BIODIVERSITY

Data Sharing in Biodiversity

Many organisms move across borders or have a global distribution. In the discipline of Biodiversity it is therefore important to collect, aggregate and exchange data globally. Global initiatives and communities, such as the Global Biodiversity Information Facility (GBIF) and the Biodiversity Information Standards (TDWG) , not only play an important role in building technical bridges but also help to build social bridges. Significant progress has been made on issues like liberating biodiversity data from literature, semantic enhanced publishing, industrial scale digitisation of objects, common data exchange formats and community curation of data.

Biodiversity has specific approaches to the planning, acquisition, processing and storage of data collected and generated, but the discipline is also closely related to other domains of research such as Agriculture, Biomedical Life Sciences, Environmental Sciences, Earth Sciences and Biochemistry, and researchers may benefit from the resources, methodologies, and services developed for these fields.

Where can I find resources and tools for...

Methods and Documentation

- FAIRsharing
- LIFEwatch ERIC
- RDMkit
- FAIRDOM-SEEK
- Open Bio Maps
- ELIXIR Core Data Resources
- EcoPortal
- AgroPortal

Methods and Documentation

- Biodiversity Information Standards (TDWG)
- DarwinCore Archive
- Access to Biological Data (ABCD)
- Ecological Metadata Language (EML)
- Open Traits Network

EOSC Portal

The EOSC Portal is a gateway to many of the innovative services, tools, publications and data listed here, and it is constantly growing with additions from the community of Biodiversity researchers and research-supporting organisations. Do you have a resource that you want to share with others? Consider onboarding into EOSC.

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Finding and Depositing Data

- Global Biodiversity Information Facility (GBIF)
- Biodiversity Literature Repository (BLR)
- Biodiversity Heritage Library (BHL)
- Biodiversity Knowledge Hub (BKH)
- TreatmentBank
- European Nucleotide Archive (ENA)
- Barcode of Life Data (BOLD)
- DataONE
- Global Biotic Interactions (GloBI)
- Ocean Biodiversity Information System (OBIS)
- World Register of Marine Species (WoRMS)

Community and Professional Supports

- BiodiFAIRse
- TDWG Community
- SPNHC
- CETAF
- ENVRI
- GEO BON
- DiSSCo
- ILTER
- iNaturalist
- ECSA

Learn more about the Research Data Alliance (RDA)

- Biodiversity Data Integration IG
- Life Science Data Infrastructures IG
- ELIXIR Bridging Force IG
- RDA/TDWG WG on Metadata Standards
- Improving Global Agricultural Data (IGAD) Community of Practice

How to do FAIR and Open Science

- What is FAIR?
- FAIR Community Support
- What is the goal of Open Science?
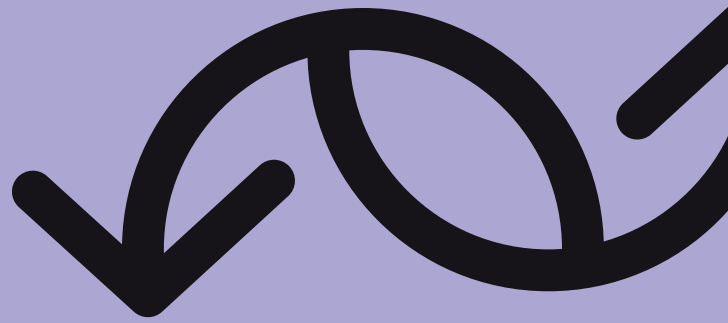
What are the challenges for biodiversity data in Open Science?

"Many researchers in the field work with data that isn't very big, which makes it possible for them to work on their own. There isn't a big emphasis on training in standards that enable sharing and the integration of their data into domain-specific repositories. Data that is shared tends to be limited by very specific agreements among projects."

How can EOSC help researchers working with biodiversity data?

"EOSC connects a lot of global infrastructures which are key to the reuse of biodiversity data. Universities are starting to provide more degree training in open science, but there is still a need for knowledge hubs, meetings and events where the community works towards being more FAIR and compatible. The team I work with at Meise Botanic Garden has benefitted a lot from being part of an inclusive global community."

— **Sofie Meeus**
RDA/EOSC Future Domain Ambassador for Biodiversity