WINTER VISITORS

Thousands of thrushes migrate to the UK from mainland Europe to take advantage of our relatively mild winter conditions. But precisely how many come, how they are distributed around the UK, and what they feed on whilst they are here is not well known. The Winter Thrushes Survey was designed with these questions in mind and ecologist Kathryn Ross has been delving into the data.

The survey ran over two winters (2012/13 and 2013/14), and data were collected by 1,957 BTO volunteers from more than 4,000 unique 1-km squares within the UK. Many surveyors visited their squares multiple times throughout winter, providing vital information on how the habitat usage and food preference varied through the winter months.

The survey data are being used to investigate two key questions, both still in progress:

• Determining a **population estimate**

for winter thrushes in the UK, using count data from 'core squares' that were surveyed between December 27 and January 10. The abundance data collected during this core period will give us an estimate of the total number of thrushes present in the UK at this time of year.

• Investigating between-species and geographical differences in the use of

foraging habitat and food preferences throughout the two winters, to help identify key resources and potential factors in the patterns of change observed in numbers of breeding and wintering thrushes.



FIG 1 FORAGING HABITAT PREFERENCES FOR THE FIVE WINTER THRUSH SPECIES



WHERE DO THRUSHES FEED? So far, we have found that the habitats used for foraging vary between species and throughout the winter (Fig 1). For Redwing and Fieldfare, pastoral land increases in importance as the winter progresses. Fieldfare were more reliant on pastoral land and cropped farmland than other species, and this habitat specificity was even more pronounced in the spring months. In contrast, for Song Thrush, Mistle Thrush and Blackbird (which are back on territories and starting to breed by March in the UK), use of pastoral land appears to lessen in April. Blackbird showed less variation in habitat preference throughout the survey period compared with the other species, with private gardens, woodland and amenity land remaining important throughout the winter period. The geographical variation in these habitat preferences is still being investigated.

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CONSERVATION OF THRUSHES

Breeding populations of thrushes in the UK are significantly lower than they were in the 1970s, although the trajectory of change has varied between species. Blackbird and Song Thrush numbers declined steeply throughout the 1970s and 1980s, levelled off in the mid-1990s with a period of increase between 1995 and 2005; but a downward trend has again been observed in more recent years. Mistle Thrush, on the other hand, has declined steadily since the 1970s, with no indication of levelling off. The reasons for these declines are not well understood but reduced survival of first-year birds and shifting of populations due to climate change may play a role.

While Fieldfare and Redwing are 'red listed' in the UK according to the Birds of Conservation Concern criteria, this is on the basis of changes in our very small breeding populations of these species, so it tells us nothing about the much larger European populations that breed on the Continent and visit the UK in the winter. According to the Pan-European Common Bird Monitoring Scheme (PECBMS) data, Redwing populations throughout Europe are relatively stable, but Fieldfare has suffered a moderate decline in the last two decades.

Song Thrush is on the UK red list due to its declining breeding populations, while Mistle Thrush is currently amber listed and continuing to decline. For these species, where there is considerable overlap between the UK breeding and wintering populations, changes in winter survival are likely to impact the breeding population numbers. The more informed we are about foraging habitat, food preferences, and the availability of these resources throughout the winter, the more we can do to ensure that the right sort of habitat and resources are available at the right time of year to sustain our winter thrushes.