

Press Release

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"10 Must-Knows" for the preservation of biodiversity in Germany **Leibniz Biodiversity Research Network presents update**

From as yet undiscovered biodiversity to resilient forests and the impact of food consumption on nature: 64 experts have now brought together their knowledge and recommendations and published them in the form of "10 Must-Knows from Biodiversity Science" for 2024. The new report from the Leibniz Research Network Biodiversity shows policymakers and society ways in which biodiversity can be effectively conserved and sustainably utilised at local, national and European level, and how this can also protect the climate. With the publication, the researchers summarise current scientific evidence and thus contribute to the debate on the national biodiversity strategy, which is to be adopted before the next World Conference on Nature in autumn 2024.

"We are already exceeding planetary boundaries, both in terms of global warming and biodiversity loss. Joint responses are needed to counter these crises. We know that protecting biodiversity can make a significant contribution to mitigating climate change, for example through biodiverse forests and rewetted peatlands that store carbon. Only by focussing more on measures to protect biodiversity can we succeed in tackling both crises at the same time," says Kirsten Thonicke*, lead author and deputy head of department at the Potsdam Institute for Climate Impact Research, who coordinates the research network.

Following the great response to the "10 Must-Knows from Biodiversity Science" first published in 2022, researchers from a total of 52 German and international research institutions have now contributed their expertise from the environmental, life, spatial, social, humanities and economic sciences to the new version. "Our recommendations bring together the research findings available today for decision-makers. The Must-Knows are intended to provide guidance on how to implement the globally defined biodiversity targets in the German context," says author Sibylle Schroer* from the Leibniz-Institute of Freshwater Ecology and Inland Fisheries. "This also includes recognising that we have so far only researched and understood a relatively small part of the entire biodiversity. This realisation is an important step towards more sustainable environmental protection measures, which should focus on ecosystem-based habitat management - and thus the functions and interactions between species and habitats, rather than just individual species and habitats."

A wealth of biodiversity knowledge from 64 experts across all disciplines

The National Biodiversity Strategy 2030 is currently being developed for the implementation of the 23 global biodiversity goals agreed by the member states of the United Nations at the World Conference on Nature in December 2022. In order to provide up-to-date facts from the scientific community, the first version of the "10 Must-Knows" from 2022 was expanded to include numerous aspects and brought up to date with the help of current literature. The recently published report addresses, for example, how the impact of food consumption on biodiversity can be reduced: "Understanding and using biodiversity as an important production factor helps to stabilise yields, make agriculture resilient and develop us all, whether producers or consumers, to become biodiversity managers," says author Jens Freitag* from the Leibniz Institute of Plant Genetics and Crop Plant Research. The authors provide practical recommendations for policymakers and point out what citizens can do with options for societal action.

The BMBF Research Initiative for the Conservation of Biodiversity (FEaA) and the German Centre for Integrative Biodiversity Research (iDiv) Halle-Jena-Leipzig were involved in the project as cooperation partners. The "10 Must-Knows" were commented on by experts from politics, administration, science and associations before publication.

These are the 10MustKnows24:

1. Achieving climate and biodiversity protection together
2. Enabling a healthy life on a healthy planet
3. Considering undiscovered biodiversity
4. Linking linguistic, cultural and biological diversity
5. Harmonising the diverse use of forest ecosystems and biodiversity conservation
6. Transforming agricultural and food systems
7. Protecting land and resources
8. Releasing transformative change through international collaboration and Education for Sustainable Development
9. Ensuring free access and open use of biodiversity-related data
10. Reducing biodiversity impacts from food consumption

Expertise from the IGZ on biodiversity in agricultural soils

Dr Rita Grosch, Deputy Director and Head of the Programme Area "Biotic Interactions" at the Leibniz Institute of Vegetable and Ornamental Crops (IGZ), heads the "Plant-Microbe Systems" Research Group. She co-authored Must-Know 6 "Transforming the agricultural and food system".

"Sustainable cultivation systems can lead to an improvement in soil quality and thus simultaneously to the preservation or even increase of biodiversity. This in turn has an impact not only on the productivity of our crops, but also on their health and quality. Soil is our most important resource for the production of food, the fertility of which is largely determined by biodiversity - for example, microbial diversity," emphasises the phytopathologist.

More Information

Download the complete "10 Must-Knows from Biodiversity Science 2024":

<https://zenodo.org/records/10837769>

Leibniz Research Network Biodiversity: <https://www.leibniz-biodiversitaet.de/en>

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Leibniz Institute of Vegetable and Ornamental Crops

The Leibniz Institute of Vegetable and Ornamental Crops (IGZ) is a research institute of the Leibniz Association and contributes to solving current global challenges with science-based findings from basic and applied research in horticulture. These include the preservation of biodiversity, combating climate change and the still widespread malnutrition. The institute is jointly funded by the Ministry of Science, Research and Culture of the State of Brandenburg (MWFK) and the Federal Ministry of Food and Agriculture (BMEL). The IGZ is based in Großbeeren.

Please Note: This press release is based on a media information from the Leibniz Association. The statements () were given in German originally and have been translated along with the press releases' text.*