

Searching for Slender-billed Curlews in Tunisia February-March 1994

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van der Have, T.M., Keijl, G.O. & Ruiters, P.S. 1998. Searching for Slender-billed Curlews in Tunisia February - March 1994. *Wader Study Group Bull.* 86: 36 -39.

Thirty-one wetlands in Tunisia were checked for the presence of Slender-billed Curlew *Numenius tenuirostris* in February-March 1994. A total of 4,000 Curlews *Numenius arquata* and 1,600 Black-tailed Godwits *Limosa limosa* were individually checked but not a single Slender-billed Curlew was found. It is suggested that wader roosts (Curlew, Black-tailed Godwit, Lapwing *Vanellus vanellus*, Golden Plover *Pluvialis apricaria*) at suitable sites should be checked at least once both in the morning and evening. This implies that the minimum time needed to check one wetland is two days, one day to locate roosts and one day to check them.

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INTRODUCTION

The Slender-billed Curlew *Numenius tenuirostris* is on the brink of extinction, with a world population of possibly less than 100 individuals (Stresemann & Grote 1943; Gretton 1991; Collar *et al.* 1994; Heredia *et al.* 1997). Very few data on its behaviour and habitat has been published in widely available journals in recent years despite the regular presence of one to three individuals in Merja Zerga, Morocco, between 1987 and 1995 (van den Berg 1988a, 1988b, 1990). Very few well documented records from other areas have been published (e.g. Wymenga & van Dijk 1986) or are known, in spite of an increased effort since several international initiatives were started in 1988 (e.g. the International Council for Bird Preservation, Gretton 1991). This attention was mainly focused on the breeding grounds (Belik 1995; van Impe 1995). To date, no overview has been published of these efforts either on the presumed breeding grounds, or on the staging or wintering grounds. A notable exception is the flock of 19 birds in southern Italy (Serra *et al.* 1995) which was found after several years of regular surveys of the remaining wetlands in its former winter range in Italy (Baccetti 1995).

Tunisian wetlands used to be of some importance for Slender-billed Curlews (Gretton 1991). There are about 24 records in 12 different wetlands (Table 1) only one of which is published with a full description (Wymenga & van Dijk 1984). Several records were published in Thomsen & Jacobsen (1979), others are mentioned in Gretton (1991). There are no photographs known from Tunisian records, neither is there anything known or published about food, roosting behaviour or other aspects of their ecology. Only one recent study has been published of a survey of Tunisian wetlands aimed at finding Slender-billed Curlew (Chown & Linsley 1994). Here, we present the results of a short survey in February 1994 of 31 wetlands in Tunisia. A searching strategy to improve the (small) chance of locating a Slender-billed Curlew wintering in Tunisia is proposed.

METHODS

Wetlands were selected using the historical records in Gretton (1991). Several wetlands with known records were not visited because of degradation, disappearance or bad road conditions: an airport is now situated in the salines near Monastir; the salines near Radès have been seriously degraded by garbage dumping and pollution; heavy rains at the beginning of February in the Kairouan-Halk el Menzel region made it impossible to survey large parts of this area with an ordinary car. However, several additional wetlands without previous Slender-billed Curlew records were visited. The wetlands were all visited during the day with dry weather and good counting conditions, between 9 February and 5 March 1994. One attempt to check a Curlew *Numenius arquata* roost near Kairouan in the evening was prohibited by a police arrest. All suitable foraging sites along lake shores were surveyed on foot and by car with 20/45 x 60 telescopes with the intention of checking as many of the Curlews and Black-tailed Godwits *Limosa limosa* present as possible. In addition, a suitability index was assigned to each site (0=low, 2=high) by comparing the habitat present with descriptions of suitable habitat in van den Berg (1990) and Gretton (1991).

RESULTS

Table 2 lists the sites, giving for each the location, the numbers of birds checked and the suitability index. A total of 4,000 Curlews and more than 1,600 Black-tailed Godwits were carefully and individually checked, but no Slender-billed Curlew was found. These totals constitute all Curlews and Black-tailed Godwits encountered during the study period. Based on the suitability indices, several sites appeared to be still potentially suitable for Slender-billed Curlews. Soliman Lagoon, for example, resembles Merja Zerga in Morocco (pers. obs.) and was given a suitability index of 2 (Table 2). It consists of a coastal lagoon bordered by extensive wet and grazed saltmarshes and some salines (Hughes *et al.* 1992). The main difference to Merja Zerga is its small size (200 ha,



Table 1. Locations of 12 wetlands in Tunisia with Slender-billed Curlew records (Gretton 1991). n=number of records; habitat: i=inland, c=coastal. Sites visited in February 1994 are marked with +.

Location	°N	°E	n	habitat	visited
Rades salines	36.45	10.30	1	c	
Tazerka (Korba)	36.37	10.54	1	c	+
Garaet Kebira (El Fahs)	36.28	9.48	1	i	+
Halk el Menzel coast	36.00	10.30	2	i	+
Monastir salines	35.46	10.40	3	c	
Kairouan (Metbassta)	35.42	10.10	5	i	+
Thyna salines	34.45	10.43	4	c	+
Sebkhet Dreiaa (La Skhira)	34.10	10.00	2	c	
Djerba (south east)	33.45	11.00	1	c	+
Zarzis	33.23	11.08	1	c	+
Bahiret el Bibane	33.20	11.15	1	c	+
El Marsa	33.15	11.10	1	c	+

Hughes *et al.* 1994) and lack of adjacent agricultural fields. Wetlands with sandy shores and brackish to saline water were considered unsuitable e.g. the desert inundations near El Faouar and Zaafrane (Table 2).

Extensive marshy areas (up to 4,000 ha) are still found north of Kairouan around the village of Metbasseta (El Metbasta) and close to Sebkha Kelbia. This semi-permanent lake completely dried out in the winter of 1993/94. The hydrology of the area may have been seriously disturbed by the construction of dams (e.g. Hughes *et al.* 1992, Maamouri & Hughes 1991). Due to the lack of time no other evening roosts could be checked in other wetlands. In Kneiss, Gulf of Gabès, several high tide roosts of Curlews were carefully checked (Table 2).

DISCUSSION

There may be several reasons for the failure to locate Slender-billed Curlews during our survey of Tunisian wetlands. The wintering population in Tunisia, if still present, is probably very small, perhaps not more than one to five individuals and departure might have already taken place during February. The majority of the records is from the period September to February (Gretton 1991).

Furthermore, the area with the highest number of records, Metbassta near Kairouan, was almost completely dry from the spring of 1993 up to the beginning of February (F. Maamouri pers. comm.). Lake Kelbia, a semi-permanent lake of 14,000 ha in its largest extent and which is situated in the same hydrological region, was completely dry (Hughes *et al.* 1994). Due to the damming of several streams in the area it is expected that the Metbassta region will fall dry more frequently (Hughes *et al.* 1994). It is, however, very difficult to assess the effect of these changes of wetland habitats on the occurrence of Slender-billed Curlews. Presumably, they will have reduced the sites' suitability as foraging areas.

Only a few observations on habitat use during winter are available; from Merja Zerga in 1987/88 (van den Berg 1988) and southern Italy (January - March 1995). At Merja Zerga, the birds foraged in agricultural fields (December-January) or

wet saltmarsh (January-February), which became more suitable after winter rains (van den Berg 1990; Hassan Dalil, a guide in Merja Zerga pers. comm.). Visible prey consisted predominantly of earthworms and tipulid larvae in the wet, grazed saltmarsh. The tidal mudflats were only used as roosting sites during the night or for several hours around midday, when the birds were very difficult to find among large flocks of waders. In southern Italy, a flock of 19 birds was found in January-March 1995 (Serra *et al.* 1995) after several years of regular surveys of the remaining wetlands in its former winter range. These birds foraged predominantly in one of the few remaining natural areas with dry salt scrub of which only 3,000 ha remains and 600 ha is protected (Serra *et al.* 1995). Most observations were of birds flying to or departing from their night-time roosts up to 17 km distance from the foraging areas. These birds also roosted in a pool in the main foraging area among Lapwings *Vanellus vanellus*. These observations show that birds may easily be overlooked while foraging in suitable, dry salt scrub. If they forage frequently in arable fields the potential foraging area may well be very extensive.

A strategy to increase the chance of locating one or more birds would be to check wader roosts in the morning and the evening. Even if light conditions are not optimal, birds may reveal their presence by their higher pitched calls (Serra *et al.* 1995). This strategy would imply that every roosting site has to be checked for two days: one day to locate the roost (Curlews, Black-tailed Godwits or even Lapwings and Golden Plovers) and one day to check it in the morning and evening. For Tunisia, this would mean that a survey to check all 30 potential sites would take about two months and should start by the end of November. Major rainfall during the winter may increase the suitability of some sites and would render a second visit in January feasible.

Since the Slender-billed Curlew action plan was initiated by BirdLife International (then known as International Council for Bird Preservation ICBP) in 1988, only three short surveys have been carried out in Tunisia: February-March 1992 (Chow & Linsley 1994); February-March 1994 (this study); January 1997 (Kube & Probst, in litt.), but none approached the intensity of two days per site as proposed above. In addition,



Table 2. List of 31 wetlands visited in February 1994 with coordinates (°N,°E), habitat: i=inland, c=coastal, suitability for Slender-billed Curlew (0=low, 2=high), N_c= number of Curlews checked, and N_b= number of Black-tailed Godwits checked. The wetlands are listed from south to north.

Location	°N	°E	habitat	suitability	N _c	N _b	#
El Marsa	33.12	11.12	c	1	40	0	1
Bahiret el Bibane	33.20	11.15	c	1	7	0	2
NaouraBibane	33.20	11.15	c	1	30	0	3
Zarzis	33.23	11.08	c	1	350	2	4
El Faouar	33.26	8.46	c	0	0	0	5
Zaafrane	33.28	8.56	i	0	0	0	6
Bou Grara	33.32	10.41	c	1	0	0	7
Gourine	33.39	10.34	c	1	100	0	8
Bourine	33.39	10.34	c	1	0	0	9
El Melah	33.39	10.34	c	1	59	0	10
El Kantara (Djerba)	33.40	10.58	c	1	0	0	11
Djorf (Djerba)	33.42	10.44	c	0	0	0	12
Ras Tourghena (Djerba)	33.48	11.03	c	1	0	0	13
Borj Kastil (Djerba)	33.48	11.03	c	1	15	0	14
Houmt Souk (Djerba)	33.53	10.52	c	1	200	0	15
Kneiss	34.23	10.16	c	1	380	0	16
Kneissel Bessila	34.23	10.20	c	1	600	0	17
KneissGuettaia	34.31	10.13	c	1	500	2	18
Maharès (harbour)	34.32	10.30	c	1	10	0	19
KneissEjali	34.34	10.19	c	1	1,000	0	20
Thyna (salines)	34.38	10.41	c	1	55	1,500	21
El Attaïa (Kerkennah)	34.44	11.18	c	1	150	0	22
El Kheraïb (Kerkennah)	34.47	11.15	c	1	0	0	23
El Haouarab barrage	35.36	9.40	i	0	0	45	24
Metbassta-1 (near Kairouan)	35.44	10.07	i	2	250	50	25
Metbassta-2 (near Kairouan)	35.48	10.09	i	2	106	6	26
Halk el Menzel 4 lakes	36.00	10.20	i	1	10	0	27
El Fahs	36.23	9.55	i	0	0	0	28
Soliman Lagoon	36.44	10.29	c	2	61	10	29
Tazerka (Korba)	36.37	10.30	c	1	1	0	30
Utique - Biossonnas	37.02	9.57	i	0	0	0	31
Total					3,924	1,615	

two coastal lagoons bordered by potentially suitable habitat are Sebkhâ Asa Jiriba (60,000 ha) and Sebkhâ Sidi Khalifa (15,000 ha) north of Hergla and east of Enfidaville (Hughes *et al.* 1994). They are bordered by grazed salt marsh and arable fields and apparently have never been properly checked for Slender-billed Curlews. The area is difficult to reach with a normal car and a special permit is needed. Therefore, it is still too early to conclude that Tunisia is no longer a wintering area for Slender-billed Curlews.

The chance of finding a similar-sized group to that in southern Italy may become less each year. The group of Slender-billed Curlews in Merja Zerga lost one individual every two years from 1986 onwards: five in November 1986, four 1988, three February 1989, 1990, 1991, 1992, two 1993, 1994, one 1995, none in the winter 1995/96 (Gretton 1991, van den Berg 1991-1995). Not a single well-documented record was produced in the winter of 1996/97 anywhere in the world. However, it is unclear how many current wetland survey schemes in the

potential wintering range around the Mediterranean take the two days per wetland suggested here to do a morning and evening check of wader roosts at inland sites. It still may not be too late to locate regular wintering sites and to take appropriate conservation action.

ACKNOWLEDGEMENTS

Nicola Baccetti, Lorenzo Serra and Marco Zenatello are thanked for comments on the manuscript. This project was funded by the Ministry of Agriculture, Nature Management, and Fisheries, Department for Nature, Forest, Landscape and Wildlife, The Netherlands, the Prins Bernhard Fonds, The Netherlands, the Vereniging Natuurmonumenten, The Netherlands, and Istituto Nazionale per la Fauna Selvatica and the authors.



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