

Breeding Birds in 2001

European Spoonbill
Platalea leucoradia
(Photo: Hans Hut).



Joint Monitoring Group of
Breeding Birds in the
Wadden Sea, JMBB
Peter Südbeck, Lieuwe
Dijksen, Bernd Hälterlein,
Ben Koks, Petra Potel &
Lars Maltha Rasmussen

The Breeding Bird Season in the Wadden Sea in 2001

Introduction

In 2001, the Joint Monitoring Program of Breeding Birds in the Wadden Sea conducted the third complete survey of all relevant breeding bird species in the Wadden Sea. The results of the first ones have been published in the framework of the trilateral Monitoring and Assessment Program (Fleet et al. 1994, Rasmussen et al. 2000). With the results of the 2001 survey another important cornerstone for surveying the total Wadden Sea and their ecological state is possible.

Despite the fact that the data are not completely available at the moment, the coordinators of the Joint Monitoring Group of Breeding Birds in the Wadden Sea, JMBB, present, in the following, an overview of some important and interesting characteristics of the breeding bird season 2001. This paper is directed towards all interested counters, administrators and others, who would like to know early and as an overview what is going on in the Wadden Sea breeding bird fauna. This does not replace a thorough analysis of the full amount of data throughout the Wadden Sea representing the whole target species set.

The general situation in the 2001 breeding season was not very encouraging: due to a series

of flooding incidents, starting at the end of May (Whitsun), a large proportion of the breeding birds, especially on low lying mainland salt marshes, suffered nest losses. The possibility for replacement clutches was constrained, at least in the northern part of the Wadden Sea, because 2-3 additional high tides occurred. Regular resettlements of several bird species over larger distances during the breeding season (i.e. mainland, island) with accompanying difficulties in surveying due to double counts was a main consequence.

The overall weather conditions did not show any serious characteristics but the beginning of the season was too cold so that the birds started breeding and mating somewhat delayed. Another important feature of the 2001 survey was the outbreak of the foot- and mouth disease, which lead to considerable constraints and restrictions. Large parts of the Dutch mainland salt marshes were not accessible at the beginning of the season so that important wader counts could not be conducted. Due to this reason, in 2002, a major part of the mainland areas have to be covered again.

Used abbreviations: NL – The Netherlands, LS – Lower Saxony, SH – Schleswig-Holstein, DK – Denmark, bp – breeding pair.

Cormorants, Spoonbills, Egrets, Raptors, Ducks and Owls

In 2001, the breeding population of European Spoonbills *Platalea leucorodia* further increased in the whole Wadden Sea. Whereas in the stronghold in the Dutch part, the numbers increased to about 750 bp, the new and small German population has stabilized (about 40 bp in LS) and we could notice a further spread to the SH part, where a first pair bred successfully on the Hallig Oland.

Great Cormorants *Phalacrocorax carbo* did well again in the Wadden Sea in 2001. Especially in the Dutch part, numbers increased from about 30 in 1991 to 1200 in 2001. This development is contrary to that in the other parts. In LS, numbers are stable and the small dune colonies – in this habitat the main increase in NL has taken place – did not show any increase. Other colonies on artificial structures (e.g. wracks, old lighthouses) lost suitable nesting places due to corrosion and numbers decreased as a consequence.

The Little Egret *Egretta garzetta* is now well established as a regular breeding bird in the Wadden Sea with breeding places on Terschelling and Schiermonnikoog and was observed at other localities in the breeding season. The same holds true in the other parts in LS, SH and DK. It can be expected that this nice egret is able to colonize more eastern and northern areas in the Wadden Sea. Additionally, the Great White Egret *Casmerodius albus*, so-to-say the big brother of the Little Egret, was sighted at the Lauwersmeer during breeding season.

After the very bad year for Common Eiders *Somateria mollissima* in 2000, a slight recovery can be stated. In the Danish part, numbers have doubled since 1991 to about 1,000 nests now, this picture coincides with the general figure in LS. The number of breeding pairs on Amrum, the most important colony in SH, dropped to only 200 bp in 2001. The majority of breeding Eiders occurred in the Dutch part, especially on the islands of Terschelling, Schiermonnikoog and Vlieland (Rasmussen et al. 2000). Here, the numbers have increased only to a little extent since 2000, but the breeding success was highly variable. On Schiermonnikoog, more or less no young fledged, whereas on Vlieland the success rate was quite normal. Due to the serious situation of Eider and other shellfish-eating bird species of the Wadden Sea, the monitoring data are used in further scientific projects to shed light on the ecological relations between feeding stock, bird consumption and oth-

er, e.g. climate, factors to give well justified management and conservation recommendations. Such actions support reaching the conservation goals, directed towards a health self-sustaining Eider population in the Wadden Sea. They also prevent mass mortality due to anthropogenic food shortage and allow of shellfish fishery only in strong context of this conservation framework. However, in 2002 a new incident of mass mortality took place (esp. males).

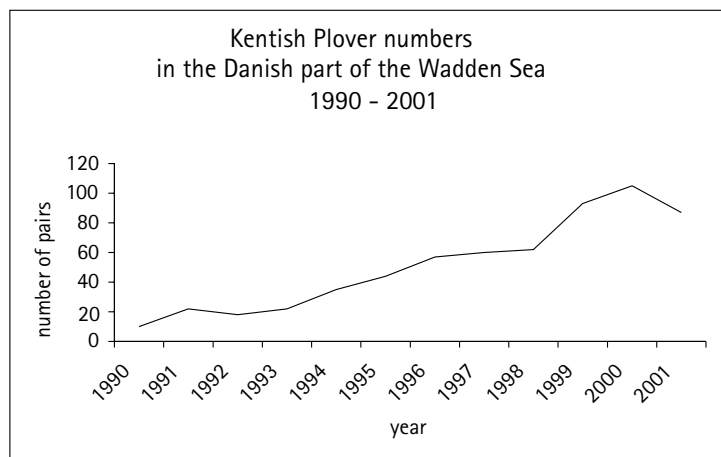
The Wadden Sea region is of pronounced international importance for conservation of breeding Hen Harrier *Circus cyaneus* and Short-eared Owl *Asio flammeus*. Whereas at mainland sites in the Wadden Sea states the species have more or less disappeared as breeding birds, on the islands, they still occur on a regular basis. Conservation of these dune species therefore clearly needs more attention in future times in Wadden Sea conservation policy. But, especially in some Dutch parts, both species showed negative trends in 2001. Numbers of Short-eared Owls have decreased since 1992 from 47 to only 20, in LS the numbers stabilized in recent years at a low level (about 30–40 pairs).

Similarly, only three territories of Hen Harrier were found on Ameland in 2001, where, as late as 1990, 26 bp bred. However, the decline on Texel and Terschelling was much lower. In LS the overall smaller numbers were stable in recent years. In addition to food shortage (small mammals, esp. voles) increased winter mortality might be an important cause.

Shorebirds

Due to the wide distribution of most of the wader species throughout the Wadden Sea, the available numbers are quite incomplete up to now and

Figure 1:
Number of breeding pairs
of Kentish Plover
Charadrius alexandrinus
in the Danish Wadden Sea
1990 – 2001



Common Redshank
Tringa totanus (Photo:
Wernicke, Archive NPA).

only some rough trends can be described. The heavy flooding incidents in late May and June resulted in high loss rates of clutches and lead to a re-distribution of several species breeding especially on low lying salt marshes on the mainland coast. The overall situation of wader species does not show a general trend. Especially on the islands meadow bird populations seem to be quite stable whereas mainland salt marsh populations suffer – in addition to high flooding rates – from high predation rates as well.

The Wadden Sea proper functions as a rescue spot for meadow birds, which have failed in inland marshes due to agriculture, drainage, predation or disturbance. The population development seems to be generally better than at the traditional sites inland. But, high loss rates indicate that this ecological function might be of very limited value. New information (e.g. Wangeroog)



Great Ringed Plover
Charadrius hiaticula
(Photo: Jessel, Archive
NPA).

from the islands, where large meadow bird populations occur, show high predation rates by introduced house cats, hedgehogs or ferrets, and cause a problem which has not been focussed on enough up to now, considering the importance of island meadow bird populations.

In 2001, in thorough survey of the extended natural ungrazed salt marsh of the Jadebusen in LS revealed Common Redshank *Tringa totanus* numbers, which were unknown up to now. In the 1991 and 1996 total survey, 910 and 813 territorial pairs respectively were counted. In contrast to these results, in 2001, 2015 pairs were counted in the total area of about 2000 ha salt marsh area, an extraordinary density! The large bays with silty mudflats (esp. Jadebusen, Dollard, Leybucht) are the most important sites for breeding Redshanks throughout the Wadden Sea. However, breeding success studies in that area revealed very low figures too.

The negative population development of Kentish Plovers *Charadrius alexandrinus* is still serious throughout the Wadden Sea. However, in the northernmost Danish part, numbers have increased considerably since 1990 (see Fig.1). This might be a consequence of large scale recolonization processes from pairs which formerly bred in embanked salt marsh areas in SH (e.g. Beltringharder Koog), where habitat function has been lost due to vegetation succession. But, on the other hand, natural habitat creation by geese (esp. Barnacles) seems to be the cause of increasing numbers of Kentish plovers and Northern Lapwing *Vanellus vanellus* on embanked salt marsh areas in SH. Both species prefer very short vegetation height at the beginning of the breeding season. The geese leave the Wadden Sea area as late as May, when the breeding period of the waders starts. This might indicate an interesting ecological network of different bird species typical for Wadden Sea habitats. However, Esselink et al. (2000) explain decreasing Common Redshank numbers in the Dutch Dollard area with high grazing rates of Barnacles – an opposite effect. On the other hand Kentish Plover numbers dropped further in NL as well as in LS, where the population size was at an all-time low. Local extinction has to be expected in a couple of years.

The Situation of Great Ringed Plovers *Charadrius hiaticula* is not as serious but the numbers are decreasing as well. In LS, a special search at mainland salt marsh sites revealed about 80 pairs, and on the islands, only about 40 pairs could be found. At least in Germany, Ringed Plover seems to follow the negative trend of Kentish Plover with steep decreases in recent years.

In 2001, nine pairs of Black-winged Stilt *Himantopus himantopus* tried to breed in NL in the Lauwersmeer region, but failed to be successful. In SH, a breeding record of Turnstone *Arenaria interpres* could be stated on the Hamburger Hallig

for the first time in a number of years, in the last years breeding could be expected only on small hallig islands and on Trischen. The Dunlin *Calidris alpina* population has decreased further, esp. in DK. However, in the Dollard area breeding could be confirmed year after year in recent times; in 2001, three pairs were found on the Dutch side and one displaying pair was observed across the German border. This means probably the first breeding attempt since 1985.

Gulls and Terns

In general, trends in gull numbers, as indicated in Rasmussen et al. 2000, continued in 2001. But, the complete survey on Mellum revealed – opposite to the general trend – a slight increase of the Herring Gull *Larus argentatus* population (10,509 bp) and a 30% decrease of the Lesser Black-backed Gull *Larus fuscus* (3,519 bp). The Black-headed Gull *Larus ridibundus* population in LS shows clear concentrations towards only two large colonies with 8000 and 7500 bp respectively, mainland numbers are decreasing rapidly which is attributed to high predation pressure by Red Foxes in NL.

Tern colonies are even more susceptible to high tides than gull colonies due to their nest sites situated closer to the high water level. Especially Little Terns *Sterna albifrons* suffered from flooding in 2001, and left their initial colonies in several places. This could be seen very easily in numbers counted on Minsener Oog: In the counting period, only 23 bp settled on the island. After the flooding event at the end of May, numbers increased considerably up to 117 pairs, the largest colony in LS since years. We do not know exactly which colony the birds came from, but at least the nearest place on the island of Wangerooge, where 46 pairs bred in the early breeding season, was abandoned after the flooding event. Such large scale movements are typical for population and distribution dynamics of all tern species breeding in the Wadden Sea, not only as a consequence of a bad weather situation or other external factors, but also as a finely tuned reaction to variable breeding or feeding conditions in different parts of the ecosystem. The need for regular, synchronous large-scale surveys with fixed counting periods is emphasized by such movements.

The largest colony of Sandwich Tern *Sterna sandvicensis* in the Wadden Sea on the island of Griend held a quite large number of pairs (8,200 bp) in comparison with the population size in 2000 (7,900 bp). In LS numbers were quite stable with 2,147 pairs on Juist and 1,047 pairs on Minsener Oog. The latter colony has "returned" from Wange-

rooge to Minsener Oog, where the terns bred until 1981 when they moved to the adjacent island Wangerooge. (Behm-Berkelmann & Heckenroth 1991, Südbeck & Hälterlein 2001). Terns in general declined in the Danish part of the Wadden Sea, overall trends can not be given due to missing data from several parts.

In 2001, Gull-billed Terns *Sterna nilotica* were concentrated at the northern edge of the Elbe estuary, a real "colony" with 46 bp in one salt marsh spot was established. This happened for the first time in a number of years, because before nests were distributed over very large areas. At the southern part in LS, breeding numbers were – as a consequence – very low (less than 10 pairs). The former Danish breeding sites was more or less abandoned, just one unsuccessful breeding pair settled at all. Altogether the total Wadden Sea population of Gull-billed Terns showed a size which was quite normal, taken the last decades (about 60 bp).

Gull-billed Tern
Sterna nilotica (Photo:
Wernicke, Archive NPA).

References

- Behm-Berkelmann, K, Heckenroth, H. 1991. Übersicht der Brutbestandsentwicklung ausgewählter Vogelarten 1900-1990 an der niedersächsischen Nordseeküste. Naturschutz Landschaftspf. Niedersachs. 27, 97 pp.
- Esselink, P., Dallinga, H. & Koks, B. 2000. The value of coastal salt marshes for breeding redshank (*Tringa totanus*). In: Esselink, J. W. P.: Nature management of coastal salt marshes. Interactions between anthropogenic influences and natural dynamics. Diss. Univ. Groningen: 185-191.
- Fleet, D. M., Frikke, J., Südbeck, P., Vogel, R. L. 1994. Breeding Birds in the Wadden Sea 1991. Wadden Sea Ecosystem No. 1. Common Wadden Sea Secretariat & Trilateral Monitoring and Assessment Group, Wilhelmshaven, 108 pp.
- Rasmussen, L. M., Fleet, D. M., Hälterlein, B., Koks, B. J., Potel, P., Südbeck, P. 2000. Breeding Birds in the Wadden Sea in 1996. Results of a total survey in 1996 and of numbers of colony breeding species between 1991 and 1996. Wadden Sea Ecosystem No. 10. Common Wadden Sea Secretariat, Wilhelmshaven, pp. 122.
- Südbeck, P., Hälterlein, B. 2001. Brutvogelbestände an der deutschen Nordseeküste 1998 und 1999: 12. und 13. Erfassung durch die Arbeitsgemeinschaft „Seevogelschutz“. Seevogel 22: 41-48.
- Joint Monitoring Group of Breeding Birds in the Wadden Sea (JMBS)
- Contact address:
Common Wadden Sea Secretariat
Virchowstr. 1
D 26382 Wilhelmshaven
reineking@waddensea-secretariat.org