

Science for Environment Policy

Common European birds have declined more rapidly than rarer species

The number of birds in Europe has fallen by more than 420 million between 1980 and 2009, new research has found. The study, which examined 144 bird species across 25 countries, found that 90% of the lost numbers were accounted for by common species, such as house sparrows (*Passer domesticus*). The decline was steepest in the first half of the study (1980–1994), followed by a period of greater stability in the second (1995–2009). More needs to be done to conserve common, as well as rare species, the researchers say.

Biodiversity is declining across the globe. Conservation efforts have mainly focused on the rarest species, which face the greatest threat of extinction. Far less attention has been given to declines in more common species. However, given the high number of individuals, common species can have a large effect on the structure and characteristics of ecosystems.

Birds, which play a vital role in the functioning of many ecosystems, have been the subject of intensive monitoring programmes in Europe for decades. As such, they are excellent subjects to study how populations of rare and common species have changed over time and across a wide geographic area.

In this study researchers used data from the [Pan-European Common Bird Monitoring Scheme](#) and [BirdLife International](#) to examine how the abundance and biomass of 144 bird species changed between 1980 and 2009 across 25 European countries.

Three different factors likely to affect population sizes were also examined: habitat type used by the species, body size and 'feeding guild' — the feeding preferences of a species, such as 'aerial insectivore', which describes birds that eat only flying insects.

In 1980, there were around 2.06 billion birds in total. By 2009 this number had dropped by more than 20% to 1.64 billion birds, a difference of more than 420 million. Almost 90% of the losses were from the 36 most common species. The faster decline of common species is perhaps expected, considering most efforts in conservation are directly aimed at rare species.

Total bird biomass did not drop as much as declines in abundance would suggest. In fact biomass fell by just 7.6%, from 93 081 tonnes in 1980 to 86 037 tonnes in 2009. This can be explained by the faster declines of smaller birds, compared with larger species.

A reduction in the number of smaller birds is likely to lead to a disproportionate loss of ecosystem services such as pest control or scavenging, the authors say. This could be because the consumption rate of birds is closely linked to their metabolism and smaller birds have higher metabolic rates.

Many of the common species undergoing steep declines were farmland birds. This loss is likely to be driven by [agricultural](#) intensification, the authors suggest.

The type of habitat or feeding guild did not affect the speed of population declines. The researchers suggested that declining numbers of common birds may be linked to the deteriorating quality of the environment at the wider landscape scale, rather than specific smaller habitats which tend to enjoy targeted conservation efforts to increase the abundance of rare species, yet offer little protection for more widespread species.

According to the authors, if ecosystems are to be preserved as a whole, conservation efforts aimed at rare species must be better integrated with efforts to increase overall bird numbers.



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