

Wintering waders of the Ukrainian part of the Danube Delta

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Observations of wintering waders in the Ukrainian part of the Danube Delta between 1983 - 1995 are reported. A total of 14 species were recorded of which Dunlin *Calidris alpina* was the most abundant, followed by Sanderling *C. alba* and Curlew *Numenius arquata*. Ice-free conditions where the delta joins the Black Sea coast facilitates regular wintering by these and other species.

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Приводятся результаты наблюдений за куликами в украинской части дельты Дуная в период с 1983 по 1995 гг. В целом было зарегистрировано 14 видов, среди которых самым многочисленным являлся чернозобик *Calidris alpina*, а вслед за ним песчанка *C. alba* и большой кроншнеп *Numenius arquata*. Беследяные условия мест, где дельта примыкает к черноморскому побережью, способствуют регулярной зимовке этих трех и других видов.

Introduction and study area

The delta of the Danube river - the second largest river in Europe - is a huge, relatively intact and unaltered, natural wetland system of international importance (Figure 1). Its Ukrainian part accounts for about a quarter of the total area and contains much valuable habitat. The Danube Delta Nature Reserve is located in the coastal part of the delta covering an area of 14,851 ha.

The noticeable warming of the winter climate in the delta over the last two decades has resulted in considerable changes in the ice conditions and freezing of the soil. Throughout most winters, considerable lengths of the coastline with the wave-break zone used by shorebirds for foraging have remained free of ice. Where sheltered by forest, the soil does not freeze everywhere or not to any great depth; it also thaws quickly during periods of warm weather. This has resulted in the creation of conditions enabling some species of shorebirds to winter and 14 species were recorded in the Ukrainian part of the Danube delta and the adjacent pools in the winter months of 1983 - 1995. In the literature there is no information about wintering waders in this area. The species composition, abundance and duration of stay in the area were

determined by the weather conditions of each particular winter. Usually birds were relatively frequent (Table 1) but were almost completely absent in exceptionally cold winters.

Results

Grey Plover *Pluvialis squatarola*

Groups of three to five individuals and single birds could often be observed in December with Dunlin *Calidris alpina* and Sanderling *C. alba*. In January and February only single Grey Plovers were recorded with the exception of a flock of 11 found on 19 February 1988. Before the ice cover develops, they can be seen on sand-and-silt spits, adjacent shallow pools and water-logged meadows. When the inland pools freeze, the birds move to the shore, islands and spits where they forage in the wave-break zone and dry sections of the coast; when the sea is moderately rough they can search for food in sections of shallow water. Grey Plovers can tolerate freezing of the coastal waters for several days when they search for food on sand-and-shell beaches which thaw during the day. More prolonged ice conditions along the entire coastline probably leads to death of the birds as they may be very weak during this season. In normal winters, in December, there may be up to 50 Grey Plovers in the Kilia delta

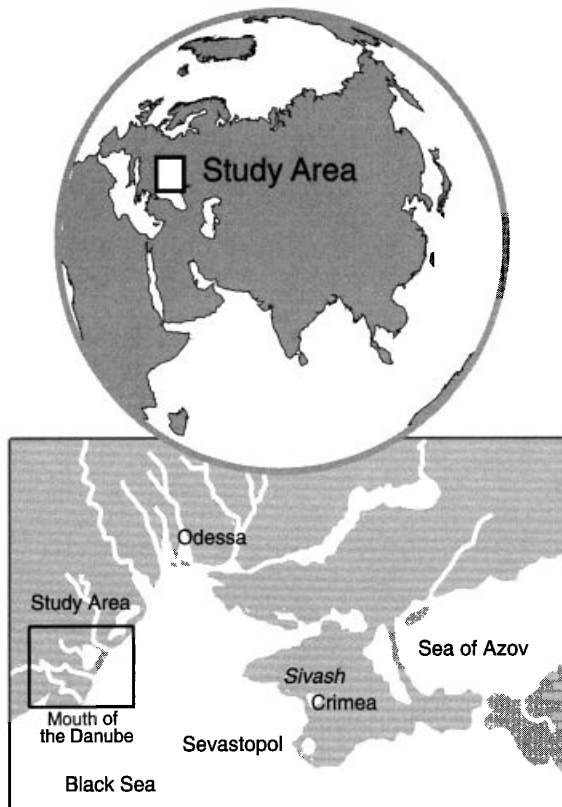


Figure 1. The study area.

of the Danube which has more than 30 km of sandy beaches but in January and February their number does not exceed 20 individuals.

Kentish Plover *Charadrius alexandrinus*

The only individual of this species (a first-year male) was recorded by us on 17 December 1986 foraging in the wave-break zone of a sea beach; interestingly, no Kentish Plovers were observed in the delta in October and November. This was the first winter record of the species in the region.

Lapwing *Vanellus vanellus*

Single individuals and groups of up to five birds were seen throughout the winter but were more numerous in December. When the weather is fairly warm they forage in meadows but when the temperature drops below zero they move to the sea coast. During prolonged periods of warm weather, the number of Lapwings in the area increases markedly even in January; this indicates the presence of important wintering grounds of the species in the region.

Avocet *Recurvirostra avosetta*

A single bird was observed at the sea coast in mid-December 1980 (V.A. Panchenko pers. comm.). Thirty birds seen in the area on 29 November 1984 shows that Avocets do occur here in winter. These Avocets were noted on 5 January 1994 in the upper part of Burnas liman adjacent to the Danube. (The term liman refers to a former river mouth flooded by the sea and at present partially or completely separated from it by a sand spit. This type of water body is largely confined to the northern Black Sea region.)

Green Sandpiper *Tringa ochropus*

The first record of this bird in the region was on 8 February 1995 when a group of five was seen on a thawed section of a silty and shallow part of a pond near Strumok village, 17 km from the delta area.

Redshank *Tringa totanus*

Single juvenile birds and groups of two to three individuals were noted many times in the Kilia delta but only in December. There were sightings in January at the Tuzlov group of limans adjacent to the Danube.

Table 1. Species composition and abundance of shorebirds in the Kilia delta of the Danube in normal and mild winters, 1983-1985.

Species	December	January	February
Grey Plover <i>Pluvialis squatarola</i>	XX	X	X
Kentish Plover <i>Charadrius alexandrinus</i>	X	-	-
Lapwing <i>Vanellus vanellus</i>	XX	X	X
Avocet <i>Recurvirostra avosetta</i>	X	X	-
Green Sandpiper <i>Tringa ochropus</i>	-	-	X
Redshank <i>Tringa totanus</i>	XX	X	-
Dunlin <i>Calidris alpina</i>	XXX	XXX	XX
Sanderling <i>Calidris alba</i>	XXX	XXX	XX
Knot <i>Calidris canutus</i>	X	-	-
Snipe <i>Gallinago gallinago</i>	X	X	-
Woodcock <i>Scolopax rusticola</i>	XX	X	X
Whimbrel <i>Numenius phaeopus</i>	XX	XX	XX
Curlew <i>Numenius arquata</i>	XXX	XXX	XXX
Black-tailed Godwit <i>Limosa limosa</i>	X		XX

X = absent or single birds XX = rare XXX = common

Dunlin *Calidris alpina*

This is the most abundant wintering shorebird. Birds occur in flocks of up to 300 on the coast where they forage in the wave-break zone although, sometimes, they collect food on the sand at a considerable distance from the water line. Dunlin often form mixed flocks with Sanderling. At the end of the day, flocks split up into smaller groups. Among 26 collected in winter, 16 (61%) were females and 10 (38%) males; 14 (59%) individuals were first-year birds and 12 (46%) adults. All were well-nourished and in fresh plumage.

Sanderling *Calidris alpina*

The abundance of this species is only slightly lower than that of Dunlin with which it has a common life-style. As with Dunlin, complete freezing of the coastal zone forces birds to leave the area. Among the 19 collected in late November and throughout the winter, 15 (79%) were females and four (21%) were males; 11 (58%) were first-year birds and eight (42%) adults.

Knot *Calidris canutus*

The only individual of this species recorded by us was observed on 16 December 1983, foraging on a beach in a mixed flock of Dunlin and Sanderling. The Knot was a well-nourished male with a well-developed bursa of Fabricus and fresh plumage.

Snipe *Gallinago gallinago*

Single individuals were found in December and January in meadows adjacent to pools free of ice.

Woodcock *Scolopax rusticola*

Occasionally, single individuals can be observed in the wet riparian forest of the delta in December, January and February.

Whimbrel *Numenius phaeopus*

In some winters, fairly large wintering groups of these birds (up to 200 individuals) concentrate on the low seaside spits in the coastal part of the delta. Whimbrel are rare in other locations.

Curlew *Numenius arquata*

Curlew occur in the delta and its adjacent territories throughout the winter. The birds are usually seen on small seaside spits, meadows and fields of perennial grasses. The largest concentrations are known in the coastal spits of the central part of the delta where, in some years, up to 300 may gather. Compared with the other species of waders wintering in the region, Curlew have the highest tolerance of low temperatures. Small numbers were observed even during the abnormally cold winter of 1984-85.

Black-tailed Godwit *Limosa limosa*

This bird was first recorded on a coastal sand-and-shell-spit in the central part of the delta on 20 January 1986 when a flock of 13 was found. Probably the same group was noted at the same site on the last days of January. On 21 February 1989, 12 birds were seen in the southern section of the coastal part of the delta. It is likely that a few individuals of this species may be found in December as well.

Conclusion

Overall, out of 14 wader species recorded in the Ukrainian part of the Danube delta in the winter months of 1983 - 1995 only eight (Grey Plover, Lapwing, Dunlin, Sanderling, Woodcock, Whimbrel, Curlew and Black-tailed Godwit) could be observed throughout winter. It is, however, possible that the wetlands of the region are only definitely of importance as wintering grounds for Dunlin, Sanderling, Curlew and, to a lesser extent, Whimbrel. Wintering waders are most numerous in the delta in December, probably due to late staying transient individuals: numbers are lowest in February. Abundance and species composition in any particular winter are determined by the weather conditions in the area. During abnormally cold winters (e.g. 1984-85), Curlew are the only shorebirds remaining in the delta area.