

# Science for Environment Policy

## How effectively does the Birds Directive protect birds?

**Special conservation measures for bird species are required in EU Member States under Annex I of the Birds Directive.** This study measured the efficacy of the Directive by comparing the population trends of these species to those of non-Annex I species. Annex I species had more positive trends in population from 1980–2012, despite extensive climate changes.

**Biodiversity is in decline in all corners of the world.** This is increasingly seen as a political problem, and a number of legislative solutions have been devised.

Despite being central to conservation efforts, the impact of such legislation is rarely quantified, often due to hard-to-measure objectives and scarce data on target species. However, there is a lot of data available on bird species in the EU, thanks to the reporting requirements of the EU Birds Directive<sup>1</sup>. Using this data, this study<sup>2</sup> assessed the Directive's ability to protect bird species in the context of climate change.

The UK-based researchers assessed whether [species listed in Annex I](#) of the Directive, for which Member States are required to implement special conservation measures, had different population trends compared to non-Annex I species.

The study assessed long-term (1980–2012) and short-term trends (2001–2012) for all breeding bird species occurring naturally in the EU27. At the same time, they evaluated the effect of climate change on these trends to determine whether the Directive could be said to have had an *independent* positive effect on population.

From a total of 5642 valid population trend records, including information on over 400 different bird species, the researchers collected data on 3789 long-term trends and 4425 short-term trends. They assessed the trends in population (controlling for the effects of habitat and migration) using a [statistical computation system](#).

Over both time periods, populations of Annex I species were better maintained than those not listed on the Annex. This effect was more pronounced in countries that had been in the EU for longer.

To account for the effects of climate change, the researchers calculated a 'climate suitability trend' (CST) for each species: a measure of the likely response of each species to climate change in each time period. A positive CST suggests the species will expand in range (and thus in population), whereas a negative trend suggests the range of the species will narrow.

These results indicate that, despite responses to changing climate, Annex I status has a strong, independent effect on population. In other words, climate change does not undermine the effectiveness of the Bird Directive.

The researchers also detected trends related to other factors in the population data. For instance, populations of long-distance migrants fared significantly worse than other Annex I species. This suggests that enhanced protection on breeding grounds may not be enough to offset the increased pressures on migration or changes to African wintering grounds, the authors say.

The authors conclude that the EU's conservation legislation has had a measurably positive impact on target bird species in addition to (and often above) known drivers of population change, such as climate change and migration strategy. More broadly speaking, the findings promote multilateral conservation agreements, which the authors say can have significant benefits for wildlife even in the face of unprecedented climate changes.

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**Contact:**  
[paul.donald@rspb.org.uk](mailto:paul.donald@rspb.org.uk)

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1. Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds: <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32009L0147>

2. This study was overseen by the Steering Committee of the European Red List of Birds project, which was funded by a contract from the European Commission to BirdLife International.

