The annual monitoring aims to cover as many sites as possible, either each year or periodically, so it does not survey exactly the same sample of sites every year. We intend to re-survey as many sites as possible from the list of over 800 sites visited during the national GWCT/BTO Breeding Woodcock Surveys of 2003 and 2013. At many sites, this means that annual visits *are* made -which is ideal - but the exact sample changes from one year to the next.

In terms of coverage and continuation, 2018 was a successful year. Surveys were conducted at 224 randomly-selected 1-km squares; the best turn-out since the national survey of 2013. Most importantly, 189 of these sites had been surveyed in at least one previous year, providing a large sample of repeat visits with which we can measure population trend. Many of these sites have been visited each year since the big national survey of 2013, but some have been surveyed almost continuously since the first comprehensive survey of 2003.

The 2018 results (Figure 1) suggest that woodcock abundance, as a whole, remained at a level similar to that observed in 2017. On average, woodcock registrations stand at about 79% of those recorded in our initial 'index' year of 2003. We calculate this using a generalised linear model (GLM) which accounts for the fact that the sample of sites changes.

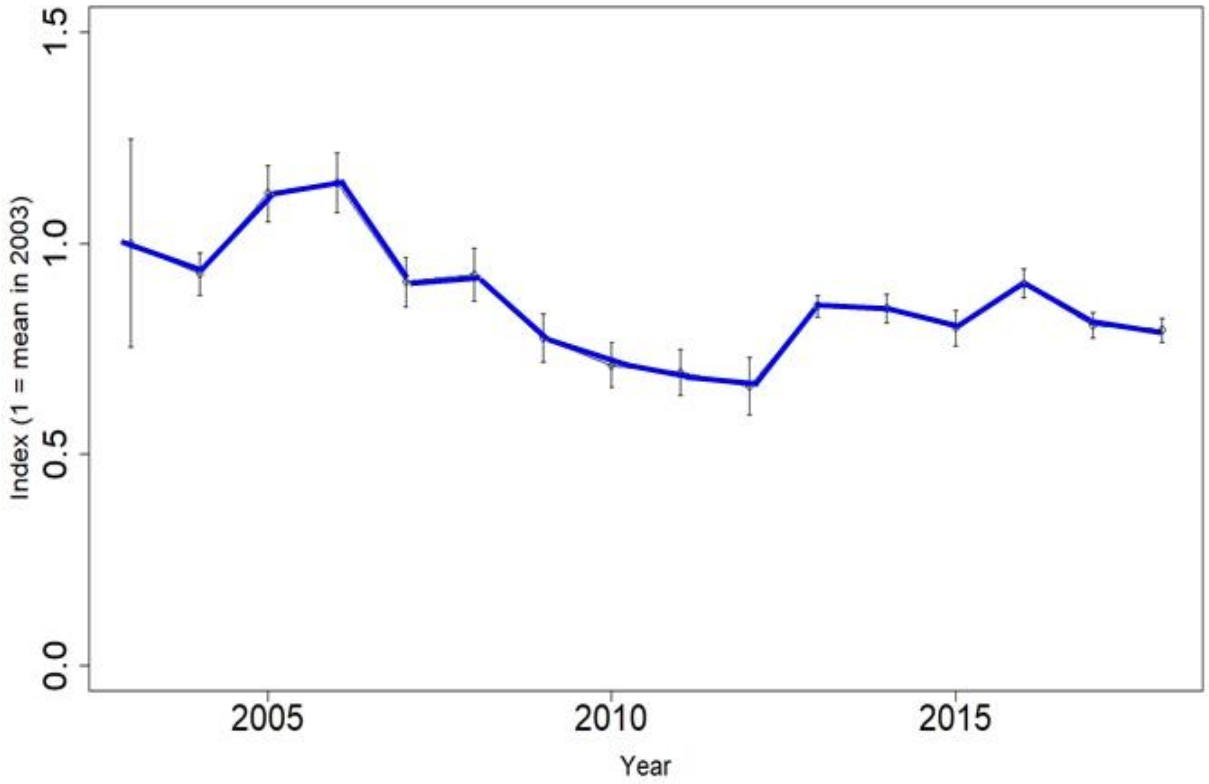

Figure 1. Current roding Woodcock abundance trend up to 2018, using all sites where at least two annual surveys have been undertaken since 2003.

Unfortunately, the sharp increase in the number woodcock observed in 2016 has not been sustained. Particularly high counts in 2016 might have been the product of good spring weather, meaning a larger proportion of visits were made in ideal conditions when display activity is at its peak.

Annual count data have allowed us to analyse the influence of weather: even relatively subtle changes in temperature and cloud cover can affect woodcock display behaviour during the survey period. This has reiterated the value of multiple visits to the same site. Each survey site should be visited three times per year to maximise the chance that at least one count occurs during ideal weather conditions. It is the maximum count we use in our calculations.

There are some slight differences between the current trend graph and previous incarnations (Figure 2). Previously, each new year's results were added to an existing dataset featuring sites that have been visisted on-and-off since 2003. With a growing list of sites surveyed since 2013, but not before, it was decided to expand the dataset so that these newer sites could also contribute to trend assessments. Now we use a system that automatically draws data from any site that has received 2 or more visits at any time during the sixteen-year period. The inclusion of these new sites appears to have raised the averages for 2013. Going forward, it would be extremely helpful to target some effort towards revisiting sites surveyed prior to 2013 that have not been visited since, to ensure continuity of these longer-term records.

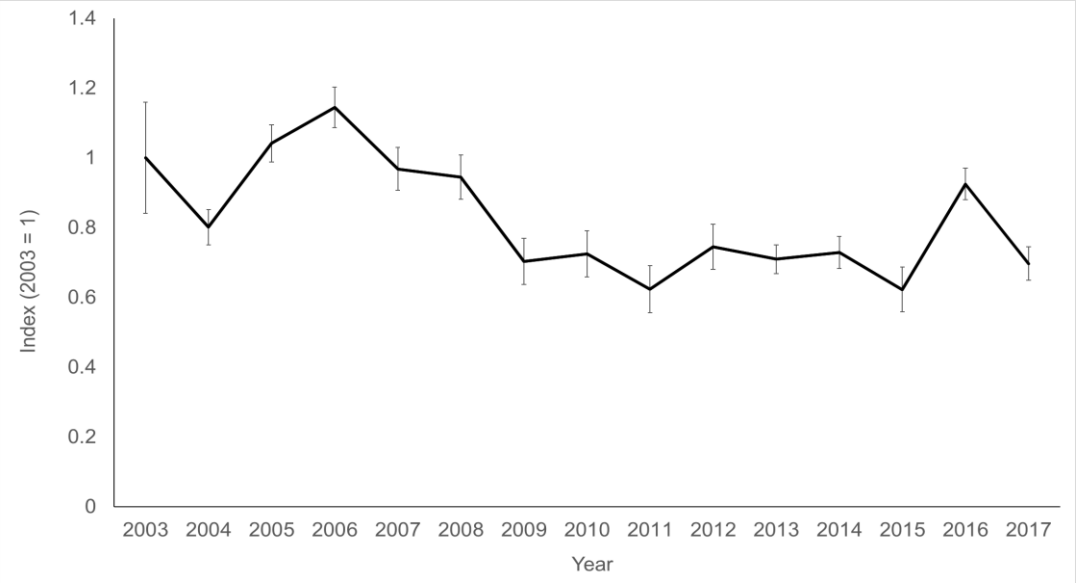

Figure 2. Pre-2018 roding Woodcock abundance trend using only pre-2013 sites with multiple years.

We are grateful to the surveyors that have conducted roding woodcock counts, particularly given the excellent coverage last year. We would be very grateful if you could continue to survey your site(s) in 2019 and future years.

If you would like to take on another site or know someone who might be interested, please visit the Woodcock Survey page (www.bto.org/volunteer-surveys/woodcock-survey) for details of available sites.

We would be particularly interested in re-surveying these older pre-2013 sites:

1-km	BTORegion	1-km	BTORegion	1-km	BTORegion
NO3898	KINC	SD9846	YKBR	SU9572	BERK
NZ3409	YKRH	SU3636	HAMP	TG1035	NKNE
SD5050	MANC	SU8529	SUSS	TL2283	HUNT
SD5470	LANN	SU9569	SURR	TQ8336	KENT

Greg Conway (BTO) & Chris Heward (GWCT)

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