

THE OCCURRENCE OF LITTLE AUKS *ALLE ALLE*
OFF THE EAST COAST OF BRITAIN
HET VOORKOMEN VAN KLEINE ALKEN
VOOR DE BRITSE OOSTKUST

CLAIRE POLLOCK, JAMES B. REID & RICHARD WHITE

*Joint Nature Conservation Committee, Seabirds and Cetaceans Team
Dunnet House, 7 Thistle Place, Aberdeen, AB10 1UZ, Scotland*

ABSTRACT

A review is provided of Little Auk movements off the British east coast since winter 1988/89. Most birds which are observed off East England and East Scotland originated probably from wintering concentrations in the Dogger Bank region. The largest 'flight' of Little Auks occurred in November 1995 when 56 360 birds were recorded. Unlike previous flights, many of which appear to have been weather-related involving north-easterly or northwesterly gales, the movement in November occurred during relatively calm conditions. Other large-scale movements were recorded in December 1990 (some 13 683 individuals) and January 1995 (22 509 birds). The largest wreck in recent years was witnessed in February 1983, when 1207 Little Auks were found dead.

Widely distributed in the northern North Sea in winter, the Little Auk *Alle alle* is nevertheless a relatively scarce visitor to the eastern seaboard of Britain. After the post-breeding moult, the species becomes comparatively common in the western and north-eastern North Sea, including the Skagerrak (Cramp 1985, Harbard 1986, Stone *et al.* 1995, Skov *et al.* 1995, Camphuysen & Leopold 1996). Approximately 100 000 birds winter over the Dogger Bank and the Barmade Bank-Silver Pit region (Skov *et al.* 1995; figure 1), and it is likely that sightings from the east coast of Britain are mainly of these birds. The number of Little Auks recorded off the east of Britain varies annually, depending on observer effort and also the weather. In extreme weather conditions at sea, large movements ('flights') involving thousands of birds and also wrecks involving many hundreds may occur. For example, in February-March 1983 over 1200 Little Auks were recovered dead from east coast beaches (Underwood & Stowe 1984). Little Auks can be (and frequently are) blown inland during such strong onshore winds. The most recent large-scale movement of Little Auks off eastern Britain occurred in the winter of 1995/96. This paper summarises what is known of movements in that winter and places it in the context of other winters since 1988/89.

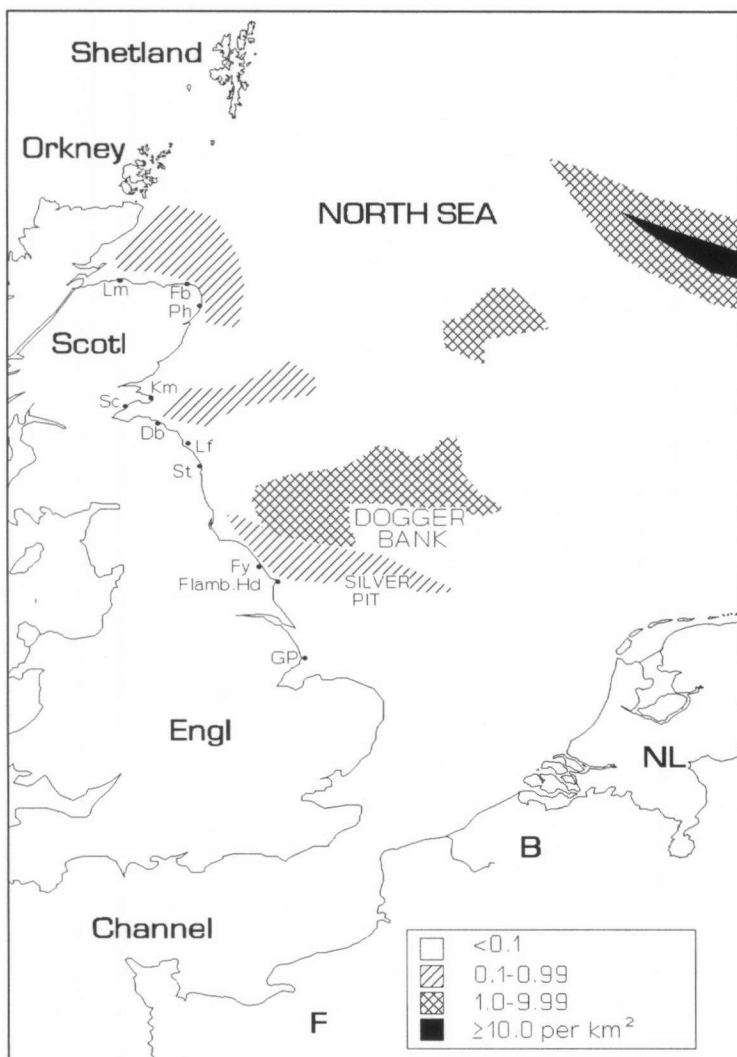


Figure 1. Distribution and density of Little Auks in the western half of the North Sea, Dec-Feb (redrawn from Skov et al. 1995) and place names mentioned in the text.
Figuur 1. Verspreiding van Kleine Alken, dec-feb in de westelijke Noordzee (naar Skov et al. 1995) en plaatsnamen die in de tekst worden genoemd.

Db= Dunbar, Fb= Fraserburgh, Fy= Filey, GP= Gibraltar Point, Km= Kilminning, Lf= Lindisfarne, Lm= Lossiemouth, Ph= Peterhead, Sc= Seacliff, St= Seaton.

METHODS

The data used in the following account have been derived principally from monthly reports (Anon. 1989, 1990, 1991, 1992, 1993, 1994, 1995, 1996). These reports are of daily numbers of birds flying at sea, as observed from land. Mostly, the observations were not collected in a systematic way, but nevertheless they give a rough indication of the magnitude of Little Auk movements along the coast. For each winter month we calculated the total number of Little Auks observed off the east coast of Britain. Where there were several reports of Little Auks on the same day from areas within 200 miles of one another, we used only the peak count in order to avoid double counting.

LITTLE AUK MOVEMENTS IN WINTERS 1988/89-1995/96

The number of Little Auks counted from land varies widely among years (figure 2). In the eight winters up to and including 1995/96 monthly totals were generally under 2000, with exceptions in three months: December 1990 (13 683 birds), January 1995 (22 509 birds) and November 1995 (56 360 birds). Within winters, numbers tend to be highest in October and November although there are exceptions, such as in December 1990 and January 1995.

Highest numbers of Little Auks are usually recorded off the northeast coast of England, particularly off Flamborough Head. Over 40 000 Little Auks passed here during the November 1995 movement. In January 1995, the movement was concentrated along a 100 mile stretch of coast between Flamborough Head and Seaton (Northumberland). Peak counts were recorded at Flamborough Head with 11 000 and 9500 birds on 11 and 12 January respectively. This stretch of coast is close to recorded concentrations of wintering Little Auks at sea (figure 1). Between December and January, there is an estimated 1100 birds at sea directly off Flamborough Head (Barmade Bank-Silver Pit) and a further 90 000 individuals on the north-western Dogger Bank (Skov *et al.* 1995).

Mass-movements are often during bad weather, occurring in conjunction with northwest or northeasterly gales and are usually concentrated in a few days. For example, in 1990 northwesterly gales brought birds to all east coast counties in Britain on 3-5 November with peaks on 4 November when totals included 1503 flying north passed Flamborough Head. Also, on 8-9 December there was a northeasterly storm after which unprecedented numbers of Little Auks were recorded and further northwesterly gales forced even more

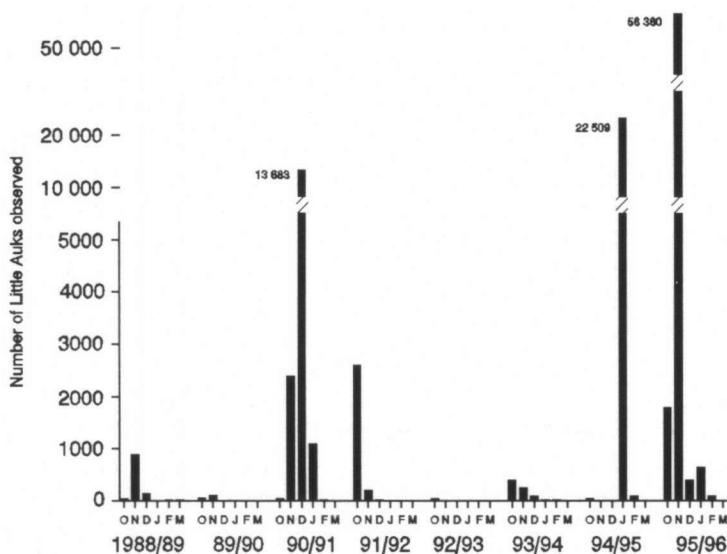


Figure 2. Numbers of Little Auks recorded off the east coast of Britain, October-March, 1988/89-1995/96.

Figuur 2. Aantallen Kleine Alken die vanaf de Britse oostkust werden waargenomen in het winterhalfjaar (oktober-maart), 1988/89-1995/96.

inshore. In 1994, less than 100 birds were recorded between October and December, but on 11-12 January, during northwesterly gales, there was a very large movement involving over 20 000 Little Auks.

LITTLE AUK MOVEMENTS IN 1995/96

In October 1995, there was passage of approximately 2000 Little Auks off the eastern coast of Britain. Most of the birds were observed following the coastline and many even flew inland, although weather conditions at the time were calm. In November, there was a very large movement of Little Auks involving approximately 56 000 birds. This is over 2.5 times the previous winter's total for the east coast of Britain, which had been the highest annual number of Little Auks recorded so far, or half the total number of Little Auks estimated to winter in the Dogger Bank region (Skov *et al.* 1995). The weather in November was also mild and unsettled with almost constant southeast to southwesterly winds.

There were two main movements: one on 1-4 November, the second on

12-13 November. The first movement was more southern in its distribution, with birds reaching Kent and Essex while there were few reports from the Scottish coast. However, numbers increased with over 4000 Little Auks flying north past Dunbar (East Lothian) between 6-7 November. During the second movement, 2473 flew past Kilminning (Fife) and on 19 November, 3200 flew north past Seacliff (East Lothian). On 12 November, Little Auks were recorded flying north and west past Lindisfarne (Northumberland) at a rate of 1000 per hour all day. Many flew inland and were wrecked in landlocked counties. Numbers were greatest around Flamborough Head (Humberside) where a total of over 40 000 Little Auks was recorded during November.

During the second half of the month, there were 1000 more records, many of which were remainders from the main wreck or had remained at coastal sites. For example, up to nine birds were wrecked at Snettisham nature reserve (Norfolk) and up to 5 at Benacre (Suffolk). The movement did not continue into December with only 400 sightings off the east coast of Britain in that month. The peak count of 178 at Filey (North Yorkshire) on 9 December was the only record of over 100 birds. In January, most sightings came from Scotland with a total of 570 birds. Peak counts were in Grampian with 123 at Peterhead on 2 January, 100 at Fraserburgh on 6 January and 102 at Lossiemouth on the following day. By February, numbers off the North Sea coast of Britain had dropped to just 50 birds, while in March no Little Auks were recorded.

LITTLE AUK WRECKS

The data presented above refer solely to movements of Little Auks, rather than to the occurrence of wrecked birds. This raises the question as to whether high mortalities were associated with these movements. The National Beached Bird Survey is carried out by the Royal Society for the Protection of Birds every year in February and involves walking stretches of beach throughout Britain while recording dead and oiled birds found. Over the last five years, 58 Little Auks have been found dead along the east coast of Britain during the survey (E. Brindley *pers. comm.*). Of these, 35 were recorded in February 1996 alone. The majority of birds were concentrated on the northeast coast of Britain (21) and Orkney (12). These figures do not directly relate to general mortality as survey effort varies from year to year, and the numbers of birds washed up on the beaches depend on wind direction and sea conditions. They do however suggest that there may have been

higher mortality in the winter of 1995/96 coinciding with Little Auk movements.

Of 44 Little Auks wrecked inland on the east coast over the last 7 years, 24 were reported in November and December 1995 (Anon. 1990, 1991, 1992, 1993, 1994, 1995, 1996). Of 22 wrecked birds brought into the Scottish Society for the Prevention of Cruelty to Animals' Middlebank Farm (Fife) in November and December 1995, only one survived (D. Dickson *pers. comm.*). Ten inland wrecked birds were brought to Gibraltar point (Lincolnshire) but only 3 survived and were successfully released. Post-mortem examination of the other seven corpses revealed that the birds starved to death (H. Bunn *pers. comm.*). The total extent of Little Auk mortality during 1995/96 is not known as all the information has not been published. However, although the preliminary figures of wrecked birds indicate that mortality may have been higher than usual in 1995/96, this mortality was very small



Little Auk *Kleine Alk*

(photo J. Stok)

compared to the last major auk wreck in February 1983, when 1207 Little Auks were washed up on British beaches (Underwood & Stowe 1984). There were strong northeasterly gales at the time of that wreck and large movements of Little Auks were reported between East Lothian and Norfolk (Underwood & Stowe 1984). The cause of mortality then was also deemed to be starvation (Durdin 1983).

DISCUSSION

The mass movements of Little Auks in October/November 1995 coincided with flights along the coast in most other North Sea countries (see elsewhere in this issue). As in most other countries, considerably larger numbers of Little Auks have been recorded from coastal sites in recent years as compared to the 1970s and 1980s (*cf* Camphuysen & Leopold 1996). Because observer effort has increased during the last decades, it is unclear how these recent figures compare with flights recorded earlier this century (Witherby 1912, Sergeant 1952, Camphuysen & Leopold 1996). The recent ship-based observations at sea have demonstrated wintering concentrations of Little Auks in the North Sea of a size that put the recent flights in perspective (Stone *et al.* 1995, Skov *et al.* 1995). During the flights in October/November 1995, when over 50 000 Little Auks were recorded from British coastal sites, a significant part of the wintering population in the North Sea must have been 'stirred up' and moved. Sightings elsewhere in the North Sea suggest a clockwise movement in which probably also birds from the Skagerrak wintering concentrations were involved.

ACKNOWLEDGEMENTS

We thank Ron Appleby, Emma Brindley, Howard Bunn, Douglas Dickson and Andy Webb for providing us with information. Colin Barton, Graham Begg, Kees Camphuysen, Mardik Leopold and Kate Thompson commented on an earlier draft.

SAMENVATTING

In dit artikel wordt een overzicht gegeven van de verplaatsingen van Kleine Alken voor de Britse oostkust sinds het einde van de jaren tachtig. Aangenomen wordt dat de meeste vogels die langs de Engelse en Schotse oostkust worden gezien afkomstig waren van de concentraties overwinteraars in het gebied rond de Doggersbank. De meest omvangrijke verplaatsing van Kleine Alken werd geregistreerd in november 1995, toen liefst 56 360 exemplaren werden waargenomen. In tegenstelling tot de meeste 'invasies', die meestal bij zware storm zijn opgetreden, was het weer tamelijk kalm. Grootschalige verplaatsingen werden verder waargenomen in december 1990 (13 683) en januari 1995 (22 509). In 1995/96 kwamen niet bijzonder veel Kleine Alken op de Britse kust om het leven, zeker niet in vergelijking met de wreck in februari 1983, toen 1207 Kleine Alken op de Britse oostkust werden doodgevonden. De invasie van 1995/96 viel samen

met het verschijnen van talrijke Kleine Alken langs de kust in de oostelijke helft van de Noord-zee. Deze gegevens suggereren dat bij de meest recente invasies ook vogels uit het Skagerrak betrokken kunnen zijn geweest. Net als in de meeste andere landen rondom de Noordzee worden langs de Britse oostkust de laatste jaren aanmerkelijk grotere aantallen Kleine Alken gerapporteerd dan enkele tientallen jaren geleden.

REFERENCES

- Anonymous 1989. Bird News October, November, December 1989. *Birding World* 2 (10-12).
 Anonymous 1990. Bird News February, March, October, November, December 1990. *Birding World* 3 (1-3), (10-12).
 Anonymous 1991. Bird News January, February, March, October, November, December 1991. *Birding World* 4 (1-3), (10-12).
 Anonymous 1992. Bird News January, February, March, October, November, December 1992. *Birding World* 5 (1-3), (10-12).
 Anonymous 1993. Bird News January, February, March, October, November, December 1993. *Birding World* 6 (1-3), (10-12).
 Anonymous 1994. Bird News January, February, March, October, November, December 1994. *Birding World* 7 (1-3), (10-12).
 Anonymous 1995. Bird News January, February, March, October, November, December 1995. *Birding World* 8 (1-3), (10-12).
 Anonymous 1996. Bird News January, February, March 1996. *Birding World* 9 (1-3).
 Camphuysen C.J. & Leopold M.F. 1996. Invasies van de Kleine Alk *Alle alle* voorkomen en achtergronden. *Sula* 10: 169-182.
 Cramp S. (ed.) 1985. The Birds of the Western Palearctic, 4. Oxford Univ. Press, Oxford.
 Durdin C. 1983. The Great Auk Wreck. *Norfolk Bird and Mammal Report* 26 (6) 360-364.
 Harbard C., 1986. In: Lack P.C. (ed.) The Atlas of Wintering Birds in Britain and Ireland: 256-257. T. & A.D. Poyser, Calton.
 Sergeant D.E. 1952. Little Auks in Britain, 1948-1951. *Brit. Birds* 45: 122-131.
 Skov H., Durinck J., Leopold M.F., & Tasker M.L. 1995. Important Bird Areas for seabirds in the North Sea. BirdLife International, Cambridge.
 Stone, C.J., Webb, A., Barton, C., Ratcliffe, N., Reed, T.C., Tasker, M.L., Camphuysen, C.J., & Pienkowski, M.W. 1995. An atlas of seabird distribution in north-west European waters. Peterborough, Joint Nature Conservation Committee.
 Underwood L.A. & Stowe T.J. 1984. Massive wreck of seabirds in eastern Britain. *Bird Study* 31: 79-88.
 Witherby H.F. 1912. The 1912 wreck of the Little Auk. *Brit. Birds* 5: 282-286, 309-311, 337-338. □