

DEGRADATION OF NATURAL HABITATS AFFECTS THE ADJUSTMENT OF BIRDS TO CLIMATE CHANGE

Researchers from the Tour du Valat and the Centre for Ecology and Conservation Sciences (CESCO - National Museum of Natural History / CNRS / Sorbonne University) have studied the combined effects of the degradation of natural habitats and climate warming on bird populations in the Mediterranean basin. This study has just been published in the journal *Conservation Biology*.

Many converging studies show that natural habitat degradation and climate change are major threats to biodiversity, but their combined effects are poorly documented. Researchers from the Tour du Valat and CESCO have studied the interaction between these two factors on the reorganization of bird communities, particularly in wetlands, ecosystems that are extremely vulnerable to global changes. Changes in abundance of 132 species of mid-winter waterbirds (36 million individuals) were analysed using data collected in 22 Mediterranean countries in the framework of Wetlands International's participatory monitoring.

The results show that in response to an average temperature increase of 0.5°C in 20 years, bird communities adjust in sites where natural environments have been conserved, with an increase in the abundance of warm-dwelling species. On the other hand, when the transformation of natural habitats into artificial, agricultural or urban environments is greater than 5% in 15 years, the number of species declines over time and the reorganization of bird communities in response to climate warming is no longer observed. While natural wetlands in Europe have declined by 50% over the last 40 years (-30% globally), it appears necessary to protect natural habitats to facilitate the response of birds to climate warming.



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REFERENCE

Gaget E., Galewski T., Jiguet F., Guelmami A., Perennou C., Beltrame C., Le Viol I. 2020. *Antagonistic effect of natural habitat conversion on community adjustment to climate warming in non-breeding waterbirds*. *Conservation Biology*. 22 December 2019.

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Project video : vimeo.com/263480522

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