

BUILDING THE EUROPEAN BIODIVERSITY OBSERVATION NETWORK

MINUTES - First EU BON Stakeholder Round Table - Requirements for Policy -

Date: 18 June 2013

Time: 1-day workshop, 11:00 – 16:00 o'clock

Venue: Leibniz Association, Brussels Office, Brussels, Belgium.

Participants: 28, see participant list at the end of the document

Author: Dr. Florian Wetzel

Attachment: List with Abbreviations of the Consortium Partners





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1) Welcome

Christoph Häuser (MfN) on behalf of the EU BON consortium and Jane Shiel (EC, DG Research and Innovation) gave their welcome address.

Jane Shiel pointed out that the workshop should pave the way for the discussions with relevant stakeholders. GEO will be the cornerstone of EU BON, the European contribution for an assessment of freshwater, marine and terrestrial biodiversity data. Furthermore, EU BON should support GEO BON and EU BON outputs should be in line with current policy. Sofie Vandewoestijne (EC, DG Research and Innovation) stated that biodiversity data is of vital importance as well as the biological resources and thus they should be prioritized. Biodiversity data exists, but there are knowledge gaps and the data is diverse in spatial and topical coverage. Also, biodiversity data is often not well distributed and not globally harmonized. For example, marine and freshwater observation systems are often not well connected. EU BON is a necessary tool to make data accessible, interoperable and valid and will enable syntheses and assessments. Due to EU BON, data should be integrated across many assessments. There are important tasks and obstacles to overcome, a challenging technical issue will be the integration of various datasets. The European Community ratified data standards to ensure the quality of the data. It will be also important to improve the culture of data dissemination, open access of data is needed and the EC is pushing open access to data that was gathered with EU funded projects.

2) General overview of EU BON and its targets

Christoph Häuser (MfN), presentation: “General overview of EU BON and its targets”. Christoph Häuser (MfN) pointed out that there will be a series of stakeholder roundtables, the first stakeholder round table should be a kick off for a number of activities. There is still a high fragmentation in biodiversity data and huge gaps. The aims of the workshop will be to determine the current political needs regarding biodiversity information, to develop solutions to overcome existing data gaps and improve accessibility of data. There are many global challenges and biodiversity is one of the major issues. Humanity has become a knowledge society and challenges are the ongoing biodiversity loss, the missing biodiversity baseline data and the fragmentation of available information. The loss of species is not stopped and for the biggest part of biodiversity there is even no knowledge available. The challenge will be to bring together the remote sensing community and ‘on ground’-communities (for terrestrial, marine and freshwater species), as the different communities are not well integrated. Aims of EU BON will be to create a better monitoring and assessment of biodiversity data and the provision of practical indicators. The purpose of EU BON will be to serve as the European contribution to GEO BON and the GEOSS common infrastructure and for the linkage to IPBES.

3) Synergies and contributions from other EU projects

Kris Verheyen (University of Gent): Presentation on FunDiv Europe. FunDiv Europe (<http://www.fundiveurope.eu>) is a project (funded till October 2014) to quantify the functional significance of tree diversity for element cycling (carbon, nutrients, water) and multitrophic interactions in forests in different bioclimatic regions of Europe. It will contribute to the development of the European Long Term Ecological Research Network and information will be obtained to support climate change mitigation policies. Furthermore, the project aims to support the EU and international policies related to forest ecosystems. FunDiv Europe combines different experimental, observational and modeling approaches, and integrates a specifically designed European network of > 200 plots in natural forests.

Jörg Freyhof (IGB): Presentation on BioFresh. BioFresh (<http://www.freshwaterbiodiversity.eu>) is a EU funded project; the mission of the project is to improve the capacity to protect and manage freshwater biodiversity in the face of global change. The mission is to build a freshwater biodiversity information platform, to predict responses to multiple stressors and to improve awareness on freshwater biodiversity conservation – this is also highly relevant in the European context. The project period is scheduled from



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2009–2014. A data portal is part of the project and there are many freshwater datasets freely available. There are also interactions with GEOSS and GBIF, IUCN data was already improved with help of BioFresh distribution maps. Biggest challenge is low data density for some occurrence data of species, like Trichoptera where there are many gaps in Western Spain and in the East.

Lyubomir Penev (Pensoft): Presentation on STEP. The STEP project (<http://www.step-project.net>); the aims of the STEP project are to identify drivers for the global decline of pollinators, to document recent trends in pollinators and insect-pollinated plants and to disseminate findings to a wide range of stakeholders. 22 European partners from 17 countries and 4 BRIC (Brazil, Russia, India and China) partners plus 2 Advisors are involved in the project, the project phase is scheduled from 2010-2015. There are also synergies with EU BON emerging, for example the exchange of data (due to the Darwin core standard). Furthermore, the Pan-European database on pollinator and plants traits and environmental pressures, the European Red Data Book for endangered bees, the Climatic Risk Atlas of the Bees of Europe and the Pan-European distributional atlas of bumble bees (digital maps) could be integrated in the EU BON data portal.

Rudolf May (BfN): Presentation on INSPIRE. INSPIRE (<http://inspire.jrc.ec.europa.eu>) is a directive from the European Parliament and the Council. The aim of INSPIRE is to create a European spatial infrastructure and to enable the sharing of environmental spatial information. INSPIRE creates no obligations for member states to collect new data, unlike the habitat directive, but member states are asked to hand in their spatial data. Some of the data that should be included in the INSPIRE data portal consist of biodiversity information like on protected sites, biogeographical regions, habitats and species distributions. For example for species this will be a major task as there are potentially 150 000 – 200 000 species in Europe to be included.

Peter Galbusera (Royal Zoological Society of Antwerp): Presentation on ConGRESS. ConGRESS (www.congressgenetics.eu) is a project for the Conservation of genetic resources, supported by the EU (2010-2013). One aim was to provide a user-friendly information portal to promote effective communication about biodiversity policy and management. Also simulation and decision tools for integrating the aspect of genetic diversity in projects and studies are part of the project. Important for EU BON will be, as experienced during the ConGRESS project, that policy makers and managers are involved. Furthermore, lessons learnt from ConGRESS are that a project stands or falls by how end users can be engaged. Also enabling a multi-level engagement is important, i.e. an engagement from experts to novices.

In the discussion, Gilles Ollier (EC, DG Research and Innovation) pointed out that it will be important that EU BON will become a main data portal, as small approaches will probably not survive in the long run, so EU BON is expected to be the starting point for a large information system. The existing problem is the high number of databases and data duplications as well as data fragmentation – from the political point of view there is the need to compile the data. Dirk Schmeller (UFZ) agreed and reiterated the need to develop a business plan how a European biodiversity network can be established. Anne Teller (EC) stated that regarding Biodiversity Information for Europe the EU wants to have access to the most reliable indicators that give information on major relevant processes for policy makers. Indicators have to be created that will be used by policy makers; this is not efficiently reflected in current biodiversity information. Crucial for EU BON will also be the science policy interface. Additionally, Claus Mayr (Birdlife) stated the need to improve and speed up the knowledge transfer as policy often needs information within a short time. Georgios Sarantakos (GEO) also added that it will be also important to think of how new stakeholders that can be involved in the process. Katrin Vohland (MfN) also emphasized that a sustainability strategy for the data has to be considered, i.e. how data remains accessible after the project ended.



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4) Gap-analysis of existing biodiversity information with regard to the European Biodiversity Strategy and its indicators

Urmas Kõljag (UTARTU) gave a presentation on biodiversity data sources and the gap analyses. Urmas Kõljag stated that a gap analysis of biodiversity data will be needed and that there is no actual biodiversity data available except one example. There are simple questions that have to be answered for biodiversity data and the data portal, like how the data is collected, who collects it, where is it stored, how is it accessible. The GBIF data consist of data from different institutions from different countries. However, most important data is still left in institutional databases. The best working example is the INSDC (NCBI “GenBank”) as data is only published when the underlying data is published. Overall, there is the need for a major biodiversity data portal.

Christina Secades (UNEP-WCMC): Presentation “Delivering a comprehensive suite of biodiversity indicators in Europe: a science-policy perspective”. Christina Secades stated that more science policy has to be integrated when developing a European Biodiversity data portal and also there should be taken care about how to communicate such approaches. Also the different “two speed trains” of European Policy have to be considered, between the wealthy west Europe on the one hand and east Europe/Balkans with different capacities at national level. There are also various legal binding requirements like CBD, the European Biodiversity Strategy and national laws relevant regarding biodiversity data. EU BON will have to fill the existing gaps of European biodiversity information. Also initiatives like the BIP (Biodiversity Indicators Partnerships) are important where 40 organizations at global, regional and national scales are involved. The first common start point before compiling data should be to determine the policy questions the data should answer, the indicators need a political purpose (“think from the stakeholders perspective”).

In the discussion, Anne Teller (EC, DG Environment) stated that the Commission supported the development of EU indicators and global indicators, that the Aichi targets are relevant (in the EU six indicators) and also on national targets. Constraints are still the European coverage of biodiversity data, and to obtain long-time data series for evaluating data trends. There should be a start with the data we have and a discussion should be launched how to improve data. Dirk Schmeller (UFZ) mentioned that there should be first, due to data limitations, a focus on a certain set of indicators. Georgios Sarantakos (GEO) added that it should be evaluated how crowd sourcing data could be incorporated in the assessment. Rudolf May (BfN) noted that governments and scientists have to be linked much better as they are two different communities. Jörg Freyhof (IGB) noted that it is often hard to get the information and data from a legal framework. For example, raw data of the Natura 2000 data process is hardly available.

5) EU BON and global governance

5.1 Perspectives for biodiversity policy

Georgios Sarantakos (GEO Secretariat) pointed out in his talk called “EU BON and global governance - Perspectives for biodiversity policy” how a regional program can have a global impact; there are regional approaches like Arctic BON, ASEAN BON and additionally national BON’s like in France or Japan. All these systems are connected; there is also an interconnection with IPBES CBD and sustainable development goals. EU BON is expected to be a leader in the EU and that it will contribute significantly to global efforts.

Anne Teller (EC, DG Environment), presentation “EU 2020 Biodiversity Strategy: information requirement”. One EU 2020 headline target is to halt the degradation of ecosystem services and to restore them as far as possible. There are six subtargets in EU regarding the EU Biodiversity Strategy. For example target 2, Action 5 deals with monitoring ecosystem services, for that purpose, researchers and member states have to be linked. The project “Mapping and Assessment of Ecosystems and their Services” (MAES) is the overarching roof assessment. The aim here is to map and assess ecosystem services. Challenges are arising, as often the access to the data is not in the hand of the European Commission, like in the case of ecosystems data or for agricultural data. Six pilot projects (freshwater, marine, forests...) were started and it is expected



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that the pilots will provide some guidelines until the end of the year. Indicators based upon data should be clearly visible and accessible; however, this should be only a part of the general data. The provision of data and metadata will be also part of the project.

In the discussion, also the genetic data was mentioned as a valuable part of biodiversity data. However, in the case of genetic data it is particularly important that genetic data could be used as an indicator in order to give policy recommendations. Here, the approach to determine Essential Biodiversity Variables (EBVs) could be valuable.

5.2 Perspectives for citizen science

Veljo Runnel (UTARTU), presentation: “EU BON Citizen Science perspectives“. Veljo Runnel explained how EU BON will integrate the citizen science initiatives. There are different levels of expertise among EU countries – in smaller countries only a couple of people participate, in others like the UK thousands of participants can be mobilized. So there is a huge variety – and EU BON should improve approaches to generate more data on biodiversity. The EU BON portal will include a citizen science gateway – which should be designed in a sustainable way. Volunteers are needed, at the same time the data needs to meet high quality standards. Crucial will be also the motivation of data collectors, so it has to be determined what motivates the data collectors mostly, probably interaction with other data collectors is a key motivation source. The portal could integrate high quality tools and a way to extract high quality data.

In the discussion Patricia Mergen (RMCA) pointed out that there is an underlying fear of many scientists that they are not needed any more. Jörg Freyhof (IGB) indicated that if there are toolkits for a standardized citizen science (like for dragonflies in Wallonie) it could be beneficial if such a toolkit will be implemented under EU BON, Veljo Runnel agreed; EU BON will develop such toolkits.

Cigdem Adem (EEA) reported in her presentation “EEA and LLTK and Citizen Science” about EEA Citizen Science activities in the past and recent approaches. There are different levels of citizen science, it incorporates the gathering and analyzing of data and also proposing and designing of research. Cigdem Adem pointed out that there is a need for a more long term monitoring of biological and ecological systems which can be supported in part by citizen scientists. There is a strong link between scientists and citizen scientists but the link to policy has to be strengthened. An example for making data publicly available is Eye on Earth (www.eyeonearth.org), a global public information network for collecting and sharing data from diverse sources that can be visualized on a map.

5.3 EU BON Biodiversity Portal - content creation and integrating key datasets for policy, science and citizens

Patricia Mergen (RMCA) reported in her presentation “EU-BON Biodiversity Portal“ about the design of the EU BON Biodiversity Portal – specifically regarding the content creation and how key datasets for policy, science and citizens can be integrated. The work on the portal will start soon (August 2013) and there is also the link to the task of sharing tools. The task is not to increase the already high number of data points but to develop a central data access portal. One of the challenges will be how to mobilize new content, how to curate and update the existing content. Also another critical point is the challenge of how to find funding in order to update existing data (like updating museum data), collaborations with the private sector could be a good option. However, big companies want exclusivity and often scientific needs are too specific and could not be commercialized. One of the priorities will be the gap analysis. But there should be first a detailed definition of what a gap in data means as there are several definitions possible. There are some partners that could be additionally involved in a gap analysis, like Smithsonian, the JRC in Ispra, New York Botanical Garden, and others. Trainings on communication between scientists and policy makers will be organized in collaboration with Christina Secades from UNEP-WCMC.



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In the discussion, Rudolf May (BfN) noted that existing technology should be used and more effort should be spent for initiatives to share data, also some rewarding system for data sharers could enhance the sharing of data in general. Andrew McConville (IEEP) also pointed out that it will be important to add additional data sources like from hunters and other users of biodiversity as they collect lots of data. Urmas mentioned in the respect of a rewarding system the approach of Thomson Reuters publisher, they developed an initiative so that data that was used for papers will be cited. Another critical point will be how to secure that data remains accessible after a project ended. Furthermore it will be crucial to integrate also other communities. Georgios Sarantakos indicated that private companies will maybe be interested in applications concerning access to real time data versus legacy data.

6. Resume (Expectations for EU BON from European Policy Bodies)

Christoph Häuser gave a resume of the first EU BON stakeholder roundtable. In the focus of EU BON there are many political stakeholders and in this meeting a whole variety of valuable recommendations were given for the future process of EU BON and many important aspects were discussed:

1. Biodiversity policy: What biodiversity policy needs are indicators and measurements to answer burning policy questions, during the meeting good suggestions were made to formalize EBV's and Aichi targets. It would be a good approach to set up a guideline and timeline for indicators that should be established within EU BON.
2. Research policy: EU BON should also serve GEO and make continuously contributions to the global process; it should also serve as a showcase for the European Commission. EU BON will also be relevant for crucial questions regarding data policy, e.g. to establish a general repository for a long-lasting storage of data and how to handle 'big data'. Another relevant challenge will be to integrate EU relevant projects and initiatives and their data portals, datasets and metadata.
3. The third important aspect was the discussion about how public stakeholders can be involved in the future, particularly citizen scientists, so that they could be integrated in EU BON and provide useful information for scientists and researchers.

Immediate next steps of EU BON will be the upload of all presentations on the EU BON website (www.eubon.eu) during the next week, a contact list of the participants will be circulated and the minutes of the meeting will be uploaded. Furthermore, a list will be prepared to formalize the relationships with other key biodiversity projects – for that purpose a MoU will be drafted to establish a network of EU BON associates and for a follow up with other biodiversity projects and political stakeholders.



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Participants:

	SURNAME	NAME	INSTITUTION
1	Adem	Cigdem	European Environment Agency
2	Doubleday	Rob	Cambridge University; Cambridge Conservation Initiative
3	Freyhof	Jörg	Leibniz Institute of Freshwater Ecology and Inland Fisheries
4	Galbusera	Peter	Royal Zoological Society of Antwerp
5	Geijzendorffer	Ilse	Mediterranean Institute of marine and terrestrial Biodiversity and Ecology (IMBE)
6	Casino	Ana	CETAF
7	Hasse	Elisabeth	Leibniz Association, Brussels Office
8	Häuser	Christoph	Museum fuer Naturkunde
9	Hoffmann	Anke	Museum fuer Naturkunde
10	Immisch	Claudia	Leibniz Association, Brussels Office
11	Köljalg	Urmas	University of Tartu
12	Lurson	Anja	Representation City of Berlin to the European Union
13	May	Rudolf	German Federal Agency for Nature Conservation (BfN)
14	Mayr	Claus	Birdlife International - NABU
15	McConville	Andrew J.	Institute for European Environmental Policy
16	Mergen	Patricia	Royal Museum for Central Africa
17	Penev	Lyubomir	Pensoft
18	Ollier	Gilles	European Commission, DG Research and Innovation
19	Runnel	Veljo	University of Tartu
20	Sarantakos	Georgios	GEO Secretariat
21	Schmeller	Dirk	Helmholtz Centre for Environmental Research
22	Secades	Cristina	United Nations Environment Programme - World Conservation Monitoring Centre
23	Shiel	Jane	European Commission DG Research & Innovation
24	Teller	Anne	European Commission DG Environment
25	Vandewoestijne	Sofie	European Commission DG Research & Innovation
26	Verheyen	Kris	University of Gent
27	Vohland	Katrin	Museum fuer Naturkunde
28	Wetzel	Florian	Museum fuer Naturkunde



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List with Abbreviations of the Consortium Partners

MfN	Museum für Naturkunde - Leibniz Institute for Research on Evolution and Biodiversity, Berlin	Germany
UTARTU	University of Tartu, Natural History Museum, Tartu	Estonia
UEF	University of Eastern Finland, Digitisation Centre, Joensuu	Finland
GBIF	Global Biodiversity Information Facility, Copenhagen	Denmark
UnivLeeds	University of Leeds, School of Biology, Leeds	UK
UFZ	Helmholtz Centre for Environmental Research, Leipzig - Halle	Germany
CSIC	The Spanish National Research Council, Doñana Biological Station, Seville	Spain
UCAM	University of Cambridge, Centre for Science and Policy, Cambridge	UK
CNRS	National Center for Scientific Research, Mediterranean Institute of marine and terrestrial Biodiversity and Ecology (IMBE), Aix-en-Provence	France
Pensoft	Pensoft Publishers Ltd, Sofia	Bulgaria
SGN	Senckenberg Gesellschaft für Naturforschung, Frankfurt am Main	Germany
Vizzuality	Vizzuality S.L., Madrid	Spain
FIN	FishBase Information and Research Group, Inc., Laguna	Philippines
HCMR	Hellenic Centre for Marine Research, Heraklion	Greece
NHM	The Natural History Museum (NHM), London	UK
BGBM	Botanik Garden and Botanical Museum Berlin-Dahlem Freie Universität Berlin, Berlin	Germany
NHMD	University of Copenhagen: Natural History Museum of Denmark, Copenhagen	Denmark
RMCA	Royal Museum of Central Africa, Tervuren	Belgium
Plazi	Plazi GmbH, Bern	Switzerland
GlueCAD	GlueCAD Ltd. - Engineering IT Solutions, Haifa	Israel
IEEP	Institute for European Environmental Policy, London	UK
INPA	National Institute of Amazonian Research, Manaus	Brazil
NRM	Swedish Museum of Natural History, Stockholm	Sweden
IB SAS	Slovak Academy of Sciences, Institute of Botany, Bratislava	Slovakia
EBCC-CTFC	European Bird Census Council, Forest Technology Centre of Catalonia, Solsona	Spain
NBIC	Norwegian Biodiversity Information Centre, Trondheim	Norway
FEM	Fondazione Edmund Mach, San Michele all'Adige, Trento	Italy
TerraData	TerraData environmetrics, Monterotondo Marittimo	Italy
EURAC	European Academy of Bozen/Bolzano, Bolzano	Italy
WCMC	UNEP World Conservation Monitoring Centre, Cambridge	UK