A6.38 Long-tailed Duck *Clangula hyemalis*

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
Migratory	✔	Wildlife (Northern Ireland) Order 1985	**General Protection**	(UK) Species of Conservation Importance
Wintering	✔	EC Birds Directive 1979	**Annex II/2** **Migratory**	All-Ireland Vertebrate Red Data Book

2. Population data

	Population sizes (individuals)	Selection thresholds	Totals in species' SPA suite
GB	23,500	230	796 (4% of GB total)
Ireland	Unknown	50 (see section 5.1.2 for rationale)	No SPAs selected in Northern Ireland
Biogeographic population	150,000	1,500	796 (<0.1% of biogeographic population)

GB population source: Kirby et al. *1993*
All-Ireland population source: Delany 1996
Biogeographic population source: Rose & Scott 1997

3. Distribution

The monotypic Long-tailed Duck has an extensive circumpolar breeding range across northern Eurasia and North America (Scott & Rose 1996). In western Eurasia, the breeding distribution of Long-tailed Ducks extends from the core range in western Russia, though northern Finland and montane areas of Sweden and Norway, as far as Iceland (Berndt & Skov 1997).

Long-tailed Ducks move to the coast in the non-breeding season, although the distribution remains relatively northerly. In Europe, the species winters mainly in the Baltic and along the coasts of Norway, the southern North Sea and Iceland. The Baltic holds about 90% of the wintering birds in north-west Europe with major concentrations in the Gulf of Riga and adjacent Irbe Strait, the Hoburgs Bank to the south of Gotland, and Pomeranian Bay (Scott & Rose 1996). The relatively small number of birds which reach Britain and Northern Ireland during the winter are at the south-western limit of their range (Kirby *et al.* 1993).

In Britain and Northern Ireland, most of the wintering population occurs along the east coast of mainland Scotland, Shetland, Orkney and the Outer Hebrides (Campbell 1986). Large concentrations are limited to the east coast firths of Scotland. However, because flocks of this species loaf several kilometres offshore, many large concentrations may be overlooked. Much smaller flocks are distributed around other British and Irish coasts, with north-east

England and the Norfolk coast being the only areas in England that regularly hold good numbers during the winter (Pollitt *et al.* 2000). Movements of birds between UK sites during the winter are unknown but the results of studies in the south-west Baltic indicate that many birds make large-scale movements through the winter, probably in response to changes in food supply (Bräger *et al.* 1995). Scottish birds have been shown to move on a daily basis up to 12 km from feeding areas inshore to night-time roost sites in much deeper waters (Hope Jones 1979).

During the non-breeding season, this species favours exposed offshore waters and is the only species of seaduck that regularly occurs in waters deeper than 20 m (Booth *et al.* 1984). It generally occurs in small flocks during the winter but may occur at high densities in favoured feeding areas. The winter diet is composed of small fish, marine crustaceans and molluscs (Campbell 1986).

4. Population structure and trends

Five biogeographic populations of Long-tailed Duck are recognised (Scott & Rose 1997), two of which occur in Europe. The Iceland/Greenland breeding population comprises some 150,000 birds, and winters around Iceland as well as northern and western Britain and Ireland. The western Siberia/north-west Europe population numbers approximately 4,600,000 individuals (Rose & Scott 1997; Pihl & Laursen 1996) and winters primarily in the Baltic. There is some evidence to suggest that the non-breeding ranges of these two populations may overlap. Therefore, it is possible that birds from both of these populations overwinter in Britain and Northern Ireland, although for the purposes of this review, and until further information is available, UK wintering birds are treated as belong to the Iceland/Greenland population.

Due to the species' dispersed distribution, extensive breeding range and the absence of regular and systematic surveys of the winter population, trends in the core breeding areas in western Russia over recent decades remain unknown (Berndt & Skov 1997). Oil pollution has been identified as the most probable cause of the decline in the relatively small Fennoscandian population (Risberg *et al.* 1990; Thingstad 1994). This may impact on wintering numbers in Britain and Ireland, but the extent to which this population occurs in UK and Irish waters is unknown.

In the absence of detailed data for this species, there is little reason to suppose that non-breeding numbers have declined around Britain and Ireland since the 1950s (Cranswick *et al.* 1999). The number of birds wintering in the UK as a whole tends to fluctuate in line with changes in the most important Scottish firths (Kirby *et al.* 1993). In the outer, offshore parts of the Moray Firth, numbers have remained relatively stable at around 10,000, but were considerably higher during the 1980s (Mudge & Allen 1980; Kirby *et al.* 1993). Numbers have increased on the Firth of Forth, whilst there has been little change in the numbers of birds overwintering at Lindisfarne (Cranswick *et al.* 1999). The paucity of ringing recoveries and lack of reliable co-ordinated offshore counts means that little is known about site fidelity in this species between winters.

5. Protection measures for population in the UK

SPA suite

In the non-breeding season, the UK's terrestrial SPA suite for Long-tailed Duck supports, on average, 796 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 3.5% of the British wintering population. Within an all-Ireland context, there have

been no SPAs selected in Northern Ireland. The suite supports less than 0.1% of the international flyway population. The suite comprises three terrestrial SPAs where Long-tailed Ducks have been listed as a qualifying species (Table 6.38.1).

6. Classification criteria

No sites in the UK regularly support more than 1% of the international Long-tailed Duck population in winter (Stage 1.2). However, three sites in the terrestrial SPA suite were identified under Stage 1.3 (see section 5.3), given that Long-tailed Duck forms an important component of the non-breeding waterbird assemblages at these localities. The sites thus identified (Firth of Forth; Firth of Tay and Eden Estuary; and the Moray and Nairn Coast) were included within the suite. By definition, these three 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 Stage 1.3 resulted in a terrestrial suite which includes the main population centres of non-breeding Long-tailed Duck in the UK, it was not considered necessary to select additional terrestrial SPAs using Stage 1.4.

Distribution map for Long-tailed Duck SPA suite

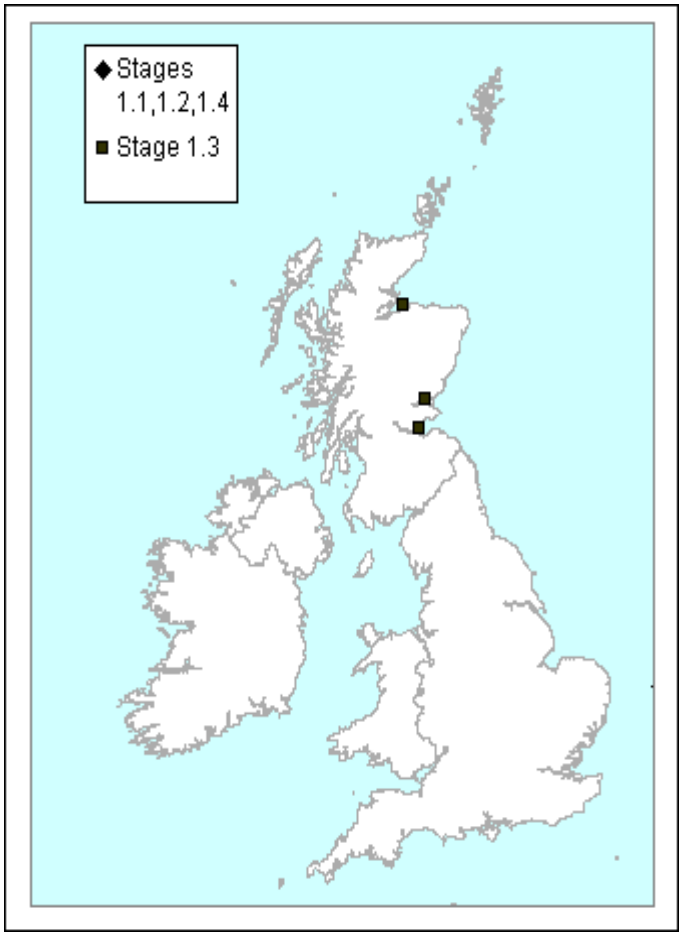

Table 6.38.1 – SPA suite

Site name	Site total	% of biogeo-graphical population	% of national population	Selection stage
Firth of Forth	716	0.5	3.1	1.3
Firth of Tay and Eden Estuary	560	0.4	2.4	1.3
Moray and Nairn Coast	277	0.2	1.2	1.3
TOTALS	796 (in January)	<0.1%	3.5%	