

# The EuropaBON Network

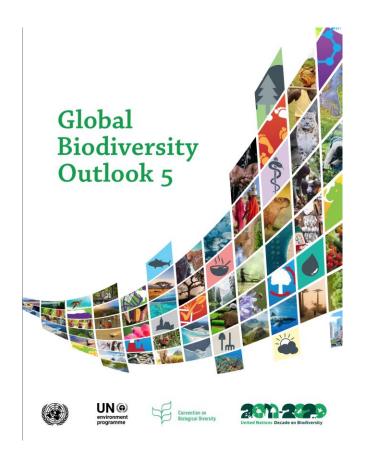
Ian McCallum, Aletta Bonn, Hannah Moersberger, Inian Moorthy, Camino Liquete, Joachim Maes, Jessi Junker, Henrique Pereira, Ivelina Georgieva, Gabriela Popova, Lluis Brotons, Pedro Beja, W. Daniel Kissling, Maria Dornelas, Tom Breeze, Néstor Fernández, Anne Lyche Solheim, Cesar Capinha







## The biodiversity crisis





# Biological annihilation via the ongoing sixth mass extinction signaled by vertebrate population losses and declines

Gerardo Ceballosa,1, Paul R. Ehrlichb,1, and Rodolfo Dirzob

<sup>a</sup>Instituto de Ecología, Universidad Nacional Autónoma de México, Mexico City 04510, Mexico; and <sup>b</sup>Department of Biology, Stanford University, S CA 94305

Contributed by David D. Ehrlich. May 22, 2017 (cont. for review March 20, 2017; reviewed by Thomas E. Lovaley and Dates H. David

# Trends in abundance and biomass of widespread European farmland birds: how much have we lost?

PETR VOŘÍŠEK,1\* FREDERIC JIGUET,2 ARCO VAN STRIEN,3 JANA ŠKORPILOVÁ,1
ALENA KLVAŇOVÁ1 & RICHARD D. GREGORY4



RESEARCH ARTICLE

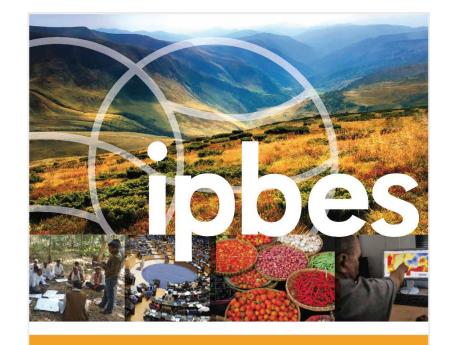
More than 75 percent decline over 27 years in total flying insect biomass in protected areas

Caspar A. Hallmann<sup>1</sup>\*, Martin Sorg<sup>2</sup>, Eelke Jongejans<sup>1</sup>, Henk Siepel<sup>1</sup>, Nick Hofland<sup>1</sup>, Heinz Schwan<sup>2</sup>, Werner Stenmans<sup>2</sup>, Andreas Müller<sup>2</sup>, Hubert Sumser<sup>2</sup>, Thomas Hörren<sup>2</sup>, Dave Goulson<sup>3</sup>, Hans de Kroon<sup>1</sup>



# The challenge

- Biodiversity change has complex spatial scaling patterns and temporal dynamics
- Biodiversity monitoring data is still very sparse in time and space and covers only some taxa
- Limited use of models and scenarios in biodiversity trend analysis and policy support

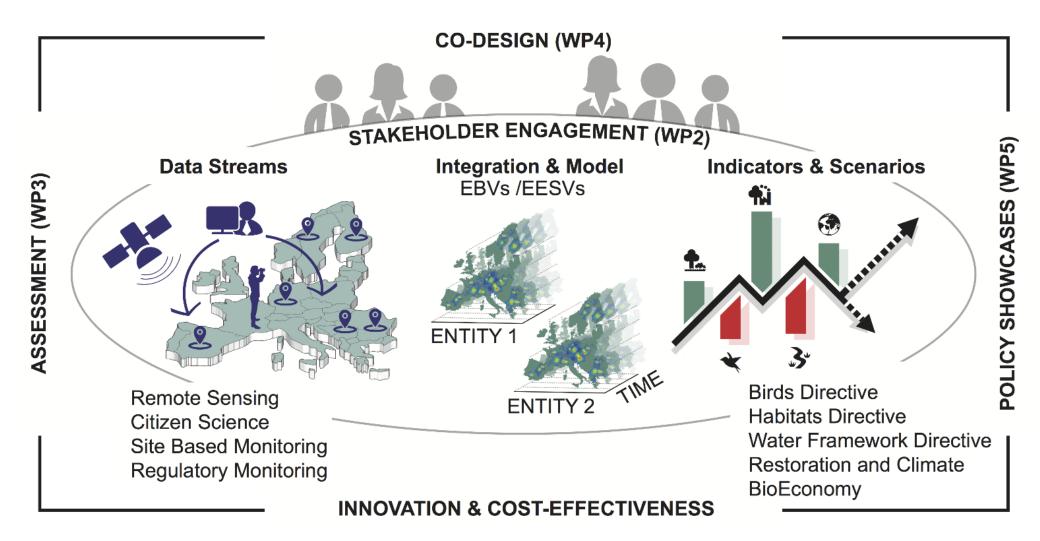


The methodological assessment report on SCENARIOS AND MODELS OF BIODIVERSITY AND ECOSYSTEM SERVICES

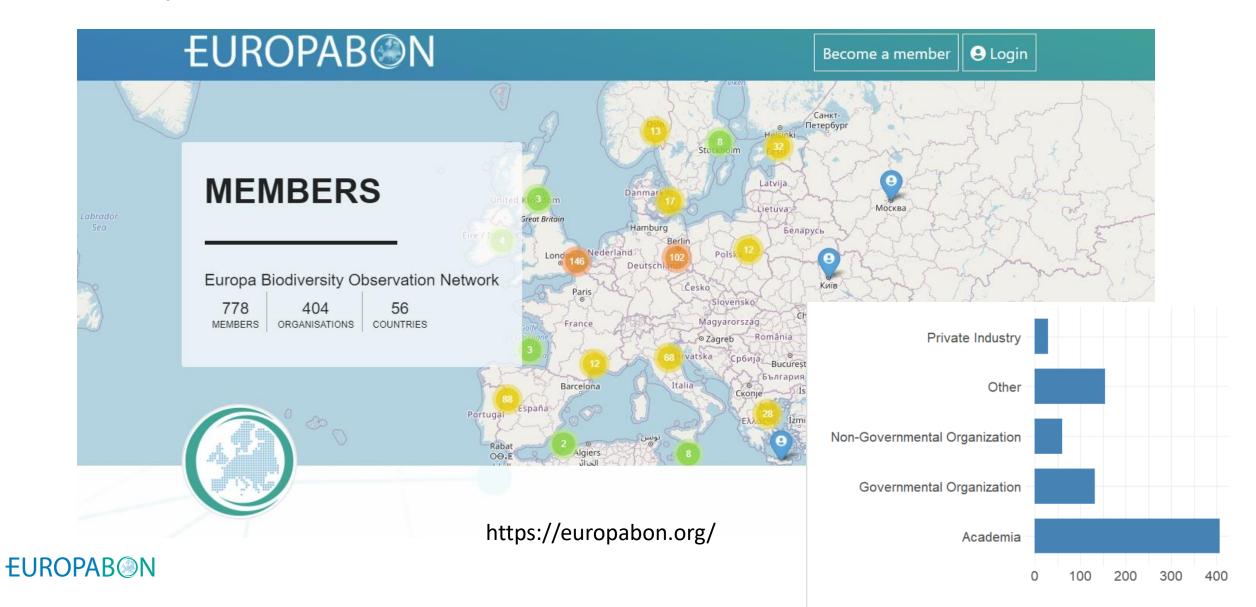




## The Europa BON project

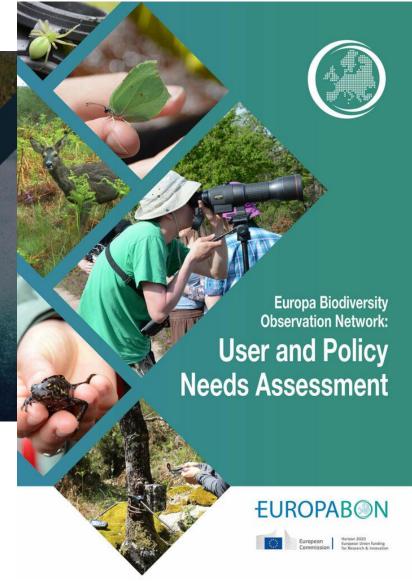


## The EuropaBON Network



# Benefits of membership







# Stakeholder participation

Wide participation of countries across Europe

10 EC Services participated in one or more of the stakeholder events

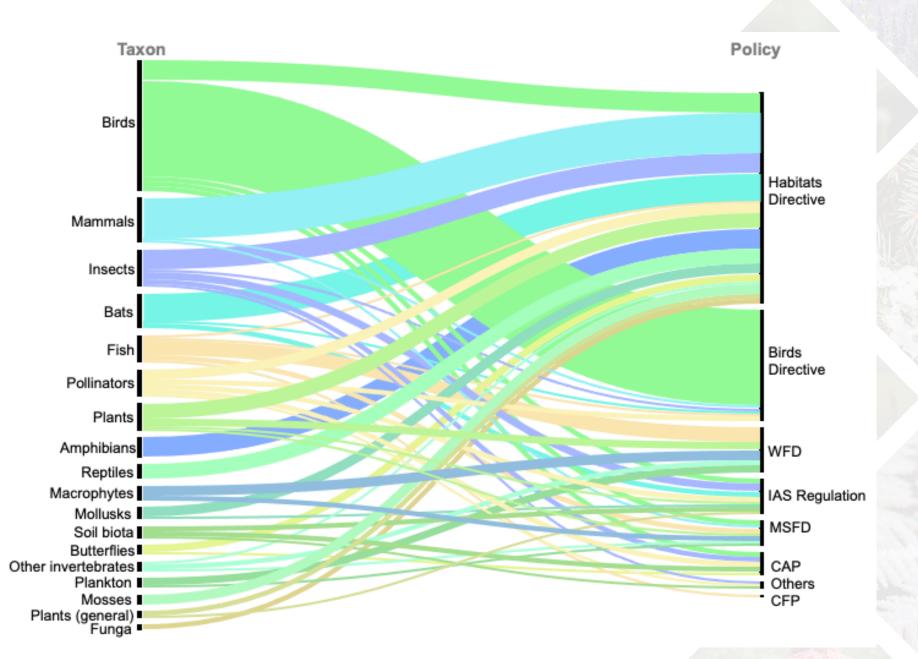




# Ch2. Current biodiversity monitoring efforts

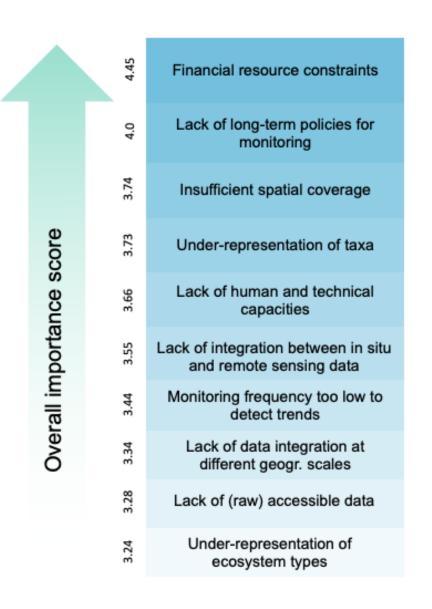
Majority of biodiversity monitoring informs on Habitats and Birds Directive

There is little crosssector use of biodiversity data monitoring e.g., for climate & agriculture policies





Ch3. Challenges & roadblocks in biodiversity monitoring





## Solutions expected from EuropaBON







# The Essential Biodiversity Variables approach



Earth observations from in situ surveys, structured monitoring, citizen-science and space missions











Opportunistic observations

Structured sampling

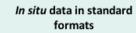
Ecological observatories

Airborne RS surveys

Satellite RS

#### EBV-ready **FAIR data**

Processed and standardized data mobilized into openaccess infrastructures and data centers





RS of biological phenomena



RS of drivers



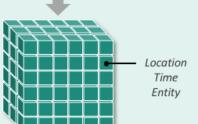
#### **EBV** data cubes

Analysis-ready information about states of biodiversity accross space and time

Harmonization

Contiguous information in space and time Sparsely distributed **EBV** information





#### Downstream **EBV** information

EBV products streamed for science applications, observation networks and policy assessments



Share:

**GEO BON Data Portal** 



Synthesis: **EBV-based change indicators** 

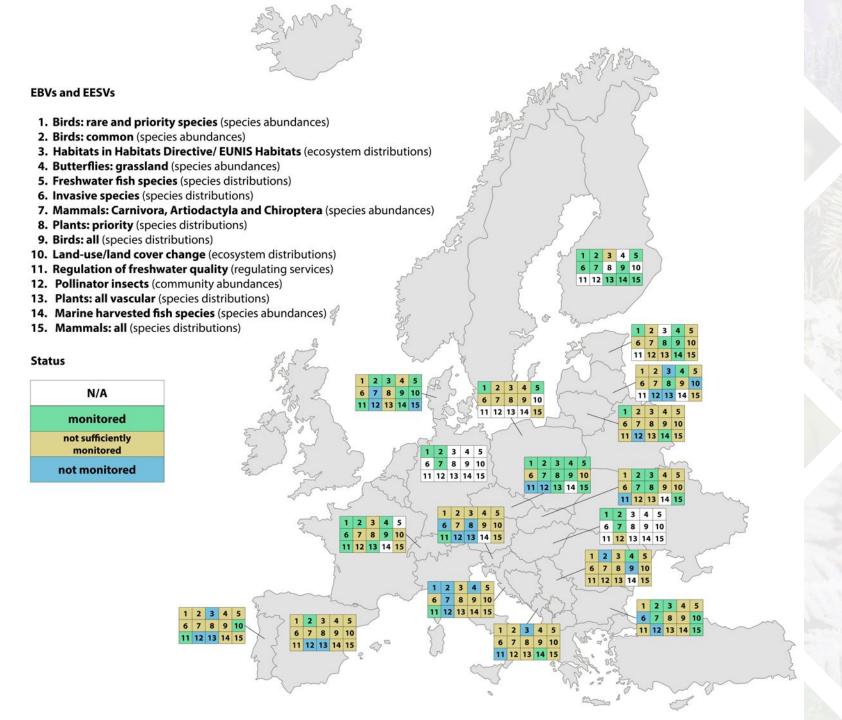


Report: Local to global assessments



# Identifying Essential Biodiversity and Ecosystem Services Variables

Majority of highlyranked EBVs are not sufficiently monitored across Europe by member states or EU agencies.





# **Next steps**

#### **Upcoming EuropaBON workshops**

- Showcase mini-workshops: Fall 2022
- Annual stakeholder conference + policy expert meeting: fall 2022
- Co-design of a European BON: late 2022

#### **Upcoming presentations at international conferences:**

#### Continue integrating stakeholders in EuropaBON co-design:

- Ongoing efforts to expand member database
- Surveys/interviews on cost-effectiveness of monitoring systems: May 2022
- Members contacted to co-design various aspects, participate in events, provide feedback, etc.

Continue close collaboration with EC, Biodiversa+, The Knowledge Centre for Biodiversity (KCBD), JRC, EEA and more ...







# **Next steps**

Co-design Biodiversity Monitoring Coordination Center Terms of Reference (A new legal biodiversity governance framework)

- Exploring existing models of international coordination
- Present and discuss initial ideas in fall 2022 at EuropaBON annual conference

... Become a EuropaBON member – ~700 members and growing: <a href="https://europabon.org/register/">https://europabon.org/register/</a>

... Read the report: <a href="https://preprints.arphahub.com/article/84517/">https://preprints.arphahub.com/article/84517/</a>



