THE LITTLE GULL LARUS MINUTUS AS BREEDING BIRD IN THE NETHERLANDS.

DE DWERGMEEUW ALS BROEDVOGEL IN NEDERLAND

BEN J. KOKS

SOVON Vogelonderzoek Nederland, Rijksstraatweg 178, NL-6573 DG Beek-Ubbergen, The Netherlands, e-mail bkoks.sovon@inter.nl.net

Little Gulls Larus minutus are irregular breeding birds in The Netherlands since 1942. Numbers peaked in the 1940s-1950s (max. 35 pairs) and in the 1970s-1980s (max. 61 pairs). During the first period, nesting was confined to the province of Friesland; during the second period, most birds took advantage of the newly reclaimed Lauwersmeer area between the mainlands of the provinces of Friesland and Groningen. Since then Little Gulls have been found nesting throughout the country in small numbers (max. 8 pairs in 1997). Most nesting attempts of Little Gulls in The Netherlands take place in highly dynamic environments, particularly in areas that have just been altered by man. All birds nested in the neighbourhood of Black-headed Gulls L ridibundus, sometimes in company of waders, terns and other gull species. It is assumed that the nonaggressive Little Gulls take profit of these species assemblages against predators.

Introduction

The European population of Little Gulls Larus minutus was recently estimated at 13,000-16,000 pairs, of which the majority breed in Finland, Belarus, and in the Baltic states Latvia and Estonia (Viksne & Bourne 1997). The nesting attempts in The Netherlands during this century are remarkable, particularly because this attractive species is a very rare breeding bird in neighbouring countries. Small colonies were found in The Netherlands in 1942-56 (possibly also in 1957-63) and in 1972-89 (Fig. 1), with settlements in five locations in south Friesland during the former period. More substantial numbers were found in the Lauwersmeer area during the latter period. Elsewhere in the country, most notably so in the Delta and Wadden Sea areas, nesting attempts of Little Gulls occurred only occasionally. In this contribution, the status of Little Gull as a breeding bird in the 20th century in The Netherlands is described.

METHODS

Most data were taken from the RIKZ/SOVON 'coastal bird database' and the SOVON LSB-project. Additional information was obtained by contacting local wardens, and through personal contacts with various ornithologists and bird-

SULA 12(4): 139-148 (1998)



Nesting Little Gull Larus minutus, saltmarshes Westpolder, Groningen, Wadden Sea area Nestelende Dwergmeeuw, kwelder Westpolder (G), Waddengebied (H. Hut)

watchers. The remaining data were derived from the numerous (small) publications on breeding and prospecting Little Gulls in The Netherlands in national journals.

RESULTS

The first confirmed breeding record of Little Gull in The Netherlands was a pair breeding in the Lindevallei in Friesland on 19 May 1942 (Brouwer & Haverschmidt 1942). These authors expressed their doubts about earlier claims of breeding attempts, including suggestions by H. Schlegel that Little Gulls had bred at Hoek van Holland (Haverschmidt 1942). With hindsight, but without further evidence, the historical presence of nesting Little Gulls at locations such as the former 'De Beer' near Hoek van Holland is far from unlikely.

Subsequent breeding pairs were discovered in 1943-45, 1949-50 and 1952-56 on five locations (Fryske Gea Linde River basin nature reserve, Rottige

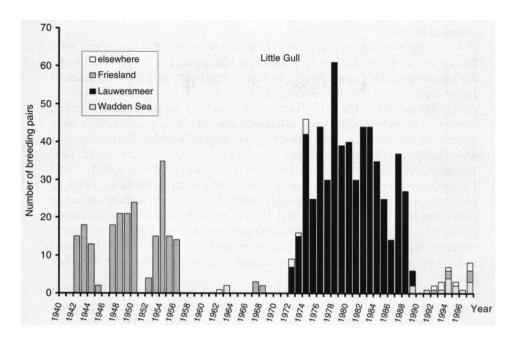


Figure 1. Number of breeding pairs of Little Gulls in The Netherlands since 1942. Figuur 1. Aantal broedparen van de Dwergmeeuw in Nederland sinds 1942.

Meenthe, Lange Halen Bantega, former saltmarshes at Schoterzijl and Mokkebank near Laaxum). In 1949, small breeding colonies were established with 10, 7 and 4 pairs, respectively. Many ornithologists visited the breeding sites of this rare species, in later years followed by British egg-collectors (van der Ploeg et al. 1977). In the years in between and during 1957-63, breeding was not confirmed, although territorial birds were observed almost every summer. Since 1963, Little Gulls have bred only incidentally in Friesland (1967-68, Workumerwaard, 2 and 3 pairs, respectively; 1995, Eernewoude, 2 pairs; 1998 Mokkebank, 2-3 pairs; van Hijum 1998).

In 1972, a new breeding colony (7 pairs) was established in the Lauwersmeer (northern Friesland; Franke & Meijer 1974), and breeding numbers increased rapidly in the following years. In 1978, five colonies were found with a total number of 61 breeding pairs; the largest breeding population ever witnessed in The Netherlands (Veen 1978, 1980; Altenburg et al. 1985). The breeding habitat deteriorated, first simply as a result of vegetation succession, later by the introduction of grazing undulates (cattle) and the arrival

of Red Fox Vulpes vulpes. The last breeding pair in the Lauwersmeer was observed in 1990.

The breeding sites along the Frisian coast and in the Lauwersmeer were former saltmarshes, colonised by Little Gulls after closure of the Afsluitdijk and the Lauwerszee dike, respectively. At Oerd (Ameland), two breeding pairs of Little Gulls were reported nesting in a colony of Black-headed Gulls L. ridibundus in 1968 (Valk 1976). This would have been the first known breeding attempt in a true Wadden Sea saltmarsh, but Versluys et al. (1997) have questioned this case. In 1989, however, breeding at Wadden Sea saltmarshes was finally confirmed, when two nests of Little Gulls were found near Westpolder (Groningen; van Dijk 1991). In later years (1994-98), 3, 3, 1, 1, and 1 nests were found in the same area (Koks 1995; Koks & Hustings 1998; H. Blijleven pers. comm.), In Bandpolder (northern Friesland), isolated breeding pairs were located in 1991, 1996 and 1998 (2 pairs, R. Kleefstra pers. comm.). At the Frisian saltmarshes of Paessumerlannen, in 1993 and 1994 1 and 2 pairs, respectively, were found. Note that all the recent breeding attempts in Friesland and Groningen were near the Lauwersmeer area, their former main breeding area.

In the Delta area, the Little Gull may have bred as early as 1990-91 at the Hellegatsplaten (van Swelm 1996). In 1992, when a nest with eggs was found at Noordplaat (Zeeland), breeding was confirmed. In 1993, two nests were located at the Krammerse Slikken and in 1994 a further nesting attempt was witnessed in the same area (nest with three eggs; Meininger 1995). Two adult birds were seen during repeated visits to a Black-headed Gull colony at Konijnenschor (Verdronken Land van Saeftinghe) in the mid 1990s. Although a nest was not found, the alarming behaviour of these gulls strongly suggested a nesting attempt (Castelijns & Maebe 1997). Finally, in 1998, two nests of Little Gulls were found at the Hellegatsplaten (Meininger et al. 1999).

Elsewhere in The Netherlands, colonies of Black-headed Gulls appeared sometimes attractive to pairs of Little Gulls. In such a colony at an inland pond near Lage Mierde (Noord-Brabant), a nest of Little Gull with a two egg clutch was found in 1962 (Wittgen 1964). This is the most southerly breeding attempt in The Netherlands, and probably in western Europe (Viksne & Bourne 1997). In 1968, a pair was located at Geestmerambacht near Koedijk (Noord-Holland; Zomerdijk et al. 1971). In 1995, a young Little Gull was ringed just before fledging at the Normerven (Wadden Sea coast Noord-Holland; T. Mulder pers. comm.). Last but not least, Little Gulls are known as former breeding species in the Flevopolders (IJsselmeer area), with confirmed nesting attempts in 1971-74 near Lelystad and in the Oostvaardersplassen (1-2, 2, 3, and 4 pairs, respectively; Marra 1973; Renssen 1979; N. Marra and M. Zijlstra pers. comm.) and in 1996 and 1998, a pair bred near the Stichtse Brug

between Zuidelijk Flevoland and Het Gooi (R. van Beusekom *pers. comm.*). It is quite likely, however, that in the first years following the drainage of Zuidelijk Flevoland, nesting Little Gulls occasionally have been overlooked (Renssen 1979).

Figure 2 shows all known breeding sites since 1942, with an indication of the maximum number of breeding pairs recorded.

BREEDING HABITAT

Until now, nesting attempts and established colonies of Little Gulls in The Netherlands were always found near colonies of Black-headed Gulls. Further nesting 'neighbours' of Little Gulls were Avocet Recurvirostra avosetta, Mediterranean Gull L. melanocephalus, Common Tern Sterna hirundo, Arctic Tern S. paradisaea, Little Tern S. albifrons and Black Tern Chlidonias niger. Of all colonial nesting birds mentioned here, Little Gulls are the least aggressive species. The presence of the other birds is probably beneficial when breeding areas have to be defended against intruding predators (cf. Rooth 1965), outweighing the increased risk of kleptoparasitism and egg predation by neighbouring breeding birds.

Most areas in which nesting Little Gulls were found are highly dynamic coastal and inland areas, usually just significantly altered by man ('newly established nature'). The former saltmarshes in the south of Friesland (following the closure of the Afsluitdijk), the Lauwersmeer, and the Flevopolders are clear examples of both recent and rather drastic changes in coastal habitat, that apparently attracted these gulls for a number of years. The actual inland nest sites ('peat pits') in Friesland in the 1940s, were also only just created by man. Floating mats of water-soldier Stratiotes aloides and other waterplants formed the 'substrate' used for nesting in Friesland on at least three locations, where Black Terns and Black-headed Gulls were also nesting (Brouwer & Haverschmidt 1942; van der Ploeg et at 1977). Later nesting attempts at the Frisian IJsselmeer coast occurred in areas that were flooded occasionally, such as a just created 'natural' sand bank off the coast in 1998 (van Hijum 1998). The Lauwersmeer was 'closed' (a barrier dike between the Waddensea and the saltmarsh area) in 1969 and short pioneer vegetation persisted for a long period. Species such as Avocets, terns, and apparently also Little Gulls found an excellent nesting habitat in this terrain. Areas where high flowering vegetation occurred were avoided by these species (Veen 1980). With declining salinity in the former saltmarshes, vegetation increased and the area finally became an unsuitable as breeding habitat for Little Gulls. In later years, scattered breeding pairs were found in saltmarshes along the Frisian and Groningen Wadden Sea coasts, usually among nesting Avocets, Black-headed

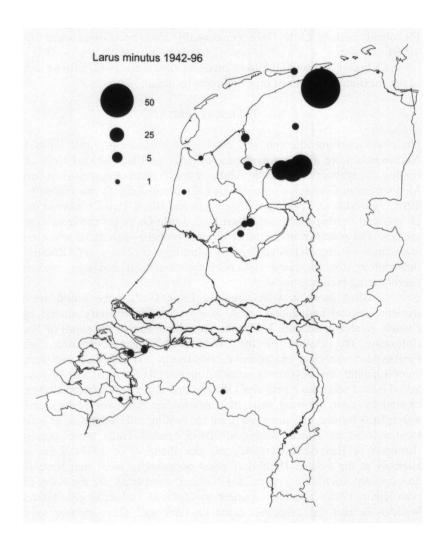


Figure 2. Distribution of nesting sites of Little Gull in The Netherlands since 1942, with indication of maximum number of breeding pairs in each area.

Figuur 2. Verspreiding broedplaatsen van de Dwergmeeuw in Nederlands sinds 1942, met aanduiding van het maximumaantal broedparen per broedgebied.

Gulls and Common Terns, in halophytic vegetation (van Dijk 1991; Koks 1995). Similarly, in the Delta area, most nests were found in areas with halophytic vegetation (Meininger 1995). Breeding habitat in Flevoland was characterised by short vegetation, and an ongoing plant succession soon led here to an unsuitable habitat.

BREEDING SUCCESS

Little Gulls nesting in The Netherlands had a mean (\pm SD) clutch size of 2.6 \pm 0.6 eggs (n=163; 3x1, 58x2, 99x3, 3x4 eggs), which is similar to values published for Finland (2.71 eggs per clutch; Cramp & Simmons 1983). The mean egg size found in The Netherlands (40.35 x 29.74 mm, n=18) is slightly less than that reported for breeding birds from various areas (41.51 x 30.11 mm).

The breeding success of Little Gulls nesting in The Netherlands was usually very low. In the best studied population, the colonies in Lauwersmeer in the 1970s and early 1980s, young fledged only in 1977 and 1978. Veen (1980) indicated that most nesting Little Gulls were immatures or very young. inexperienced adults, and suggested that the age structure of the population was responsible for the extremely low breeding success. Many eggs were depredated by Black-headed Gulls, Kestrels Falco tinnunculus, and occasional Herring Gulls L. argentatus (Veen 1980). Few concrete data on the reproductive success of Little Gulls in the first Frisian settlements are available, but several reports indicate that some young successfully fledged (Brouwer & Haverschmidt 1942; van der Ploeg et at 1977) and several young birds were ringed in the 1950s (S. Braaksma pers. comm.). Chicks hatched and fledged all years in the small breeding population in Flevoland, except perhaps in 1971 (Renssen 1979; N. Marra and M. Zijlstra pers. comm.). Breeding success was very low in Lage Mierde (Noord-Brabant; Wittgen 1964), in the Delta area (Meininger 1992, 1995), in later years in Friesland at the Usselmeer coast (van der Ploeg et al. 1977; van Hijum 1998), in the Jan Durkspolder (It Fryske Gea; N. Minnema pers. comm.), and along the Frisian and Groningen Wadden Sea coasts (van Dijk 1991; Koks 1995; Koks & Hustings 1998). In Noord-Holland, at Normerven in 1995, a young was ringed that probably successfully fledged (T. Mulder pers. comm.). The pair that bred near the Stichtse Brug was probably successful in both 1996 and 1998 (R. van Beusekom pers. comm.).

DISCUSSION

With few exceptions, Little Gulls nested in areas with a pioneer vegetation. Most of the important nesting sites such as the historical sites in Friesland and

Flevoland and the colonies in Lauwersmeer were established in areas that were subject to rapid change and actually were created by man. As a result, breeding colonies were usually abandoned after a number of years, or when the nesting habitat deteriorated. The presence of Black-headed Gulls was essential for the Little Gulls, given that all nests found were located near or in colonies of the larger species. The presence of Black-headed Gulls is probably essential for nest defence. A similar relationship was found to exist between Black-headed Gulls and Sandwich Terns S. sandvicensis (Rooth 1965). Although many Little Gull eggs and chicks got lost due to depredation by Black-headed Gulls (the price paid for protection against larger predators), the main reason for the very low breeding success of Little Gulls in The Netherlands was probably the lack of experience of the breeding birds (Veen 1980). For the Lauwersmeer area the age structure of the breeding colonies is well documented, but also at other locations were plumage characteristics indicative of a rather low age (sub-adults) observed in breeding birds (van Dijk 1991; Koks 1995; Meininger 1995). It is unclear if a breeding population in The Netherlands will ever get firmly established. It is possible, however, that the expanding Finnish population (Viksne & Bourne 1997) will form a stepping stone between Holland and the species' main breeding haunts further to the east. The current practice of the development of 'nature' in coastal areas in The Netherlands may offer occasional breeding opportunities for Little Gulls. The specific requirements of Little Gulls are not completely understood, however, so that even active management to reduce vegetation in such areas are not necessarily successful.

ACKNOWLEDGEMENTS

I am especially grateful to Ruud van Beusekom, the late Sjoerd Braaksma and Niek Marra for their detailed information of historical breeding attempts of Little Gulls in Friesland and Flevoland Further thanks to Henk Castelijns, Ep van Hijum, Tom Jager (It Fryske Gea), Peter Meininger (RIKZ), Nico Minnema (It Fryske Gea) and Menno Zijistra (RIZA) for their help in tracing and checking old data, and for providing reports and reprints. Fred Hustings and Dirk Zoetebier produced the figures and commented on a draft of this paper. The original text was later translated into English by Kees Camphuysen.

SAMENVATTING

De aanwezigheid van een kleine broedpopulatie van de Dwergmeeuw Larus minutus in Nederland ver ten westen van het hoofdverspreidingsgebied - is opmerkelijk, omdat in de omringende landen de soort een zeldzame broedvogel is. Het broeden in ons land is echter onregelmatig en eerst in 1942 voor het eerst met zekerheid vastgesteld. Het broeden in vroegere tijden kan echter niet geheel worden uitgesloten. In de twintigste eeuw zijn duidelijk twee piekperioden aan te wijzen: 1942-56, mogelijk tot 1963 (max. 35 paren) en 1972-89 (max. 61 paren). Gedurende de eerste periode kwamen alle broedgevallen uit Friesland. Gedurende de tweede periode broedden de meeste vogels in het, kort daarvoor afgesloten, Lauwersmeer. Sindsdien is de soort door het gehele land broedend aangetroffen (max. 8 paren). Het broedhabitat in Nederland wordt gekarakteriseerd door een hoge mate van dynamiek. In alle gevallen werd er tot nu toe gebroed in de nabijheid van Kokmeeuwen L.

ridibundus, soms vergezeld van andere broedvogels van dynamische milieus. De Dwergmeeuw is naar verhouding niet erg agressief en zou tegen predatoren dus kunnen profiteren van de aanwezigheid van de andere soorten.

REFERENCES

- Altenburg W., Beemster N., Dijk K. van, Esselink P., Prop D. & Visser H. 1985. Ontwikkeling van de broedvogelbevolking van het Lauwersmeer in 1978-83. Limosa 58: 149-161.
- Brouwer G.A. & Haverschmidt F. 1942. Een kleine broedkolonie van *Larus minutus* Pall. in Nederland in 1942. Ardea 31: 157-174.
- Castelijns H. & Maebe J. 1997. Vogelonderzoek in het Verdronken land van Saeftinghe. Jaarverslag 1995/96. Stichting Het Zeeuwse Landschap, Heinkenszand / Natuurbeschermingsvereniging de Steltkluut, Terneuzen.
- Cramp S. & Simmons K.E.L. (eds) 1983. The birds of the Western Palearctic, 3. Oxford Univ. Press, Oxford.
- Dijk K. van 1991. Broedende Dwergmeeuwen Larus minutus op de Groningse Kwelder. Limosa 64: 73.
- Franke J. & Meijer J. 1974. Broedende Dwergmeeuwen in de Lauwerszeepolder. Limosa 47: 59-60. Haverschmidt F. 1942. Faunistisch overzicht van de Nederlandsche broedvogels. Brill. Leiden.
- Hijum E. van 1998. Bocht fan Molkwar, Mokkebank, Mirns-Mokkebank. Ynventarisaasje ferslag 1998. Unpubl. mimeogr. report, Warns.
- Koks B. 1995. Wederom broedende Dwergmeeuwen op Groninger kwelders. Grauwe Gors 23: 3-4.
- Koks B. & Hustings F. 1998. Broedvogelmonitoring in het Nederlandse Waddengebied in 1995 en 1996. SOVON-monitoringrapport 1998/05. SOVON, Beek-Ubbergen.
- Marra N. 1973. Twee broedgevallen van de Dwergmeeuw Larus minutus in Oostelijk Flevoland. Limosa 46: 240-242.
- Meininger P.L. 1992. Broedpoging van Dwergmeeuw *Larus minutus* in het Krammer-Volkerak in 1992. Limosa 65: 170-171.
- Meininger P.L. 1995. Little Gulls breeding in south-western Netherlands. Dutch Birding 17: 152-
- Meininger P.L., Berrevoets C.M. & Strucker R.C.W. 1999. Kustbroedvogels in het Deltagebied in 1979-1998. Rapport RIKZ. Rijksinstituut voor Kust en Zee, Middelburg. [in press]
- Ploeg D.T.E. van der, Jong W. de, Swart M.J., Vries J.A. de, Westhof J.H.P., Witteveen A.G. & Veen B. van der 1977. Vogels in Friesland, 2. De Tille, Leeuwarden.
- Renssen T.A. 1979. Ook in 1971 broedde de Dwergmeeuw al in Flevoland. Limosa 52: 233.
- Rooth J. 1965. Over sterns en kaapmeeuwen. Levende Nat. 68: 265-275.
- Swelm N.D. van 1996. De broedvogels van het Noordelijk Deltagebied 1991. Ministerie van Landbouw, Natuurbeheer en Visserij, Directie Zuid-West, Dordrecht / Stichting Ornithologisch Station Voorne, Oostvoorne.
- Valk A. 1976. De broedvogels van Ameland. Wet. Meded. KNNV 112, Stichting Uitgeverij Koninklijke Nederlandse Natuurhistorische Vereniging, Hoogwoud.
- Veen J. 1978. Broedende Dwergmeeuwen in het Lauwersmeer. Noorderbreedte 2(5): 17-20.
- Veen J. 1980. Breeding behaviour and breeding success of a colony Little Gulls *Larus minutus* in the Netherlands. Limosa 53: 73-83.
- Versluys M., Engelmoer R., Blok D. & Wal R. van der 1997. Vogels van Ameland. Friese Pers Boekerij, Leeuwarden,
- Viksne J. & Bourne W.R.P. 1997. Little Gull Larus minutus. In: Hagemeijer W.J.M. & Blair M.J. (eds) The EBCC Atlas of European breeding birds, their distribution and abundance: 326-327. T. & A.D. Poyser, London.
- Wittgen A.B. 1964. Een broedpoging van een paartje Dwergmeeuwen (Larus minutus) in Noord-Brabant. Limosa 37: 198-199.

Zomerdijk P.J., Orden C. van, Zwart K, Verkerk W., Muusers B., Fabritius H.E. & Vries C. de 1971. Broedvogels van Noord-Holland Noord. Heijnis Tsz, Zaandijk.

