

A6.104 Assemblages of waterbirds

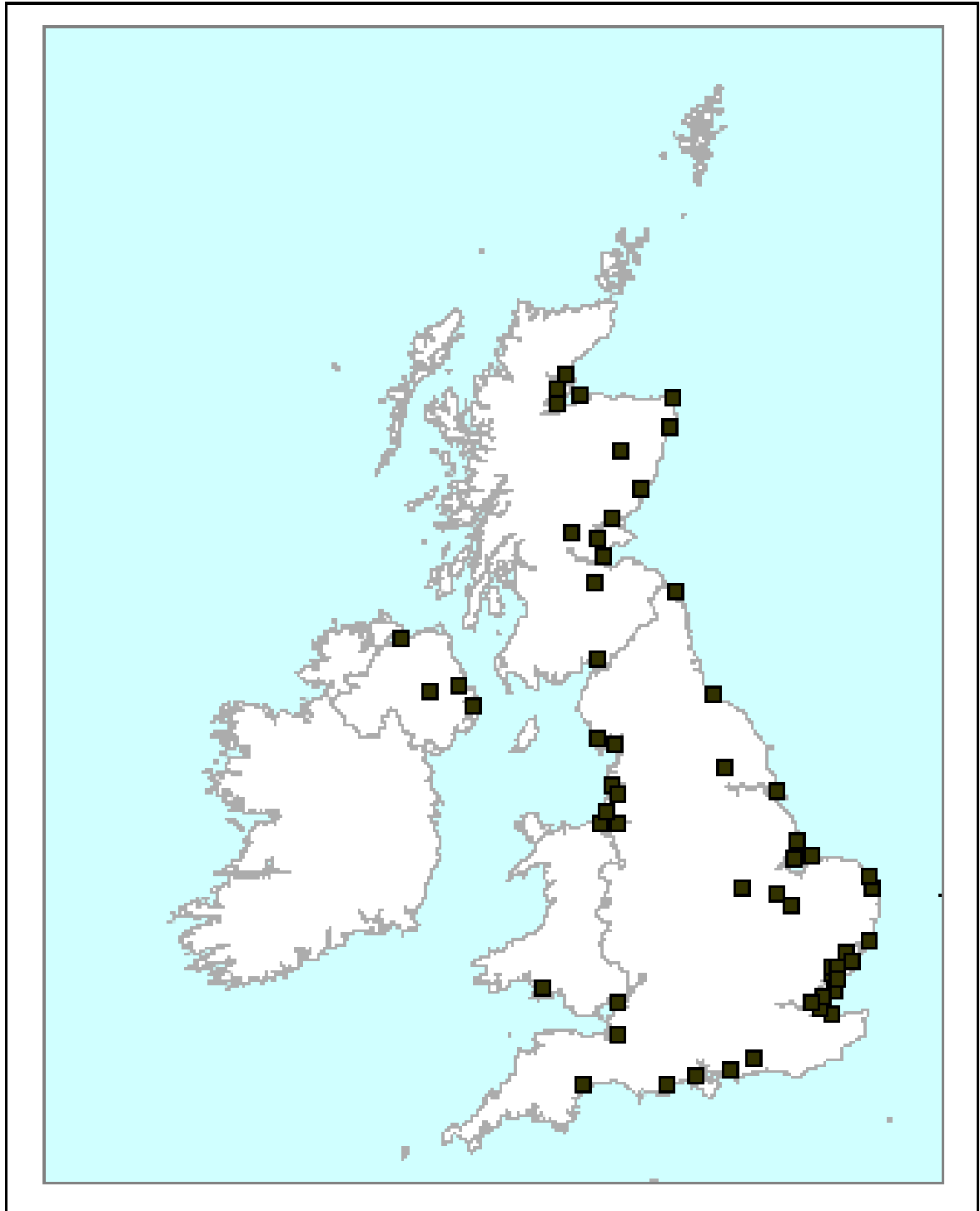


Figure 6.104.1. Distribution of SPAs selected for holding internationally important assemblages of waterbirds.

The UK is of outstanding international importance for its waterbird populations – one of the notable features of the UK avifauna (Fuller 1982; Moser 1987; Davidson *et al.* 1991; Ferns 1992; Scott & Rose 1996; Madsen *et al.* 1999). Internationally important assemblages of more than 20,000 waterbirds have been selected under Stage 1.3 to represent this interest

(Figure 6.104.1). This also reflects the requirement of Article 4.2 of the Birds Directive to pay particular attention to wetlands of international importance (Temple-Lang 1982).

A total of 57 sites have been selected (Table 6.104.1). Each of these sites holds more than 20,000 waterbirds, generally in the non-breeding season. In order to identify the important components of these assemblages, all species occurring at levels of more than 1% of national populations or where there are more than 2,000 individuals present were identified (section 4.3.1). These components are highlighted in the respective species accounts.

Many of these sites have already been designated by the UK as wetlands of international importance under the Ramsar Convention on Wetlands in support of that convention's aim to "stem the progressive encroachment on and loss of wetland now and in the future" through the wise use of wetlands.

Distribution of waterbird assemblages

Most sites holding large numbers of waterbirds are coastal areas, with large estuaries being of particular importance. These tend to be located in the south and east of Britain. Sites selected range from the Firths of the Moray Basin – the most northerly regular wintering area for waterbirds in north-western Europe, down the Scottish and English coasts of the North Sea to sites within the Greater Thames Estuary. A further six sites lie along the coast of the English Channel.

There are fewer sites in western Britain, although there are many sites of high importance along the north-west coast of England (Stroud & Craddock 1996).

Four sites have been identified in Northern Ireland, including Lough Neagh and Lough Beg, a site of major international importance for its populations of diving ducks, a large proportion of which derive from Icelandic breeding areas. This site is also the most extensive freshwater body in the UK.

There are no sites holding more than 20,000 waterbirds on the west coast of Scotland, north of the Solway Firth. This tends to reflect the absence of large, productive estuarine systems, although the area is still of international importance for many wintering waterbirds (especially some geese and waders), which generally do not occur in large, multi-species aggregations.

Many of the sites identified are long known for their importance for waterbirds. Indeed, most were included in the first *Directory of Wetlands of International Importance in the Western Palearctic* (Carp 1980), as well as earlier inventories (Ratcliffe 1977; Berry 1939). In comparing the present list of sites with earlier inventories, it is notable that sites identified as SPAs are generally much more extensive than previously identified sites for the same interests. This reflects not only better knowledge of the distribution and abundance of waterbirds, but also statutory agency policy to ensure that boundaries of classified sites are so drawn that they contain and reflect the range of ecological needs of the individual species contained within them (Stroud *et al.* 1990a).

Size of waterbird SPAs

During the period of this review, The Wash held the largest number of waterbirds (400,273), with the Ribble and Alt (301,449), Morecambe Bay (210,668), Humber Flats and Marshes (152,817), Upper Solway Flats and Marshes (133,222), the Blackwater Estuary (109,815) and Foulness (107,468) all holding more than 100,000 waterbirds.

It is not possible to sum the peak mean counts for each site given in Table 6.104.1 owing to the double counting that would occur, due to movement between sites within and between winters. However, the average of January counts for these sites between 1993 and 1997 is 2,084,272. To this total can be added the January totals of waterbirds wintering at a further 57 SPAs that hold qualifying species of wintering waterbirds but at population levels below 20,000. The addition of these totals indicates that the UK SPA network holds a minimum 2,186,443 waterbirds in January.

In terms of assessing total numbers of waterfowl that gain conservation benefits from the UK SPA network, it should be noted that this total is an underestimate for four reasons:

- the totals used on sites holding <20,000 waterbirds relate to just the totals of qualifying species. To this should be added other ‘non-qualifying’ waterbirds occurring on those sites;
- the totals do not account adequately for those non-breeding waterbird species where peak occurrence on the network is in months other than January (*e.g.* Tufted Duck where peak national occurrence is in December). The most extreme example of this is species that occur on the SPA network during migration periods, en route to/from Arctic breeding grounds and wintering areas further south in Europe or Africa (*e.g.* populations of waders such as East Greenland Dunlin *Calidris alpina arctica* and North Siberian/West and South African Knot *Calidris canutus canutus*);
- since the January counts are ‘snapshots’ they makes no allowance for turnover of birds in migratory periods. This can be very considerable as birds pass through the UK, but is technically very difficult to assess (Frederiksen *et al.* 2001); and
- periods of extremely cold weather, especially further east in Europe, displace large numbers of waterbirds to seek milder areas in Britain and Ireland (Ridgill & Fox 1990). The winters included in this review were generally mild, although there were significant periods of severe cold in 1995/96 and 1996/97.

Making allowance for these factors, it can be conservatively estimated that about 3,000,000 non-breeding waterbirds directly benefit from the general wetland habitat conservation provisions of the UK SPA network. This is a significant proportion of total East Atlantic Flyway populations of waders and North-west European populations of waterbirds.

Table 6.104.1. SPAs holding more than 20,000 waterbirds.

Site	Numbers of waterbirds (five year peak mean)
Abberton Reservoir	39,155
Alde-Ore Estuary	24,962
Arun Valley	27,241
Belfast Lough	20,492
Benfleet and Southend Marshes	34,789
Blackwater Estuary	109,815
Breydon Water	43,225
Broadland	22,603

Site	Numbers of waterbirds (five year peak mean)
Burry Inlet	34,962
Chichester and Langstone Harbours	93,142
Colne Estuary	38,548
Cromarty Firth	34,847
Dengie	31,452
Dornoch Firth and Loch Fleet	34,837
Duddon Estuary	78,415
Exe Estuary	23,513
Firth of Forth	86,067
Firth of Tay and Eden Estuary	34,074
Foulness	107,468
Gibraltar Point	22,137
Hamford Water	44,461
Humber Flats, Marshes and Coast	187,617
Inner Moray Firth	33,148
Lindisfarne	41,870
Loch Leven	32,177
Loch of Strathbeg	49,452
Lough Foyle	37,310
Lough Neagh and Lough Beg	99,221
Lower Derwent Valley	39,936
Martin Mere	46,196
Medway Estuary and Marshes	65,274
Mersey Estuary	99,467
Mersey Narrows and North Wirral Foreshore	20,269
Montrose Basin	54,917
Moray and Nairn Coast	20,250
Morecambe Bay	210,668
Muir of Dinnet	28,600
Nene Washes	25,437
North Norfolk Coast	91,249
Ouse Washes	64,392
Poole Harbour	28,426
Ribble and Alt Estuaries	301,449

Site	Numbers of waterbirds (five year peak mean)
Rutland Water	23,501
Severn Estuary	93,986
Solent and Southampton Water	53,948
Somerset Levels and Moors	72,874
South Tayside Goose Roosts	52,403
Stour and Orwell Estuaries	64,768
Strangford Lough	60,220
Teesmouth and Cleveland Coast	21,406
Thames Estuary and Marshes	33,433
The Dee Estuary	130,408
The Swale	65,390
The Wash	400,273
Upper Solway Flats and Marshes	133,222
Westwater	31,465
Ythan Estuary, Sands of Forvie and Meikle Loch	51,265

Table 6.104.2. January waterbird totals on the UK SPA network.

	1993	1994	1995	1996	1997	Mean
Total on sites holding >20,000 waterbirds (Guideline 1.3 qualifiers)	2,059,695	2,081,224	2,112,164	2,007,900	2,160,379	2,084,272
Total on sites holding <20,000 waterbirds (Guideline 1.1 & 1.2 qualifiers only)	108,394	115,699	108,813	94,780	83,165	102,170
Total waterbirds on SPA network	2,168,089	2,196,923	2,220,977	2,102,680	2,243,544	2,186,443