## 6. Summary

This report deals with the events recorded during seawatches along the Dutch North Sea coast in the first haif of 1983. It consists of three main parts, the first of which deals specifically with rather detailed descriptions of the observed movements of Brent Goose, Velvet Scoter, Kittiwake and the larger auks (Razorbill and Guillemot). In these species accounts it is attempt ted tot get to some sort of explanation for and provide more background information to the observed phenomena than is usually done in similar reports. The second part is a chronological review in which the most imporant movements observed are presented month by month. he third part eventually provides figures in which for all important species observed the average numbers per observation hour are plotted for each seven-day period Because of the rather marked differences among the three main coastal areas in which regular observations take place (Zuid-Holland, Noord-Holland and Wadden Sea area, Camphuijsen & van Dijk 1983), for most species three different figures have been produced. Besides tables with total numbers of hours observed per 7-day period per observation post and with all species of non-passerine birds observed and their total numbers flying in each direction are presented.

This year showed an exceptionally good migration of Brent Geese. During the whole month of March and the first two weeks of April an estimated total of some 65000 birds flew north past the coast of Noord-Holland. This extrapolation, based on the mean numbers per hour and the total number of hours of daylight, would correspond to some 30% of the world population of Dark-bellied Brent Geese in the winter of 1982/1983 after an exceptionally successful breeding season in 1982 (Ebbinge 1984). Similar extrapolations for the same observation post and the same period for previous years suggest that the amount of migration is directly related tot the world population which in its turn depends strongly on the breeding success of the year before Ebbinge 1984). Along the other parts of the Dutch coast migration of Brents never shows such large numbers. It is suggested that in Zuid-Holland less birds are observed, because geese arriving from Britain would concentrate northwards along the Dutch west coast, while the individuals from northern Franca might make a short-cut over sea in their ME movement. Thus they would avoid the Belgian coast and the coast of Zuid-Holland but would hit the coast of Noord-Holland, On the North Sea coast of the Frisian isles (Wadden area) less Brent Geese are seen, because many move into the Waddenzee to feed there on the salt marsh vegetation during April and May to be able to depart in optimal fat condition to the breeding areas in the Taymir peninsula, Siberia. This particular spring, due to favorable weather conditions, the salt marshes provided more food than usual (Ebbinge 1984). This might explain why this year, unlike most other springs, hardly any birds were seen passing by in June.

After four springs of rather large numbers of Velvet Scoters migrating northwards in April and May, spring 1983 showed hardly any birds in Zuid-Holland, only a few birds in Noord-Holland and quite a lot of birds on Texel, the first of the Frisian islands. It is shown that although every spring more Velvet Scoters are seen migrating along the coast of Noord-Holland than along the Zuid-Holland coast the yearly fluctuations in numbers show the same regularity and the same pattern. As was suggested in a report of a simultaneous watch in spring 1976, during which only at Cap Gris Nez (France) and at the Hondsbossche (Noord-Holland) any important movements of Velvet Scoters were recorded,

Velvet Scoters leaving their wintering areas off the French coast to migrate northwards meem to fly NE in a straight line, just like the Brent Geese avoiding Belgium and Zuid-Holland only to become visible again from coastal observation points in Noord-Holland, thus making a short-cut over sea (Ruinaard 1977). This would explain the consistently lower numbers of birds along the coast of Zuid-Holland. Observations from Meetpost Noordwijk, a research platfrom 9 km off the coast of Zuid-Holland, in April and May 1978 and 1981 showed quite considerable numbers of Velvet Scoters migrating northwards (comparable to those observed off Noord-Holland, den Ouden & Camphuijsen 1983) on the west of the platform, thus supporting the idea proposed by Ruinaard (1977). Because of the fact that in spring the only Frisian island that shows considerable northward migration of Velvet Scoter is Texel, it is tentatively suggested that the ducks after having passed by Texel move out to sea again, continuing their NE migration. The evidence for this suggestion is however not yet very strong. Not only do we possess too few data of the other Prisian islands, but neither do we know what might become of the Velvet Scoters after they set out NE from Texel.

Kittiwakes were seen in much larger numbers in the first half of 1983 than usually in this time of the year. About 90% of all Kittiwakes observed occurred in the first six weeks of the year, especially during and immediately after tumultuous weather. These occurrences coincided with unusually high numbers inland as well. Onely one previous winter, 1980/1981, showed a more or less comparable pattern. It might be that as a result of the more southerly winter distribution of the Sprat Sprattus sprattus in recent years (Blake et al. 1984) Fittiwakes have become more numerous in the southern part of the North Sea and therefore during stormy weather more often appear on our coast. The two winters with high numbers unfortunately also showed higher numbers of oil casualties on our coast than usual (Camphuljsen 1981, 1983). Whether this means that recently more Kittiwakes are at risk for oil pollution or that this merely represents a combination of birds wintering closer to the Dutch coasts and unfavorable weather conditions so that more of the oiled birds are actually found, cannot be answered because of the lack of knowledge of the situation offshore. Quite remarkable is the relatively high proportion of first year birds among the observed Kittiwakes during seawatches (c. 30%) as well as among the beached dead ones (c. 35%, Camphuljsen 1983). Blake et al. (1984) in the same months only recorded less than 10% as first year immatures. This would suggest that during periods of rough weather immature birds might have to seek refuge in the more quiet coastal waters sooner than adults, probably because their feeding capacity and therefore their physical condition is still less than in adults.

Auks too were unusually numerous in January and February 1983. Their occurrence coincided quite well with that of the Kittiwakes, thus suggesting that the same factors might be influencing their winter distribution. Auks, especially Guillemots, depend heavily on Sprat in winter (Blake et al. 1984), so they too might have become more numerous in the southern North Sea in recent years. Quite regularly Blake et al. (1984) recorded auks and Kittiwakes foraging together in flocks, which in this respect might be significant. Comparing this winter's saewatch data with those of previous ones, indeed a pattern of increase in the occurrence of auks along the Dutch coast meems to emerge. Again the winters of 1980/1981 and 1982/1983 showed the largest numbers of auks per hour and again these two winters more oiled auks were recorded on the Dutch beaches than ever (Camphuijsen 1981, 1983). Remarkable in 1983 was the relatively high proportion of Razorbills among the observed live birds (30%) as well as among the dead ones (31%, Camphuijsen 1983), while normally only about 10-15% of the identified auks are Razorbills (den Ouden & Maas 1983, Camphuijsen 1981). Apart from the larger auks Puffins and Little Auks too were observed more often than usually, especially on 5 February when at the Hondshossche 10 Puffins and 9 Little Auks flew north. For Dutch standards these numbers are exceptional.

January, except for Kittiwakes and auks, showed rather important movements of divers and Great Crested Grebes southwards. Quite a few Gannets and skuas (the three usual species) occurred, but Fulmars were remarkably scarce. Puffins (7) and Little Auks (6) were also seen. Among the rarer birds at least 11 Glaucous and two Iceland Gulls were recorded. Other rarities included Great Northern Diver, Leach's Petrel, Sooty Shearwater, Mediterranean and Sabine's Gull.

In February as well many divers and Great Crested Gretes were seen flying south. Large-scale movements of auks and

Kittiwakes were recorded on 5th. Great and Arctic Skuas were observed during the hard weather period. On the 27th in two hours an unusual northward migration of Golden Plover (603), Lapwing (1342) en Dunlin (160) took place. Rarities were: Iceland Gull (1) and Glaucous Gull (3).

In March the majority of the Brents flew north, spread out rather evenly over the entire month. A good day of Common Scoter migration was 21nd, when about 8000 birds passed by in 5 hours. Other ducks flying north in fair numbers this month were Scaup, Wigeon and Teal. Divers were seen in rather low numbers. On 26th quite a few Gannets were observed. The first terns were recorded at the end of the month, Sandwich on 20th and 'commic' tern on 25th. Rarities included: Leach's Petrel, Whooper Swan, Arctic Skua, Bonxie, Mediterranean, Glaucous and Iceland Gull, Common Porpoise and Grey Seal.

April showed impressive migration of Common Scoters in the first week: more than 8000 in 6 hours north on 3rd and more than 12000 north in 8 hours on 7th. Quite a lot of divers (107), Brent Geese (1779), Eiders (508) and Red-breasted Mergansers (295) too were recorded on 7th. Other rather abundant migrants in the first weeks of April were Shoveler (66 N in 5 hours on 1st), Avocet (109 N in 3 hours on 5th) and Dunlin (613 N in 8 hours on 1st). Between 22nd and 25th many terms and Little Gulls flew north. for exemple 22nd, when in 8 hours at least 366 Little Gulls, 1707 'commic terns' (of which 613 Arctic and 876 Common) and 289 Sandwich Terns passed by at the Hondabosache and 25th with 809 Common Terns in no more than two hours in Scheveningen. The second half of the month quite regularly produced Arctic Skuas, mostly single birds, but occasionally more tham one in a day. Rarities were: Great Northern Diver, Shag, Grey Phalarope, Bonxie, Pomarine Skua, Mediterranean, Sabine's, Iceland and Glaucous Gull.

The most outstanding movements observed in May were those of waders on lst. Especially along the coast of Noord-Holland some 10000 birds flew by, mainly Grey Plover (8572), Bar-tailed Godwit (5782) and Redshank (6031). Rather nume-ous too were Avocet (Zuid-Holland 85 and Noord-Holland 53), Ringed Plover (respectively 243 and 133), Knot (547 and 1152), Spotted Redshank (119 and 19), Greenshank (69 and 321) and Turnstone (213 and 823). Also a lot of Black Terns passed by that day. During the first week of May on most days lots of 'commic terns', Little Gulls and more waders flew northwards. On 5th 244 Little Terns migrated north along the Hondsbossche in 7 hours. The best day for Velvet Scoter migration was on 2nd along Texel (149 N in 3 hours). Only a few divers were recorded in May, among them 4 Black-throated flying north past Texel on 7th. From the second half of May onwards the first southward movements of Black-headed Gulls already took place. Some more unusual records were: Red-necked Grebe, Manx Shearwater, Peregrine, Marsh Sandpiper, Mediterranean, Glaucous and Iceland Gull and Caspian

In June hardly any remarkable movements were recorded. The first week still produced fair numbers of Common and Arctic Terns migrating northwards, e.g. 2nd 360 N in 3 hours (of which 287 Arctic) and 4th 359 N in 3 hours (of which 221 Common). On 1st at Texel still some Little Terns flew by and 46 Brent Geese as well. The day after a group of 54 Brents flew north past the Hondsbossche. These were practically the only Brents of the entire month, which must be considered very few. At the end of June some early moult migration of Shelducks was observed: 79 N in 5 hours on 28th and 50 N in 5 hours on 29th. Remarkable records included: Red-throated Diver (1), Manx Shearwater (2), Shag (1), Red-breasted Merganser (41), Avocet (24), Arctic Skua (4) and Mediterranean Gull (1).