Beached bird surveys in The Netherlands, summer 2025 & winter 2025/26: a step back….

C.J. Camphuysen 2026

Final report

Royal Netherlands Institute for Sea Research, Texel

Dutch Seabird group – NZG/NSO

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Front cover: Oiled adult Razorbill *Alca torda* (two bill grooves) Texel, 2 Nov 2025 (photo CJ Camphuysen).

Summary - This is the annual report on beached bird survey (BBS) combining results obtained in The Netherlands during summer 2025 (May-Oct) and the winter 2025/26 (Nov-Apr). While the long-term study showed a steady, promising, long-term decline in oil pollution rates among guillemots, accelerating since 2005, a serious oil incident in autumn 2025 reminded us again of the recent past. While almost all recent seasons have shown exceptionally low oil rates, two pollution incidents occurred in the winter of 2024/25, resulting in an overall oil rate of 5.8% (n = 86) among guillemots, the highest value since 2017/18. With this new spill, in autumn 2025, even though it must have been only one isolated incident (likely an oil discharge), it is clear that oil pollution is not completely gone as yet, and could even return. With an oil rate of 12.5% (n= 183), the multi-year average doubled, to reach 4.0 ± 5.3%, which is only *just* within the OSPAR targets set for 2030. This increase is despite extra-mortality in Common Guillemots caused by a wreck (starvation induced mortality) that occurred simultaneously, and it should be noted that the incident occurred in Oct-Nov whereas the standard monitoring period for OSPAR is *winter* (defined as Nov-Apr). Calculated over the relevant period (i.e. Oct-Nov 2025), species-specific oil rates were alarmingly higher: 23.8% in Common Guillemots (n= 231), and even 68.0% in Razorbills (n= 50), and these results are therefore presented separately within this report.

Avian influenza again claimed victims, but not on a scale as in recent years, and is left out of consideration in this annual report, but entanglements in ropes and fishing gear (mostly affecting Northern Gannets) are also reported here as in earlier years.

Vogelstrandingen langs de Nederlandse kust, zomer 2025 en winter 2025/26

Samenvatting - Dit is de jaarlijkse weergave van de resultaten van systematische strandtellingen langs de Nederlandse kust, met een verslag over het winterseizoen 2025/26, maar ook weer met aandacht voor de daaraan voorafgaande zomer en herfst van 2025. Het langjarige onderzoek liet een gestage, lange termijn afname in oliebevuilingspercentages bij de Zeekoeten zien die versnelde vanaf 2005. Alle laatste seizoenen hebben bijzonder lage oliebevuilingspercentages opgeleverd, maar nadat in de winter 2024/25 toch weer enkele incidenten hebben plaatsgevonden was het opnieuw mis in herfst van 2025. Over het gehele winterseizoen 2025/26 gemeten (de standaard-monitoringperiode) werd onder Zeekoeten nu een oliebevuilingspercentage van 12,5% (*n*= 183) gevonden, zodat het meerjarig gemiddelde uitkwam op een niveau van 4,0 ± 5,3%, waarmee nog maar *net* aan de doelstellingen van OSPAR voor 2030 wordt voldaan. Deze toename in het percentage olieslachtoffers deed zich voor ondanks een extra sterfte onder zeekoeten als gevolg van een 'wreck' (sterfte door verhongering) die gelijktijdig plaatsvond; daarbij dient te worden opgemerkt dat dit olie-incident zich in oktober-november voordeed, terwijl de standaardmonitoringperiode voor OSPAR de winter betreft (gedefinieerd als november-april). Berekend over de relevante periode (d.w.z. oktober-november 2025) lagen de percentages met olie besmeurde vogels nog hoger: 23,8% bij zeekoeten (n= 231) en zelfs 68,0% bij alken (n= 50); deze resultaten worden daarom apart in dit rapport gepresenteerd. Veel van de getroffen vogels werden levend naar vogelopvangcentra gebracht en vielen daarmee buiten de monitoring van zeevogelstrandingen door NZG/NSO, maar de gegevens van die centra worden hier wel onder de aandacht gebracht. Vogelgriep werd dit seizoen weliswaar vastgesteld, maar niet op een schaal dat er hier bijzondere aandacht aan hoeft te worden besteed. Zoals elk jaar zijn hier ook de verstrikkingen van zeevogels in touwen en vistuig weer onder de aandacht gebracht, en zoals altijd voor de sterfte daardoor onder Jan-van-Genten de boventoon.

Introduction

This is the annual update of seabird strandings reports and results of systematic beached bird surveys for The Netherlands for winter 2025/26. As always, the emphasis of this study is on strandings of [oiled] Common Guillemots *Uria aalge* in winter, because the Marine Strategy Framework Directive demanded an indicator for oil pollution, in order to evaluate the effectiveness of measures to reduce chronic oil pollution (Commission Decision of 2010, Chapter 8.2, Effects of contaminants, EU 2010). To monitor levels of chronic marine oil pollution, beached bird surveys have been suggested in the late 1990s (Camphuysen & Heubeck 2001), but the information need for the monitoring and assessment of oil fouling of seabirds was established much later in the form of an Ecological Quality Objective (EcoQO) for OSPAR. In the legal Dutch Kader Richtlijn Marien document (page 78; "Vervuilende stoffen"; Anon. 2012), the EcoQO indicator is explicitly implemented. In the EcoQOs for the North Sea, "the Proportion of oiled Common Guillemots among those found dead or dying on beaches" was subsequently listed Under Issue 4 (Seabirds), EcoQO element (f). The "Oiled Guillemot EcoQO", as agreed by the 5th North Sea Conference, was defined as: *"The proportion of such birds should be 10% or less of the total found dead or dying, in all areas of the North Sea"* (Anon. 2002), later refined to target mean proportions of 20% in 2020 and 10% in 2030 over periods of at least 5 years (Anon. 2012).

Oil-rates (% oiled) reported here of Common Guillemots are provided for Dutch contributions to OSPAR areas 8, 9, and 10, and separately for the Dutch North Sea coast (areas 8 and 9 combined). Raw data are provided in Appendices. Given the nature of the underlying database (historical data can be merged with earlier published material whenever they are provided by volunteers walking our beaches to enlarge earlier sample sizes), the exact values may deviate slightly from earlier publications.

Further details are provided for four other, common pelagic species (the Northern Fulmar *Fulmarus glacialis*, the Northern Gannet *Morus bassanus*, the Black-legged Kittiwake *Rissa tridactyla* and the Razorbill *Alca torda*) and for three coastal species, including the often-highlighted Common Eider *Somateria mollissima*, Herring Gull *Larus argentatus*, and Great Black-backed Gull *Larus marinus*. Reported densities span the entire ~68 years period for which solid data are available (winter 1959/60 – winter 2025/26), whereas the analysis of oil rates spans a period of the most recent 50 winters (winter 1977/78 to 2025/26), during which the assessments of plumage inspections were standardised (*i.e.* from when the organisation NSO was formed in 1977). As always, particular events causing elevated levels of sea- or waterbird mortality along the coast have been highlighted, whether or not the mortality had been caused by oiling.

Since 2022, several mass mortality incidents among seabirds were caused by outbreaks of the highly pathogenic avian influenza virus (HPAIV) H5N1, affecting seabirds in summer in breeding colonies, but also at sea, which was clearly reflected in strandings data (Camphuysen *et al.* 2023). Avian influenza continued to cause problems throughout 2024 and in winter 2024/25, and also in winter 2025/26 casualties have been reported among seabirds. This was much less prominent in this last season, though, and (virus-)sampling less extensive, such that these cases are not considered in this annual report.

Recent annual reports were able to flag up almost continues declines in oil rates for all species considered in these studies. Winter 2024/25 was an exception, with at least one oil incident, plus an incident that could be related to a discharge of polyisobutylene (PIB), affecting a whole suite of seabirds. Sadly, an oil spill occurred again in this most recent year, hence the chosen title: 'a step back'.

Meteorological background for summer 2025 and winter 2025/26 [1)]

This section is meant to also analyse the severity of each winter and the occurrence of major storms that could have influenced influxes and/or deposition rates of dead seabirds on (Dutch) beaches. It were a fairly calm and normal summer and winter, with several violent storms in autumn but without prolonged cold spells that could lead to extra seabird- or waterbird mortality.

Summer 2025 (May- August)

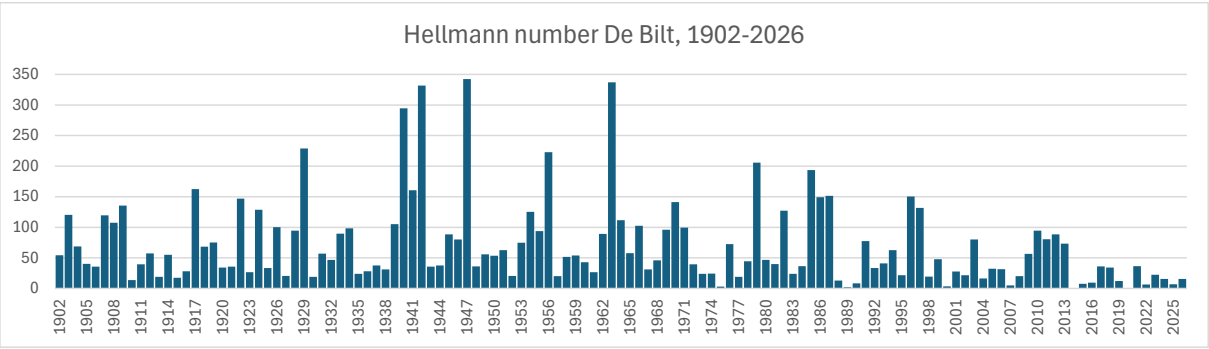
With an average temperature of 18.5°C compared to the usual 17.5°C, it was the fourth-warmest summer since records began in 1901. Only the summers of 2018, 2003, and 2022 were warmer; the summer of 2006 also saw an average of 18.5°C. Although there were two heatwaves, there were no prolonged periods of intense heat. The summer was notable primarily for the scarcity of cool days.[1)]

Early autumn 2025 (Sep-Oct)

September was also quite warm, with a normal amount of precipitation and a southwesterly storm on the 15th. This made it the seventh consecutive month that was warmer than the long-term average that year. The month began with the passage of several depressions. With a southerly wind, the temperature rose sharply, reaching tropical temperatures in the south of the country. From September 8, the heat was gradually driven away from the west. Summer heat returned briefly on September 19 and 20. On September 20, the heat was driven away from the west again by thunderstorms. October was mild, very wet, and gloomy. Early October, Storm Amy moved from the Atlantic Ocean to the northern North Sea and bringing strong winds and precipitation in the Southern Bight (October 3-5). From October 6, a high-pressure area stabilized the weather temporarily (calm, drizzly, and cloudy). Strong winds again at the end of the month. On 23 October, Storm Benjamin swept across the country, and the weather remained changeable with strong winds afterwards. During the final days of the month, the autumn weather became slightly calmer and temperatures rose slightly again. October was very wet, resulting into a seventh place in the top ten wettest Octobers since 1906.

Winter 2025-26 (Nov-Apr)

Over 1 November 2025 to 31 March 2026, the Hellmann number in De Bilt was 15.6, which means that the entire winter period can be classified as very mild (H >10, <20).[2)] The few and not very pronounced cold spells (listed below) this season meant that frost-induced winter mortality didn't occur with any significance.



The cold index, a measure of cold in the period 1 November up to and including 31 March of the year indicated [2)].

[1)] https://www.knmi.nl/nederland-nu/klimatologie/maand-en-seizoensoverzichten/2025/zomer, https://www.knmi.nl/nederland-nu/klimatologie/gegevens/mow, [2)] https://www.knmi.nl/nederland-nu/klimatologie/lijsten/hellmann

With an average of 7.8°C (normal 7.0°C), **November** 2025 was quite mild. Between November 14 and 16, fine weather came to an end with a frontal zone moving southwards across the country agonizingly slowly with heavy rains. Behind the frontal zone, significantly colder air flowed into the country with a northerly current; with strong winds and temperatures of 6-9°C, it was cold. Mild frost occurred for the first time on 16 November.

December 2025 was mild to very mild with often gloomy autumn weather. The inland monthly mean temperature was 6.1°C (normal 4.2°C). Sunny and cold weather occurred from December 24, under the influence of a high-pressure area over Scandinavia. An easterly airflow brought in very dry and cold air such that temperatures did not rise above zero on Christmas day (the only ice day of the month). Thereafter, it became less cold, with some mild frost at night locally. No violent storms were recorded.

January 2026 had 18 frost days in De Bilt, six more days than normal. There was also one ice day (normal). With an average temperature of 2.5°C against a long-term normal of 3.6°C, January was cold as a result. The month began under the influence of low-pressure area Anna. There were no storms in the Netherlands, but particularly along the coast, there was a lot of wind on New Year's Day.

With an average of 5.8°C in De Bilt, **February** 2026 was nearly two degrees warmer than normal (3.9 °C). In the northeast, where it was often cold until February 19, the average came out around normal. Mild weather from 6 February, as a result of a southerly airflow. A brief cold period 12-15 February, with -8.3 °C, in Twenthe on 15 February 15. Mild and changeable From February 20, with airflows southwesterly to westerly, with maximum temperatures around 11°C. Spring weather from February 24, with very mild airflows of tropical origin. On February 25 and 26, it was extremely mild, with minimum temperatures above 10°C and maximum temperatures of 15–20°C with plenty of sunshine. In total, five frost days, and no ice days for February. With an average temperature of 8.1°C in De Bilt compared to the normal 6.5°C, **March** was very mild. This was mainly due to the first ten days, as it gradually became less mild throughout the month. With the passage of a cold front, the weather turned on March 10. Light frost at night on 14-15 March. Due to the build-up of a belt of high-pressure areas extending from Atlantic into Russia, spring weather returned until March 24-25, when a northwesterly airflow ahead of a low-pressure area over Scandinavia brought maritime polar air. The number of frost days ranged from 7 in the east (normal) to none on the coast (abnormally low). The Hellmann cold index for the winter period (November 1 to March 31) thus comes out at 15.6 in De Bilt (normal: 70.4). With this, it was a very mild winter, comparable to 2023/24.

With an average temperature of 10.6°C compared to the normal 9.8°C, **April** was quite warm. The month began sunny and dry. On 4-5 April, storm depression Dave moved from Scotland via the North Sea to Scandinavia leading to storm winds on April 5th. From April 22, the airflow became northeasterly due to a blocking high-pressure area over northwestern Europe, and sunny and dry spring weather returned.

Showers over the Vliehors during an early spring 2026 survey (photo CJ Camphuysen)

Observers and observer effort, summer 2025 and winter 2025/26

Strandingsdata were used, as directly reported to the strandings database network (NZG/NSO database), or as reported online data published by www.waarneming.nl. Genuine, systematic surveys were received from T. van Anrooij, Rob van Bemmelen, Sanne Berg-Blok, Peter de Boer, Henk Bouma, H. Breuker, Nico Brinck, Maarten Brugge, Kees Camphuysen, Rob Dekker, Eelke Dijkstra, Jan van Franeker, L de Graaf, Klaas van Haeringen, Yvonne Hermes, Job ten Horn, M.G. van Horssen, Jasmijn Hulleman, Leon Kelder, Stephan Kühn, Suse Kühn, Mardik Leopold, S Lodewijk, Luc de Monte, Tim Oortwijn, Vincent van Rooij, Threes Schreurs, Dick Veenendaal, Mariëtte Verdaasdonk en Carl Zuhorn. Hundreds more have contributed by posting their finds online (all acknowledged within the NZG/NSO database, or when their finds are reported specifically in this annual report). This overview was impossible without their help and efforts. I thank Mervyn Roos (RWS) for comments and thoughts on the first version of this report and his long-standing support of the project. Simone Jay and Jasmijn Hulleman are thanked for their co-operation during the the oil incident in autumn 2025. Total observer effort, available for this annual report, comprised 605 reports of stranded wildlife, which reflected 1998 km of coastline surveyed or visited between 1 May 2025 – 30 April 2026 (summer effort in **Table 1**, winter effort in **Table 2**).

The long-term fluctuations in densities shown in this report, as in recent earlier reports, should be treated with some caution, given that an increasing number of reports is currently without proper effort correction (reports not included within a systematic count). Effort is therefore in part estimated, based on monthly activities of individual observers over standardised stretches of coastline. Data from waarneming.nl are biased towards 'unusual' or otherwise particular species, and all finds used in this dataset were checked (with frequent surprises regarding obvious mis-identifications). It was in unusual species (such as divers, skuas, tube noses and rare auks) that a rigorous check for 'doubles' (*i.e.* recorded more than once or by multiple observers at the same time and under their own name) was essential, but some carcasses of for example Northern Gannets or gulls mummified on the beach and were re-reported for months.

Table 1. Beached surveys (n counts) and overall coverage (km surveyed) in summer (May-Oct) over the last 65 years. The effort was rarely used for the analysis of trends in oiling but is available as background information on average strandings densities for any unusual strandings that might occur in any given year.

Summer	Reports	km	Summer	Reports	km	Summer	Reports	Km
1960	4	10	1985	54	410	2007	156	670
1961	3	4	1986	51	282	2008	137	610
1962	4	9	1987	52	292	2009	126	604
1963	1	4	1988	43	306	2010	100	449
1964	1	1	1989	50	343	2011	98	435
1966	4	28	1990	49	276	2012	110	359
1967	2	42	1991	74	523	2013	87	343
1968	1	4	1992	44	362	2014	115	400
1969	2	38	1993	35	313	2015	70	257
1972	2	4	1994	39	302	2016	55	163
1973	2	4	1995	53	361	2017	133	414
1974	2	3	1996	36	241	2018	14	54
1975	7	27	1997	58	432	2019	22	119
1976	6	20	1998	73	475	2020	75	231
1977	11	72	1999	59	437	2021	253	1038
1978	27	153	2000	129	696	2022	427	1449
1979	32	191	2001	138	762	2023	336	1155
1980	57	349	2002	117	588	2024	249	873
1981	119	895	2003	146	691	2025	278	906
1982	107	716	2004	192	915			
1983	91	761	2005	139	669			
1984	85	637	2006	126	586			
Totals	**570**	**3971**		**1757**	**10261**		**2841**	**10530**

Table 2. Beached surveys (*n* counts) and overall coverage (km surveyed) in winter (Nov-Apr) over the last 67 seasons. The effort since 1977/78 was used for the analysis of trends in oiling. All effort was used to assess fluctuations in densities over the entire period. This unique dataset now provides strandings *density data* over 67 (the entire period; 67218 km survey), and *adequate oil rate data* over 49 winter seasons (all since 1977/78; 61604 km survey).

Winter	Reports	km	Winter	Reports	km	Winter	Reports	Km
1959/60	7	43	1981/82	287	1968	2003/04	262	1310
1960/61	41	488	1982/83	388	3126	2004/05	299	1499
1961/62	18	42	1983/84	336	2448	2005/06	241	1250
1962/63	48	145	1984/85	298	1869	2006/07	270	1109
1963/64	19	92	1985/86	287	1833	2007/08	246	934
1964/65	7	28	1986/87	192	1436	2008/09	204	921
1965/66	28	300	1987/88	207	1839	2009/10	165	781
1966/67	19	164	1988/89	231	1671	2010/11	126	685
1967/68	31	325	1989/90	237	1506	2011/12	310	1213
1968/69	24	548	1990/91	215	1406	2012/13	124	463
1969/70	60	832	1991/92	164	1208	2013/14	162	531
1970/71	21	510	1992/93	147	1182	2014/15	151	482
1971/72	25	605	1993/94	167	1128	2015/16	177	600
1972/73	19	465	1994/95	130	923	2016/17	214	698
1973/74	30	138	1995/96	138	956	2017/18	205	680
1974/75	49	393	1996/97	121	833	2018/19	208	854
1975/76	35	255	1997/98	141	953	2019/20	178	634
1976/77	20	244	1998/99	318	1795	2020/21	329	1218
1977/78	49	408	1999/00	350	1979	2021/22	449	1541
1978/79	93	579	2000/01	316	1730	2022/23	276	1067
1979/80	88	721	2001/02	397	1969	2023/24	425	1542
1980/81	313	2125	2002/03	370	1869	2024/25	292	1039
						2025/26	327	1092
Totals	**1044**	**9448**		**5437**	**35627**		**5640**	**22143**

Worse though, for commoner species, strandings rates will be *underestimated* on the basis of these data portals. Commoner species, for example most gulls, are often ignored by 'regular birders' that report their sightings under www.waarneming.nl. Only genuine, systematic surveys are of use use to assess proper densities (effort and finds). External features and external oiling as well as species identifications of online reports were checked by hand using uploaded photographs, that are fortunately increasingly abundant.

Results

Birds found – The data are presented in two parts: summer and winter results. As always, the winter data were analysed for the encountered oil contaminations, as part of the long-term monitoring for OSPAR, and the raw data are included in the Appendices of this report. However, an important trend became apparent regarding the seasonality of Common Guillemots, that appears to have changed structurally in recent years. A single peak in strandings data (around February), very prominent and distinct before at least the turn of the century, has given way to a bi-modal pattern, with autumn strandings that have become an annual phenomenon (all discussed below). One effect of this was, that the main oil incident reported (affecting auks) fell in part outside the standard monitoring period for OSPAR (Nov-Apr, as the winter period), resulting in an oil rate that was lower than it would have been otherwise. All this is further discussed under 'strandings over the summer and autumn period'.

Seabird strandings events summer-early autumn 2025

A full list of the birds found for summer 2025 is provided in **Table 4**. Peaks in strandings are one simple form of 'unusual events' calling for attention, but equally notable are in fact persistent declines in strandings rates of certain species. In this season, numbers of dead Herring Gulls *Larus argentatus*, Little Auks *Alle alle*, Common Guillemots *Uria aalge*, Northern Fulmars *Fulmarus glacialis*, and Northern Gannets *Morus bassanus* were seemingly quite high (**Table 4**). However, in comparison to *background levels* (calculated over summers with sufficient data, in this case 1980-2024; see **Table 1**), densities for these species recorded in 2025 amounted to:

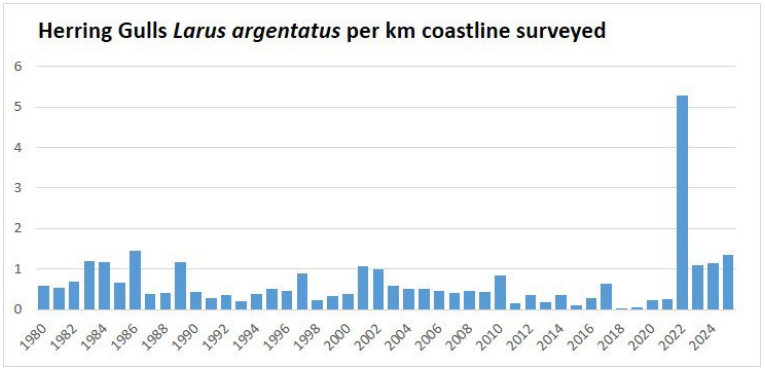
2.1x background levels in Herring Gulls (1980-2024 mean 0.65 ± 0.79, range 0.03-5.29 km^{-1}; **Fig 1a**),
17x background levels in Little Auks (0.0013 ± 0.003, range 0.0-0.017 km^{-1}, now 0.021; **Fig 1b**)
1.2x background levels in Common Guillemots (0.13 ± 0.25, range 0.0-1.34 km^{-1}; **Fig 1c**),
0.9x background levels in Northern Fulmars (0.08 ± 0.08, range 0.0-0.36 km^{-1}; **Fig 1d**), and
6.7x background levels in Northern Gannets (0.14 ± 0.49, range 0.01-3.19 km^{-1}, now 0.95, **Fig 1e**.

and were thus unusual only for the otherwise very rare Little Auk and for the Northern Gannet. In that same perspective, however, for Herring Gulls, Common Guillemots, and Northern Fulmars the 2025 summer strandings rates were 'close to normal' or even almost exactly at the level of long-term strandings data ('background noise'). As always, plain numbers, no matter if seemingly 'high', tell us very little. Long-term background data are essential to interpret strandings data (or in fact any mortality data) and may call for attention. It is in that sense interesting to note that 'summer strandings' in Common Guillemots were on a constant low level in the 1980s and 1990s, but were clearly higher and more variable in recent decades. Something has changed. In the Northern Fulmar, a strandings rate of 0.075 in 2025 may have been almost exactly at the long-term average, but that itself has markedly changed from a long-term average of 0.11 ± 0.08 Northern Fulmars per km coastline in summer over 1980-2007, with 9x >0.15 km^{-1}) to a meagre 0.03 ± 0.12 km^{-1} over the last 18 summers (2008-2025). Over that last (long) period, 2025 would have been an all-time high. As with the guillemots, something has changed with Fulmars over decennia.

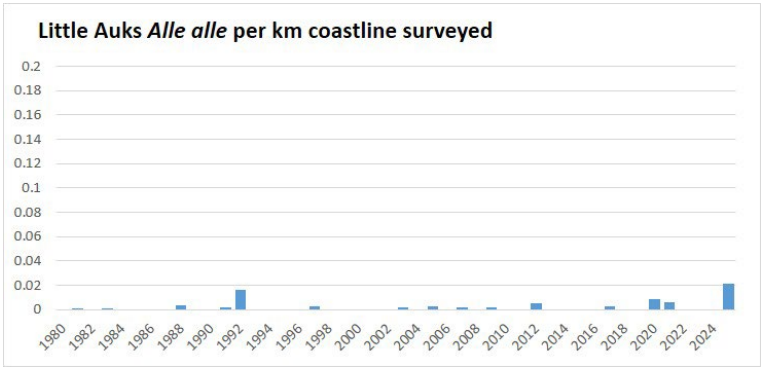
Of Little Auks, 723 individuals were reported and therefore known to have washed ashore in The Netherlands since 1901 (124 years; NZG/NSO database), with distinct and quite variable peaks in strandings in winter, but often in November (**Table 3**). Little Auks are an invasive winter visitor with irregular, sometime spectacular influxes documented on both sides of the North Atlantic Ocean (Camphuysen & Leopold 1996). That autumn 2025, with its rather high densities, has produced the second ever Little Auk in August is one thing, which could be seen as 'accidental', but that 2025 alone almost doubled the number of dead Little Auks for October is very remarkable (**Table 3**). The strandings of Little Auks late autumn 2025 must therefore be seen as an usually early wreck for this species. As always in recent years, none were oiled and all were starved (see also Camphuysen & Leopold 1996, Camphuysen *et al.* 1999).

Table 3. Numbers of Little Auks *Alle alle* found and reported per month since 1901 on the Dutch coast (NZG/NSO database).

	J	F	M	A	M	J	J	A	S	O	N	D	Totals	
1901-2024	103	172	49	11	5			1		**22**	234	126	723	
2025	1							1		**18**	13	2	35	
%2025	1	0	0	0	0			50		**45**	5	2	4.6	%



(a)



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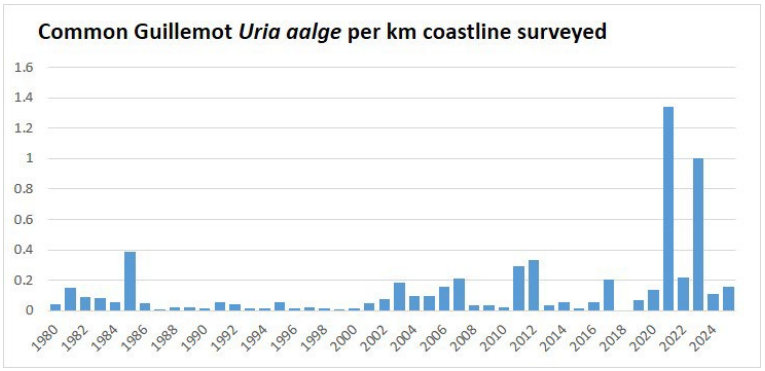

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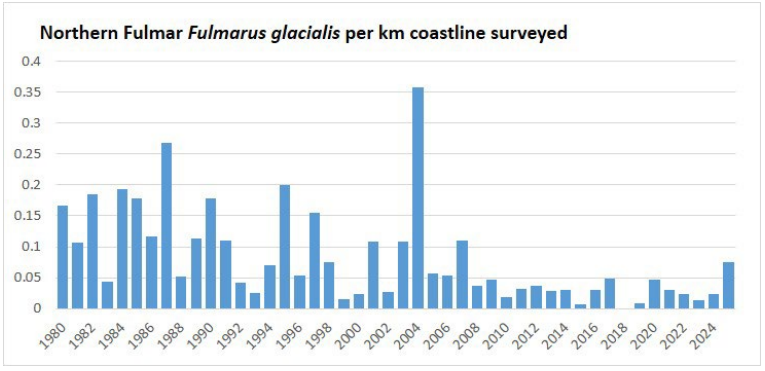

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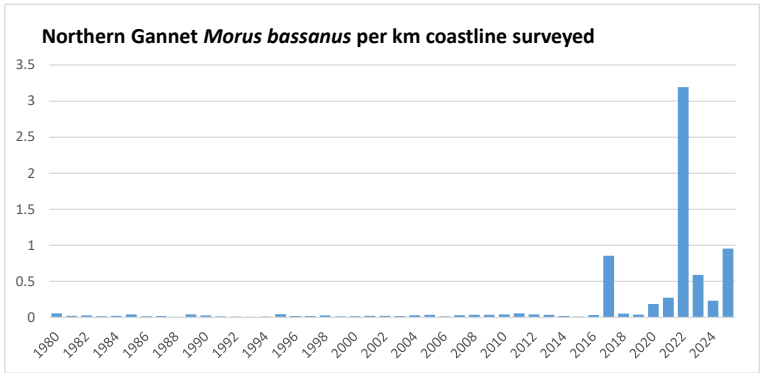

(e)

Fig. 1 Seemingly high numbers (bold in **Table 3**) in summer 2025 (last value) in a long-term perspective (see text). Photo's Hidde Bakker, Wannes Lely, Eric & Duuk Dingemanse & 2x Suse Kühn)

Left with the Northern Gannet, again there seems to develop a change over the longer run. The densities found in 2025 were in fact the second highest value within the long term summer dataset (**Fig. 1e**). High densities as found in 2017 seem to become more frequent in recent years, even if we ignore the mass mortality resulting from the H5N1 outbreaks in 2022 (Camphuysen *et al.* 2023). Some birds found in 2025 were oiled, victims of a spill off the Dutch coast that must have occurred in October (details further below), but this didn't cause the overall high densities. There was nothing suspicious with the age composition (76% adults, 11.6% immatures, 12.4% 'fledglings' (*i.e.* fresh plumage type 1, Aug-Oct); n= 113), there were no clear-cut mortality factors (3.2% oiled, 10.6% entangled in fishing gear, the rest (89.4%) recorded as 'unoiled'; n= 97), there was no evidence but perhaps insufficient sampling involved to blame another H5N1 or another avian influenza outbreak. The higher levels in recent years, however, do call for more future attention.

Summer 2023 was characterised by major auk wreck, potentially (marine) heatwave related, and only two years earlier, Common Guillemot summer- and autumn-strandings had peaked as well, and even more spectacular (Camphuysen 2022, 2024; NZG/NSO annual reports). It was therefore pleasant to note that summer 2024 meant 'back to normal', with a strandings rate of 0.11 per km, or 0.8x background-summer-densities (1980-2023 mean 0.13 ± 0.25, range 0.0-1.34, *n*= 45; Camphuysen 2025). Autumn 2025, perhaps slightly later in the season, was bad news again, however, even though the numbers involved were not exceptional. Two serious incidents were recorded.

In summer 2025, Common Guillemots became an issue of attention not before late September, but numbers markedly increased in October. The first, earlier alarms (issued from rehabilitation centres) involved chicks in August, very small chicks at times, and birds were collected to investigate this matter.

Guillemot chicks ready for necropsies (photo Kees Camphuysen)

Guillemot chicks, clipped wings showing minimal development of flight feathers, the spread wings (upper left, lower right) are number 3 from the upper row (photo's Kees Camphuysen)

Guillemot chicks after necropsies were conducted, opened to show poor fat scores and very poorly developed (soft) sternums. On the right (inset) sternum #3 under very gentle pressure (photo's Kees Camphuysen).

Necropsies showed that the chicks that washed ashore varied in size and development, but many were very, very young given where they must have come from (swimming from East coast England, most likely). Skeletons were soft, flight feathers were very partially developed. Many of these chicks were not independent from their parent (father) when they starved and got lost. Yet another late-summer wreck of father chick-combinations in other words.

In October, however, a second alarm was raised, this time from rehab centres scattered along the coast and this involved numerous oiled birds on the tideline, dead and alive. By that time, Guillemot strandings had much increased in frequency, with peak numbers along the mainland coast and in the Wadden Sea islands. Razorbills were also involved and relatively many of those were oiled (**Fig. 2**).

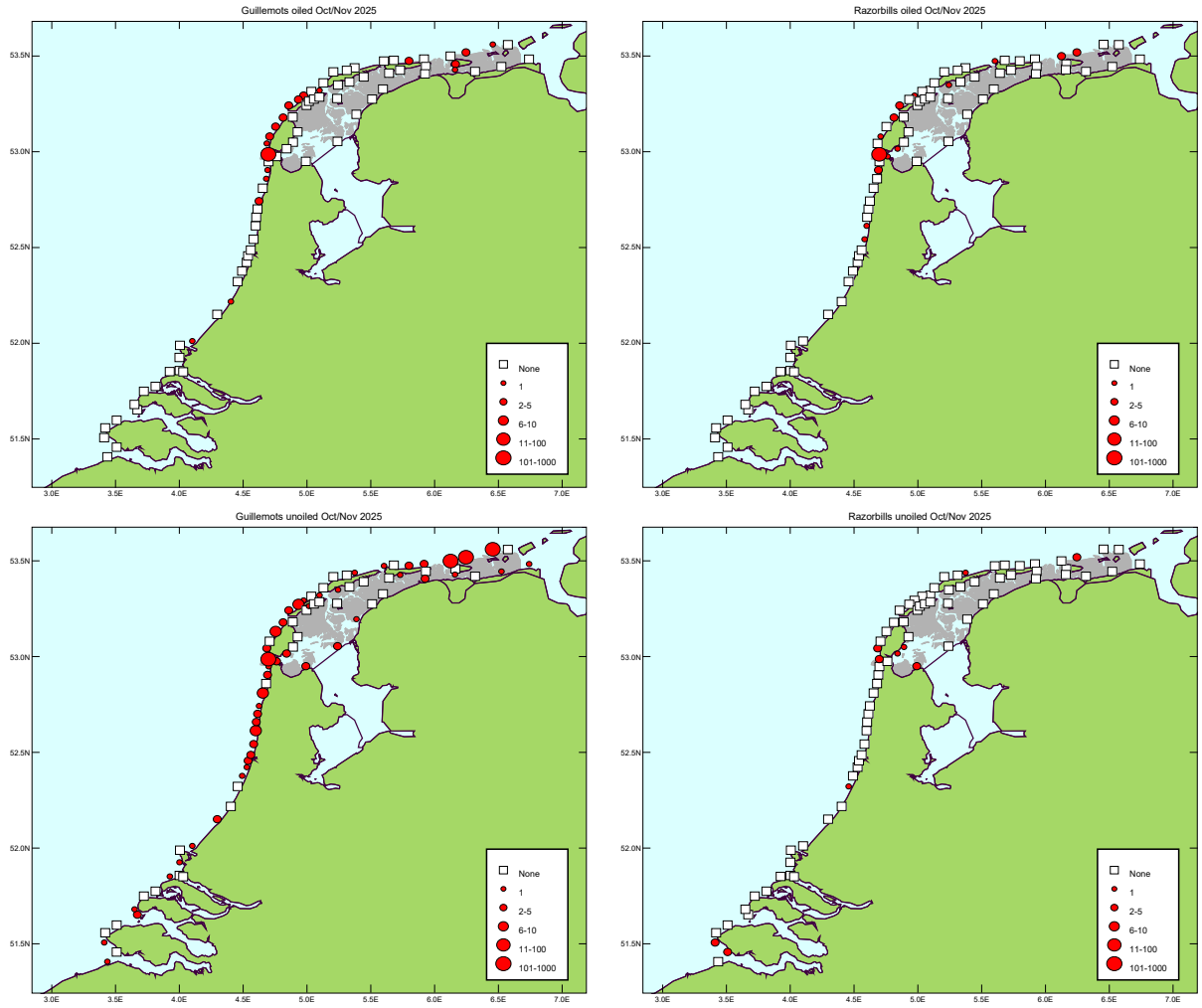

Fig. 2. Distribution of beached bird surveys along the Dutch coastline, Oct-Nov 2025, indicating (**a**) numbers of oiled Guillemots (top left; n= 55) and (**b**) Razorbills (top right; n= 34), and (**c**) unoiled Guillemots (bottom left; n= 176) and (**d**) Razorbills (bottom right; n= 16). Surveys conducted without any dead (oiled and/or unoiled) auks are shown as white squares.

Oiled Guillemot 29 Oct 2025 Vlieland (photo Carl Zuhorn)

Some oiled Guillemots sampled for necropsies (photo Kees Camphuysen)

The spill had occurred in October, during or following the passage of storm depression Benjamin, but finds were spread over October (normally included in the summer analysis) and November (part of the actual OSPAR monitoring period). Calculated over the incident itself (i.e. Oct-Nov 2025), oil rates were 23.8% in Common Guillemots (n= 231), and even 68.0% in Razorbills (n= 50). These results have to be kept in mind when the trends in oil rates are evaluated over the standard winter period.

Oil on the beach, Texel, beachmarker 12, 28 October 2026 (photo Rob Dekker).

Oil samples as forwarded to RWS laboratory Lelystad (photo Kees Camphuysen)

One beach and four feather samples were taken and forwarded to the relevant laboratories of Rijkswaterstaat in Lelystad. All samples were found to contain the same oil, identified as 'heavy fuel oil' (HFO), with no significant differences between samples (communication **Rijkswaterstaat Labora-torium** RWS Centrale Informatievoorziening, Lelystad). Cautionary conclusion therefore, also given further circumstantial evidence, one single spill may have caused this oil incident.

Several rehab centres along the mainland coast have raised the alarm simultaneously, but relatively few oiled casualties have been detected in that general area by beached bird surveys. Sets of carcasses forwarded for scientific research (to NIOZ) from a mainland rehab centre and labelled as 'oil victims' mostly contained clean, wrecked auks rather than oiled birds, such that to distribution of oiled birds such as depicted in **Fig. 2** is probably correct: few casualties Hoek van Holland to IJmuiden, more casualties in Noord-Holland Noord, peak stranding Texel and Vlieland, and again more isolated cases elsewhere within the Wadden Sea area. Given the fact that many birds arrived while still alive, there is no reason to believe that very large numbers may have drowned and disappeared at sea. Hence, a rough guess of the total kill from this spill (order of magnitude only) would be somewhere within the range of 225 casualties, including at least the following numbers of casualties per species.

Species	Found oiled		Expected minimum range
Northern Gannet	7	6%	10-15
Black-legged Kittiwake	1	1%	2-5
Razorbill	38	34%	50-80
Common Guillemot	67	59%	85-135

As a result, two incidents with Common Guillemots involved, intertwined and at the boundary between two study seasons, called for attention. It appears that all these late summer strandings, with, but certainly also without any oil involved is something fairly recent. The seasonal pattern of Common Guillemot strandings has earlier been described as a strictly single peak event: a strong increase from September through January, followed by a steep decline over February-June and very low numbers in summer (Camphuysen 1989). A very repeatable pattern that was still found in the years after this early overview publication (1976-1999; **Fig. 3**). Only, this is obviously no longer the case! The recent (annual) seasonal pattern has become bi-modal. But also in that light, numbers of guillemots washing ashore in Jan-Feb 2026 were very low, even for that apparent new seasonal pattern (see also text for winter 2025/26).

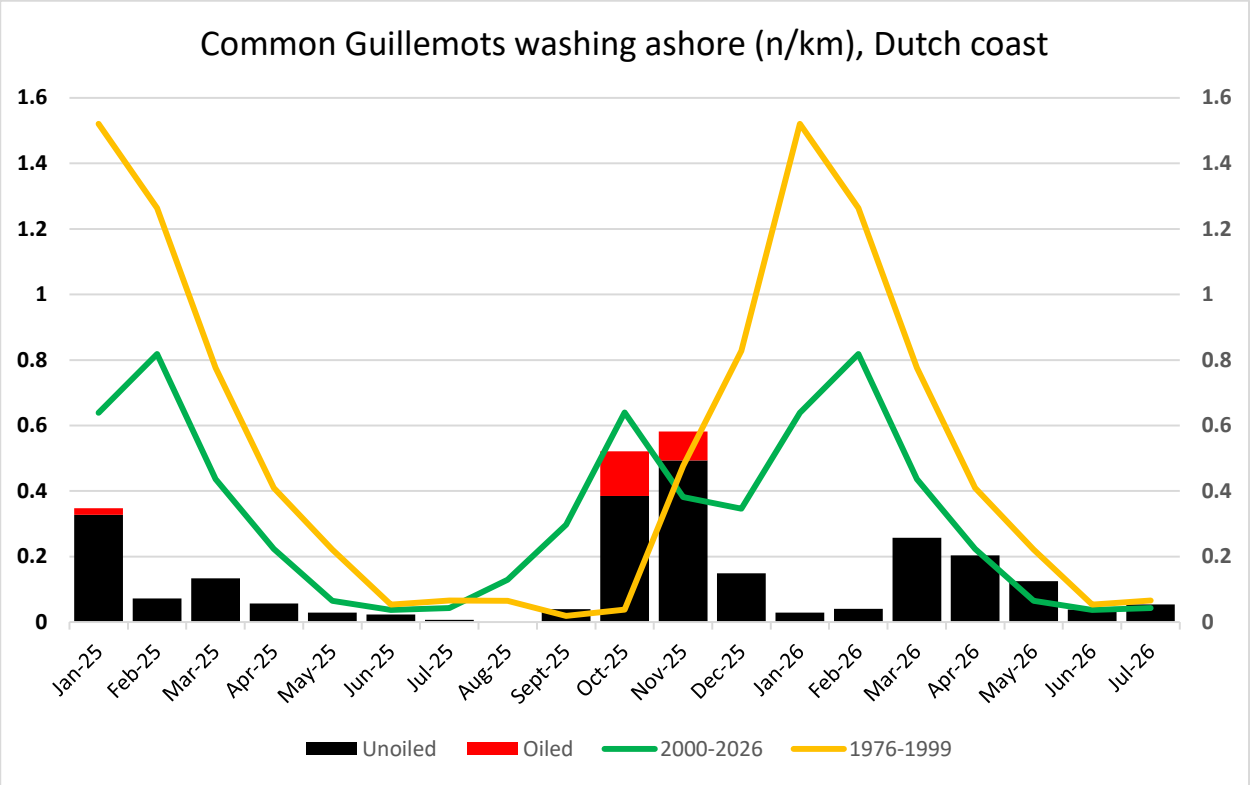

Fig. 3. Strandings of Common Guillemots, oiled (red) and unoiled (black) in 2025 and early 2026 against background densities

Table 3. Species found and reported, summer 2025. Peak mortalities in **bold**.

Euring	Species name (UK)	Soortnaam (NL)	Scientific name	Number
0	Nothing found in survey	*Geen vondsten in telling*		1
1680	Brent Goose	*Rotgans*	*Branta bernicla*	1
1670	Barnacle Goose	*Brandgans*	*Branta leucopsis*	14
1610	Greylag Goose	*Grauwe Gans*	*Anser anser*	13
1635	Domestic/feral goose	*Soepgans*	*Anser domesticus*	1
1700	Egyptian Goose	*Nijlgans*	*Alopochen aegyptiaca*	1
1730	Common Shelduck	*Bergeend*	*Tadorna tadorna*	44
1790	Eurasian Wigeon	*Smient*	*Mareca penelope*	1
1860	Mallard	*Wilde Eend*	*Anas platyrhynchos*	1
1890	Northern Pintail	*Pijlstaart*	*Anas acuta*	2
1840	Eurasian Teal	*Wintertaling*	*Anas crecca*	1
2040	Greater Scaup	*Toppereend*	*Aythya marila*	3
2060	Common Eider	*Eidereend*	*Somateria mollissima*	50
2130	Common Scoter	*Zwarte Zee-eend*	*Melanitta nigra*	20
2269	Unidentified duck	*Ongedeterm. eend*	*Anatidae spp.*	3
6655	Feral Pigeon	*Postduif*	*Columba 'domestica'*	5
6680	Stock Dove	*Holeduif*	*Columba oenas*	1
4290	Eurasian Coot	*Meerkoet*	*Fulica atra*	1
90	Great Crested Grebe	*Fuut*	*Podiceps cristatus*	6
4500	Eurasian Oystercatcher	*Scholekster*	*Haematopus ostralegus*	37
4560	Pied Avocet	*Kluut*	*Recurvirostra avosetta*	1
4860	Grey Plover	*Zilverplevier*	*Pluvialis squatarola*	3
4850	European Golden Plover	*Goudplevier*	*Pluvialis apricaria*	1
4700	Common Ringed Plover	*Bontbekplevier*	*Charadrius hiaticula*	1
4702	Tundra Ringed Plover	*Toendrabontbekplevier*	*Charadrius hiaticula tundrae*	1
5380	Eurasian Whimbrel	*Regenwulp*	*Numenius phaeopus*	2
5410	Eurasian Curlew	*Wulp*	*Numenius arquata*	9
5340	Bar-tailed Godwit	*Rosse Grutto*	*Limosa lapponica*	2
5320	Black-tailed Godwit	*Grutto*	*Limosa limosa*	1
5290	Eurasian Woodcock	*Houtsnip*	*Scolopax rusticola*	2
5560	Common Sandpiper	*Oeverloper*	*Actitis hypoleucos*	1
5460	Common Redshank	*Tureluur*	*Tringa totanus*	2
5480	Common Greenshank	*Groenpootruiter*	*Tringa nebularia*	1
4960	Red Knot	*Kanoetstrandloper*	*Calidris canutus*	1
6240	Little Tern	*Dwergstern*	*Sternula albifrons*	1
6160	Arctic Tern	*Noordse Stern*	*Sterna paradisaea*	2
6150	Common Tern	*Visdief*	*Sterna hirundo*	12
6110	Sandwich Tern	*Grote Stern*	*Thalasseus sandvicensis*	15
6020	Black-legged Kittiwake	*Drieteenmeeuw*	*Rissa tridactyla*	37
5820	Black-headed Gull	*Kokmeeuw*	*Chroicocephalus ridibundus*	63
5900	Common Gull	*Stormmeeuw*	*Larus canus*	13
5927	Caspian Gull	*Pontische Meeuw*	*Larus cachinnans*	1
5920	**European Herring Gull**	***Zilvermeeuw***	***Larus argentatus***	**178**
6000	Great Black-backed Gull	*Grote Mantelmeeuw*	*Larus marinus*	34
5910	Lesser Black-backed Gull	*Kleine Mantelmeeuw*	*Larus fuscus*	75
6005	Unidentified large gull	*Ongedeterm. grote meeuw*	*Larus spp*	2
5670	Arctic Skua	*Kleine Jager*	*Stercorarius parasiticus*	1
5690	Great Skua	*Grote Jager*	*Stercorarius skua*	1
6540	Atlantic Puffin	*Papegaaiduiker*	*Fratercula arctica*	1
6360	Razorbill	*Alk*	*Alca torda*	27
6470	**Little Auk**	***Kleine Alk***	***Alle alle***	**19**
6340	**Common Guillemot**	***Zeekoet***	***Uria aalge***	**145**
20	Red-throated Diver	*Roodkeelduiker*	*Gavia stellata*	6
550	Leach's Storm Petrel	*Vaal Stormvogeltje*	*Hydrobates leucorhous*	1
220	**Northern Fulmar**	***Noordse Stormvogel***	***Fulmarus glacialis***	**68**
460	Manx Shearwater	*Noordse Pijlstormvogel*	*Puffinus puffinus*	3
710	Northern Gannet	*Jan van Gent*	*Morus bassanus*	126
720	Great Cormorant	Aalscholver	Phalacrocorax carbo	55
800	European Shag	*Kuifaalscholver*	*Gulosus aristotelis*	3
2600	Western Marsh Harrier	*Bruine Kiekendief*	*Circus aeruginosus*	3
2870	Common Buzzard	*Buizerd*	*Buteo buteo*	1
15670	Carrion Crow	*Zwarte Kraai*	*Corvus corone*	1
11870	Common Blackbird	*Merel*	*Turdus merula*	1

Euring	Species name (UK)	Soortnaam (NL)	Scientific name	Number
11860	Ring Ouzel	*Beflijster*	*Turdus torquatus*	1
11460	Northern Wheatear	*Tapuit*	*Oenanthe oenanthe*	1
23510	Harbour Porpoise	*Bruinvis*	*Phocoena phocoena*	2
24320	Grey Seal	Grijze Zeehond	*Halichoerus grypus*	2
24330	Common Seal	Gewone Zeehond	*Phoca vitulina*	22
24310	unidentified seal	ongedeterm. zeehond	Phocidae spp	3
30003	Brown Hare	Europese Haas	*Lepus capensis*	1
30011	Common Rat	Bruine Rat	*Rattus norvegicus*	1
26071	Small-spotted Catshark	Hondshaai	*Scyliorhinus canicula*	1

Unusual and rare finds, summer 2025

Unusual finds this last summer, all with published photographic evidence were A **Leach's Storm Petrel** *Hydrobates leucorhous* (24 Oct 2025, Egmond aan Zee, Barend de Boer, collected fresh and subsequently stuffed) two **Manx Shearwaters** *Puffinus puffinus* (14 Sep 2025, Westenschouwen, Dirk Dam and Marina Lemoine, and 7 July 2025, a loose skull at Vlieland, Theo Ruppert, and 29 Oct 2025 an old corpse at Afsluitdijk by a non-disclosed observer), three **European Shag**s *Gulosus aristotelis* (20 August 2025 Texel beachmarker 14, Ron van Ispelen, 6 Sep 2025, Hidde Bakker [both entered as Cormorants in waarneming.nl], and another young bird on 11 Aug 2025 near Serooskerke (Sven Prins and M. Jonker), and an **Arctic Skua** (or Parasitic Jaeger) *Stercorarius parasiticus* (Schelphoek, Neeltje Jans 24 Oct 2025, Wilco Jacobusse 24-10-2025).

Strandings events in winter 2025/26

All birds found dead this winter are listed in **Table 4**. Species in **bold** are the eight species usually analysed for the long-term monitoring for oil pollution (5 seabirds, 3 coastal species). In the top-10 of that list (in numbers), all these eight species are represented, plus the [coastal] Common Scoter *Melanitta nigra*, ranking no. 6 with 65 individuals, and the [also coastal] Great *Cormorant Phalacrocorax carbo*, as no. 8 with 45 individuals found dead.

Table 4. Species found and reported, winter (Nov-Apr) 2025/26.

Euring	Species name (UK)	Soortnaam (NL)	Scientific name	Number
0	Nothing found in survey	*Geen vondsten in telling*		1
1680	Brent Goose	*Rotgans*	*Branta bernicla*	2
1670	Barnacle Goose	*Brandgans*	*Branta leucopsis*	5
1610	Greylag Goose	*Grauwe Gans*	*Anser anser*	2
1590	Greater White-fronted Goose	*Kolgans*	*Anser albifrons*	1
1730	Common Shelduck	*Bergeend*	*Tadorna tadorna*	38
1790	Eurasian Wigeon	*Smient*	*Mareca penelope*	3
1840	Eurasian Teal	*Wintertaling*	*Anas crecca*	1
2040	Greater Scaup	*Toppereend*	*Aythya marila*	5
2060	**Common Eider**	***Eidereend***	***Somateria mollissima***	**77**
2130	Common Scoter	*Zwarte Zee-eend*	*Melanitta nigra*	65
2210	Red-breasted Merganser	*Middelste Zaagbek*	*Mergus serrator*	5
6655	Feral Pigeon	*Postduif*	*Columba 'domestica'*	1
4070	Water Rail	*Waterral*	*Rallus aquaticus*	1
70	Little Grebe	*Dodaars*	*Tachybaptus ruficollis*	1
100	Red-necked Grebe	*Roodhalsfuut*	*Podiceps grisegena*	1
90	Great Crested Grebe	*Fuut*	*Podiceps cristatus*	17
4500	Eurasian Oystercatcher	*Scholekster*	*Haematopus ostralegus*	20

Euring	Species name (UK)	Soortnaam (NL)	Scientific name	Number
4860	Grey Plover	*Zilverplevier*	*Pluvialis squatarola*	1
5410	Eurasian Curlew	*Wulp*	*Numenius arquata*	3
5290	Eurasian Woodcock	*Houtsnip*	*Scolopax rusticola*	7
5610	Ruddy Turnstone	*Steenloper*	*Arenaria interpres*	1
5120	Dunlin	*Bonte Strandloper*	*Calidris alpina*	15
6150	Common Tern	*Visdief*	*Sterna hirundo*	1
5780	Little Gull	*Dwergmeeuw*	*Hydrocoloeus minutus*	1
6020	**Black-legged Kittiwake**	***Drieteenmeeuw***	***Rissa tridactyla***	**41**
5820	Black-headed Gull	*Kokmeeuw*	*Chroicocephalus ridibundus*	27
5900	Common Gull	*Stormmeeuw*	*Larus canus*	25
5927	Caspian Gull	*Pontische Meeuw*	*Larus cachinnans*	1
5920	**European Herring Gull**	***Zilvermeeuw***	***Larus argentatus***	**132**
6000	**Great Black-backed Gull**	***Grote Mantelmeeuw***	***Larus marinus***	**78**
5910	Lesser Black-backed Gull	*Kleine Mantelmeeuw*	*Larus fuscus*	8
5690	Great Skua	*Grote Jager*	*Stercorarius skua*	1
6540	Atlantic Puffin	*Papegaaiduiker*	*Fratercula arctica*	17
6360	**Razorbill**	***Alk***	***Alca torda***	**58**
6470	Little Auk	*Kleine Alk*	*Alle alle*	15
6340	**Common Guillemot**	***Zeekoet***	***Uria aalge***	**255**
6345	Common Guillemot / Razorbill	*alk/zeekoet*	*Uria/Alca spp*	1
20	Red-throated Diver	*Roodkeelduiker*	*Gavia stellata*	8
40	Great Northern Diver	*IJsduiker*	*Gavia immer*	1
220	**Northern Fulmar**	***Noordse Stormvogel***	***Fulmarus glacialis***	**44**
710	**Northern Gannet**	***Jan van Gent***	***Morus bassanus***	**86**
720	Great Cormorant	*Aalscholver*	*Phalacrocorax carbo*	45
2690	Eurasian Sparrowhawk	*Sperwer*	*Accipiter nisus*	1
2610	Hen Harrier	*Blauwe Kiekendief*	*Circus cyaneus*	1
2870	Common Buzzard	*Buizerd*	*Buteo buteo*	2
7680	Short-eared Owl	*Velduil*	*Asio flammeus*	1
3090	Merlin	*Smelleken*	*Falco columbarius*	1
15490	Eurasian Magpie	*Ekster*	*Pica pica*	1
15670	Carrion Crow	*Zwarte Kraai*	*Corvus corone*	1
9780	Horned Lark	*Strandleeuwerik*	*Eremophila alpestris*	1
12770	Eurasian Blackcap	*Zwartkop*	*Sylvia atricapilla*	1
15820	Common Starling	*Spreeuw*	*Sturnus vulgaris*	1
12000	Song Thrush	*Zanglijster*	*Turdus philomelos*	1
12010	Redwing	*Koperwiek*	*Turdus iliacus*	7
11870	Common Blackbird	*Merel*	*Turdus merula*	1
11980	Fieldfare	*Kramsvogel*	*Turdus pilaris*	11
10142	European Rock Pipit	*Oeverpieper*	*Anthus petrosus*	1
16620	Twite	*Frater*	*Linaria flavirostris*	1
24330	Common Seal	*Gewone Zeehond*	*Phoca vitulina*	4
24310	unidentified seal	*ongedeterm. zeehond*	*Phocidae spp*	2
27904	Conger eel	*Zeepaling*	*Conger conger*	1

As with the summer strandings, to get a feeling of the numbers found, densities were compared with historical strandings (over 48 earlier winters 1977/78-2024/25). In comparison to these *background levels*, densities for the pelagic seabirds recorded in 2025/26 amounted to:

0.38x background levels in Common Guillemots (mean 0.63 ± 0.51, range 0.05-12.02 km^{-1}), now 0.24 km^{-1},

0.36x background levels in Razorbills (0.15 ± 0.16, range 0.01-0.65 km^{-1}) now 0.054 km^{-1},

0.49x background levels in Northern Fulmars (0.08 ± 0.09, range 0.01-0.52 km^{-1}), now 0.041 km^{-1}, and

1.91x background levels in Northern Gannets (0.04 ± 0.03, range 0.01-0.18 km^{-1}, now 0.08 km^{-1}, and

0.20x background levels in Kittiwakes (0.18 ± 0.22, range 0.01-1.09 km^{-1}), now 0.039 km^{-1}.

Generally speaking, that was not a lot. Most taxa were found in much smaller numbers than usual, possibly as the result of generally fairly calm weather (few prolonged westerly or northwesterly storms) and, fortunately, no further incidents with sticky surface pollutants such as mineral oils or other substances.

As fore the coastal birds, two species stood out somehow given their numbers next to the standard species that are evaluated every year. In order of relative abundance, the following results were obtained:

0.12x background levels in **Common Eider** (mean 0.58 ± 0.89, range 0.03-4.58 km^{-1}), now 0.07 km^{-1},

0.84x background levels in **Herring Gull** (0.29 ± 0.17, range 0.07-0.89 km^{-1}), now 0.24 km^{-1},

1.13x background levels in **Great Black-backed Gull** (0.07 ± 0.05, range 0.02-0.24 km^{-1}), now 0.08 km^{-1},

or, nothing out of the ordinary in the usual suspects, but:

4.44x background levels in **Common Scoter** (0.13 ± 0.18, range 0.01-0.92 km^{-1}), now 0.58 km^{-1}, and

20.8x background levels in **Great Cormorant** (0.00 ± 0.16, range 0.00-0.16 km^{-1}), now 0.40 km^{-1}.

More about the respective species in the following sections.

Pelagic seabirds

Most seabird strandings in winter 2025/26 were at lower-than-normal densities, in part reflecting the calm and mild weather within the North Sea area over the entire season. The earlier storm in October has clearly done some damage, but numbers of auks washing ashore in mid-winter (Jan-Feb) were particularly low (**Fig. 3**). Strandings rates in Common Guillemots over recent years follow an erratic pattern, with high densities over 2018/19, 2021/22, and 2023/24, but fairly low numbers in most other winters since 2006/07 (**Fig. 4**) Razorbills had a major wreck just two years before (2023/24) but were again represented in low densities this year, as in the previous season (**Fig. 4**). This graph shows oiling in Razorbills, but it was an issue for both species, from a spill discussed earlier, and the effect will be visualised later under the section on 'Oil rates updated'.

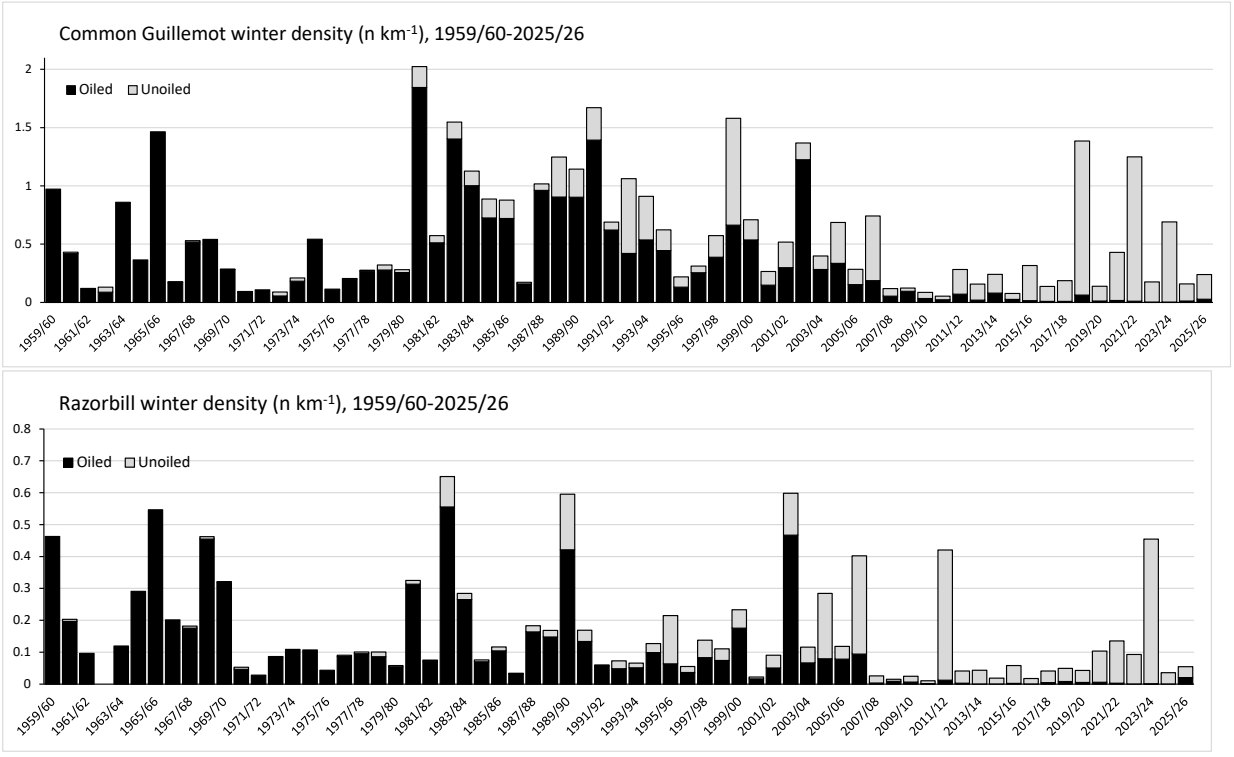

Figure 4. Densities (n km^{-1}) of Common Guillemots and Razorbills washing ashore in winter, 1959/60-2025/26 along the North Sea coast in The Netherlands.

It was noted before that Little Auks were quite numerous in autumn 2025, but earlier than normal, the result of a small wreck in October. Hence, numbers found within the *normal* monitoring period (winter) were far from abnormal. Atlantic Puffins *Fratercula arctica*, with only a single find in autumn, were found in small numbers in winter, but to be exact, the 17 birds, or 0.016 puffins km^{-1} represented still 1.75x long-term background levels (mean 0.001 ± 0.02, range 0.00-0.07 km^{-1}).

The three other pelagic seabirds considered also for oil contamination in this section are more aerial seabird species, with a lower associated risk to become oiled than auks (or, their perceived risk, given that they escape from a threat by taking wing rather than that they dive under). With the exception of Northern Gannets (1.91x background noise in numbers), as shown earlier, all these species occurred in lower densities than in most other years (**Fig. 5**). Some oil casualties were found in gannets and kittiwakes, but all Northern Fulmars that could be checked were clean. Only a single Northern Gannet was reported as being entangled in nylon ropes. Note that Gannet densities seem to have changed *structurally* after 2015 (**Fig. 5**, central panel), which could still be an artefact caused by the stronger reliance on non-systematically collected data (waarneming.nl), but is an aspect that calls for attention and perhaps a more comprehensive analysis in future.

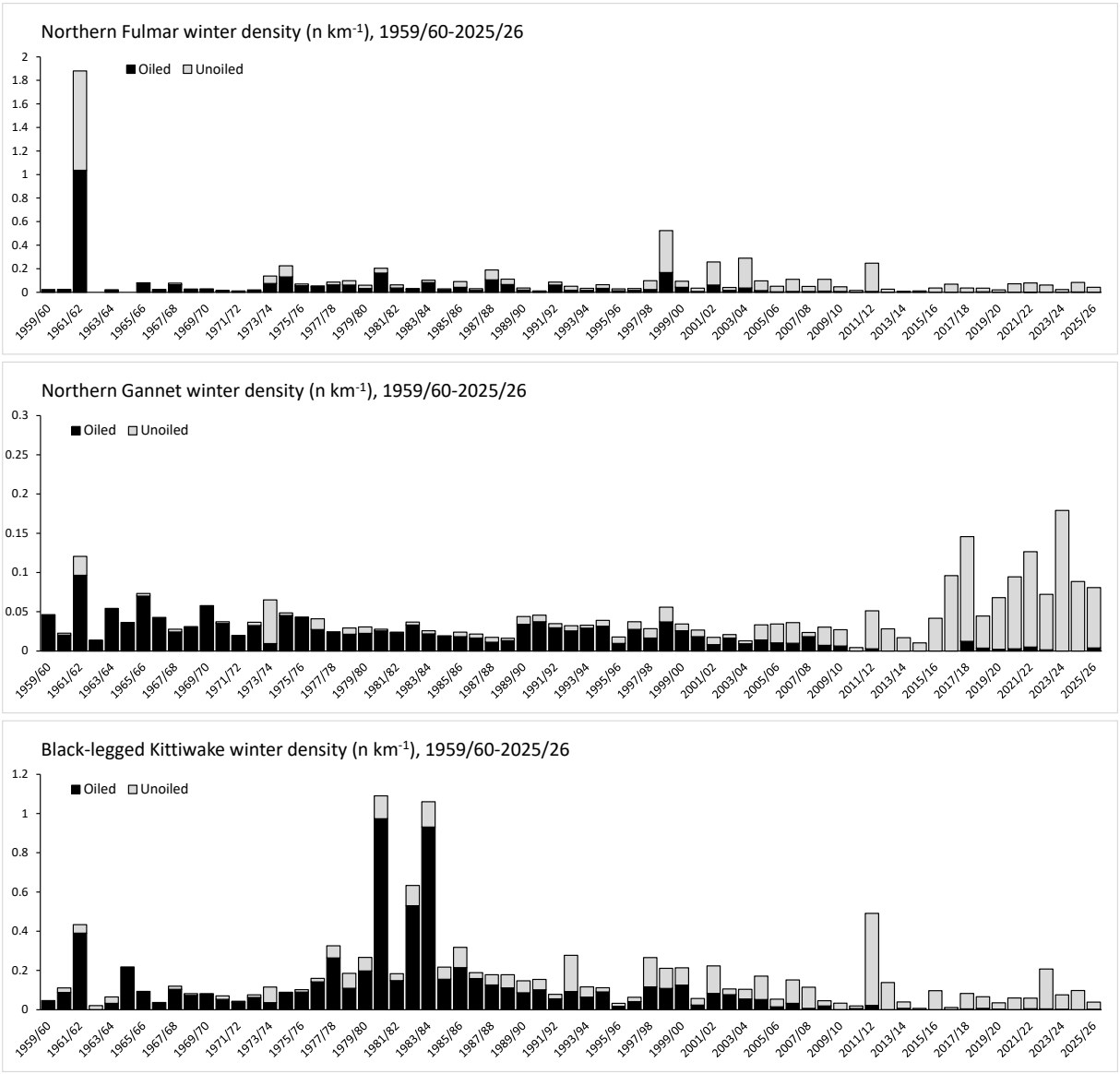

Figure 5. Densities (n km^{-1}) of some more aerial pelagic seabirds washing ashore in winter, 1959/60-2023/24 along the North Sea coast in The Netherlands: Northern Fulmars (top), Northern Gannets (central), and Black-legged Kittiwakes (lower panel).

Coastal seabirds washing ashore in winter

Divers Gaviidae were not commonly found in winter 2025/26, with only 8 Red-throated Divers *Gavia stellata*, and a single Great Northern Diver *Gavia immer*. None of the divers found were oiled. Seventeen Great Crested Grebes *Podiceps cristatus*, a single Red-necked Grebe *P. grisegan* and a Little Grebe *Tachybaptus ruficollis* were reported this winter, again, with none being oiled.

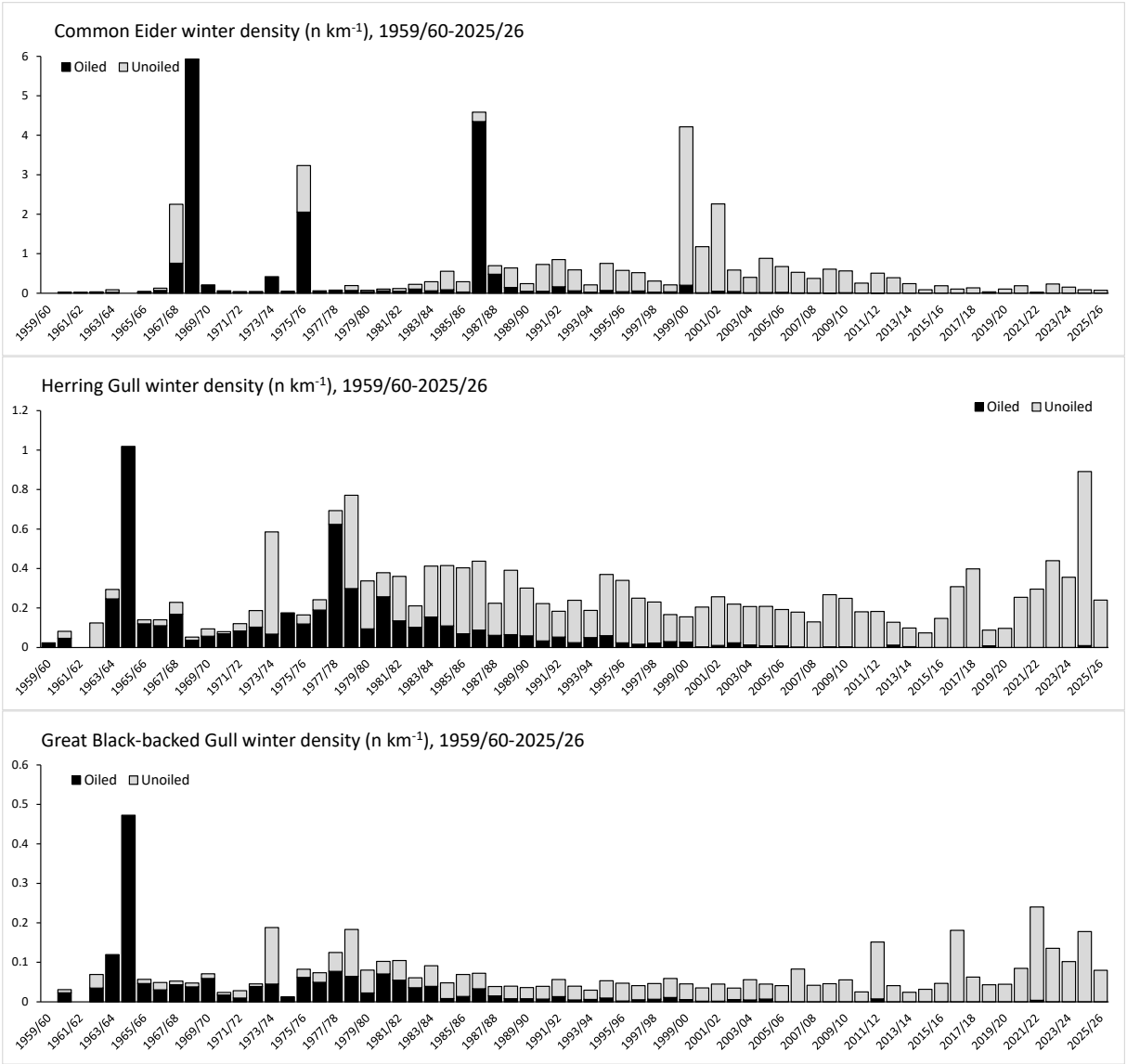

Figure 6. Densities (n km^{-1}) of Common Eiders *Somateria mollissima,* Herring Gulls *Larus argentatus* and Great Black-backed Gulls *Larus marinus* washing ashore in winter in The Netherlands, 1959/60- 2024/25. For gulls only data from *systematic* surveys were used after 2010/11 (waarneming.nl data ignored for observer effort and finds).

Common Eiders *Somateria mollissima*, one of the taxa reviewed annually for oil-rates, were found in very low numbers, and none were oiled as in all recent years (**Fig. 6**). Rather unusual numbers were found in Great Cormorants *Phalacrocorax carbo* and Common Scoters *Melanitta nigra*, but their historical abundances as stranded (coastal) seabirds could not have been more different (**Fig. 7**). Common Scoters occurred in highly variable numbers, but sometimes with high densities and then often oiled, in the earliest decades of our studies. Only when compared to densities found in the last part (1977/78-

2024/25) were the present numbers indeed rather high. Even nearly an all-time high over that 48 year period.

Great Cormorants, on the other hand, were typically an inland species in most of the 20th century, with rather few individuals utilizing marine (coastal) areas (Camphuysen & Van Dijk 1983, Camphuysen & Leopold 1994). As a result, they were a pretty unusual find on North Sea beaches for a long time (Camphuysen 1989). This changed, and at present large numbers utilise Dutch coastal waters (Camphuysen 1999, Bijlsma *et al.* 2001), where also several coastal colonies have been formed, and their numbers as beached birds are steadily rising accordingly. This last season however, stands out quite dramatically (**Fig. 7**). For the entire season at least one mass-stranding stood out as very unusual: 10 equally fresh and intact cormorants were found along the tideline over just one km of coastline near Castricum (reported and documented by Vincent van Rooij, 17 November 2025). A sample of birds collected and examined showed that the birds were of a variable body condition (M.F. Leopold *pers. comm.*), but all circumstances seemed to indicate that this must have been a bycatch incident in set-nets close to the shore line. Suspect strandings in that same light (bycaught in some fishing gear, pulled out and dumped into the sea) are in fact quite common in cormorants found on North Sea beaches (M.F. Leopold *pers. comm.*). A mosaic of pictures, in fact that one stranding, birds found over 1 km coastline, is shown below.

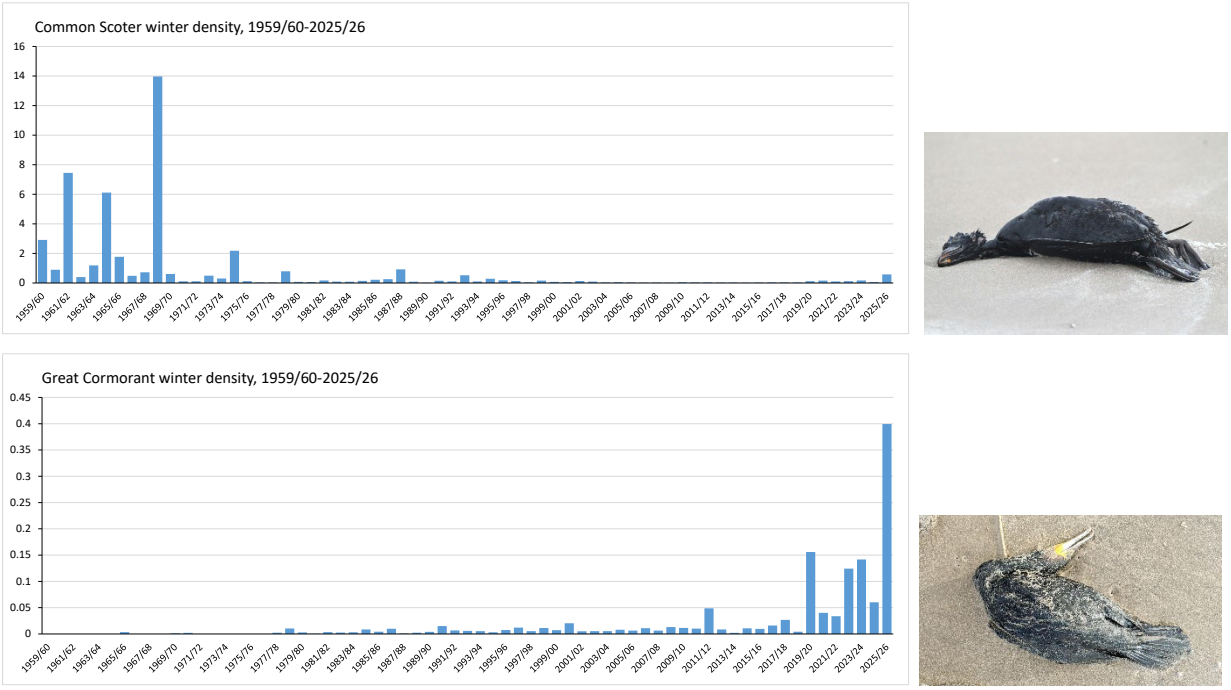

Fig. 8. Seemingly high numbers (see **Table 4**) of Common Scoters (top panel) and Great Cormorants (lower panel) in winter 2025/26 (last value in each graph) in a long-term perspective (see text). Photo's Peter de Knijff & Vincent van Rooij).

Records of commoner species of gulls are more problematic, now that regular surveyors form a minority of the data-suppliers. 'Ordinary' birders or 'the general' public are much less likely to report an 'oridnary gull' in online data-portals than for example a Northern Gannet. A comparison of data collected by dedicated surveyors showed that at least 5x more gulls were reported than by 'layman' and ordinary birders walking beaches (NZG/NSO database), which is a well know problem → a bias towards the 'unusual' in data portals such as waarneming.nl. To help reduce this bias, we refrained from using online data (effort as well as reported individuals) for these species after 2010/11, to arrive at more reliable densities (invisible, but incorporated, for densities on the two gulls in **Fig. 6**, central and lower panel).

A batch of fresh Great Cormorants, found on the tideline over only one km of beach near Castricum, 17 Nov 2025 (photo's Vincent van Rooij)

Using the systematic surveys only, densities of Herring Gulls and Great Black-backed Gulls alike, were 'normal' (0.84x and 1.13x long-term back-ground levels), following a year in which numbers were rather high for both species (Camphuysen 2025). Even without further analysis, the same can be concluded for Bkacl-headed Gull *Larus ridibundus*, Common Gull *L. canus*, and Lesser Black-backed Gull *L. fuscus* (**Table 4**). Not a single specimen found of any of these species showed oil-contaminated feathers

indicating that oil pollution played any role. That said, during the October 2025 oil incident, there were observations of some oiled gulls roaming our beaches, but numbers were low, oil-fouling only partial, and either these birds died out of sight, or they have managed to survive. Successful self-cleaning is not unusual in slightly contaminated (large) gulls (Birkhead *et al.* 1973, Camphuysen 2011).

Morning sunlight over an unoiled Common Guillemot carcass, just checked out by a Herring Gull (foot print on top) and a Carrion Crow (footprints below), Texel (photo Kees Camphuysen)

Rarer finds

Uncommon seabirds found, a mix of coastal and more pelagic species, were an adult winter plumage Great Northern Diver *Gavia immer*, found 12 Feb 2026 at Noordduin, Westenschouwen (Joris Pinseel, https://waarneming.nl/observation/385922388/) and a Red-necked Grebe *Podiceps grisegena*, found on the same day at Paezermerlannen in Friesland (https://waarneming.nl/ observation/385851058/).

Oil rates updated

For the analysis, only intact carcasses were selected conform OSPAR guidelines, since only these are considered fit for purpose: to assess the fraction of birds washing ashore that was, or was not, contaminated with mineral oil. The values produced over the years are all tabulated in the Appendix, whereas the proportions and a long-term running mean and a logit-transformed presentation of the oil rates allowing a linear regression to examine the trends are shown in this chapter. A warning beforehand, is that the logit transformation is impossible for any values equal to 100% or 0% (e.g. all birds oiled, or none of the birds oiled), for a logit transformation would lead to $+\infty$ or $-\infty$ respectively. In cases where 0% of the birds found were oiled, the outcome was therefore transformed to logit -2 (e.g. ~1% oiled), as a more reliable and workable guesstimate of the actual oil rate to be used in the regression analysis. The problem of 'no oil' is increasingly common in recent years, now that chronic oil pollution is really pushed back.

Table 5. Proportions oiled, sample size in OSPAR regions 8 and 9 combined, and 5-year running means (±SD) in pelagic seabirds in 2025/26. Values in parentheses () are based on less than 25 intact checked corpses.

Species	Oiled (%) 2025/26	*n*=	5 yr mean ± SD 2021/22-2025/26
Zeekoet - **Common Guillemot** (OSPAR indicator)	**12.5%**	**160**	**4.0 ± 5.3%**
Alk - **Razorbill**	39.0%	41	8.3 ± 17.2%
Noordse Stormvogel - **Northern Fulmar**	(0.0%)	20	0.2 ± 0.5%
Jan van gent - **Northern Gannet**	4.1%	49	2.1 ± 2.1%
Drieteenmeeuw - **Black-legged Kittiwake**	(6.7%)	15	3.9 ± 3.6%

The significant long-term decline in oil rates in **Common Guillemots,** halted in 2024/25 as a result of a minor oil-incident in that winter. The impact of oil in winter 2025/26 was worse, with 12.5% of the birds found being contaminated with oil (*n*= 160 for subregions 8-9 combined; **Table 5**), which was the effect of yet another oil-spill, as discussed earlier, that commenced in October 2025 with frequent finds of oiled individuals well into November (**Fig. 8, Table 6**). The five-year running mean (4.0 ± 5.3%) is still well below what has to be achieved by 2030 according to OSPAR, but doubled again, and the current oil rate was *above* the long-term OSPAR target of 10%. With a 'normal' age distribution (*i.e.* no excessive mortality of juveniles), and no particular circumstances pointing at extra-mortality or major wrecks, the oil rate found should be seen as reliable. Just to check the age factor: 72.4% of all properly aged Common Guillemots in winter 2025/26 were adults (n= 134), against a long-term average of 63.4 ± 17.8% adults over 46 seasons (1979/80-2024/25), which indeed excludes a 'juvenile'-wreck disturbing our metric.

Most of the **other selected pelagic seabirds** (**Fig. 9, Table 6**) were not spared during the oil incident, and numbers affected were proportionally even much higher in Razorbills (**Fig. 9**). Some Northern Gannets and Black-legged Kittiwakes were oiled, and only Northern Fulmars seem to have fully escaped or numbers affected were so trivial that they were missed in our efforts. Oil rates in recent years were still often nihil (0%), something that never occurred prior to 2008, and oil rates continued to be low, but the two last years with distinct spills illustrate that the issue is not fully gone and that we should stay alert for future developments.

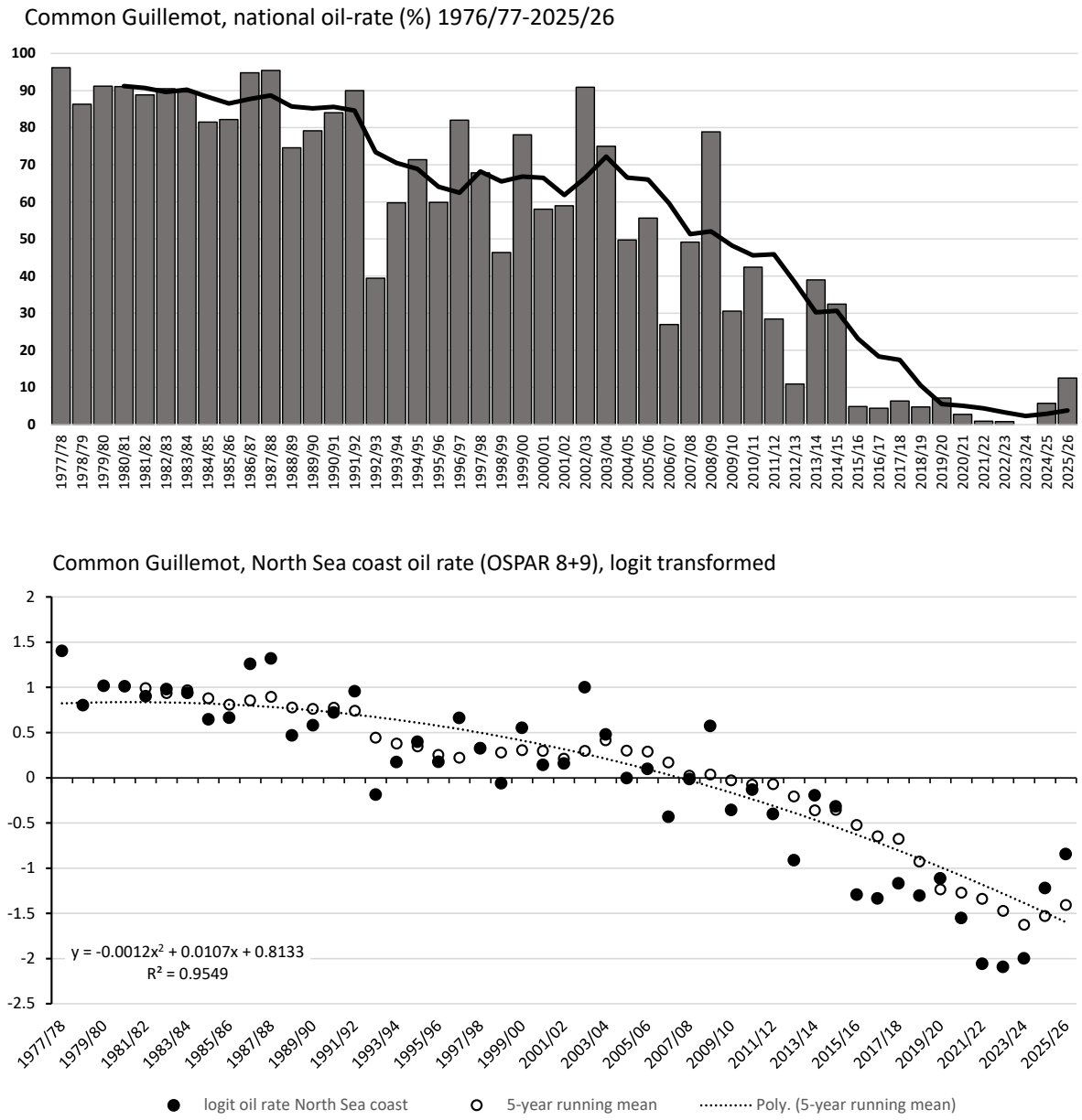

Fig. 8. Proportions oiled and 5-year running mean in oil rates (top panel) and a significant decline in logit-transformed oil rates in Common Guillemots, 1977/78-2025/26, but with a recent 'bounce-back'.

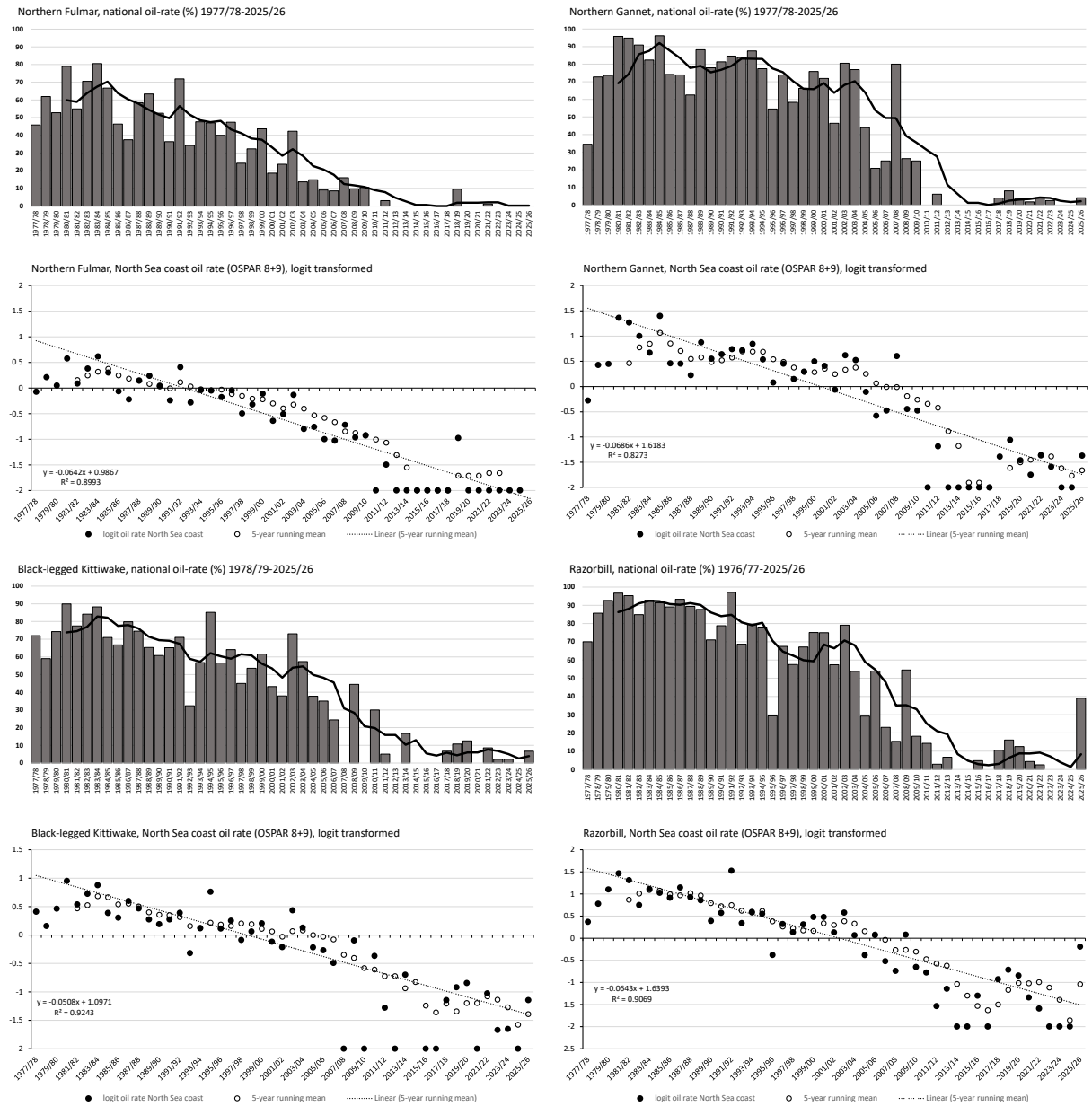

Fig. 9. Proportions oiled and 5-year running mean in oil rates (top panels) and a significant decline in logit-transformed oil rates (lower panels) in the four commoner pelagic species: Northern Fulmar (top left), Northern Gannet (top right), Black-legged Kittiwake (bottom left), and Razorbill (bottom right), 1977/78-2025/26. Note the fact that most species, except the Northern Fulmar, were somehow affected by the reported oil spill. The hic-up in oil-rate in Razorbills was most notable.

Oiled Northern Gannet, 2 Nov 2025, Texel, Suse Kühn

For the more **coastal species**, an oil rate trend analysis is pointless in recent years, for the oil rates are essentially nihil with very occasional casualties every now and then. For these coastal species, in this part of the world, chronic oil pollution is no longer a serious issue of concern, even though an accidental spill could still potentially kill thousands of birds on a single occasion. Oil rates equalling 0% predominate in recent years (**Table 7**). It should be memorised, however, at least every now and then, what a major difference this is to the grim situation just some 40 odd years ago (**Fig. 6**).

Table 7. Proportions oiled, sample size in OSPAR regions 8 and 9 combined, and 5-year running means (±SD) in selected coastal seabirds in 2024/25. Values in parentheses () are based on less than 25 intact checked corpses.

Species	**Oiled (%) 2025/26**	***n*=**	**5 yr mean ± SD 2020/21-2025/26**
Eider - **Common Eider**	(0.0)	9	0.0 ± 0.0
Zilvermeeuw – **Herring Gull**	(**0.0**)	11	0.4 ± 0.9
Grote Mantelmeeuw – **Great Black-b. Gull**	(0.0)	5	0.3 ± 0.7

Details of effects of avian influenza outbreaks on (sea-)birds in the Netherlands are published elsewhere (*e.g.* Caliendo *et al.* 2024). The NZG/NSO beached bird surveys just contribute to the research conducted by others, but the set-up and sampling protocols would need further adjustments to produce genuinely representative data. As indicators of the actual scale of mortality incidents, however, beached bird surveys have no match given the long history of systematic recording (Camphuysen *et al.* 2023).

Reported and approved as 'a cormorant' on internet (3 Aug 2025), were in fact two young Northern Gannets entangled in an orange nylon rope.

Immature Northern Gannet entangled in nylon fishline with fish lure (fake mackerel), 6 Aug 2025 Ameland (Gerben Mensink)

Entanglements, summer 2025 and winter 2025/26

Reported entanglements of seabirds in fishing gear (line or net) or ropes of unknown origin include one Red-throated Diver (De Hors, Texel, in nylon fish line, 10 May 2025), a Lesser Black-backed Gull (one leg in some kind of rope, 23 May 2025, De Hors, Texel), and probably all 10 Great Cormorants mentioned as one particular mass-stranding over 1 km of beach near Castricum (no fishing gear remaining, but circumstantial evidence; see photo's). All other casualties, eleven cases when summer and winter for this report are combined, were the usual suspects: Northern Gannets (three examples depicted above).

Since 1980, checking 3566 Northern Gannets found on Dutch beaches, 5.2% were reported with some sort of entanglement (185 cases in all), often fishing gear, which at least contributed or simply caused an untimely death. The problem is well known in this species, highlighted often from various sources, all along its flyway and in the breeding grounds (Schrey & Vauk 1987, Schneider 1991, Camphuysen 2008, Votier *et al.* 2011, Rodriguez *et al.* 2013, Costa *et al.* 2020, Keznine 2025, to name just a few).

If we look at the age composition of Northern Gannets washing ashore in the Netherlands (since 1980), 75.5% were adults, 13.7% older immatures, and 10.8% juveniles (n= 3566). That composition was quite different in gannets reported as entangled: 45.9% adults and older immatures alike, 8.1% juveniles (n= 185). The difference is highly significant (G_{adj}= 47.6, P< 0.001). It seems every time that the older immatures (plumage types 2-5) are more susceptible to the issue than the other two age groups, and it could be a matter of different behaviour (compared to juveniles) or experience (like with adults) that is important here. Observations at sea do show that Northern Gannets are attracted to floating matter, both to use as resting platforms, but also seemingly as display materials to fly around with (as with seaweeds); perhaps as mock-nesting behaviour or to show off their skills to conspecifics they feel attracted to. This last aspect is clearly speculative, but it could explain why [immature] gannets rather than most other seabirds are so often entangled. The gannets found in fishing gear in 2025 and 2025/26 formed no exception when checking their age (4 adults, 4 immatures, 2 juveniles, n= 10); a small sample, but *identical* in age proportions compared to the multi-year total found entangled.

Discussion

In winter 2025/26, overall densities of pelagic seabirds, notably the commoner auks, were low, very low if we look at January and February (the traditional peak period). The oil rates, on the other hand, were in general perhaps low, but a serious oil-incident occurred in October 2025 that led to seriously inflated oil rates for at least Common Guillemots and especially Razorbills. The title of the report includes the words "a step back", not to ring an untimely alarm bell, but to highlight the issue of now three recent incidents, two with oil involved, one with polyisobutylene (Camphuysen 2025) that must be seen as clear signals that it isn't over yet with marine pollution. As concluded last year, "completely clean an ocean will never be, but incidents such as these (small spills, likely deliberate discharges from ships) will occur from time to time", but we'd hoped that the next incident would not have occurred just one year later.

A major difference with the not-too-distant past, is that current oil spills show up as isolated incidents rather than as that continuous stream of events, effectively leading to *chronic* oil pollution that we would desperately like to call 'history'. The current oil-rate in our sentinel species (Common Guillemot) this year was above the required 10%. Perhaps as an incident, but then also as a warning. The

long-term results still are in line with that overall decline since the sharp drop in oil-rates that occurred after winter 2005/06 (Camphuysen 2022), but the five-year running mean has doubled, from two seasons in a row (last year 2.0 ± 2.3% oiled as a running mean over the past five seasons, now 4.0 ± 5.3%).

The Dutch data collected for OSPAR regions 8 and 9 must be seen as contributions to the data set. An international coordinator, or OSPAR itself, will have to combine Dutch, Belgian and German data for these areas to arrive at OSPAR area specific oil rates for Common Guillemots in the south-eastern North Sea.

As said in previous reports, beached bird surveys are a vital part of both the Oiled-Guillemot EcoQO, but also for the plastic particle monitoring conducted by using Northern Fulmar carcasses around the North Sea (Suse Kühn & SNS Fulmar Study Group, WMR Project Fulmar-EcoQO). Northern Fulmars have been frequently found again in recent years, such that the study group had sufficient carcasses for inspection. A side-track in this is the recent detections of casualties of avian influenza in fulmars. This last season saw fewer corpses of fulmars than we are used to (0.49x background densities over 1977/78-2024/25), suggesting that any mortality inflicted by the virus may not have been that dramaticor went undetected for other reasons.

To conclude, it is demonstrated yet again how valuable the Dutch beached bird survey programme is and what role it plays in the monitoring of all sorts of environmental issues that induce unnatural mortality among seabirds in the North Sea. Thanks to this monitoring programma, apart for the function to monitor the occurrence of oil pollution and even avian influenza, we have and keep a good idea of the occurrence and effects of perhaps more natural, seabird wrecks, because back-ground data can be made available to put found numbers into a longer-term effort-corrected perspective. As said before, it is to be hoped that more people will recruit themselves to search more systematically and are prepared to fill in (digital) forms to report strandings straight into the NSO database, with relevant details on causes of death, in years to come.

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Appendices

The tables below show raw data underlying the graphs in this report, except the long-term trends in densities. Shown are the oil rates (%), in parentheses when the sample size was <25 intact carcasses in a given winter and/or area, and the sample size (n), for each of the OSPAR regions (8-10) and for the North Sea coast as a whole (8+9).

(1) Common Guillemot – Zeekoet – *Uria aalge*

OSPAR	Subregion 8		Subregion 9		subregion 10			National (8+9)			
	ratio	n=	ratio	n=	ratio	n=		Ratio	n=	mean	
1977/78	96.3	82	(100.0)	23			1977/78	96.2	105		1977/78
1978/79	83.9	93	91.3	46			1978/79	86.3	139		1978/79
1979/80	94.1	118	85.9	64	(66.7)	3	1979/80	91.2	182		1979/80
1980/81	90.4	3061	96.0	448	91.8	233	1980/81	91.1	3509	91.2	1980/81
1981/82	86.8	675	95.5	202	92.2	115	1981/82	88.8	877	90.7	1981/82
1982/83	87.6	2494	95.6	1449	91.9	434	1982/83	90.5	3943	89.6	1982/83
1983/84	87.4	1625	95.2	660	77.9	163	1983/84	89.6	2285	90.3	1983/84
1984/85	77.1	855	89.5	474	87.2	47	1984/85	81.5	1329	88.3	1984/85
1985/86	78.4	812	90.2	378	81.1	159	1985/86	82.2	1190	86.5	1985/86
1986/87	90.5	116	98.5	133	(85.8)	134	1986/87	94.8	249	87.7	1986/87
1987/88	96.1	1177	92.7	288	78.3	83	1987/88	95.4	1465	88.7	1987/88
1988/89	73.0	1224	82.7	248	49.6	133	1988/89	74.6	1472	85.7	1988/89
1989/90	79.5	1266	76.6	158	73.5	83	1989/90	79.1	1424	85.2	1989/90
1990/91	83.9	1861	85.4	144	42.9	35	1990/91	84.0	2005	85.6	1990/91
1991/92	88.9	522	92.2	268	(100.0)	6	1991/92	90.0	790	84.6	1991/92
1992/93	41.4	794	28.7	150	40.7	123	1992/93	39.4	944	73.4	1992/93
1993/94	60.8	559	56.4	179	52.8	106	1993/94	59.8	738	70.5	1993/94
1994/95	69.1	246	75.8	124	71.1	83	1994/95	71.4	370	68.9	1994/95
1995/96	58.6	111	62.3	61	(57.1)	7	1995/96	59.9	172	64.1	1995/96
1996/97	84.2	146	77.5	71	(66.7)	6	1996/97	82.0	217	62.5	1996/97
1997/98	69.5	285	64.6	144	(61.9)	21	1997/98	67.8	429	68.2	1997/98
1998/99	43.3	1054	51.5	631	24.1	411	1998/99	46.4	1685	65.5	1998/99
1999/00	78.7	675	76.8	310	60.4	149	1999/00	78.1	985	66.8	1999/00
2000/01	48.1	108	63.5	197	42.9	49	2000/01	58.0	305	66.5	2000/01
2001/02	62.6	340	55.0	320	50.7	138	2001/02	58.9	660	61.8	2001/02
2002/03	95.9	1992	58.9	314	46.8	77	2002/03	90.9	2306	66.5	2002/03
2003/04	83.7	141	69.3	215	45.9	61	2003/04	75.0	356	72.2	2003/04
2004/05	61.5	265	39.7	312	42.7	103	2004/05	49.7	577	66.5	2004/05
2005/06	53.7	82	56.8	132	47.9	71	2005/06	55.6	214	66.0	2005/06
2006/07	28.4	356	23.5	153	13.2	76	2006/07	26.9	509	59.6	2006/07
2007/08	(50.0)	18	48.8	43	(35.0)	20	2007/08	49.2	61	51.3	2007/08
2008/09	(86.4)	22	76.5	68	(66.7)	9	2008/09	78.9	90	52.1	2008/09
2009/10	(23.1)	13	34.8	23	(66.7)	9	2009/10	30.6	36	48.2	2009/10
2010/11	(55.6)	9	37.5	24	( )	0	2010/11	42.4	33	45.6	2010/11
2011/12	29.2	106	27.5	91	0.0	28	2011/12	28.4	197	45.9	2011/12
2012/13	3.6	28	18.5	27	(33.3)	3	2012/13	10.9	55	38.2	2012/13
2013/14	(0.0)	16	53.5	43	(12.5)	16	2013/14	39.0	59	30.3	2013/14
2014/15	(55.6)	18	(10.5)	19	( )	0	2014/15	32.4	37	30.6	2014/15
2015/16	(16.7)	18	3.1	127	3.8	26	2015/16	4.8	145	23.1	2015/16
2016/17	2.5	40	7.1	28	(28.6)	7	2016/17	4.4	68	18.3	2016/17
2017/18	0.0	25	10.5	38	(0.0)	20	2017/18	6.3	63	17.4	2017/18
2018/19	9.8	51	4.1	437	(0.0)	15	2018/19	4.7	488	10.5	2018/19
2019/20	7.7	39	6.5	31	(14.3)	14	2019/20	7.1	70	5.5	2019/20
2020/21	1.3	77	3.2	253	(19.2)	26	2020/21	2.7	330	5.1	2020/21
2021/22	1.0	572	0.7	702	0.4	279	2021/22	0.9	1274	4.4	2021/22
2022/23	5.6	(18)	0.0	107	(0.0)	8	2022/23	0.8	125	3.2	2022/23
2023/24	0.0	142	0.0	426	1.0	100	2023/24	0.0	568	2.3	2023/24
2024/25	0.0	(13)	6.7	75	(25.0)	8	2024/25	5.7	88	2.9	2024/25
2025/26	5.1	(59)	16.8	101	(4.3)	23	2025/26	12.5	160	3.8	2025/26
								4.0	5yr mean		
								5.3	SD		

(2) Razorbill – Alk – *Alca torda*

OSPAR	Subregion 8		Subregion 9		subregion 10			National (8+9)			
	ratio	n=	ratio	n=	ratio	n=		Ratio	n=	mean	
1977/78	92.6	27	(100.0)	23			1977/78	70.0	50		1977/78
1978/79	84.0	25	(88.2)	17			1978/79	85.7	42		1978/79
1979/80	96.8	31	(80.0)	10	(0.0)	0	1979/80	92.7	41		1979/80
1980/81	96.2	496	100.0	77	88.5	26	1980/81	96.7	573	86.3	1980/81
1981/82	94.8	77	96.7	30	(100.0)	19	1981/82	95.3	107	88.1	1981/82
1982/83	84.7	1299	85.9	311	85.8	141	1982/83	84.9	1610	91.1	1982/83
1983/84	92.9	547	91.9	37	96.8	31	1983/84	92.8	584	92.5	1983/84
1984/85	90.1	71	93.3	45	(100.0)	2	1984/85	91.4	116	92.2	1984/85
1985/86	87.6	129	93.5	46	(100.0)	4	1985/86	89.1	175	90.7	1985/86
1986/87	(88.2)	17	(100.0)	13	(0.0)	11	1986/87	93.3	30	90.3	1986/87
1987/88	94.3	175	75.4	61	(85.0)	20	1987/88	89.4	236	91.2	1987/88
1988/89	87.5	152	88.9	36	(81.8)	11	1988/89	87.8	188	90.2	1988/89
1989/90	72.0	690	60.6	66	48.0	25	1989/90	71.0	756	86.1	1989/90
1990/91	79.3	174	76.5	34	(100.0)	2	1990/91	78.8	208	84.1	1990/91
1991/92	97.6	42	96.3	27	(100.0)	6	1991/92	97.1	69	84.8	1991/92
1992/93	72.9	59	(37.5)	8	(33.3)	6	1992/93	68.7	67	80.7	1992/93
1993/94	83.7	49	(66.7)	15	(0.0)	2	1993/94	79.7	64	79.1	1993/94
1994/95	77.4	53	79.3	29	(73.3)	15	1994/95	78.0	82	80.5	1994/95
1995/96	28.9	121	30.4	46	(25.0)	4	1995/96	29.3	167	70.6	1995/96
1996/97	62.5	24	75.0	16	(33.3)	3	1996/97	67.5	40	64.6	1996/97
1997/98	58.4	77	55.2	29	(100.0)	2	1997/98	57.5	106	62.4	1997/98
1998/99	71.4	77	61.4	57	(55.6)	18	1998/99	67.2	134	59.9	1998/99
1999/00	75.7	259	73.3	86	(53.8)	13	1999/00	75.1	345	59.3	1999/00
2000/01	(70.0)	10	77.8	18	(50.0)	2	2000/01	75.0	28	68.5	2000/01
2001/02	58.4	77	55.3	38	(33.3)	18	2001/02	57.4	115	66.4	2001/02
2002/03	87.8	841	38.2	178	(26.1)	23	2002/03	79.1	1019	70.7	2002/03
2003/04	45.6	57	63.3	49	(66.7)	6	2003/04	53.8	106	68.1	2003/04
2004/05	34.8	135	22.9	118	(13.0)	23	2004/05	29.2	253	58.9	2004/05
2005/06	50.0	24	55.8	52	91.4	35	2005/06	53.9	76	54.7	2005/06
2006/07	25.5	145	16.0	50	(22.2)	18	2006/07	23.1	195	47.8	2006/07
2007/08	(16.7)	6	(14.3)	7	(0.0)	4	2007/08	15.4	13	35.1	2007/08
2008/09	(60.0)	5	(50.0)	6	( )	0	2008/09	54.5	11	35.2	2008/09
2009/10	(25.0)	8	(0.0)	3	(100.0)	1	2009/10	18.2	11	33.0	2009/10
2010/11	(0.0)	4	(33.3)	3	( )	0	2010/11	14.3	7	25.1	2010/11
2011/12	1.9	209	4.1	145	0.0	36	2011/12	2.8	354	21.0	2011/12
2012/13	) 0.0)	10	(20.0)	5	(0.0)	1	2012/13	6.7	15	19.3	2012/13
2013/14	) 0.0)	9	(0.0)	7	(0.0)	2	2013/14	0.0	16	8.4	2013/14
2014/15	( )	0	(0.0)	7	( )	0	2014/15	0.0	7	4.8	2014/15
2015/16	(0.0)	2	(5.3)	19	(0.0)	5	2015/16	4.8	21	2.9	2015/16
2016/17	(0.0)	4	(0.0)	5	(0.0)	0	2016/17	0.0	9	2.3	2016/17
2017/18	(11.1)	9	(10.0)	10	(0.0)	0	2017/18	10.5	19	3.1	2017/18
2018/19	(0.0)	2	17.2	29	(0.0)	1	2018/19	16.1	31	6.3	2018/19
2019/20	(7.7)	13	(33.3)	3	(0.0)	2	2019/20	12.5	16	8.8	2019/20
2020/21	(7.7)	13	3.6	56	(12.5)	8	2020/21	4.3	69	8.7	2020/21
2021/22	3.1	32	2.1	48	(0.0)	12	2021/22	2.5	80	9.2	2021/22
2022/23	0.0	(18)	0.0	48	(0.0)	3	2022/23	0.0	66	7.1	2022/23
2023/24	0.0	155	0.0	247	1.5	65	2023/24	0.0	402	3.9	2023/24
2024/25	0.0	(6)	0.0	16	(0.0)	0	2024/25	0.0	22	1.4	2024/25
2025/26	26.7	(15)	46.2	26	(0.0)	5	2025/26	39.0	41	8.3	2025/26
								8.3	5yr mean		
								17.2	SD		

(3) Kittiwake – Drieteenmeeuw – *Rissa tridactyla*

OSPAR	Subregion 8		Subregion 9		subregion 10			National (8+9)			
	ratio	n=	ratio	n=	ratio	n=		Ratio	n=	mean	
1977/78	83.3	102	(55.6)	23			1977/78	72.0	125		1977/78
1978/79	53.7	54	(100.0)	7			1978/79	59.0	61		1978/79
1979/80	73.7	114	76.7	30	(0.0)	0	1979/80	74.3	144		1979/80
1980/81	89.6	1371	92.3	209	84.2	184	1980/81	89.9	1580	73.8	1980/81
1981/82	76.9	147	79.2	53	90.6	64	1981/82	77.5	200	74.6	1981/82
1982/83	84.5	969	82.2	202	82.1	262	1982/83	84.1	1171	77.0	1982/83
1983/84	88.8	1750	80.7	119	82.4	142	1983/84	88.3	1869	82.8	1983/84
1984/85	68.0	175	78.8	66	(84.6)	13	1984/85	71.0	241	82.2	1984/85
1985/86	65.4	254	75.0	44	74.2	31	1985/86	66.8	298	77.5	1985/86
1986/87	73.5	83	(94.4)	36	(92.7)	55	1986/87	79.8	119	78.0	1986/87
1987/88	75.8	124	69.7	33	54.5	33	1987/88	74.5	157	76.1	1987/88
1988/89	66.7	102	(57.9)	19	(41.2)	17	1988/89	65.3	121	71.5	1988/89
1989/90	59.8	132	(68.8)	16	(37.5)	16	1989/90	60.8	148	69.4	1989/90
1990/91	64.5	124	(71.4)	14	(75.0)	4	1990/91	65.2	138	69.1	1990/91
1991/92	67.3	55	(85.7)	14	(50.0)	6	1991/92	71.0	69	67.4	1991/92
1992/93	32.4	182	32.1	28	38.9	36	1992/93	32.4	210	58.9	1992/93
1993/94	53.5	43	61.3	31	(46.7)	15	1993/94	56.8	74	57.2	1993/94
1994/95	81.4	43	(100.0)	11	(66.7)	15	1994/95	85.2	54	62.1	1994/95
1995/96	(50.0)	20	(100.0)	3	(0.0)	2	1995/96	56.5	23	60.4	1995/96
1996/97	63.6	33	(66.7)	6	(0.0)	0	1996/97	64.1	39	59.0	1996/97
1997/98	42.1	114	57.7	26	(33.3)	15	1997/98	45.0	140	61.5	1997/98
1998/99	51.1	131	58.5	65	40.0	35	1998/99	53.6	196	60.9	1998/99
1999/00	61.9	134	61.0	82	42.5	40	1999/00	61.6	216	56.2	1999/00
2000/01	46.4	28	37.5	16	(25.0)	4	2000/01	43.2	44	53.5	2000/01
2001/02	46.3	108	25.7	74	34.0	47	2001/02	37.9	182	48.2	2001/02
2002/03	85.8	106	34.3	35	(68.8)	16	2002/03	73.0	141	53.9	2002/03
2003/04	67.6	37	45.2	31	(20.0)	10	2003/04	57.4	68	54.6	2003/04
2004/05	34.8	69	44.8	29	10.8	37	2004/05	37.8	98	49.9	2004/05
2005/06	(38.5)	13	(28.6)	7	(0.0)	5	2005/06	35.0	20	48.2	2005/06
2006/07	(13.6)	22	(36.8)	19	(9.1)	11	2006/07	24.4	41	45.5	2006/07
2007/08	(0.0)	4	(0.0)	12	(11.8)	17	2007/08	0.0	16	30.9	2007/08
2008/09	(50.0)	4	(42.9)	14	(0.0)	1	2008/09	44.4	18	28.3	2008/09
2009/10	(0.0)	7	(0.0)	6	( )	0	2009/10	0.0	13	20.8	2009/10
2010/11	(20.0)	5	(40.0)	5	( )	0	2010/11	30.0	10	19.8	2010/11
2011/12	3.3	151	10.2	49	0.0	28	2011/12	5.0	200	15.9	2011/12
2012/13	(0.0)	20	(0.0)	9	(0.0)	3	2012/13	0.0	29	15.9	2012/13
2013/14	(0.0)	1	(20.0)	5	( )	0	2013/14	16.7	6	10.3	2013/14
2014/15	( )	0	( )	0	( )	0	2014/15		0	12.9	2014/15
2015/16	(0.0)	1	(0.0)	16	(0.0)	4	2015/16	0.0	17	5.4	2015/16
2016/17	( )	0	(0.0)	1	( )	0	2016/17	0.0	1	4.2	2016/17
2017/18	(0.0)	9	(16.7)	6	(0.0)	4	2017/18	6.7	15	5.8	2017/18
2018/19	(0.0)	7	(14.3)	21	(0.0)	3	2018/19	10.7	28	4.3	2018/19
2019/20	(16.7)	6	(0.0)	2	(0.0)	2	2019/20	12.5	8	6.0	2019/20
2020/21	(0.0)	5	(0.0)	15	( )	0	2020/21	0.0	20	6.0	2020/21
2021/22	(0.0)	7	(10.7)	28	( )	0	2021/22	8.6	35	7.7	2021/22
2022/23	2.9	34	1.6	62	(0.0)	9	2022/23	2.1	96	6.8	2022/23
2023/24	0.0	29	(5.9)	17	(5.3)	19	2023/24	2.2	46	5.1	2023/24
2024/25	(0.0)	5	0.0	19	(0.0)	18	2024/25	0.0	24	2.6	2024/25
2025/26	(12.5)	8	(0.0)	7	(0.0)	4	2025/26	6.7	15	3.9	2025/26
								3.9	5yr mean		
								3.6	SD		

(4) Northern Fulmar – Noordse Stormvogel – *Fulmarus glacialis*

OSPAR	Subregion 8		Subregion 9		subregion 10			National (8+9)			
	ratio	n=	ratio	n=	ratio	n=		Ratio	n=	mean	
1977/78	76.0	25	(60.0)	23		0	1977/78	45.8	48		1977/78
1978/79	58.8	34	(75.0)	8		0	1978/79	61.9	42		1978/79
1979/80	59.3	27	(33.3)	9	( )	0	1979/80	52.8	36		1979/80
1980/81	81.6	256	67.2	58	84.2	38	1980/81	79.0	314	59.9	1980/81
1981/82	61.5	52	(36.8)	19	(65.2)	23	1981/82	54.9	71	58.9	1981/82
1982/83	72.4	58	(65.0)	20	(66.7)	12	1982/83	70.5	78	63.8	1982/83
1983/84	81.1	169	(75.0)	16	(66.7)	15	1983/84	80.5	185	67.5	1983/84
1984/85	(66.7)	24	(66.7)	18	(100.0)	1	1984/85	66.7	42	70.3	1984/85
1985/86	43.8	80	53.3	30	(37.5)	8	1985/86	46.4	110	63.8	1985/86
1986/87	(22.2)	9	(57.1)	7	(70.0)	10	1986/87	37.5	16	60.3	1986/87
1987/88	63.9	166	46.8	77	35.7	28	1987/88	58.4	243	57.9	1987/88
1988/89	61.0	82	68.4	38	(25.0)	16	1988/89	63.3	120	54.5	1988/89
1989/90	50.0	34	(66.7)	6	(0.0)	1	1989/90	52.5	40	51.6	1989/90
1990/91	(36.4)	11	( )	0	( )	0	1990/91	36.4	11	49.6	1990/91
1991/92	63.6	44	78.8	52	(33.3)	6	1991/92	71.9	96	56.5	1991/92
1992/93	40.7	27	(12.5)	8	(33.3)	12	1992/93	34.3	35	51.7	1992/93
1993/94	(33.3)	12	(66.7)	9	(50.0)	2	1993/94	47.6	21	48.5	1993/94
1994/95	(57.1)	21	(30.8)	13	(63.6)	11	1994/95	47.1	34	47.4	1994/95
1995/96	(50.0)	12	(25.0)	8	(100.0)	1	1995/96	40.0	20	48.2	1995/96
1996/97	(38.5)	13	(66.7)	6	( )	0	1996/97	47.4	19	43.3	1996/97
1997/98	29.0	31	19.4	31	(0.0)	2	1997/98	24.2	62	41.2	1997/98
1998/99	26.3	399	42.1	247	29.9	97	1998/99	32.4	646	38.2	1998/99
1999/00	43.5	69	43.9	57	(53.8)	13	1999/00	43.7	126	37.5	1999/00
2000/01	(12.5)	16	22.2	27	(0.0)	4	2000/01	18.6	43	33.2	2000/01
2001/02	21.3	244	30.8	78	25.0	28	2001/02	23.6	322	28.5	2001/02
2002/03	67.9	28	(12.5)	24	(0.0)	4	2002/03	42.3	52	32.1	2002/03
2003/04	18.4	103	10.6	161	3.6	28	2003/04	13.6	264	28.4	2003/04
2004/05	14.7	34	15.0	40	(16.7)	18	2004/05	14.9	74	22.6	2004/05
2005/06	4.2	24	(15.0)	20	(0.0)	4	2005/06	9.1	44	20.7	2005/06
2006/07	12.0	25	(0.0)	10	(0.0)	10	2006/07	8.6	35	17.7	2006/07
2007/08	(0.0)	5	(20.0)	20	(7.7)	13	2007/08	16.0	25	12.4	2007/08
2008/09	(7.4)	27	10.9	55	(0.0)	7	2008/09	9.8	82	11.7	2008/09
2009/10	(33.3)	3	(6.3)	16	(33.3)	3	2009/10	10.5	19	10.8	2009/10
2010/11	(0.0)	4	(0.0)	5	( )	0	2010/11	0.0	9	9.0	2010/11
2011/12	3.8	78	1.9	52	(0.0)	13	2011/12	3.1	130	7.9	2011/12
2012/13	(0.0)	2	(0.0)	3	( )	0	2012/13	0.0	5	4.7	2012/13
2013/14	(0.0)	2	( )	0	(0.0)	1	2013/14	0.0	2	2.7	2013/14
2014/15	(0.0)	0	(0.0)	2	( )	0	2014/15	0.0	2	0.6	2014/15
2015/16	(0.0)	4	(0.0)	12	( )	0	2015/16	0.0	16	0.6	2015/16
2016/17	(0.0)	11	(0.0)	12	(0.0)	4	2016/17	0.0	23	0.0	2016/17
2017/18	(0.0)	9	(0.0)	2	(0.0)	3	2017/18	0.0	11	0.0	2017/18
2018/19	(0.0)	4	(11.8)	17	(0.0)	0	2018/19	9.5	21	1.9	2018/19
2019/20	(0.0)	3	(0.0)	4		0	2019/20	0.0	7	1.9	2019/20
2020/21	(0.0)	20	0.0	32	(0.0)	7	2020/21	0.0	52	1.9	2020/21
2021/22	2.5	40	0.0	45	(0.0)	2	2021/22	1.2	85	2.1	2021/22
2022/23	(0.0)	12	0.0	25	(0.0)	5	2022/23	0.0	37	2.1	2022/23
2023/24	(0.0)	6	(0.0)	12	(0.0)	1	2023/24	0.0	18	0.2	2023/24
2024/25	(0.0)	7	0.0	53	(50.0)	4	2024/25	0.0	60	0.2	2024/25
2025/26	(0.0)	11	(0.0)	9	(n.d.)	0	2025/26	0.0	20	0.2	2025/26
								0.2	5yr mean		
								0.5	SD		

(5) Northern Gannet – Jan-van-Gent – *Morus bassanus*

OSPAR	Subregion 8		Subregion 9		subregion 10			National (8+9)			
	ratio	n=	ratio	n=	ratio	n=		Ratio	n=	mean	
1977/78	(100.0)	6	(100.0)	23			1977/78	34.5	29		1977/78
1978/79	(66.7)	9	(100.0)	2			1978/79	72.7	11		1978/79
1979/80	(92.9)	14	(20.0)	5	( )	0	1979/80	73.7	19		1979/80
1980/81	95.1	41	100.0	7	(50.0)	4	1980/81	95.8	48	69.2	1980/81
1981/82	96.4	28	(90.9)	11	(100.0)	6	1981/82	94.9	39	74.3	1981/82
1982/83	91.4	81	(88.9)	18	(77.8)	9	1982/83	90.9	99	85.6	1982/83
1983/84	81.0	42	(88.9)	9	(100.0)	6	1983/84	82.4	51	87.5	1983/84
1984/85	100.0	18	(87.5)	8	(100.0)	2	1984/85	96.2	26	92.0	1984/85
1985/86	70.8	24	(85.7)	7	(83.3)	6	1985/86	74.2	31	87.7	1985/86
1986/87	(70.6)	17	(83.3)	6	( )	2	1986/87	73.9	23	83.5	1986/87
1987/88	86.7	15	22.2	9	(100.0)	1	1987/88	62.5	24	77.8	1987/88
1988/89	81.8	11	(100.0)	6	(60.0)	5	1988/89	88.2	17	79.0	1988/89
1989/90	74.5	51	(100.0)	8	(66.7)	3	1989/90	78.0	59	75.4	1989/90
1990/91	80.8	52	(85.7)	7	(100.0)	1	1990/91	81.4	59	76.8	1990/91
1991/92	84.0	25	(85.7)	14	(0.0)	6	1991/92	84.6	39	78.9	1991/92
1992/93	88.9	27	(50.0)	4	(33.3)	3	1992/93	83.9	31	83.2	1992/93
1993/94	87.5	24	(87.5)	8	(100.0)	3	1993/94	87.5	32	83.1	1993/94
1994/95	78.3	23	(75.0)	8	(100.0)	5	1994/95	77.4	31	83.0	1994/95
1995/96	(80.0)	5	(33.3)	6	( )	0	1995/96	54.5	11	77.6	1995/96
1996/97	(80.0)	15	(62.5)	8	( )	0	1996/97	73.9	23	75.4	1996/97
1997/98	76.9	13	36.4	11	( )	0	1997/98	58.3	24	70.3	1997/98
1998/99	66.7	45	65.6	32	66.7	12	1998/99	66.2	77	66.1	1998/99
1999/00	66.7	36	90.9	22	(60.0)	5	1999/00	75.9	58	65.8	1999/00
2000/01	(71.4)	7	72.0	25	(33.3)	3	2000/01	71.9	32	69.2	2000/01
2001/02	50.0	16	41.7	12	( )	0	2001/02	46.4	28	63.7	2001/02
2002/03	86.7	30	(50.0)	6	(0.0)	1	2002/03	80.6	36	68.2	2002/03
2003/04	60.0	5	87.5	8	0.0	1	2003/04	76.9	13	70.3	2003/04
2004/05	33.3	21	55.0	20	(25.0)	4	2004/05	43.9	41	63.9	2004/05
2005/06	(33.3)	3	(19.0)	21	(66.7)	6	2005/06	20.8	24	53.7	2005/06
2006/07	30.0	20	(12.5)	8	(40.0)	5	2006/07	25.0	28	49.4	2006/07
2007/08	(66.7)	3	83.3	12	(66.7)	3	2007/08	80.0	15	49.3	2007/08
2008/09	12.5)	8	36.4	11	(0.0)	2	2008/09	26.3	19	39.2	2008/09
2009/10	(50.0)	2	(20.0)	10	(0.0)	1	2009/10	25.0	12	35.4	2009/10
2010/11	(0.0)	2	( )	0	( )	0	2010/11	0.0	2	31.3	2010/11
2011/12	5.4	37	8.3	12	(0.0)	7	2011/12	6.1	49	27.5	2011/12
2012/13	(0.0)	4	(0.0)	5	( )	1	2012/13	0.0	9	11.5	2012/13
2013/14	(0.0)	3	( )	3	(0.0)	2	2013/14	0.0	6	6.2	2013/14
2014/15	( )	2	(0.0)	3	( )	0	2014/15	0.0	5	1.2	2014/15
2015/16	(0.0)	1	(0.0)	18	( )	1	2015/16	0.0	19	1.2	2015/16
2016/17	(0.0)	14	(0.0)	12	(0.0)	9	2016/17	0.0	26	0.0	2016/17
2017/18	2.6	38	(7.7)	13	(37.5)	8	2017/18	3.9	51	0.8	2017/18
2018/19	(0.0)	9	(12.5)	16	( )	0	2018/19	8.0	25	2.4	2018/19
2019/20	(7.1)	14	(0.0)	16	(0.0)	2	2019/20	3.3	30	3.1	2019/20
2020/21	0.0	28	3.4	29	(0.0)	9	2020/21	1.8	57	3.4	2020/21
2021/22	7.9	38	1.7	59	(0.0)	3	2021/22	4.1	97	4.2	2021/22
2022/23	(0.0)	13	3.7	27	(0.0)	8	2022/23	2.5	40	3.9	2022/23
2023/24	0.0	68	0.0	120	(0.0)	17	2023/24	0.0	188	2.3	2023/24
2024/25	(0.0)	18	0.0	39	(0.0)	5	2024/25	0.0	57	1.7	2024/25
2025/26	3.2	31	(5.6)	18	(11.1)	9	2025/26	4.1	49	2.1	2025/26
								2.1	5yr mean		
								2.1	SD		

(6) Common Eider – Eidereend – *Somateria mollissima*

OSPAR	(	Subregi	)		Subregion 9		subregion 10			National (8+9)			
	(	ratio	)	n=	ratio	n=	ratio	n=		Ratio	n=	mean	
1977/78	(	71.4	)	14	(85.7)	23			1977/78	43.2	37		1977/78
1978/79	(	53.3	)	15	27.6	29			1978/79	36.4	44		1978/79
1979/80	(	71.4	)	7	54.8	31	(25.0)	4	1979/80	57.9	38		1979/80
1980/81	(	76.2	)	21	69.6	56	39.3	61	1980/81	71.4	77	52.2	1980/81
1981/82	(	36.4	)	22	44.0	50	37.0	119	1981/82	41.7	72	50.1	1981/82
1982/83	(	47.1	)	34	58.0	169	41.3	392	1982/83	56.2	203	52.7	1982/83
1983/84	(	57.7	)	52	17.2	122	17.7	379	1983/84	29.3	174	51.3	1983/84
1984/85	(	22.9	)	96	15.7	287	14.3	509	1984/85	17.5	383	43.2	1984/85
1985/86	(	50.0	)	8	15.9	107	5.7	211	1985/86	18.3	115	32.6	1985/86
1986/87	(	92.6	)	445	94.5	4003	96.5	1473	1986/87	94.3	4448	43.1	1986/87
1987/88	(	99.5	)	555	52.8	322	17.3	237	1987/88	82.3	877	48.3	1987/88
1988/89	(	40.0	)	50	45.8	216	10.9	523	1988/89	44.7	266	51.4	1988/89
1989/90	(	87.5	)	8	16.2	68	17.7	209	1989/90	23.7	76	52.7	1989/90
1990/91	(	11.0	)	429	2.0	204	2.0	200	1990/91	8.1	633	50.6	1990/91
1991/92	(	36.8	)	261	7.6	340	(13.5)	6	1991/92	20.3	601	35.8	1991/92
1992/93	(	34.1	)	123	8.5	153	2.3	343	1992/93	19.9	276	23.3	1992/93
1993/94	(	28.6	)	28	3.4	58	12.0	108	1993/94	11.6	86	16.7	1993/94
1994/95	(	29.3	)	41	6.1	66	8.1	533	1994/95	15.0	107	15.0	1994/95
1995/96	(	4.6	)	108	9.0	178	(4.1)	121	1995/96	7.3	286	14.8	1995/96
1996/97	(	9.7	)	31	25.9	81	(4.4)	206	1996/97	21.4	112	15.1	1996/97
1997/98	(	18.5	)	27	3.8	78	(9.5)	105	1997/98	7.6	105	12.6	1997/98
1998/99	(	6.3	)	16	29.1	55	11.1	171	1998/99	23.9	71	15.1	1998/99
1999/00	(	20.2	)	455	4.7	1631	3.4	4982	1999/00	8.1	2086	13.7	1999/00
2000/01	(	6.6	)	91	1.9	377	0.2	965	2000/01	2.8	468	12.8	2000/01
2001/02	(	1.5	)	323	3.9	613	1.6	2723	2001/02	3.1	936	9.1	2001/02
2002/03	(	73.7	)	57	4.3	232	1.1	474	2002/03	18.0	289	11.2	2002/03
2003/04	(	20.0	)	10	4.2	71	1.4	209	2003/04	6.2	81	7.6	2003/04
2004/05	(	0.0	)	14	2.9	170	1.7	483	2004/05	2.7	184	6.6	2004/05
2005/06	(	16.7	)	12	4.0	101	1.5	267	2005/06	5.3	113	7.1	2005/06
2006/07	(	0.0	)	4	0.0	38	1.5	130	2006/07	0.0	42	6.4	2006/07
2007/08	(		)	0	4.2	24	0.0	59	2007/08	4.2	24	3.7	2007/08
2008/09	(	0.0	)	1	1.5	67	0.0	82	2008/09	1.5	68	2.7	2008/09
2009/10	(		)	0	0.0	51	2.8	71	2009/10	0.0	51	2.2	2009/10
2010/11	(	0.0	)	3	(0.0)	16	n.d.	0	2010/11	0.0	19	1.1	2010/11
2011/12	(	0.0	)	6	0.9	112	0.0	61	2011/12	0.8	118	1.3	2011/12
2012/13		n.d.		0	(0.0)	5	(0.0)	5	2012/13	0.0	5	0.5	2012/13
2013/14		n.d.		0	(0.0)	9	(0.0)	6	2013/14	0.0	9	0.2	2013/14
2014/15		n.d.		0	(0.0)	5	n.d.	0	2014/15	0.0	5	0.2	2014/15
2015/16		n.d.		0	(0.0)	8	(0.0)	14	2015/16	0.0	8	0.2	2015/16
2016/17		n.d.		0	(0.0)	11	(0.0)	8	2016/17	0.0	11	0.0	2016/17
2017/18		n.d.		0	(0.0)	3	(0.0)	42	2017/18	0.0	3	0.0	2017/18
2018/19	(	0.0	)	2	(0.0)	1	(0.0)	14	2018/19	0.0	3	0.0	2018/19
2019/20	(	0.0	)	17	(0.0)	10	0.0	32	2019/20	0.0	27	0.0	2019/20
2020/21	(	0.0	)	8	0.0	39	0.0	25	2020/21	0.0	47	0.0	2020/21
2021/22	(		)	0	(0.0)	23	(0.0)	5	2021/22	0.0	23	0.0	2021/22
2022/23	(	0.0	)	2	0.0	144	(0.0)	17	2022/23	0.0	146	0.0	2022/23
2023/24	(	0.0	)	1	0.0	55	0.0	38	2023/24	0.0	56	0.0	2023/24
2024/25	(	0.0	)	1	0.0	) 14	0.0	38	2024/25	0.0	15	0.0	2024/25
2025/26		n.d.		0	0.0	9	n.d.	0	2025/26	0.0	9	0.0	2025/26
										0.0	5yr mean		
										0.0	SD		

(7) Herring Gull – Zilvermeeuw – *Larus argentatus*

OSPAR	Subregion 8		Subregion 9		subregion 10			National (8+9)			
	ratio	n=	ratio	n=	ratio	n=		Ratio	n=	mean	
1977/78	68.8	64	(98.9)	23	0.0	3	1977/78	257.5	87		1977/78
1978/79	38.9	211	(36.8)	19			1978/79	38.7	230		1978/79
1979/80	32.0	122	18.4	38	(0.0)	4	1979/80	28.8	160		1979/80
1980/81	73.7	350	63.6	88	25.0	40	1980/81	71.7	438	99.2	1980/81
1981/82	52.1	257	27.4	84	13.2	121	1981/82	46.0	341	88.5	1981/82
1982/83	61.2	237	61.7	60	20.1	134	1982/83	61.3	297	49.3	1982/83
1983/84	46.4	412	47.4	38	12.3	162	1983/84	46.4	450	50.8	1983/84
1984/85	31.7	227	26.8	82	17.4	144	1984/85	30.4	309	51.2	1984/85
1985/86	22.2	189	14.7	95	10.9	119	1985/86	19.7	284	40.8	1985/86
1986/87	36.5	115	20.7	121	(7.2)	152	1986/87	28.4	236	37.3	1986/87
1987/88	47.2	106	37.0	46	5.2	116	1987/88	44.1	152	33.8	1987/88
1988/89	24.7	174	19.6	56	5.1	137	1988/89	23.5	230	29.2	1988/89
1989/90	21.4	215	(26.1)	23	8.2	49	1989/90	21.8	238	27.5	1989/90
1990/91	14.2	169	(60.0)	5	0.0	9	1990/91	15.5	174	26.7	1990/91
1991/92	25.7	105	(50.0)	20	(0.0)	6	1991/92	29.6	125	26.9	1991/92
1992/93	10.5	105	10.0	30	9.7	72	1992/93	10.4	135	20.2	1992/93
1993/94	30.4	92	(46.2)	13	0.0	24	1993/94	32.4	105	21.9	1993/94
1994/95	31.4	70	8.0	50	6.8	73	1994/95	21.7	120	21.9	1994/95
1995/96	9.6	83	11.1	36	(0.0)	54	1995/96	10.1	119	20.8	1995/96
1996/97	6.3	64	12.9	31	(0.0)	29	1996/97	8.4	95	16.6	1996/97
1997/98	8.6	81	(17.4)	23	(5.0)	20	1997/98	10.6	104	16.6	1997/98
1998/99	17.6	102	28.0	25	12.5	40	1998/99	19.7	127	14.1	1998/99
1999/00	17.9	84	25.7	35	9.1	44	1999/00	20.2	119	13.8	1999/00
2000/01	5.0	40	2.2	46	0.0	99	2000/01	3.5	86	12.5	2000/01
2001/02	2.7	74	9.4	32	3.6	166	2001/02	4.7	106	11.7	2001/02
2002/03	41.2	51	6.7	45	0.7	135	2002/03	25.0	96	14.6	2002/03
2003/04	(16.7)	24	14.3	28	0.0	74	2003/04	15.4	52	13.8	2003/04
2004/05	10.8	37	0.0	25	2.2	93	2004/05	6.5	62	11.0	2004/05
2005/06	(7.1)	14	(5.3)	19	3.4	117	2005/06	6.1	33	11.5	2005/06
2006/07	(0.0)	10	(5.9)	17	0.0	63	2006/07	3.7	27	11.3	2006/07
2007/08	(0.0)	6	(0.0)	8	(0.0)	47	2007/08	0.0	14	6.3	2007/08
2008/09	(0.0)	13	3.8	26	(0.0)	61	2008/09	2.6	39	3.8	2008/09
2009/10	(0.0)	7	2.3	44	(0.0)	40	2009/10	2.0	51	2.9	2009/10
2010/11	(0.0)	11	0.0	18	( )	0	2010/11	0.0	29	1.6	2010/11
2011/12	0.0	26	0.0	30	0.0	37	2011/12	0.0	56	0.9	2011/12
2012/13	(28.6)	7	(0.0)	7	(0.0)	8	2012/13	14.3	14	3.8	2012/13
2013/14	(0.0)	3	(0.0)	14	(12.5)	8	2013/14	0.0	17	3.2	2013/14
2014/15	(0.0)	5	(0.0)	6	n.d.	0	2014/15	0.0	11	2.9	2014/15
2015/16	(0.0)	2	(0.0)	21	0.0	25	2015/16	0.0	23	2.9	2015/16
2016/17	( )	0	0.0	34	(0.0)	12	2016/17	0.0	34	2.9	2016/17
2017/18	(0.0)	2	0.0	43	(0.0)	9	2017/18	0.0	45	0.0	2017/18
2018/19	(0.0)	1	(11.1)	18	(0.0)	3	2018/19	10.5	19	2.1	2018/19
2019/20	(0.0)	1	(0.0)	3	n.d.	0	2019/20	0.0	4	2.1	2019/20
2020/21	(0.0)	1	0.0	38	(0.0)	7	2020/21	0.0	39	2.1	2020/21
2021/22	(0.0)	4	0.0	70	(0.0)	8	2021/22	0.0	74	2.1	2021/22
2022/23	(0.0)	19	0.0	84	(0.0)	8	2022/23	0.0	103	2.1	2022/23
2023/24	(0.0)	24	0.0	73	0.0	66	2023/24	0.0	97	0.0	2023/24
2024/25	0.0	(10)	2.2	90	(0.6)	175	2024/25	2.0	100	0.4	2024/25
2025/26	n.d.	(0)	0.0	11	(0.0)	5	2025/26	0.0	11	0.4	2025/26
								0.4	5yr mean		
								0.9	SD		

(8) Great Black-backed Gull – Grote Mantelmeeuw – *Larus marinus*

OSPAR	Subregion 8		Subregion 9		subregion 10			National (8+9)			
	ratio	n=	ratio	n=	ratio	n=		Ratio	n=	mean	
1977/78	59.3	27	(0.0)	23	(0.0)	2	1977/78	42.0	50		1977/78
1978/79	38.1	63	(18.2)	11			1978/79	35.1	74		1978/79
1979/80	31.6	38	(12.5)	8	(0.0)	1	1979/80	28.3	46		1979/80
1980/81	73.7	95	(54.2)	24	(50.0)	6	1980/81	69.7	119	43.8	1980/81
1981/82	66.3	95	26.5	34	35.7	28	1981/82	55.8	129	46.2	1981/82
1982/83	66.2	77	(73.7)	19	39.6	48	1982/83	67.7	96	51.3	1982/83
1983/84	62.3	77	(53.3)	15	11.3	53	1983/84	60.9	92	56.5	1983/84
1984/85	19.4	36	(13.3)	15	(12.5)	8	1984/85	17.6	51	54.4	1984/85
1985/86	34.4	32	(6.3)	16	12.1	33	1985/86	25.0	48	45.4	1985/86
1986/87	14.8	27	(73.9)	23	(52.2)	23	1986/87	42.0	50	42.6	1986/87
1987/88	42.9	7	(61.1)	18	(15.0)	20	1987/88	56.0	25	40.3	1987/88
1988/89	38.5	13	(25.0)	8	(4.8)	21	1988/89	33.3	21	34.8	1988/89
1989/90	18.2	22	(28.6)	7	(25.0)	4	1989/90	20.7	29	35.4	1989/90
1990/91	17.9	28	(25.0)	4	(0.0)	2	1990/91	18.8	32	34.2	1990/91
1991/92	22.5	40	(33.3)	3	(0.0)	6	1991/92	23.3	43	30.4	1991/92
1992/93	30.8	13	(0.0)	3	(0.0)	17	1992/93	25.0	16	24.2	1992/93
1993/94	25.0	8	(33.3)	6	(0.0)	6	1993/94	28.6	14	23.3	1993/94
1994/95	15.4	13	(25.0)	12	(12.5)	8	1994/95	20.0	25	23.1	1994/95
1995/96	7.1	14	(0.0)	7	(0.0)	5	1995/96	4.8	21	20.3	1995/96
1996/97	33.3	6	(14.3)	7	(0.0)	11	1996/97	23.1	13	20.3	1996/97
1997/98	18.2	11	(28.6)	7	(0.0)	10	1997/98	22.2	18	19.7	1997/98
1998/99	29.6	27	(29.4)	17	0.0	28	1998/99	29.5	44	19.9	1998/99
1999/00	7.7	13	(18.2)	11	11.8	34	1999/00	12.5	24	18.4	1999/00
2000/01		0	(11.1)	18	(0.0)	23	2000/01	11.1	18	19.7	2000/01
2001/02	8.3	12	(11.1)	9	0.0	30	2001/02	9.5	21	17.0	2001/02
2002/03	50.0	8	(6.7)	15	(9.5)	21	2002/03	21.7	23	16.9	2002/03
2003/04	25.0	8	(14.3)	14	(0.0)	24	2003/04	18.2	22	14.6	2003/04
2004/05	23.1	13	(30.0)	10	(0.0)	15	2004/05	26.1	23	17.3	2004/05
2005/06	0.0	7	(0.0)	10	(0.0)	18	2005/06	0.0	17	15.1	2005/06
2006/07	0.0	4	(0.0)	15	(0.0)	24	2006/07	0.0	19	13.2	2006/07
2007/08	( )	0	(0.0)	3	(0.0)	15	2007/08	0.0	3	8.9	2007/08
2008/09	(0.0)	6	(0.0)	11	(0.0)	9	2008/09	0.0	17	5.2	2008/09
2009/10	(0.0)	5	(0.0)	14	(0.0)	7	2009/10	0.0	19	0.0	2009/10
2010/11	(0.0)	2	(0.0)	5	( )	0	2010/11	0.0	7	0.0	2010/11
2011/12	8.3	24	(5.3)	19	(0.0)	18	2011/12	7.0	43	1.4	2011/12
2012/13	0.0	3	(0.0)	5	(0.0)	4	2012/13	0.0	8	1.4	2012/13
2013/14	(0.0)	3	(0.0)	2	(0.0)	3	2013/14	0.0	5	1.4	2013/14
2014/15	(0.0)	3	(0.0)	4	( )	0	2014/15	0.0	7	1.4	2014/15
2015/16	(0.0)	2	(0.0)	13	(0.0)	2	2015/16	0.0	15	1.4	2015/16
2016/17	(0.0)	0	0.0	40	(0.0)	10	2016/17	0.0	40	0.0	2016/17
2017/18	(0.0)	2	(0.0)	3	(0.0)	0	2017/18	0.0	5	0.0	2017/18
2018/19	(0.0)	7	(0.0)	8	(0.0)	1	2018/19	0.0	15	0.0	2018/19
2019/20	(0.0)	2		0	(0.0)	4	2019/20	0.0	2	0.0	2019/20
2020/21	(0.0)	7	(0.0)	16	(0.0)	1	2020/21	0.0	23	0.0	2020/21
2021/22	(0.0)	17	2.2	45	(0.0)	4	2021/22	1.6	62	0.3	2021/22
2022/23	(0.0)	9	0.0	39	(0.0)	9	2022/23	0.0	48	0.3	2022/23
2023/24	(0.0)	11	0.0	39	(0.0)	21	2023/24	0.0	50	0.3	2023/24
2024/25	(0.0)	11	n.d.	0	(0.0)	2	2024/25	0.0	11	0.3	2024/25
2025/26	(0.0)	3	(0.0)	2	n.d.	0	2025/26	0.0	5		2025/26
								0.3	5yr mean		
								0.7	SD		