

## A6.37 Eider *Somateria mollissima* (non-breeding)

### 1. Status in UK

Biological status		Legal status		Conservation status
Breeding	✓	Wildlife and Countryside Act 1981	General Protection	Species of European Conservation Concern
Migratory	✓	Wildlife (Northern Ireland) Order 1985	General Protection	(UK) Species of Conservation Importance <b>Table 4</b>
Wintering	✓	EC Birds Directive 1979	Annex III/2 Migratory	All-Ireland Vertebrate Red Data Book

### 2. Population data

	Population sizes (individuals)	Selection thresholds	Totals in species' SPA suite
<b>GB</b>	77,500	750	6,657 (12% of GB total)
<b>Ireland</b>	2,000	50 (see section 5.1.2 for rationale)	366 (18% of all-Ireland total)
<b>Biogeographic population</b>	1,500,000	20,000	9,023 (0.5% of biogeographic population)

GB population source: Kirby 1995a

Ireland population source: Pollitt et al. 2000

Biogeographic population source: Rose & Scott 1997

### 3. Distribution

The Eider has a circumpolar distribution, breeding into the high Arctic (up to 80°N) across northern Eurasia and North America and wintering mainly within the breeding range (Scott & Rose 1996). Six sub-species have been identified. Of those which occur in western Eurasia, the nominate form (*S. m. mollissima*) occurs across north-west Europe east to Novaya Zemlaya, *S. m. faroensis* occurs in the Faeroe Islands, and *S. m. borealis* occurs across north-east Canada through Greenland, Iceland and Svalbard to Franz Josef Land. Of the nominate race, approximately 1,500,000 occur in the discrete Baltic, Denmark, Netherlands, Britain and Ireland population. A further three sub-species occur in the Nearctic.

The European non-breeding distribution is along Atlantic and North Sea coasts, with major concentrations in the western Baltic.

Eiders breeding in Britain and Northern Ireland are sedentary or dispersive, undergoing relatively short movements of less than 200 km outside the breeding season (Baillie & Milne 1989). Migratory influxes by birds of continental origin add to this resident population during the winter (Baillie & Milne 1989). The non-breeding distribution is predominantly coastal in the UK; large flocks occur at the mouths of estuaries and along sandy or rocky coasts with shallow waters. Sheltered coastlines are preferred, where favoured foods (Blue Mussel *Mytilus edulis*, other molluscs and crustaceans) are abundant (Player 1971).

Non-breeding Eiders have a northerly distribution in Britain and Ireland (Baillie 1986; Hutchinson 1989). Major concentrations occur in Shetland, south-east Scotland (especially the Firths of Tay and Forth), Cumbria and eastern Britain, with smaller numbers in sheltered locations in western Scotland. The Forth and Tay estuaries are collectively of significance, gathering birds from both further north and further south on the east coast of Britain under adverse conditions. Northern Ireland, Belfast Lough and Lough Foyle play host to the largest concentrations.

Ringed recoveries indicate that most juvenile birds from the Sands of Forvie remain close to their natal colony during the winter whereas adults tend to move to the Firths of Tay and Forth (Baillie & Milne 1989). The birds which remain at Forvie and Loch Fleet in the early winter tend to disperse subsequently (Mudge & Allen 1980). In contrast, most birds from colonies in Northumberland remain close to the breeding colonies during the winter, with only 32% of birds moving to the Forth and Tay.

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

Scott & Rose (1996) have suggested that European non-breeding Eiders are best considered as a number of smaller population units – including a separate Shetland and Orkney population of the *S. m. faroensis* sub-species. However, there is little evidence to support these population delimitations, and until there is stronger evidence (preferably based on ringing analyses) for these proposals, they have not currently been adopted. Accordingly, Eiders occurring in Britain and Ireland are treated here as belonging to one biogeographic population comprising all *S. m. mollissima* wintering in Britain, Ireland, the Baltic, and The Netherlands.

Since the 1950s, the breeding range of the Eider throughout western Eurasia has extended progressively southwards. Numbers of the nominate race are thought to be stable in Russia (Flint & Krivenko 1990) yet have increased in Sweden, Denmark, Estonia, France and Germany (Koskimies 1993; Keller & Hario 1997). Much of this increase is probably due to improved feeding conditions in the Baltic largely because of eutrophication. Other factors underlying the increases may be greater refuge provision, bans on egg-collecting and a reduction in spring hunting (Keller & Hario 1997). Hunting pressure on juveniles in Denmark has also remained stable allowing population growth in productive years (Hario & Selin 1988). In contrast, in Finland, there has been an annual 6–10% decline in numbers in recent years, which has been linked to poor recruitment resulting from heavy duckling mortality. There is some evidence that the entire north-west European population has now stabilised (Wetlands International Seaduck Specialist Group unpublished data).

Breeding and non-breeding numbers in most parts of Britain and Northern Ireland have increased markedly over the past 200 years (Kirby *et al.* 1993). Eiders now breed and overwinter in many areas where once they were absent (Baillie 1986; Thom 1986). The population has stabilised since the early 1990s and remains stable at present (Pollitt *et al.* 2000). Relatively few birds are recorded in the Republic of Ireland (Colhoun 2000).

A cause for concern is the dramatic decline in numbers in Shetland where numbers fell from 16,500 to 6,000 during the 20-year period between 1977 and 1997 (Cranswick *et al.* 1999). Reasons for this decline are, as yet, unknown.

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

##### **SPA suite**

In the non-breeding season, the UK's SPA suite for Eider supports, on average, 9,023 individuals (calculated using WeBS January site totals for the period 1992/93 to 1996/97 –

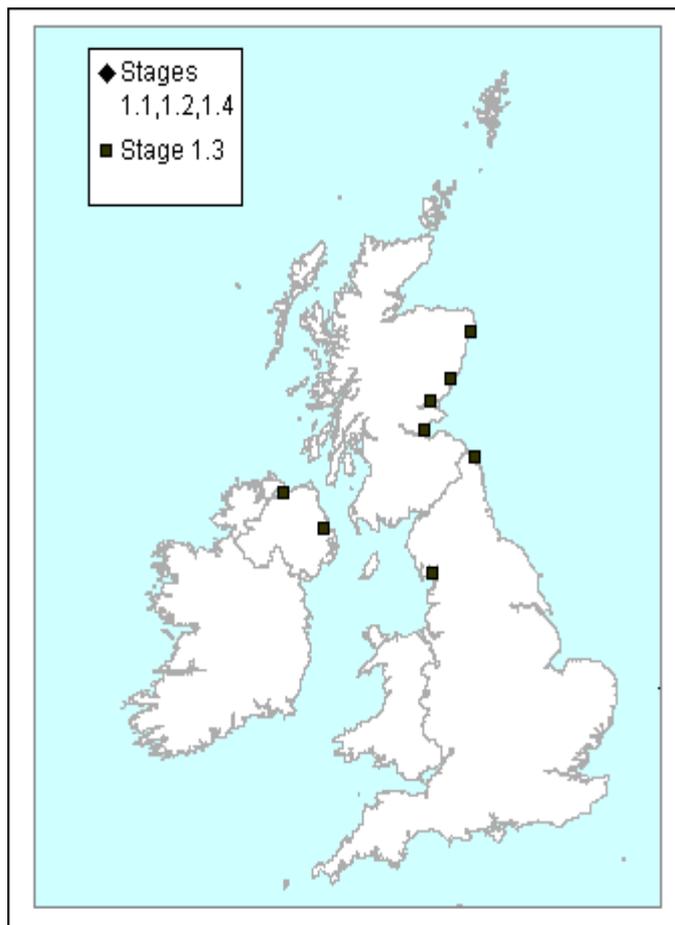
see section 4.4.1 and Appendix 2 for further explanation). This total amounts to about 12% of the British population, about 18% of the all-Ireland population, and about 0.5% of the international flyway population. The suite comprises eight terrestrial SPAs where Eider has been listed as a qualifying species (Table 6.37.1).

## 6. Classification criteria

No sites in the UK regularly support more than 1% of the international Eider population in winter (Stage 1.2). However, eight sites in the suite were identified under Stage 1.3 (see section 5.3), given that Eider is an important component of the wider non-breeding waterbird assemblages at these localities. All sites thus identified were included within the suite. By definition, all are multi-species SPAs, of importance also for a range of other waterbirds. There is a very long recorded history of occupancy at most of these sites (Boyd in Atkinson-Willes 1963).

As the selection of sites under Stage 1.3 resulted in a terrestrial SPA suite which includes the main population centres of non-breeding Eider in the UK, and as the species is otherwise widely dispersed, it was not considered necessary to select additional terrestrial SPAs using Stage 1.4.

### Distribution map for non-breeding Eider SPA suite



**Table 6.37.1 – SPA suite**

<b>Site name</b>	<b>Site total</b>	<b>% of biogeographical population</b>	<b>% of national population</b>	<b>Selection stage</b>
Belfast Lough	685	<0.1	34.3 (Ire)	1.3
Firth of Forth	7,887	0.5	10.2	1.3
Firth of Tay and Eden Estuary	2,061	0.1	2.7	1.3
Lindisfarne	1,568	0.1	2.0	1.3
Lough Foyle	50	<0.1	2.5 (Ire)	1.3
Montrose Basin	1,794	0.1	2.3	1.3
Morecambe Bay	6,400	0.4	8.3	1.3
Ythan Estuary, Sands of Forvie and Meikle Loch	1,778	0.1	2.3	1.3

<b>TOTALS</b>	9,023 (in January)	0.5%	11.5% 18.3% (Ire)
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