

# ADVANCE: Advanced metadata standards for biodiversity survey and monitoring data for supporting research and conservation

*Tuesday 10 October 2023 14:30 (15 minutes)*

In an ever-changing world, field surveys, inventories and monitoring data are essential for prediction of biodiversity responses to global drivers such as land use and climate change. This knowledge provides the basis for appropriate management. However, field biodiversity data collected across terrestrial, freshwater and marine realms are highly complex and heterogeneous. The successful integration and re-use of such data depends on how FAIR (Findable, Accessible, Interoperable, Reusable) they are. ADVANCE aimed to underpin rich metadata generation with interoperable metadata standards using semantic artefacts, facilitating integration and reuse of biodiversity monitoring data across terrestrial, freshwater and marine realms. To this end, we revised, adapted and expanded existing metadata standards, thesauri and vocabularies. We focused on the most comprehensive database of biodiversity monitoring schemes in Europe (DaEuMon) as the base for building a metadata schema that implements quality control and complies with the FAIR principles. We also created a vocabulary with the most common terms used in biodiversity datasets. We tested and refined the strength of the concept in real use cases, and made both the FAIR metadata schema and the vocabulary available for reuse in open access platforms. Moreover, the ADVANCE metadata schema is being integrated in the new UFZ Biodiversity Platform BioMe, allowing data providers to make their metadata available as well as users to search for data comprehensively described with metadata and reuse them, enabling assessments of the relationships between biodiversity across realms and associated environmental conditions.

## Please assign your contribution to one of the following topics

Metadata annotation and management close to the research process

## Please specify "other" (stakeholder)

## In addition please add keywords.

metadata schema, interoperability, biodiversity data, FAIR, biodiversity monitoring

## Please assign yourself (presenting author) to one of the stakeholders.

Researchers

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