The ideal partner for Biodiversity Policy & Science

What is the European Biodiversity Portal?

The European Biodiversity Observation Network (EU BON – www.eubon.eu), is a collaborative research project, funded by the EU's 7th Framework Programme, whose main goal is to provide the European contribution to the Group on Earth Biodiversity Observation Network (GEO BON). GEO BON aims to contribute to effective management policies for the world's biodiversity and ecosystem services. It is the biodiversity component of the Group of Earth Observation System of Systems (GEOSS).

The **European Biodiversity Portal** (Figure 1) is an online platform, which facilitates the delivery of relevant biodiversity information and analysis to a range of end users (including researchers, policy-level users, other biodiversity stakeholders), thus supporting the biodiversity science and policy interface. The portal provides easy access to insights in biodiversity trends and modelling, through visualisation modules and infographics.

Which functionalities does the European Biodiversity Portal provide?

The portal is the access point to evidence-based solutions and decision-support tools, enabling next-generation data management and the use of biodiversity information at national and regional levels. For example, access to data sets which support the identification of Essential Biodiversity Variables (EBV) improve forecasting and the development of early warning systems, aiding policy makers to develop evidence-based conservation strategies, while providing clear visualisation of priority issues to mobilise public support for their implementation. Visualisation of the status and trends

European Biodiversity Portal: www.biodiversity.eubon.eu

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Figure 1. Screenshot of the European Biodiversity Portal (www.biodiversity.eubon.eu).
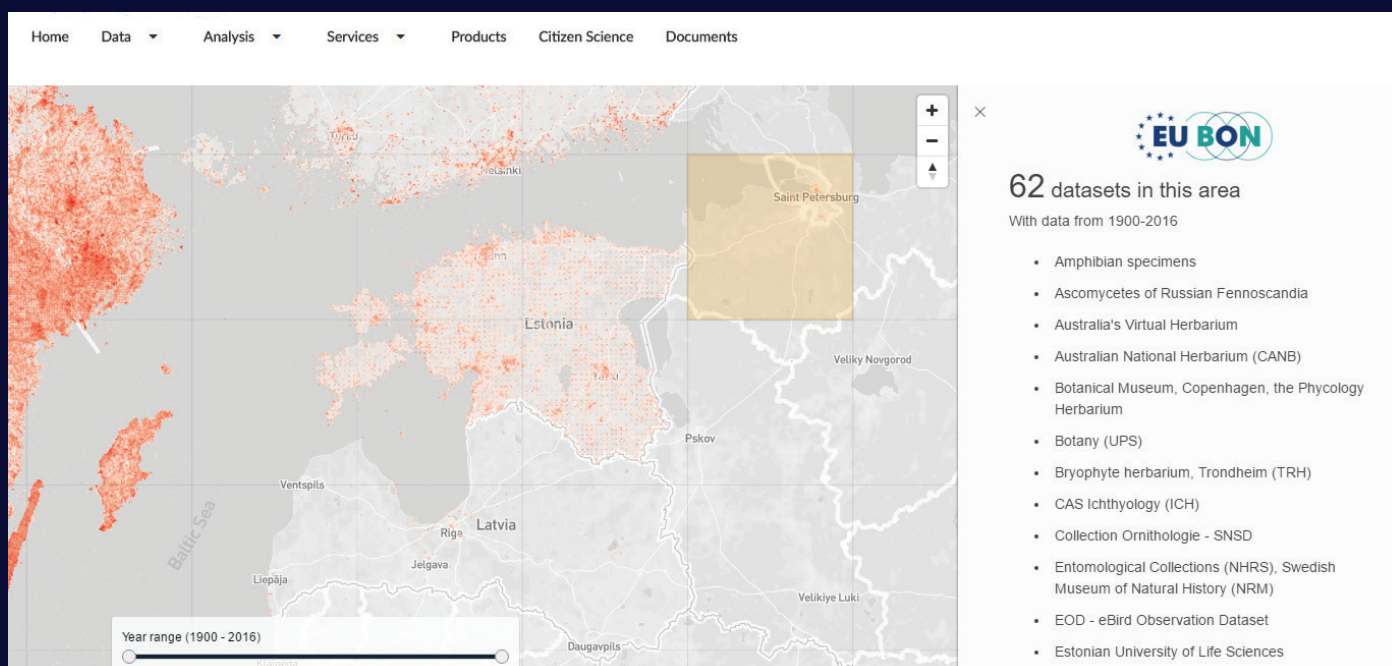

Figure 2. Species Population Trend Browser helps to identify and access datasets of interest when generating Essential Biodiversity Variables (EBVs) for species distribution.
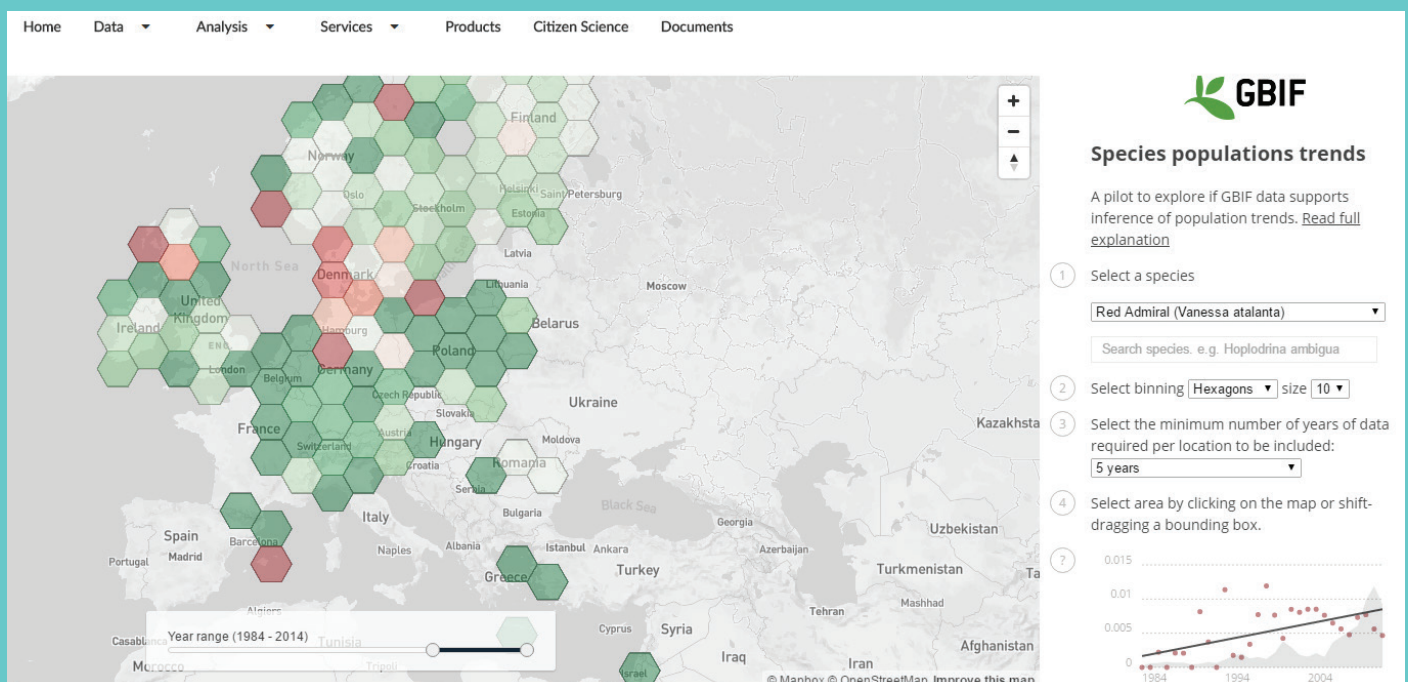
Figure 3. Species Population Trend Browser helps to analyse species trends in GBIF mediated data. Example: the butterfly species 'Red Admiral' *Vanessa atalanta,* green: increasing populations, red: declining.

of EBV candidates such as "Species distribution" and "Species abundance" are facilitated using the Spatial Dataset Browser (Figure 1) and the Species Population Trend Browser (Figure 2), respectively.

Other analytical interfaces include the Species richness and the Biodiversity Indicator Analytics Dashboard. Via the virtual laboratory, eLab, researchers can work on the same project, share documents and use the same web interface, while configuring the deployment of tools in such a way that privacy is ensured. RStudio and other analytical tools can be added and configured using technologies such as Openshift and Docker.

Other functionalities accessible through the portal include a Dataset search tool and the EU BON product[1]

and document repository, which is searchable by target audience and keywords. Also, a specific section of the biodiversity portal is dedicated to provide information and tools for citizen scientists via the EU BON Citizen Science Gateway.

Who is the target audience?

The European Biodiversity Portal was built by ICT professionals for key stakeholders in the European biodiversity science and policy interface. It aims to facilitate easier access to multiple biodiversity (meta) data warehouses and encourages data mobilization using best-practice standards.

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[1] A full list of EU BON products can be downloaded at: http://wcmc.io/EUBON_Products

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Publication date

- The unique combination of user-friendliness, state-of-the-art research analytics and informative visualisation modules, makes the Biodiversity Portal an ideal partner for **policy-makers**, strengthening the political commitment to biodiversity monitoring and conservation in Europe.
- The various toolboxes assist **scientists and data managers** to upload and publish their data, helping to close knowledge gaps and increase the taxonomic, geographic and historic coverage and accuracy of trend forecasting and status evaluations for European biodiversity.

Why is the European Biodiversity Portal important?

As a gateway to European biodiversity information, the portal connects a vast number of biodiversity data repositories to capture an exceptional level of coverage in biodiversity data. Users can harvest and simultaneously access data from several directories, including Global Biodiversity Information Facility (GBIF), Long-Term Ecological Research Network (LTER), EU-wide monitoring methods and systems of surveillance for species and habitats of community interest (EuMon), the Pan European Species directories Infrastructure that provides taxonomic information on species (PESI), and Global Earth Observation System of Systems (GEOSS) sources, making the fragmented data more useful and providing a more precise account of the current state of biodiversity status and trends. The analytical tools interface allows insights into the complexity of biodiversity information, whilst delivering synthesised, actionable facts and insights, illustrated by informative graphic content.

Which EU and international policies are facilitated by the European Biodiversity Portal?

The **Aichi Biodiversity Targets** of the United Nations Strategic Plan for Biodiversity (2011-2020) recognise the importance of improved access to knowledge, the science base and technologies relating to biodiversity. The European Biodiversity Portal is a contribution to Aichi Target 19, which specifies the need to increase the amount and quality of relevant biodiversity information and tools at the disposal of policy-makers and the general public.

Building on the Millennium Development Goals, the 17 **Sustainable Development Goals** (SDGs) were adopted by countries at the United Nations General Assembly in 2015 and officially came into force on January 1st 2016. Jointly, SDG 14 ("Life below the water") and SDG 15 ("Life on land") aim to conserve and sustainably use ocean and land resources (such as fisheries and forests), combat desertification, halt and reverse land degradation, and halt biodiversity loss. The implementation of both SDGs depends on the availability and accessibility of comprehensive, sound and up-to-date data and information: this is where the European Biodiversity Portal aims to contribute.

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