

BIGGER, BETTER, MORE CONNECTED

Daria Dadam, Greg Conway and Gavin Siriwardena explain the first findings of the English Farm Woodland Bird Survey.

Competing needs for land mean that optimising its use for conservation objectives is essential. In Professor Sir John Lawton's influential 2010 review on how nature in England could thrive in the face of climate change and other pressures, one recommendation was for 'more, bigger, better and more connected' habitats. One way to achieve this is to create new woodland, which is an aim of current agri-environment schemes, but was also central to the Farm Woodland Scheme, introduced in 1988, and the Farm Woodland Premium Scheme, which started in 1992. Under these two schemes, woodland was planted on agricultural land. These patches have since developed into young woodland and scrubland, meaning their importance for birds (woodland species in particular) can now be assessed.

To do this, we ran the English Farm Woodland Bird Survey last year. 749 of these new woodlands, ranging from 1–60 ha in size (average 4.5 ha) were covered thanks to the fantastic help of 228 volunteers, and the support of over 300 landowners who allowed the survey to take place on their land. We asked surveyors to visit each patch four times between March and July 2019, mapping all the birds they saw and heard. Participants also completed a quick habitat survey to collect data on woodland structure and key habitat characteristics. Overall, 100 bird species were recorded and there were enough data to run analyses for 43 species, including 13 woodland specialists.

WOODLAND SPECIALISTS

We found some very encouraging results, for example the preference for older woodland patches by mature woodland specialists such as Goldcrest, Great Spotted Woodpecker, Nuthatch and Treecreeper, but also by Coal Tit. Most woodlands, however, were not mature, but rather in a stage between that and a newly planted, open canopy. Most species did not show an affinity for this intermediate stage of woodland development, including species that favour more open habitats, such as Willow Warbler, and mature-woodland specialists.

Whilst the developmental stage of the woodland is certainly important, the ground vegetation, or understorey, also emerged as a key characteristic for several species. Undeveloped understorey, characterised by bare ground or herbaceous vegetation, was associated with fewer individuals of species that either nest or feed in denser, shrub undergrowth, such as Blackcap, Chiffchaff and Marsh Tit. The latter, in particular, also showed a preference for understorey with shrubs, as expected as the species is known to spend most of its time foraging at this level.

NON-SPECIALIST SPECIES

Open-habitat species, such as Goldfinch, Linnet, Whitethroat and Yellowhammer, were more common in the early successional woodland – or woodland that had established less well. Blue Tit and Woodpigeon were the only two species that showed higher abundances in intermediate stages of woodland development, with a closed canopy, but little understorey. The same two species were also the only ones to show an affinity for herbaceous understorey, showing their generalist ecology or adaptability.

Planting new woodland on agricultural land can be beneficial for many species, including, crucially, woodland specialists

The presence of game feeders was, unsurprisingly, associated with higher numbers of Red-legged Partridge, but also with more of seed-eating species that may benefit directly from the food available, such as Woodpigeon and Yellowhammer, and scavengers like Carrion Crow, Buzzard, and Red Kite.

This project showed that planting new woodland on agricultural land can be beneficial for many species, including, crucially, woodland specialists. There is, inevitably, a long time-lag before new woods attract key specialists, but it is encouraging that these habitats seem to benefit Red-listed species, including Willow Warbler at the open-canopy stage and Marsh Tit at the other end of woodland maturation. ■

Credits

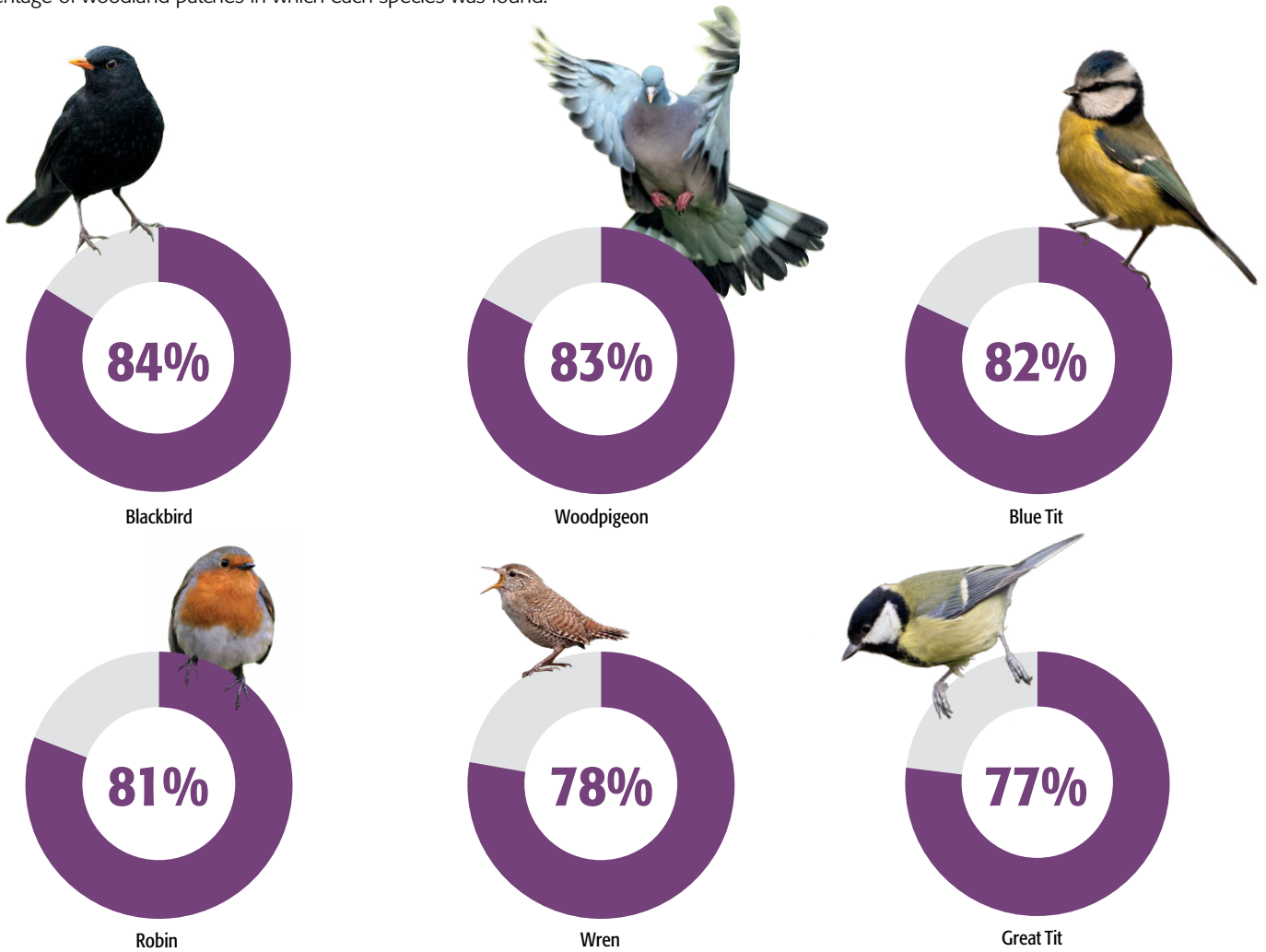
This project could not have been done without the help of our fantastic volunteers, who donated in excess of 2,600 hours of their time to this project. We are extremely grateful to all of them for their contribution! Thank you also to the landowners who gave permission for the survey to take place. We would like to thank Forestry Commission and Defra as well for funding, and in particular Neil Riddle, Frances Fewster and Alice Broome for their help and input.

Find out more

Lawton, J.H. *et al.* 2010. *Making Space for Nature: a review of England's wildlife sites and ecological network*. Available at: webarchive.nationalarchives.gov.uk/20130402170324/http://archive.defra.gov.uk/environment/biodiversity/documents/201009space-for-nature.pdf

Most abundant species

Percentage of woodland patches in which each species was found.



Woodland plantations

Over time, planted woodland increases in both height and canopy cover. The level of understorey depends on other factors, such as deer browsing.

Young, open-canopy woodland

Less than 4 m in height

Intermediate woodland

3–12 m in height

Mature, closed-canopy woodland

At least 12 m in height



Time