

# Towards a European Biodiversity Observation Network

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# Top Challenges

- Inaccessible and insufficient raw data
- Unharmonised measurements and indicators
- Reporting and financial burden
- Confusing network of knowledge holders
- European IT infrastructure for biodiversity absent



## Heterogeneous monitoring



+ Expert assessments



## National integration



## Harmonized reporting & quality check



European  
Environmental  
Agency

Topic Center for  
Biodiversity

EU integrated  
information  
systems



# Organisations working hand in hand



- Assess current biodiversity monitoring efforts to identify gaps, data & workflow bottlenecks and analyse cost-effectiveness of monitoring schemes
- Demonstrate how EBV & EESVs provide timely and relevant data for Europe including policy relevant indicators to track progress towards the targets
- Assess feasibility of setting up a center to coordinate monitoring activities across Europe

- 74 research policy actors and environmental policy actors from 36 European and associated countries
- Part of the EU Biodiversity Strategy 2030
- Pooling resources (800 M €, 2021-2028)
- Promoting link between research, monitoring & policy (incl supporting transnational biodiversity monitoring)

# The EuropaBON User & Policy Needs Assessment



- Better coordination between the national & subnational biodiversity monitoring schemes
- Sustainable funding
- Harmonisation (methods, protocols, databases,...)
- Digitalisation & new technologies
- Better integration of in situ & remote sensing data
- Stronger engagement of society / citizen science approaches
- Capacity building
- (....)

⇒ Promoting & supporting transnational biodiversity monitoring

# Catalog of monitoring initiatives

## EUROPABON

[Admin panel](#)[Alejandra Moran](#)[Log out](#)

### Main tables

- Home
- Integration nodes**
- BiodiversityData
- All Data streams

[IntegrationNode → IntegrationNode](#)

[Products](#)

[Users in projects](#)

[Institutions](#)

[Thesaurus](#)

### Search and visualize

- Visualizations
- Search
- Geo. coverage

### Stats

- Global stats

### Metadata

### Schematic diagram of the dataflow across an integration initiative

**IntegrationNodes**

Institutions/projects/platforms integrating/processing biodiversity data to generate Essential Biodiversity Variables (EBVs), Ecosystem Services Indicators (ESS) or any other indicators with potential relevance to environmental policy, particularly at the European level. One single integration initiative can be composed of many nodes operating at different scales (e.g. subnational, national, European-level) in a coordinated manner. One single institution can act as an integration node of different integration initiatives.

[Integration node list](#)

**BiodiversityData**

Biodiversity monitoring initiatives responsible for the collection of biodiversity information ([Data from field observations](#)). The focus of WP3.1 is not to map all monitoring initiatives in Europe, but to ensure that those monitoring initiatives providing data for current biodiversity workflows are well represented in the database.

[BiodiversityData list](#)

**Datastreams**

These represent data flow across different scales. These could be related to the data flow in the database. If the data has been integrated with another integration initiative (EBVs, ESS, Indicator) that is represented in Fig. 1.

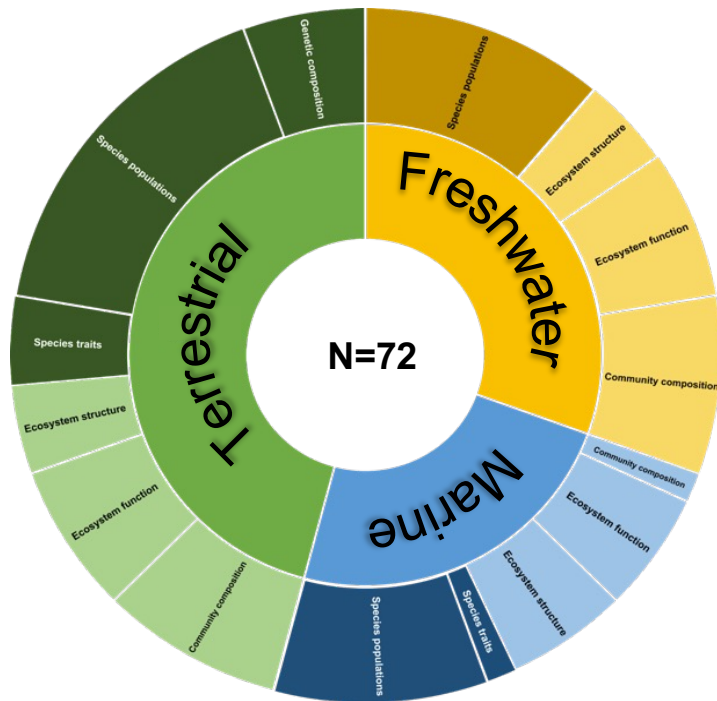
[DataStreams list](#)

Download detailed documentation

[Instructions](#)



# Essential Biodiversity Variables

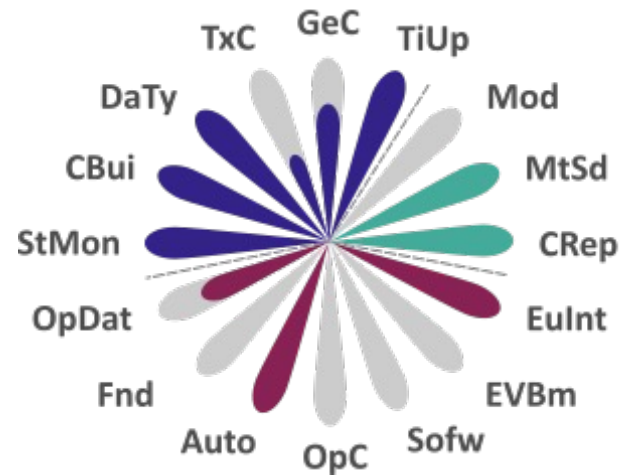


- Species variables: **status of species of conservation interest**
- Ecosystem variables: **trends in ecosystem condition and restoration**
- Important variables for estimating **ecosystem services**

## Gaps and bottlenecks for producing EBVS



European Butterfly Monitoring Scheme (eBMS)



- Data collection & sampling
- Models, Interoperability, IT infrastructure
- Data Integration
- Bottlenecks

# The EuropaBON showcases

## STATE OF NATURE

### Birds Directive

Farmland birds EBV



©Lisa Pannek / EBBA2

### Habitats Directive

Habitat extent EBV



### Water framework directive

Freshwater benthic invertebrates EBV



©Felicity Rose Cole / BBC

## CROSS-SECTORIAL POLICIES

### Bioeconomy

Fructification phenology EBV



### Soil restoration

Microbial biomass EBV



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# EUROPABON

**Specifications and  
workflows for each  
EBV**

**Benefits and costs at  
different levels of  
ambition**

**Datasets from the  
showcases in the EBV  
Portal**



- Understand national and subnational biodiversity monitoring governance structures, and priorities
- Enriching and testing the EuropaBON outcomes in different countries/ contexts
- Co-developing solutions to overcome the challenges and bottlenecks identified by EuropaBON (incl governance aspects)
- Increase ownership by environmental policy actors
- Capacity building + Sustainability

**Biodiversity Monitoring Coordination Center**





**biodiversa+**  
European Biodiversity Partnership

On-going research call

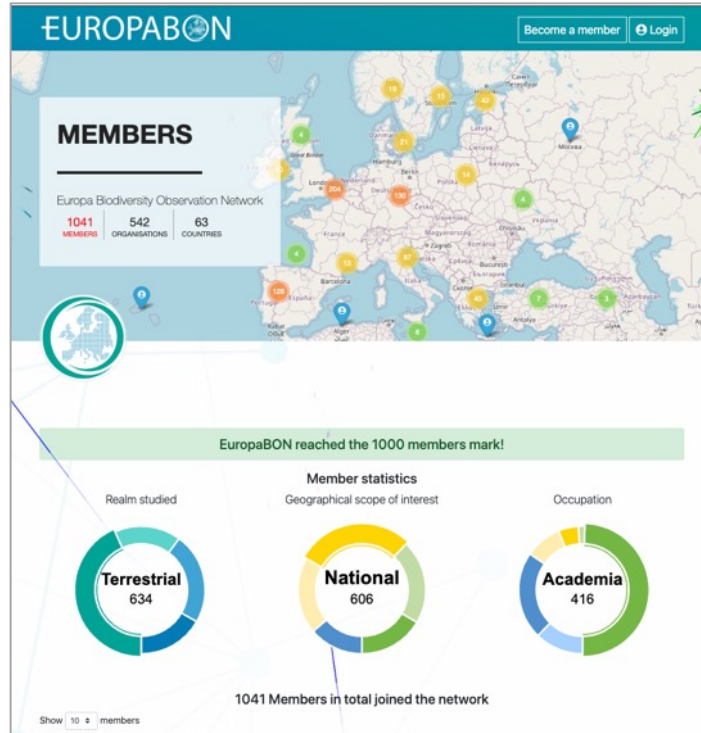
Improved transnational  
monitoring of biodiversity  
and ecosystem change  
for science and society

Over 40M€ budget reserved  
33 countries participating



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# Become part of our networks



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[@EuropaBON\\_H2020](https://twitter.com/EuropaBON_H2020)



[www.biodiversa.eu](http://www.biodiversa.eu)  
[@BiodiversaPlus](https://twitter.com/BiodiversaPlus)





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