GWCT/BTO Breeding Woodcock Survey 2021

The survey

The GWCT/BTO Breeding Woodcock Survey, which began in 2003, introduced a national scheme of dusk 'roding counts' to assess the woodcock's status as a breeding bird in Britain. The survey was repeated in 2013 and is set to be repeated again in 2023. These big national counts provide the most reliable estimates of population change because they are based on a very large random sample of sites, but they only measure change on a ten-year basis. Annual woodcock surveys are conducted at a subsample of sites to provide a measure of shorter-term change. This provides a broader context to the ten-yearly surveys, which is particularly important because roding count results can show a high-degree of annual variation.

The sample

The annual counts typically cover around 150 sites per year (compared to around 800 sites per year in the 2003 and 2013 BWSs). These are mostly the continuation of sites first visited in the 2003 or 2013 survey, but some are 'self-selected'. We know the sample has some biases, as observers are understandably more likely to repeatedly visit their chosen site if woodcock are present, but it still provides a very useful indication of change among these more favourable sites.

In 2021, survey coverage was high; data were submitted for 215 sites. Outside of the 2003/2013 BWSs, this was only surpassed by 2018 (217 sites). Sites do not need to be surveyed every single year but do need to be visited in more than one year to provide a useful indication of change. This is why not every site can be included in the analysis straightaway. But as more and more sites receive their first repeat visit, the sample size for previous years increases too. The greyed-out table shows the totals as they stood in 2020. The 2021 sample included visits to several sites that had previously only been visited once and this repetition has therefore boosted our samples for previous years. This has been improved further by the inclusion of 20 late submissions, that were entered after the usual deadline. All data, however old, is of value so we encourage any other observers with unentered historic data to get in touch.

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
submitted	898	55	34	23	26	26	25	25	23	14
included	624	51	32	22	26	26	25	25	23	14
	2013	2014	2015	2016	2017	2018	2019	2020		
submitted	929	153	61	157	164	217	162	122		
included	645	143	61	144	164	203	162	116		

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
submitted	898	55	34	23	26	26	25	25	23	15

included	**646**	51	32	22	26	26	25	25	23	**15**
	2013	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	
submitted	934	159	62	158	164	217	164	126	215	
included	**661**	**152**	**62**	**147**	164	203	**164**	**122**	**197**	

The results

Our estimate of relative abundance in the summer of 2020 was lower than most previous years and we observed a sharp decline from the 2019 value. We were unsure at the time whether this change was a real decline in woodcock numbers or a symptom of the slightly strange sample in 2020; when the pandemic meant that some surveyors were forced to start their surveys later than usual and others were unable to survey at all owing to access restrictions.

The 2021 results appear to shed some light here. The 2021 index was lower than all other indices for the period 2013-2019, but higher than 2020. This gives the impression that the population did genuinely decline between 2019 and 2020 but is hopefully in the process of recovering from a bad year. Roding activity is indicative of breeding success and survival in the preceding breeding seasons and winters. The 2019/20 winter was mild and unlikely to have caused high levels of overwinter mortality. But the summer of 2019 was unusually hot and dry, which may have led to poor juvenile survival if it significantly reduced the availability of the woodcock's soil-dwelling invertebrate prey. It is somewhat reassuring to see this downward trend has not continued.

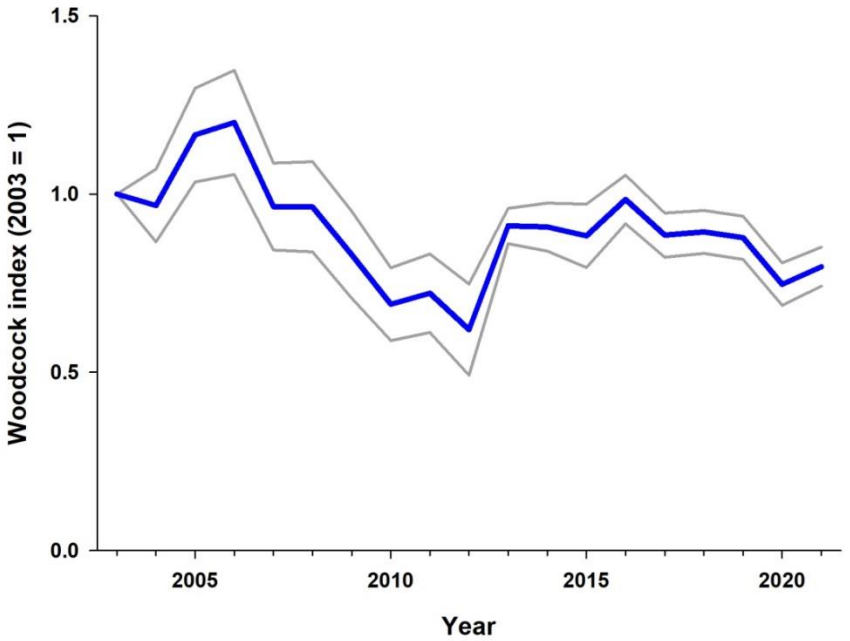

Fig 1 - Woodcock annual abundance index change (blue line) with upper and lower 95% confidence intervals (grey lines), based on counts of roding males.

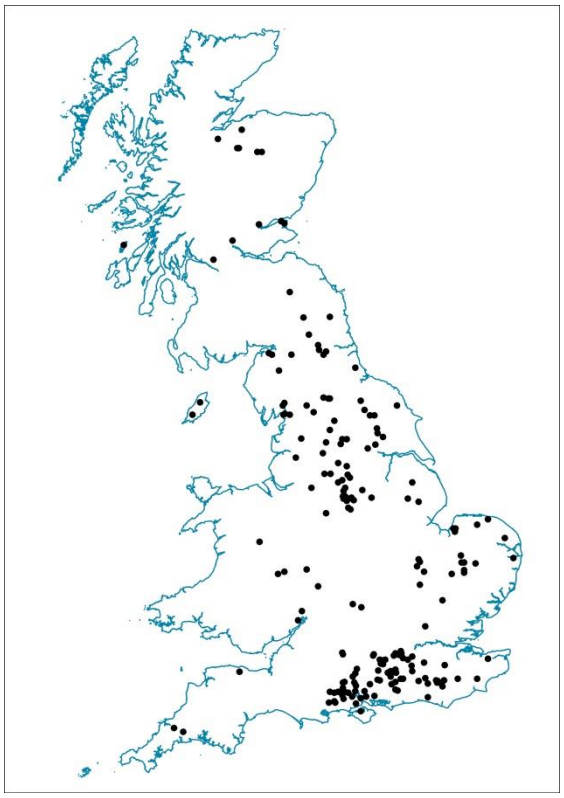

Fig. 2 – Map of annual count sites visited in 2021.