

A6.31 Mallard *Anas platyrhynchos* (non-breeding)

1. Status in UK

Biological status		Legal status		Conservation status
Breeding	✓	Wildlife and Countryside Act 1981	General Protection Schedule 2(1) Schedule 3(3)	Species of European Conservation Concern
Migratory	✓	Wildlife (Northern Ireland) Order 1985	General Protection Schedule 2(1)	(UK) Species of Conservation Importance
Wintering	✓	EC Birds Directive 1979	Annex II/1 Annex III/1 Migratory	All-Ireland Vertebrate Red Data Book

2. Population data

	Population sizes (individuals)	Selection thresholds	Totals in species' SPA suite
GB	500,000	5,000	24,389 (5% of GB total)
Ireland	50,000	500	4,748 (10% of all-Ireland total)
Biogeographic population	5,000,000	50,000	29,137 (0.6% of biogeographic population)

GB population source: Owen et al. 1986

Ireland population source: Way et al. 1993

Biogeographic population source: Rose & Scott 1997

3. Distribution

Mallard has a widespread global distribution across most of the northern hemisphere, breeding from 70°N in the Arctic, to 35°N in North Africa, and 20°N in the Middle East (Scott & Rose 1996). Those breeding in temperate regions are sedentary or dispersive, while northern breeding birds are generally migratory. In the winter, the species occurs between 20° to 60°N (Scott & Rose 1996). Expansion in some parts of the range has resulted from introductions for shooting purposes (Madge & Burn 1988), posing a localised threat to native birds through hybridisation (Callaghan *et al.* 1997). The number of recognised sub-species varies with authority, but Scott & Rose (1996) name three that are extant: *A. p. conboschas* in Greenland; *A. p. diazi* in Mexico; and the nominate sub-species in the rest of the range.

Mallards are widespread throughout Europe in both breeding and non-breeding seasons, being absent only from high montane regions and the Russian low Arctic.

Within the UK, Mallards are widely distributed, occurring on almost every type of freshwater wetland, though they generally avoid fast-flowing and oligotrophic waters (Scott & Rose

1996). They tolerate human presence, often occurring on artificial waterbodies in close proximity to man (Scott & Rose 1996; Berndt & Hill 1997). In winter they also occur commonly in estuaries and along sheltered coasts, but avoid offshore waters (Scott & Rose 1996). They are omnivorous and opportunistic feeders, consuming seeds and vegetative parts of aquatic plants, and variable amounts of terrestrial and aquatic invertebrates, especially during the breeding season (Thomas 1981; del Hoyo *et al.* 1992). In brackish habitats, seeds predominate in the diet, with molluscs, crustacea and insects also being taken (Olney 1964).

Despite its general abundance and widespread distribution, there are few large concentrations of Mallard in the UK (Salmon 1986; Pollitt *et al.* 2000). Only ten sites regularly hold more than 2,000 birds. There is little emigration by British breeding birds but many birds do move short distances between sites through the winter (Boyd & Ogilvie 1961). There is significant movement into Britain and Ireland of birds originating from more northerly and easterly breeding areas, especially the taiga zones of Russia.

4. Population structure and trends

In Eurasia, there are five recognised populations, the discrete Greenlandic subspecies (15,000-30,000 individuals), and four populations of the nominate subspecies in north-west Europe (5,000,000), northern Europe/west Mediterranean (1,000,000), north-east and central Europe/Black Sea/east Mediterranean (2,250,000 million) and west Siberia/south-west Asia (800,000) (Scott & Rose 1996).

The Mallard is the most abundant and widespread of the Anatidae species in north-west Europe (Rose & Scott 1997). The total wintering in the UK is estimated at 500,000 (Owen *et al.* 1986), representing 10% of the north-west European population (Rose & Scott 1997). More than one third of those wintering in the UK are believed to be continental immigrants (Owen *et al.* 1986).

Numbers in Europe as a whole were stable between 1970 and 1990, though there were both local increases (*e.g.* The Netherlands, Ukraine, Sweden and Great Britain) and decreases (*e.g.* Romania, Spain and Czech Republic). Increases are believed to be due to creation of new wetlands left by mineral extraction, as well as the release of birds for hunting (Berndt & Hill 1997). Delany *et al.* (1999) reported decreases in numbers counted in north-west Europe between 1987 and 1996. The assessment of trends in this species, both at UK and international scales, is hindered however, by the lack of reliable statistics regarding numbers of Mallards bred and released for shooting purposes, and changes to this activity over time.

More recently, there is evidence of a decline in the number of Mallards wintering in Britain, with counts at larger wetland sites in Great Britain falling by up to 40% between 1987/88 and 1997/98 (Cranswick *et al.* 1999). Fluctuations in the numbers of Mallard over the UK as a whole are difficult to monitor due to its dispersed distribution on many small waterbodies that are not regularly counted. Clearly, further research is required to identify the reasons for the decline in the UK wintering population. Numbers in Northern Ireland remained relatively stable during the 1990s but there are indications of a recent decline in the Republic of Ireland (Colhoun 2000).

Although the Mallard is migratory, it does not normally move in large numbers to Britain and Ireland from the continent during cold winters, although a large influx was noted in winter 1978/79 (Ridgill & Fox 1990). Ringing recoveries indicate that British-bred and immigrant Mallards return to broadly the same wintering areas between years (Boyd & Ogilvie 1961).

5. Protection measures for population in the UK

SPA suite

In the non-breeding season, the UK's SPA suite for Mallard supports, on average, 29,137 individuals (calculated using WeBS December 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 5% of the British population, 10% of the all-Ireland population, and 0.6% of the international flyway population. The suite comprises 14 sites where Mallard has been listed as a qualifying species (Table 6.31.1).

6. Classification criteria

No sites in the UK regularly support more than 1% of the international Mallard population in winter (Stage 1.2). However, 14 sites were identified under Stage 1.3 (see section 5.3), with Mallard forming an important component of non-breeding waterbird assemblages. 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 suite which gives adequate coverage of the population and range of non-breeding Mallards in the UK, it was not considered necessary to select additional sites using Stage 1.4.

Distribution map for non-breeding Mallard SPA suite

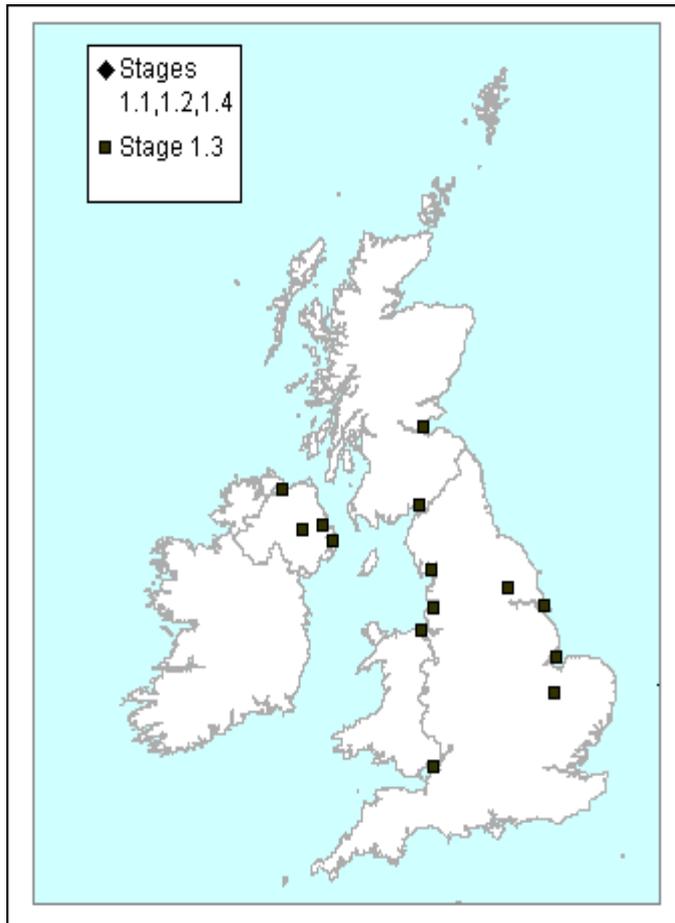


Table 6.31.1 – SPA suite

Site name	Site total	% of biogeographical population	% of national population	Selection stage
Belfast Lough	613	<0.1	3.1 (Ire)	1.3
Firth of Forth	2,564	<0.1	0.5	1.3
Humber Flats, Marshes and Coast (Phase 1)	3,207	<0.1	0.6	1.3
Lough Foyle	1,694	<0.1	8.5 (Ire)	1.3
Lough Neagh and Lough Beg	5,256	0.1	26.3 (Ire)	1.3
Lower Derwent Valley	2,625	<0.1	0.5	1.3
Martin Mere	3,109	<0.1	0.6	1.3
Morecambe Bay	3,237	0.1	0.6	1.3
Ouse Washes	4,123	<0.1	0.8	1.3
Severn Estuary	3,154	<0.1	0.6	1.3
Strangford Lough	1,633	<0.1	8.2 (Ire)	1.3
The Dee Estuary	2,014	<0.1	0.4	1.3
The Wash	3,357	<0.1	0.7	1.3
Upper Solway Flats and Marshes	2,566	<0.1	0.5	1.3

TOTALS	29,137 (in December)	0.6%	4.9% 9.5% (Ire)	
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