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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 82,000 Oystercatcher has a derived 1% threshold of 8,200.

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 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*.

Nordic Waterbirds and Climate Network (NOWAC) A research group investigating distribution of waterbirds in Nordic countries with particular reference to climate change.

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 largest numbers, 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 in 1946, WWT is the largest international wetland conservation charity in the UK. WWT works to conserve wetlands and their biodiversity, focusing on waterbirds and their habitats. It seeks to raise awareness of the value of wetlands, the threats they face and the actions needed to save them. www.wwt.org.uk

Appendices

APPENDIX 1. INTERNATIONAL & 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 the revised population estimates of Wetlands International (2012).

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: <i>British</i>	740	n/a	320	Britain
<i>Irish</i>	n/a	110	100	Ireland
Bewick's Swan	70	*20	220	<i>bewickii</i> , NW Europe (non-br)
Whooper Swan	110	130	270	Iceland (br)
Bean Goose: <i>Taiga</i>	*4	+	420	<i>fabalis</i>
Bean Goose: <i>Tundra</i>	*3	+	5,500	<i>rossicus</i>
Pink-footed Goose	3,600	+	3,500	Greenland, Iceland (br)
European White-fronted Goose	*24	+	12,000	<i>albifrons</i> , Baltic-North Sea
Greenland White-fronted Goose	130	110	240	<i>flavirostris</i>
Greylag Goose: <i>Iceland</i>	850	50	980	<i>anser</i> , Iceland (br)
<i>British/Irish</i>	1,400	?	?	<i>anser</i> , Britain/Ireland
Barnacle Goose: <i>Greenland</i>	580	90	710	E Greenland (br)
<i>Svalbard</i>	330	+	300	Svalbard (br)

Table A1. continued

	Great Britain	all-Ireland	International	Subspecies/Population
Dark-bellied Brent Goose	910	+	2,400	<i>Bernicla</i> , W Siberia (br)
Light-bellied Brent Goose: <i>Canada</i>	*7	220	400	<i>hrota</i> , Ireland (non-br)
<i>Svalbard</i>	*34	+	75	<i>hrota</i> , 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	<i>strepera</i> , NW Europe (br)
Teal	2,100	450	5,000	NW Europe (non-br)
Mallard	6,800	380	**20,000	<i>platyrhynchos</i> , 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	3,000	NE & NW Europe (non-br)
Tufted Duck	1,100	370	12,000	NW Europe (non-br)
Scaup	52	*45	3,100	<i>manila</i> , W Europe (non-br)
Eider	550	*30	10,300	<i>mollissima</i> , NW Europe ¹
Eider: <i>Shetland</i>	55	+	85	<i>faeroensis</i> , NW Europe ¹
Long-tailed Duck	110	+	16,000	W Siberia, N Europe (br)
Common Scoter	1,000	230	5,500	<i>nigra</i>
Velvet Scoter	*25	+	4,500	<i>fusca</i> , Baltic, W Europe (non-br)
Goldeneye	200	95	11,400	<i>clangula</i> , 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	<i>merganser</i> , NW Europe ²
Red-throated Diver	170	*20	2,600	NW Europe (non-br)
Black-throated Diver	*6	*1	3,500	<i>arctica</i>
Great Northern Diver	*25	?	50	NW Europe (non-br)
Little Grebe	160	25	3,900	<i>ruficollis</i>
Great Crested Grebe	190	50	3,500	<i>cristatus</i>
Red-necked Grebe	*1	?	500	<i>griseogena</i> , NW Europe (non-br)
Slavonian Grebe	*11	?	55	<i>auritus</i> , NW Europe (large billed)
Black-necked Grebe	*1	?	2,100	<i>nigricollis</i> , Europe, N Africa
Cormorant	350	140	1,200	<i>carbo</i> , NW Europe
Shag	1,100	?	2,000	<i>aristotelis</i>
Little Egret	45	?	1,300	<i>garzetta</i> , W Europe, NW Africa
Grey Heron	610	30	2,700	<i>cinerea</i> , W Europe, NW Africa (br)
Moorhen	3,200	?	**20,000	<i>chloropus</i> , Europe, N Africa (br)
Coot	1,800	330	17,500	<i>atra</i> , NW Europe (non-br)
Oystercatcher	3,200	680	8,200	<i>ostralegus</i> , Europe, NW Africa
Avocet	75	+	730	W Europe (br)
Ringed Plover	340	150	730	<i>hiaticula</i> , Europe & N Africa (non-br)
Golden Plover	4,000	1,700	9,300	<i>altifrons</i> , 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	<i>islandica</i>
Sanderling	160	65	1,200	E Atlantic, W & S Africa (non-br)
Purple Sandpiper	130	*35	710	<i>maritima</i> , E Atlantic
Dunlin	3,500	880	13,300	<i>alpina</i> , W Europe (non-br) ⁴
Ruff	*8	+	12,200	W Africa (non-br)
Jack Snipe	1,000	250	20,000	NE Europe (br)
Snipe	10,000	?	**20,000	<i>gallinago</i> , Europe (br)
Woodcock	14,000	?	**20,000	Europe (br)
Black-tailed Godwit	430	140	610	<i>islandica</i>
Bar-tailed Godwit	380	160	1,200	<i>lapponica</i>
Whimbrel	*1	+	6,700	<i>islandicus</i>
Curlew	1,400	550	8,400	<i>arquata</i>
Spotted Redshank	*1	+	850	Europe (br)
Redshank	1,200	310	2,400	<i>robusta</i> ⁵
Greenshank	*6	*20	2,300	Europe (br)
Green Sandpiper	*9	?	15,500	Europe (br)
Common Sandpiper	*1	?	17,300	N, W & C Europe (br)
Turnstone	480	120	1,400	<i>interpres</i> , NE Canada, Greenland (br)

Table A1. continued

	Great Britain	all-Ireland	International	Subspecies/Population
Little Gull	?	?	1,100	N, C & E Europe (br)
Black-headed Gull	22,000	?	**20,000	N & C Europe (br)
Common Gull	7,000	?	16,400	<i>canus</i>
Lesser Black-backed Gull	1,200	?	5,500	<i>graellsii</i>
Herring Gull	7,300	?	10,200	<i>argenteus</i> ⁶
Great Black-backed Gull	760	?	4,200	NE Atlantic
Kittiwake	?	?	**20,000	<i>tridactyla</i> , E Atlantic (br)
Sandwich Tern	?	?	1,700	<i>sandvicensis</i> , W Europe (br)
Common Tern	?	?	1,800	<i>hirundo</i> , S, W Europe (br)
Little Tern	?	?	190	<i>albifrons</i> , W Europe (br)
Black Tern	?	?	7,500	<i>niger</i>

? 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 are now treated as such by Wetlands International (2012).
- 2 Wetlands International (2012) considers Goosanders breeding in Scotland, northern England and Wales to be a discrete population. However, a review of available data by DEFRA's SPA and Ramsar Scientific Working Group found limited evidence to support this conclusion, 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 (2012) 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 (2012) overlap in the UK in winter: *totanus* E Atlantic (non-br), *robusta* and *britannica*. 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 *britannica*) 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 mentioned in the Principal Sites table (Table 6.). Sites are listed alphabetically with details of the central Ordnance Survey 1-km square. Numbers following Principal Core Count sites refer to the sites' location in Figure A1. Details of all WeBS sites 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	Kilconquhar Loch	NO4801	42	Ouse Washes	TL5394 93
Alde Complex	TM4257	104	Lake of Menteith	NN5700	49	Outer Ards Shoreline	IJ6660 76
Alt Estuary	SD2903	85	Langstone Harbour	SU6902	123	Outer Loch Indaal	NR2353 54
Arun Valley	TQ0314	120	Lavan Sands	SH6474	142	Pagham Harbour	SZ8796 121
Baleshare	NF7862	18	Lee Valley GPs	TL3807	102	Pegwell Bay	TR3561 116
Balnakeil Bay	NC3869	9	Lindisfarne	NU1041	62	Pitsford Reservoir	SP7870 100
Balranald Nat. Res.	NF7169	15	Loch An Eilein	NL9843	22	Poole Harbour	SY9988 130
Beaulieu Estuary	SZ4297	126	Loch Bee	NF7743	17	Portsmouth Harbour	SU6204 124
Belfast Lough	IJ3983	73	Loch Bhasapoll	NL9746	21	R Clyde: Carstairs to	NS9841
Blackwater Estuary	TL9307	110	Loch Eye	NH8379	30	Thankerton	57
Breydon Water & Berney Marshes	TG4706	99	Loch Fleet Complex	NH7896	27	Ribble Estuary	SD3825 87
Broubster Leans	ND0361	10	Loch Gorm	NH9718	36	R.Avon: Fordingbr'-	SU1410
Burry Inlet	SS5096	138	Loch Gruinart Floods	NR2365	55	Ringwood	128
Cameron Reservoir	NO4611	40	Loch Hempriggs	NR2766	56	R.Avon: Ringwood-	SZ1499
Carlingford Lough	IJ1814	77	Loch Ken	ND3447	12	Christchurch	129
Carmarthen Bay	SN2501	139	Loch Leven	NX6672	64	R.Nith: Keltonbank -	NX9774
Carsebreck and Rhynd Lochs	NN8609	45	Loch Lomond	NO1501	43	Nunholm	67
Chew Valley Lake	ST5659	135	Loch Paible	NS3599	51	R.Tay: Haughs of	NO1339
Chichester Harbour	SU7700	122	Loch Riaghain	NF7168	14	Kercock	44
Cleddau Estuary	SN0005	140	Loch Sandary	NM0347	23	Rutland Water	SK9307 91
Colne Estuary	TM0614	109	Loch Scarmclate	NF7368	16	Rye Harbour and	TQ9418
Cotswold Water Park (West)	SU0595	136	Loch Slapin	ND1859	11	Pett Level	117
Cromarty Firth	NH7771	26	Loch Spynie	NG5516	19	Severn Estuary	ST5084 137
Crouch-Roach Est.	TQ9895	105	Loch Tullybelton	NJ2366	31	Slains Lochs (Meikle, Sand & Cotehill)	NK0230 33
Dalreoch	NN9917	46	Loch a' Phuill	NO0034	47	Solway Estuary	NY1060 69
Deben Estuary	TM2942	106	Loch of Boardhouse	NL9541	20	Somerset Levels	ST4137 134
Dee Estuary	SJ2675	89	Loch of Harray	HY2625	4	Southampton Water	SU4507 125
Dee Flood Meadows	SJ4059	90	Loch of Hundland	HY2915	7	St Benet's Levels	TG3815 97
Dengie Flats	TM0302	112	Loch of Lintrathen	HY2926	3	Stour Estuary	TM1732 108
Dornoch Firth	NH7384	29	Loch of Skail	NO2754	38	Strangford Lough	IJ5460 74
Duddon Estuary	SD2081	80	Loch of Skene	HY2418	5	Swale Estuary	TQ9765 115
Dungeness GPs	TR0619	119	Loch of Stenness	NJ7807	35	Taw-Torridge Est.	SS4731 133
Dyfi Estuary	SN6394	141	Loch of Strathbeg	HY2813	8	Tay Estuary	NO4828 41
Eden Estuary	NO4619	39	Loch of Swannay	NK0660	32	Tees Estuary	NZ5528 70
Exe Estuary	SX9883	132	Lough Foyle	HY3128	2	Thames Estuary	TQ7880 113
Fleet and Wey	SY6976	131	Loughs Neagh & Beg	IC5925	71	The Wash	TF5540 94
Forth Estuary	NT2080	48	Lower Derwent Ings	IJ0475	72	Traigh Luskentyre	NG0599 13
Gadloch	NS6471	52	Lower Lough Erne	SE6939	82	Tring Reservoirs	SP9113 101
Hamford Water	TM2225	103	Lower Teviot Valley	IH0960	79	Tweed Estuary	NU0052 60
Hickling Broad	TG4221	96	Medway Estuary	NT6725	58	Upper Lough Erne	IH3131 78
Holburn Moss	NU0536	61	Middle Yare Marshes	TQ8471	114	Upper Quoile River	IJ4745 75
Hornsea Mere	TA1846	83	Mersey Estuary	NX9255	66	Walland Marsh	TQ9923 118
Hule Moss	NT7149	59	Milldam & Balfour Mains Pools	SJ4578	88	Wigtown Bay	NX4456 63
Humber Estuary	TA2020	84	Moine Mhor & Add Estuary	TG3504	98	WWT Caerlaverock	NY0565 68
Inner Firth of Clyde	NS3576	50	Montrose Basin	HY4817	6	WWT Martin Mere	SD4214 86
Inner Moray and Invermess Firth	NH6752	28	Morecambe Bay	NR8293	53	Ythan Estuary	NK0026 34
Island of Egilsay	HY4831	1	Nene Washes	NO7057	37		
Isle of Coll	NM2055	24	North Norfolk Coast	SD4070	81		
Kentra Moss and Lower Loch Shiel	NM7168	25	North West Solent	TF3300	92		
			Orchardton and Auchencaim Bays	TF8546	95		
			Orwell Estuary	SZ3395	127		
				NX8151	65		
				TM2238	107		

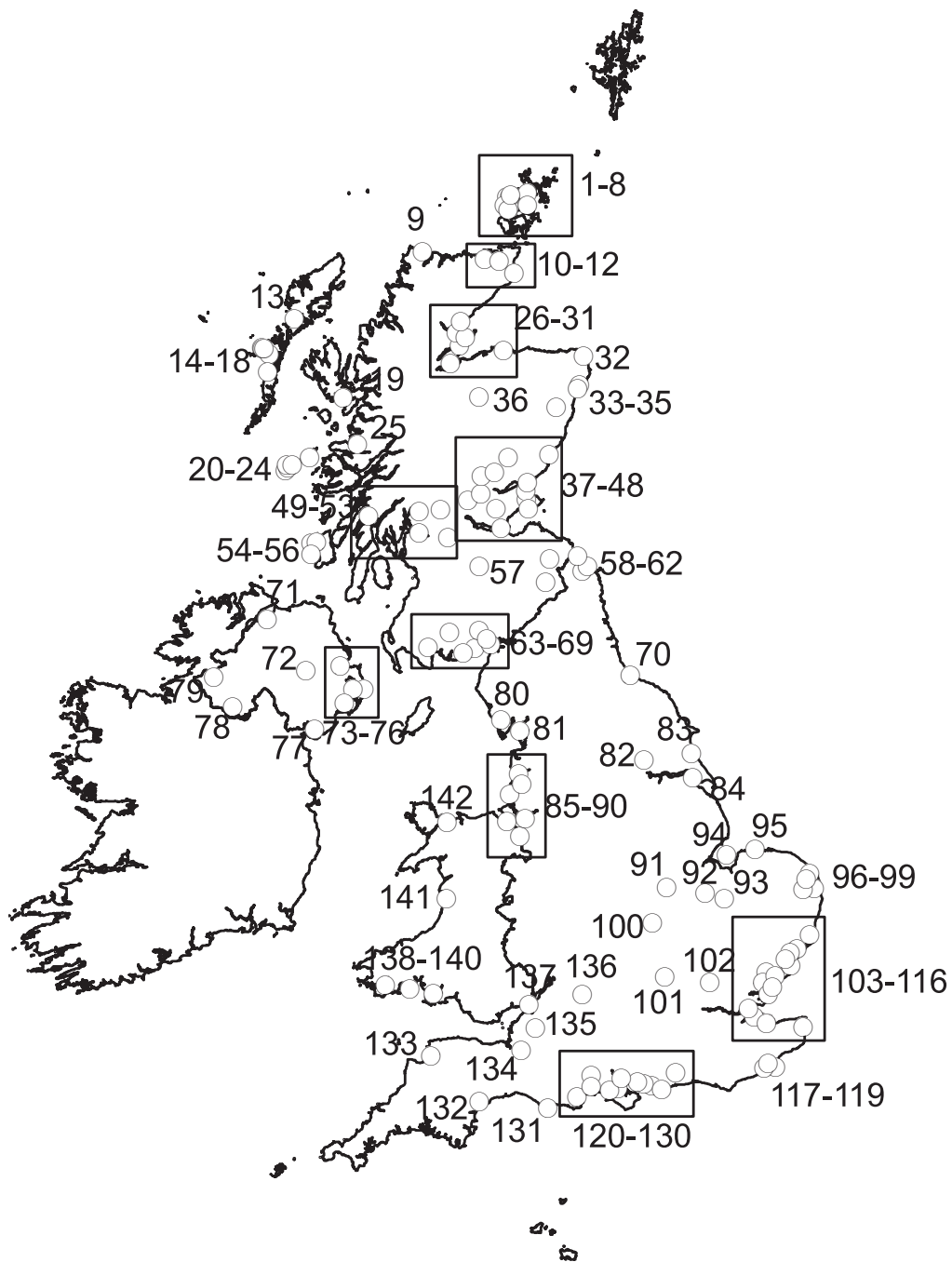


Figure A1. Locations of Core WeBS sites supporting more than 10,000 waterbirds or which support internationally important numbers of one or more waterbird species (see *PRINCIPAL SITES*). Numbers refer to sites listed in Table A2.

