

# The numbers of breeding waders on some lakes in the lower Amu-Darya river region, Uzbekistan

E. Shernazarov & M.M. Turaev

Shernazarov, E. & Turaev, M.M. 1998. The numbers of breeding waders on some lakes in the lower Amu-Darya river region, Uzbekistan. *International Wader Studies* 10: 333-336.

Twenty-six wader species were recorded in May-June 1990-1991 at the Yangiaryk and Kaladzhin lake systems, Khoresm region of Uzbekistan. The total numbers of waders counted varied from 80-3,000 individuals per day. The ecological conditions of some lakes, particularly lakes Ullishorkul' and Shorkul', were favourable for various wader species during their spring migration. Other reservoirs of the Kaladzhin lake system are of minor importance for migratory birds. Breeding Black-winged Stilts *Himantopus himantopus* are widely distributed and are the most numerous breeding species. It was found nesting on lakes Abul'kul' (98 pairs), Zeykul (15 pairs), Shorkul' (four pairs) and Tozakul (two pairs). White-tailed Plovers *Chettusia leucura* breed on lakes Ullishorkul' and Tozakul (seven and two pairs respectively), and Avocets *Recurvirostra avosetta* were found on lakes Abul'kul' (17 pairs) and Zeykul (two pairs). Single nests of Oystercatchers *Haematopus ostralegus* were found on lakes Daryalan and Tozakul. These data show that the Yangiaryk and Kaladzhin lake systems are of little use for breeding White-tailed Plovers, Avocets and Oystercatchers. The expansion of reedbeds and increasing human influence will limit future increases in numbers of breeding waders.

E. Shernazarov & M.M. Turaev, Institute of Zoology and Parasitology of the Uzbekistan Academy of Sciences, Niyazova Str., 1, Tashkent, 700095, Uzbekistan.

Шерназаров, Е., Тураев, М.М. 1998. Численность гнездящихся куликов на некоторых озерах в Нижней Приамударье (Узбекистан). *International Wader Studies* 10: 333-336.

На янгиарыкской и каладжинской системах озер в Хорезмской области Узбекистана было зарегистрировано 26 видов куликов в период с мая по июнь 1990-1991гг. Общее число сосчитанных куликов колебалось в рамках 80 до 3,000 особей в сутки. Экологические условия некоторых озер, в частности озер Уллишоркуль и Шоркуль, были благоприятными для куликов разных видов во время их весенней миграции. Другие водоемы каладжинской системы озер имеют второстепенное значение для перелетных птиц. Самым многочисленным гнездящимся видом является широко распространенный ходулочник *Himantopus himantopus*, который был обнаружен гнездящимся на озерах Абулкуль (98 пар), Зейкуль (15 пар), Шоркуль (четыре пары) и Тозакуль (две пары). Белохвостые пугалицы *Chettusia leucura* гнездятся на озерах Уллишоркуль и Тозакуль (семь пар и две пары, соответственно), и шилоклювки *Recurvirostra avosetta* были обнаружены на озерах Абулкуль (17 пар) и Зейкуль (две пары). Единичные гнезда кулика-сороки *Haematopus ostralegus* были найдены на озерах Дарьялан и Тозакуль. Приведенные данные показывают, что янгиарыкская и каладжинская системы озер мало пригодны для гнездования белохвостых пугалиц, шилоклювок и куликов-сорок. Расширение зарослей тростника и возрастающее антропогенное влияние ограничат возможный будущий прирост численности гнездящихся куликов.

## Introduction and Methods

Irrigation works have been carried out in the Khorezm region of Uzbekistan since the beginning of the 1950s. Several new lakes acting as water reservoirs were formed during the development of virgin land into agricultural fields while at the same time several lakes dried out or are currently drying out due to drainage measures. The distribution of many waterfowl and shorebird species is also

influenced by other kinds of human activity. The study area, which is situated in the lower Amu-Darya river (Figure 1) also suffers greatly from the global environmental changes caused by the Aral Sea ecological catastrophe.

Neither the recent state of the fauna nor the population of waders in the transformed habitats of the Khorezm oasis have been studied. At the

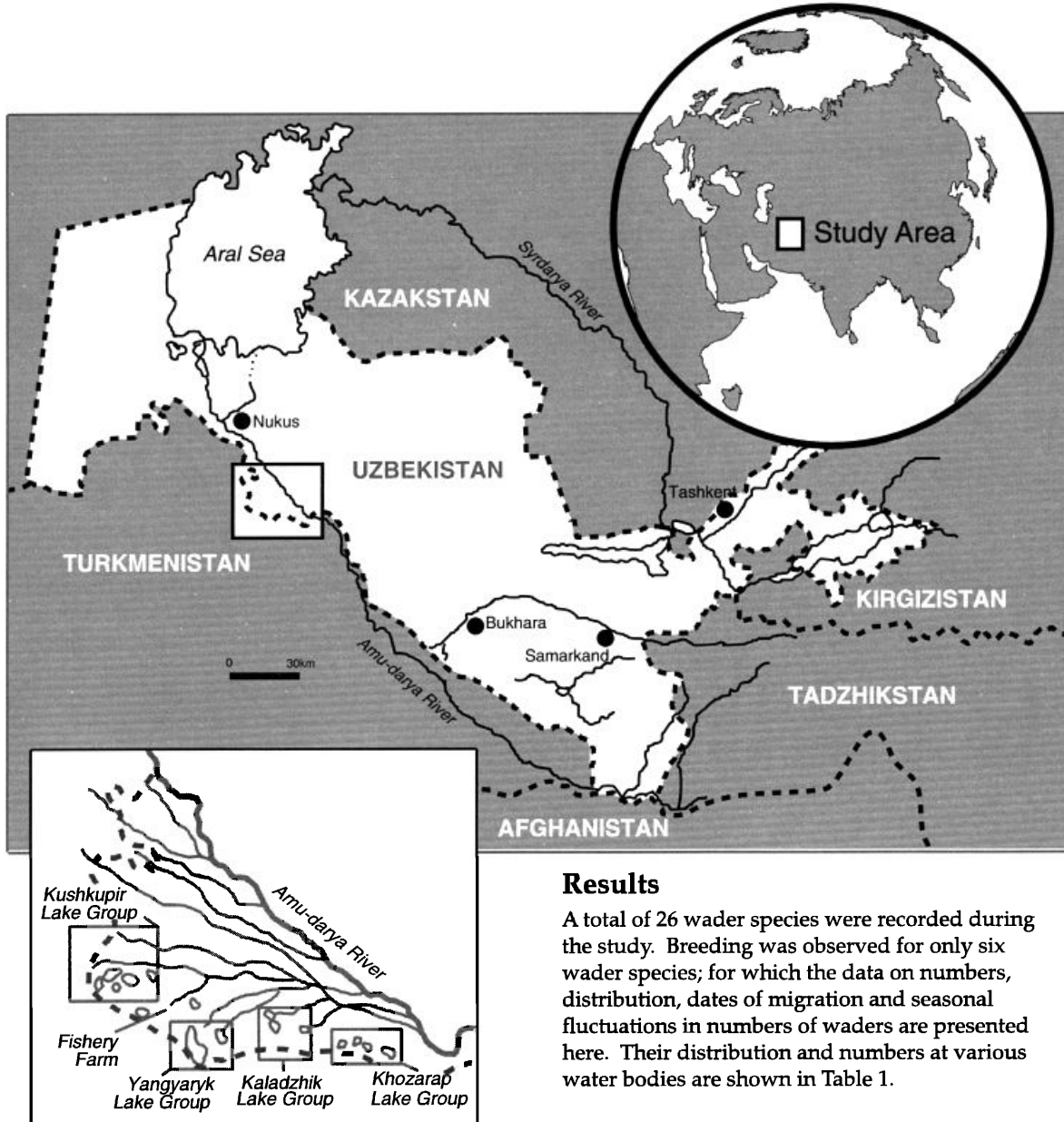


Figure 1. Study area and the main surveyed wetlands.

beginning of the 1950s Kostin (1956) confirmed breeding of only two wader species at the lakes of Khorezm region, Black-winged Stilt *Himantopus himantopus* and Kentish Plover *Charadrius alexandrinus*, and he presumed breeding of Avocet *Recurvirostra avosetta* and Marsh Sandpiper *Tringa stagnatilis*. Later, at the beginning of the 1970s, breeding colonies of the White-tailed Plover *Chettusia leucura* and the Collared Pratincole *Glareola pratincola* were found by Dzhumaniyazov (1975) at the lakes of western Khorezm. However, only faunistic data were presented in all these publications.

During our studies in March-June 1990-1992 the Kaladzhik, Yangyaryk, Kushkupir and Khozarap lake groups and fishery ponds were explored in the lower Amu-Darya river area, a total of more than 8,000 ha. In order to estimate the fluctuations in numbers of waders, regular counts were made every five days during spring and summer. Absolute numbers of nests recorded during the surveys were used to calculate breeding numbers.

## Results

A total of 26 wader species were recorded during the study. Breeding was observed for only six wader species; for which the data on numbers, distribution, dates of migration and seasonal fluctuations in numbers of waders are presented here. Their distribution and numbers at various water bodies are shown in Table 1.

### Little Ringed Plover *Charadrius dubius*

Numbers on spring migration are rather low. Earliest arrival dates were on 19 March 1991 and on 17 March 1992. The main bulk of Little Ringed Plovers migrate in April. During this period birds only stop at a few lakes: at Ullishorkul' lake 32 individuals were counted in April 1990 and 23 in May 1990; respectively seven and five Little Ringed Plovers were recorded on the same dates at Abul'kul' lake, two and two at Zeikul' lake, and 22 and 12 at Shorkul' lake. The only breeding birds found were six pairs at the fish ponds where, in 1992, they started to nest late in May.

### White-tailed Plover *Chettusia leucura*

This species is a common breeder at the water bodies of Khorezm region, being the second most numerous after Black-winged Stilt. Spring migration starts in the middle of March. In 1992, the earliest birds were recorded on 13 March. Peak migration occurs in April. White-tailed Plovers do not usually form large flocks - a maximum of only 76 birds were counted at Shorkul' lake (Kushkupir lake group). Similar numbers were counted at the fish ponds.

White-tailed Plovers start breeding at the end of April before the migration period has finished. Clutches containing two eggs were found on 2 May 1991. The total number of birds is not high: at the lakes of the Kaladzhik group 55 were counted in April, 35 in May, 29 in June, while the number of breeding White-tailed Plovers there was only 11 pairs. This species is distributed sporadically over the water bodies of the region and does not form large breeding colonies.

#### Black-winged Stilt *Himantopus himantopus*

This is the most numerous and widespread species in the region. The beginning of spring migration is observed at the end of March: in 1990 the first birds arrived on 27 March and in 1991 on 25 March. The earliest record on spring migration is 16 February 1992. Black-winged Stilts start nesting only a month after arrival. In 1990 they started nesting on 29 April and in 1991 on 27 April.

Analysis of census data demonstrates that the species was numerous in April mainly due to the presence of migrants. At that time Black-winged Stilts concentrated at the water bodies of the Yangyaryk and Kaladzhik lake groups, and also at the ponds of Khorezm fish farm: at Abul'kul' lake an

average of 98 were counted, at Shorkul' lake 86, at the fish ponds 83, at Ullishorkul' lake 55, at Zeikul' lake 33, and at Gandzhly lake 25. Sometimes in April and May up to 150 Black-winged Stilts a day were counted. Such concentrations were most often recorded at Shorkul' and Abul'kul' lakes, and less often at the fish ponds. Some of the lakes mentioned turned out later to be the main breeding colonies.

In May and June, numbers of Black-winged Stilts decline. At the lakes of the Kaladzhik group an average of 136 were counted in April, May and June 1993. From the beginning of July onwards the number of Black-winged Stilts again increases. In August it is twice as abundant as it is in July (in July and August respectively 81 and 161). This is because of pre-migration concentrations of young and adult birds.

Breeding Black-winged Stilts are unevenly distributed in the Khorezm region at different types of water bodies. More than 55% of birds prefer to nest at lakes, 22.5% at fish ponds, and 22.5% at the islands of the Amu-Darya river.

Table 1. Numbers of wader nests at the water bodies of Khorezm region, Uzbekistan.

Water body	Species						Total
	<i>Charadrius dubius</i>	<i>Chettusia leucura</i>	<i>Himantopus himantopus</i>	<i>Recurvirostra avosetta</i>	<i>Haematopus ostralegus</i>	<i>Glareola pratincola</i>	
<b>Kaladzhik lake group:</b>							
Shorkul' lake	-	-	7	-	-	-	7
Yaldyravuk lake	-	10	10	-	-	-	20
Daryalan lake	-	1	-	-	1	-	2
<b>Yangyaryk lake group:</b>							
Ullishorkul' lake	-	11	20	-	-	-	31
Abul'kul' lake	-	-	117	17	-	-	134
Karabulak lake	-	-	30	-	-	-	30
Tozakul lake	-	2	2	-	2	-	6
Zeikul' lake	-	-	-	2	-	-	2
<b>Kushkupir lake group:</b>							
Shorkul' lake	-	17	20	-	-	-	37
Karadashlikul lake	-	14	10	-	-	4	28
<b>Khozarap lake group:</b>							
Uzunkul lake	-	-	17	-	-	-	17
Kurvanakkul lake	-	5	10	-	-	-	15
Saitmatkul lake	-	6	2	-	-	-	8
Ponds of fishery farm	6	17	100	-	-	31	154
Amu-Darya river	-	8	100	-	2	-	110
NUMBER	6	91	445	19	5	35	601
PERCENTAGE	1	15	74	3	0.8	6	

### **Avocet *Recurvirostra avosetta***

On spring migration, numbers of this species are rather low. According to our observations, the main bulk of Avocets migrate in April. The earliest flocks were recorded during censuses in the middle of March: in 1991 the first birds were observed on 17 March, in 1992 on 14 March. At the end of March numbers increased noticeably and up to 110 birds per census were counted at the fish ponds. In April, the Avocets are much more widely distributed over the region. The largest concentrations were observed at the Shorkul" lake where 25-120 birds per census day were found.

Avocets start nesting in early May (2 May in 1990). From then on they are recorded in rather small numbers and only on a few lakes. Total numbers in May at the explored water bodies were a little more than 100 individuals. In summer (June-July) only up to 50 birds remain in the region and only about 80% of them take part in breeding.

### **Oystercatcher *Haematopus ostralegus***

This species is not numerous either on migration or as a breeding species. Migrants are spread more widely than the locally breeding Oystercatchers, although their numbers at a single lake usually do not exceed two birds, and extremely rarely four to five birds.

Spring migration starts in the second half of March: in 1991 the first Oystercatcher arrived on 19 March. The majority of birds passed through in April - up to 15 individuals were censused during this period at the shores of the Kaladzhik lakes, up to eight at the Yangyaryk lakes. Only nine birds were counted on the lakes of the Kaladzhik group in May, while at Yangyaryk lakes Oystercatchers were extremely rare.

Nesting is observed from the end of April onwards. The total number of breeding birds is rather small (Table 1).

### **Collared Pratincole *Glareola pratincola***

Numbers of Collared Pratincole are much higher during migration than in the breeding period. In May, 20 to 30 birds were recorded on every census at Yaldyravuk and Khodzhakulgan lakes (Kaladzhik lake group), while only a few individuals were observed at Tukkizchukur, Abul'kul' and Zeikul' lakes. Twenty years ago more than 150 pairs of Collared Pratincole were counted in colonies at the lakes of western Khorezm (Dzhumaniyazov 1975). Hence the number of breeding pratincoles has decreased dramatically during the last two decades. Breeding colonies of Collared Pratincoles are known at only two water bodies. The largest one, consisting of 31 nests was at the fish farm, and the other, consisting of four nests, was at Karadashlikul lake (Kushkupir lake group).

### **Conclusions**

Black-winged Stilts are the most numerous breeding species at the water bodies of Khorezm region. The environmental conditions of some water bodies in the Yangyaryk, Kaladzhik, Kushkupir and Khozarap lake groups are not favourable for breeding in White-tailed Plovers, Avocets and Oystercatchers. A potential increase in their numbers is limited by expanding reed-beds and intense human activities.

### **References**

- Kostin, V.P. 1956. Notes on bird fauna of the left banks of the lower Amu-Darya river and the Ustyurt. *Transactions of the Institute of Zoology and Parasitology, Uzbekistan Academy of Sciences. Tashkent* 8: 79-127. In Russian.
- Dzhumaniyazov, A.D. 1975. Influence of irrigation works on the bird fauna of western Khoresm lakes. In: V.E. Flint (ed.), *Colonial breeding of shorebirds and their protection* (Materials of the Workshop), p. 132. Nauka, Moscow. In Russian.