Wader migration along the North-west Black Sea coast and adjacent areas

A.I. Korzukov

Korzukov, A.I. 1991. Wader migration along the North-west Black Sea coast and adjacent areas. *Wader Study Group Bull.* 63: 21-24.

A.I. Korzukov, c/o Ukrainian Ornithological Society, Shampanskiy Street 2, Zoological Department, Odessa State University, Odessa, Ukraine, USSR

The coastal areas of the North-west Black Sea and adjacent sites enjoy very favourable ecological conditions for waders. These include extremely well developed hydrological networks of valleys, streams, the deltas of major rivers (Danube, Dnestr, Southern Bug, Dnipr etc.), lakes, brackish lagoons, irrigation systems, man-made reservoirs: all very suitable biotopes for waders with biologically productive water bodies (Figure 1). Such features attract major concentrations of waders both on passage and during the breeding season to this region.

A total of 46 species of waders have been recorded since 1952 (Nazarenko 1953; Puzanov 1962; Puzanov & Nazarenko 1962; Nazarenko & Amonsky 1986) in the Black Sea coastal area. Of these, Greater Sandplover *Charadrius leschenaultii, Charadrius asiaticus,* Whitetailed Plover *Vanellus leucurus,* Spur-winged Plover *Vanellus spinosus, and* Buff-breasted Sandpiper *Tryngites subruficollis* appear to be vagrants; 11 species nest in the area, although Sociable Plover *Vanellus gregarius,* Slender-billed Curlew *Numenius tenuirostris* and Curlew *Numenius arquata* have become rare or have disappeared from their nesting areas (though Curlew nest quite frequently in the upper parts of brackish lagoons). The remaining waders are migrants or non-breeding summer visitors.

Active wader ringing by Odessa State University has been undertaken since 1974 to study territorial links, population characteristics, behaviour patterns, demography and other problems associated with the biology of these birds (Figure 2). A total of 34 wader species have been ringed, although most ringing has involved Redshank *Tringa totanus*, Dunlin *Calidris alpina*, Avocet *Recurvirostra avosetta*, Kentish Plover *Charadrius alexandrinus*, Little Stint *Calidris minuta*, Curlew Sandpiper *Calidris ferruginea*, Broad-billed Sandpiper *Limicola falcinellus* and Ruff *Philomachus pugnax*. To the present, about 20,000 birds have been marked in this way by the University alone (Table 1). In recent years scientists from the Southern Intersectoral Ornithological Station of the Ukrainian Academy of Sciences have also been ringing waders in this area especially in the nature reserve "Denube plavni".

The main technique used for catching waders is mist nets as well as walk-in traps for catching waders on the nest.

Over 200 recoveries have been received to date, and additionally 1,500 birds have been recaptured subsequently on the nesting grounds. Redshank, Dunlin, Kentish Plover and some others have been captured most frequently. Analysis of ringing recoveries shows that the North-west Black Sea coastal area is situated on a major flyway for many wader populations.

Redshank Tringa totanus

A common migrant and nesting species. Fledglings ringed in the North-west Black Sea coastal area fly to south-western wintering grounds. However, there is also evidence to indicate movements in a southern direction, and sometimes also to the east. A fledgling ringed on 29 May 1982, was recorded in August the



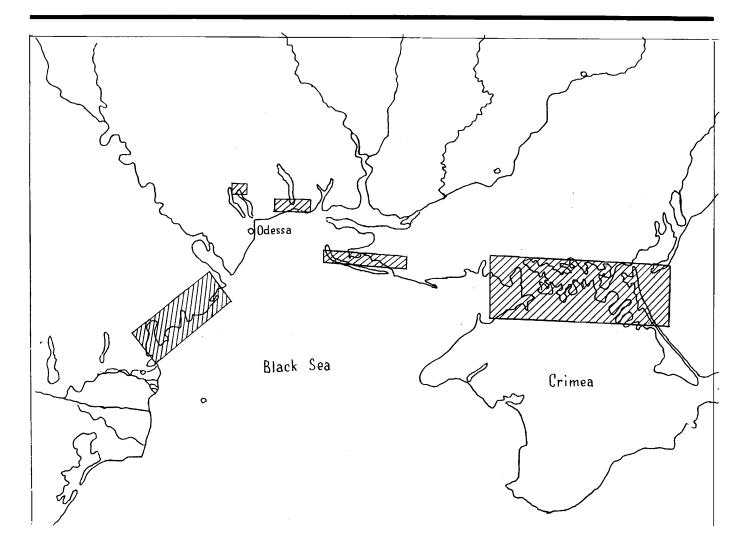


Figure 1. Main places where wader ringing has been undertaken in the North-west Black Sea coastal area.



Figure 2. Geographical connections of the North-west Black Sea coastal area as shown by wader ringing recoveries.

same year near the town of Evpatoriya in the Crimea. Another fledgling, ringed in the lower areas of the Tiligulsky brackish lagoon (Nikolaevskaya oblast), was recorded in the Dzhankoisky district of the Crimea in August the following year. In the months of December, January and March ringed birds have been recorded in Egypt, Turkey and Greece respectively. A typical feature of Redshank populations occurring in the Northwest Black Sea coastal area is their early departure from their nesting grounds. Massive concentrations of migrating birds are recorded in late July and early August. Single, small concentrations are also recorded in late autumn (November). Birds on passage keep mainly to coastal areas, although a few small concentrations are also recorded on inland water bodies. Redshanks arrive early and in warm winters they have even been recorded in the lower parts of the Tiligulsky lagoon in early March. In mid March and early April these birds form major concentrations.



Avocet Recurvirostra avosetta

A migrant and nesting species. Avocets arrive on their nesting grounds in early March (e.g. arrival records of 13 March 1989 and 10 March 1990). Massive concentrations are recorded in late March and early April although these are closely related to weather conditions. Very large nesting colonies in various years are recorded on the islands of the brackish lagoons of the North-west Black Sea coastal area. Recoveries of birds ringed as fledglings, show that they spend the winter in southern areas of western Europe (e.g. recoveries from Spain in January, Yugoslavia in December and January), as well as from Turkey to North Africa (e.g. recoveries from Egypt in January, Tunisia in January). These birds very probably fly through Malta. The birds fly to their wintering grounds along the Black Sea coast, though single flocks may fly across the open sea (observations made from Zmeinyi Island).

Fledgling birds ringed in Bulgaria in autumn sometimes fly in an easterly direction. Thus, a bird ringed on 18 May 1979 on Atanasovskoye Lake, was recorded in the Crimea, near the town of Dzhankoy. Analysis of recaptures show that some birds, ringed as young, do not return to their natal sites the following year. A young bird ringed in the lower areas of the Tiligulskaya Station was recorded during the following breeding season in the Crimea. Recently, the numbers of Avocets nesting in the North-west Black Sea coastal area have been sharply decreasing.

Dunlin Calidris alpina

A common migrant species. Dunlin appear in early March, depending on weather conditions (*e.g.*10 March 1980). Migrating birds captured in early April, belong to the Swedish nesting population and some birds from this population remain in the North-west Black Sea area until May. Dunlins captured in early May belong to the population nesting in Poland and adjacent areas, and remain in the North-west Black Sea area until early June.

The return migration of some birds has been recorded as early as the end of July. The Dunlins of northern populations fly to wintering grounds in a western and south-western direction, and some of them pass through continental European USSR. They winter in south-west Europe and North Africa. In December 1968 Dunlins were often observed in small concentrations on the coast in Tunisia. In October, there have been ringing recoveries in Italy, West Germany and in continental areas of European USSR. Some birds with our rings have been recorded in the Netherlands and Morocco in December.

Curlew Sandpiper Calidris ferruginea

A common migrant species. Birds have been captured in August in the North-west Black Sea coastal area which were marked in June in the north of Taymyr. Other birds captured in the Crimea in August were marked in the September of previous years in Morocco. Curlew Sandpipers captured in June in the Odessa oblast were marked in Norway in August of previous years. Ringed birds from the Black Sea area have been recorded in South Africa, Tunisia, France and Sweden.

Ruff Philomachus pugnax

A common migrant species. Ruffs ringed in August on Otenby Island (Sweden) in other years have been recovered in late August in the Black Sea coastal area. Birds captured in the lower area of the Tiligulsky lagoon in late July 1985 were recorded in the Komi Autonomous Republic (near the town of Inta) in late May 1987. There are some July records of ringed birds in Finland.

Lapwing Vanellus vanellus

A common, nesting and migrant species. This species arrives early. In warm winters Lapwings occasionally spend the winter here. They start nesting early. Few full clutches are recorded in late March. Massive concentrations of these birds have been recorded by mid to late June. These concentrations tend to move toward wintering grounds in a south-westerly direction. Some birds ringed as both breeders and migrants have been recorded on wintering grounds in Italy and England.

Little Stint Calidris minuta

A common migrant species. These birds are recorded on both spring and autumn passage. In warm winters they arrive in early March, with the main passage being from April to May. Birds ringed on passage have been recorded in March in Morocco.



Wood Sandpiper Tringa glareola

Table 1. Numbers of waders ringed in the North-west Black Sea coastal area in the period 1974-1989.

A migrant. Recorded with Swedish and Finnish rings.

Grey Plover Squatarola squatarola

A migrant which occurs throughout the summer. Summering birds are probably non-breeding.The only ringing recovery of this species in the area was of a bird marked in Namibia.

Woodcock Scolopax rusticola

A migrant and wintering species. A bird, ringed on Zmeiny Island on autumn passage, was recorded on wintering grounds in Greece in December.

There are some ringing recoveries of Kentish Plovers *Charadrius alexandrinus* from Israel, and Broad-billed Sandpipers *Limicola falcinellus* from Bulgaria.

This analysis of ringing recoveries shows that large numbers of birds from the northern parts of European USSR, Siberia, Scandinavia and the Baltic countries fly through the North-west Black Sea coastal area to wintering and nesting grounds. The area is thus of great importance for a wide range of wader populations.

The seasonal distribution and abundance of migrating waders in this region have special features, characterised by a complex of interacting factors largely dependent on weather. This can be investigated by the use of bird census data and such analyses are being undertaken.

REFERENCES

Nazarenko, L.F. 1953. Ecological-faunistic characteristics of the Dnester lower reaches and some perspectives of this area economic use. *Collection of papers, Biological Department, Odessa University*, 6: 139-155.

Nazarenko, L.F. & Amonsky, L.A. 1986. The impact of cynoptic processes and weather on bird migration in the Black Sea coastal area. Kiev-Odessa, Vischa Shkola, 183p.

Puzanov, I.I. 1962. Wildlife of the Odessa oblast. *Scientific papers, Odessa University, ser. geological and geograph. science* 152: 96-106.

Puzanov, I.I. & Nazarenko, L.F. 1962. New data on some rare bird species of the North-West Black Sea coastal area. Warsaw 9: 107-113.

Species	Waders ringed 1989 1974-89 re		Total number of ecoveries	Recovenes of foreign rings
Pluvialis squatarola		7	1	
Charadrius hiaticula		7		
Charadrius dubius	5	22		
Charadrius alexandrinus	40	902	23	3
Eudromias morinellus		2		
Vanellus vanellus	1	86		
Himantopus himantopus		19		
Recurvirostra avosetta	20	2,528	29	1
Himantopus ostralegus		2		
Tringa ochropus		4		
Tringa glareola	9	54	6	6
Tringa nebularia		4		
Tringa totanus	567	8,753	31	
Tringa erythropus		4		
Tringa stagnatilis	2	29		
Actitis hypoleucos		16		
Xenus cinereus		7		
Phalaropus lobatus		2		
Arenaria interpres		31		
Philomachus pugnax	33	204	5	5
Calidris minutus	9	665		
Calidris temminckii		1		
Calidris ferruginea	8	408	6	6
Calidris alpina	514	4,162	86	38
Calidris alba		54		
Limicola falcinellus	10	232	2	1
Lymnocryptes minimus		8		
Gallinago gallinago		20		
Scolopax rusticola		14	1	1
Numenius arquata		6		
Numenius phaeopus		10		
Limosa limosa		4		
Glareola pratincola		3		
Glareola nordmanni		4		
Total	1,218	18,274	190	61

