

BREEDING BIRDS ON WATERWAYS

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WBS and WBBS observers returned keenly to their survey stretches in 2002, after many had been denied access in 2001 through Foot and Mouth Disease. Coverage was increased with the help of many new volunteers. *John Marchant* and *Rachel Coombes* report on the 2002 season.

AVES REPRODUCTORAS EN CURSOS ACUÁTICOS

Observadores del WBS y el WBBS regresaron a sus áreas de conteo en 2002 después de que en 2001 se les denegara el acceso a muchos de ellos debido a la fiebre aftosa. La cobertura fue ampliada gracias a la ayuda de numerosos voluntarios. *John Marchant* y *Rachel Coombes* informan sobre la temporada de 2002.

Riverbanks and canal towpaths are, in general, pleasant places to be, and popular with walkers. For many BTO volunteers, however, a waterside walk is more than just exercise! These are special places for birds, too, holding several species that are scarce elsewhere in the countryside, and this is recognised in two BTO schemes that count breeding birds along linear waterways: the Waterways Bird Survey (WBS) and the Waterways Breeding Bird Survey (WBBS).

These surveys have a dual function. First, they contribute to population monitoring, especially for specialist birds of waterways, including Kingfisher, Goosander, Dipper, Common Sandpiper, Little Grebe, Sand Martin, Grey Wagtail, Mute Swan and Reed Warbler. For these species, the targeted surveys of WBS and WBBS provide more data, and therefore a greater precision of monitoring, than is possible through the BTO/JNCC/RSPB Breeding Bird Survey (BBS). Waterside walks by BTO volunteers feed data directly into various monitoring and conservation processes,

including the government's Quality of Life indicators, assessments of conservation priorities by non-governmental organisations, and the Breeding Birds in the Wider Countryside report on the BTO web site (www.bto.org/birdtrends). Second, the mapping method of WBS, and especially the 500-m transects of WBBS, also provide data that help to describe each species' use of habitat along the waterway, allowing the relevant managing authorities to identify the habitat features that are of special value to birds. Studies are under way that investigate the links between the Environment Agency's River Habitat Survey (RHS) and bird data collected along the same 500-m sections. Here, we concentrate on population monitoring, and especially on what was learnt from the WBS results for 2002.

WHY TWO SURVEYS?

WBS has a 30-year history of providing monitoring data from linear waters for around

20 species of waterside bird. With just a few species to look out for, and with almost any stretch of river or canal exceeding 3 km suitable for inclusion, it is among the easiest and most accessible of BTO surveys, and has been popular with observers for three decades.

Back in 1996, when BBS had already had two successful seasons, we identified the advantages that a waterways version of BBS would bring. Specifically, these include random selection of sites, to ensure the results can be applied to UK waterways as a whole, a simpler survey method requiring just two visits instead of nine, allowing more observers to get involved, and the 500-m recording unit, matching the Environment Agency’s River Habitat Survey (RHS). Support from the Agency and from some of the water companies enabled the launch of WBBS in 1998, and has funded its continued growth and development.

In the long term, we hope that WBS can be replaced by WBBS’s quicker and easier transect counts and random samples, but this will only occur after a sufficiently long overlap period, during which the monitoring results of WBS and WBBS can be compared and calibrated. For now, however, it is essential that WBS operates strongly.

Part of the work in progress is a direct comparison of the WBS and WBBS methods, in which WBS observers conduct both surveys in parallel on the same site. This comparison is especially important, because it eliminates observer and site effects. Differences in the trends can, in these cases, be attributed directly to the survey method. WBBS thus has WBS-related as well as randomly chosen survey sites.

SURVEY COVERAGE

After 98 WBS mapping surveys in 2000, just 24 were conducted in 2001, the year in which the movement restrictions applied to counter Foot and Mouth Disease (FMD) denied many BTO fieldworkers the necessary access to their study sites. The total so far for 2002 is 89, although a few late surveys might still arrive. We are very grateful to all observers for continuing or renewing their support for WBS, and thus restoring coverage almost to its former level.

If WBBS is to take on a monitoring role for waterways birds, we need to significantly

increase the number of randomly-chosen sites covered. We were delighted, then, with the new peak of 225 stretches surveyed in 2002 (Figure 1). We hope that we can build on this over the 2003 and 2004 breeding seasons, as illustrated speculatively in the graph. Already, at the time of writing, 181 WBBS returns for 2003 have been received at HQ, about three-quarters of the expected final total, including 137 of the random sites. Of these 137, no fewer than 40 were stretches covered for the first time. These figures lend encouragement that the 2003 total will exceed that for 2002.

POPULATION CHANGE IN 2002

The authoritative data on population change along waterways, for waterbirds at least, still comes from the mapping survey (WBS). An obvious problem with assessing the 2002 results, for both surveys, is that we have so little data from 2001 for comparison. For this reason, we compare WBS territory totals for 2002 with those on the same plots in 2000 (Table 1).

Greylag Goose and Yellow Wagtail are excluded from the table because of small sample sizes, but both continued their steep trends on WBS plots – in contrasting directions. The number of Greylag Goose territories rose from 49

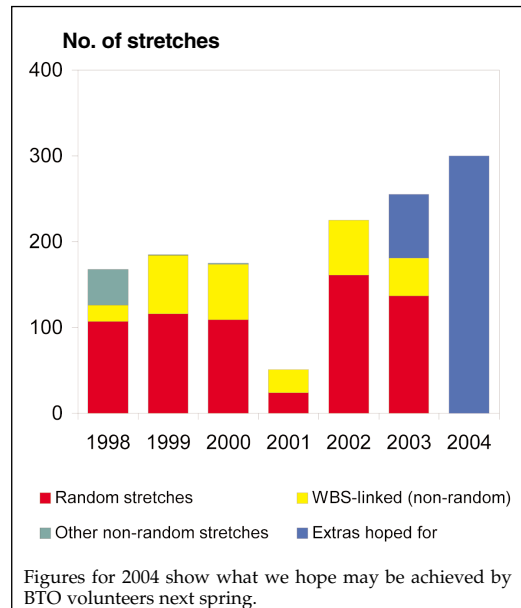


FIGURE 1. Numbers of WBBS stretches covered each year.

TABLE 1. Estimates of population change 2000–02, from WBS data.

Species	Territory totals		% change	lcl	ucl	Number of plots
	2000	2002				
<i>Mute Swan</i>	84	82	-2	-19	+19	44
Canada Goose	178	147	-17	-37	+19	31
Mallard	1723	1781	+3	-4	+12	71
Tufted Duck	51	61	+20	-20	+90	18
Goosander	71	62	-13	-29	+10	26
Moorhen	532	482	-9 *	-18	0	60
Coot	230	174	-24 *	-40	-7	35
<i>Oystercatcher</i>	217	239	+10	-11	+18	22
<i>Lapwing</i>	150	173	+15	-11	+53	35
<i>Curlew</i>	49	51	+4	-20	+41	17
Common Sandpiper	100	96	-4	-17	+10	18
<i>Kingfisher</i>	47	55	+17	-8	+52	42
<i>Sand Martin</i>	2521	1843	-27	-54	+5	22
Dipper	84	76	-10	-19	+5	28
Reed Warbler	229	197	-14	-28	+8	22
Sedge Warbler	294	244	-17 *	-31	-4	39
Whitethroat	213	228	+7	-9	+26	48
Pied Wagtail	161	157	-2	-17	+15	53
<i>Grey Wagtail</i>	136	142	+4	-10	+21	45
Reed Bunting	176	191	+9	-10	+27	43

lcl and ucl = 95% lower and upper confidence limits; * = significant change

Data for red-listed species are given in bold, and for amber-listed species in italics.

Note: WBS plots included are those that were surveyed in both 2000 and 2002, and the territory totals are the numbers of territories found in these paired surveys. Species with fewer than 15 plots contributing data are excluded.

to 105, on 11 WBS plots, a measure of the continuing steep rise in the introduced population, especially in southern England. Just nine plots contributed to the Yellow Wagtail index and, on these, numbers fell from 19 territories in 2000 to just 9 in 2002. This compounds a devastating fall of 84% in this species on WBS plots between 1974 and 1999. This species, now amber-listed, is clearly a bird to be cherished along those few waterways where it still occurs as a breeding bird.

Numbers of Mute Swan, Oystercatcher, Mallard and Canada Goose have all increased greatly on WBS plots since 1974, but their fortunes between 2000 and 2002 were mixed. The latter two species have large introduced populations that benefit from widespread artificial food-provision, and further increases may in some cases be to the detriment of other wildlife.

Common Sandpiper, Grey Wagtail, Pied Wagtail and Reed Bunting have all declined significantly on WBS plots since the mid 1970s.

None of these species has changed much since 2000, although an increase of 9% in Reed Buntings is welcome and returns the population index along waterways to the levels of the mid 1990s. Trends for Sand Martin, Reed and Sedge Warblers, and Whitethroat have tended to be linked over the years and to have shown correspondence with the amount of rainfall in the areas of West Africa where these species winter. July to October saw much less rain than normal in Senegal and Mali in both 2000 and 2001 (<http://vf-tropi.com>), and this may have reduced overwinter survival of British-breeding Sand Martins and Acrocephalus warblers during 2000–02 (whereas 1998 and 1999 had been relatively wet autumns in the western Sahel).

Along with Sedge Warbler, Moorhen and Coot both decreased significantly, although for Moorhen the change was quite small. These two species have both shown shallow increases during the 1990s. It remains to be seen whether the decreases recorded here mark a reversal of these trends.

2004 AND BEYOND

Over the next breeding seasons, both WBS and WBBS will need vigorous support and a strong annual intake of new sites, so that the overlap period between these two surveys can be consolidated. We are very keen to receive offers of help with WBS mapping. These could be at any site where access is available for a linear walk along at least 3 km of river or canal. Please contact us for details of how to start.

For WBBS, one of our tasks is to double, by 2004, the number of stretches covered by the scheme in 2000. We recognise, however, that reaching this target will require a lot of good will from potential observers and much effort from the BTO's Regional Representatives (RRs) in matching observers to the available sites. Many, but not all, of the random WBBS sites that still need an observer are rather remote but nonetheless, often prime birdwatching habitat (see Figure 2). If there is one in your area that you would like to know more about, please contact your RR, or John Marchant at BTO HQ.

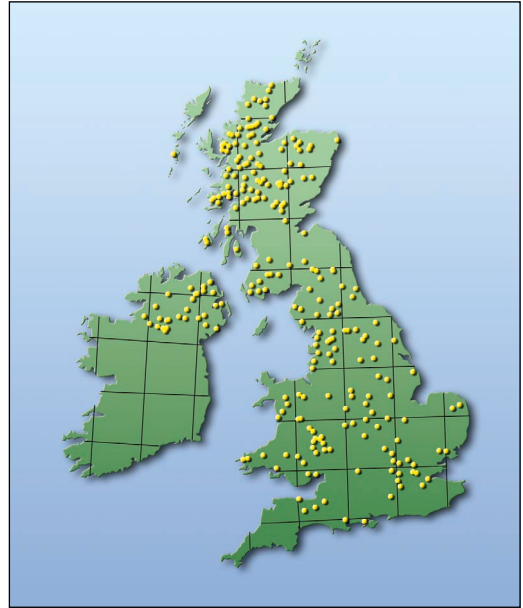


FIGURE 2. Random WBBS site still in need of an observer

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