

Carinthia II

Part 3

Nature Tech

Published since 1811
215th Year of Carinthia



Volume 2

Issue 2

2025 Verlag des Naturwissenschaftlichen
Vereins für Kärnten

“Tage der Biodiversität 2025” – Collection of abstracts

Franz Hoelzl

REVIEW:

The abstract volume for the “Tage der Biodiversität 2025,” hosted by the University of Natural Resources and Life Sciences (BOKU) Vienna, Austria from February 25-28, 2025, is a collection of recent scientific developments and points out different directions for the future of biodiversity research and conservation, predominantly from studies conducted in Austria [1]. This book of abstracts is more than a simple compilation of summaries, as it demonstrates how Austrian scientists and practitioners are combining innovative technologies and state-of-the-art methods to combat the escalating biodiversity crisis. The depth of Austrian biodiversity research is underscored by the scope of the addressed challenges. The volume covers a great variation of habitats from the nation’s largest ecosystems (forests) - which cover 48% of the country - to critical aquatic and dry habitats and even agricultural landscapes. Furthermore, it is a great assemblage of ideas and innovations to protect the environment and all its inhabitants for future generations. The abstract volume is logically structured by the five main sessions of the conference:

1) *Measures of transformation: nature restoration*

This topic primarily addresses connectivity of habitats and restoration of ecosystems. It furthermore deals with implementing conservation strategies to preserve and promote biodiversity.

2) Competencies & quality control: from species knowledge to monitoring

This part shows the importance of new methods for biodiversity research and the shift towards technology-based biodiversity assessments, while it also highlights the demand for classical taxonomic experts (taxonomists, geographers) to interpret the massive datasets generated by the new technologies such as eDNA analysis, remote sensing, camera trapping, and passive acoustic monitoring.

3) *Together with society: outreach and education*

This topic emphasizes the indispensable role of public engagement, citizen science, and education for sustainable development.

4) *Challenges of sustainability: conflicting goals, synergies, key issues, biodiversity, and climate*

This crucial thematic area addresses complex conflicts, particularly the tension between conservation goals and economic demands. It explores topics from trade-offs between maximizing carbon storage and preserving biodiversity to potential negative impacts and necessary management strategies for the expansion of photovoltaic and wind energy infrastructure on biodiversity.

5) *Free and open topics*

This category covers diverse, interdisciplinary topics, including the profound connection between soil biodiversity and One Health or the importance of genetic diversity in agriculture and livestock breeding.

ABSTRACTS

Tage der Biodiversität 2025

25.–28. Februar 2025
Universität für Bodenkultur Wien

veranstaltet von



Overall, the volume confirms the vital and multifaceted nature of Austrian biodiversity research. The work not only documents the existing crises (e.g., long-term species decline; loss of genetic diversity in rare species) but also gives examples for developing actionable, evidence-based strategies to protect biodiversity in line with international directives. Additionally, many contributions to this collection of abstracts deal with technologies that are of great interest to readers, authors, and editorial members of *Carinthia Nature Tech*.

In summary, the “Tage der Biodiversität 2025” abstract volume gives a great overview of the state of Austrian biodiversity research, its strategic implementation on new technologies, and the urgent, complex challenges across the country’s ecosystems. Furthermore, it not only shows how conservationists are using new technologies but also how they have to grapple with complex policy mandates such as the EU Nature Restoration Law, while actively forging new partnerships between science and society.

ORIGINAL TITLE:

- [1] University of Natural Resources and Life Sciences, “ABSTRACTS: Tage der Biodiversität 2025,” Biodiversity Days Conference, Vienna, Austria, 218 p., 2025, available: https://biodiversitaetstage.boku.ac.at/wp-content/uploads/2025/02/TdB25_Abstractband.pdf

ABOUT THE AUTHOR

Franz Hoelzl, PhD
UNESCO Chair
on Sustainable
Management of
Conservation Areas
Carinthia University
of Applied Sciences
Austria
f.hoelzl@fh-kaernten.at

**BACK TO CONTENT**