

## A6.65 Sanderling *Calidris alba*

### 1. Status in UK

Biological status		Legal status	Conservation status
Breeding		Wildlife and Countryside Act 1981 <b>General Protection</b>	Species of European Conservation Concern
Migratory	✓	Wildlife (Northern Ireland) Order 1985 <b>General Protection</b>	(UK) Species of Conservation Importance
Wintering	✓	EC Birds Directive 1979 <b>Migratory</b>	All-Ireland Vertebrate Red Data Book

### 2. Population data

	Population sizes (individuals)	Selection thresholds	Totals in species' SPA suite
<b>GB</b>	23,200 (winter period) 30,000 (passage period)	230 (winter period) 300 (passage period)	3,535 (15% of GB population in winter) 13,028 (43% of GB population in spring passage period)
<b>Ireland</b>	3,500	50 (see section 5.1.2 for rationale)	No SPAs selected in Northern Ireland
<b>Biogeographic population</b>	123,000	1,000	3,535 (4% of biogeographic population in winter) 13,028 (13% of biogeographical population in spring passage period)

*GB population source: Cayford & Waters 1996*

*All-Ireland population source: Cranswick et al. 1999*

*Biogeographic population source: Rose & Scott 1997*

### 3. Distribution

The Sanderling is a very high-Arctic breeding wader with a circumpolar breeding distribution. Its range extends from the northernmost parts of the Canadian Arctic archipelago, through north and north-eastern Greenland to the Taimyr Peninsula and islands off the north coast of Siberia (Cramp & Simmons 1983; Lappo 1998). In winter, the species occurs on the coasts of North and South America, western Europe, west and south Africa, the Indian subcontinent, southern China, south-east Asia and Australasia. The birds that winter in western Europe are thought to mostly originate from Siberia. Others, from north-east Greenland, occur on passage to and from wintering areas in western Africa (Gudmundsson & Lindström 1992; Prater & Davies 1978; Smit & Piersma 1989). The species is monotypic.

The European distribution of the Sanderling in winter extends from the Atlantic coast of Jutland more or less continuously along the northern and western coasts of France and Iberia, as well as Britain and Ireland. It is found more locally on the coasts of the Mediterranean and Black Seas.

Sanderlings overwinter on estuaries and open coasts all around the UK, with major concentrations in north-west England (including the Ribble, Alt and Duddon Estuaries) and the Outer Hebrides (including the coast of South Uist).

During migration periods (May–June and August–September), Sanderlings are found on most UK coastlines, with large concentrations in north-west England (including the Ribble and Alt Estuaries, and Morecambe Bay) and eastern England (including the Humber Flats, Marshes and Coast, and The Wash). During the autumn and spring migration periods, the Ribble Estuary typically holds peak numbers of Sanderling three times greater than that at any other site. The Ribble, together with the neighbouring Alt Estuary, is the most important area for Sanderlings in the UK at this time. Ferns (1980) noted two peaks in numbers on the Ribble in the spring of 1979, suggesting that the actual numbers passing through the site were considerably higher than that indicated by the peak. As well as these sites, previous studies of the spring migration of Sanderlings through Britain have highlighted the importance of the Tees Estuary, the Solway Firth and the Uists (Clark *et al.* 1982; Ferns 1980; Moser *et al.* 1985; Pross-Jones *et al.* 1988). Colour-ringing has demonstrated links between the Wash, the Tees and other sites used on spring and autumn passage.

West-coast sites are used by birds on passage to north-east Greenland. Little is known about the sequential use of these sites: Clark *et al.* (1982) reported that only one of 1,872 Sanderling caught on the Solway Firth in May 1982 had previously been caught during the spring elsewhere (at Walney Island). Both this study and that of Gudmundsson & Lindström (1992) indicate that the species shows a high degree of fidelity to its staging sites.

The species is characteristic of open sandy shores and may move regularly within winter to exploit fluctuating food resources (Evans 1981; Myers 1984; Roberts 1991). In spite of such opportunism, Myers *et al.* (1986) found that only 5% of observations of individual Sanderlings in California in winter were more than 5 km from the centre of their home ranges.

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

Five biogeographical populations of Sanderlings have been described (Rose & Scott 1997). Of these, those occurring on the coasts of western Europe belong to the East Atlantic/West and Southern Africa (or East Atlantic Flyway) population. This is currently estimated to comprise 123,000 individuals (Rose & Scott 1997).

Less than 30% of estimated UK numbers of non-breeding Sanderling are monitored by the Wetland Bird Survey (Cayford & Waters 1996) and the most recent British population estimate of 23,200 was obtained from both these data and those of the 1984/85 Winter Shorebird Count (Moser & Summers 1987). This estimate, for 1987/88–1991/92, represented an increase of 69% from the period 1981/82–1985/86 (Cayford & Waters 1996). Since then, Sanderling numbers at the mostly estuarine WeBS sites have fluctuated considerably (Pollitt *et al.* 2000). In contrast, provisional unpublished results from the 1998 Non-estuarine Waterfowl Survey indicate that populations on open coasts may have risen by 6,000 (36%) since 1984/85 to 22,600. This increase has been restricted to Scotland, where numbers have risen (by 52%) from 12,300 birds to 18,800, primarily due to an increase of 4,700 birds in the Outer Hebrides. Non-estuarine numbers in England have fallen by 16% from 4,100 to 3,400, those in Wales by 75% from 200 to 50 and those in Northern Ireland by 71% from 120 to 30.

The reasons for the observed declines are not clear, but may relate to reduced organic inputs from sewage outfalls, or climate change. Short-term fluctuations in the species' numbers have been related to weather and cycles in lemming numbers on their high Arctic breeding grounds. Breeding success amongst Arctic waders may be considerably depressed by increased predation levels in years when lemming numbers are low and this is reflected in winter numbers (Martin & Baird 1988; Summers & Underhill 1987; Summers *et al.* 1987). The 1998 European Non-Estuarine Waterfowl Survey should provide information on population change elsewhere in Europe.

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

### **SPA suite**

The UK's SPA suite for non-breeding Sanderling supports, on average, 3,535 individuals (calculated using WeBS January site totals for the period 1992/93 to 1996/97 – see section 4.4.1 and Appendix 2 for further explanation). This total amounts to about 15% of the British population. Within an all-Ireland context, there have been no SPAs selected in Northern Ireland. The suite holds about 4% of the international flyway population during the non-breeding period.

During the spring passage period, the SPA suite supports, on average, 13,028 individuals (calculated using WeBS May site totals for the period 1992/93 to 1996/97). This total amounts to about 43% of numbers passing through Britain. The suite holds about 13% of the international flyway population during the passage period.

Numbers occurring within the SPA suite during the autumn migration period (August counts) are smaller: an average of 8,615 (29% of the British population and 9% of the international population).

The UK's SPA suite for Sanderling comprises 11 sites where Sanderling has been listed as a qualifying species in the non-breeding period (Table 6.65.1).

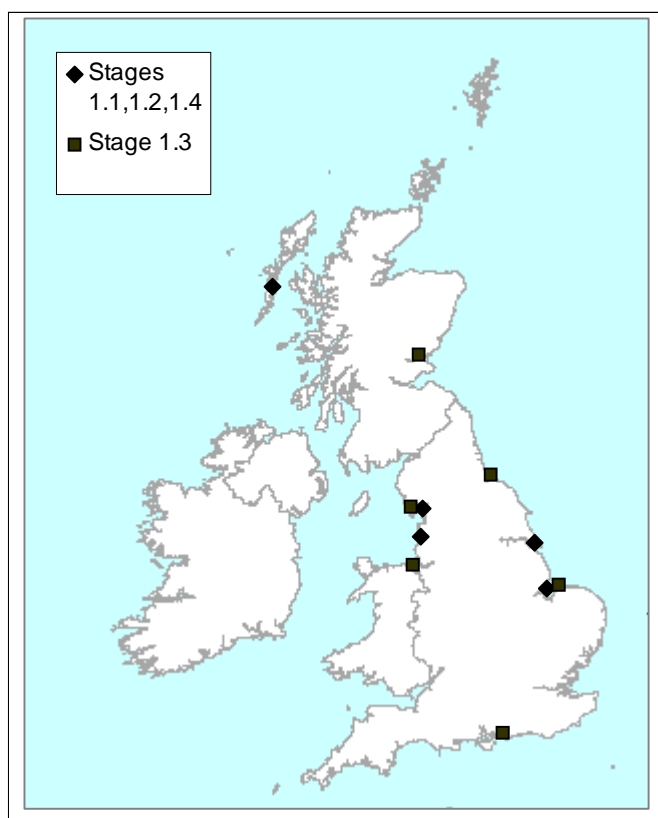
## **6. Classification criteria**

The four sites (Humber Flats, Marshes and Coast, Morecambe Bay, Ribble and Alt Estuaries, and The Wash) in the UK supporting more than 1% of the international population in either the passage or non-breeding periods were considered under Stage 1.2, and selected after consideration of Stage 2 judgements. A further six sites (Chichester and Langstone Harbours, Duddon Estuary, Firth of Tay and Eden Estuary, North Norfolk Coast, Teesmouth and Cleveland Coast, and The Dee Estuary) were considered and selected under Stage 1.3 (see section 5.3); at these sites, Sanderling was identified as an important component of non-breeding waterbird assemblages.

South Uist Machair and Lochs regularly supports large numbers of Sanderling, and after the Ribble/Alt, and Duddon Estuaries, is the third most important non-breeding site for Sanderling in the UK. The absence of large numbers of other wintering waterbirds meant that it was not selected under Stage 1.3. Accordingly the site was considered under Stage 1.4 and selected after consideration of Stage 2 judgements. It contributes significantly to both the population and range coverage of the SPA suite.

The selected sites include the main passage and non-breeding areas for Sanderling in the UK, spread from the Outer Hebrides in north-west Scotland to sites on the west, east and south coasts of England. All sites are multi-species SPAs, of importance also for a range of other waterbirds. There is a long recorded history of occupancy at most of these sites (Prater 1981).

### Distribution map for Sanderling SPA suite



**Table 6.65.1 – SPA suite**

Site name	Season of peak use	Site total <sup>1</sup>	% of biogeographical population	% of national population	Selection stage
Chichester and Langstone Harbours	Winter	236	0.2	1.0	1.3
Duddon Estuary	Passage	1,055	0.9	3.5	1.3
Firth of Tay and Eden Estuary	Winter	223	0.2	1.0	1.3
Humber Flats, Marshes and Coast	Passage	1,767	1.4	5.9	1.2
Morecambe Bay	Passage	2,466	2.0	8.2	1.2
North Norfolk Coast	Winter	420	0.3	1.8	1.3
Ribble and Alt Estuaries	Passage	6,172	5.0	20.6	1.2
South Uist Machair and Lochs	Winter	700	0.6	3.0	1.4
Teesmouth and Cleveland Coast	Winter	357	0.3	1.5	1.3
The Dee Estuary	Winter	798	0.8	3.5	1.3
The Wash	Passage	1,854	1.5	6.2	1.2
<b>JANUARY TOTALS</b>		3,535	3.5%	15.4%	
<b>MAY TOTALS</b>		13,028	13.0%	43.4%	
<b>AUGUST TOTALS</b>		8,615	8.6%	28.7%	

<sup>1</sup> Data in site total column relate to season of peak use.