

## THE LITTLE AUK *ALLE ALLE* IN BELGIUM *DE KLEINE ALK IN BELGIË*

HENK OFFRINGA & PATRICK MEIRE

*Institute of Nature Conservation, Kliniekstraat 25, 1070, Brussel*

### ABSTRACT

*Over the past 150 years, Little Auks were generally known as scarce and irregular winter visitors in Belgium. Since the winter of 1977/78, Little Auks have been recorded more frequently along the Belgian coast and an increase was found in numbers of stranded birds over 1962-96. Minor influxes were recorded in 1981, '86, '88, '89, '90, '91, and '92. Most wrecks and invasions have been linked with adverse weather, but in fact the reason for the increase in numbers in the Southern Bight is still unknown. A major influx of Little Auks occurred on 2-3 November 1995 following a NW storm and a second influx occurred between 13 and 19 November, again during strong westerlies. Both peaks in observations were followed by a wreck. In total 516 birds were recorded, most of which were seen from seawatching sites (379), while 125 birds were found dead. All examined bodies were severely emaciated, and none were oiled. Until the end of February 1996, old bodies could still be found amidst the dune vegetation. The 1995 influx was unprecedented in Belgium.*

Little Auks *Alle alle* winter in the central and northern North Sea and visit the southern North Sea only in small numbers (Stone *et al.* 1995). The species is rare in Belgium (Commissie voor de Belgische Avifauna 1967, Lippens & Wille 1972, Raes & Van Gompel 1989). Over the past 20 years, in fact since winter 1977/78, Little Auks have been recorded more frequently along the Belgian coast (Lust & Vanloo 1991, Van Gompel 1990). An unprecedented influx was witnessed in the autumn of 1995. In this paper, we give an overview of all Little Auk observations in the autumn of 1995, and compare the present invasion with previous ones.

### METHODS

**THE 1995 INFLUX** In order to get an accurate picture of the 1995 invasion and to put these observations into a historical context, data were collected from a wide variety of sources.

- |                         |   |
|-------------------------|---|
| (1) Seawatching results | Most observations of live birds come from the main seawatching sites along the coast; Zeebrugge and Oostende. |
| (2) Accidental records  | Some observations of flying birds over sea were recorded by   |

- people walking over the beach. These records were collected by the ornithological society of the Flemish coast and published in *Mergus*. Other records of weakened birds found inland, are published in the journals of other ornithological societies; e.g. *Oriolus* and *Aves*.
- (3) A questionnaire      A questionnaire was sent out to several local nature clubs in Flanders, in an attempt to recover unpublished data.
  - (4) Rehabilit. centres      Questionnaires for details on incoming Little Auks were sent to the four bird rehabilitation centres along the coast (Zwin, Blankenberge, Oostende and Nieuwpoort).
  - (5) Beached bird surveys      The Institute of Nature Conservation (IN) keeps record of finds of beached birds by volunteers, involved in beached bird surveys (BBS). These counts usually cover the entire coast and are done once a month (from October to March/April). The frequency of surveying is sufficient for monitoring chronic oil pollution, but incidents can easily be missed. When such an event is noticed, the frequency is raised.
  - (6) Review papers      Van Gompel (1990) reviewed available records, up to the winter of 1989/90. His information came from several Belgian ornithological journals, records from the Royal Institute of Natural Sciences, and unpublished data (e.g. Belgian Youth Organisations for Nature Studies and the birdwatching club of Oostende). Lust & Vanloo (1991) compiled all seawatching data of the 1990/91 influx.

In the present paper we will complement the extensive listings of Van Gompel (1990) and Lust & Vanloo (1991) with new records and give an update until the winter of 1995/96. While arranging data from various journals, it appeared that many observations or finds were passed on more than once. Suspect data were omitted. Still, double counts in seawatching are very likely, especially when birds were flying up and down the coast.

## RESULTS

**1847-1978** Throughout this period, Little Auks were winter visitors in very small numbers. Already in the 19th century, dead or exhausted Little Auks were occasionally found on the beach or inland and collected for the Museum of Natural History in Brussels. Some of these birds had been shot, simply to replenish the collection. Until the early 1900s, records of live birds (either flying along the coast or swimming at sea) were rarely published, but this changed with the establishment of the ornithological journals *De Giervalk/Le Gerfaut* and *De Wielewaal/Oriolus*. Basically, all available information was published in these days, ranging from observations of stuffed Little Auks at a taxidermist in 1950 (*Wielewaal* 16: 120-123), or birds offered for sale on the market-place in Gent in 1890 (W. Roggeman *pers. comm.*), to records of stranded individuals. Naturally, the source of former records is uncertain.

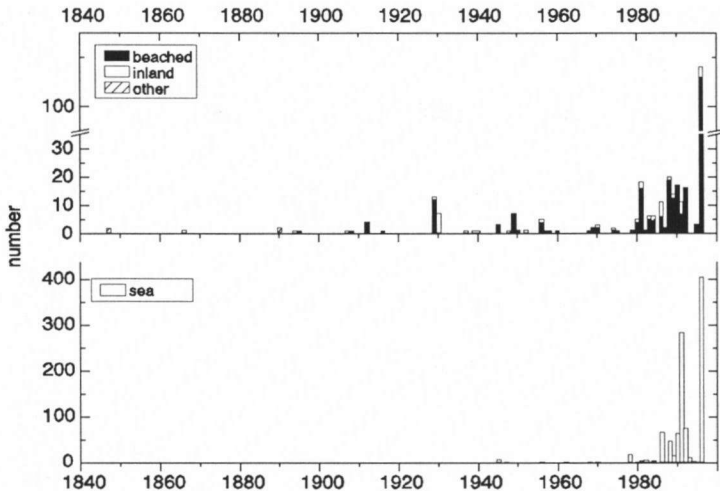


Figure 1. Annual numbers of Little Auks in Belgium, 1847-1995. Birds at sea are given separately, to illustrate the effect of seawatching data.

Figuur 1. Jaarlijkse aantallen Kleine Alken in België, 1847-1995. Vogels op zee zijn apart uitgezet, om het effect van de intensieve zeetrektingen te illustreren.

Until the 1960s there are no records of birds that were found alive and returned to sea. Most stranded birds were apparently stuffed (*'de vogel had een fris vederpak en werd opgezet'*; Wielewaal 23: 177-183). Observations of healthy birds were still quite rare in the 1960s and observers were obviously not familiar with Little Auks in the field considering descriptions such as *'small, strangely-built swimming birds'* (*'kleine, eigenaardig gebouwde zwemvogels'*; Wielewaal 26: 144-121). In the winters of 1929, 1930, 1944, 1949 and 1956 more than five Little Auks were recorded, but *'big events'* were not noticed in these years. Therefore, it is assumed that large scale invasions did not occur in this period (figure 1). Most of the birds had beached (64%), whilst some 14% concerned live observations and 22% birds that were found inland. Beached Bird Surveys (BBS) commenced in 1962 in Belgium, with the beaches being most intensely searched for bodies each February. Although these surveys yielded only one record (in 1969), it was the start of an intensified, systematic surveying. In all, between 1847 and 1978, 81 Little Auks were recorded (observed or found dead) in Belgium. Of these, 7 individuals were reported dead from the beach between 1962 and 1978, one of which was included in the beached bird surveys.

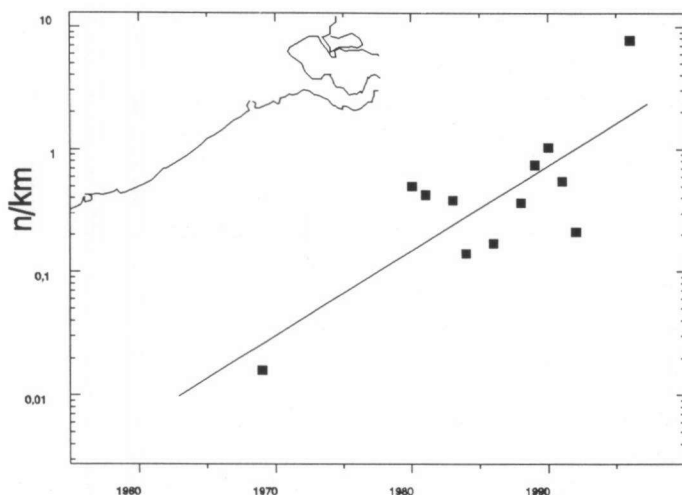


Figure 2. Numbers of Little Auks per km in Belgian beached bird surveys, 1962-96.  
 Figure 2. Aantal Kleine Alken per km op het strand, 1962-96.

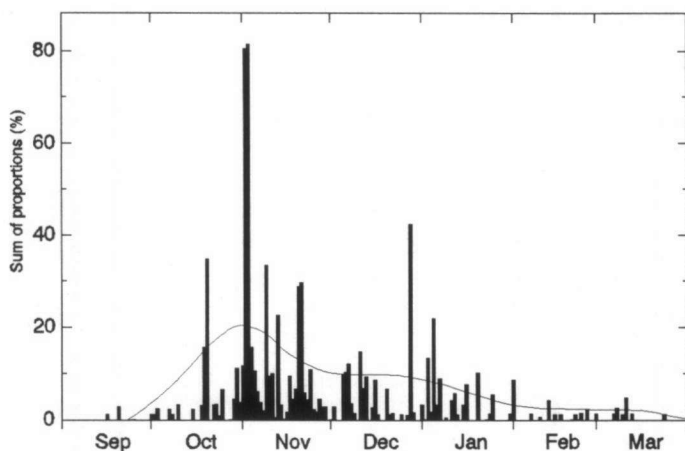


Figure 3. Sum of contributions of daily numbers of Little Auks to influxes in invasion years in Belgium since 1980, expressed as  $n_{\text{day}}/n_{\text{winter}} \cdot 100$ .  
 Figuur 3. De som van de bijdrage van dag tot dag waargenomen Kleine Alken in invasiejaren in België sinds 1980, uitgedrukt als  $n_{\text{dag}}/n_{\text{winter}} \cdot 100$ .

1978-1995 In the winter of 1978, 18 Little Auks were recorded by seawatchers. These unprecedented numbers were soon equalled, or even exceeded in subsequent years. Winters in which over 20 birds were recorded were 1981 (23), 1986 (78), 1988 (68), 1989 (29), 1990 (81), 1991 (295) and 1992 (91). Most observations originated from seawatchers (742 between 1978 and 1995). The rest were found stranded (13%), most of which were dead. Some 15 birds were hospitalized in rehabilitation centres. Unfortunately, we were unable to recover the effort (hours of counting) from the seawatchers. Therefore, to identify trends, we must rely on beached bird surveys in February (1962-96), complemented with counts in other months and unpublished data held by the Institute of Nature Conservation. A marked rise in numbers per km beach could be discerned in the past 35 years (Kendall's rank correlation,  $\tau = 0.285$ ,  $n = 35$ ,  $p < 0.05$ ; figure 2). These results suggest that the numbers of Little Auks in Belgian waters may have increased in recent years. Combining all the available information into patterns of relative abundance, Little Auks were most abundant late October/early November, and comparatively rare in February and March (figure 3).

THE 1995 INFLUX A total of 516 birds were recorded, October 1995-March 1996. Most were observed in November 1995 (490 birds), with two distinct peaks in occurrence. Both peaks coincided with stormy weather (between 31 October and 3 November, NW up to 8-9 B, and between 16 and 20 November, westerly winds  $> 7B$ ). Over 70 birds were seen on 2 November,  $> 120$  the following day at the main seawatching sites. The numbers tailed off in a few days and on 4-5 November dead bodies began to appear on the beach. On 13 and 17 November, 66 and 47 birds respectively were seen flying along Oostende. Between 23 and 26 November 28 Little Auks were found wrecked. From 19 November until the end of February, only small groups of live birds were seen (figure 4). Some old corpses were found in the dune vegetation.

Most Little Auks were recorded by seawatchers (386; double counts of birds flying up and down the coast are not unlikely). A total of 125 birds was found on the beach, 11 of which were still alive (ten of these were brought to the nearest rehabilitation centre, four of which were later released). Only two dead birds were found inland. All examined corpses were severely emaciated birds, but none had visible oil in the feathers. The Little Auk was the most numerous auk species in beached bird surveys in November 1995. The average density was 0.3/km in November and 0.02/km in Dec-Feb. In contrast, the average density of Guillemots *Uria aalge* and Razorbills *Alca torda* was low in Nov-Jan ( $< 0.1/\text{km}$ ) and peaked in February (0.65/km).

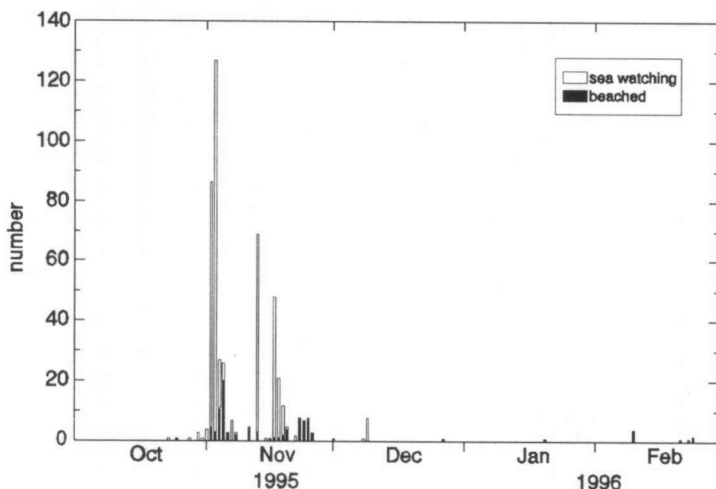


Figure 4. Daily numbers of Little Auks in Belgium, winter 1995/96.

Figuur 4. Dagelijkse aantallen in België aangetroffen Kleine Alken, winter 1995/96.

## DISCUSSION

Both Van Gompel (1990) and Lust & Vanloo (1991) suggested that Little Auks have increased as winter visitors in the southern North Sea. The figures presented in this paper also suggest that numbers of Little Auks in Belgium have increased in the last two decades. On the other hand, it is unclear whether the increase is real or (partly) effort-related. Observer effort in both beached bird surveys and the seawatching scheme increased through time and has accounted for the majority of all records. We must be careful when using only beached bird survey results for the determination of trends in a species like the Little Auk, because most counts were conducted in February, while Little Auk strandings peaked in November and may easily have been missed. The most recent data presented in this paper were collected over the entire winter period. It is not easily explained why some Little Auks push through, far beyond their normal wintering distribution range, into the Southern Bight. Van Gompel (1990) explained invasions with stormy weather, but this factor alone cannot have been responsible for the recent changes. After all, storms have always been there.

In 1981 and 1989, Little Auk records occurred over the entire winter

period, without any distinct peak in numbers. In the other years (1986, 1988, 1990-92 and 1995), however, most records were concentrated within only a few days. Oiling is common in most stranded auks in the southern North Sea, but not in the Belgian Little Auks. Only 29 individuals (out of 259 stranded birds) were found to have oil on their feathers. This finding is consistent with results of beached bird surveys in The Netherlands (Camphuysen 1996). In winter 1995/96, six birds were necropsied and all showed cachexia (in other words, they suffered from starvation and supervening infections; J. van Gompel and T. Jauniaux *pers. comm.*). Examination of larger samples might provide more insight in future, but similar studies elsewhere did not result in more information than that most Little Auks were severely emaciated and suffered from starvation (Camphuysen 1986, Heubeck & Suddaby 1991, Camphuysen 1996). It should be noted here, that autopsies give no clue whatsoever as to why these birds have moved southwards.

Estimates of total numbers of Little Auks washing ashore were frustrated by the fact that many corpses were removed by birdwatchers. Shortly after the mass strandings of Little Auks took place, a second influx occurred, as apparent from people collecting bodies, heads or wings of these birds. Fortunately, substantial numbers were later reported to the consulted journals. Herring Gulls *Larus argentatus* and Great Black-backed Gulls *L. marinus* were keen on Little Auks too, and some were seen to swallow these exotic preys within a few seconds. In all, these factors lead to conservative estimates of stranded numbers.

#### ACKNOWLEDGEMENTS

Numerous people have supplied data for this article, we thank Steven and Walter Wackenier, Piet and Bart Opstaele, Paul Lingier, Rik and Peter de Jaegher, John van Gompel, Jan Haelters, Filip De Ruwe, for their present participation in the beached bird surveys by the IN. Jan Seys, Patrick Lust, Jan Vansteenkiste, Guido Rappé, Dries Bonte, Pascal Raevel and Wim van den Bossche collected valuable older BBS data. Frank De Scheemaeker and Erik Vanloo kindly supplied unpublished data on seawatching and finds. John Jacques took care of stranded live Little Auks in his manner and managed to release some again. Jan Milh, Denise Verstappen (Oostende) and Guido Burggraeve (Zwin) from subsequent recovery centres also contributed helpfully. Jan Tavernier contributed in the logistic part of the BBS, whilst John van Gompel and Thierry Jauniaux did the autopsies on the Little Auks. This study was accomplished by order of Management Unit of the North Sea and Scheldt-estuary Mathematical Model (Ministerie van Sociale Zaken, Volkgezondheid en Leefmilieu).

#### SAMENVATTING

Eind oktober 1995 was er in zuidelijke Noordzee een noordwestelijke storm en kort daarna werden vanaf de Belgische kust grote aantallen over zee vliegende Kleine Alken opgemerkt. De eerste invasie van Kleine Alken in de Belgische kustwateren (2-3 november) werd gevolgd door een tweede piek (13-19 November). Beide maxima werden vrijwel onmiddellijk gevolgd door

een toename in aanspoelingen. In totaal zijn er 516 vogels waargenomen, het leeuwendeel komt voor rekening van de zeetrekwaarnemers (379). Zo'n 125 vogels werden op het strand gevonden, ondanks het feit dat vermoedelijk een aanzienlijk deel verdween door predatie. De aangespoelde vogels waren, zonder uitzondering zeer mager, maar vertoonden geen tekenen van olie besmeuring. Tot eind februari aan toe werden oude kadavers van Kleine Alken gevonden op verborgen plekken in de duinen. De invasie van afgelopen winter was groter dan alle voorgaande. Een speurtocht naar oude data in literatuur toonde aan, dat Kleine Alken eigenlijk elke winter wel werden gezien in de afgelopen 150 jaar, maar steeds in kleine aantallen. Dit veranderde in de winter van 1977/78, toen de eerste aanzienlijke toename werd vastgesteld. Sindsdien zijn er verschillende invasies geweest (>20 vogels per winter, waarvan >50% binnen enkele dagen). Een significante toename in aangespoelde vogels tussen 1962 en 1996 kon worden vastgesteld aan de hand van BBS. Alle invasies (1981, '86, '88, '89, '90, '91, '92 and '96) hebben gemeenschappelijk dat zij samengaan met slecht weer. De werkelijke reden voor de toename in waarnemingen is nog onduidelijk.

## SOMMAIRE

Après une tempête dans la Mer du Nord, fin octobre 1995, grands nombres de Mergule nain ont été observés devant la côte Belge. Cette première invasion du 2-3 novembre a été suivie d'une deuxième le 13-19 novembre. Au total 516 oiseaux ont été détectés, en majeure partie par les observateurs de la migration d'oiseaux de mer. Ces invasions résultaient en un grand nombre d'oiseaux échoués sur la plage, au total 125. L'invasion de l'hiver 1995/96 était la plus importante en Belgique jusqu'à ce jour. Une étude de la littérature a démontré que les Mergules nains ont été observés toujours devant la côte Belge, mais en petit nombre. Dès l'hiver 1977/78 une augmentation importante des présences a été observée. Un nombre d'influxes se sont suivies dès lors, et chaque invasion était plus importante que la précédente. Entre 1962 et 1996 une augmentation significative d'oiseaux échoués sur la côte belge peut être démontrée. Toutes les invasions (1981, '86, '88, '89, '90, '91, '92 et '96) se produisent pendant des périodes de tempête sur mer. La vraie cause de l'augmentation des observations n'est pas encore claire.

## REFERENCES

- Camphuysen C.J. 1986. Vondsten van Kleine Alken *Alle alle* en Papegaaiduikers *Fratercula arctica* langs de Nederlandse kust. *Limosa* 59: 138-141.
- Camphuysen C.J. 1996. Strandingen van de Kleine Alk *Alle alle* in Nederland, 1969-96. *Sula* 10: 248-250.
- Commissie Belgische Avifauna 1967. Lijst van de in België waargenomen vogelsoorten en hun geografische vormen. De Giervalk 57: 293.
- Heubeck M. & Suddaby D. 1991. Post-mortem examination of Little Auks *Alle alle*, Shetland, December 1990. *Seabird* 13: 51-53.
- Lippens L. & Wille H. 1972. Atlas van de vogels van België en West-Europa. Lannoo, Tielt.
- Lust P. & Vanloo E. 1990. Influx van Kleine Alken *Alle alle* tijdens het najaar en de winter van 1990-1991. *Mergus* 5: 122-131.
- Raes D., Van Gompel J. 1989. Kleine alk. In: Vlaamse avifauna commissie (eds). *Vogels in Vlaanderen: voorkomen en verspreiding*. IMP, Bornem.
- 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. Joint Nature Conservation Committee, Peterborough.
- Van Gompel J. 1990. Voorkomen van de Kleine Alk *Alle alle* in België. *Mergus* 4: 95-115. □