



NEWSLETTER

Issue 3



Group photo of the participants in the recent EU BON General Meeting in Crete, Greece.



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Table of contents:

Welcoming words by the EU BON coordinator	2
New friends of EU BON	3
EU BON at international meetings	6
Hot from the project	7
News from the community	9
Future events of interest	11
EU BON Website & Contacts	12



Welcoming words by the EU BON coordinator

Towards expanding the EU BON network!

Dear colleagues and friends,

From the entire project consortium, we are delighted to introduce you to our third EU BON Newsletter which supplies information about the project's progress and our activities.

Within its first 18 months period EU BON had outstanding success in a range of areas and towards its general objectives. This was particularly shown by all partners at our inspiring first General Meeting, which took place from 31 March to 2 April 2014 in Crete, Greece. Three high-ranking key note speakers gave stimulating talks about GEO BON and IPBES with respect to EU BON. Our first scientific periodic report, which was due in July, summarizes all past developments and outcomes.

For strengthening integration and collaboration across the project, several thematic workshops and interesting group meetings were held, in addition to numerous electronic discussion groups and regular work package meetings. For progressing with specific tasks and to respond to new and upcoming developments, three dedicated EU BON Task Forces have been established on IT, remote sensing, and EBVs, which also comprise external members. Besides all the internal activities the project partners have participated in important scientific and political conferences worldwide and introduced the main aims and achievements of EU BON to date.

Among the most significant achievements worth mentioning is the expansion of the EU BON network by affiliating associated partners from a wide range of areas, who will enhance the expertise of the EU BON consortium. We would like to welcome all of them and encourage you to read more about them in this issue. Some of these new associated partners for example enlarge our network of test sites: University of Granada (LTER site Sierra Nevada), Amvrakikos Wetlands National Park, Mercantour National Park, Alpi Marittime Nature Reserve, HaMaarag - Israel's National Program for Ecosystem Assessment and the French BON (FRB-ECOSCOPE).

Finally, we would like to point out that we have published a basic EU BON reference paper titled "Improved access to integrated biodiversity data for science, practice, and policy - the European Biodiversity Observation Network (EU BON)", which provides a very good overview of the project's background, objectives, research interests and the need for an integrated biodiversity policy.

This newsletter aims to increase ongoing communication and to update you on biodiversity issues and EU BON achievements. All of you are most welcome to contribute to our newsletter. Please let us know about interesting activities and outcomes of your projects.

As always, we hope you enjoy reading this newsletter.
With warm regards,

Christoph Häuser & Anke Hoffmann

EU BON website: www.eubon.eu





New friends of EU BON

A warm welcome to our new associated partners!

EU BON takes care to enhance the expertise of its consortium by affiliating associated partners, an approach the project is planning to continue with.

During the 6 month period between March and August 2014 the project family was joined by a total of 16 new associated partners. We welcome the new members and invite more institutions for future collaboration!

We continue with some additional information about our new associated partners:



Signing of the MoU between (clockwise): EU BON (Christoph Häuser) and HaMAARAG (Yossi Mossel - Managing director); EU BON and the Museo de Historia Natural UNMSM (Director Prof. Dra. Betty Millán Salazar); EU BON and CETAF (Chair Dr. Michelle J. Price) at the 35th CETAF General Meeting in Oslo, 6-7 May, 2014)

HaMAARAG - The Israel National Program for Ecosystem Assessment

HaMAARAG was established in 2006, following a decade's worth of research in Long Term Ecological Research (LTER) stations. Its main objective is to promote science-based management of open landscapes and natural resources, for human well-being and for long-term sustainability of nature in Israel.



CETAF, AISBL - Consortium of European Taxonomic Facilities

CETAF is a networked consortium of scientific institutions in Europe formed to promote training, research and understanding of systematic biology and palaeobiology. Together, CETAF institutions hold very substantial biological (zoological and botanical), palaeobiological, and geological collections.





Biodiversity Virtual e-Laboratory Project (BioVeL)

BioVeL is a virtual e-laboratory that supports research on biodiversity issues using large amounts of data from cross-disciplinary sources. BioVeL offers the possibility to use computerized “workflows” (series of data analysis steps) to process data, be that from one’s own research and/or from existing sources.



DataONE (Observation Network for Earth)

DataONE is the foundation of new innovative environmental science through a distributed framework and sustainable cyberinfrastructure that meets the needs of science and society for open, persistent, robust, and secure access to well-described and easily discovered Earth observational data.



Fondation pour la Recherche sur la Biodiversité (FRB) / ECOSCOPE

ECOSCOPE is a national network for long-term observation of biodiversity supported by the French Alliance for Research in Environment. ECOSCOPE aims at coordinating and reinforcing biodiversity observatories through specific actions to contribute to national and global efforts.



Atlas Florae Europaeae (AFE)

Atlas Florae Europaeae (AFE) is a running long-term programme for mapping the distribution of vascular plants in Europe. The project was launched already in 1965 as a collaborative effort of European botanists and since then the [Secretariat](#) was established at the Botanical Museum of the Finnish Museum of Natural History, Helsinki.



Natural Environment Centre / SYKE (Finnish Environment Institute)

The Finnish Environment Institute (SYKE) promotes the conservation of biodiversity by various measures, e.g. by assessments of the conservation status of species and natural habitats or by research on methods of management and restoration of habitats. An important field of research is the significance of ecosystem services and their interactions with biodiversity.



BioFresh - The network for global freshwater biodiversity

BioFresh is an EU-funded international project that aims to build a global information platform for scientists and ecosystem managers with access to all available databases describing the distribution, status and trends of global freshwater biodiversity. BioFresh integrates the freshwater biodiversity competencies and expertise of 19 research institutions.



Naturalis Biodiversity Center

Naturalis Biodiversity Center creates a single national centre of expertise for pooling knowledge on the variety of species and evolution. Taxonomy is an important part of Naturalis research, other research areas include Morphology and Evolutionary Developmental Biology ('Evo-devo'), Phylogenetics and Horizontal Genomics, Biogeography and Global Change Biology.





University of Zurich, URPP 'Global Change and Biodiversity'

The URPP on Global Change and Biodiversity (URPP GCB) is designed to advance the specific research agendas of its participants further through integration with other researchers of the URPP Global Change and Biodiversity.



National Taiwan University (NTU), Department of Bioenvironmental Systems Engineering

The Department of Biochemical Science and Technology (BST) was founded in 2002, as part of the newly established College of Life Science of the NTU, on the initiative of Division of Agricultural Production in Department of Agricultural Chemistry, and Institute of Biochemical Sciences in College of Science.



Centre de Recherche pour la Gestion de la Biodiversité (CRGB)

The Research Center for Biodiversity Management has several missions among which the sustainable management and conservation of natural resources; the inventory of the mammalian fauna, insect fauna and forestry; sustainable plant protection; good agricultural practices; and the valuation of natural ecosystems through tourism and eco-tourism.



Research Centre in Biodiversity and Genetic Resources (CIBIO)

CIBIO is a Research Unit in Biological Sciences which conducts basic and applied research on the three main components of biodiversity: genes, species and ecosystems. Since January 2011 CIBIO is part of InBIO Research Network in Biodiversity and Evolutionary Biology.



Mercantour National Park (PNM)

The primary mission of the Mercantour National Park (France) is to protect the nature, landscapes and biological diversity on its territories. By making natural heritage available to the public, it fosters its discovery and ensures that knowledge is transmitted for future generations.



Alpi Marittime Natural Park (PNAM)

Parco naturale delle Alpi Marittime (Italy) was created in 1995 by the union of Parco naturale dell'Argentera and Riserva del Bosco e dei Laghi di Palanfré. A single large protected area was formed, covering 28,455 hectares, spread over three valleys and five municipalities.



Museo de Historia Natural UNMSM

The Museum of Natural History, founded in 1918, is an academic institution that belongs to the National University of San Marcos in Lima. The museum is in charge of collecting, researching and displaying representative samples of the natural heritage of Peru.



See the full list of EU BON associated partners [here](#).



EU BON at international meetings

EU BON at GEO BON

A GEO BON meeting was held in Leipzig (Germany) from 16-18 June. The first half of this event was dedicated to a workshop for the GEO BON Work Group leads and second half was the Steering Committee meeting. Among the participants also EU BON partners Christoph Häuser, Hannu Saarenmaa and Dirk Schmeller were present at the meeting.

During the Steering Committee meeting the new GEO BON chair, Henrique Miguel Pereira of the German Centre for Integrative Biodiversity Research (iDiv) was elected to a 3-year term of office. GEO BON co-chair is Mike Gill and Jörg Freyhof has started as the Executive Director.

GEO BON is a network of people from across the globe working together to foster the development of a Global Biodiversity Observation Network through the establishment of national and regional networks. Some 100 governmental, inter-governmental and non-governmental organizations are collaborating through GEO BON to organize and improve terrestrial, freshwater and marine biodiversity observations globally and make their biodiversity data, information and forecasts more readily accessible to policymakers, managers, experts and other users.

DataONE meets EU BON

At the Open Repositories Conference (9-13 June 2014) in Helsinki, Finland, a DataONE Member Node Implementation Workshop was held, which was joined by EU BON partners. This one day meeting (9 June) outlined the concept of DataONE, which is the Data Observation Network for Earth project ([DataONE](#)).

Several EU BON partners of different work packages and associated partners joined the workshop and engaged in the discussion to find ways how the EU BON project and its data could be linked to the DataONE infrastructure.



Participants of the Workshop (from UEF, CSIC, MRAC, GlueCAD, HCMR, MfN, Univ. Granada, SYKE) and members of DataONE after the first day meeting, Helsinki, Finland.

The workshop was followed by an EU BON specific internal meeting, chaired by Hannu Saarenmaa from the University of Eastern Finland (UEF) and hosted by Liisa Tuominen-Roto from the Finnish Environment Institute (SYKE). At this meeting it was further elaborated how the information obtained in the previous day could be translated into concrete next steps. Also further aims of EU BON and its work on a portal were discussed with the project partners, to further develop the plans of EU BON's data integration and interoperability.

Read more [here](#).

8th GEO European Projects Workshop (GEPW-8)

The 8th GEO European Projects Workshop (GEPW-8) took place in Athens, Greece, on 12 and 13 June, hosted by the Greek GEO Office – National Observatory of Athens and co-organized by the Mariolopoulos-Kanaginis Foundation for the Environmental Sciences.

The event was intended to bring all those interested in and actively contributing to the Global Earth Observations System of Systems (GEOSS) from all over Europe together, in order to present their work and discuss how Europe can contribute to this international effort, especially in the wake of the launch of the new EU Framework Programme for Research, Horizon 2020, and renewal of the mandate of GEO for another 10 years through the endorsement of the 2014 Geneva Declaration.



Group photo from the 8th GEO European Projects Workshop in Athens, Greece"

EU BON was presented at the meeting by project co-ordinator Christoph Häuser who gave a presentation of the challenges and opportunities for integrating biodiversity information for GEOSS.

Read more [here](#).

The pro-iBiosphere Final Conference in Meise



Participants at the pro-iBiosphere Final Conference

The pro-iBiosphere Final Conference successfully took place in Meise on June 12, 2014 at the Bouchout Castle in the Botanic Garden Meise in the North of Brussels. More than 75 participants from the biodiversity and/or e-Infrastructures community joined the active discussions while (i) reviewing project results and the key areas of improvement in the design and implementation of an Open Biodiversity Knowledge Management System OBKMS and (ii) providing recommendations on future research needs for the preparation of the next WP 2016-2017 of EU Horizon 2020 Framework Programme for Research and Innovation.

The Final Conference has been the last meeting organised among a series of activities, so-called pro-iBiosphere **Final event**, including (i) MS24 – Model Evaluation Workshop held on June 9-10, (ii) Training on Wikimedia, (iii) Biodiversity Catalogue (BioVeL) Workshop, (iv) Demonstrations on project pilots, (v) Demonstrations on outcomes of pro-iBiosphere Data Enrichment Hackathon and a Poster session organised during coffee breaks on June 11.

Find out more on the pro-iBiosphere [website](#).

Symposium on 'Remote Sensing for Conservation'

On 22nd and 23rd of May a symposium entitled "*Remote sensing for conservation: uses, perspectives and challenges*" took place at the Zoological Society of London (ZSL). The organisers successfully aimed at linking specialists from the two fields, remote sensing and conservation, more tightly. The two days provided a great overview of current activities of joint approaches and glimpses of what might be possible in the near future.

Among the participants were representatives from NASA, DLR (German Aerospace Center), University of Würzburg, University of South Florida, WCMC and many other leading institutions presenting latest research in the field. EU BON presented its remote sensing approaches.

To read a detailed overview of the presentations, go to our [website](#).

Hot from the project

New: EU BON reference publication

The latest peer-reviewed EU BON publication in the open access journal Nature Conservation is now a fact. The article titled "*Improved access to integrated biodiversity data for science, practice, and policy – the European Biodiversity Observation Network (EU BON)*" provides an overview of the project's background, research interests and vision for the future.



Abstract

Biodiversity is threatened on a global scale and the losses are ongoing. In order to stop further losses and maintain important ecosystem services, programmes have been put into place to reduce and ideally halt these processes. A whole suite of different approaches is needed to meet these goals. One major scientific contribution is to collate, integrate and analyse the large amounts of fragmented and diverse biodiversity data to determine the current status and trends of biodiversity in order to inform the relevant decision makers. To contribute towards the achievement of these challenging tasks, the project EU BON was developed. The project is focusing mainly on the European continent but contributes at the same time to a much wider global initiative, the Group on Earth Observations Biodiversity Observation Network (GEO BON), which itself is a part of the Group of Earth Observation System of Systems (GEOSS). EU BON will build on existing infrastructures such as GBIF, LifeWatch and national biodiversity data centres in Europe and will integrate relevant biodiversity data from on-ground observations to remote sensing information, covering terrestrial, freshwater and marine habitats.

Original Source:

Hoffmann A, Penner J, Vohland K, Cramer W, Doubleday R, Henle K, Kõljalg U, Kühn I, Kunin WE, Negro JJ, Penev L, Rodríguez C, Saarenmaa H, Schmeller DS, Stoev P, Sutherland WJ, Tuama EO, Wetzel F, Häuser CL (2014) Improved access to integrated biodiversity data for science, practice, and policy – the European Biodiversity Observation Network (EU BON). *Nature Conservation* 6: 49–65. doi: [10.3897/natureconservation.6.6498](https://doi.org/10.3897/natureconservation.6.6498)

See the original article [here](#).

EU BON General Meeting: Improved access to integrated biodiversity data for science, practice, and policy

The [EU BON General Meeting](#) took place between 30 March – 3 April 2014 in Heraklion/Crete in Greece to present major project results and set objectives for the future. The meeting included work



Discussions during the EU BON General Meeting

package sessions as well as many cross-task meetings, and was followed by the first EU BON training workshop on information architecture and data standards. Both were kindly hosted by the Institute of Marine Biology, Biotechnology and Aquaculture – [Hellenic Centre for Marine Research \(HCMR\)](#) and brought together 80 guests, key note speakers and EU BON partners representing all EU BON work packages.

The 2014 General Meeting started with three keynote presentations about (i) the role of EU BON as a key project within GEO BON given by the GEO BON executive director Jörg Freyhof; (ii) GEO BON and remote sensing in biodiversity management presented by Marc Paganini from the [European Space Agency](#) and (iii) [IPBES](#) and its connection to EU BON provided by Jerry Harrison from the [UNEP-WCMC](#). These presentations encouraged to discuss collaborations between the project and other important initiatives in the areas of earth observation, particularly in remote sensing and in situ approaches to biodiversity data collection, as well as in the use and analysis of biodiversity data for forecasting and scenario building, and environmental policy.

Read the full article [here](#).

EU BON strategy workshop

On 2 July, an EU BON IPBES/CBD expert strategy workshop was held in Cambridge (UK), to further determine the potential value that EU BON could



EU BON participants at the workshop



have for both CBD as well as for IPBES. Multiple partners of EU BON discussed with Jerry Harrison from UNEP-WCMC, active expert of CBD and IPBES, and Matt Walpole, on the actual needs of both policy instruments, what EU BON can contribute and how its contributions can be most successful. Based on the hard work performed during the day, several general recommendations and a list with 7 priority focal actions were developed.

Main recommendations:

- the explicit inclusion of non-European colleagues and data – to demonstrate the added value of EU BON also outside the European context
- searching actively to collaborate with other existing institutes like GEO BON and LTER – to demonstrate the longevity of EU BON outputs
- and publishing early on successful data integration demonstration cases – to demonstrate the scientific rigour and possibilities.

The workshop was organised by CNRS and hosted by WCMC, just in time to start preparing for IPBES 3 which will be held on 12-17 January 2015 in Bonn, Germany.

To read more, please go to our [website](#).

News from the community

EU BON and the European Space Agency: Earth Observations to support biodiversity monitoring

The [European Space Agency](#) (ESA) is Europe's gateway to space. Its mission is to shape the development of Europe's space capability and ensure that investment in space continues to deliver benefits to the citizens of Europe and the world. ESA is an international organisation with 20 Member States.

How is EU BON connected to space research? As a speaker at the EU BON General Meeting, which took place on Crete between 30 March – 3 April 2014, Marc Paganini of the European Space Agency explains the collaboration between ESA and GEO BON, and how EU BON is involved.



Marc Paganini (left) and Dirk Schmeller (right) at the EU BON General Meeting 2014

In the following interview he continues the topic:

1) For most of the general public space and biodiversity research hardly have anything to do with each other, can you explain how the European Space Agency (ESA) and the idea of remote sensing communities make these two meet?

It is widely recognized that in-situ observations available on biological diversity are very scarce for most of the Earth's ecosystems and are often insufficient for determining precisely the global status and trends of biodiversity worldwide. In most cases, satellite Earth Observations do not provide a direct measurement of biodiversity but, if properly used with ground collection of biodiversity data and species and habitat modeling, remote sensing can become an important and essential component of biodiversity monitoring systems.

2) How is the ESA involved with the aims of EU BON, where do the two initiatives intersect?

First there is a coordinated action from all Space Agencies through the Committee on Earth Observation Satellites (CEOS) and its involvement in the Group of Earth Observation (GEO). Biodiversity is one of the primary societal benefit areas of GEO and is addressed by the GEO Biodiversity Observation Network (GEO BON).

Second, ESA has its own EO application development programs, and funds a wide range of Research & Development projects for biodiversity and ecosystem services. The findings of the ESA-funded EO projects on biodiversity and ecosystem services are highly relevant to EU BON. It is therefore expected



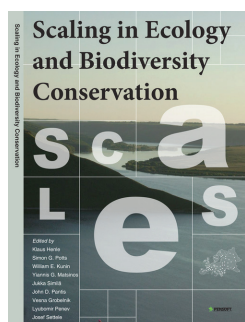
that the ESA and EU BON activities in relation to the use of RS for biodiversity monitoring will offer some convergence of evidence showcases for the whole biodiversity community.

3) How do you see the future of collaboration with EU BON?

The high potential for satellite Earth Observations to support biodiversity monitoring is growing but is yet to be fully realised. The recent efforts of GEO BON, supported by the GEO Plenary and the CBD Conference of the Parties, to define a set of minimum essential observational requirements to monitor biodiversity trends will give considerable impetus for space agencies and for the remote sensing community to focus their work on a small set of well defined EO products that will serve the needs of the biodiversity community at large. In that context ESA is firmly engaged in supporting the development of these emerging Essential Biodiversity Variables (EBVs). EU BON together with ESA can be pioneers in the early development and demonstration.

Read the full [interview](#).

Scaling in ecology and biodiversity conservation explained in a book and an online tool



The 5-year EU project [Securing the Conservation of biodiversity across Administrative Levels and spatial, temporal, and Ecological Scales \(SCALES\)](#) has come to an end in July 2014 resulting in a first of its kind description of challenges that arise in protecting biodiversity across different scales.

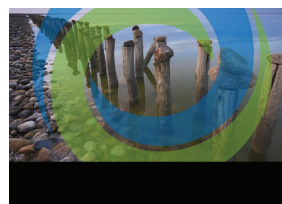
A wide range of practical methods and recommendations to improve conservation at regional, national and supranational scales are included in a book published as a synthesis of project outcomes. The book "[Scaling in Ecology and Biodiversity Conservation](#)" was published in advanced open access via Pensoft Publisher's [Advanced Books](#) platform. This

innovative format aimed at accelerating data publishing, mining, sharing and reuse, offers a range of semantic enhancements to book contents, including external sources.

Results are also presented in an easy to use interactive [SCALETOOL](#), specifically developed for the needs of policy and decision-makers. The tool also provides access to a range of biodiversity data and driver maps compiled or created in the project.

Find out more [here](#).

The Spiral Project Handbook: Effective interfaces between science, policy and society



The Spiral Project Handbook: Effective interfaces between science, policy and society was developed as part of the [SPIRAL](#) project. SPIRAL is an interdisciplinary research project that studies science-policy interfaces between biodiversity research and policy to draw lessons and improve the conservation and sustainable use of biodiversity.

The handbook is structured around five main issues. It starts with a brief introduction to what SPIs are, and what they are not. Then moves on to the issue of why SPIs are needed before looking at certain important attributes of SPIs, namely credibility, relevance, legitimacy and iterativity. In the next part of the handbook, some steps and recommendations for designing, maintaining and improving the SPIs of EUfunded research projects are outlined. As part of this some factors facilitating successful SPIs are discussed.

Read more on our [website](#).

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The Bouchout Declaration: A commitment to open science for better management of nature



The [Bouchout Declaration](#) targets the need for data to be openly accessible, so that scientists can use the



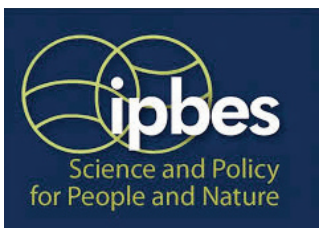
information for new types of research and to provide better advice. Currently, data may be prevented from becoming open or usable because of copyright or concerns of institutions that hold the data, or because it is not in a form that can be easily managed by computers. The Declaration identifies mechanisms to structure open data so that they can be

The Bouchout Declaration emerged from the [pro-iBiosphere project](#) as a reaction to the need of better access to biodiversity information. The inaugural ceremony of the Bouchout Declaration (including official launch of the website) took place on the 12 June 2014 during the final event of the project.

The full article is available [here](#).

Future events of interest

Second IPBES Pan-European stakeholder meeting (PESC-2)



The Second IPBES Pan-European stakeholder meeting (PESC-2) will take place on 22 – 23 September 2014 in Basel, Switzerland. The meeting is organised by the Swiss Biodiversity Forum with

the support of the Swiss Federal Office for the Environment (FOEN), and in collaboration with other European IPBES Platforms from Germany, France, Belgium, and UK.

TDWG Conference 2014, Sweden



The TDWG 2014 conference will take place in the town of Jönköping in Sweden co-organized by the Swedish GBIF node and Destination Jönköping. The

dates of the event are confirmed to be from 27 to 31 October 2014.

GEO-XI Plenary, Gabon

The GEO XI Plenary will take place on 12-14 November 2014 at Libreville, Gabon. One side event of the GEO XI plenary will have the focus on AfriGEOSS & GEO CB for Africa.

EU BON Second Stakeholder Roundtable on Citizen Science

27 Nov 2014 – Museum für Naturkunde Berlin, Germany

Aim of the EU BON Stakeholder Roundtable on Citizen Science is to explore how and with which means EU BON can support citizen science activities. EU BON may serve citizen scientists in many aspects, and here the citizen science community and biodiversity data community is given a forum to exchange ideas and develop perspectives. So this roundtable brings together data provider as well as the user community and opens the discussion on the future of workflows. We will have an introductory talk of Jose-Miguel Rubio-Iglesias from the European Commission on the role of Citizen Science as one option to improve the science-society bridge, and further contributions from data providers, portal developers, and innovative thinkers. You are welcome to participate.

More information is available [here](#) or get directly in touch with Katrin.Vohland@mfn-berlin.de.

ECSCA General Assembly

26 Nov 2014 – Museum für Naturkunde Berlin, Germany

One day before the EU BON Stakeholder Roundtable, the General Assembly meeting of the European Citizen Science Association (ECSCA) will take place in Berlin. Main aim of ECSCA is to promote citizen science across Europe.

More information is available [here](#).



EU BON Website & Contacts:

For more information on the project, please visit the EU BON website at:
<http://www.eubon.eu/>

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