

NEWSLETTER 78

SEPTEMBER 1997



YOUR VIEWS SOUGHT: PROPOSED NEW JOURNAL FOR THE SEABIRD GROUP

Earlier this year the Seabird Group Executive Committee was contacted by the Dutch Seabird Group with a proposal to set up a new joint journal that would replace the existing journals of the two groups (*Seabird* and *Sula*). The suggestion met with a favourable response from the Committee and over the last few months the matter has been discussed in detail. We have now reached a consensus and propose that the joint journal should be

- (1) jointly edited by a Seabird Group and a Dutch Seabird Group editor assisted by a small editorial board,
- (2) be fully refereed and
- (3) be written in English.

It would be published at least bi-annually and possibly quarterly with approximately 40 pages per issue. Regular issues would include full articles, short notes and book reviews. All tables and figures would be subtitled in Dutch and English and there would also be Dutch and English summaries of each paper. In addition, special issues of the journal might be published from time-to-time, funded from external sources, in which the main language could be Dutch, with English subtitles and summaries. The journal would continue to be A5 size but would have glossy white paper and could include black and white photographs or line

drawings. The Seabird Group Newsletter would continue unchanged and a similar newsletter (but in Dutch) would be produced by the Dutch Seabird Group.

Contributions from authors from other European countries would be strongly encouraged and such papers could have a summary in the appropriate native language.

We are currently investigating the financial implications of the proposed merger but all the signs are that it can be achieved without any increase in the current subscription rate. The biggest problem now seems to be deciding on a name for the new journal, any suggestions gratefully received!

In conclusion, the committee feels that this venture represents an exciting challenge for the Seabird Group and that a joint publication with the Dutch is an excellent way to go forward into the twenty-first century. The issue will be high on the agenda at the next SG AGM which will be held at the BTO Ringers Conference at Swanick on 10 January 1998 and we hope members will be similarly enthusiastic. If any members have views on the subject but are unable to attend the AGM, please send these

comments to me (in writing) to arrive before 6 January 1998.

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OIL POLLUTION AND OILED SEABIRDS IN THE NETHERLANDS, 1969-97: SIGNALS OF A CLEANER SEA

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Published by the Dutch Seabird Group/Nederlandse Zeevogelgroep, working group Beached Bird Surveys/werkgroep NederlandsStookolieslachtoffer-Onderzoek (NZG/NSO)

Marine oil pollution has been taking its toll of seabirds since the late 19th century. Systematic beached bird surveys have been used to demonstrate the effect of oil pollution since the late 1950s, but were not widely accepted as a means to evaluate the effectiveness of measures to reduce oil pollution. The reluctance to use these data was mainly caused by the large fluctuations in numbers of birds washing ashore, which is a result of a complex of factors ranging from onshore winds through severe winters and oil incidents. Beached bird survey results were considered very difficult to interpret.

This report presents the results of beached bird surveys along the Dutch coast between 1969 and 1997, with emphasis on data collected since winter 1976/77. Changes in oiling rates of beached birds are presented as changes in the risk for (corpses of) seabirds, coastal birds and land birds to become oil contaminated at sea due to chronic (oil) pollution. The results are presented in Dutch, but all tables and figures are subtitled in English. An edited version of the English summary appears below.

Beached bird surveys were conducted along the entire Dutch North Sea coast (beaches and dikes) and in the Wadden Sea area. At publication, the NZG/NSO database contained the results of 5178 surveys over 38 138 km of shoreline. At least 578 volunteers have contributed to these surveys and the corpses of 184,808 (sea-) birds and (marine) mammals were recorded.

The results were split into 'winter' (November-April) and 'summer' (May-October) surveys with the North Sea coast has been treated separately from the Wadden Sea area.

With the period 1969-97, a total of 16 winters were recorded as being 'mild' (20 or less cold days between December and March), 7 winters were listed as 'moderate' (21-45 cold days) and 6 as severe (>45 cold days; Table 3). Severe winters often caused considerable extra-

mortality among grebes, wildfowl and waders, which resulted in comparatively low oiling rates in these species. Mass-mortality as a result of illegal discharges of oil or shipping accidents were recorded in 1969, 1973, 1974, 1985, 1987, 1988, 1990 and 1992. Countless smaller or less conspicuous incidents took place. In the 1980s and early 1990s, massive seabird wrecks (with many seabirds starved to death) have been recorded nearly annually.

The most numerous species/groups of species found in the Netherlands during 1969-97 were guillemot (30 766), *Larus*-gulls (29 999), waders (23 465), eider (18 648), scoters (15 724), kittiwake (11 483), land birds (10 364), other wildfowl (8729), and razorbill (7234).

In the species accounts, effort-corrected seasonal patterns are given for each group of birds, showing their relative abundance as beached birds throughout the year (based on data collected between 1977 and 1997). In the heading of each account, a table shows the total number of birds found in three main periods (1969-76, 1977-85, and 1986-97, plus the proportion of oiled birds (%) if at least 10 complete corpses were available in the sample.

The assumption is made that the fraction of all beached birds that is oil contaminated is in some way related to oil pollution at sea. The percentage of oiled birds along a shore is thought to mirror the specific risk of species or groups of birds to become oil contaminated at sea, before or after death. In most land birds and waders, post-mortal oil contamination will be more common than in swimming seabirds such as divers and auks. If we assume that all factors that influence the risk for birds becoming oiled are constant, than the oiling rate will mirror fluctuations in the risk of becoming oiled at sea and, hence, in the amount of oil present in the marine environment. While an absolute measure of the quantities of oil released into the sea cannot be derived from beached bird surveys, it is believed that

changes in oiling rates will follow the level of marine oil pollution. A decline in oiling rate is thus believed to be indicative of a decline in oil pollution at sea. Spatial differences in marine oil pollution are clearly represented in differences in species specific oiling rates between countries around the North Sea, while several examples have shown the sensitivity of beached bird surveys in time when measures to reduce oil pollution came into effect.

From beached bird survey results, there was strong evidence that the risk of becoming oil contaminated (for birds or for corpses of birds floating in the water) is substantially less within the Wadden Sea than it is in the North Sea. Several coastal species which occur both within the Wadden Sea and along the North Sea coast show distinctly different oiling rates in the respective areas, whereas pelagic seabirds found within the Wadden Sea had the same oiling rates as those found along the North Sea coast. Representatives of the latter group would only enter the Wadden Sea when already weakened or otherwise in serious trouble (and, most likely, already oiled).

The results of beached bird surveys over the past 30 years show consistent declines in oiling rates in all areas and seasons and in virtually all species. As expected following the power-analysis in previous studies nearly all trends were highly significant. In winter along the North Sea coast (1976/77-1996/97), declines in oiling rates were found in all species/groups of birds except in scoters. All trends were significant, except in divers (small sample). In winter in the Wadden Sea area significant declines in oiling rates were found in all testable species or groups of birds. There was a tendency of even more rapid declines in oiling rates in comparison with the results of beached bird surveys along the North Sea coast. In summer along the North Sea coast (1977-96), all testable groups/species of birds showed significant declines in oiling rates. In summer in the Wadden Sea area, significant declines in

oiling rates were found, but it should be noted that few birds were available.

Based on the material in this report, there is no evidence for a sudden improvement when MARPOL Annex 1 came into effect in 1983. A decline in oiling rates commenced somewhere in the early 1970s, and the gradual implementation of MARPOL may only have assisted the continuation of that trend. Despite MARPOL, substantial amounts of oil are still illegally discharged into the North Sea and massive seabird mortality as a result of shipping accidents and chronic pollution may still be expected to occur at times.

The results of aerial surveillance for oil slicks are currently not available in a way that allows direct comparisons with beached bird survey results. These surveys, however, still show many reported oil slicks in the Dutch sector of the North Sea. A preliminary comparison of results show a positive, non-significant relationship between the number of slicks per hour of observation and the oiling rate in beached birds in winter (data 1983-94).

Beached bird surveys are now believed to provide information on temporal changes or spatial differences in the occurrence of oil pollution in the marine environment and, hence, provide a valuable monitoring tool. Beached bird surveys are organised in over 20 European countries, using roughly the same methods. A critical analysis of the results would provide a much better insight in the spatial and temporal fluctuations in the level of oil pollution in this part of the world. It is suggested that attempts to set up a 'European Beached Bird Survey' are further stimulated, leading to a monitoring programme of marine oil pollution of the European seas. Available data should be analysed along the lines described in this report, to examine any possible trends in Europe.

The results of beached bird surveys in The Netherlands suggest that there is a clear improvement in the level of oil pollution in the southern North Sea and,

particularly, in the Wadden Sea. This suggestion is supported by the overall impression that Dutch beaches are nowadays cleaner in terms of oil than 20-30 years ago. Measures to reduce (illegal) discharges of oil at sea appear to have been successful. It is concluded, however, that oiling rates in The Netherlands are still high in comparison with 'clean' areas such as around the Shetland Islands.

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ALASKA SEABIRD MONITORING REPORT AVAILABLE

A report summarising much of the annual seabird monitoring in Alaska in 1996 is available from the Alaska Maritime National Wildlife Refuge in Homer, Alaska. Please send requests for copies to: r7amnwr@mail.fws.gov or Alaska Maritime NWR, 2355 Kachemak Bay Dr., Suite 101, Homer, AK 99603-8021, USA.

This report summarises monitoring efforts on seabird productivity and population trends at several locations throughout Alaska. Species covered include: fulmar, fork-tailed and Leach's storm-petrels, pelagic and red-faced cormorants, glaucous-winged gull, black- and red-legged kittiwakes, common and thick-billed murrelets, parakeet, least and whiskered auklets, and tufted and horned puffins.

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(This report will please all those associated with the UK & Ireland annual Seabird Monitoring Report as it is based on the same concept, a point readily acknowledged in the Alaskan report - ed.)

HANDA RAT ERADICATION PROJECT 1997.

Travelling through the stunning mountain scenery in the north-west of Scotland on a crisp March day towards Handa Island was not quite what I expected. There was no snow or blizzards, in fact quite the opposite, sunshine and reasonably mild - a tribute to the effects of the Gulf Stream.

Handa lies just to the south of Cape Wrath in Sutherland and only a mile or so from the mainland. Crossing to Handa from Tarbert only takes a few minutes and soon I was on the sand-dunes at the landing area where a couple of tonnes of Warfarin had been unloaded earlier. The Scottish Wildlife Trust, who manage the island, had contacted me some years previous for advice on ridding the island of rats, which had been present for over a century. Puffins which had previously nested on the main island were now restricted to the top of the Great Stack and other common breeding seabirds of the north-west islands such as tysties and storm petrels were absent. Monitoring by the SWT wardens over a three-year period had shown that the rats were largely confined to the margins of this superb seabird colony. Chewsticks had been deployed to monitor rat activity and distribution and from this a map was drawn up. The wet boggy interior of Handa was obviously disliked by rats and their numbers were concentrated above the seabird cliffs, where rabbits were also present. This restriction of rats to the six-mile perimeter of Handa made their eradication a viable proposition. A team of eight SWT volunteers from the Inverness area along with climbers from Durness were duly assembled and joined warden Julie Stoneman and myself to help distribute the bait. Over a tonne was carried by hand a mile or so across the island to the clifftops. Once this onerous task had been completed it was a matter of putting bait into or near all areas of rat activity. The steepest gullies and screes were tackled by the climbing experts while the others fanned out around the coastline, baiting on clifftops, rocky

beaches, among the dunes and on broad ledges. The baiting team soon noticed the evidence of rat droppings and the proximity to where seabirds were breeding. Ten metres inland of the cliffs there was no evidence at all. However a general inspection and treatment of all inland rocky outcrops or rabbit warrens was made to make sure no area of holes or burrows was untouched. It was obvious to me that both on Handa and Ailsa Craig that rabbits were a major food of rats during the winter months. Apart from a short period of heavy rain each morning, the weather was particularly good such that the work was completed on schedule in exactly a week. As we finished on the last day, the first great skuas arrived back on the island.

We left the island having had superb nightly views of the shimmering Hale-Bop comet. We hoped this heavenly sign was a portent of doom for the rats and a cause for rejoicing among the seabirds.

Rat monitoring by means of chewsticks resumed shortly after we left and at time of writing six months later, the reports seem very positive. It will be a few years before any definite conclusions can be drawn but at present the areas where rats swarmed are now quiet. SWT will monitor both rat and bird populations for the foreseeable future and we hope to update seabird enthusiasts in the years ahead.

If you are in the north-west of Scotland and want to visit Handa for the day between Easter and September then contact boatman Steve MacLeod (01971 502340) to check sailing times. If you want to stay at the well-equipped bothy then contact the SWT in Edinburgh and arrange a booking (0131 312 7765). Costs are modest.

The SWT are grateful to the Seabird Group for a much appreciated donation towards the cost of bait.

Bernie Zonfrillo.

SEABIRDS PASSING CAPE ST VINCENT, ALGARVE, PORTUGAL

A paper on numbers of gannets off Cape St Vincent, Portugal was published in the last issue of Seabird. Other bird records were made at the same time that gannets were counted. These are summarised below.

CORY'S SHEARWATER *Calonectris diomedea*

Numbers counted off Cape St Vincent and Pinto do Sagres show some interesting annual variations (Table 1). A total of 17,702 Cory's Shearwater were counted, but these numbers do not necessarily reflect the true numbers recorded. Birds were often observed moving to and fro between sea rafts off Cape St Vincent and elsewhere, these rafts acting as roosts or staging posts for Cory's Shearwater.

These rafts were a feature of Cape St Vincent in the autumn of 1993, when birds gathered in tightly knit almost circular groups against the predation of skuas and large gulls. Evidence of attacks on rafts was recorded on 2 December 1992 when six or more *Stercoradiidae* were watched making repeated attacks on an almost circular raft of 300 birds. Large rafts recorded were 400, 2 November to 5 December 1992, 300 on 23 October 1993. Three loose rafts on 26 October 1993 contained about 700 birds, and there were 420 on 28 October 1993.

Rafts of up to eighty birds were recorded between 18 and 30 September, fifty on October 10 and sixty on 20 October 1994. (The dispersal of Mediterranean birds commences in August and September, with the main passage through the Gibraltar Straits during October and November at a rate of 26272 a day).

Table 1. Counts of Cory's shearwater + = No count * = rafts

Month	1986	1992	1993	1994	1995	Average per month
Jan	6	Nil +	- 4	Nil 2	Nil 1	2 0.5
Feb	56	+	-	129	35	107 81.75
Mar	8	1 +	-	88	31 24	24 34.25
Apr	+	- +	- 424	3 +	- 29	19 11.0
May	+	- +	-	22 +	- +	- 22.0
Jun	+	- +	-	214 +	- +	- 241.0
July	+	- +	- 331	25 +	- +	- 25.0
Aug	+	- +	-	1528 +	- +	- 1528.0
Sep	+	- +	-	1058	17 595	+ - 826.5
Oct	+	- +	-	5760	214	+ - 2987.0
Nov	+	- 2	5334	20	1583*	+ - 2314.3
Dec	+	- 12	828	+	-	- 423.0
Totals	57		6162	10437	894	152 17702.0

MANX SHEARWATER

The two sub species were not generally separated whilst passing Cape St Vincent, although one or two attempts were made at specific identification when sea passage was light. The three groups

were divided into the nominate race *P.p. puffinus*, *P.y. yelkouan* (Levantine - East Mediterranean) and *P.y. maurentanicus* (Balearic - West Mediterranean). Detailed counts between 1 January and 29 April 1995 showed that 44.23% were of the nominate form. See Table 2.

Table 2. Counts of Manx shearwater

Month	1986	1992	1993	1994	1995			
Jan	6 Nil	-	4	15	2	19	1	3p, 8m
Feb	8 5p, 10m	-		42		255		10p, 14m
Mar	2m	-		14	31	9		6p, 1m
Apr	-	-	424	9		-	29	4p, 6m
May	-	-		37		-		-
Jun	-	-		211		-		-
July	-	-	331	12		-		-
Aug	-	-		77		-		-
Sep	-	-		166	17	360		-
Oct	-	-		887		373		-
Nov	-	2	100	20	75	63		-
Dec	-	12	17		-	18	3	-
Totals	5p, 10m	117		1545		1082		23p, 29m

LITTLE SHEARWATER *Puffinus assimilis*

Eleven birds were recorded moving south off Cape St Vincent between 3 and 28 November 1992 (peak numbers of Cory's Shearwater that year on same dates). One north with two *P.y. maurentanicus* on 14 January 1993.

SOOTY SHEARWATER *Puffinus griseus*

Two north on 28 February and one north on 1 March 1986, single birds on 1 December 1992 and 7 January 1994 off Cape St Vincent.

BRITISH STORM PETREL *Hydrobates pelagicus*

Single birds flew into hotel windows as Sagres in the evening of 3 January and 8 December 1994. (Large numbers of unidentified petrels, too far out for my optics, were recorded from Cape St Vincent around 20 October 1994).

GREAT CORMORANT *Phalacrocorax carbo*

Thirty two southwest on 2 November 1992 and nine southeast on 8 November 1993 were the only evidence of migration off Sagres. An estimated eight hundred day roosting at Praia do Faro on 16 January 1992. A flock of four hundred moved west along the coast at Quarteria at 0800 hours, returning east at 1600 hours on the 18 January 1992.

SHAG *Phalacrocorax aristotelis*

Nineteen southeast off Cape St Vincent on 9 December 1994 was the only large group recorded. Up to six in Martinhal area daily.

GREY PHALAROPE *Phalaropus fulicarius*

A total of 240 were recorded moving south off Cape St Vincent between 24 September and 24 October 1993, with a maximum of 174 on 16 October 1993. Six south Cape St Vincent 8 October 1994; 20 or more moving north off Ponto do Sagres 28 March 1994.

GREAT SKUA *Stercorarius skua*

Passage migrant and winter visitor.
Numbers counted off Sagres peninsula:

1986	10 Feb to 3 Mar	10
1992	4 Nov to 5 Dec	12
1993	9 Jan to 29 Jun	68
Peak twenty six on 25 Mar		
1993/94	25 Sept to 10 Mar	76
1994/95	24 Sept to 27 April	146
Peak eleven on 10 Nov		

POMARINE SKUA *Stercorarius pomarinus*

A total of one hundred and ninety one *Stercorarius* were recorded as follows

		Pomarine	Arctic	<i>Stercorarius</i> sp?
1992 - 1993	8 Nov - 2 May	10	19	52
1993 - 1994	16 Aug - 30 Mar	42	23	3
1994 - 1995	21 Sep - 29 Apr	30	12	0
Average Percentage		48.50	28.61	22.86

ARCTIC SKUA *Stercorarius parasiticus*

Fifty four birds were positively separated during period of observations, see above.

?LONG-TAILED SKUA *Stercorarius longicaudus*

A small slim skua was observed for several minutes moving north off Ponto do Sagres at 0910 on 13 March 1993. The bird was completely dark (brownish-black but for the white wing flash and a pale whitish patch on underparts. Tail was long and slim, perhaps a third of body length.

MEDITERRANEAN GULL *Larus melanocephalus*

Small numbers recorded from Sagres harbour and passing Ponto do Sagres and Cape St Vincent between 18 August (1993) and 2 March (1993).

:

LITTLE GULL *Larus minutus*

An immature at Alvor 24 February to 6 March 1986.

BLACK-HEADED GULL *Larus ridibundus*

Passage migrant and winter visitor in small numbers in Sagres - Aljezur area. Up to sixty wintering in both areas. Off Cape St Vincent, 141 north 7 January to 19 March 1993. 405 south 1 August to 20 November 1993. 395 north 2 January to 12 March 1994. 231 north 26 January to 6 April 1995.

Average Spring movement, 255 birds.

COMMON GULL *Larus canus*

Seven adults, two first winter, four immature, north 13 February - 31 March 1993. Five adults, one first winter, five immature, south 23 October - 16 November 1993. One adult, two

immature, south 26 October - 3 November 1994. One first winter, north 20 February 1995.

KITTIWAKE *Rissa tridactyla*

Recorded from Ponto do Sagres and Cape St Vincent:

1 Jan - 23 Feb 1986 (Max 1200 north 0830-0930 16 February 1986, Total 1491).

17 Nov - 11 Dec 1992, a total of 292.

19 Jan - 29 April 1993 a total of 4.

7 - 17 Nov 1993 a total of 3.

6 - 9 Mar 1994 a total of 12.

7 - 14 Dec 1994 a total of 45 (20% immature)

13 Feb - 19 Mar 1995 a total of 12

A few adults and immatures wintered around the Capes.

SABINES GULL *Larus sabini*

Two immatures recorded off Cape St Vincent, one on 13 October and one on 2 November 1993 after southwesterly gales.

1993 March	Yellow-legged <i>L.cachinnans</i>	Lesser Black-back <i>L.argentatus</i>	Imm L.Sp?	Daily Total	Mins obs	per hour
29	38.7	27.5	33.7	711	70	609.42
30	42.0	22.6	35.7	363	60	363.00
31	25.0	43.0	32.0	377	75	301.59

Return migration commenced on 2 August 1993 when a flock of 135 adult *L.f. gracellsii*, 9 adult *L.f. fuscus*, and 126 immatures heralded the beginning of a major movement. From 28 August until 28 September probably 2300 *Larus* were counted either on passage or sea roosts on twenty six visits (average length of visit 34 minutes). Peak numbers during this period were about 400 adults and 600 immatures on 31 August 1993 (migrants and roost).

AUDOUIN'S GULL *Larus audouinii*

One juvenile/1st winter on the 6 and 7 September and 28 October 1993 in Sagres harbour. One adult on 1 October 1994 at Cape St Vincent (MO); one adult Sagres 4 October 1994.

LESSER BLACK-BACKED GULL *Larus fuscus*

YELLOW-LEGGED GULL *Larus cachinnans*

It should be noted that counting large gull movements off Cape St Vincent and Ponto do Sagres is complicated by the tendency of birds to take short cuts across the Sagres peninsula from Martinhal.

No significant numbers of gulls were observed in November - December 1992. From 14 January to 31 March 1993, about 8099 gulls were recorded on the daily sixty minute post dawn sea watches; this northerly movement had petered out by 22 June 1993. By this time two large breeding colonies of yellow-legged gulls were firmly established at Pedro do Gaivotras (C St V) and Ilhotas do Martinhal. Some detailed numbers shown as percentages were :

The next phase of the migration commenced 3 October 1993, with 400 *Larus* an hour moving south. On 12 October 1993, 184 adult and 276 immature yellow-legged gulls, and 255 *L.f. gracellsii*, 1529 *L.f. fuscus* and 1937 immatures passed Cape St Vincent between 0810 and 1020 on 12 October (1930 per hour).

From 12 January to 29 March 1994, sixty seven counts were made from Cape St Vincent and Ponto do Sagres, with a total

of 8929 *Larus* recorded (5544 yellow-legged and 3385 lesser black-backed gull) moving north.

fifty eight counts average seventy minutes duration, when a total of 12208 *Larus* were recorded. (787 yellow-legged and 11421 lesser black-backed gull).

A return movement was recorded from 18 September to 14 December 1994, with

	Yellow-legged		Lesser Black-backed			No of counts	Avge time of count
	ad	imm	dark	inter/light	imm		
1994 Jan - Mar	4217	1327	1125	951	1309	67	68.10
1994 Sep - Dec	338	449	4750	1841	4830	58	60.40
1995 Jan - Apr	788	408	1316	330	666	18	92.50

Numbers of yellow-legged gulls passing Cape St Vincent between January and April 1995 were down by (adult) 3429 birds (81%) and (immatures) 919 birds (30%) compared with the previous spring movement. The two breeding colonies were still comparatively empty when observations finished in late April.

Return movement south commenced 10 August, with a total of 587 recorded until 20 November. A small movement north was recorded of 42 birds between January to March 1994. From 30 September until December 1994, 181 birds were recorded. The 1995 movement commenced 2 February until 29 April, when 110 birds were moving north off Cape St Vincent. Up to 40 birds could be found wintering in the area.

Large roosts or rafts were recorded several times in 1993; 1500 *L.f. fuscus* at Martinhal 19 October, a raft of 2000 *L.f. fuscus* at Praia de Beliche on 24 October, and a raft of 1000 *L.f. fuscus* in the bay southeast of Cape St Vincent on 4 November. A remarkable sight was a large party of between 2800 - 3200 yellow-legged gulls, flying low and slowly to Ilhotas de Martinhal at dusk on 28 February 1995. A tightly knit mass with trailing skeins like a huge octopus, settled onto the water in the lea of the islands and the beach, leaving at dawn the following day.

COMMON/ARCTIC TERN *Sterna hirundo/paradisaea*

Normally not separated because of distance. Reviewed numbers for the period were:

13 Mar - 22 Jun 1993: 216 (peak 29 April)
 18 Aug - 26 Nov 1993: 131 (peak 7 Sep)
 6 - 31 Mar 1994: 292 (peak 31 Mar)
 18 Sep - 26 Oct 1994: 92 (peak 19 Sep)
 23 Mar - 26 Apr 1995: 294 (peak 9 Apr)

The average flock size was 6.76 in March 1994, and 10.9 in August 1993.

CASPIAN TERN *Sterna caspia*

Not recorded west of Lagos during period.

In 1993 numbers in Sagres harbour were often high, maxima of 95 on 3 September, 150 on 7 September and 55 on 17 September, with small numbers remaining until 5 November. The only certain records of arctic tern were two adults in Sagres harbour on 4 September, a juvenile in the harbour on 16-17 October, and one flying southeast off Cape St Vincent on 2 November (1993) (CTF-FJW).

SANDWICH TERN *Sterna sandvicensis*

In 1993 a total of 137 birds moved north between 8 February and 31 March, and 84 between 27 and 30 April, with 69 between 1 May and 3 June.

BLACK TERN *Chlidonias niger*

Single birds moved north on 25 and 30 April 1993. Recorded on 14 dates between 3 September and 16 October in Autumn 1993; maximum 10 plus on 16 October.

GULL-BILLED TERN *Gelochelidon nilotica*

One at Vilamoura lagoon 15 October 1992. Twelve left Martinhal beach at dawn 28 April 1995 moving north over peninsula.

AUKS

Small groups of razorbill *A. torda* were recorded off Cape St Vincent between 11 January and 9 February 1986, with a fairly strong northern movement of Alcidae from 10 February to 3 March, with maxima 70 on 21st, 40 on 15th, 45 on 18th February and 42 on 3rd March 1986.

Unidentified alcidae were recorded moving south on 19 days in the autumn of 1992, but most were too far out to be safely separated. Maximum recorded were 62 on 16 November, 56 plus on 4 December, 125 on 8 December and 62 on 9 December 1992. In 1993 single Alcidae spp were recorded on three days in January, 43 on eight days in February, and in March a total of 184 in twelve days (maximum 89 on 10 March). In autumn 1993 a total of 98 auks were recorded moving south between 19 September and 27 November. Return spring records in 1994 showed 739 birds moving north from January to 30 April. A southerly movement commenced with 13 auk spp and 45 Razorbill *A. torda* were identified out of 97 auks on 14 days. December saw 396 birds flying south in ten days, with a maximum of 209 in 20 minutes on 7 December.

In 1995 eight Alcidae were recorded moving north between 10 and 27 January. Nine south between 5 and 8 January were considered to be wintering birds. From 4

February until 28 February a total of 133 auks passed north in 15 days, and were separated as guillemot *U.a. albionis* and razorbill *A. torda*; from 1 - 27 March a total of 3382 alcidae spp? were recorded, with 15 present until final check on 27 April.

LITTLE AUK *Alle alle*

Little auks were recorded as follows. One dead Meia Praia (Lagos) 10 February 1986. Two southeast off Cape St Vincent on 10 October and two there 20 November 1993. In 1994 four were recorded on 8 January, two on 3 December. (M J Blair saw 7 moving south from Cape St Vincent 3 November 1994, pers comm).

F J Walker

SEABIRD STUDIES ON FOULA, 1997

1997 was generally a moderately poor season for breeding seabirds, with most species also breeding late. Sandeels were prominent in diets, before mid-July. Shags and divers had extremely late breeding seasons. Red-throated divers attempted breeding at 13 sites, and 8 of these were still breeding on 12 July, when 7 chicks were alive. Four chicks remained alive on 6 August. Eider numbers were very similar to those in 1996; 99 males and 81 females were present on the east coast on 10 July, with a total of 53 ducklings that day; 113 males, 79 females and 40 chicks were counted on 27 July. Arctic skua numbers fell to 117 aots (down 3 from 1996 when there were 6 less than in 1995) though adult survival was again high. Arctic skua breeding success was poor (about 50-60 chicks fledged) and the season was late. Great skua adult survival rate was high and, although breeding was exceptionally late, breeding success seemed likely to be the best for more than 10 years, though chick killing began around 10 July; sandeels and whitefish were prominent in the diet and few birds were killed before 10 July,

giving a picture very similar to that in 1996. There were several instances of herring in the great skua diet. Numbers of breeders increased noticeably in several but not all parts of Foula, and numbers on clubs continued to recover, with the largest increase since the 'sandeel crisis' of the late 1980s. Kittiwake breeding success varied greatly according to the amount of predation suffered at particular colonies; kittiwake breeding numbers continue to decline. Food availability to kittiwakes appeared to be moderate, consisting of small (6-8 cm) sandeels. Arctic terns (ca 1000 pairs in May but 500 pairs remaining in late June) had a poor season with less than 50 chicks fledged. Arctic tern breeding was very late. No chicks fledged before 5 July and many birds were still incubating (though progressively deserting) clutches in early July. Guillemot productivity was moderate and chick weights were apparently somewhat low. Puffin activity in colonies was less than in 1995. Both puffins and razorbills carried small or very small sandeels to chicks. Herring gull numbers breeding have increased to at least 50 pairs. Numbers of nonbreeding gulls, predominantly great black-backed gulls,

were higher than for many years, with up to 1000 being present in loafing areas (mainly South Ness, Mill Loch, and Strem Ness).

Fieldwork

In 1997 we continued the observations of seabird numbers, breeding success, diets and ecology as done over the past 26 years. Paulo Catry has finished his PhD study on great skuas, but returned in May to record survival of colour marked individuals. Survival and numbers of arctic skuas were monitored by Sheila Gear, with help from Tony Mainwood. Territories were mapped between April and June, and observations were made of birds attending club sites. No Applied Ornithology Unit postgraduate students carried out research in Foula in 1997, though Stuart Bearhop continued studies of great skua diet specialisation, stable isotopes, mercury burdens and body condition in St Kilda.

R.W. Furness

Ringling and recovery totals (R.W. Furness rings) for 1997

Species	Adults ringed	Chicks ringed	Retraps/recoveries of adults
Fulmar	9	0	5
Shag	14	256	3
Arctic skua	2	88	5
Great skua	0	650	1
Kittiwake	15	15	15
Guillemot	60	40	4
Razorbill	33	1	0
Puffin	23	0	0

PACIFIC SEABIRD GROUP

The 25th annual meeting will be on 21-24 Jan 1998 at Monterey Conference Center, Monterey, California. Contact Mike Parker Tel: +1-510-792-0222 or Mike_Parker@mail.fws.gov regarding registration information, and Alan Burger Tel: +1-250-479-2446 or aburger@uvvm.uvic.ca regarding the scientific program and submission of abstracts. The meeting will include a symposium "seabirds in a changing ocean: advances in seabird science", a reception at the Monterey Aquarium, and other events to celebrate the PSG's 25th anniversary. Plenary speakers include Storrs Olson and Mike Harris. Field trips will be a pelagic trip on Monterey Bay and a guided tour at Ano Nuevo State Park to see breeding elephant seals.

ALASKA SEABIRD WRECK

A large-scale wreck was becoming evident when your editor was in Alaska in July/August. Birds were washing ashore along the Alaska Peninsula (and further west in the Aleutian chain) and to the north on St. Lawrence Island. Guillemots and puffins were found between Gambell and Savoonga on St. Lawrence Island. Dead kittiwakes, bald eagles and other species were reported from Chignik to False Pass.

Vivian Mendenhall was working hard co-ordinating the collection of specimens from both areas for autopsy. Wrecks in these areas in the past have been due to lack of food or have occurred when ocean conditions are unusual. The Bering Sea and the Gulf of Alaska have been several degrees above normal temperatures this year.

A PROVISIONAL BIBLIOGRAPHY OF PROCELLARIIFORMES

Many readers will be aware that John Warham has been preparing this bibliography for many years. This full

keyworded listing of 12,830 papers and books on Procellariiformes (or Petrels) is now available on the internet at: www.zool.canterbury.ac.nz/jwbibpl.htm

It is in ASCII format and intended to be downloaded into the users' PCs for searching by their own systems. The work covers published material from Aristotle to 1995 inclusive. In due course a revised version will incorporate some of the estimated 4000 citations evidently with data on petrels but not yet examined by John Warham. These will be listed in a wants file at the above address. The finished version will also include indexes tying each keyword to all citations bearing that keyword in the style of Zoological Record. The bibliography is available without charge.

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SEABIRD SYMPOSIUM AT THE IOC, AUGUST 1998, SOUTH AFRICA

A symposium entitled "Benefits and threats from fisheries for marine birds" has been convened by Stefan Garthe and Henri Weimerskirch for the next International Ornithological Congress. Speakers and paper titles are:

Rosemary Gales, Nigel Brothers, Tim Reid: Trends in seabird bycatch on longlines in Australian waters
Robert Furness: Are industrial fisheries a threat to seabird populations?
Robert Crawford: The response of seabird diet to variability of prey resources
Stefan Garthe: The influence of fishing activities on distribution and feeding ecology of seabirds at sea at different scales
Daniel Oro: Trawler discards: a threat or resource for opportunistic seabirds?

Stefan Garthe

FROM WORLD BIRDWATCH Vol. 19 No 2

Oil from a tanker wrecked in the Japan Sea has affected hundreds of seabirds, including the threatened Japanese murrelet. Over 6000 tonnes of oil leaked after the accident on 2 January, and spread to cover much of the northern coastline of Japan's main island. By early February, over 750 dead and live oiled birds had been reported, but as the tanker sank far offshore, many more will have been lost at sea. The main species affected included ancient murrelet and rhinoceros auklets.

In Senegal, the dormant "Save our Seabirds" project has been resuscitated with funds from BirdLife partners in France, Switzerland and the Netherlands. The project (as elsewhere in Africa) aims to educate schoolchildren in order to stop the widespread capture of terns (including roseate) and other seabirds.

A census of Saunder's gulls on wintering grounds in the Far East in early 1996 counted 4387 birds, almost a 50% increase on the previous world population estimate.

CONFERENCE PROCEEDINGS

The Proceedings of the ICES/JNCC/Seabird Group Symposium, 'Seabirds in the Marine Environment', held in Glasgow last November have now been published. A special issue of the ICES Journal of Marine Science, the 240 page volume comprises 23 papers on many aspects of seabird ecology at sea. A limited number of copies of the Proceedings are available to Seabird Group members at a special, discounted price of £12, including postage and packing. To order a copy please get in touch with Bob Furness, Applied Ornithology, Unit, Graham Kerr Building, Glasgow University, Glasgow G12 8QQ.

SEABIRD GROUP AGM

The Seabird Group AGM will be held at the Swanwick conference centre during the BTO Ringer's conference. It will start at 17.45 on Saturday 10 January 1998. The agenda will appear in the next issue of the Newsletter, and will include discussion of the proposal for the new journal. If you are interested in standing for the executive committee, please contact the Secretary, John Uttley.

EARLY WARNING: NEXT SEABIRD GROUP CONFERENCE

The next Seabird Group conference has been provisionally booked, at the invitation of Peter Becker, for March 2000 in Wilhelmshaven, Germany. The dates are not fixed yet, but 17-19 March are our first choice of days. This move to make the conference more international is in keeping with the trend in seabird studies and will certainly represent a great start for the new millennium for the Seabird Group. More information will be published as it becomes available.