
Breeding waders and terns around Burgas Bay, Bulgaria, in 1990

J. Kube & B. Grube

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The results of a count of breeding waders and terns on salines, lakes and sandy beaches around Burgas Bay in 1990 are presented. Burgas Bay is an important area for breeding waders on the Black Sea. A comparison between 1990 data and former counts shows only small changes in the overall number of breeding waders. This might be a result of the protection of their main habitat at Lake Atanasov. However, local declines at other sites are associated with pollution, disturbance by tourism and other factors.

Kube, J., Heimgartenstrasse 26, 0-1170 Berlin, Germany.
Grube, B., Zur Schleuse 14, 0-2851 Garwitz, Germany.

INTRODUCTION

The population size of waders breeding around the Mediterranean and Black Sea is currently a major topic of wader studies (Piersma *et al.* 1987). General data for some countries have recently been published (e.g. Tinarelli & Bacetti 1989; Nankinov 1989), however, our knowledge of the exact numbers, population trends and the situation concerning wader protection is still incomplete (e.g. Uhlig 1989, in press).

Therefore we tried to count breeding waders and terns in some wetlands around Burgas Bay - the most important region for breeding and migrating waders in Bulgaria (Nankinov 1989) - between 31 May and 11 June 1990. All our data relate to the location of either nests or pairs with juveniles. In early June most species had young chicks. Thus we could count only pairs with juveniles and not all birds which had tried to breed in 1990. Roberts (1980) has previously described the loss of nests as a result of changing water levels at Lake Atanasov. To get an impression of the total number of breeding birds we also registered non-breeders.

The area around Burgas is characterized by large lakes and salines (Figure 1, Table 1). Many ornithologists have previously studied waders there (see literature cited by Nankinov 1989). Exact numbers of breeding birds have been published in the last two decades (e.g. Nankinov 1989; Botev & Peshev 1985; Roberts 1980; Koenigstedt & Robel 1982). This allows us to compare our results with other published data to investigate numerical changes of breeding waders since the 1970s. The results are discussed for each surveyed wetland separately.

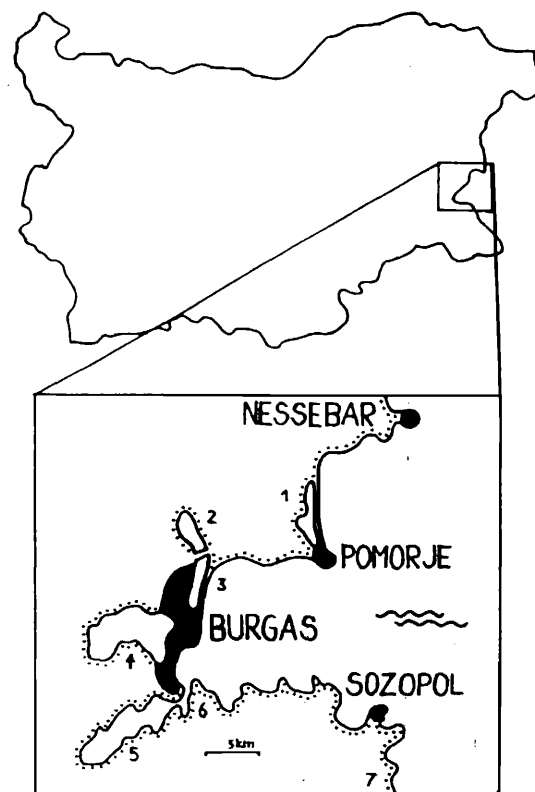


Figure 1. Study area. Lakes and salines around Burgas Bay, Bulgaria. For numbers see Table 1.



RESULTS AND DISCUSSION

Lake Atanasov

Most ornithologists have previously concentrated their observations on this nature reserve. Surveys published since 1975 suggest a stable situation, although with large annual changes in the number of breeding pairs (Table 2).

Lake Pomorje

Only a few data have been published for this area. The salines have been enlarged in the last two decades and have become one of the most important breeding areas for waders on the Bulgarian Black Sea coast (Table 3).

Lake Burgas and Lake Mandra

There are only a few suitable places for breeding waders at these lakes. On most parts of the shore reeds are growing, other parts are too steep and the eastern shoreline is included in the city of Burgas. We could survey only the south-eastern part of Lake Mandra. The Black-winged Stilt *Himantopus himantopus* is the only common breeding species. We counted two pairs although estimated a maximum of 10-20 pairs for the whole area. Other authors observed small numbers of breeding Avocets *Recurvirostra avocetta*, Collared Pratincoles *Glareola pratincola* (8 pairs in 1977, Roberts 1980) as well as other species (Nankinov 1989).

Lake Poda

This saline - a nature reserve - was an important breeding area for waders until the 1970s. Today the saline is drastically polluted by oil and waste water. Disturbance by traffic is enormous. We did not find any breeding waders in 1990 (Table 4).

Lake Alepu

Small numbers of Avocets and other species were breeding at this coastal lake in the 1960s (Prostov 1964; Nankinov

Table 1. Wetlands around Burgas Bay, Bulgaria. Numbers relate to locations shown in Figure 1.

No. Site (km ²)	Area (%)	Salinity	Quality of counts in 1990
1. Lake Pomorje	7	60-80	totally counted
2. Lake Atanasov (northern part)	10	20	no counts
3. Lake Atanasov (southern part)	7	20-40	partially counted
4. Lake Burgas	28	2-4	no counts
5. Lake Mandra	20	2-4	partially counted
6. Lake Poda	2	5-15	totally counted
7. Lake Alepu	5	2-4	totally counted

Table 2. Breeding waders and terns at Lake Atanasov, Bulgaria

Species	1975/77 ¹	1977 ²	1978/82 ^{3,4}	1989 ⁴	1990 ⁵
Oystercatcher	0-1	1	+	0	-
Black-winged Stilt	min. 50	min. 22	50-90	0	20-30
Avocet	800	725	700-2000	0	100
Lapwing	min. 20	min. 16	max. 59	0	-
Little Ringed Plover	-	-	+	0	-
Kentish Plover	min. 200	min. 48	141-252	0	+
Redshank	4	2	+	0	-
Collared Pratincole	+	5	7-36	50	-
Gull-billed Tern	26-32	0	0	0	-
Common Tern	25	0	0	0	+
Little Tern	100-150	0	0	0	20-30

1 Koenigstedt & Robel (1982)

2 Roberts (1980)

3 Nankinov (1989)

4 Koenigstedt & Langbehn (1990)

5 southern part only

+ - no numbers

0 - no information

Table 3. Breeding waders and terns at Lake Pomorje, Bulgaria

Species	1960 ¹	1974 ²	1975/82 ^{3,4}	1990	1990 ⁵
Oystercatcher	0	0	+	-	3
Black-winged Stilt	+(10)	+	+	45-50	40
Avocet	+(10)	+(15)	10	45-50	70
Lapwing	0	0	+	-	30
Little Ringed Plover	0	0	0	1	-
Kentish Plover	0	0	+	40-45	-
Redshank	0	0	+	1	90
Collared Pratincole	0	0	+	-	1
Common Tern	0	0	0	1	+
Little Tern	0	0	0	20-25	-

1 Mountfort & Ferguson-Lees (1961)

2 Hubalek (1978)

3 Nankinov (1989)

4 Botev & Peshev (1985)

5 non-breeders

+ - no numbers

0 - no information

Table 4. Breeding waders and terns at Lake Poda, Bulgaria.

Species	1974 ^{1,2}	1977 ^{3,4}	non-breeders 1990
Black-winged Stilt	30-40	0	max. 8
Avocet	min. 20	20	2
Kentish Plover	+	0	-
Collared Pratincole	5	4	-
Gull-billed Tern	?	0	-
Common Tern	40	0	5
Little Tern	+	0	1

1 Schubert, G. & M. (1982)

2 Hubalek (1978)

3 Roberts (1980)

4 Botev & Peshev (1985)

+ - no numbers

0 - no information

1989). A modern traffic line from Burgas to Istanbul has cut the connection between Lake Alepu and the Black Sea. Following this, reeds have grown quickly and the disturbing influence by traffic and tourism has increased. No breeding waders were found in 1990.

Shoreline of Black Sea coast

We surveyed 70% of the coastline between Pomorje and



Kiten (80 km) and counted 26 pairs of Little Ringed Plovers *Charadrius dubius*. Comparing our observations with data from Brehme (pers. comm.) we estimated a total of 40-50 pairs for the whole southern part of the Bulgarian Black Sea coast. The breeding habitat of Little Ringed Plovers on the Black Sea coast is quite similar to that of Ringed Plovers *Charadrius hiaticula* on the Baltic Sea. In contrast to Nankinov (1989) we could not find any Kentish Plovers *Charadrius alexandrinus* breeding on the beach.

Because of the large concentration of breeding waders in the nature reserve Lake Atanasov, changes of waders in other surrounding breeding habitats (decreases on Lake Alepu and Lake Poda, increases on Lake Pomorje) have an insignificant influence on the overall dynamics of wader populations around Burgas Bay. Nevertheless some species are endangered by human activities in this area. Little Ringed Plovers are threatened by oil pollution from the Black Sea as well as tourism. Many pairs lose their chicks or eggs in early June as a result of tourists on the beach. The Collared Pratincole is decreasing in numbers in South-east Europe. The main threat is the intensification of agriculture (use of pesticides, use of steppe areas) (Uhlig 1989).

REFERENCES

Botev, B. & Peshev, Tz. (Eds.) 1985. *Red Data Book of the People's Republic of Bulgaria 2*, Sofia.

Hubálek, Z. 1978. Ornithologische Notizen aus Südost-Bulgarien. *Falke* 25: 42-48.

Koenigstedt, D. & Langbehn, H. 1990. Zum Brutbestand der Rotflügel-Brachschwalbe (*Glareola pratincola*) in Bulgarien. *Orn. Mitt.* 42: 73-75.

Koenigstedt, D. & Robel D. 1982. Die Brutvögel der Salinen bei Burgas (VR Bulgarien) - eine vorläufige Mitteilung. *Beitr. Vogelkd* 28: 244-248.

Mountfort, G. & Ferguson-Lees, M. 1961. Observations on the birds of Bulgaria. *Ibis* 103a: 443-471.

Nankinov, D. 1989. The status of waders in Bulgaria. *Wader Study Group Bull.* 56: 16-25.

Piersma, T., Beintema, A. J., OAG Münster, & Pienkowski, M. W. 1987. Wader migration system in the East Atlantic. *Wader Study Group Bull.* 49: Suppl., IWRB-Spec. Publ. 7: 35-56.

Prostov, A. 1964 Study of the Burgas Avifauna. *Izv. zool. Inst. Muz B.A.N.* 4-5: 451-460.

Roberts, J. L. 1980. The status of Charadriiformes in Bulgaria. *Bonn. Zool. Beitr.* 31: 38-57.

Schubert, G. & Schubert, M. 1982. Ornithologische Beobachtungen aus Bulgarien. *Falke* 29: 366-372.

Tinarelli, R. & Bacetti N. 1989. Breeding waders in Italy. *Wader Study Group Bull.* 56: 7-15.

Uhlig, R. 1989. Zum Status der Rotflügel-Brachschwalbe (*Glareola pratincola*) in Süd-osteuropa. *Orn. Mitt.* 41: 155-159.

Uhlig, R. in press. Zur Bestandssituation des Stelzenläufers (*Himantopus himantopus*) in Süd-osteuropa. Kartierung mediterr. Brutvögel.

