

Numbers and status of waders on Dolgiy and Kruglyy Islands in the Black Sea Nature Reserve

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Among 36 wader species recorded in the Black Sea Nature Reserve, 23 (63.9%) are migrants. The islands of Dolgiy and Kruglyy in the western part of the Yagorlitskiy Bay play an important role for migrating waders as well as in the post-breeding movements of local birds. In mild and normal winters, when the Bay remains unfrozen, Curlew *Numenius arquata* and occasionally Whimbrels *Numenius phaeopus* remain on Dolgiy Island. Spring migration begins as early as February. The most numerous species are Ruff *Philomachus pugnax*, with up to 1,500 - 2,000 birds being counted along every 5 km of the coast. Other common migrants are Grey Plover *Pluvialis squatarola*, Golden Plover *Pluvialis apricaria*, Kentish Plover *Charadrius alexandrinus*, Avocet *Recurvirostra avosetta*, Redshank *Tringa totanus*, Black-tailed Godwit *Limosa limosa* and Turnstone *Arenaria interpres*. Breeding waders are not numerous on the islands. Avocet breeds in variable numbers (5-126 pairs). The population of Oystercatchers (6-9 pairs annually) and Redshanks (10-26 pairs annually on Dolgiy Island only) is stable. The fourth breeding species is the Kentish Plover.

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Среди 36 обнаруженных в Черноморском заповеднике видов куликов перелетными являются 23 (63.9%). Острова Долгий и Круглый в западной части Ягорлыцкого залива играют важную роль в миграциях куликов и в послегнездовых кочевках местных птиц. Мягкими и нормальными зимами, когда залив не замерзает, большие кроншнепы *Numenius arquata* и реже средние кроншнепы *N. phaeopus* остаются зимовать на острове Долгий. Уже в феврале начинается весенний перелет. Самый многочисленный вид - турухтан *Philomachus pugnax*, до 1500-2000 особей которого было учтено на каждые пять километров побережья. К обыкновенным перелетным видам относятся тулес *Pluvialis squatarola*, золотистая ржанка *Pluvialis apricaria*, морской зуек *Charadrius alexandrinus*, шилоклювка *Recurvirostra avosetta*, травник *Tringa totanus*, большой веретенник *Limosa limosa* и камнешарка *Arenaria interpres*. Кулики гнездятся на островах только в малом числе. Число гнездящихся шилоклювок колеблется от 5 до 126 пар. Популяция куликов-сорок *Haematopus ostralegus* (от 6 до 9 пар в год) и травников (от 10 до 26 пар в год только на острове Долгий) стабильна. Четвертый гнездящийся вид - морской зуек.

Introduction

The Black Sea Nature Reserve is situated close to the Dnieper river mouth in the north-western part of the Black Sea (Figure 1) and consists of several parts. The numbers and status of waders on the protected marine islands of Dolgiy and Kruglyy have been discussed in several previous

publications (Klimenko 1950; Kistiyakovsky 1967; Ardamatskaya & Sabinevsy 1970; Ardamatskaya 1978, 1982, 1983). However, long-term standardised observations have continued. This paper provides an up-dated review of the status and the migration patterns of the waders of Dolgiy and Kruglyy Islands.

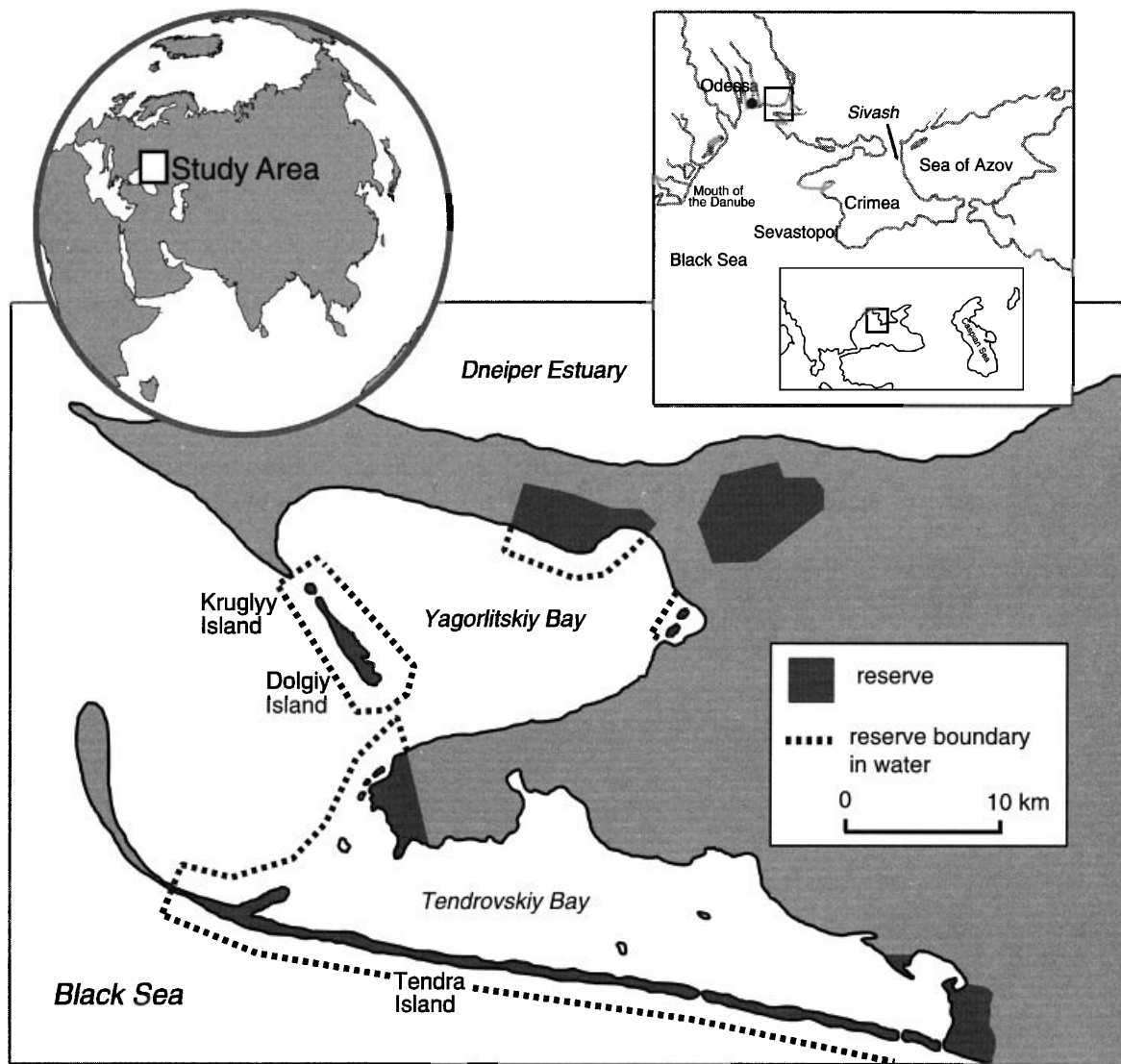


Figure 1. Map of the Black Sea Nature Reserve region.

Study Area and Methods

Regular surveys were carried out on Dolgiy (470 ha) and Kruglyy (8 ha) from March to September between 1975 and 1989 and from April to June in 1990. Between 1955 and 1974, wader counts were carried out during monthly visits, from April to October inclusive, on the coasts of the islands and the mainland of Yagorlitskiy Bay, where these islands are situated (Figure 1). Aerial censuses were carried out during the 1960s, 1970s and 1980s.

The islands are the remains of the shell-sand Pokrovskaya spit, from which they have separated due to erosion by the sea (Poretsky 1929). Dolgiy Island stretches from north-west to south-east and is almost 7 km long; its coastal zone is mainly covered with dead eel grass *Zostera* spp. and shells which are remnants of various kinds of mollusc, mostly mussels. In some places, a coastal dune up to 1.5-2 m in height lies behind this zone of washed-up plants and shells. This coastal dune is almost completely covered with reeds *Phragmites communis*, which also grow around numerous, small, shallow, silty inland lakes and ponds, most of which are connected with

the sea. In the southern part of the island there are vast reed-beds and areas of halophytous vegetation.

Kruglyy Island is 150 m from Dolgiy Island and only c. 750 m long. The coasts and inner lakes of this island are overgrown with reed-beds, which hold the various types of vegetation on the island. The majority of the small, silty lakes are connected to the sea during strong westerly winds.

Results and Discussion

Of 36 species which have been recorded in the Black Sea Nature Reserve, a total of 23 (63.9%) have been observed in different years on Dolgiy and Kruglyy Islands. First dates of spring migration depend on spring weather conditions and fall mainly between mid-February and early March. In late springs, which occurred after the most severe winters (1968/1969 and 1984/1985), migration began later.

Lapwings *Vanellus vanellus* are the earliest migrants, appearing either in small flocks of up to three birds or as single individuals.

Ruff *Philomachus pugnax* are the most numerous migrating species and appear on the islands between 10 - 20 March, even if the islands are still

covered with snow, for example in the cold spring of 1985. During peak migration, between 20 - 30 April, Ruff occur on almost all the inner lakes on the islands. On 23 April 1986, about 1,500 individuals were recorded on the 5 km census route.

Grey Plover *Pluvialis squatarola* are common on migration. Single individuals and small flocks of three to five birds also occur on the coasts of the islands during the summer. Autumn migration lasts from August until 10 - 20 November.

Golden Plover *Pluvialis apricaria* are fairly abundant on migration from the middle of March until the middle of April, although they do not form large flocks. In autumn, they migrate from August until the end of October. In warm autumns, single birds stay on the islands until November.

Ringed Plover *Charadrius hiaticula*, which are common on migration, are found from 5 -10 April until mid-May. Single birds also remain throughout the summer. Autumn migration takes place from August until October.

sandy islets near Dolgiy Island where, at the end of the 1980s, they even tried to breed. Unfortunately, all the nests were destroyed during a storm. Avocets also breed sporadically on Dolgiy Island, where their numbers are highly variable. In 1976, 126 pairs of Avocet were counted in a mixed colony with Common Tern *Sterna hirundo* and Little Tern *S. albifrons* near a shallow lake. In the following years, this lake was flooded by the sea and Avocets were not recorded breeding again. Another small colony of five nests appeared in 1987 on the small islet to the south-west of Dolgiy Island; in the following years, its beaches were flooded during severe storms and no birds nested.

Oystercatcher *Haematopus ostralegus* is a regular breeding species of Dolgiy and Kruglyy Islands (Table 1), although not in great numbers: two to four pairs on Kruglyy and six to nine pairs on Dolgiy Island. It is also sometimes numerous on migration. First Oystercatchers arrive between 1-10 March (earliest dates being 9 March 1959; 8 March 1961; 3 March 1978). In the years when spring migration was late, it started between 10-20

Table 1. Numbers of pairs of breeding waders in the south-eastern part of Dolgiy Island 1985-1990.

Species	1985	1986	1987	1988	1989	1990
Avocet <i>Recurvirostra avosetta</i>	0	0	5	0	0	0
Oystercatcher <i>Haematopus ostralegus</i>	4	3	2	2	4	3
Redshank <i>Tringa totanus</i>	7	4	3	2	0	0

Little Ringed Plover *Charadrius dubius* are fairly common but they occur in lower numbers than Ringed Plovers. The species breeds in small numbers on Tendra Island and on the Potiyevsky part of the Reserve.

Kentish Plover *Charadrius alexandrinus* are numerous on migration and are fairly common breeders, though nests were not found on Dolgiy Island every year. On autumn migration, between August and September, flocks of Kentish Plover stopping-over on Dolgiy Island consisted of 50-80 birds.

Turnstone *Arenaria interpres* are more common on autumn than on spring migration. Spring migration starts at the beginning of April and is most intense between 20 and 30 April. Single birds and small flocks are also recorded in May. From the end of July to the beginning of August, this species is one of the commonest waders on Dolgiy Island. Flocks of three to 18 birds also forage on the beaches during September.

Avocet *Recurvirostra avosetta* is common and sometimes numerous on migration. At the end of March, flocks of 60-120 Avocets stop on the small,

March. Autumn migration comes to an end in November.

Greenshank *Tringa nebularia* are abundant on migration. In spring, the first individuals and flocks appear between the second half of March and the beginning of April. Migration happens over a fairly short space of time and is almost complete by mid-May. In autumn, flocks of 150-200 Greenshanks stop-over to roost and forage on Dolgiy Island for fairly long periods. The last birds in autumn were recorded between 20-30 October.

Redshank *Tringa totanus* is a numerous migrant, common breeder and rare wintering species on the islands. In spring, the first Redshanks arrive between the 20 February and the beginning of March. The most intense migration occurs between 10-30 March. Usually, Redshanks pass through in small flocks of seven to 15 birds. Sometimes they stop to forage on the small lakes on the islands. The number of breeding Redshanks varies in different years, from ten to 26 pairs (Table 1). In autumn, large flocks of 70-90 or more Redshanks are present during September and October. During December and January, no more than three birds are ever recorded together.

Spotted Redshank *Tringa erythropus* are sometimes common on migration. Autumn numbers are higher than those in spring. Flocks of 15-20 or more birds are recorded in mid-August and late flocks depart up to 10 - 30 October. Single Spotted Redshank can also be found during summer.

Terek Sandpiper *Xenus cinereus* is a common migrant; autumn flocks are never recorded later than September.

Little Stint *Calidris minuta* are numerous on migration and flocks stop-over on the shores of small shallow lakes and on the coasts of the islands. Migration lasts from 10 April until the end of May in spring and from the end of June until the end of September - beginning of October in autumn.

Curlew Sandpiper *Calidris ferruginea* are numerous on migration, although the numbers recorded are lower than for Dunlin, with which Curlew Sandpipers often form mixed flocks. Spring migration lasts from 20 March until the end of May. In autumn, Curlew Sandpiper often stop-over for considerable periods of time on the mudflats of the shallow lakes. Flocks usually consist of 20-100 or more individuals.

Dunlin *Calidris alpina* is the second most numerous species after Ruff. In spring, it migrates between 20 March - early April and the end of May. Autumn migration, when Dunlin are more abundant, lasts from the end of July and reaches its peak in mid-August - 10 September. During the most intense migration, flocks consist of up to 200-300 individuals; large flocks of 600 or more Dunlin can be found on the inner lakes of Dolgiy Island.

Sanderling *Calidris alba* are common on migration; spring passage is less pronounced than autumn passage. On the Dolgiy Island coasts, autumn migration takes place from the end of July - beginning of August until between 20 - 30 October. Flocks of Sanderling foraging along the coastline range in size from 12-15 up to 70-80.

Broad-billed Sandpiper *Limicola falcinellus* is a numerous migrating species. Spring migration lasts from early April until mid-May; flocks of six to nine Broad-billed Sandpiper stop mostly on the coasts of the islands. Autumn migration lasts from the end of July - beginning of August until late October.

Although Woodcock *Scolopax rusticola* is numerous on migration it rarely winters. Spring passage occurs from 20 March until mid-April (except in 1980, when it lasted until 30 April). In autumn, its numbers are noticeably higher.

Slender-billed Curlew *Numenius tenuirostris* were regularly observed on spring (March-April) and autumn (late July-November) migration in the 1950s, although numbers were rather low and flocks consisted of no more than seven individuals. The

birds were recorded mostly on the mainland coasts and Tendra Island, but more rarely on the Kinburnskiy peninsula and the islands of Yagorlitskiy Bay (Dolgiy and Kruglyy). They were quite often observed foraging in mixed flocks with Curlew and Whimbrel. During the 1960s and at the beginning of the 1970s, migration was also observed every year on the mainland coasts and Tendra Island, but flocks tended to be smaller, usually consisting of no more than three birds. On Dolgiy Island, it was mostly single birds which were recorded (15 April 1963; 30 March 1967; 11 October 1969; 25 April 1973). The only time more than one was observed, two Slender-billed Curlews were observed on 13 April 1966 on a small lake in the south-western part of the island. During the second half of the 1970s, migration was also fairly regular but, even on Tendra Island, no more than three birds were observed together. Since the beginning of the 1980s, the Slender-billed Curlew has appeared on migration only irregularly; most observations have been made in autumn on Tendra Island.

Before 1990 Slender-billed Curlew were observed only once on Dolgiy Island, on 27 April 1988, when a single bird was recorded on the beach. There have been several records of single Slender-billed Curlews in the Black Sea Nature Reserve in recent years: on 19 April 1990 at the small lake of Dolgiy island; on 29 July 1990, 29 July 1992 and 3 August 1992 at the shallow lakes of Tendra Island.

Curlew *Numenius arquata* are numerous on migration and common in winter and in summer (although they do not breed). During the January aerial counts, Curlew were regularly observed on the beaches and inner lakes of Dolgiy Island.

Whimbrel *Numenius phaeopus* are common on migration and a few wandering individuals can also be seen in summer. Singles or small groups of two or three Whimbrel are irregularly recorded in winter (Ardamatskaya 1983). Spring migration lasts from the 20 - 30 March until May and autumn migration takes place from the beginning of September onwards. Whimbrel are usually recorded in the same places as Curlew, often in mixed flocks with this species. However, we have never observed Whimbrel concentrations which are as large as those observed for Curlew. The usual number of birds in a flock is between five and seven, rarely up to 11.

Black-tailed Godwit *Limosa limosa* are numerous on migration. Spring passage is observed from early April until May. Autumn passage lasts from between 10 - 20 July until November. Birds stop-over on the lakes of the islands and remain there for a considerable period of time. In spring, flocks contain up to 15 birds, while on autumn migration there are usually up to 50 birds.

Dolgiy and Kruglyy Islands have an important role for migrating waders. The numbers of species of breeding waders is rather low and variable and

their numbers are not very high. Of 28 breeding bird species recorded on the islands only four (14%) are waders. They are: Kentish Plover, Avocet, Oystercatcher and Redshank.

The solitary nests of Kentish Plovers are always destroyed by foxes and therefore breeding is always unsuccessful. Avocets breed sporadically and numbers of this species fluctuate greatly from year to year. The breeding populations of Oystercatchers and Redshanks are low and fairly stable (Table 1).

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