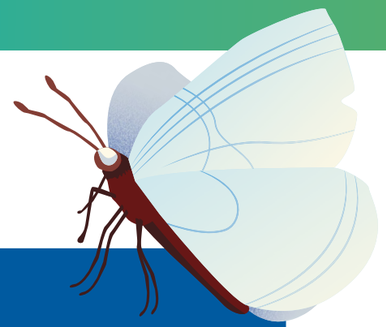
UFZ
Planetary
solutions
KNOWLEDGE THAT DELIVERS.



Profile

Grassland Butterfly Index



The challenge

Agricultural landscapes are among the most severely affected habitats in the world. Restoring them is vital to stopping biodiversity loss and preserving key ecosystem services. The EU Nature Restoration Regulation (NRR) provides a powerful framework for specific measures at the national level. But how can we assess whether these measures are successful?

The Grassland Butterfly Index highlights the progress being made in restoring grassland ecosystems.

Our planetary solution

The EU proposes three indicators to demonstrate the success of restoration measures. In Germany, at least two must show an upward trend towards a satisfactory level by 2030. In preparation for national reporting to the EU, a research team led by the UFZ has calculated the Grassland Butterfly Index, one of the two required indicators. We consider butterflies valuable indicators of the health of our ecosystems. They are also easy to record – even by trained volunteers – as is the case with the Butterfly Monitoring Germany (TMD). The long-term observational data collected by these volunteers form the basis for our scientific analyses. One result is the Grassland Butterfly Index, which Germany can use to demonstrate the success of its restoration measures to the EU.

Our partners

Our work is based on a strong alliance between the scientific community and civil society. We work closely with the Society for the Protection of Butterflies (GfS), other scientific institutions, citizen scientists, and nature conservation organisations as well as government departments and the National Monitoring Centre for Biodiversity.

Relevant knowledge and technologies

Citizen science: We have been running TMD for more than 20 years and support more than 600 qualified volunteers, who provide us with valuable observational data from across Germany.

Trends and indices: Using more than five million observation records collected to date, we calculate population trends for species. This includes the Grassland Butterfly Index for Germany, which reflects trends for 17 species typical of meadows and pastures. We also link our data with that of other European countries in order to highlight Europe-wide trends.

UFZ HELMHOLTZ Centre for Environmental Research

Member of the Helmholtz Research Field Earth and Environment

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Additional links:

Press release: Grassland Butterflies – Important Indicators of the State of Nature

Website: Tagfalter-Monitoring Deutschland (in German)

Press release: Butterflies on the decline

Report: EU Grassland Butterfly Index 1991–2023 Technical report