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Source: Acta Ornithologica, 36(1) : 73-77

Published By: Museum and Institute of Zoology, Polish Academy of Sciences

URL: https://doi.org/10.3161/068.036.0102

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The Slender-billed Curlew *Numenius tenuirostris*: threats and conservation

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Gallo-Orsi U., Boere G. C. 2001. The Slender-billed Curlew *Numenius tenuirostris*: threats and conservation. Acta Ornithol. 36: 73–77.

Abstract. With a population of probably less than 50 individuals, the Slender-billed Curlew is one of the most seriously endangered species in Europe. The scarcity of information on its biology and the fact that its breeding grounds are still unknown are major constraints on its conservation. This paper presents the activities of the Working Group established under the Bonn Convention. Recent intensive efforts to locate breeding areas are described. All records are kept in a specific BirdLife International database. Although hunting is considered to have been the major reason for the species' dramatic decline and is still an important threat, overgrazing of steppes and drainage of wetlands in northern Kazakhstan and south-western Siberia have caused the loss of a number of possible breeding sites recently identified.

Keywords: Slender-billed Curlew, *Numenius tenuirostris*, conservation

Received — Oct. 1999, accepted — Aug. 2000

INTRODUCTION

The Slender-billed Curlew is the most endangered migratory species in the Western Paleartic, with an estimated population of 50–270 individuals in mid 1990s (Gretton 1994), but which is though to be actually below 50. The last nest was found in 1924 (Ushtakov 1925) and very little is known about species biology and ecological needs during breeding.

In 1994, the Convention on Migratory Species (Bonn Convention) produced a Memorandum of Understanding concerning conservation measures for the Slender-billed Curlew. The memorandum covers 30 range states and 18 have already signed it. This was followed by the establishment in 1998 of a Working Group to further the conservation of the species, under the auspices of the Bonn Convention. The Working Group is open to any individual or organisation carrying out research, direct conservation actions, training or public awareness campaign on the species.

Tasks of the Slender-billed Curlew Working Group are:

1) collecting and analyse all available data on the Slender-billed Curlew, including negative records;

2) sharing of information on progress made in scientific and conservation work related to the Slender-billed Curlew;

3) co-ordination of actions and fund-raising efforts for the conservation of the Slender-billed Curlew;

4) revision of conservation and research priorities for the Slender-billed Curlew and updating the international action plans;

5) regular assessments of the implementation of the Action Plans including the preparation of regular status reports;

6) recommend amendments to the Slender-billed Curlew memorandum to the UNEP/CMS Secretariat;

7) co-ordinating public awareness activities in close co-operation with the CMS Secretariat;

8) organising expert meetings to review the present status of the species.

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IDENTIFYING PRIORITY SITES FOR RESEARCH

It is still unclear whether the few records of breeding Slender-billed Curlews took place in the typical habitat for the species or whether they were located at the limit of the species' range and in an unusual habitat. According to Gretton (1991) the breeding area lays in the large open bogs within the southern taiga zone, while Belik (1994) suggests that the breeding grounds should be searched in the virgin steppe of Southern Russia and Northern Kazakhstan. Therefore the area where the species might breed is some 2 milion km^2. In order to focus on the most likely areas Danileko et al. (1996) identified 22 areas which, on the basis of information on habitat structure from the description of Ushtakov's nests (1912, 1916 and 1925) and other presumed breeding records (i.e. Aksakov 1852), still have the similar habitat components.

RECENT EXPEDITIONS

In recent years, following a number of unsuccessful expeditions carried out in the last ten years by A. K. Yurlov (1989, 1992), A. Gretton (1991) and E. Nowak (pers. comm in F. V. Morozov 1996). Four unsuccessful expeditions have been carried out in the breeding grounds:

1) in 1997 G. C. Boere and K. A. Yurlov searched the Baraba and Karasuk steppe in Russia (Boere & Yurlov 1998);

2) an expedition by the Glasgow University was made in northern and eastern Kazakhstan in July–September 1998 (Cresswell et al. 1999);

3) an expedition lead by G. Boyko visited the Tuman' plains and the Omsk region (Nowak & Vangeluwe 1999);

4) in 1999 A. K. Yurlov (in litt.) visited the eastern side of Lake Ubinskoe which was visited shortly during the 1997 expedition.

The list below summarises the sites/areas investigated in the last three expeditions in Russia and Kazakhstan. Sites 1–22 are those identified by Danileko et al. (1996), sites 23–33 are those visited by Cresswell et al. (1999). Sites 8–13 and 15 were visited by G. C. Boere and A. K. Yurlov in 1997; site 11 was visited again in 1999.

1) Upper reaches of the Ural river, 220 km to SW from Chelyabinsk;
2) area between the Techa and the Miass rivers, 110 km to the NE from Chelyabinsk (between Chelyabinsk and Shadrinsk);
3) Kugar region: area on the left bank of Tobol river 130 km to the N from Kustanay;
4) Tumen' region: area between the Tobol and the Irtysh, 90 km to S from their confluence;
5) Tumen' region: area between the Tobol and the Irtysh, 70 km to SE from their confluence;
6) Tumen' region: 160 km to NW from Tara town;
7) Omsk region: 160 km to W from the Tara mouth;
8) Boundary between Omsk and Tumen regions: upper reaches of the Osha river, northern coast of the Tenis Lake;
9) Omks region: area between the Omsk and the Irtysh 190 km to NE from Omsk. The site no longer suitable;
10) Novosibirsk region: SE sore of Maliye Chany lake 320 km to WSW from Novosibirsk. The site no longer suitable;
11) Novosibirsk region: NE corner of the Ubiskoye lake 180 km to NW from Novosibirsk;
12) Boundary between Novosibirsk region and Altay region: the Burla valley 260 km to NW from Barnaul. Large habitat loss, but still areas suitable;
13) Boundary between Novosibirsk region and Altay region: 150 km to NW from Barnaul, 40 km to S from Novosibirsk water reservoir. The site no longer suitable;
14) Altay region: area on the right bank of the Ob 50 km from confluence of the Biya and Katun' rivers;
15) Altay region: area in the left side of the Alei river 60 km to N from Lokot' settlement. The site no longer suitable;
16) Tomsk region: area between the Chulym and the Ob, 40 km to SE from their confluence;
17) Upper reaches of the Ilovlya river 120 km to NW from Saratov;
18) Northern cost of the Volga 60 km to NE from Saratov;
19) Left side of the Volga in Ulyanovsk region, 60 km to E from Saratov;
20) Boundary between Samara, Orenburg regions and Bashkiria: right side of Bolshoy Kinel' river in its middle reaches, 140 km to NE from Samara;
21) Boundary between Samara, Orenburg regions and Bashkiria: the Yia river basin, 170 km to WSW from Ufa;
22) Boundary between Samara, Orenburg regions and Bashkiria: the Yia river basin, 180 km toWSW from Ufa;
23) Lake Tengiz, Ramsar site, Kazakhstan;

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24) Naurzum, protected areas, Kazakhstan;
25) Kustani lakes, Kazakhstan;
26) Shoskally, hunting reserve, Kazakhstan;
27) Lakes of Petropavlovsk region, Northern Kazakhstan;
28) Lakes in the Central region, Kazakhstan;
29) Taldy Kurgan, North-eastern Kazakhstan;
30) Sasykkol, North-eastern Kazakhstan;
31) Lake Zayshan, North-eastern Kazakhstan;
32) Lakes of Kalbinsky (Altai monutain range), Kazakhstan;
33) Lake Alako, North-eastern Kazakhstan.

Two expeditions to Iran have been carried out in early 2000 by a Dutch-Russian team (T. van der Have and F. V. Morozov) and by a French team (Ph. Dubois). Although both failed in locating wintering Slender-billed Curlew, there is evidence that the extension of suitable habitat is such that further searches are needed.

THE SLENDER-BILLED CURLEW DATABASE

Since 1991 BirdLife International have been collecting all data on the species. The first list of records included some 480 verified records, since then a steady flow of new records and a continuous exercise of checking the quality of the data have taken place. At the moment the database includes 879 data from more than 40 countries. From the period 1900–1999 there were 765 records of which 609 are verified, more than 80 come from last century, while 47 records previously included in the database has been set aside as rejected by the relevant national rarities committees (Table 1).

Each record includes different information fields: country, site, location (geographical coordinates), date, number of birds, sex, age, observer, reference, verification status and notes.

The distribution of the records in winter and summer are given as examples of the use of the database (Fig. 1 and 2). The monthly distribution of records highlights the lack of information during the period in which breeding should occur (Fig. 3).

Plotting the numbers of records per year present in the database for the whole XX century, separating the verified from the non-verified record, provides interesting information on the quality of data available. Verified data are those for which a good description is available and has been checked by experts at national (rarities committees) or international level.

The number of observations in the last three decades is obviously misleading since the observation effort has increased significantly during the same period. On the other hand the sharp decrease of the number of sightings in the second half of the 1990s reflects the actual decrease of the population wintering in the Mediterranean basin while the observation effort has been constant or has even increased. (Fig. 4).

Considerable effort is being put in collecting information about the sex and age of most the museum specimens as well as observed birds in order to monitor the breeding biology and success of the species. As long as there are sights of young birds, a hope for a recovery of the species exists.

Table 1. Number of Slender-billed Curlew verified records (1900–1999).

Country	records
Italy	94
Greece	85
Morocco	75
Hungary	66
Yugoslavia	32
Ukraine	30
Tunisia	28
Turkey	24
Bulgaria	21
Romania	17
Russia	16
Austria	9
France	8
Egypt	7
Algeria	6
Iraq	6
Malta	6
Oman	6
Bosnia and Herzegovina	4
Iran	4
Cyprus	3
Kazakhstan	3
Poland	3
Yemen	3
Albania	2
Germany	2
Israel	2
Azerbaijan	1
Canada	1
Czech Republic	1
Djibouti	1
Jordan	1
Kuwait	1
Libya	1
Netherlands	1
Portugal	1
Saudi Arabia	1
Seychelles	1
Spain	1
Sudan	1
Switzerland	1
United Arab Emirates	1

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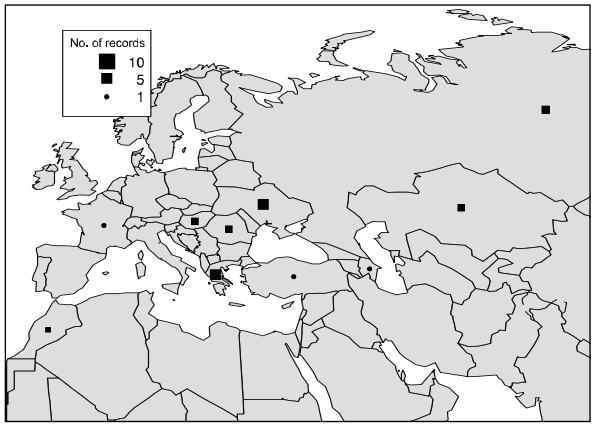


Fig. 1. Distribution of all records during the (supposed) breeding season (June–July).

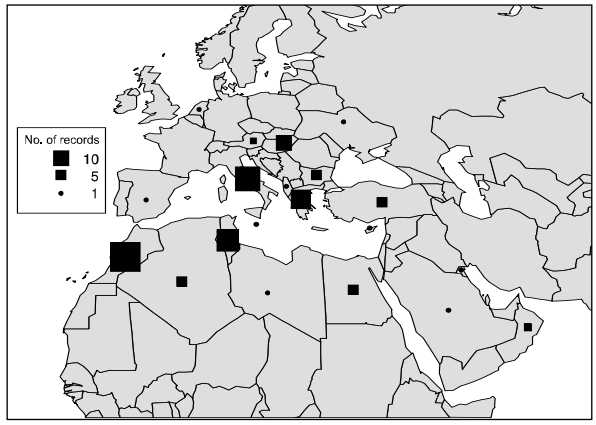


Fig. 2. Distribution of all winter records (December–February).

Very little is known on the distribution and biology of the species. The database have been used for the compilation of the BirdLife International European IBA inventory (Heath & Evans 2000) and for the Pilot Atlas of Wader Migration (in preparation).

Both these documents will help in promoting the conservation of the species by means of the protection and adequate management of wetlands in which the species have been recorded in recent years.

The Royal Institute of Natural History of Belgium is carrying out experiments on the use of satellite tags on Wimbrel *Numenius phaeopus*. These experiments will help developing the best possible skills in tagging small *Numenius* and will be extremely useful for tagging Slender-billed Curlew once smaller and lighter satellite tags are available and birds have been located in the wintering areas.

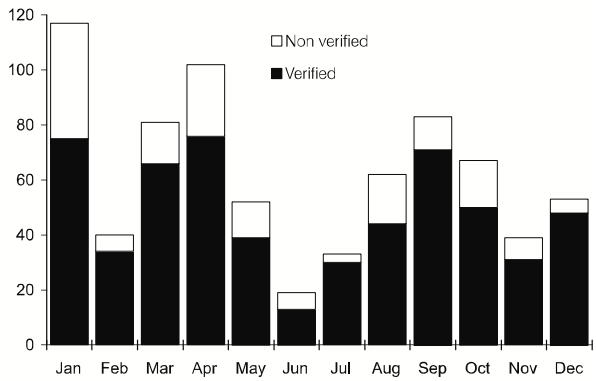


Fig. 3. Monthly distribution of records (1900–1999).

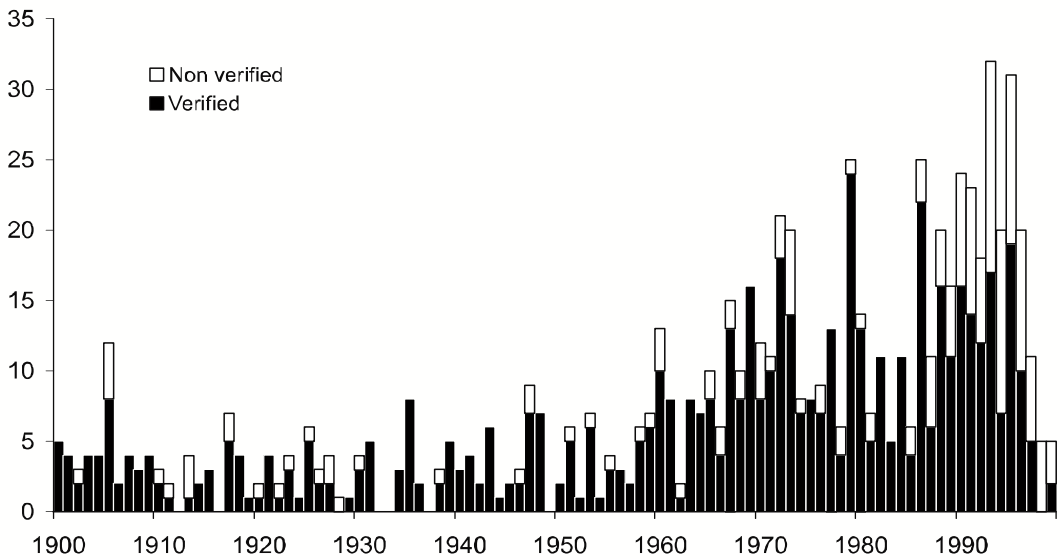


Fig. 4. Trends in Slender-billed Curlew records in the period January 1900–December 1999.

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THREATS

The decline of the species started sometime in the early decades of the XX century and Gretton (1991) considers overhunting the most likely major cause of the decline. Shooting Curlews is still carried out in many countries and recently a flock of 36 „curlews", some of which small and with shorter bill, were shot in August 1999 in Croatia by Italian hunters (J. Radovic in litt.). The only photo available of one of the bird shot depicts a Curlew *N. arquata* possibly of the subspecies *orientalis*, but it possible that any of the other birds was indeed a Slender-billed Curlew. Furthermore there is evidence that many taxidermists are aware of the potential value of a stuffed bird.

Although habitat loss in the breeding areas was not considered to be the main cause of decline, both visits by G. C. Boere and A. K. Yurlov and by the Glasgow University reported that severe habitat destruction is taking place in Russia and Kazakhstan. These changes are apparently affecting also other species such as the Sociable Plover *Chettusia gregaria* (Cresswell et al. 1999).

Overgrazing is common in both countries, while drainage and land reclamation for agriculture are reported from Russia. Agriculture practices is also lowering the water level and this may affects the availability of breeding sites for the Slender billed Curlew (Danileko et al. 1996).

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STRESZCZENIE

[Status kulika cienkodziobego — zagrożenia i ochrona]

Kulik cienkodzioby jest jednym spośród najbardziej zagrożonych wyginięciem ptaków Europy. Liczebność jego populacji szacuje się obecnie na około 50 osobników. Największą przeszkodą w ochronie tego gatunku jest brak danych dotyczących lokalizacji jego terenów lęgowych. Czynnikami powodującymi spadek liczebności kulika jest odstrzał a także przekształcenia środowiska na stepach południowo-zachodniej Syberii i Kazachstanu.

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