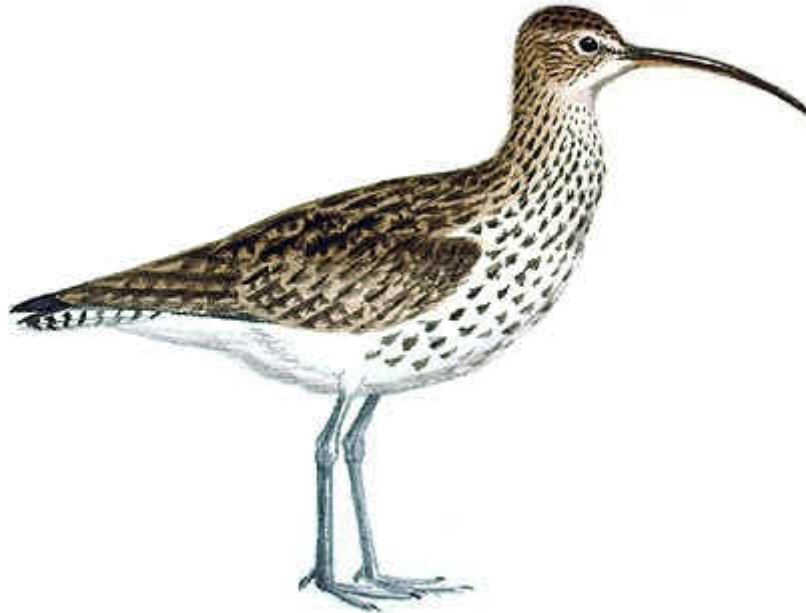


**INTERNATIONAL ACTION PLAN FOR
THE SLENDER-BILLED CURLEW (*Numenius tenuirostris*)**



Compiled by:

ADAM GRETTON (BirdLife International, U.K.)

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Timetable

Workshop: January 1994 - Merja Zerga, Morocco

First draft: August 1994

This version: February 1996

Reviews

This action plan should be reviewed and updated by BirdLife International every two years. An emergency review will be undertaken if sudden major environmental changes, liable to affect the population, occur within the species' range.

Geographical scope

The action plan needs implementation in: Albania, Algeria, Bulgaria, Greece, Hungary, Iran, Iraq, Italy, Kazakhstan, Morocco, Romania, Russia, Spain, Tunisia, Turkey, Ukraine, Croatia and former Yugoslavia.

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SUMMARY

The conservation status of the Slender-billed Curlew *Numenius tenuirostris* is classified as Critical at a global level (Collar *et al.* 1994). It is almost certainly the rarest and most poorly known bird species in Europe, where it occurs as a passage migrant. The population is estimated to be 50–270 birds. The first action plan, covering nine range-states, was included in the BirdLife International monograph on the species (Gretton 1991).

Conservation of the Slender-billed Curlew is a truly formidable task. Although major gaps remain in our knowledge of the species in large parts of its range, certain actions can be taken immediately (and some have already been achieved). Effective conservation action will depend largely on a high degree of cooperation and commitment among those responsible, and on medium- to long-term funding of the necessary activities.

Threats and limiting factors

- * **Habitat loss - low/high (breeding areas)
- medium/high (passage and wintering areas)**
- * **Hunting - medium (historically high)**
- * **Breakdown of social behaviour patterns - medium/high (following initial decline)**
- * **Other factors - unknown**

Conservation priorities

- * **Effective legal protection for the Slender-billed Curlew and its "look-alikes" - essential/high**
- * **Locate the breeding grounds - essential**
- * **Promote international and national policies which protect the Slender-billed Curlew and its habitat - high**
- * **Appropriate protection and management of all passage, wintering and breeding grounds - high**
- * **Locate and study key wintering and passage sites - high/medium**
- * **Increase public awareness of the species critically threatened status amongst politicians, decision makers and hunters - high**

INTRODUCTION

The Slender-billed Curlew is arguably the most threatened bird species in the western Palearctic; it is certainly the least well known of the region's threatened birds, which greatly adds to the difficulty of conserving it. It appears to be the only bird species of the western Palearctic whose breeding grounds have remained unknown for the last 70 years. Thus, although its current population size is comparable with that of Zino's Petrel *Pterodroma madeira* and Bald Ibis *Geronticus eremita*, because the Slender-billed Curlew's present breeding grounds are unknown (as well, apparently, as most of the wintering areas), there is much less that can be done to help it. The conservation challenge is compounded by the fact that the identification of the species is not straightforward and that it is a medium- to long-range migrant, crossing many countries in which conservation action is needed.

The species is globally threatened, having a Critical threat status (Collar *et al.* 1994), with a population recently estimated at 50–270 individuals (Gretton 1994). It is listed on Annex I of the EU Wild Birds Directive and of CITES, and on Appendix I of the Bonn Convention and Appendix II of the Bern Convention. A Memorandum of Understanding for the conservation of the species was developed during 1993–1994 by the Bonn Convention Secretariat. A wide range of activities was carried out during 1992–1994 across much of the species' range, under the EU (ACNAT) project “Preparation of a rescue plan for the Slender-billed Curlew” (European Commission 1994).

A workshop to identify priority actions necessary for the species in the west Mediterranean was held at Merja Zerga, Morocco, on 21–22 January 1994. This was attended by 30 people from the five relevant range-states (Italy, Spain, Morocco, Algeria, Tunisia) as well as France, Belgium and U.K. The main output was an action plan covering the five west Mediterranean range-states. In addition, the 1988-1990 BirdLife International project covered the whole range of the species, involving detailed research and identification of priority actions in each of the (then) nine range-states. The action plan resulting from this project (included in Gretton 1991) has been used as the basis, with revision, for the recommendations given here for Romania, Hungary, Turkey and Greece. For the remaining range-states, new recommendations have been drafted, either because of political changes (former Yugoslavia and former U.S.S.R.), or because of new information or re-interpretation of the importance of countries for the species (Bulgaria, Iran, Iraq). During the IWRB Black Sea meeting in Odessa in October 1993, discussions were held on actions necessary for the Slender-billed Curlew with the four Black Sea range-states. In 1994 an agreement of cooperation was drawn up between the Novosibirsk Institute, Dutch Government, Vogelbescherming Nederland and BirdLife International for future surveys in south-west Siberia.

PART 1. BACKGROUND INFORMATION

The information given below a summary of the available material; see Gretton (1991) for further details.

Distribution and population

The only fully confirmed breeding records of the Slender-billed Curlew were made between 1914 and 1924 near Tara, to the north of Omsk in Siberia (Ushakov 1916, 1925). There are a number of historical records of summering birds from elsewhere in south-west Siberia and northern Kazakhstan which may refer to breeding birds, though there is no hard evidence of nesting.

From the breeding area the main migration route is in a WSW direction, north of the Caspian and Black Seas through south-east and southern Europe to north-west Africa. There are also records of wintering birds in the Middle East, but because of the low density of observers in much of this area it is not clear whether these records represent a second wintering area or whether they refer to vagrants. Iran and Iraq may be of particular importance for wintering birds, but unfortunately it has been impossible to carry out surveys there in recent years.

The situation in North Africa is also rather unclear at present. Historically this area supported considerable numbers of wintering Slender-billed Curlews, with large flocks reported from Algeria and Tunisia at the end of the nineteenth century. Indeed the species was described as the most common curlew species in Tunisia (Stresemann and Grote 1943) and in Morocco and Algeria (Glutz von Blotzheim *et al.* 1977). As late as the 1960s and 1970s flocks of over 100 birds were seen in Morocco. In recent years, however, despite increasing interest in the species, only one regular wintering site for it has been identified: Merja Zerga in Morocco, which had supported just two individuals in the previous two winters but only one during the winter of 1994-95. There is thus almost as much mystery concerning the current winter quarters as the breeding area. During the late 1980s there were claimed observations of 30-90 Slender-billed Curlews in Algeria, but unfortunately these records could not be confirmed and have not been repeated.

The population of the species was estimated in 1990 to be 80-400 individuals; this may have been too optimistic and the estimate was recently reduced to 50-270 birds (see Gretton 1994 for the background to this estimate). This estimate is based mainly on the number of passage birds; several difficulties exist in producing a population estimate from such data, notably uncertainty regarding the proportion of passage birds that are likely to be seen and whether the same birds would be seen in different locations. Since 1980, however, there have been (on average) almost 10 confirmed records of the species per year, involving some 15-22 individuals, and many birds are likely to go unseen. Clearly birds are also wintering elsewhere than in the known site in Morocco.

Life history

* **Breeding**

Little detailed information can be given on breeding ecology and behaviour, since the only confirmed observations come from just one site at least 70 years ago (Ushakov 1916, 1925). This site, near Tara, is close to the northern limit of the forest-steppe zone. Ushakov described the habitat as “an extensive quaking peatbog with a dense cover of sedge...”, with willow, birch and pine present. The habitat appeared largely unchanged during surveys in 1990 and 1994, and was closer to a taiga marsh than a typical forest-steppe marsh. It is possible that the habitat at this site was not typical of that used by the species, and thus the species may nest further north (in true taiga habitat) or south (in steppe habitat).

In May 1914 Ushakov found a single Slender-billed Curlew nest, with four eggs (Eurasian Curlews were also nesting nearby). He shot the female, thus curtailing any further observations. Ten years later, however, Ushakov found a colony of the species, containing 14 nests (within a few metres of each other), at the same site south of Tara. With so few observations there is no way of knowing how common such colonial nesting is, but it is notable that Ushakov had not recorded colonial nesting previously.

* **Feeding**

There is little information available on diet. The birds at Merja Zerga have been recorded taking earthworms and tipulid larvae, while elsewhere other insects (grasshoppers, an earwig and a beetle), molluscs and crustaceans have been recorded as prey. The most detailed observations of foraging behaviour have been made in recent years at Merja Zerga (van den Berg 1988, Gretton 1991) where the species uses two contrasting habitats, brackish grazing marsh and sandy agricultural land on higher ground nearby. In both areas the birds often feed with Eurasian Curlews and the feeding behaviour is broadly similar to that species: the birds walk slowly, occasionally pecking at the surface or probing the soil; if a food item is located, intensive probing results, until the item is extracted. On average 1.5–2.75 food items were obtained per minute, and feeding was concentrated in mid-morning and mid-afternoon, with the birds roosting in the lagoon at other times.

* **Habitat requirements**

Breeding habitat (as far as it is known) is discussed above. On migration a wide variety of habitats is used, including saltmarsh, steppe grassland, fishponds, saltpans and brackish lagoons. There is a similar degree of variation in the known wintering habitats, with some records from tidal mudflats (Tunisia), others from semi-desert “sebkhets” (temporary brackish wetlands in Tunisia and Algeria), and others from brackish marsh and sandy farmland (such as at Merja Zerga). In view of the species' rather broad choice of habitat on passage and in winter, it is unlikely that habitat loss in these areas has played a major part in the decline (particularly since many other wader species using the same region have not suffered such a decline). Loss of breeding-ground habitat, which may be much more specialised, would better explain such a drastic collapse. It has been argued (e.g. by Belik 1994) that the species may nest primarily in steppe areas; if so, then the massive loss of such habitat (notably in Kazakhstan) may have played a part in its decline.

Threats and limiting factors

* **Habitat loss**

Due to the lack of knowledge concerning the location of the breeding grounds, it is not possible to assess the scale of threat posed by their modification/loss. In general the taiga has been little modified, the forest-steppe partly cultivated (but with many wetlands remaining), and much of the steppe severely modified by intensive agriculture. The importance of this factor could thus range from low to high, depending on which habitat is used for nesting.

Much of the passage route has been greatly modified by man, for example the Aral Sea area and the steppe areas of central and eastern Europe. There has also been a general loss of wetlands throughout the western Palearctic. The loss of traditional stopover sites may have had serious effects on the Slender-billed Curlew, but, as noted above, it can use a range of passage habitats and yet has still suffered a much greater decline than other waders crossing the same region.

Parts of the winter quarters (e.g. the Rharb plain of north-west Morocco) have been greatly affected by man, with large-scale drainage of wetlands. In Tunisia also, temporary freshwater marshes (e.g. Kairouan) have been seriously damaged by the construction of dams for flood control and the provision of water supplies. Elsewhere in North Africa, however, other types of wetland have been less affected, such as coastal sites and inland sebkhetts/chotts (temporary brackish wetlands, e.g. those near Constantine in Algeria). The situation is hard to assess while Merja Zerga remains the only known current regular wintering site for the species. In the Middle East, the marshes of Iraq are potentially a very important wintering site, but are rapidly being destroyed. The area of the central (Qurnah) marshes had been reduced by 1991/92 to 67% of its 1984/85 area, while the area of permanent marshes overall had been reduced to 40% of the 1984/85 area (from 1,133,000 ha to 457,000 ha). If drainage plans proceed as at present, the marshes will probably be lost in 10–20 years (Maltby 1994).

Importance: low-high (breeding areas)
medium-high (passage and wintering areas)

* **Hunting**

In the early part of the twentieth century, across much of Europe, hunting of waders took place on a large scale (principally for food), with curlews (as the largest waders) being a favoured quarry. Significant numbers of Slender-billed Curlew specimens, notably from Hungary and Italy, date from this time, the birds often being from markets (Gretton 1991). Because the Slender-billed Curlew is often tamer than its congeners (Gretton 1991), it could have suffered very heavily at this time. Indeed there is considerable evidence that hunting may have been the key cause of its decline, with habitat loss an important secondary factor – though it is hard to imagine habitat loss affecting this one species more than any other European wader. The selective threat posed by hunting is clear: curlews were the prime wader targets for food, and Slender-billed Curlews (according to much evidence) were the tamest curlew. It would be difficult, perhaps

impossible, to prove absolutely that hunting was the key factor some 60–100 years after the main period of decline, but the available evidence points in this direction.

At least up to the 1970s there was also strong hunting pressure in parts of North Africa. At present the threat is generally less, but between 1962 and 1987 17 Slender-billed Curlews are known to have been shot (13 of these in Italy and former Yugoslavia). With the world population being so low, this number is highly significant; the loss of even a single further bird to hunting is unacceptable.

Importance: medium (but historically high)

* **Breakdown of social behaviour patterns**

This is very much a secondary factor, not responsible for the original decline, but likely to be important in keeping numbers low following the main decline (i.e. during the last 30–50 years). Early records often referred to large flocks of the species on migration and in winter, and it is possible that the experience of older birds was important in guiding such flocks. As Slender-billed Curlew numbers fell, individuals would be more likely to join flocks of other species, notably Eurasian Curlew. The chances of Slender-billed Curlews meeting each other on the breeding grounds would become increasingly low, as was graphically described for the Eskimo Curlew by Bodsworth (1954). Without drastic (and probably unfeasible) intervention, there is little that can be done to ameliorate these effects.

Importance: medium-high (following initial decline)

* **Other factors**

Many other possible causes of the decline have been considered (Gretton 1991), but very few are thought plausible. Two factors, affecting parts of Kazakhstan potentially used by the species, are highly speculative but warrant a mention, although it is difficult to obtain precise information on either. The level of use of agricultural chemicals in the Aral Sea area (since the 1950s) has caused widespread concern, and has been held responsible for widespread human illness and high levels of child mortality. The lack of water in the area would serve to concentrate such chemicals still further, and could contaminate Slender-billed Curlews via their food, or directly in drinking water.

There are (unconfirmed) reports of nesting Slender-billed Curlews from Ust-Kamenogorsk and Semipalatinsk (Gavrin *et al.* 1962) in the 1920s and 1930s. The main nuclear testing ground of the former U.S.S.R. is just west of Semipalatinsk, and was used until very recently. In earlier years atmospheric tests were conducted here, presumably causing major contamination. Summer records of the species are also known from the Chelyabinsk region (Gavrin *et al.* 1962), and in recent years very high levels of radioactivity have been found in the environment near Chelyabinsk-40 (E. Nowak verbally). At present we do not have enough information to assess whether such factors could have affected the Slender-billed Curlew, but the possibility cannot be entirely ruled out.

Importance: unknown

Conservation status and recent conservation measures

* **International**

There have been several international initiatives for the species, briefly summarised in the introduction to this plan. These include the 1988–1990 BirdLife International project (Gretton 1991), the EU (ACNAT) project (European Commission 1994), the Bonn Convention Memorandum of Understanding which has been signed by 14 range-states with a further 4-5 expected by the end of 1995, and the Agreement of Cooperation for breeding-ground searches. An EU LIFE project commencing in 1996 envisages cooperation between Greek and foreign scientists, including links between Greek and Russian research.

* **Albania**

2 records, 1992–1993 (max. 5 birds).

The species is likely to have been greatly under-recorded during much of the twentieth century, and therefore it is included here as a potential range-state (further surveys are a high priority). Little is known about the current hunting situation, but in view of the economic situation, curlews are likely to be at some risk.

* **Algeria**

7 records, 1977–1990 (max. 37 birds), plus 3 unconfirmed records.

The Slender-billed Curlew has been protected since 1983, but other *Numenius* species and godwits *Limosa* are not protected. For the last two years, since the political situation deteriorated, hunting has been entirely banned; prior to that hunting was allowed on just one day per week. There are some 40,000 licensed hunters. There is not thought to be a serious problem with the poaching of waders, while tourist hunters mainly hunt wild boar.

The RSPB carried out surveys for the Slender-billed Curlew in 1990 and 1992 (Chown and Linsley 1994), resulting in one record of the species; IRSNB also surveyed selected areas in November 1992, as part of the EU (ACNAT) project.

* **Bulgaria**

19 records, 1903–1993 (max. 4–7 birds), plus 10 unconfirmed records.

Key site: Lake Atanasovo (6 records).

All *Numenius* and *Limosa* species are protected, along with most other waders (Ordinance 342, 21/4/86); the penalty for shooting a Slender-billed Curlew has been increased to the maximum (30,000 leva = c.\$450). The penalties for shooting all other curlew and godwit species are also high (10,000 leva). Among waders, only Snipe and Woodcock are legal quarry. There are some 90,000 licensed hunters, plus 700–800 foreign hunters per year. There is a problem with poaching at some areas (including Lake Atanasovo) and a serious problem with largely uncontrolled foreign hunters shooting globally threatened species (e.g. Red-breasted Goose, White-headed Duck).

The Slender-billed Curlew was not included in the 1985 Red Data Book. Bulgaria was not included as a full range-state in the 1988–1990 BirdLife International project, as only seven records of the species were then known to BirdLife International. In 1993 surveys for the species were carried out by BSPB and D. Nankinov under the EU (ACNAT) project, and recommendations for conservation action were made; these have been included in the proposals below. A preliminary management plan for Lake Atanasovo has been produced by RSPB and BSPB. A second site used by the Slender-billed Curlew, Chengene skele, is now legally protected, following efforts by BSPB. A national plan for the conservation of wetlands has been compiled by the Ministry of the Environment, BSPB, scientific institutes, etc.

* **Greece**

70 records, 1918–1993 (max. c.150 birds), plus 7 unconfirmed records.

Key sites: Evros delta (SPA), Porto Lagos (SPA), Axios delta (SPA).

Curlews and godwits are legally protected throughout the year (penalty c.\$300–3000) but illegal hunting remains problematic in Greece. Intense hunting pressure occurs in the small hunting zones within the Evros and Axios deltas. These exclude areas used by Slender-billed Curlews but the risk of disturbance or illegal encroachment by hunters remains. There are some 300,000 licensed hunters, but only a small proportion are said to pursue waterfowl and/or waders. The Slender-billed Curlew is listed in the Red Data Book (Handrinos 1992) as endangered.

Surveys for the Slender-billed Curlew (and Lesser White-fronted Goose) were carried out at the Evros delta in 1987/88, by RSPB and the Hellenic Ornithological Society; subsequently a poster was produced for these two species. BirdLife International, with V. Goutner, carried out surveys in northern Greece in 1988 and 1989. WWF has been supporting the conservation of key Greek wetlands through the “Red Alert” project and their support of the Greek Wetland centre, established near Thessaloniki in 1991. A management plan for the Evros delta has been produced and a Joint Ministerial Decision to delineate the site is in preparation. Further work on the species was carried out during 1993–1994 under the EU (ACNAT) project (Handrinos *in* European Commission 1994) and under another EU contract (Vangeluwe and Handrinos 1995). Moreover, a LIFE project started in 1996 to be implemented at six key wetland sites for the species.

* **Hungary**

85 records, 1903–1991 (max. 36 birds), plus one unconfirmed record.

Key sites: Hortobágy; Kardoskut.

All three curlew species (and godwits) have been protected since 1954, and the legislation is well-respected and enforced. The fine for killing a Slender-billed Curlew is now 250,000 forint (close to the maximum) and potentially one year in jail. Among waders, only Snipe *Gallinago gallinago* and Woodcock *Scolopax rusticola* are legal quarry, and all hunting is forbidden at the key sites. There are some 45,000 licensed hunters and about 25,000 visiting hunters; there have been some problems with visiting Italians not respecting Hungarian hunting laws (e.g. Great White Egret *Egretta alba* being shot).

Hungary was fully involved in the 1988-1990 BirdLife International project and the recent EU (ACNAT) project. The penalty for shooting Slender-billed Curlew was recently increased (it was previously only 1,000 forint). The staff of the Hortobágy National Park are well aware of the species and its needs. Detailed management recommendations for the Hortobágy and Kardoskut were included in the ACNAT report.

* **Iran**

6 records, 1963–1973 (max. 7 birds), plus 35 unconfirmed records.

There is apparently virtually no wader hunting, at least for food, as the meat is considered unclean by Muslims (B. Behrouzi-Rad *in litt.*). No information is available on current hunting laws and penalties. BirdLife International supported surveys in 1990, which resulted in four unconfirmed records of the species. D. A. Scott and M. Smart visited Iran in the 1992/93 winter, but did not record the species and were unable to fully evaluate the previous records (D. A. Scott *in litt.* 1994).

* **Iraq**

3 records, 1917–1979 (max. 6 birds).

Probably greatly under-recorded; the marshes of Iraq have never been fully surveyed for birds, yet they are (or were) the largest area of freshwater marsh in the western Palearctic. Efforts were made by BirdLife International to carry out joint surveys in 1988–1989; although an invitation was received from Baghdad, it was almost immediately postponed. Subsequent developments have unfortunately made the prospect of any surveys in the near future remote. No specific conservation measures for the Slender-billed Curlew are known; meanwhile the destruction of the marshes continues apace (see above, under habitat loss).

* **Italy**

76 records, 1900–1993 (max. 7 birds), plus 6 unconfirmed records. In winter 1994-1995 a flock of up to 20 birds was recorded.

Key sites: Viareggio area, Golfo di Manfredonia (part SPA); Valli di Comacchio/Ravenna coast (part SPA); Circeo National Park (SPA); Laguna di Orbetello/Maremma National Park (both SPAs).

Curlews are not listed as legal quarry species, and are thus to be considered protected. Legislation is nevertheless needed for their strict protection, with substantial penalties applicable; this would best be achieved by including the species on the special protection list. Black-tailed Godwit was removed from the quarry list in 1991–1992, but is now listed again. During 1994 there was considerable confusion concerning hunting proposals (N. Baccetti *in litt.*). On the one hand there was a proposal (a circular from the Minister of Agriculture, no. 16, 15/7/94) to again remove Black-tailed Godwit from the list of quarry species, specifically in order to avoid confusion with Slender-billed Curlew. On the other hand some hunting organisations proposed the addition of Eurasian Curlew and Bar-tailed Godwit *Limosa lapponica* to the list of quarry species; the first proposal in June 1994 was stopped following intervention by LIPU.

There are 1.5 million registered hunters, with much uncontrolled hunting occurring next to (and even within) protected areas. Italy (Istituto Nazionale per la Fauna Selvatica, INFS) took a full part in the BirdLife International project and the recent ACNAT project. A workshop was held on the species at Arosio on 27–29 March 1992, and produced a declaration for intended circulation among hunting organisations.

Discussions between LIPU and government representatives on the preparation of a national action plan for the Slender-billed Curlew have already begun in view of the possible return of the flock observed in 1994-95. This flock mainly frequented wetlands in the Golfo de Manfredonia which are formally protected, but which are regularly shot over.

* **Kazakhstan**

4 records, 1921–1991 (max. 3 birds), plus 31 records, inc. 17 summering, mapped in Gavrin *et al.* (1962).

The Slender-billed Curlew is included in the Kazakhstan Red Data Book, and is thus presumably protected, but the exact situation is not known. No other specific conservation measures are known to date.

* **Morocco**

53 records, 1939–1994 (max. 500–800 birds), plus 3 unconfirmed records.

Key site: Merja Zerga.

All curlew species are protected, but not godwits; prior to 1990 all curlews, including Slender-billed, were listed as quarry species. In 1979 there were 50,000 hunters, with the number rising annually, plus visiting hunters (Bergier 1987). Hunting has been permitted at Merja Mellah, in the northern part of the Merja Zerga Biological Reserve (poaching also occurs elsewhere in the reserve). In December 1989 one of the three Slender-billed Curlews was shot and wounded near Merja Mellah, adding considerable pressure to the calls for hunting to be banned from the whole area (this is expected to occur before the end of 1994: Eaux et Forêts staff, verbally).

The species has occurred widely along the Atlantic coast of Morocco, but the areas in the south, such as Khnifiss, were rarely monitored until recently. A considerable amount of work has been put into surveys and research on the species. BirdLife International supported work in the 1987/88 winter (van den Berg 1988), and made visits to Merja Zerga in January 1989 and 1990 (Gretton 1991). Peace Corps volunteers, notably H. Cooper, also made observations during this winter. Several surveys were carried out in the 1993/94 winter, under the ACNAT project (Agbani and Dakki, Franchimont, in European Commission 1994).

* **Romania**

16 records, 1966–1989 (max. 30 birds).

Key site: Danube delta.

The Berne Convention entered into force in 1993 following ratification by Romania, but there is no implementing law and the Slender-billed Curlew is not protected by specific legislation. Other species of large wader remain legal quarry (open season mid–August to mid–March). There is apparently little interest in shooting waders, however, among the 60,000 hunters in Romania. In 1989 the fine for shooting a curlew out of season was about £5. All records of the species but one have been from the Danube delta, particularly the saltmarsh areas at Istria and Razelm-Sinoie. Since 1989 the conservation prospects of the delta have improved dramatically, with several agencies now involved in protecting and managing the delta, which is now a Biosphere Reserve.

* **Russia**

9 records, 1908–1991 (max. 3 birds), plus Ushakov's records near Tara.

The species was included in the U.S.S.R. Red Data Book and is included in the Russian Red Data Book. It is in theory therefore protected, but in some areas this seems to apply only during the breeding season. New hunting laws are being prepared at present. Members of the Russian Federation are also free to introduce their own laws. Other curlews and godwits are legal quarry.

Searches for the breeding grounds were carried out annually during 1989–1995 by A. K. Yurlov, in cooperation with BirdLife International and the Dutch Government (G. Boere, Ministry of Agriculture). Searches were also carried out near Barnaul (Chupin *et al.* 1994) and Chelyabinsk. This work will continue until at least 1996, under an agreement of cooperation signed in 1994 (see introduction above).

* **Spain**

6 records, 1962–1980 (max. 13 birds), plus up to 35 unconfirmed observations, all but three from Coto Doñana, January 1990 to February 1992.

Potential key site: Coto Doñana National Park (SPA).

The Slender-billed Curlew is listed as Insufficiently Known in the Spanish Red Data Book (Blanco and González 1992). It is not, however, included in the national inventory of endangered species (Royal Decree 439/1990) and thus is not legally considered as belonging to the Spanish avifauna. All other curlews and godwits are protected and there is not thought to be a problem with the hunting of large waders (R. Martí verbally and *in litt.* 1994). Among waders, only Lapwing *Vanellus vanellus*, Jack Snipe *Lymnocryptes minimus*, Snipe and Woodcock are legal quarry (Royal Decree 1095/1989). Surveys for the species were carried out in Doñana and other selected sites on the Andalusian coast, between November 1993 and January 1994, under the EU (ACNAT) project. No Slender-billed Curlew records resulted from these surveys, but a full report was produced on the past occurrence and conservation of the species (Urdiales, *in* European Commission 1994).

* **Tunisia**

26 records, 1915–1992 (max. 32 birds), plus two unconfirmed records.

Key areas: Kairouan–Monastir; Gulf of Gabès.

Curlews and godwits are not listed as quarry species, and curlews, but not godwits, are explicitly protected under Article 7, Arrêté de Chasse (curlews were listed in June 1994 following a request from BirdLife International). There were some 15,000 registered hunters in 1992–1993 (the highest number to date) plus almost 2,000 tourist hunters. Existing laws are generally respected, although there may be some poaching at certain sites. During February and March 1992 surveys of coastal wetlands were carried out by RSPB, following similar surveys in Algeria (Chown and Linsley 1994); 25 sites were checked, but no Slender-billed Curlews were seen. Further surveys were carried out the following winter (November 1992 and January 1993) by the Institut Royal des Sciences Naturelles de Belgique, under the ACNAT project, and a paper was written evaluating the probability of Slender-billed Curlew occurring with Eurasian Curlew in Tunisia (Ledant and Lafontaine, *in* European Commission 1994).

* **Turkey**

29 records, 1946–1990 (max. 4 birds), plus 3 unconfirmed records.

Potential key sites: Göksu delta (3 records), Tuz Gölü, Seyfe Gölü.

The Slender-billed Curlew is protected; other curlew species and Bar-tailed Godwit have been protected since 1992. Black-tailed Godwit is still a legal quarry species (open season 15 September–28 February). Although only 12 wader species are not strictly protected, in practice almost all waders are liable to be shot, as there is very little awareness or enforcement of existing laws. There are some 4–5 million hunters, of whom only 2 million are licensed (Magnin 1989, M. Yazar *in litt.*). DHKD helped with the 1988–1990 BirdLife International project, and issued a request to visiting birdwatchers in April 1990 for information on Slender-billed Curlew and other threatened species. DHKD also distributed information and recommendations for conservation efforts widely among government officials. WIWO (International Wader and Waterfowl Research Group) carried out several surveys at major wetlands in the late 1980s and early 1990s, but only recorded one probable Slender-billed Curlew (Çukurova delta, 1986). The potential key sites are not fully protected.

* **Ukraine**

15 records, 1908–1993 (max. 48 birds), plus 18 unconfirmed records.

Key areas: Danube delta; northern Black Sea; Azov Sea and Sivash lagoon; partly protected (as Zapovedniks or Zakazniks), but large areas unprotected.

The Slender-billed Curlew is listed in the Red Data Book and is protected (penalty five times the minimum monthly wage), as are Eurasian Curlew and Whimbrel *Numenius phaeopus* (penalty four times the minimum monthly wage), under the law of 19/4/93 (Appendix 1/6/93). Godwits are not protected, however, and there is little enforcement of existing laws. There are 530,000 hunters, about 1% of the population. Surveys for the species were carried out in 1993 under the ACNAT project, and WIWO has also carried out detailed work on waterbirds at Sivash (van der Have *et al.* 1992). The IWRB Black Sea meeting in Odessa in October 1993 afforded a useful opportunity to discuss Slender-billed Curlew conservation issues in the region.

* **Croatia**

5 records, 1970–1987 (max. 2 birds), plus 11 unconfirmed records.

Included in the 1988-1990 BirdLife International project (as part of the then Yugoslavia); the species was given considerable publicity by the Croatian Institute for Ornithology. Five Slender-billed Curlews are known to have been shot between 1970 and 1987 (three by Italian hunters). There has been little conservation action since 1990, due to the political situation. (Information on current hunting law is awaited.)

* **Former Yugoslavia**

38 records (32 from Vojvodina), 1900–1984 (max. 50 birds).

Key site: Soskopo.

The Slender-billed Curlew was unprotected in the former Yugoslavia, but is apparently now protected (IRSNB 1994). In 1988, in the former Yugoslavia, there were 264,000 registered hunters, as well as many visiting hunters from abroad, particularly Italy. Two Slender-billed Curlews are known to have been shot in Vojvodina in 1962 and 1968. Surveys for the species were carried out, mainly in Vojvodina, between 1988 and 1990, under the 1988-1990 BirdLife International project. Due to the political situation no further work has been carried out.

PART 2. AIMS AND OBJECTIVES

AIMS

1. In the short term to prevent the extinction of the Slender-billed Curlew.
2. In the medium term to prevent any further decrease in the Slender-billed Curlew population caused by threats in either the breeding, passage or wintering grounds.
3. In the long term to secure a significant increase the number of Slender-billed Curlews.

OBJECTIVES

1. POLICY AND LEGISLATIVE

1.1. To promote broad national and international policies which ensure the long-term conservation of the Slender-billed Curlew and its habitats.

1.1.1. Encourage the maximum level of protection for the Slender-billed Curlew and its habitat under international conventions

During 1993–1994 the Bonn Convention Secretariat (in discussion with BirdLife International and others) developed a Memorandum of Understanding “concerning conservation measures for the Slender-billed Curlew” for signing by Slender-billed Curlew range-states. The Memorandum of Understanding will provide a framework for range-state government action, while this action plan sets targets for the BirdLife International Network and NGOs, as well as governments. All Slender-billed Curlew range-states should be encouraged to sign this.

Priority: medium

Time-scale: medium

1.1.2. Encourage international policies that promote the conservation of Slender-billed Curlew sites

Although the key sites for the Slender-billed Curlew are all IBAs (Grimmett and Jones 1989), and are mostly protected as reserves/national parks, the species also occurs occasionally at a wide range of wetland sites. Only very broad policies can promote the conservation of the range of such sites. Initiatives such as MEDWET and the ESA concept (within the EU) should be promoted where possible. Any use of international funds (e.g. from the World Bank or EU structural funds) must be carefully assessed to ensure that wetlands are not damaged.

Priority: high

Time-scale: ongoing

1.1.3. Promote international cooperation and funding from bilateral sources and other agencies

The sharing both of experience and skills, and of the necessary funds to allow project work, is vitally important. Because the Slender-billed Curlew is little known and poses identification problems, the involvement of those with experience of the species in countries with limited knowledge of it (e.g. Albania, Iran, Iraq, Kazakhstan) can be of great value. Without outside support and funds, little will be achieved in many range-states. Bilateral support can be highly effective (e.g. Dutch government programmes in Ukraine and Russia) as can wider programmes (e.g. those funded by the EU/World Bank).

Priority: medium

Time-scale: ongoing

1.1.4. Encourage national policies for all protected areas which ensure that all Slender-billed Curlew key sites are fully and effectively protected (including sites where the species has been seen only occasionally)

Any loss of (or damage to) wetland habitat within Slender-billed Curlew key sites, should be avoided and it is recommended that hunting should be banned at these sites. National wetland inventories (and conservation strategies) should be produced by each range-state to provide a framework for setting wetland conservation priorities.

Priority: high
Time-scale: ongoing

1.2. To promote the full and effective legal protection for the Slender-billed Curlew and its “look-alikes” throughout its range

1.2.1. Encourage legal protection of the Slender-billed Curlew

Encourage the listing of the Slender-billed Curlew in each range-state as a strictly protected species, with maximum applicable penalties for contravention of the law. Countries where the species is not specifically protected in this way include Italy, Spain (not included in Royal Decree 439/1990), Tunisia and Ukraine (fine too low); the situation is unclear in Kazakhstan, Iran, Iraq and Russia.

Priority: essential
Time-scale: short

1.2.2. Encourage legal protection of look-alike species

Encourage the listing of other *Numenius* and *Limosa* species (and *Limnodromus* in Russia) as protected species. This is necessary due to the problem of identifying Slender-billed Curlew; few hunters would be sure to make the correct identification until it was too late. This objective applies to Albania, Algeria, Croatia, Kazakhstan, Iran, Iraq, Italy (Black-tailed Godwit, and perhaps Eurasian Curlew and Bar-tailed Godwit if these are listed as quarry species), Morocco (*Limosa*), Romania, Russia, Tunisia (specific protection needed), Turkey (Black-tailed Godwit), Ukraine (*Limosa*) and former Yugoslavia. Thus only Bulgaria, Greece, Hungary and Spain have the necessary legislation on look-alike species.

Priority: high
Time-scale: short

2. SPECIES AND HABITAT PROTECTION

2.1 To promote the appropriate protection and management of all Slender-billed Curlew passage, wintering and breeding grounds

2.1.1. Promote the statutory protection of key sites

Encourage the highest category of protection – as IBAs, Ramsar sites, strict reserves, national parks, etc. - for all existing key sites (and others as they become known). The establishment of buffer zones and no-hunting areas should also be encouraged where necessary. No damaging developments should be considered inside such areas.

Priority: high
Time-scale: medium

2.1.2. Promote the enforcement of legislation

Encourage enforcement of legislation which will involve measures appropriate to each country, e.g. mass hunter education efforts (aided by national and international hunting organisations), intensive wardening of key sites, arrests to demonstrate that laws will be fully applied, and the creation of no-hunting buffer areas. Considerable effort will be necessary to achieve this in many countries.

Priority: high

Time-scale: medium

2.1.3. Promote prevention of disturbance

At all key sites, but especially at wintering sites, disturbance (intentional and unintentional) should be kept to a minimum. Where serious disturbance is being caused to Slender-billed Curlews, reserve wardens should have the power to close certain areas to visitors.

Priority: medium

Time-scale: short

2.1.4. Promote appropriate management of key sites

Encourage the provision of all necessary resources – financial and manpower – for the effective protection and management of such sites. Where countries do not have sufficient resources for essential management, international organisations, including BirdLife International, should help raise funds. Management plans will be needed for key sites, taking into account the Slender-billed Curlew's needs, e.g. the creation of wet areas, drained fishponds, appropriate grazing levels and, where necessary, reserve maintenance should be fine-tuned to the needs of the Slender-billed Curlew, e.g. appropriate timing of fishpond drainage in the Hortobágy.

Priority: high

Time-scale: ongoing

2.1.5. Promote protection of breeding grounds

Should the breeding grounds be found, all necessary steps will need to be taken to give the species total protection from any disturbance, or threat of predation. Decisions on conservation actions on the breeding grounds should be taken by a specialist Slender-billed Curlew working group (involving those searching for the breeding grounds under the agreement of cooperation with Novosibirsk). Great care should be taken with distribution of information. If necessary such information should be kept completely confidential.

Priority: high (when breeding grounds are found)

Time-scale: ongoing

3. MONITORING AND RESEARCH

3.1. To locate and study the current breeding grounds

3.1.1. Undertake ground surveys to locate breeding grounds

Due to the present lack of transmitters small enough to undertake satellite tracking (see 3.1.2) ground searches for the breeding grounds should continue.

Priority: essential

Time-scale: ongoing

3.1.2. Develop technology to enable use of satellite tracking (from a wintering site) to pinpoint the breeding area

Such a technique will only be feasible if transmitter weight comes down to 10–12 g and the process must be carried out with every possible care and precaution. If battery power allows, such tracking could also provide information on the spring migration route and stopover sites. In the event of the technology becoming available, it may be necessary to establish an international protocol as to the use of the technique for this species.

Priority: high
Time-scale: medium/long

3.1.3. *Studies in the summering/breeding area, if located*

Only 2–3 experienced researchers should be involved, with wardens available if necessary to protect the site. If nesting birds are seen, the maximum possible amount of information should be obtained, using all available techniques (including video monitoring, if feasible). Following such research, any necessary management measures should be carefully introduced (habitat management, predator control, supplementary feeding, etc. see 2.1.5.).

Priority: high (when breeding grounds are found)
Time-scale: medium

3.2. To locate and study further key wintering and passage sites

3.2.1. *Ground surveys*

In the absence of the necessary satellite-tracking transmitters at present, ground surveys should be continued, particularly in the least-known countries. Much time has already been spent on such surveys and a good deal of useful information has resulted. Observers must be sufficiently experienced and training sessions organised where necessary. The use of a good telescope is essential in almost all cases. Ground surveys will be difficult in some countries (eg Algeria and Iraq) until the political situation improves.

Priority: high (wintering areas: Algeria, Iran, Iraq, southern Morocco, Spain)
medium (passage sites: Croatia, Kazakhstan, south-west Russia, Turkey, Ukraine)
Time-scale: ongoing

3.2.2. *Satellite-tracking*

If this can be carried out (and if it works well), unprecedented information will result on at least the spring migration route. If Slender-billed Curlews rest for a few days at stopover sites, observers on the ground could be alerted and could gather detailed information, as has been successfully achieved for the Lesser White-fronted Goose *Anser erythropus* in some countries. At present it is unlikely that autumn and wintering sites could be located by this means, due to limitations on battery life.

Priority: high (if possible)
Time-scale: medium/long

3.2.3. *Monitor known (and any further identified) key sites*

Where possible such monitoring should be carried out by on-site (or local) reserve staff/ornithologists. Full details should be recorded of all sightings (on Slender-billed Curlew record sheets) and if possible detailed observations should be made. A full research programme should be carried out at wintering sites (Merja Zerga is currently the only regular site known) and, using such research, recommendations for beneficial management should be made. A central register of sightings of the species should be kept pending greater understanding of key sites and migration routes.

Priority: medium
Time-scale: ongoing

3.3. Monitor hunting activity (and poaching) at sites where it occurs

Simple techniques, such as shot-counting, have been useful in Italy. This information should be used to take appropriate action to control such hunting (see 2.1.1. and 2.1.2.)

Priority: medium

Time-scale: ongoing

4. PUBLIC AWARENESS

4.1. To increase awareness of the species' critically threatened status among politicians and decision-makers

Further efforts are needed to ensure that concern about the Slender-billed Curlew's plight does not remain limited to ornithologists, but is fully shared by relevant decision-makers. The essential message to convey is that the Slender-billed Curlew is the most threatened bird species in the western Palearctic and is facing a real threat of extinction in the next 10–20 years. The lack of detailed knowledge, particularly concerning the breeding grounds, greatly increases the problem of conserving the species, and greater financial resources are needed if real advances are to be made. The contrast with the amount spent on certain threatened bird species in countries such as the U.S.A. is striking (e.g. \$17 million spent on the California Condor to date). BirdLife International and other NGOs should provide advice and encouragement to governments and others, whether nationally or regionally.

Priority: high

Time-scale: ongoing

4.2. To increase awareness of the Slender-billed Curlew among the public, particularly in range-states

As the most threatened western Palearctic bird species, the Slender-billed Curlew is of great potential interest to the public, and deserves effective publicity. A well-made film would probably be the best way to achieve wide awareness (good video footage was recently obtained at Merja Zerga), and the publication of articles in each range-state would also be very useful.

Priority: medium

Time-scale: ongoing

4.3. To increase awareness among hunters

There is an urgent need to raise greatly the awareness of the species and the part played by hunting in its decline, together with the problem of look-alike species. In general, national hunters' organisations should play a key role in this (and should fund the necessary actions), aided by groups such as FACE and CIC.

Priority: high

Time-scale: short

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ANNEX 1. RECOMMENDED CONSERVATION ACTIONS BY COUNTRY

*** Albania**

1.2.1./1.2.2.

2.1.2. Promote the legal protection of the Slender-billed Curlew and other large waders and enforce this legislation.

3.2.1. Carry out surveys for the species in order to identify key sites, in cooperation with foreign ornithologists.

*** Algeria**

1.2.2/3.3.

2.1.2. Promote the inclusion of the other *Numenius* and *Limosa* species in the list of species protected by Presidential decree; monitor the hunting situation and enforce restrictions where necessary.

2.1.1. Promote the safeguard of any sites found to be important for the species through declaration as strictly protected areas and Ramsar sites, with no hunting permitted.

3.2.1. Carry out surveys for the species in known and potential areas, using international cooperation where possible and necessary. Through training in identification skills, set up an informal “Slender-billed Curlew network” of 6–12 reliable observers.

4.2./4.3. Increase public awareness of wetland conservation issues and the plight of the Slender-billed Curlew through appropriate NGOs. Hunters' groups, schools and the wider public could all be targeted by such a programme.

*** Bulgaria**

1.1.4. Promote the implementation of the parts of the National Plan for wetland conservation that concern sites used by the Slender-billed Curlew.

2.1. Promote the protection of all sites where the species has been recorded more than once.

2.1.1. Encourage an increase the extent of the protected area at Lake Atanasovo (particularly the northern and north-eastern parts).

2.1.2. Improve the enforcement of existing hunting legislation and the control of hunting in protected areas, notably Lake Atanasovo. It is recommended that no temporary decrees will prolong the hunting season in the Burgas region during winter.

- 2.1.3. Provide wardening for the areas used by the species at Lake Atanasovo and other Burgas wetlands in winter.
- 2.1.4. Promote the provision of the necessary resources for the effective management and protection of Lake Atanasovo and other wetlands in the Burgas area (including full-time wardens with vehicles). Develop and implement the management plan for Lake Atanasovo and compile such plans for Poda and Chengene skele.
- 3.2.3./
3.3. Monitor the occurrence of the Slender-billed Curlew at Lake Atanasovo and the Burgas area, and monitor the hunting situation at these sites.
- 4.2. Increase awareness among the general public of the plight of the Slender-billed Curlew (and other threatened species).
- 4.3. Develop and implement an education programme aimed at hunters to promote the conservation of the Slender-billed Curlew, waders and other wetland birds.

* **Greece**

- 2.1.1./
2.1.4. Encourage full and effective protection for key sites, ensuring that no adverse developments occur. Promote adoption through a Joint Ministerial Declaration of the management plan for the Evros delta and fully implement its recommendations, with the necessary resources being made available.
- 2.1.2. Encourage the enforcement of existing laws, especially at key sites (ideally there should be total hunting bans in and around such sites).
- 3.2.3./
3.3. Monitor the key sites to determine to what extent the species is still occurring on passage (e.g. the last records from the Evros delta were single birds in 1988 and 1995; in Porto Lagos in 1988 and 1993), and monitor the hunting situation at such sites.
- 4.2./4.3 Increase awareness among the public and hunters, especially at the key sites.

* **Hungary**

- 2.1.1. Promote the full protection of all key sites with adequate resources are available for their management. At the Hortobágy careful rotation in the draining of fishponds in autumn is important, and some pusztas could usefully be flooded and new salt lakes made (Kovács 1994). At Kardoskut extra water is needed to flood the salt lakes; a new artificial salt lake is planned at Kardoskut, which should be beneficial (Nagy, *in* European Commission 1994 and *in litt.*).

3.2.3. Monitor the existing key sites and other suitable wetlands during passage seasons for the presence of the species.

3.3/

2.1.2. Monitor the hunting situation, particularly near key sites, and ensure that the good existing legislation is fully enforced. There have been problems with visiting hunters, so strong action may be needed; those breaking the law should be banned from hunting in Hungary.

* **Iran**

1.2.1./1.2.2/

2.1.2. Promote the listing of the Slender-billed Curlew and its look-alikes as protected species, with high penalties for infringement and effective enforcement (regardless of whether or not waders are commonly shot).

2.1.1./

2.1.4. If key sites are identified, encourage their full protection, with the necessary resources available for their management.

3.2.1. Carry out surveys for the species, using trained and experienced staff, to locate any key sites (the Miankaleh peninsula and the Mehran delta may both be key sites, but confirmation of records is needed). If necessary and feasible, foreign ornithologists could cooperate in such surveys.

* **Iraq**

The activities listed below will only be achievable if the political situation in Iraq changes considerably; it is to be hoped that the marshes will not have been entirely destroyed by this time.

1.2.1./1.2.2.

2.1.2. Encourage the listing of the Slender-billed Curlew and its look-alikes as protected species, with high penalties for infringement, and effective enforcement, of such laws.

2.1.1. Encourage the protection of the Iraqi marshes, particularly areas suitable for waders, such as temporary marshes and areas fringing waterbodies.

3.2.1. Carry out surveys for the species, using trained and experienced staff, to locate any key sites; if possible and necessary, this could be done in cooperation with visiting ornithologists.

* **Italy**

1.2.1./

1.2.2. Encourage stronger specific legislation to protect the Slender-billed Curlew and other *Numenius* and *Limosa* species (Black-tailed Godwit may currently be unprotected if the July 1994 circular of the Minister of Agriculture has not yet

taken effect). If large waders continue to be shot, then further species, notably Ruff *Philomachus pugnax*, should also be protected.

2.1.2. Encourage enforcement of legislation on hunting, through the appointment at each key site of 3–5 armed wardens who are responsible solely for hunting control. It is recommended that no-hunting buffer zones should be established around key sites, within which even the carrying of a gun would be an offence.

2.1.1./2.1.2./

2.1.3/2.1.4

Encourage the full protection of key sites from development, and provide the resources necessary for their management. Recommended actions include the designation of the Viareggio wetlands as a Ramsar site, SPA and strict nature reserve, the banning of hunting in the entire area and its surroundings, and the provision of wardens. The other key sites should be designated as Ramsar sites (smaller sites should be joined to form single large sites), with buffer zones around them. Restore the boundaries originally proposed for Gargano National Park, with buffer zones and 2–3 anti-poaching wardens. The Carabinieri and Forest Guards should be deployed to intervene whenever and wherever migrating groups occur; and birdwatchers' access should be carefully controlled.

3.2.3. Monitor key sites and other suitable areas for the species and monitor hunting activity at key sites.

4.1./4.2./

4.3.

Increase awareness of the plight of the species among politicians, hunters and the general public. In particular, provide and disseminate scientifically based information in order to stress the importance of reducing the hunting of large waders as a direct measure for the protection of the Slender-billed Curlew.

* **Kazakhstan**

1.2.1./

1.2.2.

Encourage the full protection of the Slender-billed Curlew and its look-alikes, with high penalties for offenders.

3.2.1./3.2.2./

2.1.

Carry out surveys for the species to locate any key sites; the species might even be found nesting in Kazakhstan. If technically possible, satellite-tracking would be by far the best method of locating such sites, as the country is huge, travel is difficult, and the density of ornithologists is very low. Any key sites identified should be fully protected.

* **Morocco**

1.2.1./

1.2.2.

Promote an increase in the penalty for shooting a Slender-billed Curlew to the maximum possible level, and substantially increase the fine for shooting other curlew species.

- 1.2.2./
3.3. Promote the protection of both *Limosa* species with substantial penalties for contravention, and monitor the hunting situation.
- 2.1.3. Prevent significant disturbance to the species at Merja Zerga and any other key sites.
- 2.1.1./
2.1.4. Promote the strengthening of the level of protection afforded to Merja Zerga, with a total ban on adverse developments within the reserve. Hunting should be banned permanently in the whole reserve, including Merja Mellah. Further resources should be made available for the site's management, including the appointment of further wardens, each with their own vehicle. A study of agricultural practices around the lagoon would yield valuable information on the management of the reserve. A management plan is needed for the reserve and an information centre should be built.
- 3.2.1. Survey the coast for Slender-billed Curlews, and continue to monitor occurrences at Merja Zerga. While this site remains the only known regular wintering area for Slender-billed Curlew there is a strong case for an intensive study of the species to be carried out here.
- 4.1./4.2./
4.3. Raise awareness of the species among decision-makers, hunters and the general public.

* **Romania**

- 1.2.1. Promote the approval and implementation of the bill (No. 501, 14 July 1993) intended to protect the Slender-billed Curlew.
- 1.2.2./
2.1.2. Promote the protection of other *Numenius* and *Limosa* species, with effective penalties, and ensure the law is enforced.
- 2.1.1./2.1.2./
2.1.4. Promote the full protection of the Danube delta and that only sustainable use is allowed. Considerable resources are needed for the management of the area, and much work is ongoing, including staff training and the production of a management plan for the delta. Those responsible for the delta must be fully aware of the importance of the Istria and Razelm-Sinoie areas for the Slender-billed Curlew and other threatened birds; hunting must be totally banned here, and in much of the delta proper.
- 3.2.3. Continue to monitor the Slender-billed Curlew, particularly in the Danube delta (no records are known since 1989).

* **Russia**

1.2.1./

2.1.2. Encourage the strict protection of the Slender-billed Curlew throughout its Russian range, with heavy penalties for contravention.

1.2.2./

2.1.2. Encourage the full protection of other *Numenius*, *Limosa* and *Limnodromus* species throughout the Slender-billed Curlew's range (i.e. west of the River Yenisey). Legislation must include heavy penalties and must be widely publicised, particularly among hunting organisations and through the network of hunting inspectors.

3.1.1./3.1.2./

3.1.3. Locate the breeding grounds and protect them effectively. The most effective means of finding them would be satellite-tracking of birds from the wintering grounds. In the absence of suitable transmitters, ground surveys will continue at least until 1996, coordinated by A. K. Yurlov in Novosibirsk. If located, all necessary resources must be devoted to the study and protection of the site and the birds.

3.2.1. Identify key passage sites, through increased publicity and survey efforts, especially on the Russian coasts of the Black, Azov and Caspian Seas, and protect effectively, as Zapovedniks, any sites thus identified.

* **Spain**

2.1.1./2.1.3./

2.1.4. If Coto Doñana is confirmed as a key wintering site, specific management recommendations should be identified and implemented by the national park authorities, including increased wardening to prevent disturbance, and the creation of a strict no-hunting zone of 2–3 km around the area used by the species.

3.2.1. Carry out special surveys for the species in autumn and winter, particularly in areas where the species has been recorded (Balearic Island wetlands, Mediterranean coast wetlands and Andalucian wetlands, notably Doñana). All resulting records of the species should be submitted to the Iberian Rarities Committee and to BirdLife International.

3.3./

2.1.2. Monitor the situation concerning the hunting of large waders, particularly near to any key sites identified; if problems are apparent enforcement efforts will need to be increased.

4.2. Increase awareness of the species among ornithologists and the general public, by popular articles and possibly the production of a leaflet to aid identification. Good illustrations would be an important part of such a leaflet.

* **Tunisia**

1.2.2./3.3./

- 2.1.2. Promote the protection of godwits by listing them on Article 7 of the Arrêté de Chasse (curlews were listed in June 1994). The situation concerning the hunting of large waders should be monitored, and measures taken for increased enforcement if necessary, particularly at key sites.
- 2.1.1. Encourage the declaration of any Slender-billed Curlew key sites as fully protected areas and Ramsar sites, with total bans on hunting in the area and its immediate surroundings. Such areas can be declared permanent hunting reserves in the Arrêté Annuel de la Chasse, as determined by the Conseil Supérieur de la Chasse.
- 2.1.4. Initiate a study of the Kairouan wetlands (other than Kelbia) to investigate the hydrology of the system and the effect of up-river dams. This would contribute to the development of a conservation management plan for the area.
- 3.2.1. Continue and increase monitoring of potential key sites, with particular emphasis on areas where the species has been recorded in the past (Kairouan–Monastir and Gulf of Gabès). The main aim of such surveys would be identification of precise sites where conservation action could be taken; expeditions could be organised, if necessary, in cooperation with visiting ornithologists.
- 3.3./4.3. Monitor the shooting of large waders. If the shooting of large waders is more widespread than currently thought, the production of posters combined with articles in hunters' magazines would help to raise awareness of the species. At the 1994 meeting of the hunting council a request was made by the regional hunting association of Tunis and the hunting federation for such a programme.

* **Turkey**

1.2.2./

- 2.1.2. Promote the inclusion of the Black-tailed Godwit in the list of protected species. Encourage better understanding and enforcement of hunting legislation, particularly at potential key sites.
- 2.1.1. Promote the full protection of key sites, once these have been identified with full resources for effective management. No hunting should be allowed in or near such sites (no-hunting buffer zones will be needed).
- 3.2.1. Carry out surveys during passage and winter to establish which, if any, sites are used regularly. The highest priority sites for such surveys are the Göksu delta, Çukorova delta, Apolyont Gölü, Ereğli marshes, Çamalti Tuzlasi and Büyük Menderes delta. Foreign observers and expeditions should be encouraged to look for the species.

- 4.1./
4.3 Raise awareness of the species (and the law protecting it) with relevant politicians and hunters' groups.

* **Ukraine**

- 1.2.1./1.2.2./
2.1.2. Encourage an increase in the penalty for shooting a Slender-billed Curlew to the maximum level, and that for shooting other curlews to a more significant amount. Protect godwits, and ensure that all such laws are well-publicised and enforced.
- 2.1.1. Encourage the effective protection of a network of major wetland sites along the northern shores of the Black and Azov Seas.
- 3.2.1./
3.2.2. Identify key sites used by the species. Satellite-tracking would greatly facilitate this process, but with international cooperation and funding substantial ground survey efforts could be made. Any sites thus identified should be fully protected (see 2.1.1.), and total hunting bans should be introduced at these sites.
- 4.3. Publicise the plight of the species with hunters.

* **Croatia**

- 1.2.1./1.2.2. Encourage the full protection of all *Numenius* and *Limosa* species, with maximum penalties for the shooting of a Slender-billed Curlew, and effectively enforce this law. Activities of any foreign hunters must be effectively controlled; visiting hunters breaking the law should be banned from hunting in Croatia.
- 3.2.1. Survey suitable wetlands (particularly those with past records) for the species, in order to identify any key sites.
- 4.1./4.3. Increase awareness of the species among politicians and hunters.

* **Former Yugoslavia**

- 1.2.1./1.2.2./
2.1.2. Promote the listing of the Slender-billed Curlew and its look-alikes as protected species, with high penalties for infringement, and effective enforcement. Foreign hunters must also be fully controlled, perhaps by a life ban on returning to hunt in former Yugoslavia if caught breaking the law.
- 2.1.1./
2.1.4. Encourage effective protection and management of key sites, notably Soskopo.
- 3.2.1. Carry out further surveys for the species, particularly in Vojvodina.

4.1./4.3. Increase awareness of the species among relevant politicians and hunters.