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Glossary

The terms listed below are generally restricted to those that have been adopted specifically for use within WeBS or more widely for monitoring.

1% criterion The criterion identifies sites as being of *international importance* if at least 1% of the *waterbirds* of a particular migratory flyway or population regularly make use of a site during their annual cycle. The term thus relates to the proportion (1%) that is used as a criterion of site selection. First used in the Ramsar Convention, the 1% criterion is used widely in assessment of site importance.

1% threshold This logically derives from the *1% criterion* and relates to the number of birds that are used as the nominal 1% of the population for the purposes of site selection. Thus, an international population of 75,215 Shelduck has a derived 1% threshold (adopting rounding conventions) of 750.

African-Eurasian Migratory Waterbird Agreement (AEWA) An independent international treaty developed under the Convention on the Conservation of Migratory Species of Wild Animals ('*Bonn Convention*'). Parties to the Agreement are called upon to engage in a wide range of conservation actions addressing key issues such as species and habitat conservation, management of human activities, research and monitoring, education and information, and implementation. www.unep-aewa.org

All-Ireland Comprises the whole island of Ireland (Northern Ireland and the Republic of Ireland).

British Trust for Ornithology (BTO) The BTO is a well-respected organisation, combining the skills of professional scientists and volunteer birdwatchers to carry out research on birds in all habitats and throughout the year. Data collected by the various surveys form the basis of extensive and unique databases, which enable the BTO to objectively advise conservation bodies, government agencies, planners and scientists on a diverse range of issues involving birds. www.bto.org

Complex site A *WeBS site* that consists of two or more *WeBS sectors*.

Core Counts The fundamental WeBS counts that monitor all types of wetlands throughout the UK once per month on, or as near as possible to, pre-selected *priority dates*. Used to determine population estimates and trends and identify important sites.

Great Britain The countries of England Scotland and Wales (excludes the Channel Isles and the Isle of Man).

Incomplete counts When presenting counts of an individual species, a large proportion of the number of birds was suspected to have been missed, *e.g.* due to part coverage of the site or poor counting conditions, or when presenting the total number of birds of all species on the site, a significant proportion of the total number was missed.

I-WeBS An independent but complementary scheme operating in the Republic of Ireland to monitor non-breeding *waterbirds*, organised by BirdWatch Ireland, the National Parks and Wildlife Service (Ireland) and The *Wildfowl & Wetlands Trust*. http://www.birdwatchireland.ie/Default.aspx?tabid=111

Joint Nature Conservation Committee (JNCC) JNCC is the statutory body constituted by the Environmental Protection Act 1990 to be responsible for research and advice on nature conservation at both UK and international levels. The committee is established by Natural England, Scottish Natural Heritage and the Countryside Council for Wales, together with independent members and representatives from the Countryside Commission and Northern Ireland, and is supported by specialist staff. www.jncc.gov.uk

Local Organiser Person responsible for coordinating counters and counts at a local level, normally a county or large estuary, and the usual point of contact with the *WeBS office*.

Low Tide Counts (LTC) WeBS counts made at low tide to assess the relative importance of different parts of individual estuaries as feeding areas for intertidal *waterbirds*.

Priority date Pre-determined dates published by the *WeBS Office* to aid coordination of surveys. Counters are asked to count on, or as near as possible to, priority dates to minimise the risk of missing birds or double counting.

Royal Society for the Protection of Birds (RSPB) The RSPB is the charity that takes action for wild birds and the environment in the UK. The RSPB is the national BirdLife partner in the UK. www.rspb.org.uk

United Kingdom *Great Britain* and Northern Ireland (excludes the Channel Isles and the Isle of Man).

Waterbirds WeBS follows the definition adopted by *Wetlands International*. This includes a large number of families, those occurring regularly in the UK being divers, grebes, cormorants, herons, storks, ibises and spoonbills, wildfowl, cranes, rails, waders, gulls and terns.

WeBS count unit The area/boundary within which a count is made. The generic term for *WeBS sites, WeBS sub-sites* and *WeBS sectors*.

WeBS Office Main administrative centre for the day-to-day running of WeBS and main point of contact for information or data pertaining to WeBS (webs@bto.org).

WeBS Online The online database for the submission and retrieval of WeBS Core Count, Low Tide Count and supplementary data. www.bto.org/webs

WeBS sector The unit of division of large *sites* into areas that can be counted by one person in a reasonable time period. They are often demarcated by geographic features to facilitate recognition of the boundary by counters. The finest level at which data are recorded.

WeBS site A biologically meaningful area that represents a discrete area used by *waterbirds* such that birds regularly move within but only occasionally between sites. The highest level at which count data are stored.

WeBS sub-site A grouping of *sectors* within a *site* to facilitate coordination. In most cases, sub-sites also relate to biologically meaningful units for describing *waterbird* distribution.

WeBS-Year Defined as July to June inclusive the WeBS Year is centred on the time when most *waterbird* species are present in their largest number, during *winter*. Counts during *autumn* passage and *spring* passage the following calendar year are logically associated with the intervening *winter*.

Wetlands International A leading global non-profit organisation whose mission is to sustain and restore wetlands, their resources and biodiversity for future generations through research, information exchange and conservation activities, worldwide. www.wetlands.org

Wildfowl & Wetlands Trust (WWT) Founded by Sir Peter Scott in 1946, WWT is the largest international wetland conservation charity in the UK. WWT works to conserve wetlands and their biodiversity, focusing particularly on waterbirds and their habitats, and seeks to raise awareness of the value of wetlands, the threats they face and the actions needed to save them. WWT has nine visitor centres throughout the UK. www.wwt.org.uk

Appendices

APPENDIX 1. INTERNATIONAL AND NATIONAL IMPORTANCE

Any site recognised as being of international ornithological importance is considered for classification as a Special Protection Area (SPA) under the EC Directive on the Conservation of Wild Birds (EC/79/409), whilst a site recognised as an internationally important wetland qualifies for designation as a Ramsar site under the Convention on Wetlands of International Importance especially as Waterfowl Habitat. Criteria for assessing the international importance of wetlands have been agreed by the Contracting Parties to the Ramsar Convention on Wetlands of International Importance (Ramsar Convention Bureau 1988). Under criterion 6, a wetland is considered internationally important if it regularly holds at least 1% of the individuals in a population of one species or subspecies of waterbird, while criterion 5 states that any site regularly supporting 20,000 or more waterbirds also qualifies. Britain and Ireland's wildfowl belong, in most cases, to the northwest European population and the waders to the east Atlantic flyway population (Wetlands International 2006).

A wetland in Britain is considered nationally important if it regularly holds 1% or more of the estimated British population of one species or subspecies of waterbird, and in Northern Ireland important in an all-Ireland context if it holds 1% or more of the estimated all-Ireland population.

The 1% thresholds for British, all-Ireland and international waterbird populations, where known, are listed in Table A1. Thus, any site regularly supporting at least this number of birds potentially qualifies for designation under national legislation, or the EC Birds Directive or Ramsar Convention. The international population for each species and subspecies is also specified in the table. However, it should be noted that, where 1% of the national population is less than 50 birds, 50 is normally used as a minimum qualifying threshold for the designation of sites of national or international importance.

It was agreed at the meeting of the Ramsar Convention in Brisbane that population estimates will be reviewed by Wetlands International every three years and 1% thresholds revised every nine years (Rose & Stroud 1994; Ramsar Resolution VI.4). 1% thresholds have not been derived for introduced species since protected sites would not be identified for these birds.

Sources of qualifying levels represent the most up-to-date figures following recent reviews: for wildfowl and waders in Britain see Musgrove *et al*. (2011); for gulls in Britain see Banks *et al*. (2007); for all-Ireland importance see Crowe *et al*. (2008). International criteria follow Wetlands International (2006).

It should be noted that for some populations, where the British total is the international total, the precise figure given for the estimates may differ because of different rounding conventions applied in the relevant publications.

Table A1. 1% thresholds for national and international importance

	Great Britain	all-Ireland	International	Subspecies/Population
Mute Swan: *British*	740	n/a	320	Britain
Irish	n/a	110	100	Ireland
Bewick's Swan	70	*20	200	*bewickii*, NW Europe (non-br)
Whooper Swan	110	130	210	Iceland (br)
Bean Goose: *Taiga*	*4	+	800	*fabalis*
Bean Goose: *Tundra*	*3	+	800	*rossicus*
Pink-footed Goose	3,600	+	2,700	Greenland, Iceland (br)
European White-fronted Goose	*24	+	10,000	*albifrons*, Baltic-North Sea
Greenland White-fronted Goose	130	110	270	*flavirostris*
Greylag Goose: *Iceland*	850	50	870	*anser*, Iceland (br)
British/Irish	1,400	?	?	*anser*, Britain/Ireland
Barnacle Goose: *Greenland*	580	90	560	E Greenland (br)
Svalbard	330	+	270	Svalbard (br)

Table A1. continued

	Great Britain	all-Ireland	International	Subspecies/Population
Dark-bellied Brent Goose	910	+	2,000	*Bernicla,* W Siberia (br)
Light-bellied Brent Goose: *Canada*	*7	220	260	*hrota*, Ireland (non-br)
Svalbard	*34	+	70	*hrota*, Svalbard, N Greenland (br)
Shelduck	610	150	3,000	NW Europe (br)
Wigeon	4,400	820	15,000	NW Europe (non-br)
Gadwall	250	20	600	*strepera*, NW Europe (br)
Teal	2,100	450	5,000	NW Europe (non-br)
Mallard	6,800	380	**20,000	*platyrhynchos*, NW Europe (non-br)
Pintail	290	20	600	NW Europe (non-br)
Garganey	+	+	**20,000	W Africa (non-br)
Shoveler	180	25	400	NW & C Europe (non-br)
Red-crested Pochard	+	+	500	C Europe & W Mediterranean
Pochard	380	400	3,500	NE & NW Europe (non-br)
Tufted Duck	1,100	370	12,000	NW Europe (non-br)
Scaup	52	*45	3,100	*marila*, W Europe (non-br)
Eider	550	*30	12,850	*mollissimma*, NW Europe[1]
Eider: *Shetland*	55	+	12,850	*mollissimma*, NW Europe[1]
Long-tailed Duck	110	+	**20,000	W Siberia, N Europe (br)
Common Scoter	1,000	230	16,000	*nigra*
Velvet Scoter	*25	+	10,000	*fusca*, Baltic, W Europe (non-br)
Goldeneye	200	95	11,500	*clangula*, NW & Central Europe (non-br)
Smew	*2	+	400	NW & C Europe (non-br)
Red-breasted Merganser	84	*35	1,700	NW & C Europe (non-br)
Goosander	120	+	2,700	*merganser*, NW Europe[2]
Red-throated Diver	170	*20	3,000	NW Europe (non-br)
Black-throated Diver	*6	*1	3,750	*arctica*
Great Northern Diver	*25	?	50	NW Europe (non-br)
Little Grebe	160	25	4,000	*ruficollis*
Great Crested Grebe	190	50	3,600	*cristatus*
Red-necked Grebe	*1	?	5,10	*grisegena*, NW Europe (non-br)
Slavonian Grebe	*11	?	55	*auritus*, NW Europe (large billed)
Black-necked Grebe	*1	?	2,200	*nigricollis*, Europe, N Africa
Cormorant	350	140	1,200	*carbo*, NW Europe
Shag	1,100	?	2,000	*aristotelis*
Little Egret	45	?	1,300	*garzetta*, W Europe, NW Africa
Grey Heron	610	30	2,700	*cinerea*, W Europe, NW Africa (br)
Moorhen	3,200	?	**20,000	*chloropus*, Europe, N Africa (br)
Coot	1,800	330	17,500	*atra*, NW Europe (non-br)
Oystercatcher	3,200	680	10,200	*ostralegus*, Europe, NW Africa
Avocet	75	+	730	W Europe (br)
Ringed Plover	340	150	730	*hiaticula*, Europe & N Africa (non-br)
Golden Plover	4,000	1,700	9,300	*altifrons*, Iceland & Faeroes, E Atlantic[3]
Grey Plover	430	65	2,500	E Atlantic (non-br)
Lapwing	6,200	2,100	**20,000	Europe (br)
Knot	3,200	190	4,500	*islandica*
Sanderling	160	65	1,200	E Atlantic, W & S Africa (non-br)
Purple Sandpiper	130	*35	750	*maritima*, E Atlantic
Dunlin	3,500	880	13,300	*alpina,* W Europe (non-br)[4]
Ruff	*8	+	?	W Africa (non-br)
Jack Snipe	1,000	250	?	NE Europe (br)
Snipe	10,000	?	**20,000	*gallinago*, Europe (br)
Woodcock	14,000	?	**20,000	Europe (br)
Black-tailed Godwit	430	140	470	*islandica*
Bar-tailed Godwit	380	160	1,200	*lapponica*
Whimbrel	*1	+	6,800	*islandicus*
Curlew	1,400	550	8,500	*arquata*
Spotted Redshank	*1	+	900	Europe (br)
Redshank	1,200	310	2,800	*robusta*[5]
Greenshank	*6	*20	2,300	Europe (br)
Green Sandpiper	*9	?	17,000	Europe (br)
Common Sandpiper	*1	?	17,500	N, W & C Europe (br)
Turnstone	480	120	1,500	*interpres*, NE Canada, Greenland (br)

Table A1. continued

	Great Britain	all-Ireland	International	Subspecies/Population
Little Gull	?	?	1,230	N, C & E Europe (br)
Black-headed Gull	22,000	?	**20,000	N & C Europe (br)
Common Gull	7,000	?	**20,000	*canus*
Lesser Black-backed Gull	1,200	?	5,500	*graellsii*
Herring Gull	7,300	?	5,900	*argenteus*[6]
Great Black-backed Gull	760	?	4,400	NE Atlantic
Kittiwake	?	?	**20,000	*tridactyla*, E Atlantic (br)
Sandwich Tern	?	?	1,700	*sandvicensis*, W Europe (br)
Common Tern	?	?	1,900	*hirundo*, S, W Europe (br)
Little Tern	?	?	490	*albifrons*, W Europe (br)
Black Tern	?	?	7,500	*niger*

? *Population size not accurately known.*
\+ *Population too small for meaningful figure to be obtained.*
* *Where 1% of the British or all-Ireland wintering population is less than 50 birds, 50 is normally used as a minimum qualifying level for national or all-Ireland importance respectively.*
** *A site regularly holding more than 20,000 waterbirds qualifies as internationally important by virtue of absolute numbers.*

1 Following the recommendations of Scott & Rose (1996) and Furness *et al.* (2010), Common Eiders Somateria mollissima on Shetland are treated as a separate population from those elsewhere in Britain, and have been listed as such in the annual *Waterbirds in the UK* since 2008/09 (Calbrade *et al.* 2010). However, the taxonomic recommendation of Furness *et al.* (2010) has not been followed, since BOU has yet to recognise this population as belonging to the subspecies faeroeensis.

2 Although Wetlands International (2006) considers Goosanders breeding in Scotland, northern England and Wales to be a discrete population, a recent review of available data by DEFRA's SPA and Ramsar Scientific Working Group has found limited evidence to support this conclusion for the time being, and recommended that for site-selection purposes, British Goosanders continue to be considered as a component of the NW and C European population of Goosander, with an international 1% threshold of 2,700.

3 Three populations of Golden Plover listed by Wetlands International (2006) overlap in the UK in winter. Draft guidelines from Ramsar suggest that the largest of the three thresholds (*i.e.* that for *altifrons,* Iceland & Faeroes, E Atlantic) should be used for site-selection purposes.

4 Whilst several populations of Dunlin occur in the UK at different times of the year, most wintering birds are referable to the listed population.

5 Three populations of Redshank listed by Wetlands International (2006) overlap in the UK in winter: *totanus* E Atlantic (non-br), *robusta* and *brittanica*. Most *totanus* winter outside the UK but the other populations are known to occur widely. Draft guidelines from Ramsar suggest that the larger of the two thresholds (*i.e.* that for *brittanica*) should be used for site-selection purposes.

6 Two populations of Herring Gull overlap in the winter in the UK; *argentatus* and *argenteus*. Whilst substantial numbers of *argentatus* appear to winter in the UK, the largest proportion of Herring Gulls in winter is probably of *argenteus*. Following Ramsar guidance and given the conservation status of British-breeding Herring Gulls, the threshold for *argenteus* is used in this report for site-selection purposes.

APPENDIX 2. LOCATIONS OF PRINCIPAL WeBS COUNT SITES

Table A2 provides details of principal WeBS sites that are mentioned in the Principal Sites table (Table 6.). Sites are listed alphabetically with details of the Ordnance Survey 1-km square that the centre of the sites falls into. Numbers following Principal Core Count sites refer to the sites' location in Figure A1. Details of all sites covered by WeBS are available from www.bto.org/webs or the WeBS Office (see *CONTACTS*).

Table A2. Details for Principal Sites mentioned in Table 6. Numbers refer to the sites' location in figure A1.

Site	1-km sq	
Abberton Reservoir	TL9618	111
Alde Complex	TM4257	104
Alt Estuary	SD2903	85
Arun Valley	TQ0314	120
Baleshare	NF7862	18
Balnakeil Bay	NC3869	9
Balranald Nat. Res.	NF7169	15
Beaulieu Estuary	SZ4297	126
Belfast Lough	IJ3983	73
Blackwater Estuary	TL9307	110
Breydon Water & Berney Marshes	TG4706	99
Broubster Leans	ND0361	10
Burry Inlet	SS5096	138
Cameron Reservoir	NO4611	40
Carlingford Lough	IJ1814	77
Carmarthen Bay	SN2501	139
Carsebreck and Rhynd Lochs	NN8609	45
Chew Valley Lake	ST5659	135
Chichester Harbour	SU7700	122
Cleddau Estuary	SN0005	140
Colne Estuary	TM0614	109
Cotswold Water Park (West)	SU0595	136
Cromarty Firth	NH7771	26
Crouch-Roach Est.	TQ9895	105
Dalreoch	NN9917	46
Deben Estuary	TM2942	106
Dee Estuary England and Wales	SJ2675	89
Dee Flood Meadows	SJ4059	90
Dengie Flats	TM0302	112
Dornoch Firth	NH7384	29
Duddon Estuary	SD2081	80
Dungeness GPs	TR0619	119
Dyfi Estuary	SN6394	141
Eden Estuary	NO4619	39
Exe Estuary	SX9883	132
Fleet and Wey	SY6976	131
Forth Estuary	NT2080	48
Gadloch	NS6471	52
Hamford Water	TM2225	103
Hickling Broad	TG4221	96
Holburn Moss	NU0536	61
Hornsea Mere	TA1846	83
Hule Moss	NT7149	59
Humber Estuary	TA2020	84
Inner Firth of Clyde	NS3576	50
Inner Moray and Inverness Firth	NH6752	28
Island of Egilsay	HY4831	1
Isle of Coll	NM2055	24
Kentra Moss and Lower Loch Shiel	NM7168	25
Kilconquhar Loch	NO4801	42
Lake of Menteith	NN5700	49
Langstone Harbour	SU6902	123
Lavan Sands	SH6474	142
Lee Valley GPs	TL3807	102
Lindisfarne	NU1041	62
Loch An Eilein	NL9843	22
Loch Bee	NF7743	17
Loch Bhasapoll	NL9746	21
Loch Eye	NH8379	30
Loch Fleet Complex	NH7896	27
Loch Garten	NH9718	36
Loch Gorm	NR2365	55
Loch Gruinart Floods	NR2766	56
Loch Hempriggs	ND3447	12
Loch Ken	NX6672	64
Loch Leven	NO1501	43
Loch Lomond	NS3599	51
Loch Paible	NF7168	14
Loch Riaghain	NM0347	23
Loch Sandary	NF7368	16
Loch Scarmclate	ND1859	11
Loch Slapin	NG5516	19
Loch Spynie	NJ2366	31
Loch Tullybelton	NO0034	47
Loch a` Phuill	NL9541	20
Loch of Boardhouse	HY2625	4
Loch of Harray	HY2915	7
Loch of Hundland	HY2926	3
Loch of Lintrathen	NO2754	38
Loch of Skaill	HY2418	5
Loch of Skene	NJ7807	35
Loch of Stenness	HY2813	8
Loch of Strathbeg	NK0660	32
Loch of Swannay	HY3128	2
Lough Foyle	IC5925	71
Loughs Neagh& Beg	IJ0475	72
Lower Derwent Ings	SE6939	82
Lower Lough Erne	IH0960	79
Lower Teviot Valley	NT6725	58
Medway Estuary	TQ8471	114
Mersehead RSPB	NX9255	66
Mersey Estuary	SJ4578	88
Middle Yare Marshes	TG3504	98
Milldam & Balfour Mains Pools	HY4817	6
Moine Mhor & Add Estuary	NR8293	53
Montrose Basin	NO7057	37
Morecambe Bay	SD4070	81
Nene Washes	TF3300	92
North Norfolk Coast	TF8546	95
North West Solent	SZ3395	127
Orchardton and Auchencairn Bays	NX8151	65
Orwell Estuary	TM2238	107
Ouse Washes	TL5394	93
Outer Ards Shoreline	IJ6660	76
Outer Loch Indaal	NR2353	54
Pagham Harbour	SZ8796	121
Pegwell Bay	TR3561	116
Pitsford Reservoir	SP7870	100
Poole Harbour	SY9988	130
Portsmouth Harbour	SU6204	124
R Clyde: Carstairs to Thankerton	NS9841	57
Ribble Estuary	SD3825	87
R.Avon: Fordingbr'-Ringwood	SU1410	128
R.Avon: Ringwood-Christchurch	SZ1499	129
R.Nith: Keltonbank – Nunholm	NX9774	67
R.Tay: Haughs of Kercock	NO1339	44
Rutland Water	SK9307	91
Rye Harbour and Pett Level	TQ9418	117
Severn Estuary	ST5084	137
Slains Lochs (Meikle, Sand & Cotehill)	NK0230	33
Solway Estuary	NY1060	69
Somerset Levels	ST4137	134
Southampton Water	SU4507	125
St Benet`s Levels	TG3815	97
Stour Estuary	TM1732	108
Strangford Lough	IJ5460	74
Swale Estuary	TQ9765	115
Taw-Torridge Est.	SS4731	133
Tay Estuary	NO4828	41
Tees Estuary	NZ5528	70
Thames Estuary	TQ7880	113
The Wash	TF5540	94
Traigh Luskentyre	NG0599	13
Tring Reservoirs	SP9113	101
Tweed Estuary	NU0052	60
Upper Lough Erne	IH3131	78
Upper Quoile River	IJ4745	75
Walland Marsh	TQ9923	118
Wigtown Bay	NX4456	63
WWT Caerlaverock	NY0565	68
WWT Martin Mere	SD4214	86
Ythan Estuary	NK0026	34

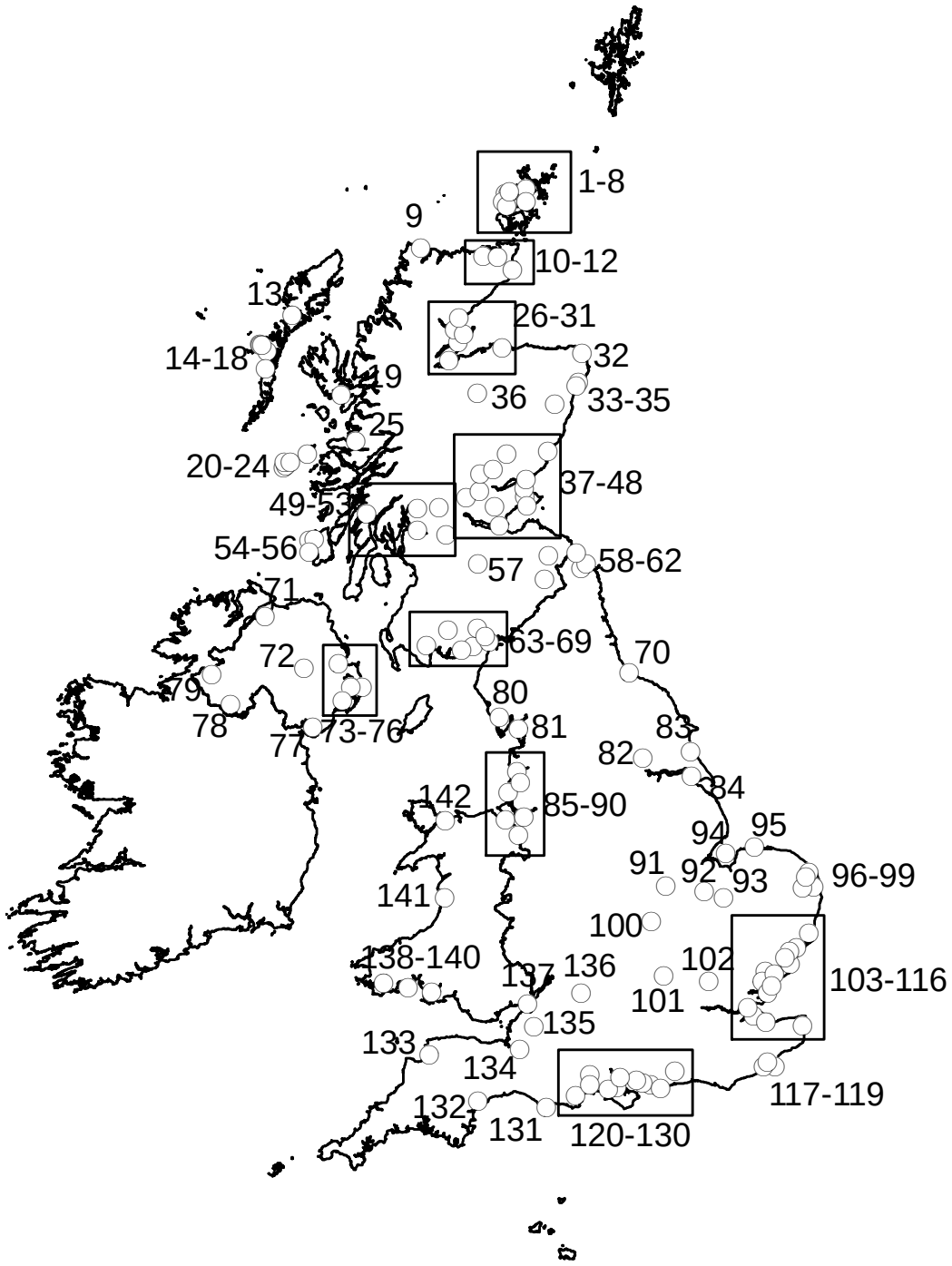

Figure A1. Locations of Core WeBS sites supporting more than 10,000 waterbirds or which support internationally important numbers of one or more waterbird species (see *PRINCIPAL SITES*). Numbers refer to sites listed in Table A2.