

Where does the Slender-billed Curlew nest, and what future does it have?

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ABSTRACT This paper reviews and includes passages from the only fully documented accounts of nesting Slender-billed Curlews *Numenius tenuirostris*, by Valentin Ushakov of Tara, southwest Siberia, between 1909 and 1925.

It then summarises some of the more recent search efforts, before considering the likelihood of the current nesting grounds being found.

Unless greatly increased efforts are made, the species appears to be heading inexorably for extinction.

With a feeling of deep satisfaction, I watched the magical picture [of 14 Slender-billed Curlew nests] and felt very happy, having discovered a new page in the great book of nature. Many fellow ornithologists would give a lot to observe this picture, but I, a humble and ordinary nature-lover, got this chance for free.

I warmly thank fate for giving me such inexpressible pleasure and satisfaction.

Slowly the sunset was fading, the curlews calmed down; the females sat on nests and the males landed nearby. The calls of the day birds quietened. A Bittern started booming more loudly and from above a Jack Snipe called melodically. The quiet warm spring night began. (Ushakov 1925)

The Slender-billed Curlew *Numenius tenuirostris* is the rarest bird in Europe, and the only bird species in the Western Palearctic for which the *current* breeding grounds are unknown. The first-summer Slender-billed Curlew at Druridge Bay, Northumberland, in May 1998, generated a huge amount of interest (e.g. Cleeves 2002; Steele & Vangeluwe 2002), and the assertion was widely made elsewhere that the breeding grounds of this species have never been found. This is not the case, but we need to go back almost a century to the successful 15-year quest of V. E. Ushakov, spanning the years before and after the Russian Revolution. Ushakov's work culminated in the discovery of a colony of 14 nests in 1924, south of Tara in Omsk region. It would have been difficult, if not impossible, for Western ornithologists to visit this area for more than 60 years following this encounter, until the era of Gorbachev and *glasnost*.

One of us (AG) was lucky enough to visit southwest Siberia in 1989, 1990 and 1994, while working on the Slender-billed Curlew for ICBP (now BirdLife International). In each year, AG (together with John O'Sullivan in 1990) joined AKY and colleagues in searching potential nesting areas, including 'Ushakov's marsh' at Krasnoperovaya ('red feather'), south of Tara (plate 212). In almost every other year since 1989, AKY has searched for the species, sometimes with GCB, supported by the Dutch Government, RSPB and BirdLife International. To date, the search has not been successful, but has produced many other collaborative benefits, not solely ornithological.

In conservation terms, the most significant aspect of the Druridge Bay record was that the bird was a first-year. We know, therefore, that in 1997 the species nested *somewhere*; finding where would be perhaps the greatest prize in Palearctic field ornithology, and one that AKY will continue to seek. It also may well hold the key to the survival of the species.

Ushakov's successful quest, 1909-24

Although there have been claims from a wide range of areas, the only fully documented and convincing records of nesting Slender-billed Curlew are contained in four remarkable papers by V. E. Ushakov (1909, 1912, 1916 and 1925). A full translation of the 1916 paper was published in Gretton (1991), but not the others, as they were not then available. It seems worthwhile, therefore, to quote relevant passages from the other papers. This article has used only the key sections from each paper, but the original papers and full translations have been deposited in the Alexander Library of the Edward Grey Institute, at the University of Oxford.

Ushakov's first paper appeared in 1909 in a hunting journal; parts of it were reproduced in translation in Dresser (1910), having been provided by S. A. Buturlin, an eminent Russian ornithologist. Ushakov was living in Tara and appeared quite familiar with the species, having already found several nests. His account is a mixture of his own observations and those of local hunters. In the following accounts, present-day vernacular and scientific names are used, and dates have been adjusted to their modern equivalents (the Russian calendar before 1917 was 13 days behind the modern calendar).

'Around Tara, the Slender-billed Curlew is quite common, though not seen everywhere. All three species of curlew [i.e. Eurasian Curlew *N. arquata*, Slender-billed Curlew and Whimbrel *N. phaeopus*] are common on the big marshes at Krasnoperovaya, 13 km SSW of Tara. The preferred habitat of the Slender-billed Curlew is open marshes, or with some birch *Betula*, but it can sometimes be seen on marshy areas next to pine *Pinus* forests. In spring it arrives about a week later than Eurasian Curlew, not being seen before 10th May.

'On 12th May [year unspecified, but likely to be 1908] I was sitting in a small duck-shooting hide on the edge of Krilishkov Lake, with dusk



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209. Taiga habitats, taken during a helicopter flight from Severnoye, Russia, June 1990.

approaching. Above me I heard the clear melodic call of the Slender-billed Curlew, and saw a flock of eight birds descending from on high on to the marshy edge of the lake. They kept in pairs and very quickly dispersed around the lake, probing in the soil for food. I shot and killed one. The rest flew further into the marsh, calling, but one, apparently the shot bird's mate,

flew around with pitiful cries. On all other occasions I only saw single pairs of Slender-billed Curlew, apparently already paired on arrival.

'Regarding Slender-billed Curlew nests, they are almost always in the middle of the marsh, on grassy hillocks or small dry islands, 10-15 m². I have always found single nests (quite often with Eurasian Curlews very close by) but local hunters tell me they have seen tens of nests in a small area.

'The nest is made in a shallow hollow, with a little dried grass. Complete clutches of four eggs have been found from 30th May to 11th June. I cannot give the exact egg sizes, as the eggs were prepared in the wrong way, with two holes, but the length varied from 52.5-54.5 mm, and width from 38.0-40.1 mm.

'After the young fledge, in early July, the birds stay around the nesting area for quite a long time, then wander more widely around the marsh. In early August, one can quite often see family groups of 5-6 birds, in meadows where they are not seen in spring. They become less obvious, and have never been seen leaving, but probably go in the second half of August.

'In the future, if my health and circumstances allow, I hope to record more details of this little-known bird and collect the downy chicks.'

(Ushakov 1909)

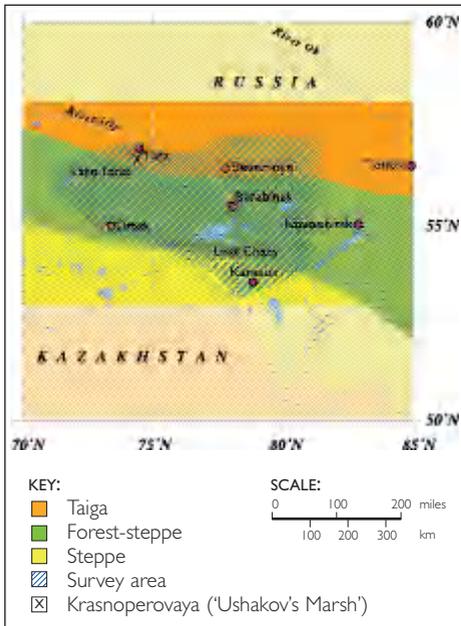


Fig. 1. Map of southwest Siberia showing the area of Slender-billed Curlew *Numenius tenuirostris* searches, 1989-1997.

From the perspective of recent Cold War history, it may come as a surprise that there was some Anglo-Russian ornithological collabora-



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210. Aerial view of typical forest-steppe habitat, northwest of Novosibirsk, Russia, June 1990.

tion prior to the Russian Revolution. Dresser (1910) concludes his Slender-billed Curlew account by referring to an egg apparently taken by P. A. Schastovski on the edge of Lake Chany on 20th May 1909. This egg was exhibited by Dresser at a meeting of the British Ornithologists' Club on 15th December 1909 (Jourdain 1919). It is possible that Jourdain confused this egg with one collected by Ushakov (see below), because Schastovski's egg was recorded by Dresser as being in Toms Museum. Alternatively, Dresser may simply have been loaned the egg for use in his book's plate, and then returned it to Siberia.

Ushakov (1925) claims to have given Dresser a single Slender-billed Curlew egg in 1909 (in exchange for several other rare eggs worth 30 roubles). This egg is apparently different to that collected by Schastovski, as both are shown separately in the plate in Dresser (1910). Ushakov's egg (collected on 2nd June 1909) is still in the Dresser collection in the Manchester Museum (*Brit. Birds* 95: 359-360).

In 1909 or 1910 (probably the latter), Ushakov met the English ornithologist Potter at Tara, before leaving on a steambot on the River Irtysh, and sold him a clutch of four Slender-billed Curlew eggs for 35 roubles. Ushakov (1925) refers to Potter learning of nesting Slender-billed Curlews from his (translated) articles appearing in *Ibis*. Careful searches in the Alexander Library by Mike Wilson have revealed no such articles, although it is possible

that others may have quoted extracts, as Dresser did. It would appear most likely that Potter either attended the BOC meeting in December 1909, or had seen an early copy of Dresser (1910), and then left for Siberia not long after.

Ushakov was surprised at the level of interest that his 1909 paper generated and had difficulty answering all the resulting enquiries. In his next paper, in July 1912, he says that he had not been able to visit the nesting areas, and was only aware of one nest being collected (by a peasant) since 1909. The villagers all agreed that Slender-billed Curlew numbers were decreasing each year. At the game market, Ushakov found only one Slender-billed Curlew for every hundred Eurasian Curlew.

'It became clear that the Slender-billed Curlew was either extremely shy and cautious, or it has changed its breeding area and might even have disappeared from our region. This made me pay special attention to the species this spring. A complicated situation, caused by very poor crops in our region, did not allow me to implement my plans fully; however, I managed to spend a whole day searching for the species.

'On May 22nd my friend V. S. Stolbov went hunting to Shkitovski Lake, 4.25 km away from Osinovski Vyselek village, and was fortunate to find a couple of Slender-billed Curlew and to shoot one male. From the behaviour of the birds, he got the impression that they were intending to breed somewhere in this area.



Chris Gomersall

211. Slender-billed Curlew *Numenius tenuirostris*, Morocco, February 1995.

'Finally, on June 3rd, Stolbov and I set out to seek the nesting place of the species in the surroundings of Krasnoperovaya and Osinovski Vyselek. By 6 am we were already in the vast wetlands lit by bright sunshine – the aim of our trip.

'A thin surface of peat bog lay in front of us, covering an area of some 2 km². To the north-east we could see Osinovski Vyselek, to the

southwest there was a dense pine forest, and to the south were stands of birch. Most of the marsh was covered by thin vegetation of sedges, horsetails and sparse reeds. There were many scattered plots covered by a thick layer of soft moss. Occasionally one could see long and narrow ridges of drier land covered with dense vegetation. Birches were growing on them and in some places small pine trees.

'As I entered the bog...two Slender-billed Curlews emerged. The calls they produced on mobbing a Carrion Crow *Corvus corone* were completely different from usual curlew calls. They were a sort of hollow vibrating whistle, very similar to that of the Marsh Harrier *Circus aeruginosus*. It is hard to describe these calls, but they would sound something like "sirrr-virrr". The mobbing strategy of the Slender-billed Curlew also differed from that of the Eurasian Curlew. The latter would attack the crow rapidly and even peck it with its bill, and I could see it clearly with my Zeiss binoculars. The Slender-billed Curlew, however, did not perform such sudden attacks as its larger relative.

'Then both Slender-billed Curlews ceased mobbing very unexpectedly, and they flew away with a loud and clear call: "be, be, be, be, be, be, be...". The call could be immediately distinguished from that of the Eurasian Curlew, which I described as similar to the neigh of a foal. This call was much louder and higher in pitch...

'The most persistent persecutors [of a



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212. Alexander Yurlov at 'Ushakov's marsh', Krasnoperovaya, Russia, June 1994.



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213. Cemetery at Krasnoperovaya (village deserted in 1960s), Russia, June 1990; former Slender-billed Curlew *Numenius tenuirostris* nesting site.

passing Black Kite *Milvus migrans*] were a pair of Northern Lapwings *Vanellus vanellus*, and soon a Slender-billed Curlew joined them. Judging from the distance between this observation point and the previous one, I could assume that this bird was from another breeding pair:

'The marsh, especially the area by the lake, was full of life! Small cloud-like flocks of colourful Ruffs *Philomachus pugnax* were whizzing by and dispersed along the shore in their leks. The air was filled with the neigh and whistling of Eurasian Curlews that were flying from place to place undisturbed.

'Occasionally in the distance the trumpets of Common Cranes *Grus grus* would reach us. Black-throated Divers *Gavia arctica*, called by the local people "gagautch", flew from lake to lake with hollow croaks, and the mournful melodic song of the Pine Bunting *Emberiza leucocephalos* was in harmony with the whole spirit of the marsh. Everything seemed so pensive and we got into an elegiac mood. There was silence, a light wind was rippling the vast surface of the lake, and the sun shed plentiful rays.

'By 4 pm, hosts of mosquitoes arrived and we, exhausted by our ten-hour wandering through the marshes, hardly reached our horses. So our excursion was not successful, and we have to wait patiently for next spring.' (Ushakov 1912)

Ushakov's next paper was in 1916 (full translation included in Gretton 1991) and describes events in 1914. On 22nd May, a hunter from Krasnoperovaya brought Ushakov a female with nest and eggs, and said he thought there was

another nest close by. Ushakov visited the site, 1 km from Krasnoperovaya, on 29th May and found a nest with four eggs (a photograph of which is included in the 1916 paper, unfortunately not of sufficient quality to be reproduced here). He collected the female and four eggs, which are notably larger than those detailed in the 1909 paper, at 64.0–65.6 mm long by 45.0–47.1 mm wide.

Perhaps not surprisingly in view of the political events of November 1917 (which, incidentally, also curbed Ushakov's collecting instinct; see below), some years passed before Ushakov's next paper, in 1925. This described the finding of a Slender-billed Curlew colony, the culmination of his quest.

'In spring of last year, 20th May 1924, I went in the evening to a lek of Black Grouse *Tetrao tetrix*. It was located on one of the numerous islands scattered in a huge peat bog to the south of Tara. Having covered 8.5 km, I was approaching the island with the lek. The sun had not set yet. I could hear the grouse cooing – the lek was at its height. I did not want to scare away the red-browed blackies, and in order to save the lek until dawn, I went to the right of the island and went straight ahead, across the bog, watching the spring life of the feathered-ones.

'The grey monotony of the bog was painted in soft tones by the last rays of the sun disappearing beyond the horizon. Young grass, scattered here and there, appeared as bright, joyful gleams. On the left grew a pine stand of rich dark green, and young birch trees with their

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214. Dalmatian Pelicans *Pelecanus crispus*, Lake Tenis, Omsk region, Russia, June 1994.

leaves half-open glared in sharp contrast with their bright whiteness. There was no wind; the sky was clear and blue. And the air was filled with fragrance of spring.

'Suddenly I noticed a few birds flying towards me. I recognised my old friends the curlews by their flight and silhouettes, and when they came closer and uttered their alarm calls, so different with their hollow vibrating whistle from those of the Eurasian Curlew, there was no doubt left: they were Slender-billed Curlews rushing in front of me, these interesting birds so poorly studied so far. Curlews were protected by law in that season and I had no licence for collecting, so I could not sample any of them. I decided to track them in order to find the nesting site. I went there, where the birds circling over my head had flown from, and more of these birds came to meet me. Soon there were no less than twenty of them.

'Having noticed that the birds were coming from a small upraised plot, I proceeded to this little isle. When I reached it, curlews began to take off around me and I noticed their nests with eggs. I found 14 nests altogether. Some of them were located very close to each other, about 2 m apart, while some of them were 11-13 m apart. The island was some 100 m in length and



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215. Dalmatian Pelican *Pelecanus crispus* chicks, Lake Tenis, Omsk region, Russia, June 1994.

10 m across, and here on this comparatively small area 14 nests of Slender-billed Curlew were situated. Most of them contained two eggs, two had three eggs and only one had a complete clutch of four eggs, while some of them still had only one.

'The eggs were pear-shaped, with the usual appearance of wader eggs: black, dark brown and red-brown spots, dots and stripes being scattered on the yellowish-green background. [They] varied in shades of colour and spot shape. The eggs also varied in size, as far as could be judged by eye. For instance, the complete clutch of four eggs consisted of large ones comparable in size to the eggs of Eurasian Curlew, while those of the small clutches of one and two were significantly smaller.

'The females were taking off from the nests in silence and flew low without a sound, approaching me very closely. The males rushed around over my head uttering either their characteristic hollow vibrating whistle or loud high-pitched "be-be-be-be...". All the nests were built in shallow hollows on the ground, their construction was rather simple – just a wisp of dry grass. I did not find any animal products such as wool or feathers in the nest-linings.

'After finishing a perfunctory inspection of

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216. Asian Dowitchers *Limnodromus semipalmatus*, Ust-Tarka Zakaznik, Russia, June 1989.

the nests, I walked some distance back in order to be able to watch an interesting and rare picture – the colonial breeding of a bird, characteristic of the Mediterranean zone, and considered by our scientists, outstanding ornithologists, a dying-out species, in the northern zone (sic) of Siberia.' (Ushakov 1925)

Although Ushakov's accounts provide a unique record of nesting Slender-billed Curlews, several outstanding questions remain. All four papers give only specific observations from a single day, and yet the species clearly fascinated Ushakov for the best part of two decades. It is particularly curious that, having fulfilled his ambition of finding a colony (above), he did not make further observations in the following days, and makes no reference to any particular constraints preventing his return.

There is considerable variation in the egg sizes given above, as noted by Jourdain (1919) and by Ushakov himself in his observations at the colony. Given that the two species nested so close to each other (Ushakov 1909), one may wonder whether some of the eggs he saw in 1924, and perhaps some of those collected earlier, were, in fact, from Eurasian Curlews. Any additional papers by Ushakov might provide further valuable information. He is thought (by AKY) to have written some 73 papers in total, but none of the others are thought to refer to Slender-billed Curlew.

More recent searches, 1989-1997

AKY has carried out fieldwork in southwest Siberia for almost all his working life, taking a particular interest in studies of waders and gulls. Since the late 1980s, the Slender-billed Curlew has been a priority, but he has never seen the species in Siberia, only in Morocco, in January 1994, during a BirdLife International workshop on the species at Merja Zerga.

It is not possible here to summarise all the Slender-billed Curlew surveys that have been carried out since 1989, but we will briefly summarise four expeditions (1989, 1990, 1994 and 1997). The first three expeditions were of similar format, though some different areas were covered in each year. Some two weeks were spent in the field, covering 2,600-3,200 km (often on poor roads), and spending no more than two or three days at each site. The expedition teams were small, of four or five people including a driver. In 1990, thanks to the Soviet

Academy of Sciences, we had the use of a helicopter for four days, flying from Severnoye, some 300 km northwest of Novosibirsk. This enabled us to reach some of the otherwise inaccessible taiga areas, a vast complex of lakes and marshes stretching hundreds of kilometres (plates 208-210). In 1997, AKY and GCB spent some five weeks in the field, covering 5,000 km and visiting seven of the 22 'target areas' identified by Danilenko *et al.* (1996). Four of these areas had been largely destroyed by overgrazing, drainage and cultivation, but two areas were identified as high priority for future searches (Boere & Yurlov 1998). Until recently, almost all ornithologists in Russia were professionals, and thus most information comes from Biological Stations (e.g. Lake Chany and Karasuk) and professional expeditions, rather than from amateur observers. In recent years, with pressure on scientific funds in Russia, the external support of such expeditions has been essential.

Despite searching many apparently suitable Slender-billed Curlew breeding areas, none was found (to no one's great surprise), but much other information was obtained. Globally threatened species seen (with numbers in each year [1989, 1990, 1994, 1997] in parentheses) were: Dalmatian Pelican *Pelecanus crispus* (0, 0, 50, 23), Spotted Eagle *Aquila clanga* (3, 1, 2, 1), Eastern Imperial Eagle *A. heliaca* (0, 3, 0, 0), Corn Crake *Crex crex* (21, 10, 8, 2), Black-winged Pratincole *Glareola nordmanni* (0, 0, 14, 3)



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217. Nest and eggs (full clutch) of Asian Dowitcher *Limnodromus semipalmatus*, Novosibirsk region, Russia, June 1989.



218. Post-breeding congregation of Great Black-headed Gulls *Larus ichthyaetus* (with young) and Caspian Terns *Sterna caspia*, Uz Karyetki, Lake Chany, Russia, June 1994.

and Sociable Lapwing *Vanellus gregarius* (0, 0, 0, 2). Near-threatened species seen included: White-tailed Eagle *Haliaeetus albicilla* (1, 6, 2, 0), Pallid Harrier *Circus macrourus* (1, 4, 0, 0), Great Snipe *Gallinago media* (1, 0, 0, 1) and Asian Dowitcher *Limnodromus semipalmatus* (30, 4, 0, 9).

The Dalmatian Pelican colony at Lake Tennis is apparently the most northerly known colony (A. Crivelli *in litt.*); it contained eight active nests on 15th June 1994 (plates 214-215). Those seen in 1997, in the Burla valley, southeast of Lake Chany, were apparently a non-breeding group. Seven new breeding sites of Asian Dowitcher were found (five in 1997); one north of Lake Tennis represents a considerable range extension. A nesting pair of Sociable Lapwings was seen in 1997, near Karasuk, at the very edge of the species' range.

The wetlands of southwest Siberia that we were able to survey were mostly in the relatively narrow forest-steppe zone, between the dry steppes of Kazakhstan to the south and the vast taiga to the north, largely inaccessible in summer, unless by air transport (fig. 1). Krasnoperovaya, near Tara, where Ushakov made his observations, is located towards the northern limit of the forest-steppe zone, with parts of the marsh having some characteristics of the taiga, such as the presence of conifers. An important question is whether this habitat was the typical nesting habitat of the Slender-billed Curlew, or whether its preferred habitat was farther north, in the taiga, or farther south, in more typical forest-steppe, or even true steppe. There has been much speculation on this question (Belik 1994; Van Impe 1995; Danilenko *et al* 1996), but there appears to be no definitive evidence pointing either way. The only fully confirmed and well-documented observations of nesting Slender-billed Curlews are those of

Ushakov at Krasnoperovaya, so that was where we concentrated our attention.

In 1990 and 1994, there were still substantial areas of marsh at Krasnoperovaya, apparently quite similar to that described by Ushakov, though perhaps with rather more trees. In 1990 there were 12 pairs of Eurasian Curlew at the site, but in 1994 only six or seven pairs were seen. Despite our enquiries, no one locally appeared to have seen a small curlew. By 1997, the area had changed dramatically, with higher grassland areas next to the marsh under cultivation, and the marsh itself 'completely covered with young forest' (Boere & Yurlov 1998). In view of the historical importance of the site, it would appear to deserve a higher level of protection. BirdLife International and the Russian Bird Conservation Union have an ongoing programme to identify Important Bird Areas in Siberia. Even without the 'holy grail' of nesting Slender-billed Curlew being located, the wetlands of southwest Siberia are of the utmost importance for their populations of breeding waterbirds (Boere & Yurlov 1998).

Other species of note seen included a mixed colony of Great Black-headed Gulls *Larus ichthyaetus* and Caspian Terns *Sterna caspia* on Uz Karyetki in Lake Chany (plate 218). In 1997, a new colony of Great Black-headed Gulls, with 450-500 pairs, was discovered on a small island in Lake Kulundinskoye. Mixed colonies of Little Gulls *L. minutus* and White-winged Black Terns *Chlidonias leucopterus* were also seen; in 1997 a minimum of 12,000 pairs of the latter species were counted. A nest of Pallas's Reed Bunting *Emberiza pallasi*, with small young, was found at Krasnoperovaya in 1990 (plate 219).

There has been only one recent claimed record of Slender-billed Curlew in west Siberia: an adult bird in flight on 9th July 1996, WNW of Tara (Bojko & Nowak 1996).

Future possibilities: will a nest be found?

Without a tip-off from a modern-day Ushakov, the chances of finding a nesting Slender-billed Curlew in the vastness of the Siberian Plain by ground-searching are decidedly remote – truly the proverbial ‘needle in a haystack’. Another option that has been considered for well over a decade is tracking, either by conventional radio-transmitter, or by a satellite-transmitter. Leaving aside the considerable difficulty of catching a bird to attach any tag, there are other problems, apparently insurmountable at present. Satellite tags, at a minimum weight of 15 g, are still considered too heavy by the Slender-billed Curlew Working Group, while the practicalities of ‘barnstorming’ flights to search for a radio-tagged bird are highly complex. As well as depending on funding, planes, pilots and the availability of landing strips, there is also the major issue of security clearance to fly such search transects. Although there was considerable interest in this approach at the April 2001 meeting of the Working Group in Kiev, it was the latter aspect that was thought most likely (by Russian colleagues) to prevent such a study.

An entirely new approach to the problem is currently being pursued by the RSPB. This involves the use of stable isotope analysis (Hobson 1999), which allows the possible identification of the region in which an individual bird originated by analysing feather samples from museum specimens. If this approach can narrow the search area to one with a radius of, say, 100-200 km then the hunt would be on. If, however, it suggests a search area with a radius of 400-500 km (perhaps covering much of the suitable habitat in southwest Siberia), then the chances of finding the species by ground-searching would still be remote.

If a nest is located, then a whole new set of issues would arise, including that of confidentiality. Unfortunately, the level of interest from the ornithological world could potentially pose

a serious risk; the Slender-billed Curlew Working Group has concluded that any discovery must be kept confidential, but, of course, any necessary conservation measures would be strenuously pursued. In this regard, protocols have been agreed between the Working Group and the Russian Bird Conservation Union, both regarding any discovery, and proposals for further research. An important aspect is that any search efforts should only be made with the full collaboration of the RBCU, and local ornithologists, such as AKY.

What future for the Slender-billed Curlew?

The most important question of all, completely eclipsing whether the species forms part of one particular country’s List, is surely whether the Slender-billed Curlew is doomed to extinction. At present, the signs are not good. In the last 12 years, the average number of records annually has fallen from approximately ten to just two. BirdLife International currently lists the species as critically threatened (the only such species in mainland Europe and one of only three such species in Russia, the others being Crested Shelduck *Tadorna cristata* and Siberian Crane *Grus leucogeranus*), with a probable world population of less than fifty individuals (BirdLife International 2000). For any species, this is a tenuous toehold on survival; for a long-distance migrant, the situation is aggravated by the



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219. Nest of Pallas's Reed Bunting *Emberiza pallasi*, Krasnoperovaya, near Tara, Russia, June 1990.

greatly reduced chance of birds successfully locating a mate in the vastness of their potential nesting areas. It is tempting to look to the apparent continued survival in the Americas (until the 1980s at least) of the equally rare Eskimo Curlew *N. borealis* to provide some glimmer of hope, but it would be foolhardy to bank on its Eurasian cousin surviving as long.

Current efforts to conserve the species are co-ordinated by the Slender-billed Curlew Working Group, which was established in 1997 under the auspices of the Bonn Convention (CMS), with BirdLife International acting as the secretariat (U.GalloOrsi@birdlife.agro.nl). The group is chaired by GCB, and met most recently in April 2001 in Kiev; a report of this meeting is available on request from Umberto Gallo-Orsi. A great deal of effort has been devoted to Slender-billed Curlew research and conservation over the last 15 years, but, sadly, it would appear that this has had limited direct effect on the species' chances of survival. If we are not to write off the species, one can only conclude that greatly increased efforts are needed throughout its range, but especially in the putative breeding area.

The last avian species to become extinct in Europe was the Great Auk *Pinguinus impennis* in 1852 (BirdLife International 2000); are the countries of Europe and the European ornithological community really prepared to see another extinction on our doorstep in the twenty-first century? If not, then a quantum leap is needed in efforts to save the species, with major funding required from key players such as the EU and World Bank/Global Environment Fund. With the rapid expansion of the EU eastwards, a significant spin-off would be the increase in collaboration with ornithologists in eastern Europe and Russia, and promotion of conservation action by governments. If effective action is not taken, there is a very real possibility that the species may have been added to the British List in 2002 only to be declared extinct a few years later.

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