SAFEGUARD
Safeguarding European wild pollinators

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Safeguard Project

PRACTICE ABSTRACT

Landscape management can foster pollinator richness in fragmented high-value habitats

Biodiversity is in global decline, with up to two million species at risk of extinction due to habitat loss, intensive farming, pollution, and climate change. To explore solutions, we studied how landscape and farming practices affect insect diversity in calcareous grasslands of northern Bavaria.

We found that:

1. Larger grassland area correlated strongly with greater species richness of solitary bees and butterflies;
2. A 1-hectare increase in the average size of adjacent arable fields reduced bee abundance by one-third;
3. A 10% increase in organic farming of surrounding arable land led to 10% more bumblebees, as well as 20% more endangered butterflies on protected sites.

With this in mind, we conclude that:

1. Habitat size and quality are crucial for conserving pollinator diversity
2. Smaller arable fields and organic farming positively affect biodiversity in nearby nature conservation areas;
3. Planning for long-term outcomes;
4. Improving habitat quality and landscape management supports endangered species and boosts flower and nesting site abundance;
5. Urgent action is needed to slow species extinction and secure pollinator diversity in human-altered environments.

Source

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