

French Biodiversity Data Hub: Linking local to global biodiversity through international initiatives and open science clouds

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Abstract

The French national biodiversity data hub (“Pôle National de Données de Biodiversité” - [PNDB](#)) is a national e-infrastructure created in 2018 and led by the National Museum of Natural History, contributing to the Open Science policy of the Ministry of Higher Education, Research and Innovation (MESRI).

PNDB contributes to building an integrative framework taking into account biodiversity over the long term (from the origins of life to future models), at all biological scales (from the molecule to the socio-ecosystem), and in all its interactions, by providing tools and services for the description, access, validation, analysis and reuse of biodiversity data.

With the diversity and complementary type of research biodiversity data (information systems, institutional data repositories, research infrastructures as observatories, experimental devices, natural history collections, etc.), but also from public policy data, the missions of the PNDB are deeply based on the [FAIR](#) approach (making data Findable, Accessible, Interoperable, Reusable).

Thanks to its nomination in 2022 as a thematic reference center of the MESRI, PNDB will contribute to promoting the FAIR approach, will increase the skills (e.g., by training, good practices) of the scientific communities around open science, and stimulate interactions between producers and users of biodiversity data.

PNDB has led the [French participation to GEO BON](#) (Group on Earth Observations Biodiversity Observation Network) since 2018 and recently shared the lead with public policies information system coordination. Thanks to this co-lead, this national BON

proposes an innovative coordination of all biodiversity monitoring programs, from expertise to research around an innovative Essential Biodiversity Variable (EBV) operationalization pilot. This pilot is made of open practical solutions providing a particular high degree of FAIRness of biodiversity research objects, from data to source codes. PNDB is also a major European point of contact for the [DataOne](#) network, who, in combination with the strong link between PNDB and French Global Biodiversity Information Facility (GBIF) [node](#) colleagues, allows the dissemination of all types of data through the world in the best manner!

Keywords

PNDB, French BON, GEO BON, EBV, Essential Biodiversity Variables, FAIR, FAIR data, FAIR source codes, DataOne, training

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Conflicts of interest