SHOWCASE
Synergies between agriculture, biodiversity and ecosystem services to help farmers capitalising on native biodiversity

REVERSING POLLINATOR DECLINE REQUIRES EXPANDING NATURAL HABITATS IN AGRICULTURAL LANDSCAPES

AUTHORS: Gabriella Bishop, David Kleijn, Matthias Albrecht, András Báldi, Ignasi Bartomeus, Simon Potts, Michiel Wallis de Vries, Jeroen Scheper, José M. Herrera, Thijs Fijen

POLICY RECOMMENDATIONS

- **Expanding natural habitat is the most effective strategy to enhance pollinators: for wild bees up to 16–18%, and butterflies up to 37%, natural habitat coverage in agricultural areas; far beyond the current EU Biodiversity Strategy target of 10%.**
- **Habitat quality is important for maximising benefits to pollinators, so restoring high-diversity habitats and strengthening incentives to increase habitat quality are key avenues for impact.**
- **To ensure the longevity of pollinator habitats and sustainably reverse pollinator declines, long-term support for farmers is key through policy instruments such as CAP measures.**

CURRENT CHALLENGE

Europe hosts an amazing diversity of pollinating insects, such as bees, butterflies, moths and hoverflies. Pollinators are essential for food production and wild plant pollination, meaning they are important for ensuring food security, wider ecosystem stability and human well-being. However, pollinator populations have dramatically declined, and agricultural expansion and intensification are key drivers of this decline [1]. The EU Nature Restoration Regulation includes a binding target to reverse the decline of pollinators by 2030, and to increase grassland butterflies in agricultural ecosystems. Until recently, it was unclear what are the most effective agri-environment and restoration measures, and how much action is required, to increase populations of pollinators. Currently, the EU Biodiversity Strategy for 2030 sets a target for 10% of agricultural land to incorporate such semi-natural landscape features.

NEW EVIDENCE

A recent study published in *Science* by participants of the international EU-funded SHOWCASE project indicates that the EU Biodiversity Strategy 10% target falls far short of what needs to be restored in agricultural ecosystems to effectively increase pollinator populations [2]. The study, which analysed data from more than 1000 agricultural landscapes across 19 countries, found that 16-18% is needed for the most effective enhancement of wild bees. For butterflies, the number was even higher, at 37%. Only hoverflies could most effectively be increased with 10% habitat coverage, as their threshold was 6%. The study also found that where habitat area falls short of these levels, the quality of that habitat must be significantly improved, for example by applying extensive management to increase the abundance and diversity of native wildflowers.

REFERENCES

1. IPBES, *The assessment report of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services on pollinators, pollination and food production. S.G. Potts, V. L. Imperatriz-Fonseca, and H. T. Ngo, (eds).* IPBES Secretariat, Bonn, Germany. 552 pages. https://doi.org/10.5281/zenodo.3402857. 2016.

2. Bishop, G.A., et al., *Critical habitat thresholds for effective pollinator conservation in agricultural landscapes*. Science, 2025. https://science.org/doi/10.1126/science.adr2146

This project receives funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 862480.