

## A6.29b Gadwall *Anas strepera* (non-breeding)

### 1. Status in UK

See section 6.29a.

### 2. Population data

	Population sizes (individuals)	Selection thresholds	Totals in species' SPA suite
<b>GB</b>	8,200	80	3,425 (43% of GB total)
<b>Ireland</b>	600	50 (see section 5.1.2 for rationale)	156 (26% of all-Ireland total)
<b>Biogeographic population</b>	30,000	300	3,580 (12% of biogeographic population)

*GB population source: Kirby 1995a*

*Ireland population source: Way et al. 1993*

*Biogeographic population source: Rose & Scott 1997*

### 3. Distribution

The global distribution of Gadwall is outlined in section A6.29a. As much of the breeding range of Gadwall in eastern Europe and elsewhere in continental Russia is subject to winter freezing, this duck is necessarily a winter migrant to areas where winter conditions are milder.

In Europe, Gadwall spend the winter around the North Sea (with concentrations in Britain and The Netherlands), as well as across France, around Mediterranean coasts and as far east as the Black and Caspian Seas. Wintering birds around the North Sea derive from breeding birds in northern Germany, Poland, southern Sweden, and west-central Russia, whereas birds in France and some birds in Britain and The Netherlands are resident or partial migrants.

Most non-breeding Gadwall in Britain occur in south-east England, the Midlands and East Anglia. The largest concentrations occur at the larger reservoirs and gravel pits as well as the winter floodwaters of the Ouse Washes. Birds are aggregated, with most occurring on only half those sites regularly used. Notable concentrations occur in the Avon Valley (Hampshire), the Lee Valley, the London Water Bodies, the Ouse Washes and the Nene Valley.

Gadwall inhabit inland, eutrophic, still waters in lowland areas, including reservoirs and flooded gravel pits as well as marshy grassland/flood meadows. In winter, they tend to concentrate locally in suitable habitats within larger wetland areas (Lack 1986; Fox 1991).

### 4. Population structure and trends

There are six biogeographical populations of the nominate sub-species *A. s. strepera* (Rose & Scott 1997). Of these, two occur in Europe with birds occurring in Britain belonging to the north-west European population.

This population has increased significantly in recent decades, as a consequence of the continuing expansion and consolidation of the species in Europe. Between 1986 and 1994, the north-west European population increased from 12,000 to 25,000 birds (Scott & Rose 1996), and is currently estimated at 30,000 birds (Rose & Scott 1997). Since the mid-1990s, numbers have continued to increase (Delany *et al.* 1999).

During the 1950s, only 12 UK sites held 25 or more birds (Atkinson-Willes 1963). From the 1960s onwards there was a rapid increase from a British total of 520 birds in 1963/64, to approximately 1,750 in the mid- to late-1970s (Owen *et al.* 1986). Between 1966/67 and 1991/92 there was a 1,233% increase in the winter population index (Kirby *et al.* 1995) and a 12–17% increase in mid-winter WeBS counts between 1960/61 and 1985/86 (Fox & Salmon 1989). The total December count in 1985 was 5,128, and this more than doubled to 10,698 by December 1994. Based on data from 1991/92, the UK non-breeding population is estimated at 8,000 birds. However, the average total for the period 1994/95 to 1998/99 was 11,998 birds (Kirby 1995a; Pollitt *et al.* 2000).

Increases in non-breeding numbers in the UK seem to have been caused by corresponding growth in numbers of continental breeding birds that form the majority of the UK wintering population, and, to a much lesser extent, an increase in the number of birds breeding in Britain. Approximately a quarter of English Gadwall migrate to the Low Countries, France and Spain, with between a third and a half of English non-breeding Gadwall originating from eastern Europe (Fox & Mitchell 1988).

Population increases have been aided by an association with Coots. Theft of pond-weed from feeding Coots no longer restricts Gadwall to feeding by up-ending and head-bobbing in shallow waters. This enables Gadwall to exploit the deeper water of reservoirs and gravel pits, types of wetland that have expanded in area as new sites have been created (Fox 1991).

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

### **SPA suite**

In the non-breeding season, the UK's SPA suite for Gadwall supports, on average, 3,580 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 43% of the British population, about 26% of the all-Ireland population, and about 12% of the international flyway population. The suite comprises 18 sites where Gadwall has been listed as a qualifying species (Table 6.29b.1).

## **6. Classification criteria**

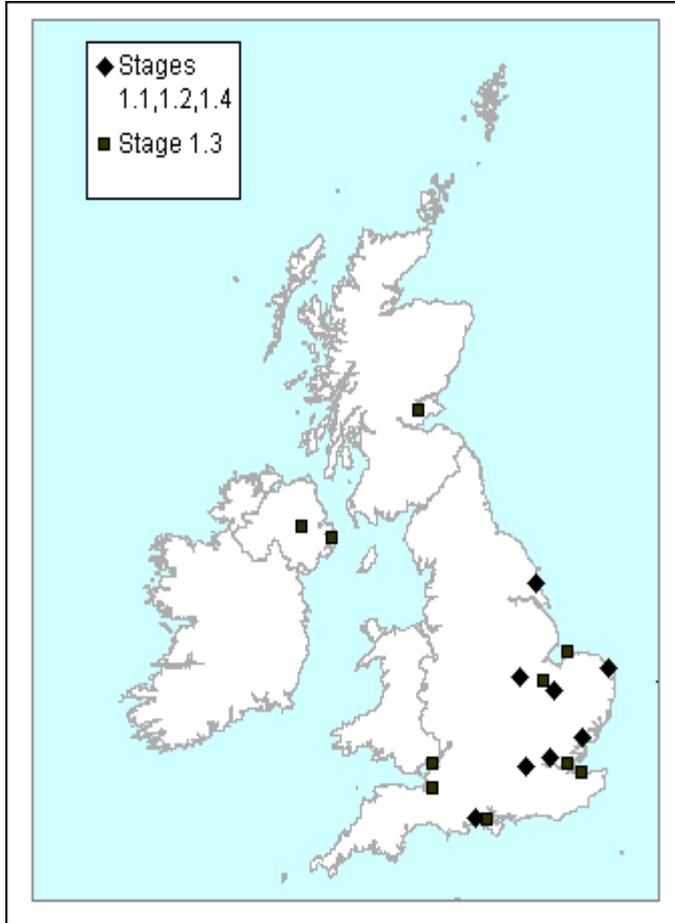
All sites in the UK supporting more than 1% of the international population were considered under Stage 1.2, and all eight were selected after consideration of Stage 2 judgements. A further 10 sites were considered and selected under Stage 1.3 (see section 5.3), where Gadwall was identified as an important component of non-breeding waterbird assemblages.

The sites are distributed through most of the population's UK range, including Loch Leven in eastern Scotland, two sites in Northern Ireland, sites in south Wales, and on the south and east coasts of England, as well as in the Midlands. Most of these sites are multi-species SPAs, of importance also for a range of other waterbirds, although Hornsea Mere has been selected solely because of its importance for Gadwall.

As the selection of sites under Stages 1.2 and 1.3 resulted in a suite which gives adequate coverage of the population and range of non-breeding Gadwall in the UK, and the species is

widely dispersed in winter and increasing its numbers and range, it was not considered necessary to select additional sites using Stage 1.4.

**Distribution map for non-breeding Gadwall SPA suite**



**Table 6.29b.1 – SPA suite**

Site name	Site total	% of biogeographical population	% of national population	Selection stage
Abberton Reservoir	518	1.7	6.3	1.2
Avon Valley	667	2.2	8.1	1.2
Broadland	605	2.0	7.6	1.2
Hornsea Mere	300	1.0	3.7	1.2
Lee Valley	515	1.7	6.3	1.2
Loch Leven	236	0.8	2.9	1.3
Lough Neagh and Lough Beg	166	0.6	27.7 (Ire)	1.3
Nene Washes	206	0.7	2.5	1.3
North Norfolk Coast	177	0.6	2.2	1.3
Ouse Washes	342	1.1	4.2	1.2

<b>Site name</b>	<b>Site total</b>	<b>% of biogeographical population</b>	<b>% of national population</b>	<b>Selection stage</b>
Rutland Water	1,156	3.9	14.1	1.2
Severn Estuary	282	0.9	3.4	1.3
Solent and Southampton Water	119	0.4	1.5	1.3
Somerset Levels and Moors	143	0.5	1.7	1.3
South-West London Water Bodies	786	2.6	9.6	1.2
Strangford Lough	108	0.4	18.0 (Ire)	1.3
Thames Estuary and Marshes	136	0.5	1.7	1.3
The Swale	86	0.3	1.1	1.3

<b>TOTALS</b>	3,580 (in December)	11.9%	42.8% 25.9% (Ire)
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