

Conference Abstract

The Ecosystem of Linked Biodiversity Publications: General Picture of Tools and Services Created by Plazi, Pensoft, MNHN, CETAF, Zenodo, and SIBiLS

Donat Agosti[‡], Lyubomir Penev^{§,||}, Patrick Ruch^{¶,#}, Laurence Benichou^{□,«},
Alexandros Ioannidis-Pantopikos[»]

[‡] Plazi, Bern, Switzerland

[§] Pensoft Publishers & Bulgarian Academy of Sciences, Sofia, Bulgaria

| Institute of Biodiversity & Ecosystem Research - Bulgarian Academy of Sciences and Pensoft Publishers, Sofia, Bulgaria

[¶] HES-SO - HEG Geneva, Geneva, Switzerland

[#] SIB Swiss Institute of Bioinformatics, Geneva, Switzerland

[□] Muséum national d'Histoire naturelle, Paris, France

[«] CETAF, Brussels, Belgium

[»] Zenodo, Meyrin, Switzerland

Corresponding author: Donat Agosti (agosti@plazi.org)

Received: 07 Aug 2023 | Published: 08 Aug 2023

Citation: Agosti D, Penev L, Ruch P, Benichou L, Ioannidis-Pantopikos A (2023) The Ecosystem of Linked Biodiversity Publications: General Picture of Tools and Services Created by Plazi, Pensoft, MNHN, CETAF, Zenodo, and SIBiLS. Biodiversity Information Science and Standards 7: e110681.

<https://doi.org/10.3897/biss.7.110681>

Abstract

A goal of natural history institutions is to contribute to the understanding of biodiversity and disseminate this knowledge through scholarly publications and other public activities. In today's world, it is expected that this knowledge, imprisoned in separated silos of millions of publications scattered through ca. 500 million published pages, is readily available for exploring and reusing by humans and artificial intelligence tools. The goal of the [BiCIKL project](#) and its key product, the [Biodiversity Knowledge Hub](#) (BKH), is to put together novel tools and services to publish and extract data from publications to create findable, accessible, interoperable and reusable (FAIR) corpus of digital data, and establish explicit links between the data in publications and cited data types (taxonomic names, gene

sequences, occurrences, images). This corpus of data is made available to the researchers and practitioners through the [Biodiversity Literature Repository](#) (BLR), the “[Biodiversity PMC](#)” digital library, [Synospecies](#), and the [OpenBiodiv](#) knowledge graph through analytic tools, including artificial intelligence, and to a large extent through the re-use by the Global Biodiversity Information Facility ([GBIF](#)) and ChecklistBank ([CLB](#)).

This presentation will focus on the entire ecosystem of interlinked services created by [Plazi](#), [Pensoft](#), the Muséum national d'Histoire naturelle, Paris ([Science Press](#)), the Consortium of European Taxonomic Facilities (CETAF) [e-publishing working group](#), the [Zenodo](#) repository at the European Center for Nuclear Research ([CERN](#)) and the Literature Services of the Swiss Institute of Bioinformatics ([SIBiLS](#)) to enforce both novel methods for prospective semantic publishing and text and data mining of legacy literature. In the end, all knowledge, published in various journals by many publishers in different parts of the world, comes together into a standardized and re-usable open and linked FAIR data pool for the benefit of the researchers and society.

Keywords

semantic publishing, taxpub, artificial intelligence

Presenting author

Donat Agosti

Presented at

TDWG 2023

Funding program

The Biodiversity Community Integrated Knowledge Library ([BiCIKL](#)) project receives funding from the European Union's Horizon 2020 Research and Innovation Action under grant agreement No 101007492. Plazi acknowledges the support from the Arcadia Fund.

Grant title

Biodiversity Community Integrated Knowledge Library ([BiCIKL](#))

Conflicts of interest

The authors have declared that no competing interests exist.