

## A6.58 Stone Curlew *Burhinus oedicnemus*

### 1. Status in UK

Biological status		Legal status		Conservation status	
Breeding	✓	Wildlife and Countryside Act 1981	General Protection Schedule 1(1)	Species of European Conservation Concern	SPEC 3 Unfavourable conservation status ( <b>vulnerable</b> ) but not concentrated in Europe
Migratory	✓	Wildlife (Northern Ireland) Order 1985	General Protection	(UK) Species of Conservation Importance	Table 2
Wintering		EC Birds Directive 1979	Annex I Migratory	All-Ireland Vertebrate Red Data Book	

### 2. Population data

	Population sizes (pairs)	Selection thresholds	Totals in species' SPA suite
<b>GB</b>	188	2	184 (98% of GB population)
<b>Ireland</b>			
<b>Biogeographic population</b>	32,690	327	184 (0.6% of biogeographic population)

GB population source: *English Nature unpublished (1998)*

Biogeographic population source: *Hagemeijer & Blair 1997*

### 3. Distribution

Between a quarter and a half of the global breeding range of the Stone Curlew occurs in Europe. The global range extends from North Africa and Iberia, east through southern Europe to central Asia, India and south-east Asia (Cramp & Simmons 1983). Northern populations are migratory, whereas more southerly, tropical and sub-tropical birds are sedentary. The species is polytypic with six sub-species recognised. Of these, three occur in Europe: the nominate race *B. o. oedicnemus* which occurs through most of Europe other than the smaller Mediterranean islands and Greece; *B. o. saharae* which occurs in North Africa, Greece and the smaller Mediterranean islands; and *B. o. harterti* which breeds in south-east Russia eastwards.

The species breeds in much of southern and central Europe from southern England to east Poland and Russia, and from Iberia to Italy, the Balkans and Caucasus. Together the Iberian Peninsula, France and Russia hold around 95% of the European population, which is estimated at between 32,690–45,704 breeding pairs (Hagemeijer & Blair 1997).

In Britain, the species is confined to central southern England and East Anglia. The two main strongholds are the Breckland of Norfolk and Suffolk, and on or near Salisbury Plain in

Wiltshire and Hampshire. Very small populations are also present in Berkshire, north Norfolk, south Cambridgeshire and on the Suffolk coast.

Stone Curlews breed exclusively on habitats with free-draining stony soils, good all-round visibility and bare ground or short vegetation grazed by livestock or rabbits. The favoured habitats in Europe are heaths, dry grasslands, sand dunes and stony plains. Recently they have taken to using a variety of spring-sown crops on well-drained farmland and even vineyards, orchards and young forestry plantations (Hagemeijer & Blair 1997). In Britain, they breed on grass heaths, chalk downland and in one or two areas of arable farmland, notably spring-sown crops, *e.g.* sugar beet and carrots (Gibbons *et al.* 1993).

#### **4. Population structure and trends**

The Stone Curlew has undergone a widespread decline in Europe during the twentieth century, especially in the period after the Second World War, with particularly heavy losses in western and central areas. During 1970 to 1990, numbers fell in nearly all countries in the European range and the species is now absent from The Netherlands. It was last proven to breed in Germany in 1987 (Hagemeijer & Blair 1997). In eastern Europe, the species is now scarce, local and declining, with population crashes occurring in Poland and Bulgaria.

In Britain, although formerly widespread with birds breeding on all light soils north to the Yorkshire Wolds, the species has suffered long-term decline in both numbers and range owing to habitat destruction and conversion of heathland for agriculture and forestry. By the late 1930s the population was thought to be only 1,000–2,000 pairs (Batten *et al.* 1990) and the species was already extinct in Yorkshire and Lincolnshire by the middle of the twentieth century. The population was later estimated at 200–400 pairs in the 1960s (Parslow 1973) and 300–500 pairs in the early 1970s (Sharrock 1976). The decline continued to the early 1990s when 150–160 pairs were present (Gibbons *et al.* 1993). The population then stabilised and there has been a significant upturn since 1994, with the numbers of proven breeding pairs reaching 188 by 1998. However, the Stone Curlew remains one of the rarest and most vulnerable bird species in Britain.

The decline in Europe has been attributed to the replacement of dry grassland with intensively managed arable land. In Britain, there has been a significant loss of semi-natural habitats (chalk grassland and grass heaths) and there has been a similar move from low-intensity mixed farming to intensive arable farming which has resulted in the loss of permanent pastures rich in invertebrate prey – an important food source for birds nesting on adjacent tilled land. Additionally, a reduction in livestock grazing, along with reduced rabbit populations caused by myxomatosis, has resulted in the loss of preferred short-sward grasslands in favour of taller vegetation and invasive scrub. Birds nesting on arable areas are also threatened by mechanised farming activities such as the rolling of cereals and inter-row hoeing of root crops. They are also threatened by changes in agriculture. Spring-sown crops have traditionally been common on the lighter land throughout the Stone Curlew's range but these have declined over the last 50 years and been replaced by autumn-sown crops which are too dense for Stone Curlews by the time they arrive on their breeding grounds in early spring. In addition, improvements in the varieties of crops grown have resulted in spring crops being drilled earlier, while more intensive husbandry means quicker-growing and more vigorous plants. This has meant that the time available for ground-nesting birds in general to rear a brood has been reduced to such an extent that many cannot do so. Stone Curlews take about ten weeks for a successful breeding attempt during which time they require relatively short vegetation with an open structure.

## **5. Protection measures for population in UK**

### **SPA suite**

In the breeding season, the UK's SPA suite for Stone Curlew supports, on average, 184 pairs. This amounts to about 98% of the British breeding population. The suite contains about 0.6% of the international population. The species does not breed in Northern Ireland. The SPA suite total is contained within three sites (Table 6.58.1) where Stone Curlews have been listed as a qualifying species.

Much of the semi-natural grassland and grass heath within the core breeding areas is on land managed by the Ministry of Defence, although only a small proportion of this land is managed specifically for Stone Curlews. MAFF agri-environment schemes have a major role in securing management of many heathland and arable sites in Breckland and provide incentives for special nesting plots in Wessex (Berkshire, Hampshire and Wiltshire). Some areas of semi-natural habitat are also managed within NNRs. A joint RSPB/EN Stone Curlew Species Recovery Project monitors the population and, with essential co-operation from site owners, ensures the protection of nests and young from potentially damaging agricultural operations (this has a significant positive effect on productivity).

### **Other Measures**

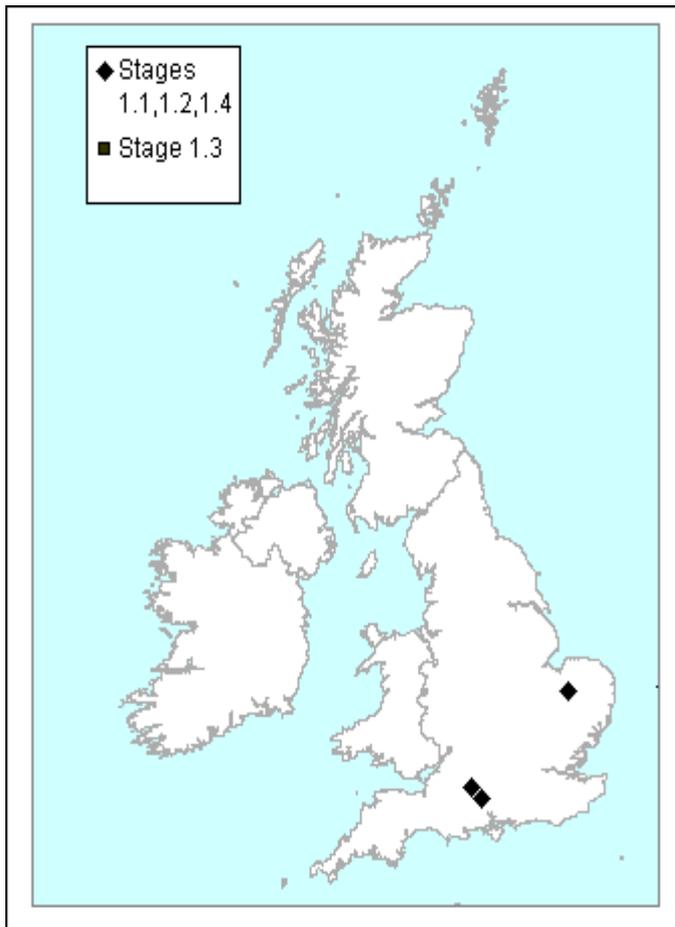
A UK Biodiversity Action Plan has been agreed and published for this species (Biodiversity Steering Group 1995) and is being implemented as part of the UK's national response to the Biodiversity Convention.

## **6. Classification criteria**

All sites in the UK that were known to support more than 1% of the national breeding population of Stone Curlews were considered under Stage 1.1, and all were selected after consideration of Stage 2 judgements. Given that the selection of sites under Stage 1.1 resulted in a suite which gives comprehensive coverage of the Stone Curlew population and range in England, it was not considered necessary to select additional sites using Stage 1.4. Indeed, outside the SPA suite, Stone Curlews breed only at low densities or on arable land.

The suite comprises sites in the two remaining centres of population – the chalk grasslands of Salisbury Plain and the heaths and arable farmland of Breckland. Breckland and Salisbury Plain are multi-species SPAs, although Porton Down has been selected solely for Stone Curlews. Birds ringed at Porton Down have been recovered on Salisbury Plain and elsewhere, suggesting it may be an important source of birds for other populations. All three sites have a very long history of occupancy; the species is known to have been present in these areas since at least the 1850s (Holloway 1996).

**Distribution map for Stone Curlew SPA suite**



**Table 6.58.1 – SPA suite**

Site name	Site total	% of biogeographical population	% of national population	Selection stage
Breckland	142	0.4	75	1.1
Porton Down	20	<0.1	11	1.1
Salisbury Plain	22	<0.1	12	1.1
<b>TOTALS</b>	<b>184</b>	<b>0.6%</b>	<b>98%</b>	