Conference Abstract

Towards Interlinked FAIR Biodiversity Knowledge: The BiCIKL perspective

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Abstract

The Horizon 2020 project **Bi**odiversity **C**ommunity **I**ntegrated **K**nowledge **L**ibrary (BiCIKL) (started 1st of May 2021, duration 3 years) will build a new European community of key research infrastructures, researchers, citizen scientists and other stakeholders in biodiversity and life sciences. Together, the BiCIKL 14 partners will solidify open science

practices by providing access to data, tools and services at each stage of, and along the entire biodiversity research and data life cycle (specimens, sequences, taxon names, analytics, publications, biodiversity knowledge graph) (Fig. 1, see also the BiCIKL kick-off presentation through Suppl. material 1), in compliance with the FAIR (Findable, Accessible, Interoperable and Reusable) data principles. The existing services provided by the participating infrastructures will expand through development and adoption of shared, common or interoperable domain standards, resulting in liberated and enhanced flows of data and knowledge across these domains.
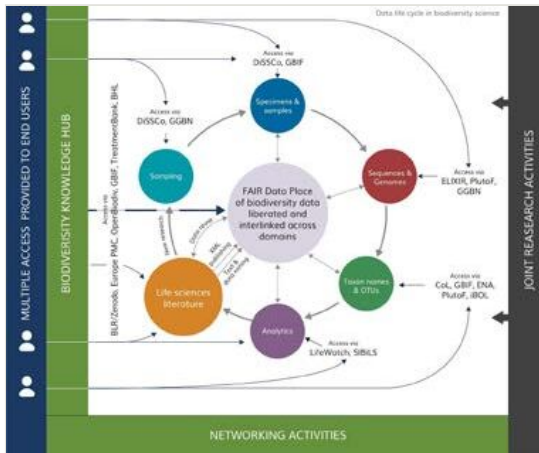

Figure 1.

BiCIKL vision on access to and linkages between biodiversity data classes and their corresponding research infrastructures along the research life cycle.

BiCIKL puts a special focus on the biodiversity literature. Over the span of the project, BiCIKL will develop new methods and workflows for semantic publishing and integrated access to harvesting, liberating, linking, and re-using sub-article-level data extracted from literature (i.e., specimens, material citations, sequences, taxonomic names, taxonomic treatments, figures, tables).

Data linkages may be realised with different technologies (e.g., data warehousing, linking between FAIR Data Objects, Linked Open Data) and can be bi-lateral (between two data infrastructures) or multi-lateral (among multiple data infrastructures). The main challenge of BiCIKL is to design, develop and implement a FAIR Data Place (FDP), a central tool for search, discovery and management of interlinked FAIR data across different domains.

The key final output of BiCIKL will the future Biodiversity Knowledge Hub (BKH), a one-stop portal, providing access to the BiCIKL services, tools and workflows, beyond the lifetime of the project.

Keywords

FAIR biodiversity data, data linking, research infrastructures, specimens, sequences, taxon names, literature

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Grant title

BiCIKL - Biodiversity Community Integrated Knowledge Library

Supplementary material

Suppl. material 1: The BiCIKL (Biodiversity Community Integrated Knowledge Library) Project Presentation: Goals and Ambitions `doi`

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> **Brief description:** This presentation describes the rationale, mission, goals and ambitions of the BiCIKL (Biodiversity Community Integrated Knowledge Library) EU Horizon 2020 project (started 1st of May 2021, duration 3 years).
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