, 1976–2025. Counts of all five monitoring plots at Sumburgh began in 1990. Data for 2020 are lacking due to Covid restrictions.



1.2b. Northern Fulmar *Fulmarus glacialis* breeding success monitoring

Annual monitoring at 4 sites, started in 1985, 1985, 1985 and 2003.
Each site is counted five times per year for AOS (within 1st to 21st June) and once for chicks (in mid-August).

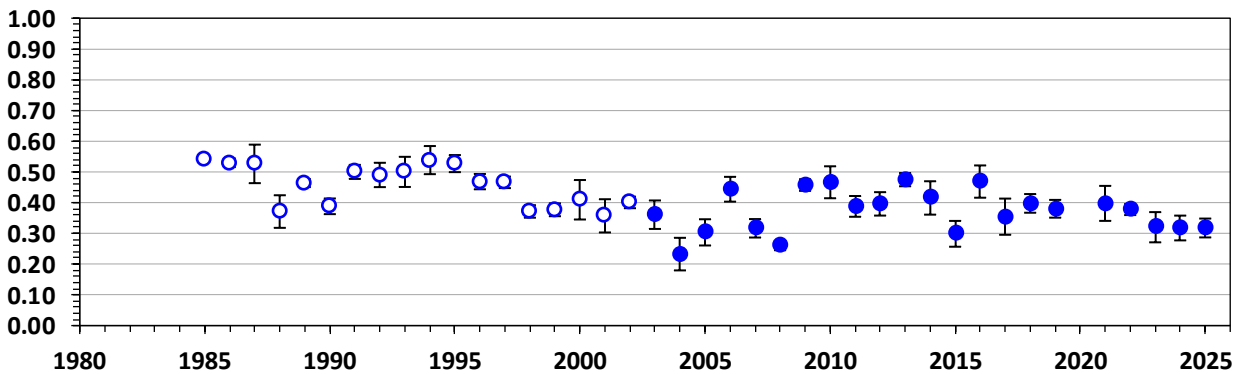
Breeding success in 2025 had increased slightly at Burravoe in comparison with 2024, decreased slightly at Esha Ness, but was very similar to 2024 at Troswick Ness and Sumburgh (**Table 1.3**). The mean breeding success across the four sites in 2025 (0.32 chicks fledged per AOS) was the same as in 2024 and 2023, but 14.2% lower than the 2003-2024 long-term mean of 0.37 for the four sites (**Table 1.3**, **Figure 1.2**). There was no evidence of HPAI infection and mortality among adults or chicks in 2025; no corpses or unusual behaviors indicative of infection were seen. The long-term general pattern of mean breeding success has been a decrease from 1985 to 2004, a marked fluctuation but with increases from 2004 to 2009, but since then a slight decrease, although with high annual variation (**Figure 1.2**).

Since 1985, breeding success has been measured by dividing the number of chicks present in the population monitoring plots in mid-August by a mean population count of AOS in June, at each of the four monitoring sites separately ('Method A'). From 2012 to 2022, SOTEAG also measured breeding success using an additional method at each of the four sites (the marked photograph method, 'Method B'; Walsh *et al.* 1995). However, correlation analysis of the results of the two methods, for each site separately and for the four-site mean (five tests using annual data from 2012 to 2022), revealed that the results of the two methods were significantly correlated ($R=0.68, 0.89, 0.66, 0.56, 0.68$; $P<0.05$ for all tests), meaning that each method showed quantitatively similar results in terms of annual change in breeding success. Therefore, in January 2023, it was agreed by the SOTEAG monitoring committee to rescind the additional method ('Method B') and proceed using only the original method used since 1985.

Table 1.3. Fulmar breeding success statistics in 2025: the mean of the five Fulmar population monitoring counts of AOS in June (Mean AOS), the total number of chicks present during the August visit (Chick count), and the total chick count divided by mean AOS count (Breeding Success). Sites are listed from north to south.

Monitoring sites	**Mean AOS**	**Chick count**	**Breeding Success in 2025 (2024)**
Burravoe, Yell (visited on 2nd, 6th, 9th, 11th and 17th June and 13th August)			
	187	65	0.35 (0.25)
Esha Ness (visited on 2nd, 6th, 9th, 11th and 17th June and 13th August)			
	341	102	0.30 (0.41)
Troswick Ness (visited on 1st, 6th, 9th, 11th and 13th June and 11th August)			
	714	173	0.24 (0.25)
Sumburgh Head (visited on 1st, 6th, 9th, 11th and 13th June and 11th August)			
	276	106	0.38 (0.36)
Mean annual breeding success across the four monitoring sites ± standard error			
			0.32 ± 0.03 (0.32 ± 0.04)

Figure 1.2. Mean Fulmar breeding success and standard errors across three (○) and four (●) monitored sites, 1985–2025 (monitoring began at the fourth site, Burravoe, in 2003). Data for 2020 are lacking due to Covid restrictions.



1.3a. European Shag *Gulosus aristotelis* population monitoring

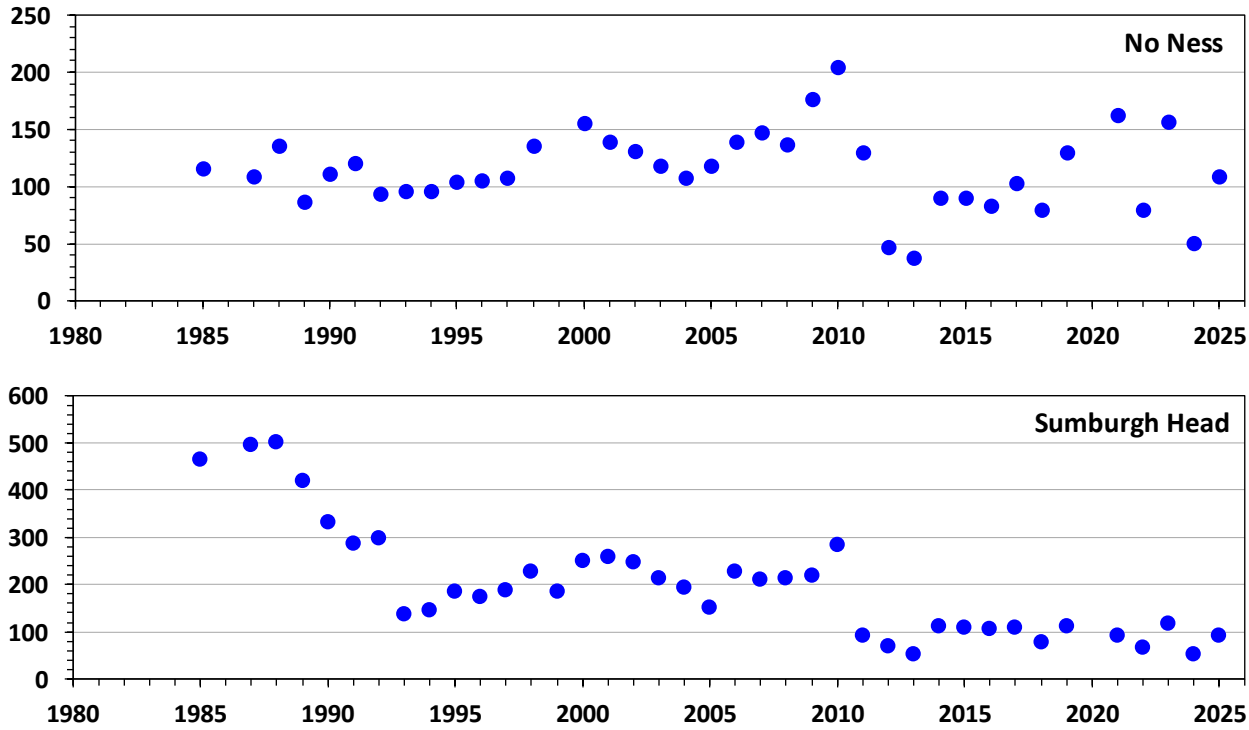
Annual monitoring at 2 sites, started in 1985 and 1985, and along 3 transects, started in 2018, 2019 and 2019. Each site and transect is counted once per year (AON and trace nests). Monitoring period: 1st to 28th June.

In 2025, the number of Shag nests (AON) counted from land at No Ness was 108, an increase of 120.4% since 2024 (49 AON) but 4.8% below the 1985-2024 long-term mean of 113 AON (**Table 1.4**, **Figure 1.3**). At Sumburgh Head, the number of Shag nests (AON) counted from land in 2025 was 92, an increase of 70.4% since 2024 (54 AON) but 54.8% below the 1985-2025 long-term mean of 203 AON (**Table 1.4**, **Figure 1.3**). The number of nests at No Ness gradually increased from 1985 to 2010, there was a sharp decrease from 2010 from 2012, followed by a slight increase but high variability in numbers (**Figure 1.3**). However, at Sumburgh breeding numbers have greatly declined across the years and are c.75% lower now than in the late 1980s (**Figure 1.3**). An unusual pattern of annual fluctuation in numbers has occurred at both sites across the last five years. Reasons for the increase in numbers at each site in 2025 are uncertain, but as with several other cliff-nesting species, one possibility is that a relatively high proportion of adults were in low reproductive condition in 2024 and did not nest - possibly a sabbatical year following three consecutive winters of severe weather and sea conditions plus the summer 2023 marine heatwave - but in 2025 more adults were in better condition to breed (Smith *et al*. 2025).

Table 1.4. Counts of Shag nests at No Ness and Sumburgh Head, 2014–2025, including the total count of apparently occupied nests (AON, in bold), total count of trace nests, and the count date. These two colonies are counted annually from land. Counts were not possible in 2020 due to the Covid lockdown restrictions.

Monitoring site	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
No Ness	**89**	**89**	**82**	**102**	**79**	**129**	-	**162**	**79**	**156**	**49**	**108**
	0	0	4	5	8	3		5	18	10	26	11
	12/6	16/6	1/6	7/6	7/6	9/6		15/6	8/6	12/6	18/6	10/6
Sumburgh Head	**112**	**111**	**107**	**110**	**80**	**113**	-	**94**	**67**	**120**	**54**	**92**
	3	3	4	4	10	3		3	5	11	13	11
	9/6	13/6	5/6	6/6	8/6	8/6		11/6	14&15/6	14/6	13/6	10/6

Figure 1.3. Counts from land of Shag nests at No Ness and Sumburgh Head, 1985–2025 (total apparently occupied nests, AON). In 2020, monitoring was not possible due to the Covid lockdown restrictions.



Three transects of coastline with relatively large numbers of breeding Shags and Kittiwakes have been surveyed by boat since 2018/19, namely the 1) Fetlar, 2) East Yell and 3) Southeast Mainland transects (**Figure 1.4**; Miles & Mellor 2018). One survey of each transect is attempted annually in June and all apparently occupied nests (AON) and trace nests counted.

In 2025, the Fetlar total AON count was 186, a 51.9% decrease on the most recent previous count (387 in 2023) and 31.3% below the 2019-2024 long-term mean of 271 (**Table 1.5, Figure 1.5**). The East Yell total count was 96 AON in 2025, a 41.8% decrease on the most recent previous count (165 in 2023) and 33.2% below the 2019-2024 long-term mean (144). The Southeast Mainland total count in 2025 was 294 AON, a 230.3% increase on the 2024 count (89) and 3.7% above the 2018-2024 long-term mean (284). Overall, in 2025, numbers of Shag AON had decreased since the most recent previous count along the northernmost two transects, but increased along the transect in the south of Shetland.

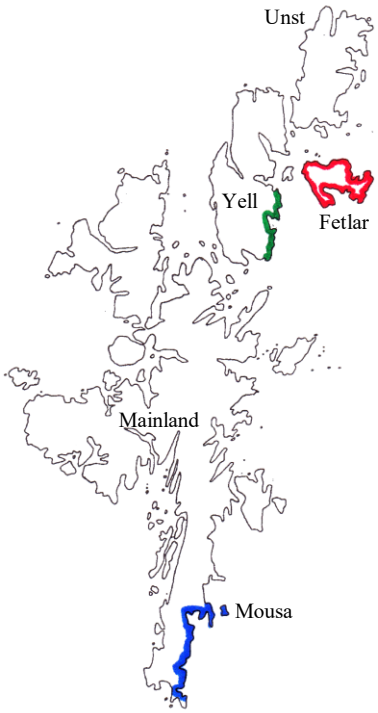


Figure 1.4. Location map of the three Shag and Kittiwake annual population monitoring transects. The Fetlar transect (red) comprises the entire coastline of Fetlar. The East Yell transect (green) begins in the southeast corner of Yell at 'Ladies Hole' at Burravoe (OS grid reference: HU531801) and ends on east Yell further north, at the Wick of Vatsetter (HU535896). The Southeast Mainland transect (blue) begins in the north at the Taing of Sandsayre (HU437251), includes the entire coastline of Mousa, and ends in the south at The Slithers (HU407092).

Figure 1.5. Total counts of Shag apparently occupied nests (AON) at the Fetlar (■), East Yell (▲) and Southeast Mainland (●) monitoring transects, 2018–2025. Data for 2020 are lacking due to Covid restrictions.

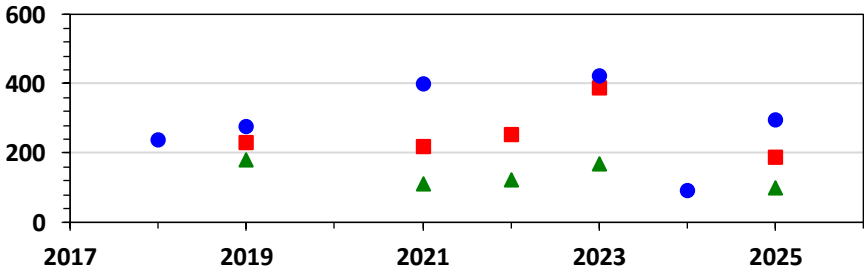


Table 1.5. Counts of Shag nests at the Fetlar, East Yell, and Southeast Mainland monitoring transects, 2018–2025, including the total count of apparently occupied nests (AON, in bold), the total count of trace nests, and the count date. Counts in brackets are for Burravoe on Yell, which is an important long-term SOTEAG monitoring site, e.g. for comparable Shag breeding success data, and forms the southernmost part of the East Yell transect. Occasionally, counts have not been possible (*), for example due to persistent unsuitable sea conditions. Counts were not possible in 2020 due to the Covid lockdown restrictions.

Monitoring transect	2018	2019	2020	2021	2022	2023	2024	2025
Fetlar	*	**229** * 27/6	-	**217** 15 18&19/6	**250** 18 5/6	**387** 29 7/6	*	**186** 30 19/6
East Yell [Burravoe monitoring site]	*	**177** * 28/6 **[37]** [*]	-	**111** 5 18/6 **[21]** [1]	**122** 12 6/6 **[15]** [3]	**165** 7 9/6 **[36]** [1]	*	**96** 14 15/6 **[15]** [0]
Southeast Mainland	**235** 21 17/6	**276** * 28/6	-	**396** 10 19/6	*	**422** 9 18/6	**89** 48 25/6	**294** 18 15/6

1.3b. European Shag *Gulosus aristotelis* breeding success monitoring

Annual monitoring at 2 sites, started in 1988 and 2012.
Repeat visits made to each site c.5-7 days apart to track breeding progress, usually from late March until mid-September.

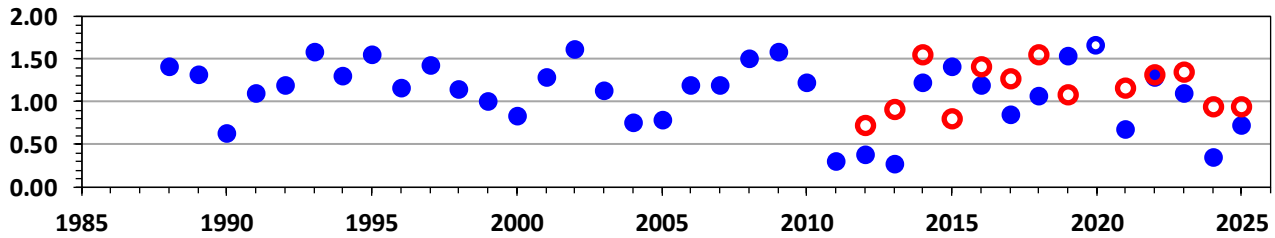
In 2025, Shag breeding success at Burravoe was 0.94 chicks fledged per incubated nest, exactly the same as in 2024 but 19.7% below the 2012-2024 long-term mean of 1.17 (**Table 1.6**, **Figure 1.6**). At Sumburgh, breeding success was 0.72, 105.7% up on 2024 (0.35) but 35.7% below the 1988-2024 long-term mean (1.12). Breeding success has fluctuated at both sites over the years, but although the 2025 season was some improvement on the very poor breeding season in 2024, it was still not a good year (**Figure 1.6**).

Table 1.6. Shag breeding success summary statistics at Sumburgh Head and Burravoe, Yell, 2016–25: the number of trace nests (Trace nests), well-built nests not being incubated (Nests not incubated) and the number of incubated nests (Nests incubated), the percentage of all nests that were being incubated, the percentage of incubated nests at which chicks were recorded (% H), the percentage of incubated nests that failed and where no chicks fledged, the number of chicks fledged, mean brood size at fledging, and sum breeding success (Breeding Success [=Ch/Inc]). Due to the Covid lockdown in 2020, monitoring was not possible that year at Burravoe and a reduced sample size of nests was monitored at Sumburgh, using fixed-position cameras.

Burravoe										
Year	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**
Trace nests	3	2	2	2	-	1	6	2	4	2
Nests not incubated	0	2	2	2	-	6	3	0	5	4
Nests incubated	22	26	20	39	-	35	37	48	35	33
Nests incubated (%)	88	86.7	83.3	90.7	-	83.3	80.4	96	79.5	84.6
Nests hatched (%)	72.7	69.2	60	61.5	-	65.7	81.1	75	62.9	51.5
Failed incubated nests (%)	31.8	38.5	40	43.6	-	42.9	32.4	31.3	0.4	48.5
Chicks fledged	31	33	31	42	-	41	49	65	33	31
Mean brood size	2.07	2.06	2.58	1.91	-	2.05	1.96	1.97	1.57	1.82
Breeding success	**1.41**	**1.27**	**1.55**	**1.08**	**-**	**1.17**	**1.32**	**1.35**	**0.94**	**0.94**

Sumburgh Head										
Year	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**
Trace nests	2	6	11	3	1	8	5	8	4	0
Nests not incubated	6	5	17	8	1	8	3	6	7	5
Nests incubated	94	108	68	103	49	66	51	96	54	81
Nests incubated (%)	92.2	90.8	70.8	90.3	96.1	80.5	86.4	87.3	83.1	94.2
Nests hatched (%)	74.5	61.1	69.1	80.6	80.4	75.8	80.4	68.8	29.6	49.4
Failed incubated nests (%)	36.2	50.9	38.2	25.2	20.4	33.3	29.4	40.6	74.1	56.8
Chicks fledged	113	92	73	159	81	45	66	106	19	58
Mean brood size	1.88	1.74	1.78	2.06	2.08	1.29	1.83	1.83	1.36	1.66
Breeding success	**1.2**	**0.85**	**1.07**	**1.54**	**1.65**	**0.68**	**1.29**	**1.1**	**0.35**	**0.72**

Figure 1.6. Shag breeding success (chicks fledged per incubated nest) at Sumburgh Head and Burravoe, 1988–2025. Monitoring began at Burravoe (red) in 2012. In 2020, monitoring was not possible at Burravoe and only a reduced sample size of nests was monitored at Sumburgh (blue open circle), due to the Covid lockdown.



1.4a. Black-legged Kittiwake *Rissa tridactyla* population monitoring

Annual monitoring along 3 transects, all started in 2018 (but one incorporating a site started in 1981).
Each transect is counted once per year (AON and trace nests). Normal monitoring period: 1st to 28th June.

Three transects of coastline with relatively large numbers of breeding Kittiwakes and Shags have been surveyed by boat since 2018, namely the 1) Fetlar, 2) East Yell and 3) Southeast Mainland transects (see location map on p.10, **Figure 1.4**; Miles & Mellor 2018). One survey of each transect is attempted annually, normally in June, and all apparently occupied nests (AON) and trace nests counted. The Southeast Mainland transect incorporates Compass Head, a small Kittiwake population monitoring site that has been counted since 1981.

In 2025, numbers of Kittiwake AON had increased since 2024 along all three transects. The Fetlar total AON count in 2025 was 73, a 14.1% increase on the 2024 count (54) and 20.1% above the 2018-2024 long-term mean of 61 (**Figure 1.7**, **Table 1.7**). The East Yell total count was 56 AON in 2025, a 3.7% increase on the 2024 count (54) but 4.6% below the 2018-2024 long-term mean (59). The Southeast Mainland total count in 2025 was 239 AON, a 37.4% increase on the 2024 count (174) and 18.7% above the 2018-2024 long-term mean (201). The total number of Kittiwake nests at Compass Head in 2025 was 43 (38 AON and 5 trace), an 104.8% increase on the 2024 count (21), but still a continuation of the general pattern at this site since 2016 of a very low number of nests compared with historical totals (**Figure 1.8**).

Figure 1.7. Total counts of Kittiwake apparently occupied nests (AON) at the Fetlar (■), East Yell (▲) and Southeast Mainland (●) monitoring transects, 2018–2025. Data for 2020 are lacking due to Covid restrictions.

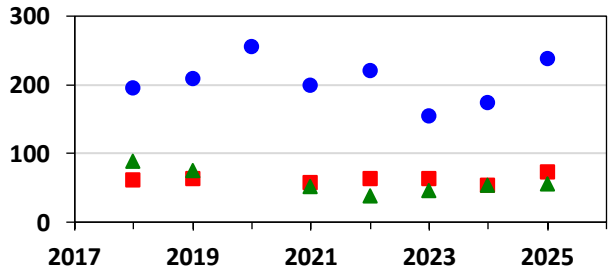


Figure 1.8. Total number of Kittiwake nests (total of all incubating, empty and trace nests) at Compass Head, 1981–2025. In 2020, due to the Covid lockdown, the count was done late (in August rather than June).

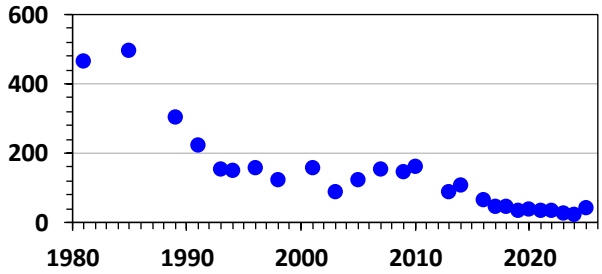


Table 1.7. Counts of Kittiwake nests at the Fetlar, East Yell, and Southeast Mainland monitoring transects, 2018–2025, including the total count of apparently occupied nests (AON, in bold), the total count of trace nests, and the count date. Counts in brackets are for Burravoe on Yell, which is an important long-term SOTEAG monitoring site, e.g. for comparable Kittiwake breeding success data, and forms the southernmost part of the East Yell transect. Occasionally, due to persistent unsuitable sea conditions, counts have either not been possible (*) or were done in early July. Counts of Fetlar and east Yell were not possible in 2020, and the Southeast Mainland count was done in August rather than June, due to the Covid lockdown restrictions.

Monitoring transect	2018	2019	2020	2021	2022	2023	2024	2025
Fetlar	**62** 2 17/6	**64** * 27/6	-	**57** 1 18&19/6	**64** 6 5/6	**64** 3 7/6	**54** 5 8/7	**73** 2 19/6
East Yell	**88** 2 17/6	**75** * 28/6	-	**51** 3 18/6	**38** 7 6/6	**46** 4 9/6	**54** 5 8/7	**56** 4 15/6
[Burravoe monitoring site]	[**77**] [2]	[**72**] [*]		[**50**] [1]	[**37**] [6]	[**38**] [3]	[**46**] [3]	[**41**] [2]
Southeast Mainland	**195** 28 17/6	**210** * 28/6	**255** * 3/8	**199** 20 19/6	**221** 16 4/7	**155** 25 18/6	**174** 15 25/6	**239** 9 19/6

1.4b. Black-legged Kittiwake *Rissa tridactyla* breeding success monitoring

Annual monitoring at 5 sites, started in 1986, 1986, 1993, 2004 and 2021.
Repeat visits made to each site c.5-7 days apart to track breeding progress, usually from early May until mid-August.

Overall, at all five monitoring sites, Kittiwake breeding success in 2025 was higher than in 2024 and higher than the site long-term mean. Breeding success at Burravoe was 1.14 chicks fledged per incubated nest, 90.0% higher than in 2024 (0.60) and 80.9% higher than the 2004-2024 long-term mean of 0.63 (**Table 1.8**, **Figure 1.9**). Breeding success at Esha Ness was 0.57, 185.0% higher than in 2024 (0.20) and 58.3% higher than the 1986-2024 long-term mean (0.36). At Ramna Geo on Burra, breeding success in 2025 was 1.02, up from zero chicks fledged per incubated nest in 2024 and 112.5% higher than the 1993-2024 long-term mean (0.48). Breeding success in 2025 at Dalsetter was 0.89, up from zero chicks fledged per incubated nest in 2024 and 97.8% above the 2021-2024 mean (0.45). Meanwhile at Sumburgh, breeding success in 2025 was 0.70, up from 0.05 in 2024 and 40.0% higher than the 1986-2024 long-term mean (0.50). Through the decades, Kittiwake breeding success has been consistently and highly variable at all sites, with no obvious long-term trends (**Figure 1.9**).

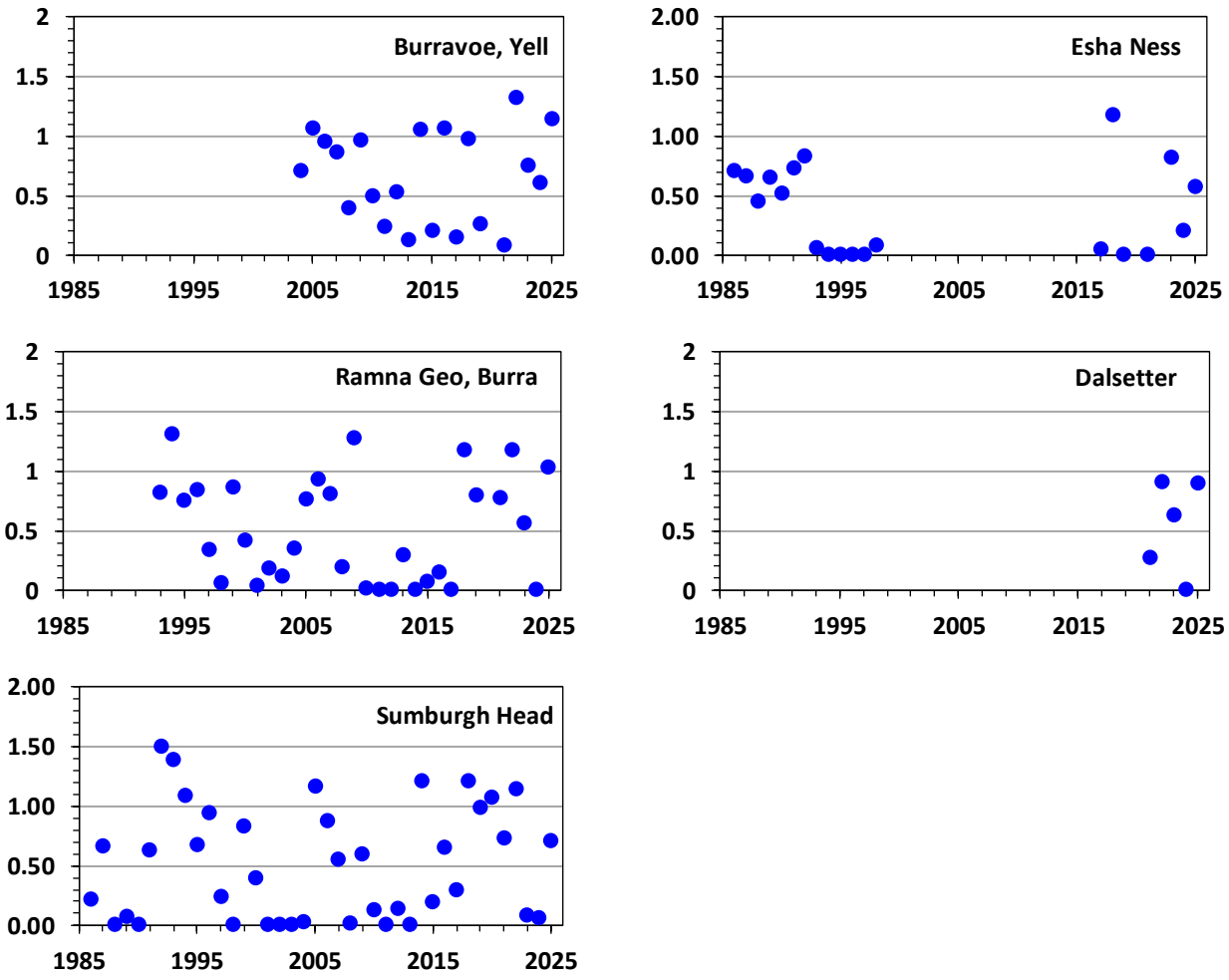
Table 1.8. Kittiwake breeding success summary statistics for five monitored sites, 2015–25: the number of nests (Total nests [= full nests + trace nests]); the number of nests where incubation was recorded or assumed (Incubating); the percentage of nests where incubation was recorded or assumed (% Incubating [= (Incubating / Total nests) x100]); the percentage of incubated nests where at least one chick was known to have hatched (% Incubated that hatched); the percentage of hatched nests where two chicks were seen (% Hatched that b/2); the percentage of incubated nests that failed (% Incubated that failed); the total number of chicks fledged (Chicks fledged); and breeding success (Breeding success = [Chicks fledged / Incubating]). In 2020, monitoring was prevented by the Covid lockdown restrictions, except at Sumburgh Head where a reduced number of nests were monitored using fixed-position cameras.

Burravoe, Yell	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**
Total nests	98	100	82	87	76	-	47	50	39	45	51
Incubating	84	84	69	71	64	-	38	39	35	43	44
% Incubating	85.7	84.0	84.1	81.6	84.2	-	80.9	78.0	89.7	95.6	86.3
% Incubated that hatched	73.8	86.9	72.5	94.4	70.3	-	76.3	84.6	77.1	72.1	70.5
% Hatched that b/2	13.1	58.9	12.0	55.3	28.1	-	55.2	81.8	40.7	19.4	70.9
% Incubated that failed	79.8	29.8	87.0	32.4	82.8	-	94.7	23.1	40.0	44.2	31.8
Chicks fledged	17	89	10	69	16	-	3	51	26	26	50
Breeding success	**0.20**	**1.06**	**0.14**	**0.97**	**0.25**	-	**0.08**	**1.31**	**0.74**	**0.60**	**1.14**
Esha Ness	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**
Total nests			38	32	38	-	12	0	18	44	63
Incubating			27	24	32	-	6	0	16	30	53
% Incubating			71.1	75.0	84.2	-	50	0	88.9	68.2	84.1
% Incubated that hatched			3.7	87.5	31.3	-	0	0	75.0	66.7	75.5
% Hatched that b/2			0.0	52.4	0.0	-	0	0	33.3	40.0	20.0
% Incubated that failed			96.3	25.0	100.0	-	100	0	31.3	80.0	43.4
Chicks fledged			1	28	0	-	0	0	13	6	30
Breeding success			**0.04**	**1.17**	**0.00**	-	**0.00**	**n/a**	**0.81**	**0.20**	**0.57**
Ramna Geo, Burra	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**
Total nests	37	32	29	39	53	-	79	90	90	86	97
Incubating	30	28	25	30	43	-	68	83	81	56	81
% Incubating	81.1	87.5	86.2	76.9	81.1	-	86.1	92.2	90.0	65.1	83.5
% Incubated that hatched	66.7	75.0	76.0	80.0	86.0	-	85.3	90.4	77.8	17.9	82.7
% Hatched that b/2	0	4.8	5.3	75.0	37.2	-	13.8	64.0	47.6	10.0	29.9
% Incubated that failed	93.3	85.7	100	26.7	37.2	-	27.9	19.3	44.4	100.0	23.5
Chicks fledged	2	4	0	35	34	-	52	97	45	0	83
Breeding success	**0.07**	**0.14**	**0**	**1.17**	**0.79**	-	**0.76**	**1.17**	**0.56**	**0.00**	**1.02**

Table 1.8. continued.

Dalsetter	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**
Total nests							18	25	21	25	20
Incubating							15	20	13	19	18
% Incubating							83.3	80.0	61.9	76.0	90.0
% Incubated that hatched							86.7	80.0	84.6	73.7	88.9
% Hatched that b/2							7.7	43.8	0.0	0.00	43.8
% Incubated that failed							73.3	30.0	38.5	100.0	27.8
Chicks fledged							4	18	8	0	16
Breeding success							**0.27**	**0.90**	**0.62**	**0.00**	**0.89**
Sumburgh Head	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**
Total nests	135	142	148	151	156	86	139	123	95	78	78
Incubating	117	119	119	116	129	76	118	98	51	62	69
% Incubating	86.7	83.8	80.4	76.8	82.7	88.4	84.9	79.7	53.7	79.5	88.5
% Incubated that hatched	59.8	82.4	58.8	83.6	87.6	81.6	86.4	91.8	13.7	19.4	71.0
% Hatched that b/2	2.9	31.6	5.7	47.4	34.5	64.5	32.4	56.7	14.3	25.0	40.8
% Incubated that failed	71.8	43.7	72.3	17.2	20.2	23.7	33.1	19.4	92.2	95.2	44.9
Chicks fledged	33	79	34	139	127	81	85	111	4	3	48
Breeding success	**0.28**	**0.66**	**0.29**	**1.20**	**0.98**	**1.07**	**0.72**	**1.13**	**0.08**	**0.05**	**0.70**

Figure 1.9. Kittiwake breeding success (chicks fledged per incubated nest) at Burravoe, Yell (started 2004), Esha Ness (started 1986, but no monitoring from 1999 to 2016 when there was no colony), Ramna Geo, Burra (started 1993), Dalsetter (started 2021) and Sumburgh Head (started 1986). Sites are presented from north to south. In 2020, the Covid lockdown meant that only Sumburgh Head and a reduced sample size of nests there could be monitored (open circle).



1.5a. Common Guillemot *Uria aalge* population monitoring

Annual monitoring at 4 sites, started in 1976, 1976, 1976 and 1977.
Each site is counted five times per year (Individuals) and the mean calculated. Monitoring period: 1st to 21st June.

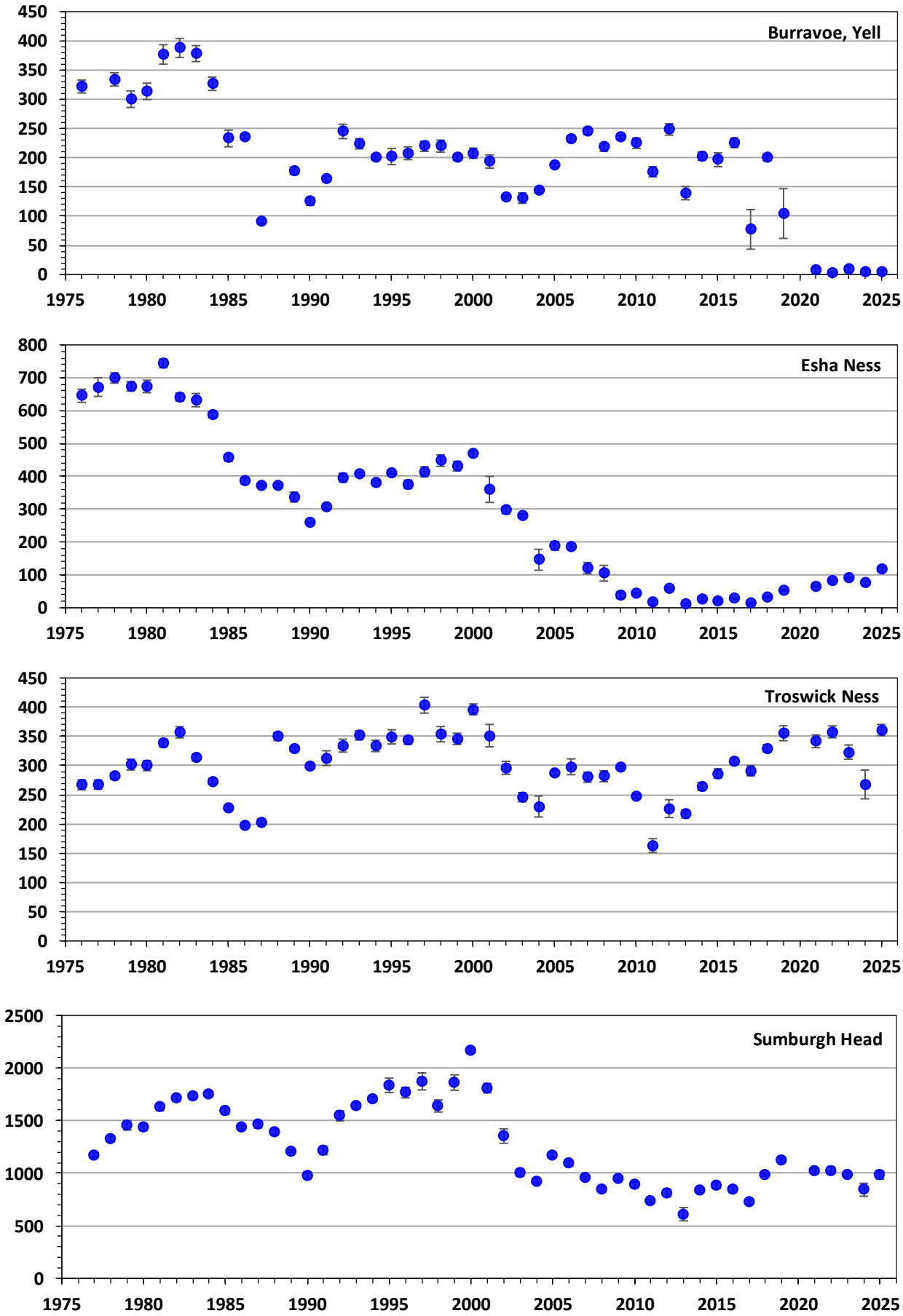
In 2025, the mean number of individual Guillemots had decreased at Burravoe but increased at Esha Ness, Troswick Ness and Sumburgh Head in comparison with 2024 (**Table 1.9**, **Figure 1.10**). The mean number of individuals at Burravoe was 4, 12.5% down on 2024 (5) and 97.9% below the 1976-2024 long-term mean (201). At Esha Ness, the mean number of individuals was 117, 54.9% higher than in 2024 (75) but 61.4% below the 1976-2024 long-term mean (303). The mean number of individuals at Troswick Ness was 361, 34.7% up on 2024 (268) and 20.4% above the 1976-2024 long-term mean (300). Meanwhile, at Sumburgh, the mean number of individuals in 2025 was 983, 16.7% up on 2024 (843) but 22.9% below the 1977-2024 long-term mean (1276). Reasons for the increase in numbers at three sites in 2025 are uncertain, but as with several other cliff-nesting species, one possibility is that a relatively high proportion of adults were in low reproductive condition in 2024 and did not breed, but in 2025 more adults were in better condition and therefore population sizes were higher (2024 was possibly a non-breeding 'sabbatical' year for many individuals, after three consecutive winters of severe weather and sea conditions plus the summer 2023 marine heatwave).

Since 1976, mean population counts from the four monitoring sites have been variable, with no consistent patterns shown across all sites (**Figure 1.10**). At Esha Ness there has been a near-continuous decrease in numbers since 1976, although with a slight general increase through the last ten years, also apparent at Troswick Ness and Sumburgh Head (**Figure 1.10**). The population at Burravoe was again extremely low in 2025, with a mean count of just four individuals (five in 2024, nine in 2023, three in 2022 and seven in 2021; **Table 1.9**). Since 2016, this site has collapsed as a breeding colony, possibly due to sustained harassment of adults and predation of eggs by a pair of Ravens nesting nearby, which becomes significant once the colony drops below a certain size threshold.

Table 1.9. Common Guillemot population counts summary statistics, 2024–25: total counts (n), range, mean, standard deviation (SD), standard error (SE) and % change since 2024 (% Ch). The population counting unit for Common Guillemot is individual birds. Sites are listed from north to south.

Colony	Unit	Year	n	Range	Mean	SD	SE	% Ch
Burravoe, Yell	Individuals	2024	5	0–24	5	10.73	4.80	
		2025	5	0–18	4	7.82	3.50	-12.5
Esha Ness	Individuals	2024	5	53–90	75	14.05	6.28	
		2025	5	104–135	117	13.88	6.21	+54.9
Troswick Ness	Individuals	2024	5	182–335	268	55.06	24.62	
		2025	5	325–379	361	21.61	9.67	+34.7
Sumburgh Head	Individuals	2024	5	653–1023	843	138.20	61.81	
		2025	5	877–1119	983	87.65	39.20	+16.7

Figure 1.10. Mean population counts of Common Guillemots (individuals) and standard errors, at the four monitored sites, 1976–2025. Data for 2020 are lacking due to Covid restrictions.



1.5b. Common Guillemot *Uria aalge* breeding success monitoring

Annual monitoring at 1 site, started in 1989.
Site monitored daily to track breeding progress, usually from mid-April until early-August.

In 2025, the Sumburgh Head breeding success plot was checked from 11th April to 25th July. Monitoring was carried out every day, starting at 0800 BST, including the daily count of total adults in the plot.

Guillemot breeding success at the Sumburgh plot in 2025 was 0.44 chicks fledged per apparently incubating pair, 340.0% higher than in 2024 (0.10) but 18.5% below the 1989-2024 long-term mean of 0.54 (**Table 1.10**, **Figure 1.11**). The number of breeding attempts in 2025 was 108, a return to normal levels (>100 attempts per year) after the drop to just 60 breeding attempts in 2024 (**Table 1.10**). The timing of egg laying was also relatively normal in 2025; the first egg was on 6th May and the median laying date was the 15th/16th May, compared with the late timing of 16th May and 2nd/3rd June, respectively, in 2024 (**Table 1.10**). In total, 48 chicks fledged in 2025 (compared with just 6 in 2024), with the first departing on the evening of 1st July and the last on the evening of 23rd July.

The total number of adults attending the site was recorded at the start of each plot check. As in previous years, at the start of the season the number of adults at the plot fluctuated greatly, for example from zero on 12th April up to 214 on 19th (highest count of the season), down to zero on 21st, back up to 167 on 25th, down to 47 on 2nd May, up to 150 on 6th, 74 on 10th, then 127 on 12th, after which attendance numbered over 100 individuals daily until the colony started to depart, with attendance dropping to 84 on the 14th July, 61 on 20th, and tailing off to zero on 25th (**Figure 1.12**). Gulls, skuas and Ravens were seen frequently around the colony in 2025, but predation of eggs and chicks was observed only rarely. In comparison with 2024, in 2025, adult colony attendance through the season was only slightly higher, but the number and duration of breeding attempts was substantially higher (**Figure 1.12** & **Figure 1.13**).

Table 1.10. Common Guillemot breeding parameters at Sumburgh Head, 2015–2025, including breeding success calculated as chicks fledged per apparently incubating pair. * = First date an egg was seen or apparent incubation was seen. Detailed monitoring was not possible in 2020 due to the Covid lockdown restrictions.

	2015	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**
Incubating pairs	135	132	130	134	129	-	132	130	131	60	108
First date an egg seen*	5/5	4/5	9/5	8/5	9/5	4/5	4/5	7/5	10/5	16/5	6/5
Median laying date	14/5	13/5	15/5	17-18/5	13-14/5	-	13-14/5	15-16/5	18-19/5	2-3/6	15-16/5
Chicks fledged	70	94	54	72	98	-	88	85	63	6	48
Breeding success	**0.52**	**0.71**	**0.42**	**0.54**	**0.76**	**-**	**0.67**	**0.65**	**0.48**	**0.10**	**0.44**

Figure 1.11. Common Guillemot breeding success at the Sumburgh Head monitoring plot, 1989–2025. Monitoring was not possible in 2020 due to the Covid lockdown restrictions.

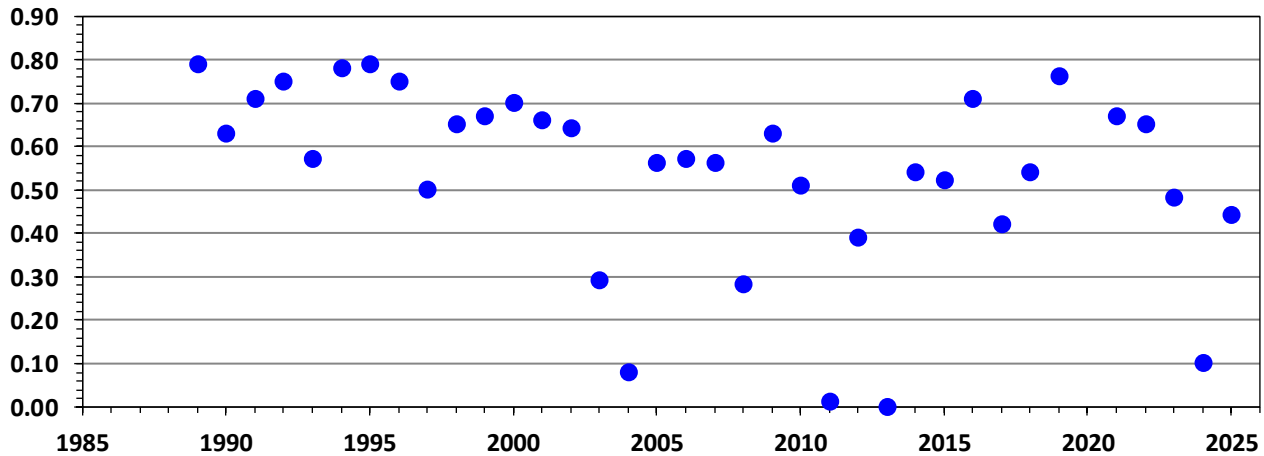


Figure 1.12. Total daily counts of adult Common Guillemots in the Sumburgh Head breeding success monitoring plot through the 2025 breeding season (red) and the 2024 breeding season (blue).

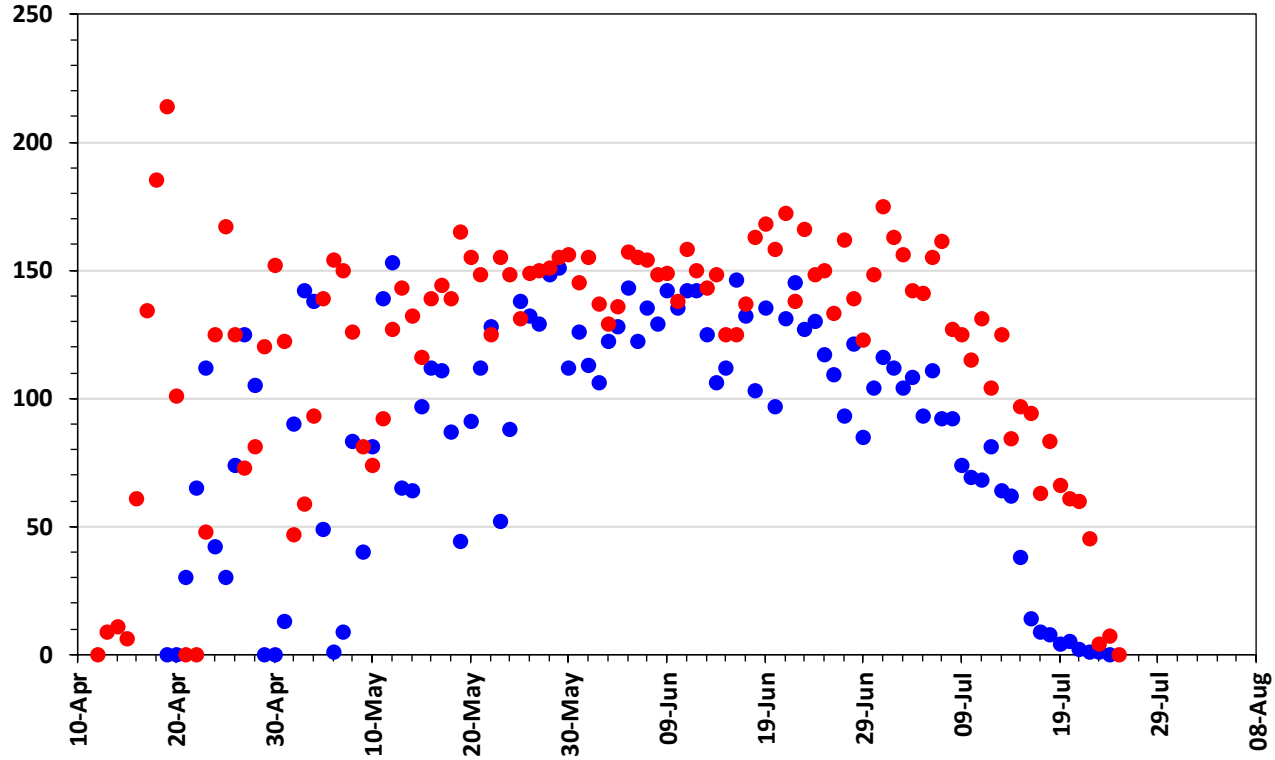
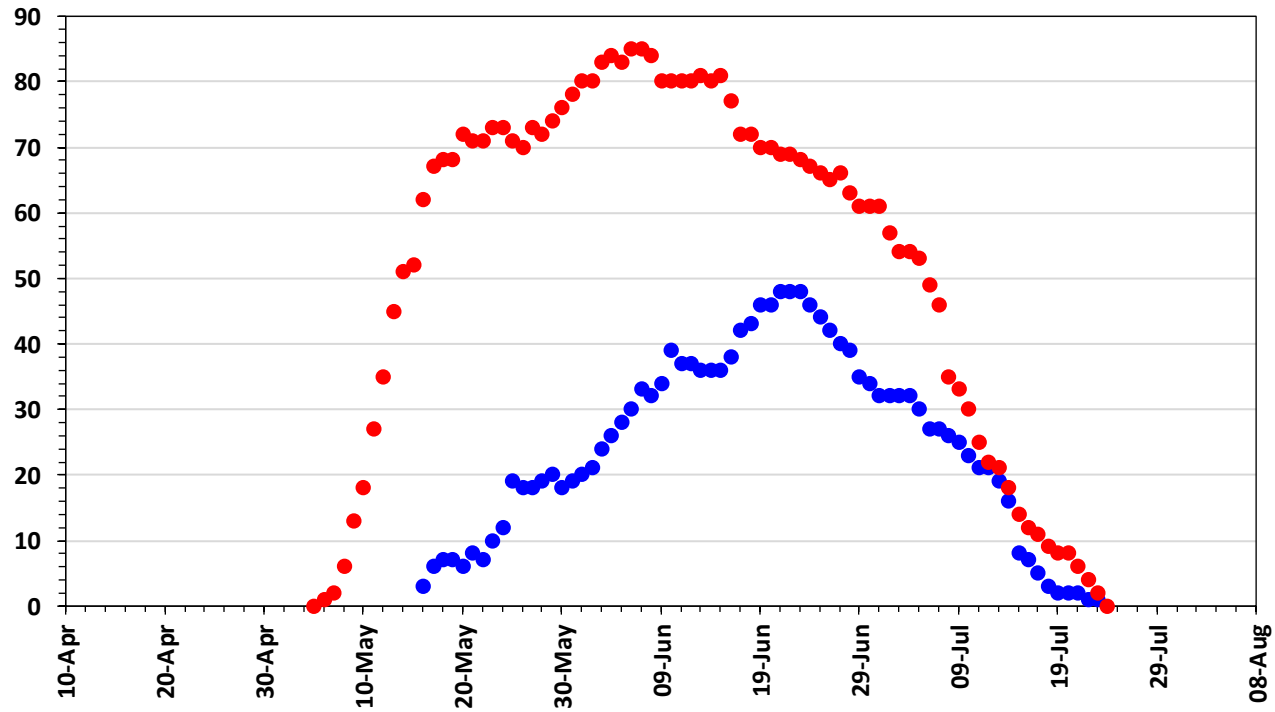


Figure 1.13. Total daily counts of breeding pairs of Common Guillemot with an egg or chick in the Sumburgh Head breeding success monitoring plot through the 2025 breeding season (red) and the 2024 breeding season (blue).

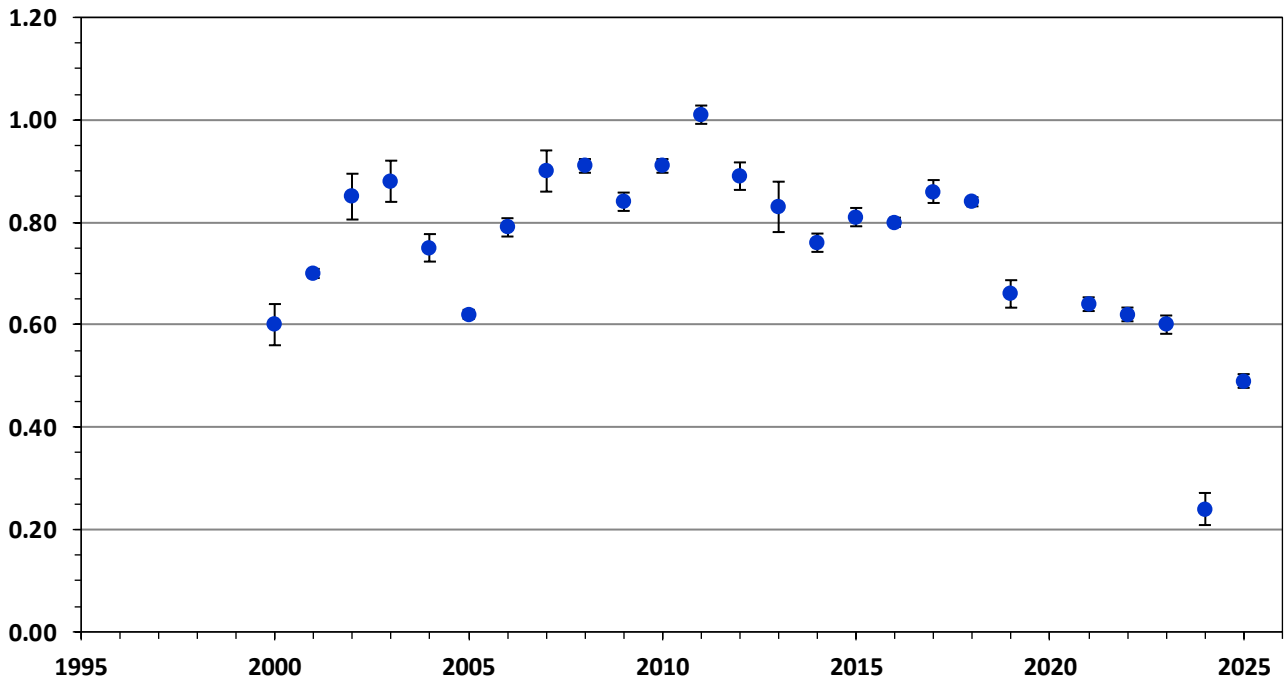


In 2025, the mean *k*-value calculated from the Guillemot breeding success plot at Sumburgh was 0.49, 104.2% higher than in 2024 (0.24) but 35.5% below the 2000-2024 long-term average of 0.76 (mean *k*-value = mean number of breeding pairs in the plot / mean number of adults in the plot; **Table 1.14, Figure 1.14**). Although not as low as in 2024, the magnitude of the k-value in 2025 was still unusually low and, as in 2024, resulted from the combined circumstance of there being low numbers of breeding adults but relatively high attendance of individual adults on the plot compared with other years. The long-term results from 2000 to 2025 suggest a non-linear pattern of change has occurred, comprising general increase from 2000 to 2011 and general decrease from 2011 to 2025, with an unprecedented low dip in 2024 (**Figure 1.14**). There are no data for 2020 because fieldwork was prevented by the Covid lockdown.

Table 1.11. The total number of adult Guillemots (site attendance), the total number of breeding pairs and *k*-values for the breeding success monitoring plot at Sumburgh Head on the dates of the five Guillemot population counts at Sumburgh in 2025, with means and standard deviations (SD).

Date	**1/6**	**6/6**	**9/6**	**11/6**	**13/6**	**Mean**	**SD**
Time (BST)	1320	1415	1050	1325	1320		
Total adult Guillemots in plot (n)	167	164	156	176	175	167.60	8.26
Total breeding pairs in plot (b)	80	85	80	80	81	81.20	2.17
k-value (b/n)	0.48	0.52	0.51	0.46	0.46	0.49	0.03

Figure 1.14 Mean *k*-values at the Common Guillemot breeding success plot from the five annual counts of individuals in the population monitoring plots and standard errors, 2000–2025.



1.5c. Common Guillemot *Uria aalge* chick diet monitoring

Annual monitoring at 1 site, started in 2007 (site is the same as for Guillemot breeding success monitoring).
Site monitored every 1-3 days (0900 to 1030), until prey sample size >200. Monitoring period: mid-June until mid-July.

In 2025, Guillemot chick feeding watches were carried out on nine days, daily from 21st to 29th June, at the standard chick diet monitoring plot at Sumburgh Head (which includes the breeding success plot). During watches, each adult Guillemot flying into the plot was checked to see if it was carrying a fish, and if so, the adult was watched to see if its fish was presented to a chick. Fish presented to chicks were identified to the lowest possible taxon. All watches lasted 90 minutes, from 0900 to 1030 BST.

In 2025, every day that feeding watches were carried out the majority of fish presented to chicks were gadids (>50% each day) and sandeels occurred slightly less frequently (<50% each day), except on 26th June when the proportions were 54% sandeels and 46% gadids (**Figure 1.15**). In total, 238 prey items were observed during feeding watches, with 59.7% being gadids and 39.1% sandeels, compared with 72.0% gadids and 27.1% sandeels in 2023 (no data for 2024 because chicks were too few; **Figure 1.16**). Only one clupeid was seen in 2025, on 29th June, and it comprised 2.6% of the total prey observed that day (**Figure 1.15**). No other prey types were seen in 2025, although two prey items were fed to chicks too quickly for identification to be possible. The long-term pattern shown by this dataset is that generally the proportion of gadids in the diet of chicks increased and the proportion of sandeels decreased from 2007 to 2019 but thereafter the proportion of gadids has decreased and of sandeels has increased, whereas all other prey types have been consistently rare across all years (**Figure 1.16**).

Figure 1.15. The percentages of different general prey types fed to Common Guillemot chicks at the Sumburgh Head monitoring plot during feeding watches on nine dates in 2025 (date range: 21/6–29/6; total sample size of prey items presented to chicks = 238).

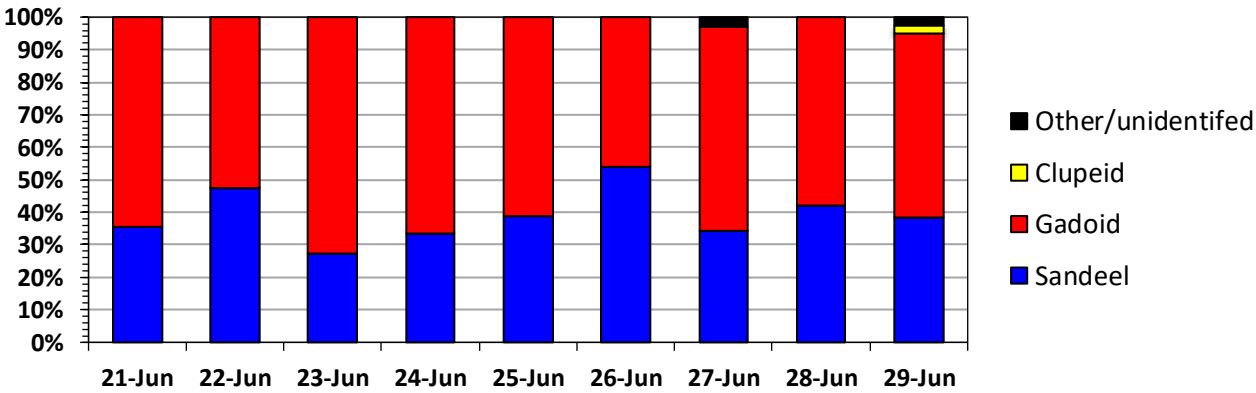
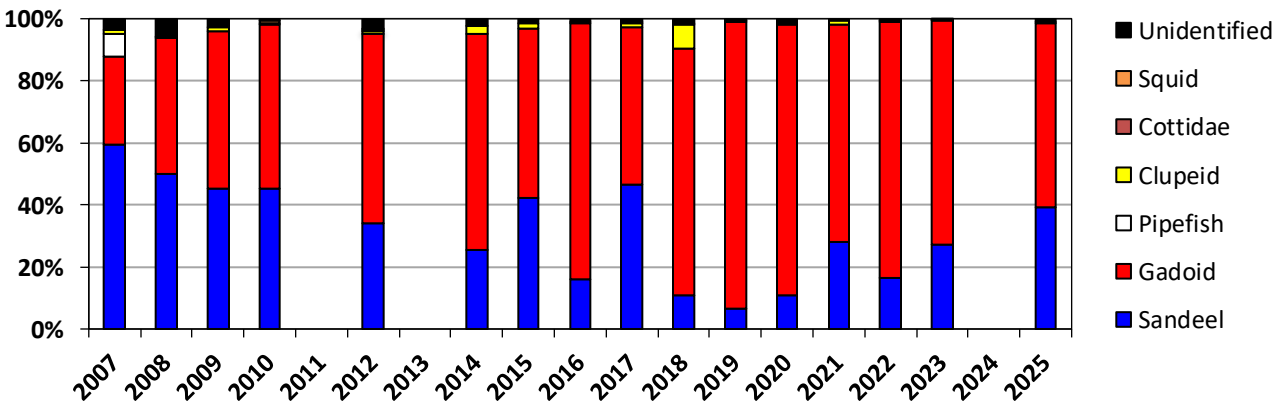


Figure 1.16. The percentages of general prey types fed to Common Guillemot chicks at the Sumburgh Head monitoring plot during feeding watches in 2007–2025. Prey sample sizes: 2007 = 324; 2008 = 140; 2009 = 250; 2010 = 250; 2012 = 401; 2014 = 629; 2015 = 515; 2016 = 790; 2017 = 509; 2018 = 492; 2019 = 202; 2020 = 354; 2021 = 282; 2022 = 371; 2023 = 250; 2025 = 238. There were too few chicks in 2011, 2013 and 2024 for meaningful observations.



1.6a. Razorbill *Alca torda* population monitoring

Annual monitoring at 4 sites, started in 1976, 1976, 1976 and 1977.
Each site is counted five times per year (Individuals) and the mean calculated. Monitoring period: 1st to 21st June.

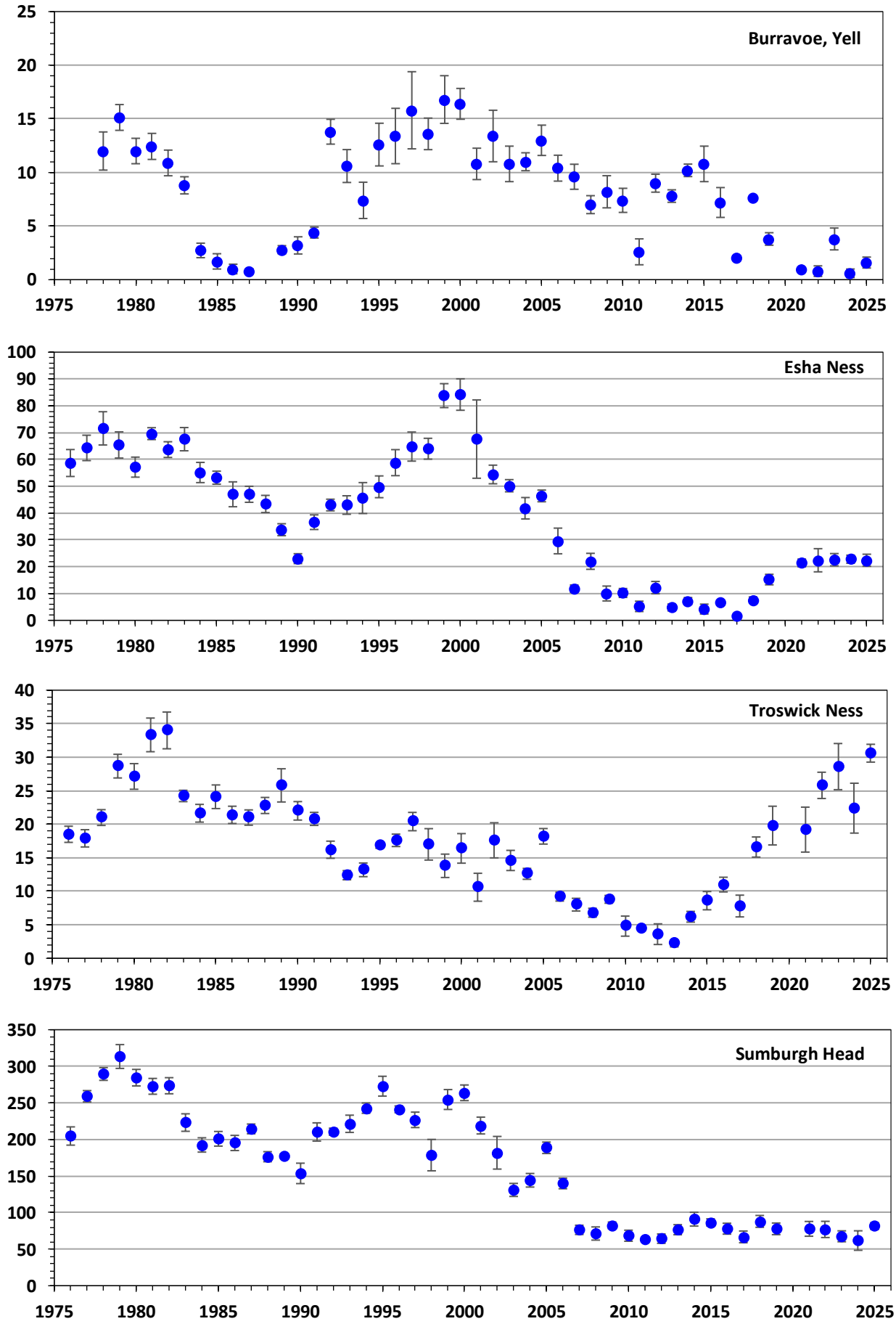
In 2025, the mean number of individual Razorbills had increased at Burravoe, Troswick Ness and Sumburgh, and remained virtually unchanged at Esha Ness, in comparison with 2024 (**Table 1.12**, **Figure 1.17**). The mean number of individuals at Burravoe was 2, slightly up on 2024 (1) but 80.9% below the 1978-2024 long-term mean (8). At Esha Ness, the mean number of individuals was 22, 1.8% lower than in 2024 (23) and 43.1% below the 1976-2024 long-term mean (39). The mean number of individuals at Troswick Ness was 31, 36.6% up on 2024 (22) and 81.1% above the 1976-2024 long-term mean (17). At Sumburgh the mean number of individuals in 2025 was 82, 32.0% up on 2024 (62) but 51.3% below the 1976-2024 long-term mean (167). As with several other cliff-nesting species in 2025, reasons for the increase in Razorbill numbers at three sites are uncertain; however, one possibility is that a relatively high proportion of adults were in low reproductive condition in 2024 and did not breed (possibly a non-breeding 'sabbatical' year after three consecutive winters of severe weather and sea conditions plus the summer 2023 marine heatwave), but in 2025 more adults were in better condition and therefore breeding population sizes were higher.

Since 1976, there has been a broadly consistent general pattern of population change across the four monitoring sites. Namely, relatively high numbers in the late 1970s, a drop in numbers through the 1980s, an increase through the 1990s, followed by decreases thereafter (**Figure 1.15**). At Esha Ness numbers have then increased since 2017, and at Troswick Ness have increased since 2013, whereas at Sumburgh Head numbers have remained generally stable since 2007 (**Figure 1.15**).

Table 1.12. Razorbill population counts summary statistics, 2024–25: total counts (n), range, mean, standard deviation (SD), standard error (SE) and % change since 2024 (% Ch). The population counting unit for Razorbills is individual birds. Sites are listed from north to south.

Colony	Unit	Year	n	Range	Mean	SD	SE	% Ch
Burravoe, Yell	Individuals	2024	5	1–2	1	0.89	0.40	
		2025	5	1–3	2	1.14	0.51	+166.7
Esha Ness	Individuals	2024	5	19–28	23	3.35	1.50	
		2025	5	16–30	23	5.03	2.25	-1.8
Troswick Ness	Individuals	2024	5	15–32	23	8.32	3.72	
		2025	5	27–34	31	2.97	1.33	+36.6
Sumburgh Head	Individuals	2024	5	23–100	62	29.76	13.31	
		2025	5	66–95	82	10.45	4.68	+32.0

Figure 1.17. Mean population counts of Razorbills (individuals) and standard errors, at the four monitored sites, 1976–2025. Data for 2020 are lacking due to Covid restrictions.



1.6b. Razorbill *Alca torda* breeding success monitoring

Annual monitoring at 1 site, started in 2011.
Site monitored every 2-4 days to track breeding progress, usually from mid-April until early-August.

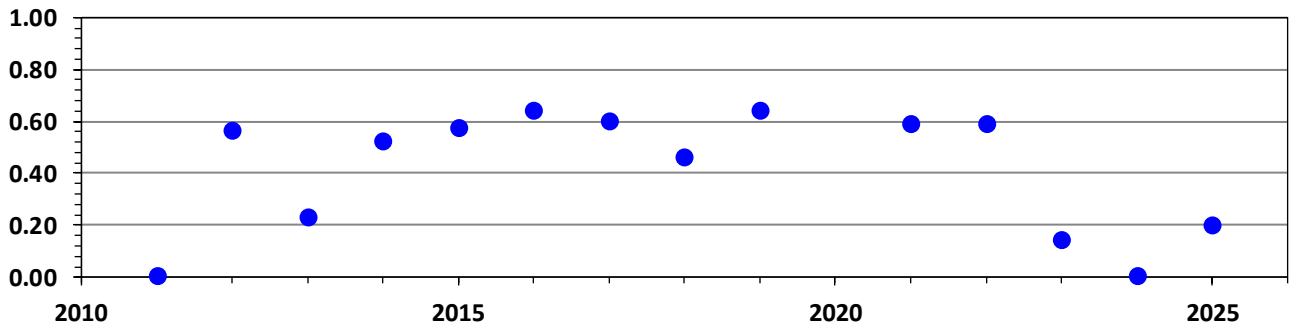
Razorbill breeding success is monitored at Sumburgh Head using the marked photograph method (Walsh *et al*. 1995). The presence of attending adults, adults sitting tight, and the presence of an egg or chick is recorded. At sites where no egg or chick is seen, pairs are assumed to have laid an egg if an adult is seen sitting tight on at least two consecutive monitoring visits (**Table 1.17**). An incubation period of 35 days, a minimum fledgling period of 15 days and the development of the juvenile plumage are all used to help assess probable hatching periods, chick ages and whether chicks could have fledged or not.

Razorbill breeding success in 2025 was 0.20 chicks fledged per breeding pairs, up from zero in 2024 but 53.5% lower than the 2011-2024 long-term mean of 0.43, and it was generally another poor year (**Table 1.13, Figure 1.18**). Ravens were seen regularly around Sumburgh Head in 2025, including predating seabird eggs, and potentially reduced Razorbill breeding success in 2025. The Razorbill population counts of Sumburgh Head in 2025 had increased since 2024 and were of similar magnitude to counts in 2019 to 2022 (**Figure 1.17**), but the number of breeding pairs in the breeding success monitoring plots in 2025 was low compared with in 2019 to 2022 (**Table 1.13**). This suggests that a relatively high proportion of the adults present during the breeding season at Sumburgh did not breed and were just loafing in 2025, as had occurred in 2024.

Table 1.13. Razorbill breeding success summary statistics at Sumburgh Head, 2015–25: the date range of site visits (Date range), total number of site visits (Visits), mean interval of days between visits (Mean interval), date that the first egg was seen or assumed to have been laid (First egg), number of nest sites where an egg and/or chick was seen (Egg/chick seen), number of nest sites where an adult was seen sat tight on two or more consecutive site visits but no egg or chick was ever seen (ST2 consecutive), total number of breeding pairs (Breeding pairs [=Egg/chick seen + ST2 consecutive]), number of nest sites where chicks were seen (Chicks seen), total number of chicks assumed to have fledged (Chicks fledged) and breeding success (Breeding success [= Chicks fledged / Breeding pairs]). Monitoring was not possible in 2020 due to the Covid lockdown restrictions.

	2015	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**
Date range	6/5–6/8	3/5–17/8	4/5–1/8	5/5–6/8	3/5–30/7	-	29/4–1/8	29/4–3/8	29/4–27/7	30/4–30/6	30/4–29/7
Visits	38	54	51	47	51	-	39	42	51	27	50
Mean interval	2.4	2.0	1.7	2.0	1.8	-	2.3	2.3	1.8	2.3	1.8
First egg	9/5	5/5	9/5	5/5	5/5	-	10/5	2/5	2/5	2/5	10/5
Egg/chick seen	51	70	59	61	71	-	68	59	40	2	39
ST2 consecutive	16	11	9	20	15	-	24	17	45	29	17
Breeding pairs	67	81	68	81	86	-	92	76	85	31	56
Chicks seen	40	57	45	41	59	-	56	53	16	0	24
Chicks fledged	38	52	41	37	55	-	54	45	12	0	11
Breeding success	**0.57**	**0.64**	**0.60**	**0.46**	**0.64**	-	**0.59**	**0.59**	**0.14**	**0.00**	**0.20**

Figure 1.18. Razorbill breeding success at the Sumburgh Head monitoring plot, 2011–2025. Monitoring was not possible in 2020 due to the Covid lockdown restrictions.



2. Population monitoring of pre-breeding Black Guillemots *Cepphus grille*

Annual monitoring at 10 sites, started in 1982, 1982, 1982, 1982, 1983, 1983, 1983, 1983, 1983, 1983, 1984 and 2018. Each site is counted once or twice per year (individuals), prior to 9.00am. Monitoring period: late-March to late-April.

Population counts of Black Guillemots in breeding plumage are made during the birds' display and courtship period in early spring, prior to egg-laying. Counts are made in dry conditions with little or no sea swell and little or no wind (at most an offshore wind of Force 4), when displaying individuals gather together close inshore on the sea and can be readily observed. The 'willingness' of individuals to leave the cliffs and alight on the water appears to be somewhat variable though, and to diminish through April. Also, after about 9.00am displaying individuals tend to disperse further offshore or along the coast, but the timing of this varies, with birds occasionally departing the colony areas unusually early. Counts are therefore prone to high variation, sometimes including low counts that are difficult to interpret.

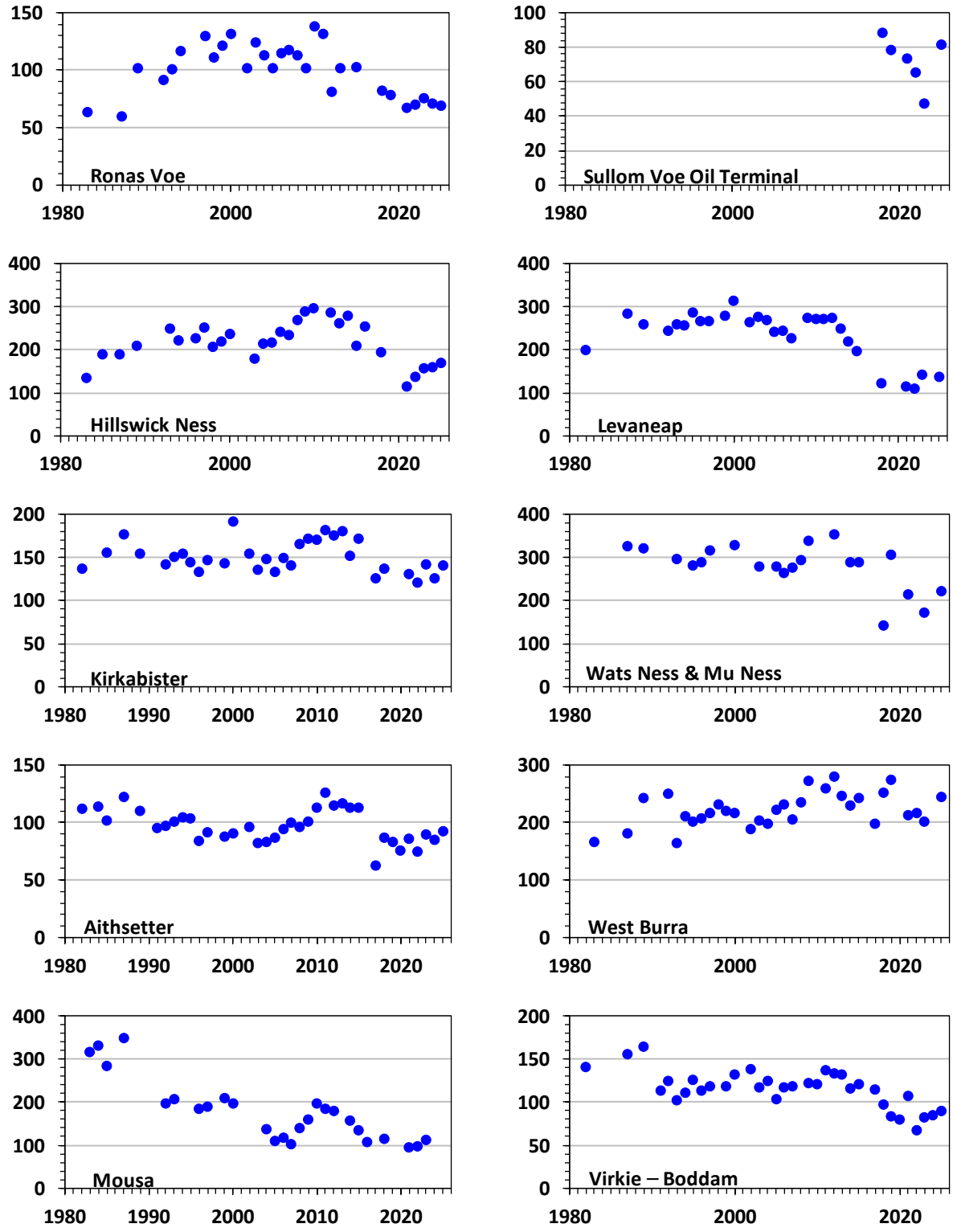
In 2025, the weather in April was unusually settled and there were many days suitable for surveying Black Guillemots. Monitoring was completed on relatively early dates within the monitoring period and in good conditions at all of the sites (**Table 2.1**), with the exception of Mousa that is monitored and managed by RSPB. The monitoring visit to Sullom Voe Oil Terminal was facilitated by the kind help of Kristopher Wilson at the site.

In 2025, numbers of Black Guillemots had increased at seven of the ten monitoring sites in comparison to the most recent previous count, but decreased at two of the sites although by less than 5% at both (range: -4.3% to +28.8% change; **Table 2.1, Figure 2.1**). However, at each site the 2025 count was lower than the long-term mean, except at the Oil Terminal and at West Burra (range: -43.2% to +15.4%; **Table 2.1**). The general long-term pattern at most sites has been overall stability in numbers from 1990 to c.2015 but then a decrease (**Figure 2.1)**. However, in the short-term, counts have increased slightly through the last three to four years at Hillswick Ness, Levaneap, Kirkabister, Aithsetter, West Burra and Virkie-Boddam (**Table 2.1**, **Figure 2.1**).

Table 2.1. Counts of Black Guillemots in full breeding plumage at ten standard monitoring sites, 2016–2025. Data presented are the highest early spring day counts for the year, with sites listed north to south. Percentage change (% ch.) is between 2025 and the most recent previous count. The long-term mean (LTM) is the mean count of individuals in full breeding plumage across all previous years with data. The number of counts (n) is the total number of years in which the site has been counted. Sullom Voe Oil Terminal was first surveyed in 2018. In 2016 and 2017 Black Guillemot counts of sections of the Shetland coastline elsewhere, for the national seabird census, were prioritised over the standard monitoring sites (see 2016 and 2017 SOTEAG ornithological monitoring reports). In 2020, monitoring was limited by the Covid lockdown.

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	% ch.	LTM	n
Ronas Voe			81	78		66	69	75	70	68	-2.9	100	30
Sullom Oil Terminal			88	78		73	65	47		81	+72.3	70	6
Hillswick Ness	252		193			112	134	156	157	168	+7.0	216	30
Levaneap			121			112	108	140		134	-4.3	236	29
Kirkabister		125	136			129	120	141	125	139	+11.2	150	33
Wats Ness & Mu Ness			140	305		212		170		219	+28.8	280	21
Aithsetter		62	86	82	75	85	74	89	84	92	+9.5	96	37
West Burra		196	251	272		211	215	199		242	+21.6	220	32
Mousa	106		112			92	95	109				175	26
Virkie – Boddam		113	96	82	79	106	66	81	84	89	+5.9	115	34

Figure 2.1. Counts of Black Guillemots in full breeding plumage at the standard monitoring sites, 1982–2025. Data presented are the highest early spring day counts for the year, with sites listed from north to south. Monitoring at Sullom Voe Oil Terminal began in 2018.



3. Population monitoring of breeding Red-throated Divers *Gavia stellata*

Annual / near-annual monitoring across 2 large survey areas of moorland and lochs, started in 1981 and 2012. Each survey area is monitored twice per year. Monitoring periods: 1st to 21st June and 1st to 21st July.

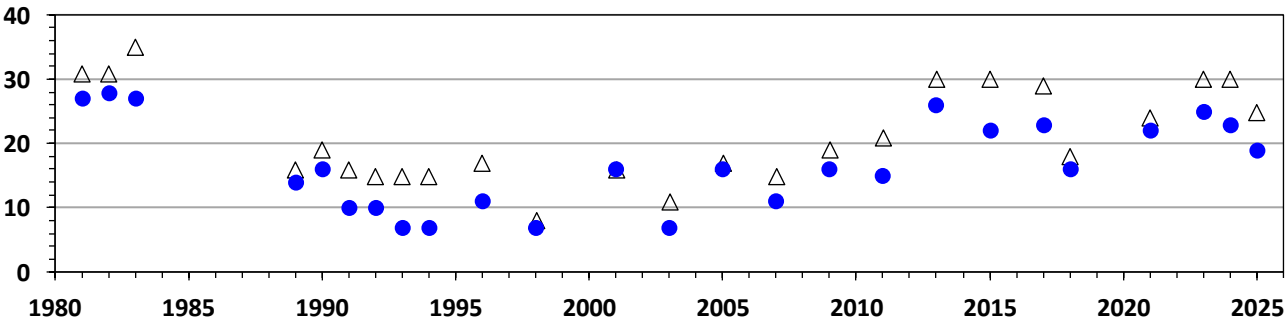
Red-throated Diver population monitoring is carried out at the Northmavine and Tingon survey areas. The Northmavine area (72 lochs) is surveyed every year except for those when the full Shetland-wide Eider census is carried out by SOTEAG, which currently happens once every 3 to 4 years. The Tingon area (29 lochs) is surveyed every year by staff of the Shetland Amenity Trust. Red-throated Diver pairs usually hold a territory comprising one entire loch. Sometimes on larger lochs, however, there may be more than one pair, each with a territory of part of the loch. Each pair makes a shallow nest scrape (or several scrapes) at the water's edge, can lay a clutch of one or two eggs, and can fledge up to two chicks in a season. Lochs without breeding territories are commonly used for fishing, social behaviors and temporary summer residence (especially by failed- or non-breeders), hence every year there are lochs where adults are seen but no evidence of breeding is found (**Table 3.1**). Population monitoring at each study area comprises walking the perimeter of every loch (this takes several visits to complete) and counting all proven breeding pairs (incubating adult, egg(s) and/or chick(s) seen), all additional active territories where breeding not proven (fresh empty nest scrape(s) found but no other evidence of breeding), and all lochs where adults were seen but no evidence of breeding was found. The total number of 'apparently occupied territories' (AOT) is then calculated as the sum total of all proven breeding pairs and additional active territories where breeding was not proven.

At Northmavine, the first round of monitoring visits in 2025 was completed between 7th and 18th June, when 16 proven breeding attempts and four additional active territories were found. The second round of visits was completed between the 12th and the 18th of July, when a further three proven breeding attempts and two additional active territories were found. Therefore, a total of 25 AOT was found at Northmavine in 2025, plus there were 14 lochs where adults were seen but no evidence of breeding was found (**Table 3.1, Figure 3.1**). The 25 confirmed AOT in 2025 was 16.8% lower than in 2024 (30) but 17.9% higher than the 1981-2024 long-term mean of 21 (**Figure 3.1**). From 1981 to 1998, the breeding population decreased at Northmavine, but thereafter slowly increased, back up to a relatively stable population in the last four years of 24 to 30 AOT (**Figure 3.1**).

Table 3.1. Red-throated Diver nesting activity in the Northmavine survey area in 2017, 2018, 2021, 2023, 2024 and 2025.

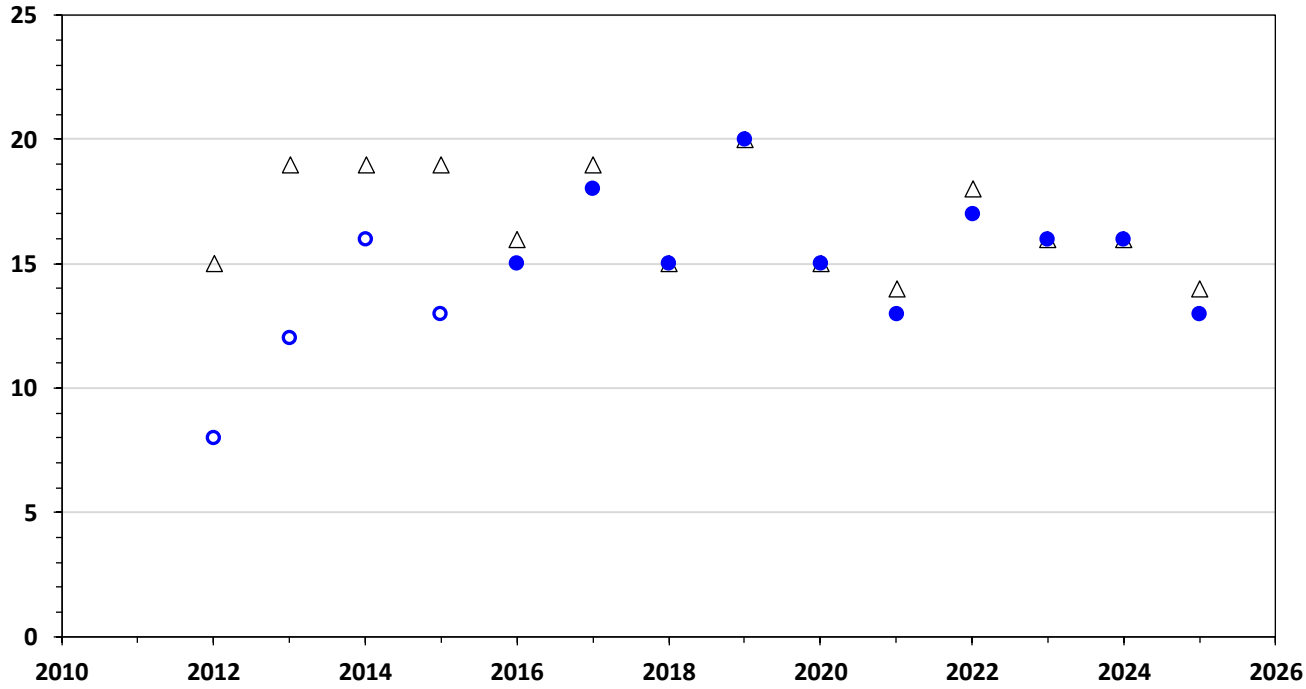
Northmavine study area	**2017**	**2018**	**2021**	**2023**	**2024**	**2025**
Breeding pairs (breeding proven)	23	16	22	25	23	19
Additional active territories where breeding not proven (i.e., fresh empty nest scrape(s) found but no other evidence of breeding)	6	2	2	5	7	6
Apparently occupied territories (sum total breeding pairs and additional active territories where breeding not proven)	29	18	24	30	30	25
Lochs where adults were seen but no evidence of breeding was found	14	19	17	18	21	14

Figure 3.1. Red-throated Diver nesting activity in the Northmavine survey area, 1981–2025. The number of breeding pairs (circles) and apparently occupied territories (triangles) was the same in 2001 because no additional active territories were found where breeding was not proven.



At Tingon the first round of monitoring in 2025 was completed on 10th June, when ten proven breeding attempts and no additional active territories were found. The second round of monitoring was completed on 8th July, when a further three proven breeding attempts and one additional active territory was found. Therefore, a total of 14 AOT was found at Tingon in 2025, plus there were five other lochs where adults were seen but no evidence of breeding was found. The 14 confirmed AOT in 2025 was 12.5% lower than in 2024 (16) and 17.6% below the 2012-2024 long-term mean of 17 (**Figure 3.2**). Throughout the years of the study, the breeding population at Tingon has remained relatively stable at 14 to 20 AOT (**Figure 3.2**).

Figure 3.2. Red-throated Diver nesting activity in the Tingon study area, 2012–2025. The number of breeding pairs (circles) and apparently occupied territories (triangles) was the same in 2018, 2019, 2020, 2023 and 2024 because no additional active territories were found where breeding was not proven. In 2012 to 2015 (open circles), only one monitoring visit was made to the area, in June.



4. Population monitoring of moulting Common Eiders *Somateria mollissima*

Annual monitoring of 3(+) large survey areas, started in 1982.
Each survey area is monitored once per year. Monitoring period: 15th July to 10th September.
Every three to four years, the monitoring is expanded to cover 30 large survey areas – the full Shetland-wide census.

Monitoring of the North Yell Sound, Sullom Voe and South Yell Sound survey areas is the core aim each year, although it has not always been possible due to sustained unsuitable weather and sea conditions in some years (**Figure 4.1**; see **Appendix 3** for survey area locations, areas 19, 20 and 21). The Eider moult period is in early autumn, from mid-July to early September, during which adults congregate into flocks, become temporarily flightless whilst completing their primary and secondary moult, and are generally less mobile, more visible, and therefore easier to count than in most other months. The Shetland Eider population has declined dramatically since 1977 (Miles *et al.* 2022, Miles *et al*. 2023), and in addition to the three core survey areas, whenever finances and sea conditions permit, monitoring of other key survey areas each year is now appropriate and an important further target. The full Shetland-wide census of moulting Common Eiders covers 30 survey areas (see **Appendix 3**) and is a major fieldwork challenge and very costly, so it is undertaken only every three to four years. The most recent full census was in 2023 (Miles *et al*. 2023) and the next is scheduled for 2027.

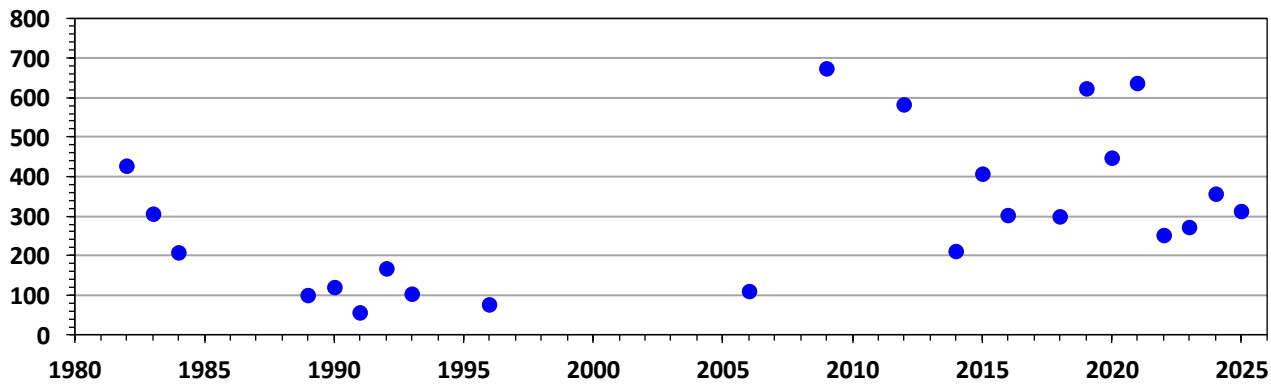
In 2025, the normal monitoring by boat of the Sullom Voe, North Yell Sound and South Yell Sound survey areas was fully completed. Weather and sea conditions during the monitoring period were generally excellent, with several days suitable for surveys. The Sullom Voe area and the western shore of the North Yell Sound area were surveyed on 21st July, and the South Yell Sound area and remaining sections of the North Yell Sound area were surveyed on 23rd July. In total, 199 Eiders were in Sullom Voe, 7 in North Yell Sound and 107 in South Yell Sound (**Table 4.1**).

The grand total of 313 Eiders in these three survey areas in 2025 was 12.1% lower than the 2024 total (356), but 2.4% above the 1982-2024 long-term mean of 306 (**Table 4.1**, **Figure 4.1**). The first year of full coverage of these areas was 1982, when the total count was 427 birds, but numbers then declined and remained below 200 from 1989 to 2006 (**Figure 4.1**). However, a dramatic increase to 673 birds occurred in 2009, after which totals have been highly variable (between approximately 200 and 650 birds), possibly due to local movements of flocks between different regions of coast, some outside the boundaries of the three monitored areas (**Figure 4.1**).

Table 4.1. Counts of Eiders in Sullom Voe and Yell Sound during the moult period (mid-July to early Sep), 2015–2025. Totals are given only for the years with complete coverage of all three survey areas (- = no count).

Survey area	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**
Sullom Voe	160	210	146	156	123	69	228	153	214	250	199
North Yell Sound	8	5	-	15	19	24	13	17	15	10	7
South Yell Sound	240	86	55	126	480	354	396	83	44	96	107
Total	**408**	**301**		**297**	**622**	**447**	**637**	**253**	**273**	**356**	**313**

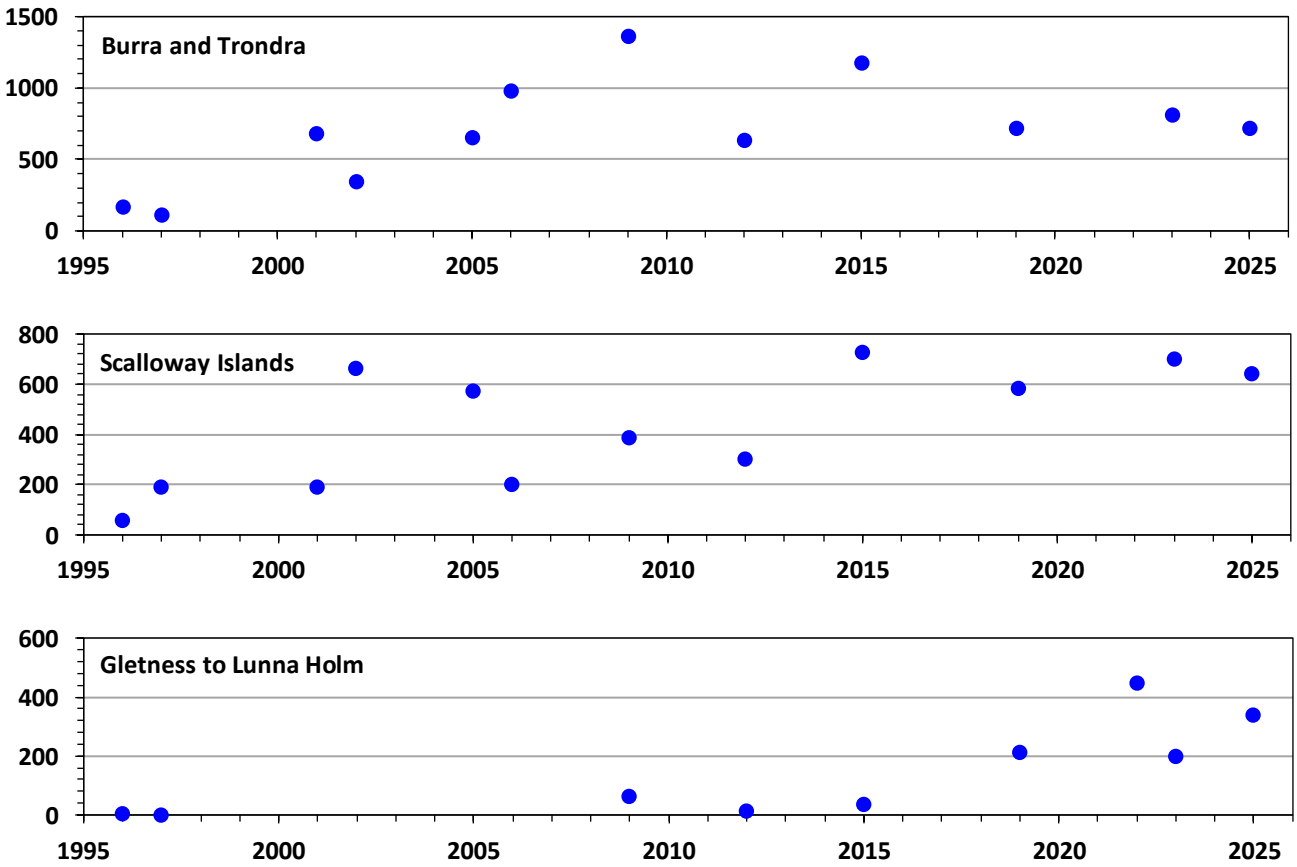
Figure 4.1. Total counts of Eiders in Sullom Voe, North Yell Sound, and South Yell Sound survey areas during the moult period (mid-July to early September), 1982–2025.



In addition to the standard core survey areas, in 2025 three other survey areas were also counted by boat, namely the Burra and Trondra, Scalloway Islands, and Gletness to Lunna Holm survey areas (see **Appendix 3**, areas 2, 3 and 24). The Burra and Trondra area and Scalloway Islands area were selected for counting in 2025 because, combined, these two areas have held a very large proportion of the total Shetland Eider population during the most recent whole-archipelago full censuses, for example 44.6% (1,519 birds) during the most recent census in 2023. The Gletness to Lunna Holm survey area was selected because it is directly adjacent to Yell Sound to the east, has also held large flocks of Eiders in recent years, and because monitoring this area may help provide some insight into the fluctuations in numbers in the three core areas and potential flock movements to and from nearby other areas.

The Burra and Trondra area was surveyed on 27th July and the total count was 719 Eiders, 11.9% down on the most recent previous count in 2023 (817) but 3.2% higher than the 1996-2024 long-term average of 697 (**Figure 4.2**). The Scalloway Islands area was surveyed on 27th July and the total count was 644 Eiders, 8.3% lower than the most recent previous count in 2023 (702) but 54.3% higher than the 1996-2024 long-term average of 417 (**Figure 4.2**). The Gletness to Lunna Holm area was surveyed on 16th August and the total count was 341, 69.7% up on the most recent previous count in 2023 (201) and 213.7% higher than the 1996-2024 long-term average of 109 (**Figure 4.2**). In each of these three additional survey areas, since the first surveys in 1996, numbers of Eiders have increased but also fluctuated considerably (**Figure 4.2**). The counts in 2025 of the Burra and Trondra area and Scalloway Islands area, however, were relatively similar to recent levels since 2019 (**Figure 4.2**). By contrast, the counts from 2019 to 2025 of the Gletness to Lunna Holm area have fluctuated markedly, but the size and direction of the fluctuations does not closely correspond with fluctuations seen in the same years in the total counts of the three core survey areas in Sullom Voe and Yell Sound - meaning that if flocks are regularly using locations outside of the core survey areas to moult, then the situation is more complex than them just switching to and from the Gletness to Lunna Holm area (**Figures 4.1 & 4.2**). Overall, across the four major survey areas fully counted in 2025 - namely, Sullom Voe and Yell Sound combined, Burra and Trondra, the Scalloway Islands, and the Gletness to Lunna Holm transect – numbers of Eiders had decreased in three but increased in one of these areas compared with the most recent previous count, but in all four areas the numbers in 2025 were higher than the long-term mean.

Figure 4.2. Total counts of Eiders in the Burra and Trondra, Scalloway Islands, and Gletness to Lunna Holm survey areas during the moult period (mid-July to early September), 1996–2025.



5. Population monitoring of wintering seaduck and diving seabirds

Annual monitoring at 6 large survey areas (sea state permitting), started in 1979, 1979, 1992, 2000, 2000 and 2007. Aim is to count each area at least once per year (individuals). Monitoring period: 15th December to end of February.

The winter of 2024/25 was another extremely unsettled winter in Shetland, with frequent high winds causing heavy sea swells virtually continuously. Three survey areas could be completed: the Hascosay, Bluemull and Colgrave Sounds, south Unst and Basta Voe area, the Whiteness Voe to Skelda Voe area, and the Pool of Virkie to Bay of Quendale area. The other three survey areas, not surveyed during the winter of 2024/25, are the Sullom Voe and Yell Sound area, the Bressay Sound and north Bressay area, and the Rova Head to Kirkabister area.

5.1. Hascosay, Bluemull and Colgrave Sounds, south Unst and Basta Voe.

The Hascosay, Bluemull and Colgrave Sounds, south Unst and Basta Voe area transect was surveyed on 26th February 2025 from MV *Lysander* with 3 observers. The survey began at 09:50 and finished at 15:45. Wind was southerly 0-2 knots, sea conditions were mostly flat calm, with light swell (<1m) and occasional moderate ripple / small waves only in the most exposed areas, cloud cover was 0-4/8, light conditions were excellent, visibility was excellent (>10km), and it remained dry throughout the survey.

Among the regular wintering species, in 2024/25, the counts of Great Northern Diver, Common Eider, Long-tailed Duck, Goldeneye and Black Guillemot had increased since the most recent previous counts (in 2022/23), whereas decreases had occurred in the counts of all the other regular species (**Table 5.1**, **Figure 5.1 & 5.2**). The counts in 2024/25 of Great Northern Diver, Common Eider and Long-tailed Duck were higher than the long-term mean counts, but counts of the other regular species were lower than the long-term mean (**Table 5.1**). The only record of an unusual/rare species during the 2024/25 survey was a single Black-throated Diver.

Table 5.1. Sum total counts of seaduck and diving seabirds seen in the Hascosay, Bluemull and Colgrave Sounds, south Unst and Basta Voe survey area during winter boat count surveys, winters of 2019/20 to 2024/25. * = Regular wintering species (all others are unusual/rare). Percentage change is in the counts of the regular wintering species in 2024/25 and the most recent previous counts. LTM = the long-term mean count across all previous years with data. - = Species could not be surveyed accurately so counts omitted.

Winter	**2019/20**	**2020/21**	**2021/22**	**2022/23**	**2023/24**	**2024/25**	**% Change**	**LTM**
Survey date	**18/12**	**28/1**	**19/2**	**14/2**	**No survey**	**26/2**		
Number of observers	**4**	**3**	**3**	**3**	-	**3**		
Red-throated Diver *	13	23	11	36	-	18	-50	23
Black-throated Diver	0	0	0	0	-	1	(n/a)	0
Great Northern Diver *	19	77	34	18	-	61	+238.9	30
White-billed Diver	1	0	1	0	-	0	(n/a)	1
Slavonian Grebe	5	0	0	0	-	0	(n/a)	1
Cormorant *	227	193	-	69	-	28	-59.4	217
Shag *	1273	1084	-	514	-	436	-15.2	880
Common Eider *	1273	1663	1646	1560	-	1910	+22.4	1358
King Eider	0	0	3	1	-	0	(n/a)	1
Common Scoter *	2	26	1	35	-	1	-97.1	10
Velvet Scoter	4	3	1	0	-	0	(n/a)	1
Surf Scoter	0	0	0	0	-	0	(n/a)	0
Long-tailed Duck *	669	799	539	919	-	979	+6.5	718
Goldeneye *	2	22	2	0	-	2	+100	10
Red-breasted Merganser *	52	78	75	69	-	52	-24.6	61
Goosander	0	2	0	0	-	0	(n/a)	1
Common Guillemot *	11	12	41	51	-	9	-82.4	17
Razorbill	0	6	0	0	-	0	(n/a)	1
Black Guillemot *	484	637	-	356	-	452	+26.9	501
Puffin	0	0	0	0	-	0	(n/a)	0
Little Auk	0	0	0	0	-	0	(n/a)	0
Total	**4035**	**4625**	**2354**	**3628**	-	**3949**		**3831**

Figure 5.1. Total counts of Black Guillemots in the Hascosay, Bluemull and Colgrave Sounds, south Unst and Basta Voe survey area during winter boat count surveys, winters of 2011/12 to 2024/25. Counts of Black Guillemots have been highly variable across the years, as is true for many of the other regular wintering species that use this area.

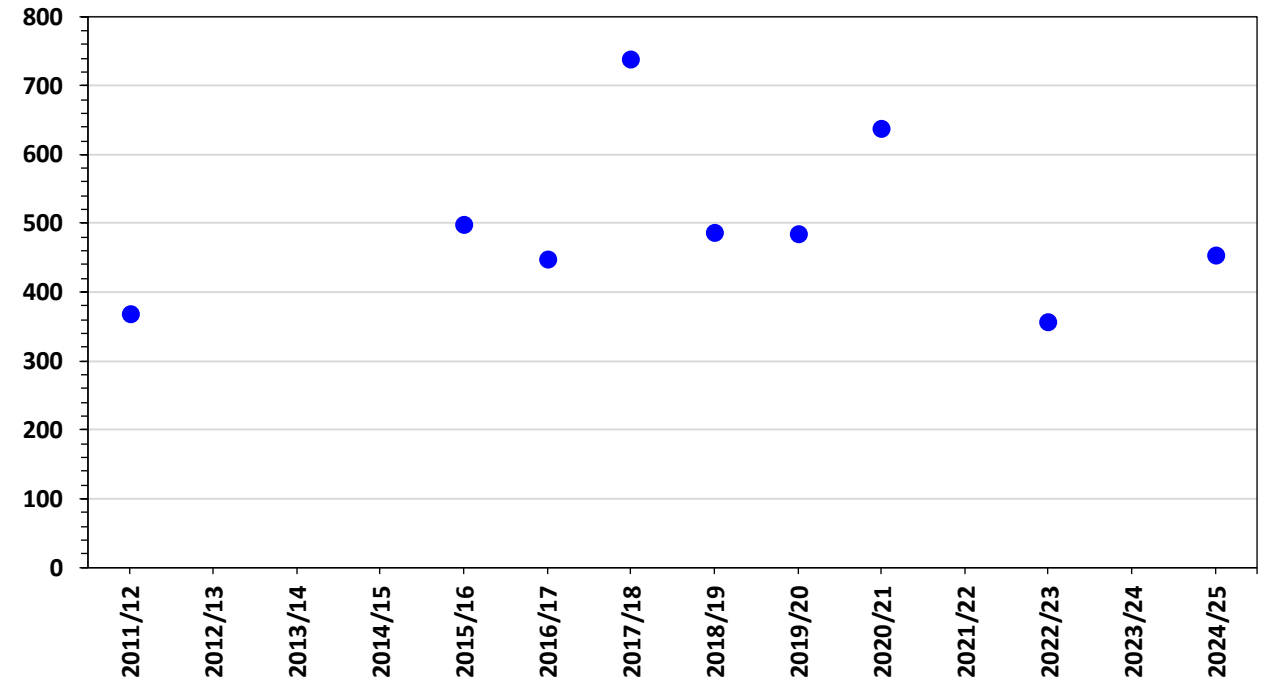
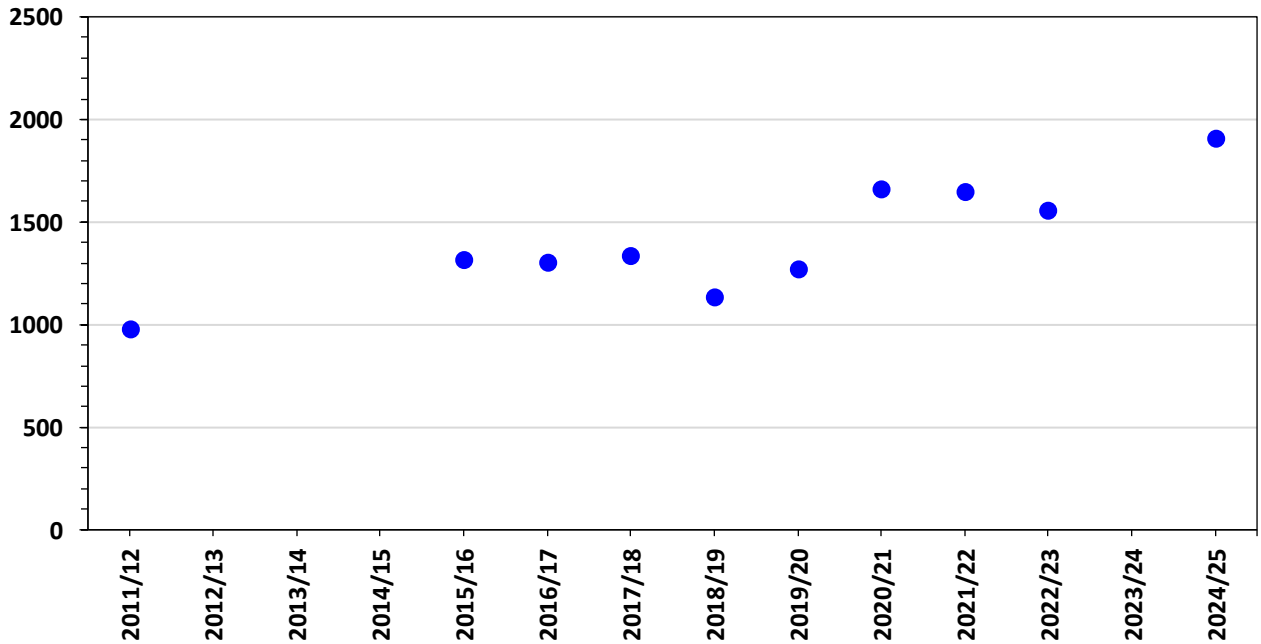


Figure 5.2. Total counts of Common Eider in Hascosay, Bluemull and Colgrave Sounds, south Unst and Basta Voe survey area during winter boat count surveys, winters of 2011/12 to 2024/25. The 2024/25 total of 1910 birds in this area was the highest on record.



5.2. Whiteness Voe to Skelda Voe, west Mainland

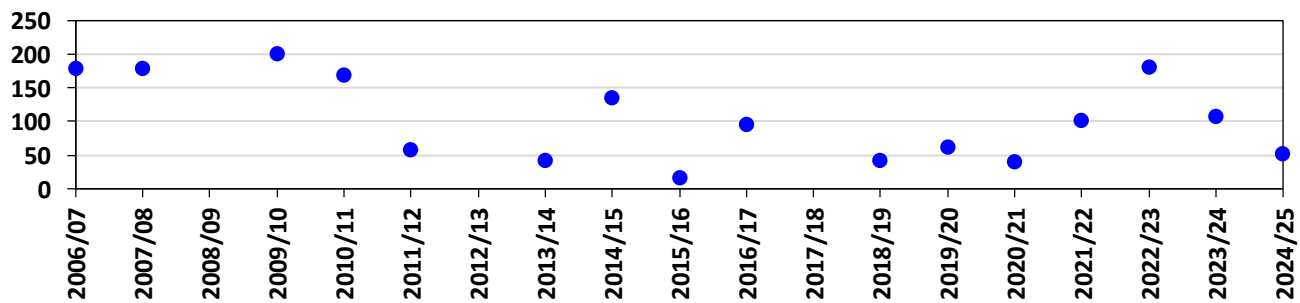
The Whiteness Voe to Skelda Voe area was surveyed on 10th February 2025 from land by three observers. The survey began at 08:30 and finished at 14:50. Sea conditions were flat calm, there was no swell, no wind and no rain. The day was bright and sunny, and visibility was excellent (>20km).

In 2024/25, among the regular wintering species, the counts of Slavonian Grebe, Cormorant, Long-tailed Duck and Red-breasted Merganser had increased since the most recent previous counts (in 2023/24), whereas decreases had occurred in the counts of all the other regularly occurring species (**Table 5.2**, **Figure 5.3**). The counts in 2024/25 of Red-throated Diver and Great Northern Diver were higher than the long-term mean counts, but counts of the other regular species were lower than the respective long-term means (**Table 5.1**). Additionally, the total number of birds recorded during the 2024/25 survey was 44.3% lower than in 2023/24 and 35.6% lower than the long-term mean (**Table 5.2**). Reasons for these decreases are unclear but across all years, and across all the winter population monitoring areas, high annual variability in species totals has been frequent (**Figure 5.3**). There were two records of unusual/rare species in the Whiteness Voe to Skelda Voe area during the 2024/25 survey: a single Black-throated Diver and a single Goosander.

Table 5.2. Sum total counts of seaduck and diving seabirds seen in the Whiteness Voe to Skelda Voe survey area during the winters of 2019/20 to 2024/25. * = Regular wintering species (all others are unusual/rare). Percentage change is in the counts of the regular wintering species in 2024/25 and the most recent previous counts. LTM = the long-term mean count across all previous years with data.

Winter	**2019/20**	**2020/21**	**2021/22**	**2022/23**	**2023/24**	**2024/25**	**%**	**LTM**
Date	**29/1**	**24/1**	**18/2**	**27/2**	**9/1**	**10/2**	**Change**	
Red-throated Diver *	1	7	4	5	23	11	-52.2	5
Black-throated Diver	1	1	0	1	1	1	(n/a)	0
Great Northern Diver *	22	31	46	31	42	41	-2.4	29
White-billed Diver	0	0	0	0	0	0	(n/a)	0
Slavonian Grebe *	44	34	31	24	27	28	+3.7	52
Cormorant *	39	3	0	0	0	5	+100	12
Shag *	148	124	112	82	205	93	-54.6	117
Common Eider *	61	40	100	180	107	51	-52.3	107
Long-tailed Duck *	2	7	7	13	8	10	+25.0	21
Common Scoter *	0	0	0	5	15	0	-100	2
Velvet Scoter	0	2	3	0	0	0	(n/a)	1
Goldeneye *	10	14	4	17	3	3	0	15
Red-breasted Merganser *	106	110	66	82	60	84	+40	112
Goosander	1	0	0	0	0	1	(n/a)	1
Common Guillemot *	2	0	14	23	63	0	-100	15
Razorbill *	3	28	7	5	18	0	-100	8
Black Guillemot *	60	53	110	63	99	46	-53.5	81
Little Auk	0	0	0	0	0	0	(n/a)	2
Puffin	0	0	0	0	0	0	(n/a)	1
Total	**500**	**454**	**504**	**531**	**671**	**374**	-44.3	581

Figure 5.3. Counts of Common Eider in the Whiteness Voe to Skelda Voe survey area, winters of 2006/07 to 2024/25. Counts of Eiders have been highly variable across the years, as seen in many of the other regular wintering species, in this area and the other standard winter population monitoring areas.



5.3. Pool of Virkie to Bay of Quendale, south Mainland

This area was surveyed during the winter of 2024/25 on 17th December 2024 (see Miles & Riddington 2024). However, given fine conditions in late winter 2024/25 but no charter boat available to survey any of the other survey areas elsewhere across Shetland, a second survey of the Virkie to Quendale area was done on 14th February 2025 by two observers from land using the standard methodology. The survey began at 08:45 and finished at 11:30. The wind was north-northeasterly force 1, the sea was generally very calm and sheltered, although with a moderate westerly swell offshore, cloud cover was 7/8, visibility was excellent (>20km), and it remained dry throughout the survey apart from a couple of brief showers that passed quickly.

The second survey of this area in the winter of 2024/25 demonstrated how numbers of seabirds that use the winter population monitoring areas can vary, even within one winter. Among the regular wintering species, the counts of Red-throated Diver, Great Northern Diver, Cormorant, Shag, Common Scoter and Red-breasted Merganser were all lower during the second survey than during the first, in some cases by a considerable magnitude, for example Shags and the two divers (**Table 5.3**). Counts of the other regular species, however, had increased or remained virtually identical from the first to the second survey, namely Long-tailed Duck, Goldeneye, Common Guillemot and Black Guillemot (counts all increased), and Common Eider (counts virtually the same; **Table 5.3**). The total number of seabirds recorded in the area during the second survey was 57.8% lower than during the first survey, although 1.5% above the 1991/92-2023/24 long-term mean (**Table 5.3**). The exact reasons for fluctuations in numbers of seabirds using this and the other winter population monitoring areas are unclear, but likely include relocations en masse in response to variation in factors such as weather and sea conditions, foraging competition, and the whereabouts of prey species.

The Virkie to Quendale area was also surveyed in 2025 during the winter of 2025/26, on 26th December 2025 by two observers from land using the standard methodology. The survey began at 09:30 and finished at 11:40. The wind was westerly force 1, the sea was generally very calm and sheltered, cloud cover was 8/8, visibility was good (>20km), and it remained dry throughout the survey.

The 2025/26 count of Long-tailed Ducks was the highest on record, the count of Common Scoter the second-highest ever recorded, the count of Red-breasted Mergansers the third-highest ever recorded, and numbers of Great Northern Divers also remained high at 50 individuals (**Table 5.4**, **Figures 5.4 & 5.5**). Counts of the other regularly occurring species all fell within the normal levels of variation and were similar to, or in a few cases slightly higher than, the long-term mean counts (**Table 5.4**). The only exception to this was Red-throated Diver, for which the 2025/26 count was rather low, at just two individuals (**Table 5.4**). A female King Eider was extremely unusual, present in the Bay of Quendale throughout the 2025/26 winter.

Figure 5.4. Counts of Great Northern Divers in the Pool of Virkie to Bay of Quendale survey area, winters of 1991/92 to 2025/26.

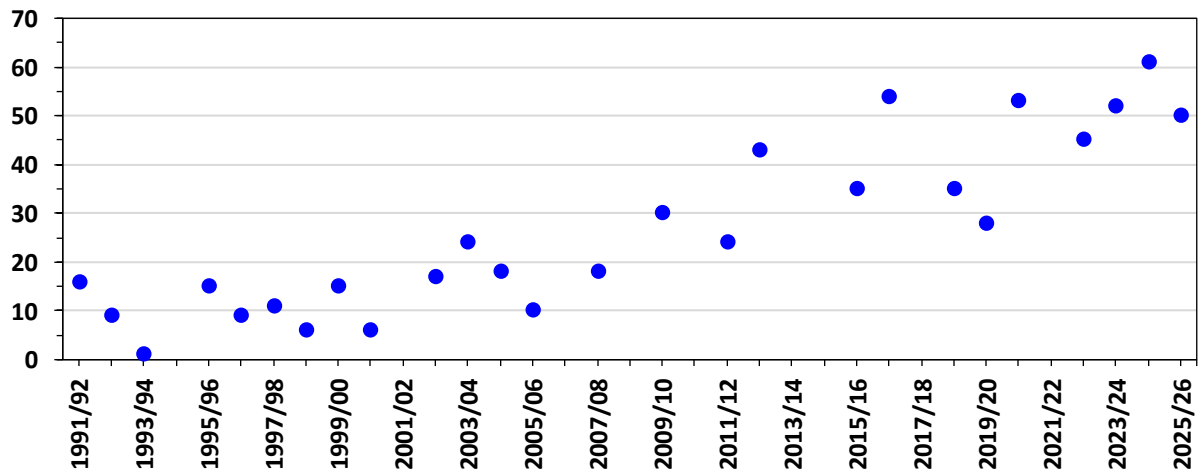
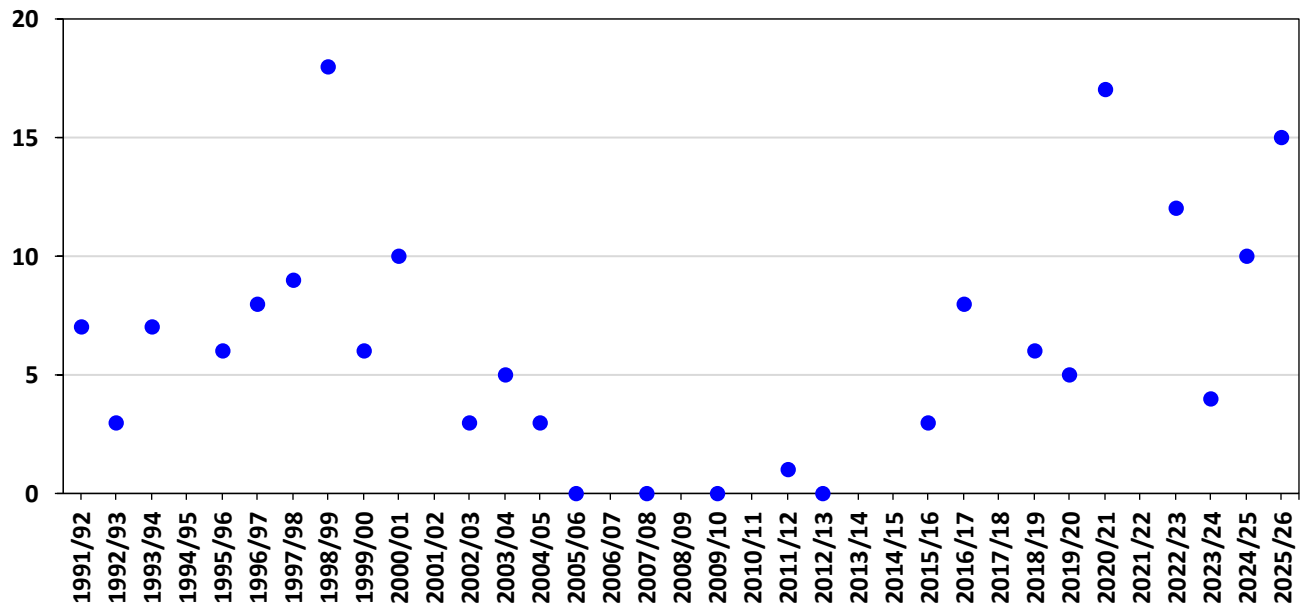


Table 5.3. Sum total counts of seaduck and diving seabirds seen in the Pool of Virkie to the Bay of Quendale survey area during the winters of 2020/21 to 2025/26. ▒ = second count in winter 2024/25. * = Regular wintering species (all others are unusual/rare). Percentage change is between the first count of the regular wintering species in 2024/25 and the count in 2025/26. LTM = the long-term mean count across all previous years with data.

Winter	**2020/21**	**2021/22**	**2022/23**	**2023/24**	**2024/25**	**2024/25**	**2025/26**	**%**	**LTM**
Survey date	**5/1**	**No survey**	**5/1**	**8/1**	**17/12**	**14/2**	**26/12**	**Change**	
Red-throated Diver *	3	-	7	2	12	6	2	-83.3	5
Black-throated Diver	0	-	0	0	1	0	0	(n/a)	0
Great Northern Diver *	53	-	45	52	61	43	50	-18.1	25
Slavonian Grebe	0	-	0	0	0	0	0	(n/a)	0
Cormorant *	5	-	16	3	8	4	3	-62.5	2
Shag *	172	-	280	114	692	97	157	-77.3	140
Common Eider *	23	-	7	24	26	27	37	+42.3	38
King Eider	0	-	0	0	0	0	1	(n/a)	0
Long-tailed Duck *	181	-	101	255	115	137	300	+160.9	133
Common Scoter *	3	-	0	14	3	0	10	+233.3	1
Velvet Scoter	1	-	0	0	0	0	5	(n/a)	0
Goldeneye *	4	-	23	51	26	34	17	+34.6	18
Red-breasted Merganser *	17	-	12	4	10	7	15	+50.0	6
Common Guillemot *	48	-	15	25	7	12	15	+114.3	32
Razorbill	4	-	0	0	0	0	1	(n/a)	1
Black Guillemot *	85	-	49	43	14	44	34	+142.9	26
Little Auk	0	-	0	0	0	0	0	(n/a)	0
Puffin	0	-	1	0	0	0	0	(n/a)	0
Total	**599**	**-**	**556**	**587**	**975**	**411**	**647**	**-33.6**	**428**

Figure 5.5. Counts of Red-breasted Mergansers in the Pool of Virkie to Bay of Quendale survey area, winters of 1991/92 to 2025/26. The long-term pattern in this species is unusual in that counts decreased from double figures down to zero or just one from 2005/26 to 2012/13, but have since increased back into double figures.



6. The Shetland Beached Birds Survey

Monthly monitoring of 72 beaches throughout Shetland (83 prior to 2016), started in July 1978.
Monitoring period: 20th of the month to 10th of the following month (but most beaches done in the final week of the month).

The Shetland-wide monthly beached birds survey is carried out by two SOTEAG staff and up to 20 local volunteers. All seabird corpses down to a single wing with all primary feathers present are identified to species (or the lowest possible taxon), aged externally as far as possible and examined for oil contamination. Samples of oiled plumage or oil residues found on beaches are collected for 'fingerprinting' analysis, done by FUGRO - the molecular structure of an oil sample is quantified and then cross-checked with a global oil sample reference database, with the aim being to determine the type, origin and source of the oil.

In 2025, the beached bird survey was done every month. To eliminate the possibility of contracting HPAIV (low risk of infection but very high consequences) no birds were handled and a spot of paint was used to mark corpses to avoid double-counting. Fluorescent-coloured paint was deliberately chosen for this, as a clear indicator of potential danger to other beach users, who would hopefully then avoid any contact between corpses and themselves, their children or their dogs. The Shetland Beached Birds survey remains unique, as the only county-wide survey in the UK designed to systematically sample and measure monthly seabird corpse levels around the entire coast and that has run for over 40 years, and again proved extremely useful in 2025 for quantitative measurement of seabird mortality and HPAIV infection (working in collaboration with staff from NatureScot trained to do swab tests for HPAIV).

The number of seabird corpses found per km surveyed has generally decreased across the years (1979-2024), although with a slight, but fluctuating, general upturn in numbers since 2017 (**Figure 6.1**). The number of oiled seabird corpses found per km surveyed has also generally decreased across the years (1979-2024), remaining comparatively very low (<0.1 oiled corpses/km) since 2008 (**Figure 6.1**). The 2025 survey results continued the general recent pattern of very low oiled seabird occurrence per year. Note that the exceptionally high total number of seabird corpses found in 2022 was because of the HPAIV pandemic and relatively extreme mortality in Eiders, Gannets, Great Skuas and Common Guillemots.

Figure 6.1. Total seabird corpses found per km surveyed (red) and total oiled seabird corpses found per km surveyed (blue) during the Shetland beached bird survey, 1979 to 2025.

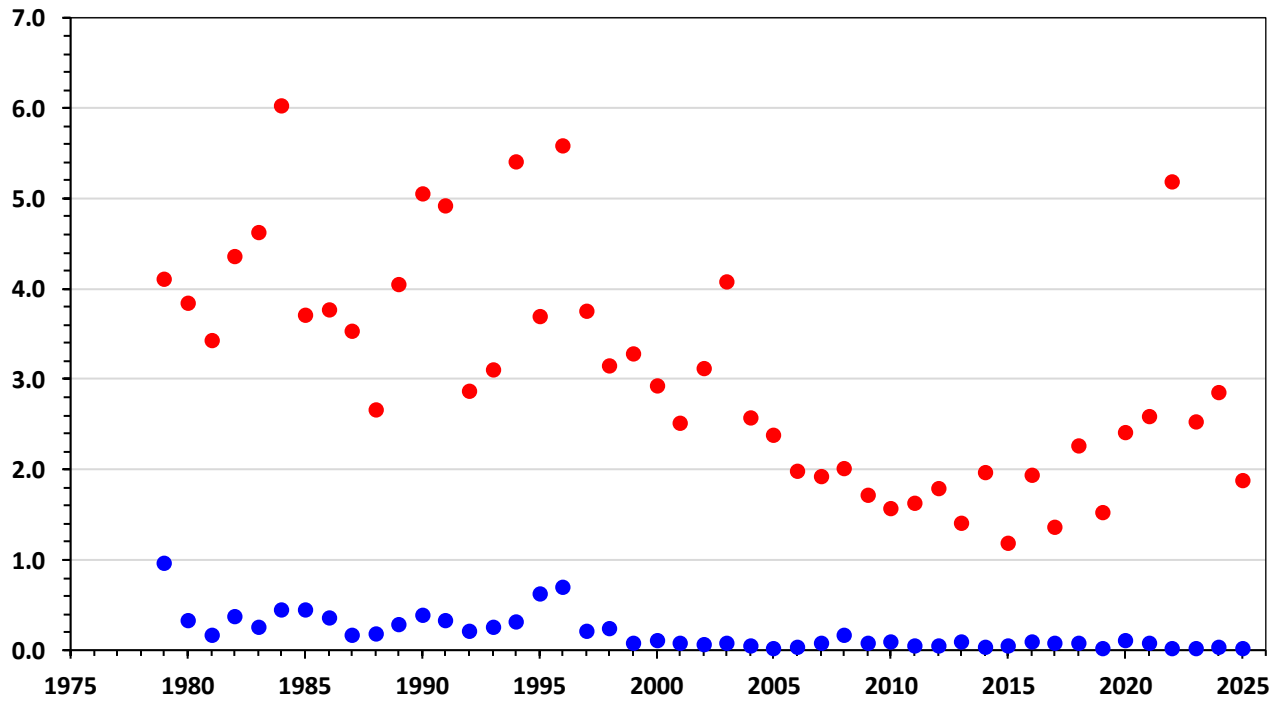


Table 6.1. Annual summary statistics from the Shetland beached bird survey, 2015 to 2025. Km = total kilometers surveyed, Corpses = total number of seabird corpses found, Oiled = total number of oiled seabird corpses found, % Oiled = percentage of all corpses that were oiled, Corpses/km = number of corpses found per kilometer surveyed [Corpses/Km], Oiled/km = number of oiled corpses found per kilometer surveyed [Oiled/Km].

Year	Km	Corpses	Oiled	% Oiled	Corpses/km	Oiled/km
2015	585.2	691	27	3.91	1.181	0.046
2016	389.4	752	35	4.65	1.931	0.090
2017	387.8	523	25	4.78	1.349	0.064
2018	367.1	828	24	2.89	2.255	0.065
2019	358.2	542	5	0.92	1.513	0.013
2020	316.4	707	29	4.10	2.406	0.092
2021	325.3	840	22	2.62	2.582	0.068
2022	345.8	1791	6	0.34	5.179	0.017
2023	357.6	900	3	0.33	2.517	0.008
2024	353.3	1003	11	1.09	2.839	0.031
2025	349.7	656	3	0.46	1.876	0.009

6.1. Incidence of oiling

January to April. No oiled seabirds were found (**Table 6.3**).

May to August. Two lightly oiled Fulmars were found on Quendale beach during the April survey and one lightly oiled Fulmar was found on Quendale beach during the May survey (**Table 6.3**). A sample from one of the Fulmars found in April was collected and analysed by FUGRO (sample #337; **Table 6.2**) and was found to be unrefined crude petroleum, likely from an accidental release. The presence of oleanane (m/z 191) indicated that the sample contained oil originating from West Africa.

September to December. No oiled seabirds were found (**Table 6.3**).

Table 6.2. Results of oil sample fingerprinting analyses by FUGRO. H = heavily oiled (>25%); M = moderately oiled (10-25%); L = lightly oiled (< 10%).

No.	Date	Beach	Sample	Type	Source information
337	26/4	Quendale, S Mainland	Fulmar (L)	Unrefined crude petroleum	Analyses indicated that sample contained oil originating from West Africa. No matches to existing samples in the database. Likely from an accidental release of crude oil.

6.2. Non-oiled mortality

January to April. The number of corpses found during the January, February, March and April surveys remained at low, normal, levels for all species in comparison with monthly average counts from the previous decade (**Table 6.3** & **Table 6.4**).

May to August. The number of corpses found during the May, June, July and August surveys generally remained at normal low levels for all species in comparison with monthly average counts from the previous decade (**Table 6.3**). The only exceptions to this were slightly high counts of Eider corpses (4) during the June survey, Oystercatcher corpses (9) during the July survey, Fulmar corpses (42), Kittiwake corpses (13) and Rock Dove corpses (13) during the August survey, and of Greylag Goose corpses during the June (7), July (5) and August (8) surveys (**Table 6.3**). The discovery of a White-billed Diver corpse on Sandwick beach, Unst, in June was also uncommon.

September to December. The number of corpses found during the September, October, November and December surveys remained at normal low levels for all species in comparison with monthly average counts from the previous decade, except for high counts of Common Guillemot corpses during the September (45 corpses) and October (43) surveys, a slightly high count of Greylag Goose corpses during the September survey (4), and a slightly high count of Rock Dove corpses during the September survey (4 corpses) (**Table 6.3**). A domestic chicken corpse found during the December survey has the dubious distinction of being the first ever record of this fowl-type in Shetland beaches survey history.

Table 6.3. Monthly totals of seabird, seaduck and all other bird species corpses found during beached bird surveys in 2025 (number oiled in parentheses). MAv = Monthly average corpse count for the previous ten years (Jan 2015 to Dec 2024). Seabirds and seaduck corpses found tangled in nets/ropes/hooks in 2025: 1 Fulmar in June survey (rope).

SEABIRDS & SEADUCK	**J**	**F**	**M**	**A**	**M**	**J**	**J**	**A**	**S**	**O**	**N**	**D**	**SUM**	**MAv**
Red-throated Diver	0	0	0	0	0	0	0	0	2	0	0	0	2	0.21
Great Northern Diver	0	0	1	0	0	0	0	0	0	0	0	0	1	0.05
White-billed Diver	0	0	0	0	0	1	0	0	0	0	0	0	1	<0.01
Common Eider	2	0	1	0	1	4	0	0	0	0	0	0	8	0.62
Long-tailed Duck	0	0	0	0	0	0	0	0	0	0	2	0	2	0.14
Fulmar	14	15	18	12(2)	22(1)	32	26	42	23	1	7	4	216	25.16
Gannet	3	2	5	1	7	3	6	6	7	5	0	2	47	10.44
Cormorant	0	1	0	0	0	0	1	1	0	0	0	0	3	0.42
Shag	1	1	2	0	2	2	2	2	1	0	0	1	14	3.92
Great Skua	0	0	0	0	0	1	0	0	0	0	0	0	1	1.31
Black-headed Gull	0	0	0	0	1	2	2	2	0	0	0	0	7	0.24
Common Gull	1	1	2	2	4	3	3	4	0	0	0	0	20	1.19
Lesser Black-backed Gull	0	0	0	0	0	0	0	0	1	0	0	0	1	0.12
Herring Gull	2	4	2	1	4	3	5	6	1	1	2	2	33	3.09
Great Black-backed Gull	6	2	5	0	5	3	4	3	3	2	4	2	39	3.30
Kittiwake	2	1	0	2	0	2	3	13	2	2	0	3	30	1.87
Glaucous Gull	1	0	0	0	0	0	0	0	0	0	0	0	1	0.08
Gull sp. (unidentifiable)	0	0	1	0	1	0	0	3	2	0	0	0	7	0.00
Common Guillemot	4	1	7	9	8	12	14	8	45	43	13	11	175	14.05
Razorbill	0	0	0	0	0	1	1	0	1	2	0	1	6	2.61
Black Guillemot	0	0	0	1	4	0	1	4	1	0	0	0	11	0.91
Little Auk	1	0	0	0	0	0	0	0	0	0	4	0	5	0.12
Puffin	1	1	1	2	1	4	9	3	3	0	0	1	26	2.17
TOTAL FOUND	**38**	**29**	**45**	**30**	**60**	**73**	**77**	**97**	**92**	**56**	**32**	**27**	**656**	**72.67**
TOTAL OILED	**0**	**0**	**0**	**2**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**1.65**
% OILED	**0.00**	**0.00**	**0.00**	**6.67**	**1.67**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.46**	**2.27**
TOTAL KM SURVEYED	**30.1**	**30.1**	**30.1**	**30.1**	**29.4**	**29.1**	**28.7**	**30.1**	**28.4**	**30.1**	**27.4**	**26.1**	**349.7**	**n/a**
(Previous year)	29.5	30.1	30.1	30.1	28.8	28.1	28.1	30.1	30.1	30.1	29.1	29.1	353.3	n/a
FOUND / KM	**1.3**	**1.0**	**1.5**	**1.0**	**2.0**	**2.5**	**2.7**	**3.2**	**3.2**	**1.9**	**1.2**	**1.0**	**1.9**	**n/a**
OILED / KM	**0.00**	**0.00**	**0.00**	**0.07**	**0.03**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.01**	**n/a**
Other species found	**J**	**F**	**M**	**A**	**M**	**J**	**J**	**A**	**S**	**O**	**N**	**D**	**SUM**	**MAv**
Greylag Goose	1	1	1	2	1	7	5	8	4	1	0	0	34	2.63
Pink-footed Goose	0	1	0	0	0	0	0	0	0	0	0	0	1	0.04
Red Grouse	1	0	0	0	0	0	0	0	0	0	0	0	1	0.01
Grey Heron	0	0	0	0	0	0	0	0	0	0	0	0	1	0.14
Oystercatcher	0	0	0	1	0	1	9	3	0	0	0	0	14	1.05
Woodcock	1	1	0	0	0	0	0	0	0	0	0	0	2	0.11
Curlew	0	0	0	0	1	0	1	1	0	0	0	0	3	0.47
Purple Sandpiper	0	1	0	0	0	0	0	0	0	0	0	0	1	0.01
Redshank	0	0	0	0	0	1	0	0	0	0	0	0	1	0.11
Blackbird	1	0	0	0	0	0	0	0	0	0	0	0	1	0.02
Rock Dove	0	1	0	1	2	0	9	13	4	2	1	0	33	0.73
Raven	0	0	0	0	0	0	0	1	0	0	0	0	1	0.41
Hooded Crow	0	0	0	0	1	0	2	0	0	0	0	0	3	0.29
Chicken	0	0	0	0	0	0	0	0	0	0	0	1	1	0.00
Total	**4**	**5**	**1**	**4**	**5**	**9**	**26**	**26**	**8**	**3**	**1**	**5**	**97**	**6.93**

Table 6.4. Monthly totals of all seabird and seaduck corpses found during beached bird surveys through the autumn and winter of 2024/25 (Sep 2024 to Apr 2025), and the monthly average for the previous ten autumn and winter periods (Sep to Apr; 2014/15 to 2023/24). This table gives an indication of relative seabird and seaduck mortality between the 2024 and 2025 breeding seasons in Shetland (≈ May to August).

SEABIRDS & SEADUCK	S	O	N	D	J	F	M	A	Monthly average (previous 10-yrs)
Red-throated Diver	0	0	0	0	0	0	0	0	0.15
Great Northern Diver	0	0	1	0	0	0	1	0	0.06
Common Eider	0	0	0	0	2	0	1	0	0.65
Long-tailed Duck	0	0	1	0	0	0	0	0	0.19
Common Scoter	0	0	0	0	0	0	0	0	0.03
Fulmar	56	11	6	17	14	15	18	12	14.72
Sooty Shearwater	1	0	0	0	0	0	0	0	< 0.00
Gannet	7	1	0	2	3	2	5	1	5.87
Cormorant	1	0	0	0	0	1	0	0	0.48
Shag	4	2	0	0	1	1	2	0	3.97
Black-headed Gull	0	0	1	0	0	0	0	0	0.10
Common Gull	2	1	0	0	1	1	2	2	0.77
Lesser Black-backed Gull	0	0	0	0	0	0	0	0	0.05
Herring Gull	5	1	0	2	2	4	2	1	2.34
Great Black-backed Gull	8	6	3	4	6	2	5	0	2.86
Kittiwake	4	0	4	1	2	1	0	2	1.67
Common Guillemot	3	2	2	2	4	1	7	9	15.11
Razorbill	1	0	0	0	0	0	0	0	3.06
Black Guillemot	3	0	0	0	0	0	0	1	0.49
Little Auk	0	0	0	0	1	0	0	0	0.18
Puffin	4	0	1	0	1	1	1	2	1.92
TOTAL FOUND	**99**	**24**	**19**	**28**	**37**	**29**	**44**	**30**	**54.70**

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Appendix 1. Seabird monitoring in Foula in 2025 - Sheila Gear (Foula Ranger Service)

Common Eider. In 2025, the annual Foula Eider count was done on 1st August by Penny and Sheila Gear in good conditions (light to moderate southwesterly wind with sun then cloud). The count of male Eider had increased by 92.9% compared with 2024. The number of females was high and had increased by 6.6% compared with 2024. Breeding success (number of chicks per year) had increased again this year, with 45 chicks seen in total compared with 41 in 2024.

	24/7/16	**29/7/17**	**12/8/18**	**4/8/19**	**26/7/20**	**25/7/21**	**4/8/22**	**30/7/23**	**4/8/24**	**1/8/25**
Males	81	45	64	79	50	71	16	25	28	54
Females	68	69	65	58	65	74	85	45	76	81
Adults	**149**	**114**	**129**	**137**	**115**	**145**	**101**	**70**	**104**	**135**
Chicks	70	38	47	49	34	81	30	22	41	45
Total	**219**	**152**	**176**	**186**	**149**	**226**	**131**	**92**	**145**	**180**
Brood/1	14	4	10	9	7	10	6	2	7	7
Brood/2	7	6	6	8	6	12	7	2	3	8
Brood/3	7	6	7	8	3	9	2	1	4	2
Brood/4	4	1	1	0	0	1	1	2	2	4
Brood/5	1	0	0	0	0	2	0	1	0	0
Brood/6	0	0	0	0	1	1	0	0	0	0
Mean Br.	**2.12**	**2.38**	**1.96**	**1.96**	**2.00**	**2.31**	**1.88**	**2.75**	**2.06**	**2.14**

Red-throated Diver. In 2025 Red-throated Divers laid about 2 weeks later than usual. Pairs were monitored from afar, as is normal. There were 11 occupied sites and 10 were observed to have laid. The Loch G outlet, feeding a small burn, burst its way out, resulting in the loch losing much of its water and exposing a proportion of its bottom and this pair and several other pairs in the smaller, shallower pools were not seen to lay. Seven chicks survived long enough to have deemed to have fledged, slightly higher than usual, possibly a reflection of the scarcity of Great Skuas around the pools. None of the pairs managed to raise 2 chicks. In total, seven chicks were deemed to have fledged, giving a breeding success measure of 0.70 chicks fledged per breeding attempt.

Foula Red-throated Divers	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**
Sites occupied at least once	12	15	11	12	14	12	13	13	16	13	11
Breeding attempts	12	13	10	11	11	11	10	12	14	12	10
Sites where chicks hatched	11	11	6	9	9	8	6	7	11	8	8
Minimum number of chicks	12	12	7	14	13	9	8	7	13	10	9
Chicks presumed fledged	10	6	5	9	5	8	3	6	6	2	7
Breeding success	**0.83**	**0.46**	**0.50**	**0.82**	**0.45**	**0.73**	**0.30**	**0.50**	**0.42**	**0.17**	**0.70**

Northern Fulmar. Four of the Foula plots were picked at random and monitored by Sheila Gear. A total of 20 apparently occupied sites (AOS) were seen with adults present on all 3 observation checks, but the number of AOS counted in total across all site visits during the 2025 season was 113, indicating a high incidence of AOS failure and/or abandonment. In total, 24 chicks were assumed to have fledged. This year there were 11 'extra' chicks seen at sites where adults had been present on less than three of the observation checks earlier in the year. Calculated mean breeding success was high this year (0.81) but this masks the very high incidence of AOS failure and/or abandonment. Predation of eggs by Ravens and Hooded Crows has been increasing in recent times, with empty eggshells very obvious along the cliff edge both before and after the three observations in late May and June are carried out.

Plot	**Total AOS**	**AOS on all 3 checks (%)**	**Chicks at all-3-check sites + 'extra' sites**	**Success**
3	40	10 (25.6%)	7 + 4	11/(10+4) = 0.79
4	20	4 (21.1%)	1 + 4	5/(4+4) = 0.63
6	31	3 (9.7%)	2 + 2	4/(3+2) = 0.80
8	22	3 (13.6%)	3 + 1	4/(3+1) = 1.00
Mean ± SE of 4 plots				**0.81 ± 0.08**

Overall Fulmar breeding success in 2025 was 0.77 chicks fledged per AON, 140.6% higher than in 2024, but there were 71.4% fewer Qualifying AOS in 2025 than in 2024.

Fulmar	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**
Qualifying AOS	123	137	119	124	233	101	172	132	109	70	20
'Extra' sites	16	10	18	28	14	15	10	3	0	12	11
Chicks in August	45	80	79	88	87	61	99	64	50	26	24
Mean success	**0.33**	**0.56**	**0.58**	**0.58**	**0.41**	**0.53**	**0.56**	**0.48**	**0.46**	**0.32**	**0.77**

European Shag. Shag numbers continue to be very low, and many areas remain deserted. Breeding success had decreased slightly this year (0.89 chicks fledged per incubated nest) and was 8.3% lower than in 2024.

Shag	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**
Trace nest only	0	1	1	2	5	1	1	2	6	5	1	1
Incubating nests	35	29	26	22	24	33	29	23	29	29	34	37
% Incubating	100	93.5	96.3	91.7	82.8	97.0	96.7	92.0	82.9	85.3	97.1	97.0
Young fledged	66	23	19	12	44	36	28	15	24	18	36	33
Fledged / inc.	**1.89**	**0.79**	**0.73**	**0.55**	**1.83**	**1.09**	**0.97**	**0.65**	**0.83**	**0.62**	**1.06**	**0.89**

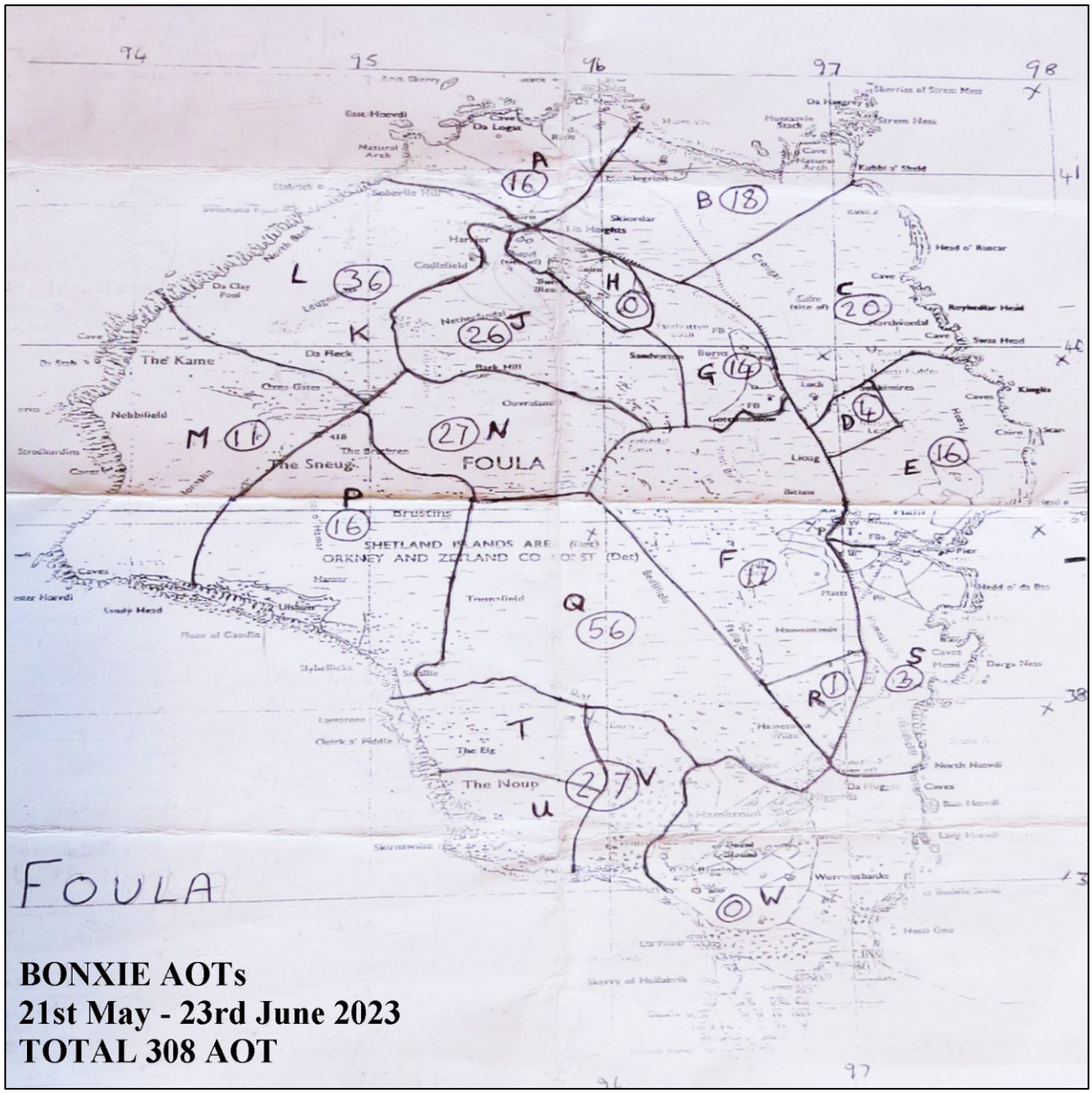
Arctic Skua. The first bird was seen ashore on the 26th April. There were 16 AOTs in 2025, with 16 pairs observed to lay eggs, a slight decrease on 2024 (18 pairs laid). Forty-five adult birds were counted in total this year, but some did not appear to take up territories or pair up, but instead just hung around. Ten chicks fledged, two more than in 2024. Productivity was just 0.63 chicks fledged per AOT, 43.2% higher than in 2024. As in previous years, the colony was fed during the season once incubation had begun: one small feed in the evening of mackerel and herring from 31st May until 31st Aug. No adults or chicks were ringed in 2025 because of fear of spreading infection.

Arctic Skua	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**
First seen on land	29/4	26/4	26/4	28/4	27/4	25/4	24/4	23/4	25/4	20/4	29/4	26/4
AOT	24	28	27	23	20	19	21	22	21	21	18	16
Pairs laid	21	26	17	17	14	16	18	21	20	19	18	16
Mean clutch	1.70	1.62	1.47	1.81	1.71	1.73	1.56	1.81	1.90	1.79	-	-
Fledged	18	17	4	0	2	16	20	20	18	16	8	10
Success/AOT	**0.75**	**0.61**	**0.15**	**0**	**0.14**	**0.84**	**1.11**	**0.91**	**0.86**	**0.76**	**0.44**	**0.63**

Great Skua. As a result of the HPAI epidemic in 2022, Great Skua numbers were still very low. The first one on the isle was seen on 8th April and very few arrived before mid-April. A count of AOT was done across a small sample of the SNH designated counting areas (see map below), namely across areas F, S, D, E, N and M. Worryingly, numbers were down from last year by 16.7% and there were also only a few birds on the club sites. However, only one adult was found dead in 2025.

AOT sample area counts of Great Skuas on Foula in 2015, 2023, 2024 and 2025

SNH Area	**2015**	**2023**	**2024**	**2025**
F	86	16	14	11
S	20	3	4	3
D	6	4	1	2
E	114	16	9	10
N	51	27	14	9
M	128	11	Not counted	5
TOTAL (F to N)	**277**	**66**	**42**	**35**



On the Great Skua breeding success monitoring plot there were only 6 AOT in 2025, a decrease of 45.5% since 2024, and 88.2% down on the 2020 total, prior to the HPAI mortality in Great Skuas on Foula. Mean clutch size appeared normal at 1.83 chicks fledged per AOT (1.73 in 2024). Four chicks fledged in 2025, compared with only one in 2024 and two in 2023. Productivity in 2025 was 0.67 fledglings per AOT, up from 0.09 in 2024. Unusually, there were no signs of cannibalism observed either on the monitoring plot or the rest of the island. There were no confirmed signs of HPAIV in the colony this summer, but as in 2024, no chicks were handled or rung for fear of spreading infection.

Great Skua	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
First seen on land	10/4	3/4	2/4	4/4	12/4	28/3	3/4	29/3	29/3	7/4	8/4	8/4
AOT monitored	48	42	54	54	50	46	51	41	24	6	11	6
Mean clutch	1.88	1.62	1.77	1.69	1.90	1.80	1.80	1.76	1.83	1.83	1.73	1.83
Fledged	8	3	14	2	11	12	9	0	0	2	1	4
Success/AOT	0.17	0.07	0.26	0.04	0.22	0.26	0.18	0.00	0.00	0.33	0.09	0.67

Black-legged Kittiwake. A whole island count revealed a total of 424 well-built nests which, although extremely low, was over 400 for the first time for more than 10 years, and 54.2% higher than in 2023.

Black-legged Kittiwake	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Census count (AON)	277	272	256	262	259	308	317	360	275	-	424
% change per year	-23.3	-1.8	-5.9	+2.3	-1.1	+18.9	+2.9	+13.6	-23.6	-	+54.2

The very small sub-colony at Stee increased to 15 pairs and 9 chicks fledged (11 pairs and 2 chicks fledged in 2024). At Hodden there were 63 pairs and 30 chicks fledged, compared with 59 and 1, respectively, in 2024. Breeding success had increased at both sites compared with 2024, by 433.3% at Stee and by 2,300% at Hodden. Due to persistent bad weather at the beginning of the season, nest building and laying was about 2 weeks late. During Storm Floris, on 4th and 5th Aug, 15 chicks were lost. Mean breeding success across both sites was 0.54, 440.0% higher than in 2024 (0.10).

Stee	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**
Completed nests	20	2	2	3	4	4	6	5	-	7	11	15
Fledged	0	1	1	0	0	3	7	5	-	4	2	9
Breeding success	0	0.50	0.50	0.00	0.00	0.75	1.17	1.00	-	0.57	0.18	0.60
Hodden	**2014**	**2015**	**2016**	**2017**	**2018**	**2018**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**
Completed nests	18	21	20	23	27	41	55	60	69	50	59	63
Fledged	15	4	9	8	19	34	38	43	45	33	1	30
Breeding success	0.83	0.19	0.45	0.35	0.70	0.83	0.69	0.72	0.65	0.66	0.02	0.48
Mean success	**0.42**	**0.35**	**0.48**	**0.18**	**0.35**	**0.79**	**0.93**	**0.86**	-	**0.62**	**0.10**	**0.54**

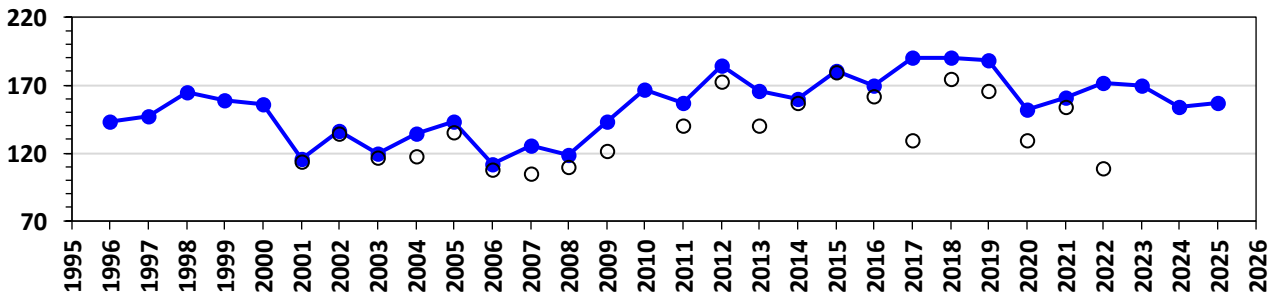
Arctic Tern. The Arctic Terns had a poor, late season. They arrived late, on 20th May. In June c.50 pairs laid in the usual place on the west side of the airstrip. By the end of June, after some spells of torrential rain and gales, none were left there. In July, c.30 pairs laid on the east side of the airstrip, which is a better, dryer area. After Storm Floris, they moved still further east with their chicks, closer to the cliffs. Nests observed only held one or two eggs, none were seen with three eggs. On 11th Aug, 17 chicks had fledged and there were still a few small downy ones on the ground. Six pairs of terns nested at the small colony on the Cletts but only one chick was seen to fledge, and the parents were still defending it on 27th August.

Common Guillemot and Atlantic Puffin. Guillemots were late to return, and breeding attempts were few. The four small colonies on the east side of the island were badly affected by heavy sea from the SSE on 13th June. Very few puffins appeared to be breeding. Adults were coming in with minute larval fish and small flat fish too wide for a chick to swallow. Non breeders arrived in July in reasonable numbers and were gone after Storm Floris.

Black Guillemot. Counts were made by Sheila Gear on 26th April (north section) and 18th April (south section). The sum total count from the two sections was 157 birds in breeding plumage, 1.9% higher than in 2024. One bird was seen in non-breeding plumage.

Area counted	Date & time	Weather & tide	Count
East coast survey area, NORTH	24/4 7.30–9.30am	Wind E 4, mainly cloudy, lots of sea motion, some onshore break and swell.	North area total = 78 in breeding plumage
East coast survey area, SOUTH	18/4 7.45–10.15am	Wind N 4, cloudy, sea moderate.	South area total = 79 in breeding plumage

Figure 1. Counts of Black Guillemots in breeding plumage along the East coast survey area of Foula, 1996–2025. Open circles are the lower count when two were made in a year.



Appendix 2. Seabird ringing in Shetland in 2025

Ringing of seabirds provides valuable information on population distributions, individual movements, longevity, and causes of mortality. SOTEAG has supported seabird ringing in Shetland since 1980 by making a donation to the cost of seabird rings. Annual ringing totals have fluctuated due to variation in demographic factors and the number of adults and chicks available for ringing, also the number of active ringers. Over the years, ringing totals have generally decreased in Shetland though, corresponding with seabird numbers decreasing and accessible colonies becoming far fewer. The total of 835 seabirds that were ringed in 2025 was considerably higher than in 2024 (380), when it was a very poor breeding year across multiple different species and there were very few chicks that could be ringed. No seabirds were ringed in 2022 because ringing was prohibited by the government and the British Trust for Ornithology (BTO) due to the HPAIV pandemic that year. In 2025, ringing of Great Skuas was allowed on a controlled basis by the BTO, for reasons relating to HPAIV. The perpetuation of HPAIV infection and mortality since 2022, albeit at a low level, has meant that some ringers are now much more reluctant to handle and ring seabirds.

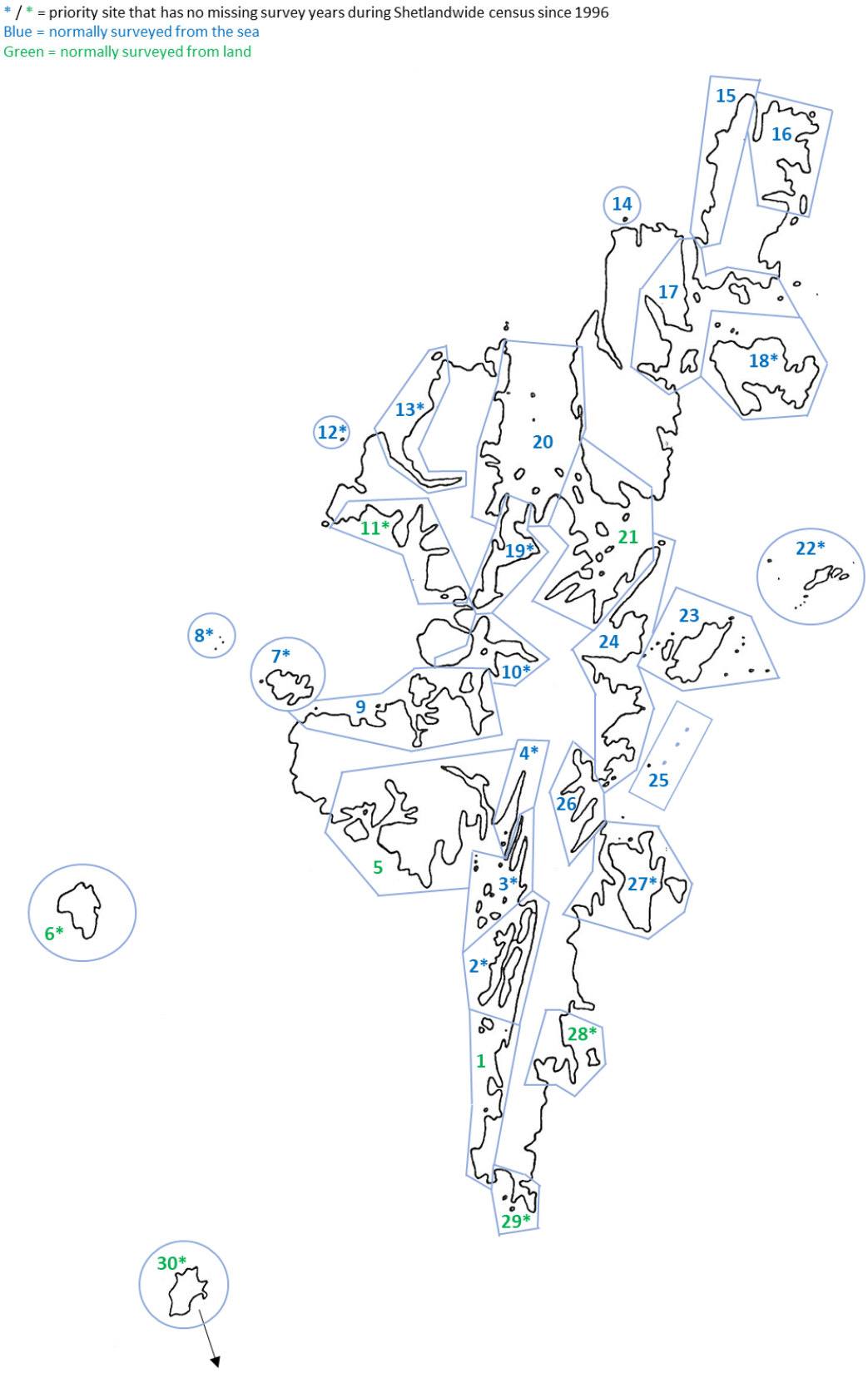
Recommendation: SOTEAG continues to offer a donation to the cost of seabird rings for all species listed in Table 1 (except for non-breeding European and Leach's Storm-petrels, as per the normal policy). In 2025, this donation amounts to £626.75 in total, comprising £527.49 to Fair Isle Bird Observatory and £99.26 to Shetland Ringing Group.

Table 1. Seabirds ringed in Shetland in 2025. FI = Fair Isle Bird Observatory; SRG = Shetland Ringing Group; FO = Foula. Numbers of non-breeding adult storm-petrels are omitted as ringing costs are not covered by SOTEAG. The unit cost of British Trust for Ornithology (BTO) rings includes manufacturing and administration, including recovery data. Total A = site totals and grand totals for numbers ringed and cost; Total B = age and breeding category totals.

	Chicks			Breeding adults			Non-breeding adults		Total birds ringed	Unit cost	Total cost
Species	**FI**	**SRG**	**FO**	**FI**	**SRG**	**FO**	**FI**	**SRG**			
Common Eider	0	0	0	1	0	0	0	0	1	£0.71	**£0.71**
Red-throated Diver*	0	22	0	0	3	0	0	0	25	£0.49	**£12.25**
Northern Gannet	0	0	0	0	0	0	0	0	0	£0.49	**£0.00**
Northern Fulmar	56	0	0	16	0	0	0	0	72	£0.39	**£28.08**
European Storm Petrel	0	60	0	0	0	0	n/a	n/a	60	£0.80	**£48.00**
Leach's Storm Petrel	0	0	0	0	0	0	n/a	n/a	0	£0.18	**£0.00**
European Shag	13	0	0	7	0	0	0	0	20	£0.49	**£9.80**
Great Skua	180	34	0	5	12	0	0	0	231	£0.71	**£164.01**
Arctic Skua	6	0	0	0	0	0	0	0	6	£0.49	**£2.94**
Common Gull	7	0	0	1	0	0	0	0	8	£0.49	**£3.92**
Lesser Black-backed Gull	2	0	0	0	0	0	0	0	2	£0.39	**£0.78**
Herring Gull	52	2	0	0	0	0	0	0	54	£1.94	**£104.76**
Great Black-backed Gull	0	1	0	0	0	0	0	0	1	£0.71	**£0.71**
Kittiwake	0	0	0	7	0	0	0	0	7	£0.49	**£3.43**
Arctic Tern	54	8	0	0	0	0	0	0	62	£0.22	**£13.64**
Common Tern	0	0	0	0	0	0	0	0	0	£0.22	**£0.00**
Common Guillemot	0	0	0	19	0	0	0	0	19	£1.34	**£25.46**
Razorbill	51	0	0	38	0	0	0	0	89	£1.36	**£121.04**
Atlantic Puffin	54	0	0	117	0	0	2	0	173	£0.49	**£84.77**
Black Guillemot	5	0	0	0	0	0	0	0	5	£0.49	**£2.45**
Total A	**480**	**127**	**0**	**211**	**15**	**0**	**2**	**0**	**835**		**£626.75**
Total B	**607**			**226**			**2**				

Appendix 3. Common Eider census survey areas and locations

The map below shows the general locations of the 30 standard survey areas used for the Shetland-wide Eider population census, carried out every three to four years. The core survey areas that are monitored annually are Sullom Voe (area 19), North Yell Sound (area 20) and South Yell Sound (area 21). The table below provides additional location details for each survey area, including British National Grid (BNG) six-figure coordinates. Fair Isle (area 30) is shown close to Mainland Shetland on the map but is located further south (39km south of Sumburgh Head).



Survey Area	Location
1	Mainland coast and all islands from HU364110 in the south (tip of Garths Ness) to HU360280 in the north (just north of South Havra).
2	Mainland coast and all islands, including West Burra, East Burra, Trondra and Green Holm, from HU360280 in the south (just north of South Havra) to HU386388 in the north (Point of the Pund), but excluding all the Scalloway Islands, e.g., Steggies, Bullia Skerry, Oxna and Papa.
3	Mainland coast and all islands from HU386388 in the south (Point of the Pund) to HU375430 in the north (Binna Ness, just north of North Havra), including all the Scalloway Islands, from Steggies, Bullia Skerry, Oxna and Papa in the south to North Score Holm in the northwest to North Havra in the northeast.
4	Weisdale Voe, including mainland coast and all islands from HU375430 in the south (Binna Ness, just north of North Havra) to HU362464 in the northwest (tip of Russa Ness).
5	Mainland coast and all 'West Side Voes' and islands from HU362464 in the east (tip of Russa Ness) to HU198478 in the west (Skerries of Easter Paill), but excluding the Scalloway Islands, e.g., North Score Holm to Sanda Stour.
6	Foula (HT960392), entire coast and all islands.
7	Papa Stour (HU166607), entire coast and all islands, to midchannel of the Sound of Papa in the southeast.
8	The Ve Skerries (HU103654), entire coast of all islands.
9	Mainland coast and all islands from HU171572 in the west (Ayre of Huxter) to HU358625 in the east (tip of Cole Ness), including the Holm of Melby and out to midchannel of the Sound of Papa in the west, and Vementry, Papa Little and the south coast of Muckle Roe from HU302629 to HU331631 (Murbie Stacks to Littleburn) in the east.
10	Mainland coast and all islands from HU358625 in the east (tip of Cole Ness) to HU331631 in the west (Littleburn, on Muckle Roe), including Gon Firth, Olna Firth, Busta Voe and Linga.
11	Mainland coast and all islands of St Magnus Bay, from HU326686 in the southeast (west coast of Kat Fell) to HU214766 in the northwest (southern tip of Stenness).
12	Muckle Ossa (HU219850), entire coast of all islands.
13	Mainland coast and all islands from HU250853 in the south (Clew Head) to HU326929 in the north (Nista Skerries), including Ronas Voe in the south and Uyea in the north.
14	Gloup Holm (HP486062), entire coast of all islands.
15	West Unst coast and all islands from HP557048 in the south (The Nev) to HP612186 in the north (The Gord, Hermaness), including Muckle Flugga.
16	Northeast Unst coast and all islands from HP612186 in the north (The Gord, Hermaness) to HP649064 in the south (Huney), including Burra Firth, Harold's Wick, Balta Sound and Balta Isle.
17	Northeast Yell coast and all islands from HU547889 in the south (The Paylins, Yell) to HP546045 in the north (Papil Ness, Yell), including Mid Yell Voe, Hascosay and out to midchannel between Hascosay and Fetlar, Basta Voe and Linga. This survey area also includes the southeast and south Unst coast and all islands, from HP557048 in the north (The Nev, Unst) to HP639005 in the east (Hunts Holm off southeast Mu Ness, Unst), including Uyea Sound, Uyea, Wedder Holm, Haaf Gruney and out to midchannel between south Unst and Fetlar, but not including Sound Gruney (HU579961) off northeast Fetlar.
18	Entire coast and inshore islands of Fetlar, including west to midchannel between Hascosay and Fetlar, west to midchannel between Yell and Fetlar, north to midchannel between south Unst and Fetlar, and the islands off northeast Fetlar out to Sound Gruney (HU579961) and Urie Lingey (HU596956).
19	Entire Sullom Voe coast and islands, south from a line across the mouth of Sullom Voe, from HU379790 on the west side (Grunn Taing, Gluss Isle) to HU396784 on the east side (Skaw Taing, Calbeck Ness).

Survey Area	Location
20	Entire coast and islands of North Yell Sound, from HU378951 in the northwest (Point of Fethaland), south to HU379790 in the southwest (Grunn Taing, Gluss Isle), east to HU396784 (Skaw Taing, Calbeck Ness), east to HU425792 in the southeast (Mio Ness, Mainland), north to HU446824 (Ness of Sound, Yell) and north to HU445950 in the northeast (Fogla-lee, Yell), and including Brother Isle in the southeast but not Uynarey or Bigga.
21	Entire coast and islands of South Yell Sound, from HU528788 in the northeast (The Rett, Heoga Ness, Yell), west to HU446824 in the northwest (Ness of Sound, Yell), south to HU425792 in the southwest (Mio Ness, Mainland), including Uynarey and Bigga, and east to HU5220743 (north tip of Lunna Ness), including Tofts Voe, Firths Voe, Dales Voe, Colla Firth and Swinning Voe.
22	Out Skerries (HU681715), entire coast and all islands, west to Muckle Skerry in the northwest (HU627734) and Billia Skerry in the southwest (HU653682).
23	Whalsay (HU565640), entire coast and all islands, east to Grif Skerry (HU631623) and west to Score Holm (HU519652) and Hunder Holm (HU513634), and midchannel between these islands and Mainland Shetland in Lunning Sound.
24	Mainland coast and all islands from HU5220743 in the north (north tip of Lunna Ness), south to midchannel between Score Holm (HU519652) and Mainland Shetland and between Hunder Holm (HU513634) and Mainland Shetland, and south to HU460507 (Ling Ness, South Voe of Gletness), including Lunna Holm, Dury Voe, South Nesting Bay, Inner Voder (HU508548) and the South Isle of Gletness (HU470506), but not the Hoo Stack (HU504520).
25	All the Nesting Skerries, from Muckle Fladdicap in the north (HU561583), the Hoo Stack in the south (HU504520) and Haerie in the west (HU518553).
26	Mainland coast and all islands from HU460507 in the north (Ling Ness, South Voe of Gletness) to HU470467 in the south (tip of Kebister Ness), including Cat Firth, Wadbister Voe, Lax Firth and Dales Voe.
27	Mainland coast and all islands from HU470467 in the north (tip of Kebister Ness) to HU447366 in the south (Moo Stacks, just south of Gulberwick), including Lerwick Harbour, Bressay Sound and the whole of Bressay and Noss.
28	Mainland coast and all islands from HU438279 in the north (Smo Taing) to HU416215 in the south (tip of Levenwick Ness), including the whole of Mousa.
29	Mainland coast and all islands from HU406112 in the northeast (Point of Tangpool, north shore of Virkie) to HU364110 in the west (tip of Garths Ness), including Sumburgh Head, West Voe of Sumburgh, Scatness, Horse Island and Quendale Bay.
30	Fair Isle (HZ210720), entire coast and all islands.