PAST AND PRESENT OCCURRENCE OF LITTLE AUKS *ALLE ALLE* IN GERMANY

HET VOORKOMEN VAN KLEINE ALKEN IN DUITSLAND

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ABSTRACT

An overview is given of the records of Little Auks Alle alle *in Germany, including the North Sea with the island of Helgoland and the Wadden Sea, the Baltic Sea and inland sites in the years 1900-94 (n= 980) and during the influx in 1995 (n= 1125). Numbers of Little Auks recorded in Germany have increased in the 1980s and 1990s, but this is partly effort-related. At 12 sites, 91% of all 2105 birds were seen. The phenology (described in five-day periods) in 1900-94 shows a peak in late autumn (October/November), with smaller numbers from January to March. In 1995, a major influx occurred between 28 October and 1 November, smaller numbers and inland records were reported until the end of November.*

Until recently, the Little Auk *Alle alle* was known as a rare visitor in Germany. In the first eight decades of this century it was observed only a few times. Then numbers increased and nowadays the species is seen annually on Helgoland and also regularly along the Wadden Sea islands. Busche & Berndt (1982-86), Glutz von Blotzheim & Bauer (1982) and Zang (1991) summarized the observations for coastal areas of Schleswig-Holstein and Niedersachsen, Temme (1992) and Dierschke *et al.* (1995) for Norderney and Helgoland. In this paper, we give an overview of Little Auk sightings in Germany, with special emphasis on the influx in 1995.

MATERIAL AND METHODS

We collected nearly all published and many unpublished data on observations of Little Auks, dead or alive, in Germany. A lot of sightings from many birders were collected by the 'Ornithologische Arbeitsgemeinschaft Helgoland' and the 'Inselstation der Vogelwarte Helgoland'; these data were then

made available to us. Following reports from Helgoland, other observations were forwarded by observers from many parts of the country in 1995. The data used in our analysis comprise the vast majority but clearly not all observations of Little Auks in Germany. Some sightings have not been published, others were merely collected during beached bird surveys as unidentified auks or without date of observation (*e.g.* Vauk *et al.* 1987, Averbeck *et al.* 1993). Most observations were made in non-systematic sampling schemes.

RESULTS

Total numbers of Little Auks seen per year are presented in figure 1. The data are separated in sightings from Helgoland and from the rest of Germany (coastal and inland areas, Baltic Sea), and in recent (1980 to present) and earlier years. From 1900 to 1995 a grand total of at least 2105 birds were observed. 'Good' and 'bad' years appear to occur in clusters: 1982 and 1983 show consecutive peaks (mainland only), as do the years 1989-92 and 1994 and 1995. Since 1990 numbers steadily declined on Helgoland, to reach a minimum in 1993. This trend suddenly reversed in 1994 and numbers seen both on Helgoland and the mainland in 1995 were unprecedented.

As many as 63% of all birds recorded as seen on Helgoland, the remaining 37% mainly on the Wadden Sea islands. The influx in autumn 1995 is responsible for 53% of all Little Auks recorded in Germany since 1900. Numbers seen on Helgoland have increased since 1985, but the distribution of peak-years on other locations suggests that this phenomenon is at least partly effort-related. In the years from 1900 to 1994, a total of at least 508 birds was recorded on Helgoland. Effort and number of sightings peaked in 1995, when 821 Little Auks were counted on this island (summary of data until the end of April 1996 is included; Stühmer *in litt.*).

In other parts of Germany, at least 473 Little Auks were recorded in 1900-94, mainly along the North Sea coast. Over 34% of these were found dead, especially in 1980-84 (81%, n= 118) and many oiled. To the best of our knowledge, 304 Little Auks were seen along the mainland coast in 1995, of which 22 were found dead. Between 1900 and 1994, only 24 Little Auks were recorded along the Baltic Sea coast (5.1%, n= 472), and two were seen there in 1995. At inland sites 30 Little Auks were found, often dead or dying after a few days. Table 1 shows all sites with more than 10 sightings of Little Auks in Germany. Over 80% of the Little Auks seen in Germany in 1900-94 and 97% of the birds recorded in 1995 were found in these 12 locations.

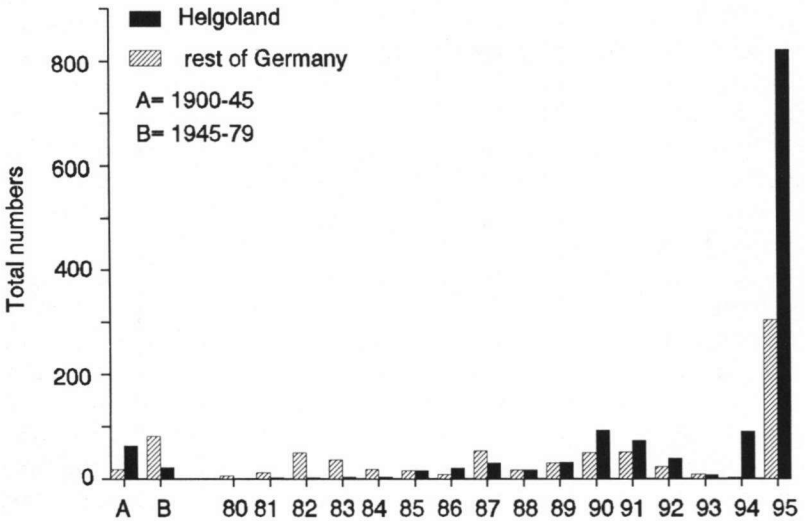

Figure 1. Numbers of Little Auks per year on Helgoland and the rest of Germany from 1900 to 1995 (A= totals 1900-45, B= totals 1946-79).
Figuur 1. Aantal Kleine Alken per jaar op Helgoland en in de rest van Duitsland sinds 1900 (A= totaal 1900-45, B= totaal 1946-79).

Table 1. Number of Little Auks per site in Germany. Only sites with at least 10 birds in total are listed.
Tabel 1. Aantal Kleine Alken in Duitsland in gebieden waar tenminste 10 exemplaren werden geregistreerd.

Location	1900-94	1995	Total
Helgoland	508	821	1329
Sylt	133	17	311
Norderney	93	3	96
Dornumersiel	1	40	41
Baltrum	30	-	30
Westerheversand	14	6	20
Neßmersiel	-	18	18
Norddeich	4	11	15
Borkum	7	7	14
Wangerooge	9	2	11
Langeoog	6	4	10
Cuxhaven	3	7	10
total	808	1097	1905

PHENOLOGY 1900-94 In the years 1900-94 most Little Auks were seen in autumn. The phenology is summarized for Helgoland (figure 2) and for the rest of Germany (figure 3). In these years, 62% of all Little Auks recorded at Helgoland were seen between 18 October and 11 November (figure 2). Numbers of sightings quickly reach a peak in autumn and drop equally fast, while only very small numbers have been registered from late winter through spring. The peak in March results from the reported recovery of the remains of 14 Little Auks in pellets of *Larus*-gulls on 27 and 28 March 1991 (Hummel & Hummel 1994). Exceptionally large numbers on Helgoland were 23 birds on 30 and 31 October 1989, 66 individuals on 2 and 3 November 1990 and 65 Little Auks from 19 to 21 October 1994 (OAG and Vogelwarte Helgoland). Only 39 birds (8%) were found dead on Helgoland.

In the rest of Germany in 1900-94, including inland areas and the Baltic Sea, only some 30% of the birds were seen between 28 October and 11 November. Relatively more birds were found in winter and spring, but many birds were found dead. For example, in November and December 1987, 29 birds were captured on the island of Sylt on the beach, a lot of which died afterwards; another eight were seen alive at sea (Sturm *et al. in litt.*). Other remarkable single observations were 22 birds resting off Baltrum on 14 February 1965 (Hammerschmidt 1965) and records of 23 on 31 October 1989, 15 from 2-6 November 1990 and 24 birds on 9 November 1991 (all off Norderney; Temme 1992).

THE 1995 INFLUX In 1995, much larger than usual numbers of Little Auks were recorded, but the phenology was normal. Around Helgoland, a total of 821 Little Auks were seen (figure 4). The majority (80%) was recorded between 28 October and 1 November (*i.e.* 126 on 28 October and 418 on 1 November, including 356 →W and 62 swimming birds). Following this peak, 'only' 58 birds were recorded between 2 and 6 November and prior to the mass movement only 21 Little Auks had been observed. Numbers increased again in the rest of November: 58 flying past and 27 swimming near Helgoland, while another 6 birds were found dead. By December the influx had ceased and only 3 birds were seen swimming at sea in this month. We have only limited information about the condition of the birds seen. More than three quarters of the birds were just seen flying past, mostly westwards. Resting birds did not behave as if exhausted and only a single bird was found dead. Gulls took several Little Auks, as the remains of 7 birds were found in gull pellets between 4 and 21 November. None of the dead birds were oiled.

On the Wadden Sea and mainland coasts (figure 5) a similar picture

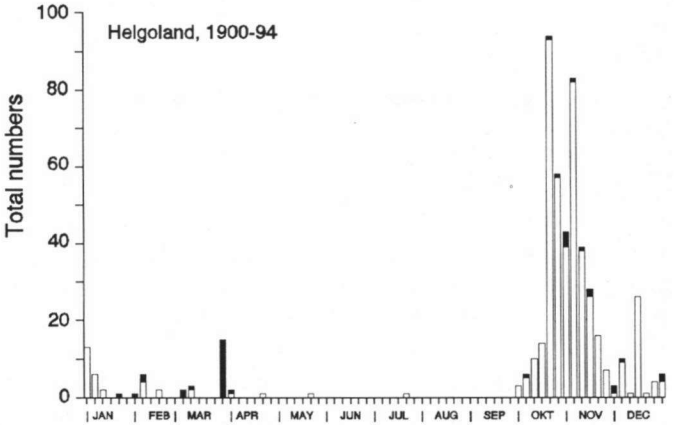

Figure 2. Numbers of Little Auks on Helgoland 1900-94 (five-day totals, n= 508; black= birds found dead).
Figuur 2. Verdeling over het jaar van de op Helgoland waargenomen Kleine Alken tussen 1900 en 1994 (vijfdaagse perioden, n= 508, doodvondsten in zwart).

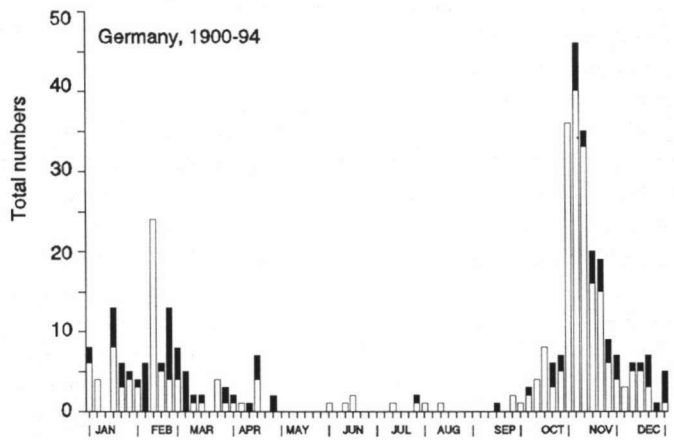

Figure 3. Numbers of Little Auks on the mainland of Germany (i.e. Helgoland excluded) from 1900 to 1994 (five-day totals, n= 366; black= birds found dead).
Figuur 3. Verdeling over het jaar van de in Duitsland waargenomen Kleine Alken tussen 1900 en 1994 (vijfdaagse perioden, n= 366, doodvondsten in zwart).

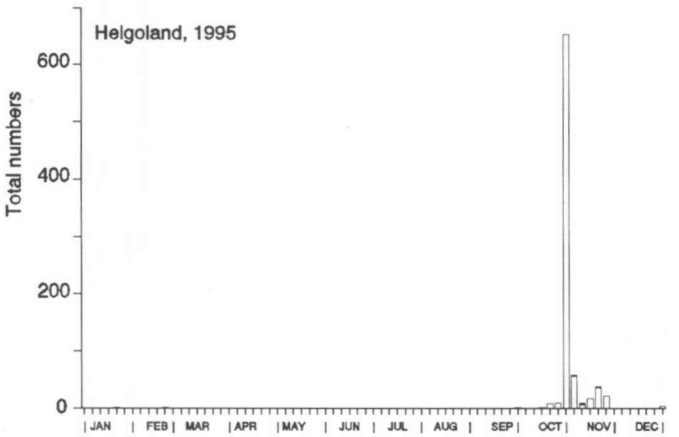

Figure 4. Numbers of Little Auks on Helgoland in 1995 (five-day totals, n= 821; black= birds found dead).
Figuur 4. Verdeling over het jaar van de op Helgoland waargenomen Kleine Alken in 1995 (vijfdaagse perioden, n= 821, doodvondsten in zwart).

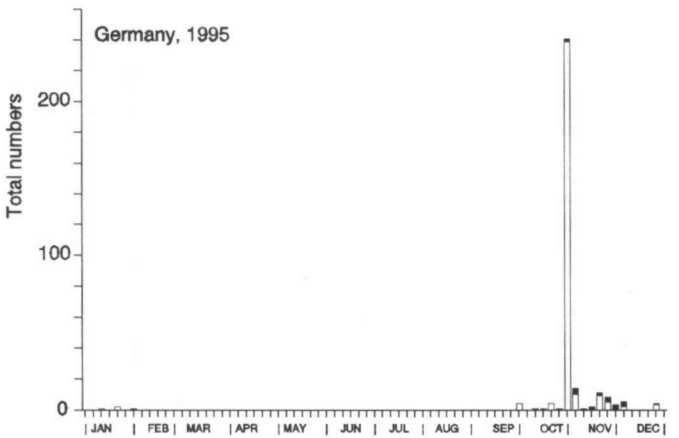

Figure 5. Numbers of Little Auks on the mainland of Germany (i.e. Helgoland excluded) in 1995 (five-day totals, n= 304; black= birds found dead).
Figuur 5. Verdeling over het jaar van de in Duitsland waargenomen Kleine Alken in 1995 (vijfdaagse perioden, n= 304, doodvondsten in zwart).

emerged, with exceptionally large total numbers. Peak numbers occurred in the same two periods as on Helgoland. The first four birds were seen on 28 September in Cuxhaven and Balje (Niedersachsen), in the same week as in which the first sightings were made at Helgoland. Three birds were found dead on Westerheversand (Schleswig- Holstein) on 19 and 20 October, another one was captured in Oldenburg on 21 October. Large numbers were seen from Sylt and the mainland coast of Niedersachsen on 28 October. Seawatchers on Sylt noted 160 birds →S and one resting on that day. Peak numbers (120) passed between 11.00 and 13.00 h. Six of the 34 flocks seen consisted of 11-20 birds (Daniels, *in litt*). Between Norddeich and Bensersiel (Niedersachsen), during a high tide count offshore, at least 65 Little Auks flew over the Wadden Sea →W in 18 flocks of up to 12 birds in three hours. Between 28 October and 6 December another 49 birds were seen. One bird stayed for nearly two weeks after 29 November at the 'Alte Weser' near Bremerhaven. Some 22 birds were found dead, none of which were oiled. Nine were reported from inland sites; seven in Niedersachsen (Oldenburg, 21 October; near Holtgast, 29 October; Brunsiek, 2 November; Göttingen, 5 November; Haselünne, 18 November: captured by a falconer's Goshawk *Accipiter gentilis*; Kirchgellersen and Uthlede, 19 November), two in Konz-Könen (Rheinland- Pfalz, 4 November) and in Dortmund (Nordrhein-Westfalen, 4 December).

Discussion

The influx of Little Auks in autumn 1995 was a remarkable phenomenon for Germany. At least 1125 birds were seen, 73% of them on Helgoland. As far as we know, 980 birds have been sighted in Germany in 1990-94 (of which 52% on Helgoland). Considering these figures, numbers seen in 1995 doubled the total number of Little Auk records in Germany.

In the last century and the first decades of this century up to 10-20 Little Auks have been observed per year, especially on Helgoland (Stühmer *in litt.*). Lower numbers were seen at the mainland coast of Niedersachsen (Zang 1991). In the years 1950-80 the majority of Little Auks was seen from the mainland coast (85 birds; 17 of which were found dead) and smaller numbers on Helgoland (21). More than five Little Auks per year were recorded on the mainland only in 1955 (six birds) and in 1965 (26), on Helgoland only in 1974 (six birds). The species was not seen during seven years on the mainland and during 23 years on Helgoland. Since 1980, the numbers of sightings increased (figure 1). The most likely reasons for this are the

beginning of beached bird surveys and the large increase of seawatching and general presence of observers on Helgoland in combination with the availability of better binoculars and telescopes. Numbers of sightings are thus clearly related to effort and many Little Auks will have been overlooked in earlier years. However, the influx in 1995 was not just effort-related, since effort was broadly similar in the preceding years, and numbers of Little Auks observed were much smaller, especially on Helgoland.

Short-lasting influxes, which seem typical for Little Auks, can easily be missed, at least locally. More or less by chance a high tide count was held on 28 October 1995 in the area Norddeich-Bensersiel and on this occasion 65 Little Auks were seen. As it turned out later when results from Sylt and Helgoland became known, this day was a peak day. Birders on the other islands and the mainland coast were informed that same evening, but only few observations of Little Auks were made during the following days. On Helgoland, two observers saw 89% of the total of 356 individuals that were seen passing the island on the 1st of November during nearly four hours of seawatching. Without dedicated seawatchers, the total number of records of Little Auks would have been much lower. Some birds may have been seen twice: at a speed of 50 km/h (Glutz von Blotzheim & Bauer 1982) the birds seen off Sylt in the morning, could have arrived off Norddeich and Bensersiel early afternoon, in time to be counted again during the high-water count.

We do not know what caused the influx of 1995. Skov *et al.* (1995) showed that wintering Little Auks mainly occur in the Skagerrak, southwest of Norway and in the Dogger Bank region in the North Sea, while numbers in the German Bight are generally very low. Temme (1992) suggested that northwesterly gales had caused Little Auks to drift towards Germany. Similarly, the last big influx in The Netherlands (>4000 individuals) was recorded in late autumn and winter 1990/91 during stormy weather (Van der Ham *et al.* 1991). In 1995, such weather did not occur in the German Bight. On 28 October, when peak numbers were seen, the weather was nice with a wind of SW 2-4 Beaufort in Niedersachsen and W-NW 4-6 B on Sylt. Van der Ham *et al.* (1991) suggested, that an increasing wintering population in the Skagerrak could be the basis for the 1990/91 influx. This suggestion is now supported with data compiled by Andersen *et al.* (1996) and Camphuysen & Leopold (1996).

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ZUSAMMENFASSUNG

Nach dem Auftreten großer Mengen Krabbentauchern Alle alle *in der südlichen Nordsee fassen wir die Beobachtungen von 980 Vögeln in Deutschland (Nordsee einschließlich Helgoland, Ostsee, und Binnenland) für die Jahre 1900-94 zusammen und beschreiben den Einflug von 1125 Individuen im Jahr 1995. In den achtziger und neunziger Jahren haben die Beobachtungen von Krabbentauchern in Deutschland stark zugenommen (Fig. 1). Allein in 12 Gebieten wurden 91% aller 2105 Krabbentaucher nachgewiesen (Table 1). Die Phänologie (Pentadensummen) zeigt eine klare Massierung im Spätherbst, insbesondere November und Dezember, sowohl für Helgoland als auch in anderen Teilen Deutschlands (Fig. 2, 3). Gelegentlich wurden Krabbentaucher vermehrt auch von Januar bis März beobachtet, insbesondere am Festland. 1995 wurde das Gros des Einfluges in der 61. Pentade beobachtet (28.10.-1.11.), weitere Vögel wurden vor allem im November gesehen (Fig. 4, 5). Die Ursache der Zunahme von Beobachtungen in Deutschland wird vor allem in der Zunahme überwinternder Krabbentaucher in der Nordsee südwestlich von Norwegen und im Skagerrak vermutet.*

SAMENVATTING

In het najaar van 1995 werden in Duitsland in totaal 1125 Kleine Alken gesignaleerd. In dit artikel wordt een overzicht gegeven van het voorkomen van de Kleine Alk in Duitsland sinds 1900. In de jaren tachtig en negentig is het aantal Kleine Alken in Duitse wateren aanmerkelijk toegenomen (figuur 1). De meeste vogels (91%) werden in 12 verschillende gebieden gezien (tabel 1). Doorgaans arriveren de Kleine Alken aan het einde van de herfst (oktober-november), en de meeste vogels zijn in december al weer verdwenen. In januari en februari worden naar verhouding vrij weinig Kleine Alken gezien en na april is de soort uitsproken zeldzaam (figuur 2, 3). De grote aantallen tijdens de invasie van 1995 werden in enkele dagen tijds opgemerkt (28 oktober-1 november; figuur 4, 5). Alleen in november waren Kleine Alken nog iets talrijker dan gebruikelijk, maar in december en januari was weinig of niets meer van deze invasie merkbaar. De verklaring voor de recente toename in Duitse wateren wordt gezocht in een toename van het aantal overwinteraars in de (noordelijke) Noordzee.

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