

## A6.42 Red-breasted Merganser *Mergus serrator* (non-breeding)

### 1. Status in UK

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

### 2. Population data

	Population sizes (individuals)	Selection thresholds	Totals in species' SPA suite
<b>GB</b>	10,000	100	1,936 (19% of GB population)
<b>Ireland</b>	2,000	50 (see section 5.1.2 for rationale)	243 (12% of all-Ireland population)
<b>Biogeographic population</b>	125,000	1,250	2,177 (2% of biogeographic population)

GB population source: Kirby 1995a

Ireland population source: Pollitt et al. 2000

Biogeographic population source: Rose & Scott 1997

### 3. Distribution

Red-breasted Mergansers are globally distributed at northern latitudes (mainly between 50°–70°N) across northern Eurasia, Greenland and North America. In winter, birds migrate to coastal waters in the North and Baltic Seas, along Atlantic coasts, as well as further south to the Mediterranean, Black and Caspian Seas. In the Pacific, Red-breasted Mergansers winter off the coasts of China, Japan and Russia, as well as off the southern USA and Mexico (Scott & Rose 1996). Two sub-species have been identified. In western Europe, the nominate sub-species (*M. s. serrator*) occurs from east Greenland, Iceland, the Faeroes, Britain and Ireland, and from Denmark and northern Germany eastwards (as well as in North America). The sub-species *M. s. schioleri* breeds in the west of Greenland and overwinters on the south-west coast.

The species occurs widely but discontinuously around the coasts of the Atlantic, North Sea, Mediterranean and Black Seas. Large numbers also occur in the Baltic (Pihl & Laursen 1996).

In Britain and Northern Ireland, winter flocks are usually small (Chandler 1986). Large concentrations occur around the low-lying coasts of Scotland (especially along the east

coast), north-west England and Wales, close to breeding areas (Gregory *et al.* 1997). Birds also concentrate along the coast of south-east England, from The Wash southwards, and may originate from mainland Europe (Chandler 1986; Robinson 1999). The results of a wing-tagging study in north-east England indicated that Red-breasted Mergansers tend to be faithful to wintering sites both within and between winters (Wernham *et al.* 1999).

During the winter, this species favours brackish or saline waters, preferring shallow, protected coasts, estuaries, bays and lagoons with an abundance of small fish and aquatic invertebrates (Berry 1936; Chandler 1986; Aspinall & Dennis 1988). Red-breasted Mergansers occasionally use inland sites in Britain and Northern Ireland, but usually only during periods of harsh weather conditions (Chandler 1981).

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

Scott & Rose (1996) described five populations of the nominate Red-breasted Merganser breeding in northern Eurasia. They recommended that the north-west and central European population should be considered separate from that in east Greenland, Iceland, Britain and Ireland. This was accordingly reflected by Rose & Scott (1997) with a recommended 1% threshold of 200. A recent examination of the distribution and movements of this species suggests that the majority of the individuals in the latter group are dispersive within their natal countries during the non-breeding season or move south to coastal regions in Britain, Ireland and Iceland (Robinson 1999). However, ringing recoveries also indicate that there may be some interchange between the north-west European and the Greenland, Iceland, Britain and Ireland groups. Therefore, population delimitation remains unclear and Robinson (1999) highlighted the lack of sound data and information to support this proposal. In the light also of a similar conclusion reached by the first Meeting of Parties of the African-Eurasian Waterbird Agreement in November 1999, we have followed the earlier treatment of Rose & Scott (1994) which groups British Red-breasted Mergansers with others from north-west and central Europe giving a 1% threshold of 1,250.

The breeding range of this species has remained largely unchanged in Europe since the nineteenth century (Lammi 1997). There have been slight increases in the number of breeding pairs in Denmark and south-west Netherlands in recent decades (SOVON 1987; Meininger & de Kraker 1992). In the Baltic, there has been a slight decline recently, but in the main breeding areas of Russia and Fennoscandia, numbers have remained stable (Lammi 1997). The underlying reasons behind breeding population trends in Europe remain unclear but may be linked to the increase in reservoir construction and changes in the intensity of hunting (Lammi 1997).

Delany *et al.* (1999) reported a marked increasing trend of winter numbers of Red-breasted Mergansers in north-west and central Europe since 1974 (although in other European areas numbers have declined recently).

In Britain and Northern Ireland, there was a marked southward movement in the breeding distribution and an increase in numbers of breeding pairs between the 1950s and early 1980s, despite the impacts of killing under derogation and illegal persecution (Russell *et al.* 1996; Wernham *et al.* 1999). Non-breeding numbers also increased by around 5% per year during this period, probably reflecting the spread of the species as a breeding bird (Kirby *et al.* 1993; Kershaw & Hughes 1997). Numbers have remained relatively stable in the UK since 1979–1980 (Pollitt *et al.* 2000; Wernham *et al.* 1999).

Numbers fluctuate markedly between years in the Republic of Ireland resulting in no clear trend being identified over the past decade (Colhoun 2000). In Scotland, non-breeding numbers in the Moray Firth, the key resort for this species during the winter, increased dramatically during the early 1980s when large shoals of Sprat *Sprattus sprattus* and Herring *Clupea harengus* were present after the introduction of a fisheries ban in 1979 (Thom 1986; Aspinall & Dennis 1988). In the 1990s, however, numbers in the Moray Firth have declined (Cranswick *et al.* 1999), with the exception of extremely large numbers in winter 1993–1994 (3,500 individuals) which were thought to be taking advantage of large Sprat shoals in the area (Stenning 1994).

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

### **SPA suite**

In the non-breeding season, the UK's SPA suite for Red-breasted Merganser supports, on average, 2,179 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 19% of the British non-breeding population, and about 12% of the all-Ireland population. Overall, the suite holds about 2% of the international flyway population, and comprises 15 sites where Red-breasted Merganser has been listed as a qualifying species (Table 6.42.1).

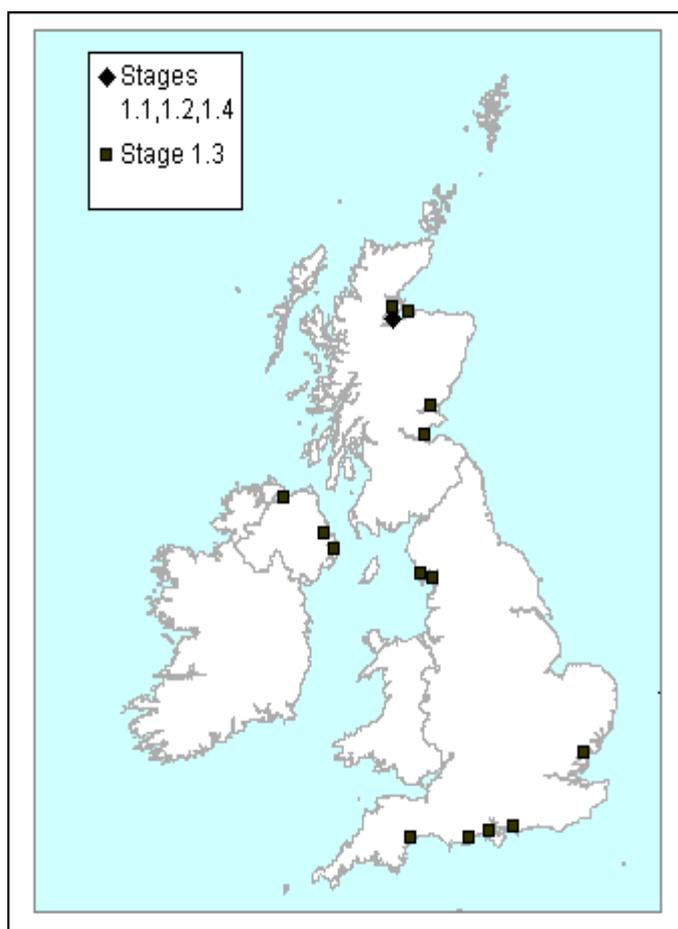
## **6. Classification criteria**

The single site (Inner Moray Firth) in the UK supporting more than 1% of the international population was considered under Stage 1.2, and was selected after consideration of Stage 2 judgements. A further 14 sites were considered and selected under Stage 1.3 (see section 5.3) as Red-breasted Merganser was identified as an important component of the non-breeding waterbird assemblages at these localities.

The sites include the main terrestrial centres of the population in the UK, spread through Northern Ireland, Scotland and England. All sites 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 Stages 1.2 and 1.3 resulted in a terrestrial suite which includes the main population centres of non-breeding Red-breasted Mergansers in the UK, it was not considered necessary to select additional terrestrial sites using Stage 1.4.

### Distribution map for non-breeding Red-breasted Merganser SPA suite



**Table 6.42.1 – SPA suite**

Site name	Site total	% of biogeographical population	% of national population	Selection stage
Belfast Lough	175	0.1	8.8 (Ire)	1.3
Blackwater Estuary	114	0.1	1.1	1.3
Chichester and Langstone Harbours	297	0.2	3.0	1.3
Cromarty Firth	194	0.2	1.9	1.3
Duddon Estuary	342	0.3	3.4	1.3
Exe Estuary	128	0.1	1.3	1.3
Firth of Forth	650	0.5	6.5	1.3
Firth of Tay and Eden Estuary	470	0.4	4.7	1.3
Inner Moray Firth	1,731	1.4	17.3	1.2
Lough Foyle	73	0.1	3.7 (Ire)	1.3
Moray and Nairn Coast	216	0.2	2.2	1.3
Morecambe Bay	292	0.2	2.9	1.3
Poole Harbour	381	0.3	3.8	1.3

<b>Site name</b>	<b>Site total</b>	<b>% of biogeographical population</b>	<b>% of national population</b>	<b>Selection stage</b>
Solent and Southampton Water	128	0.1	1.3	1.3
Strangford Lough	328	0.3	16.4 (Ire)	1.3
<b>TOTALS</b>	2,177 (in January)	1.7%	19.3% 12.2% (Ire)	