

A6.43 Goosander *Mergus merganser* (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 Schedule 1(1)	(UK) Species of Conservation Importance	
Wintering	✓	EC Birds Directive 1979	Annex II/2 (Ireland) Migratory	All-Ireland Vertebrate Red Data Book	Rare

2. Population data

	Population sizes (individuals)	Selection thresholds	Totals in species' SPA suite
GB	8,900	90	75 (1% of GB population)
Ireland	20	50 (see section 5.1.2 for rationale)	No SPAs selected in Northern Ireland
Biogeographic population	200,000	2,000	75 (<0.1% of biogeographical population)

GB population source: Kirby 1995

All-Ireland population source: Whilde 1993

Biogeographic population source: Rose & Scott 1997

3. Distribution

The Goosander has a Holarctic breeding distribution, occurring mainly between 40°–75°N and absent only from Greenland and several of the more northerly island groups. Three subspecies have been identified: the nominate sub-species, *M. m. merganser*, which breeds from Western Europe, including Iceland, through to the Pacific coast of Russia; *M. m. orientalis* which breeds in the highlands of central Asia; and, *M. m. americanus* which breeds across North America from coast to coast (Cramp & Simmons 1977; Scott & Rose 1996).

The majority of the *M. m. merganser* population is migratory. Birds originating in eastern and central Russian winter along the eastern Asian seaboard and around the Black and Caspian Seas. Those from northern Europe and western Russia migrate west to winter around the Baltic and across central Europe into Great Britain. However, Goosanders breeding in Iceland are non-migratory and may typically move only short distances to wintering grounds (Cramp & Simmons 1977; Scott & Rose 1996). Those breeding in Britain are partially migratory and generally move only short distances to wintering grounds. However, males from the British population (possibly the majority) migrate to northern Norway in late summer to moult, returning to Britain in October/November (Cramp & Simmons 1977; Little & Furness 1985).

In Britain, wintering Goosanders are widespread forming small aggregations on both inland and coastal waters throughout the country, although they show a preference for freshwater habitats. Most birds wintering in Wales, Northern England and Scotland are likely to have originated from Britain's breeding population as these birds typically move only short distances from breeding to wintering areas. Whereas, most birds wintering in central and southern England may be of northern European and western Russian origins (Lack 1986; Owen *et al.* 1986; Wernham *et al.* 1999). Very few reach Ireland during the winter (Sheppard 1993; Colhoun 1998).

Goosanders are fish-eating specialists, taking small to medium fish, and only rarely invertebrate prey. A wide range of fish species is taken, with major prey species influenced by availability in different habitats (Cramp & Simmons 1977; Holmes & Clement 1996). There is conflict between fishing interests and the conservation of fish-eating bird species, including Goosander, with a perception that Goosanders seriously affect fish stocks in rivers, especially salmonids. However, there is no conclusive evidence and further research is required (Holmes & Clement 1996).

4. Population structure and trends

Within a European context, four discrete populations of the nominate subspecies are recognised by Scott & Rose (1996): Icelandic, Balkans, Black Sea, and Northwest and Central European. It is the Northwest and Central European population that includes British birds, and this is estimated at 200,000 individuals (Rose & Scott 1997). The majority of birds within this population winter around the Baltic (170,000 individuals), with the Low Countries, Germany and France supporting another 15,000 individuals. Three thousand birds winter along the Norwegian coast, and 10,000 elsewhere in central Europe. The British wintering population is estimated at 8,900 individuals (Kirby 1995).

The Northwest and Central European wintering population is currently considered to be stable or increasing slightly (Scott & Rose 1996; Delany *et al.* 1999). Since the 1850s the species has extended its breeding range south into central Europe, with the first breeding record for Britain in 1871. More recent trends vary across the region. The Fennoscandian population is increasing as a result of eutrophication of freshwaters and the resultant improvement in food stocks, and an increase in nest site availability. The British population has expanded since the first breeding records, but the recent trend has been of range contraction possibly as a result of persecution. Numbers breeding in northern Germany and the Baltic States are also declining, while those in central Europe are increasing, probably as a result of protection, water eutrophication and nestbox schemes (Hagemeijer & Blair 1997). Numbers of wintering birds have recently increased in Germany and the Baltic States, while those in The Netherlands have decreased and the wintering population of central Europe has remained stable (Scott & Rose 1996). Overall, the wintering population is currently considered to be stable or increasing slightly (Scott & Rose 1996; Delany *et al.* 1999).

The WeBS annual index for Goosander numbers wintering in Britain showed a steady increase between the mid-1960s and mid-1980s. In the latter part of the 1980s, the population declined and has remained stable since then. The long-term trend is heavily influenced by numbers in the Inner Moray Firth, where the population has shown a considerable decline since the mid-1980s, possibly due to declining fish stocks, and from which some redistribution has taken place (Waters *et al.* 1998; Cranswick *et al.* 1999; Wernham *et al.* 1999). The number of Goosanders wintering in Britain each year is influenced by weather conditions, with fewer migrants arriving from continental Europe in mild winters (Cranswick *et al.* 1999; Wernham *et al.* 1999).

5. Protection measures for population in the UK

SPA suite

In the non-breeding season, the UK's SPA suite for Goosander supports, on average, 75 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 1% of the British wintering population, and <0.1% of the international flyway population on two sites where Goosander has been listed as a qualifying species (Table 6.43.1).

In Northern Ireland, no sites have been selected in an all-Ireland context.

6. Classification criteria

The British breeding population of Goosander is non-migratory, although these birds are joined in winter by others regularly migrating from Scandinavia (Boyd 1959; Owen *et al.* 1986). Accordingly, SPAs have been selected to cover aggregations in the non-breeding season, but not the breeding period.

No sites in the UK regularly support more than 1% of the international Goosander population in winter (Stage 1.2). However, two sites were identified under Stage 1.3 (see section 5.3), with Goosander an important component of a non-breeding waterbird assemblage. 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).

Distribution map for Goosander SPA suite

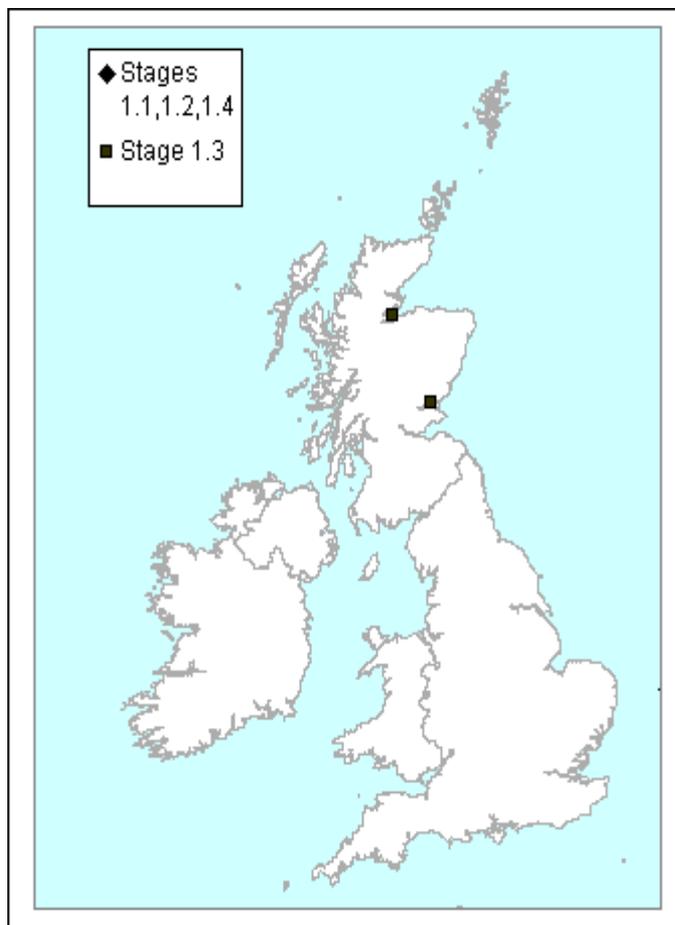


Table 6.43.1 – SPA suite

Site name	Site total	% of biogeographical population	% of national population	Selection stage
Inner Moray Firth	397	0.2	4.4	1.3
Firth of Tay and Eden Estuary	195	0.1	2.1	1.3
TOTALS	75 (in January)	<0.1%	0.8%	