





NEWSLETTER

Issue 2





This project has received funding from the European Union's Seventh Programme for research, technological development and demonstration under grant agreement No 308454.

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Welcoming words by the EU BON coordinator

Towards the second year of EU BON!

Dear friends,

On behalf of all EU BON partners we are delighted to present you the second EU BON Newsletter that continues the tradition to provide information on the progress, recent achievements, and forthcoming activities of the project.

During the exciting first year of its existence, EU BON has been successful in many ways and the project is developing progressively towards its general objectives. Among the most significant achievements worth mentioning is the development of the EU BON information architecture design and guidelines for using standards.

This first period has allowed establishing the functional structure and getting all work packages started and linked. Besides internal meetings, the project partners have participated in important political conferences, where delegates were introduced to the strategic aims of EU BON and its overall mission. Project partners who participated at such meetings have established new links between EU BON and other EU projects and initiatives. Additionally, the expertise of our consortium has been enhanced by affiliating associate partners, an approach EU BON is planning to continue with.

We would also like to take a look into an even brighter future and announce our upcoming first General Meeting, which will take place from 31 March to 2 April 2014 in Crete, Greece.

We recognize the importance of contributions of associated partners, other projects and institutions to fill significant gaps in the development of the European Biodiversity Observation Network. We welcome your comments and contributions for the project and future newsletters!

We hope you enjoy this issue. With best regards,

Christoph Häuser & Anke Hoffmann

EU BON website: www.eubon.eu





EU BON at international meetings

EU BON's contribution to the ASEAN-EU STI Days

The ASEAN-EU STI Days took place from 21 to 23 January 2014 in Bangkok, Thailand. During the event a special workshop "Integration of biodiversity data recording and information management systems for environmental sustainability: a call for EU-ASEAN collaboration" has been organized to stimulate EU-ASEAN collaboration in research on biodiversity informatics and integrative environmental information management.

A special EU BON dedicated presentation was given by Dr. Christoph Häuser at the workshop, which took place on 22 January. As a regional component of the Group on Earth Observations Biodiversity Observation Network (GEO BON), the EU BON project presented an innovative approach towards integration of biodiversity information systems from on-ground to remote sensing data, for addressing policy and information needs in a timely and customized manner.

Such an approach requires integration between social networks of science and policy, and technological networks of interoperating IT infrastructures. While focussing on Europe, EU BON is expected to connect and reach out globally, especially towards regions with many biodiversity hotspots such as SE-Asia.

The main objectives of the workshop were to:

- Review and compare the situation regarding relevant biodiversity and Earth observation data and information sources/providers in EU and ASEAN;
- Examine linkages between regional/national ASEAN and EU efforts with international / global biodiversity information systems (in particular GBIF, GEO BON);
- Assess and discuss national vs. regional level priorities and needs with regard to integrated biodiversity information in ASEAN and Europe;
- Identify common challenges and needs towards further integration of different types, levels, and scopes of available data and information systems;
- To address how S&T cooperation between Europe and ASEAN in the area of biodiversity and Earth observation could be further developed to better serve policy needs (especially in light of IPBES), and to contribute to common goals towards sustainable economic development.

Five other presentations were given at the workshop on behalf of Global Biodiversity Information Facility (GBIF), ASEAN Centre for Biodiversity (ACB), FishBase Information and Research Group, Forest Research Institute Malaysia (FRIM), National Center for Genetic Engineering and Biotechnology (BIOTEC), and Thailand Bioresource Research Center (TBRC).



Presentations from the meeting are available to view on our website.



Pollination and Land Degradation: Set as top Priorities for the New Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) after the plenary

The second meeting of the Platform's Plenary (IPBES-2) took place in Antalya, Turkey, from 9 to 14 December 2013. Around 400 delegates from over 100 governments, scientific organizations, civil society and the private sector attended the plenary. It was agreed to develop a set of assessments on pollination and food production, land degradation and invasive species, aimed at providing policymakers with the tools to tackle pressing environmental challenges.

EU BON was represented by the project coordinator Christoph Häuser (Museum für Naturkunde, MfN), and colleagues Tim Hirsch (Danish Biodiversity Information Facility, DanBIF), Dirk Schmeller (Helmholtz Centre for Environmental Research, UFZ), Wolfgang Cramer and Ilse Geijzendorffer (National Center for Scientific Research, CNRS), Matthew Walpole (World Conservation Monitoring Centre, UNEP) and Lluís Brotons (European Bird Census Council, EBCC).



EU BON group photo from left to right: Tim Hirsch (DanBIF), Christoph Häuser (MfN), Matthew Walpole (UNEP), Ilse Geijzendorffer (CNRS), Dirk Schmeller (UFZ), Wolfgang Cramer (CNRS) and Lucas Joppa (Microsoft Reseach). Photo: Dirk Schmeller

Here are their views and comments on the meeting:

1) How can EU BON contribute to the success of IPBES?

Dirk S. Schmeller: IPBES assessments will base on available data and newly collected data from organisations contributing to IPBES. While there are some global biodiversity information providers, like GBIF, EU BON goes further in bridging data collection and data infrastructure and transforming the data in policy relevant reports. Much of the work by IPBES relies on such a system, and EU BON would be a major step forward and if put on a global scale (as a contribution to GEO BON), it will be crucial for the work of IPBES. EU BON should aim to organise a side event at IPBES-3, maybe jointly with GEO BON.

Christoph Häuser: Yes, EU BON can and most certainly will significantly contribute to IPBES: Regardless of what the first thematic priorities for IPBES assessments and reviews will be, all assessments will ultimately depend on available, reliable and meaningful biodiversity data and information. Here, EU BON will be able to help by showing new and practical ways how to access integrated data layers and sources at various scales and for different interest and purposes. EU BON will also be able to help IPBES with its large and growing networks of institutions and experts, ranging from technical to socio-political areas.



2) How can IPBES participants best be made aware of EU BON and its relevance for IPBES?

Lluis Brotons: First of all, IPBES is a global, really ambitious initiative and EU BON faces a real challenge to effectively reach the audience currently developing the platform. EU BON should carefully select bridging channels between the work developed within the project and the IPBES priorities. Once these priorities have been identified, EU BON could easily become a key partner in providing valuable information, methods and concepts to be used in the IPBES assessments. It will be specially important to focus on the thematic assessments that IPBES plans to carry out in the first place such as pollination and food production or the methodological oriented assessment on support tools and methodologies for scenario analysis and modelling of biodiversity and ecosystem services that should be started during 2014. The main work ahead for EU BON on making IPBES participants best aware of our work rests upon our ability to translate EU BON facilities, data and methods to the approaches and needs of the platform. We will need to be proactive here, we should not wait for IPBES to ask for help, we need to offer it in an attractive and adequate manner.

3) Which IPBES members/participants/stakeholders do you see as key partners for EU BON, and which ones have you contacted?

Matthew Walpole: There are various networks, initiatives and organisations promoting better biodiversity/ environmental data mobilisation, integration, management and use (such as 'Eye on Earth' convened by the Abu Dhabi Global Environmental Data Initiative (AGEDI)). GEO BON/EU BON members (including GBIF and UNEP-WCMC) participate in such networks and it would be beneficial to forge stronger collaborative links. Other obvious partners include regional/national biodiversity centres beyond Europe with which EU BON might share/compare approaches as part of regional exchange and capacity development.

Ilse Geijzendorffer: Firstly, the stakeholder representation (our infrastructure could be included in the end as in kind contribution by an institute or network). Secondly, delegates favourable of scientific IPBES involvement (e.g. Switzerland, Germany, Portugal, the Netherlands, and Germany). I have not talked to Switzerland and the Netherlands.

4) Which will be the emerging/new areas/challenges/questions regarding biodiversity data and monitoring coming from IPBES which EU BON needs to consider/take on board?

Tim Hirsch: One of the strong themes that has run through this IPBES meeting is the need to incorporate and recognize multiple knowledge systems, including indigenous and traditional knowledge, when carrying out assessments of biodiversity and ecosystem services. There are many challenges and opportunities arising out of this for EU BON and its partners, for example the development of community-based monitoring programmes that can contribute valuable data and information for the science-policy interface, but must be handled with due respect and sensitivity to build trust in participating communities.

Christoph Häuser: This remains a largely open question, as IPBES is still much preoccupied with procedural and organizational issues. With the regional approach towards assessments built into IPBES, however, it is already clear that a regional perspective towards biodiversity information and interpretation, such as an integrated European biodiversity data portal, will be a major asset to offer. As IPBES furthermore stresses the incorporation of other forms of knowledge, a focus on linking with and incorporating citizen science initiatives seems a logical follow up for EU BON.

Read the full interview here.



EU BON at the 2013 International Conference on Open Data in Biodiversity and Ecological Research, Taiwan

The 2013 International Conference on Open Data in Biodiversity and Ecological Research took place between 20 and 22 Nov 2013, hosted by Academia Sinica in Taipei, Taiwan. With the aim to promote open data in science twelve foreign speakers introduced relevant projects and initiatives in the sphere of biodiversity informatics: AP-BON, DataONE, Ecological Research, EU BON, Global Biodiversity Information Facility (GBIF), Japan Biodiversity Information Facility (JBIF), linked open data, National Ecological Observatory Network (NEON), Pensoft, and Thomson Reuters.

Dirk Schmeller (UFZ) and Lyubomir Penev (Pensoft), who presented EU BON at the conference, share their experience in a recent interview:



Dirk Schmeller giving a presentation at the conference.

What are the aims and main outcomes from this meeting?

Lyubomir Penev: Taiwan has an impressive national policy with regard to data management in biodiversity sciences. The meeting summarised years of effort of Taiwanese scientists and especially of Academia Sinica to integrate data and make them publicly available. It is sufficient to mention that Taiwan has established four national nodes of the largest international biodiversity platforms, that is TaiBIF (of GBIF), TaiCOL (of Catalogue of Life), TaiEOL (of EOL) and TaiBOL (of Barcode of Life).

What is your prognosis for the successful establishment of the data publishing model in scholarly literature, and more specifically in spheres such as Ecology, Genetics, Physiology and Paleontology?

Dirk Schmeller: Most research is financed by tax-payer money and should become publicly available once the analyses the researcher has intended are completed. I see a huge potential to publish this data in scholarly literature. I, however, see also quite some difficulties to recombine relevant datasets across different sources for further going analyses. I also see difficulties in the willingness of researchers to share data, as in many cases they see these as their own.

The full interview is available here.

Memorandum of Understanding signed at Bioinformatics Horizon Conference in Rome



Memorandum of Understanding was signed by Christoph Häuser, on behalf of EU BON and Yde de Jong on behalf of PESI

At the Bioinformatics Horizon 2013 Conference (3 - 6 September 2013, Rome) a Memorandum of Understanding was signed between PESI and EU BON. Christoph Häuser, on behalf of EU BON and Yde de Jong on behalf of PESI (see picture below), signed the document to strengthen the cooperation and formalise the integrating efforts of the European species infrastructures.



PESI is now a new associate partner of EU BON. One of the common aims of EU BON and PESI will be to establish and sustain standard taxonomies for Europe. EU BON will support the PESI backbone developments, including its components, with a focus on Fauna Europaea and Euro+Med. Besides analyzing current gaps, new ideas will be developed to trigger expert involvement and enhance the data management systems.

Read more on our website.

Hot from the project

Stakeholder engagement and implementation of GEO BON: WP6/WP7 kick-off, Leipzig, Germany

A cross-workpackage meeting of WP6 'stakeholder engagement and science-policy dialogue' and WP7 'implementation of GEO BON: strategies and solutions at European and global levels' took place from 18-19 February 2014 in Leipzig, Germany. The two work packages are a crucial part of the project outlining the future actions towards ensuring the integration of the project with its global counterpart GEO BON, as well as paving the road towards successful stakeholder and policy engagement. As a result of this first meeting further short-term and long-term steps were outlined for WP6 and WP7 towards the achievement of main project objectives.



Discussions during the WP6/WP7 kick-off meeting.

In the following interview Ilse Geijzendorffer gives an insight on the outcomes from the meeting:

1) What are the project's main stakeholders that you are planning to approach and interact with in the future?

Ilse Geijzendorffer: EU BON aims to develop a blue print for a data infrastructure for data handling, storage, indicator computation and transfer of knowledge via a data portal available to knowledge seekers. This data infrastructure thus has to be useful to data holders who want their data to be used (e.g. citizen scientists, nature associations, scientists) and to those that seek knowledge (e.g. reporting bodies). EU BON reaches out to these stakeholders and to bodies that would be interested to host or have such a data infrastructure themselves. Our first stakeholder round table focused on European knowledge seekers and existing data portals. Our second stakeholder round table planned for this summer will focus on citizen scientists and the organisations that currently handle the citizen science data, to receive input on what these two stakeholder groups would like to see in such a data infrastructure blue print.

2) Science-policy dialogue proves to be a crucial part for the success of large scale projects like EU BON, how are you tackle this challenge?

Ilse Geijzendorffer: The objective of EU BON is a moving target in the sense that the blue print for data infrastructure will need to suit the needs for current and future monitoring. Additionally, the actual implementation, funding and hosting of such an infrastructure could be within a structure that may not yet exist in that form today. Changes in mission, coordination and targets occur constantly. To profit from lessons learned, we are in close contact with the Biodiversity Knowledge Project; a project that has already gained experience in the last four years in identifying the most important elements for handling data requests from knowledge seekers and in developing a suitable management plan.

Access the full interview here.



Joint Sierra Nevada LTER and EU BON site data management workshop and Memorandum of Understanding

A joint workshop of the Sierra Nevada LTER site and EU BON was held from 29-31 January 2014 in Granada, Spain and was hosted by the University of Granada. The aim of this meeting was to bring together the Spanish members of the Sierra Nevada LTER site and test site partners from EU BON (WP1, WP2 and WP5) to discuss and develop a closer relationship in exchanging datasets and experiences in site management, long-term monitoring activities and technical requirements for data management.



During the second day, the participants visited a highly monitored area located in the southern part of Sierra Nevada (Alpujarras) that is covered mainly by Quercus pyrenaica forests. The field trip included a stop at a meteorological station, a traditional hydrological system was visited to show former human impact in the

area and the functionality of a field NDVI camera was shown. This site-trip was also used to officially hand-over the Memorandum of Understanding, signed between the University of Granada and EU BON, to strengthen the cooperation between the Sierra Nevada LTER and the EU BON test sites. Anke Hoffmann on behalf of EU BON handed the MoU to Professor Regino Zamora Rodriguez, the scientific coordinator of the Sierra Nevada Global Change Observatory. The University of Granada is now a new associate partner of EU BON, a consortium with currently 30 partners from 18 countries.

EU BON will further intensify the dialogue with the University of Granada and the Sierra Nevada LTER site. It is scheduled to have a further meeting at the upcoming General Meeting of EU BON (Greece, 30 March-2 April 2014) to strengthen the partnership with the LTER test site.

EU BON WP3/WP4 kick-off meeting, Solsona, Spain

A joint EU BON WP3-WP4 meeting took place from 25-27 November 2013 in Solsona, Spain. The main aim of the meeting was to officially kick off WP3 and provide forum for discussion of the planned work. The two work packages were presented with their main aims, scope and objectives. The place of the two work packages in the broader framework of EU BON, and the cross-links between the two, were also discussed.

In the following interview Hannu Saarenmaa (UEF) and Klaus Henle (UFZ) share insights from the meeting:

1) WP3 'Improving tools and methods for data analysis and interface' and WP4 'Link environment to biodiversity: analyses of patterns, processes and trends' are two of the core work packages in EU BON that are expected to accumulate a lot of genuine data and develop new tools for data analysis and interface. Can you explain in short what will your main activities involve?

Klaus Henle: Our main activities will involve an analysis how available effort is best allocated in time and space to optimize results from monitoring. We will further assess how different sources of uncertainty influence conclusions derived from the analysis of monitoring data.

2) What were the main results of the meeting in terms of the planned work and WP management?

Hannu Saarenmaa: It was proposed to set up an EBV (Essential Biodiversity Variables) Task Force across the EU BON project. If we can do that, it would really give a thrust for the project. If we could pick up the Database of Monitoring Schemes from the EuMon project, as discussed, that would give us access to some large datasets.

3) What novelty will the work in these two work packages bring and what will the major results

Hannu Saarenmaa: If they can create a new Ecological Niche Modelling algorithm that can also



deal with spatial patterns, that would be interesting. Such a model actually exists in MigClim, but it is not yet widely used.

Klaus Henle: We will get recommendations how monitoring can be optimized and a more comprehensive understanding of changes in biodiversity and their underlying causes.

Read the full interview here.

Citizen Science and EU BON

On 19 Nov 2013, a one-day EU BON workshop took place at the Leibniz-Association Headquarter in Berlin to further develop the strategy for citizen science in the project. The workshop was a joint workshop of both work package 1 and work package 6 (organized by MfN and UTARTU) to bring together the partners from EU BON that work in the area of citizen science. Furthermore, the workshop aimed to discuss and plan the further activities regarding the next stakeholder roundtable on Citizen Science which is scheduled for mid 2014.

In the morning session, participants gave an overview of citizen science activities within Europe. Eight presentations from partners gave insight into citizen science initiatives and showed interesting approaches of how citizens can be involved and how datasets with information on biodiversity can be generated (please find the presentations and minutes of the meeting on our website). Linda Davies, director and initiator of OPAL, one of the Europe's most well-known citizen science initiatives, encouraged to emphasize not just data-value of citizen science, but to look for educational and awareness-rising aspects.

EU BON will further intensify the dialogue between different groups related to citizen science, after a big step was done by this meeting. For example, in the next EU BON stakeholder roundtable, stakeholders such as the EEA, DG Research and Communication, ECSA (European Citizen Science Association), Eye on Earth and other users from political administration and scientists will be involved to discuss their needs and the contribution EU BON may provide.

More available on our website.

News from the community:

GEO to keep unleashing the power of open data: Mandate endorsed for another 10 years



On 17 Jan 2013 in Geneva, the Group on Earth Observations (GEO) received unanimous endorsement to unleash the power of open data for a second decade. There was agreement to continue building on the organization's first 10 years of pioneering environmental advances, which are designed to improve the quality of life of people everywhere. Fueled by open data, GEO's efforts are now evident in most regions of the world. GEO is comprised of 90 member nations, the European Commission and 77 Participating Organizations.

"GEO is successfully meeting its mandate, which is to make data and other information open, accessible and easy to discover for decision makers around the world," said Mr. Janez Potočnik, European Commissioner for the Environment. "GEO's vision is now operational, a proven force for putting sound science to work across nine essential areas: agriculture, biodiversity, climate, disasters, ecosystems, energy, health, water and weather."

GEO's mandate is to drive the interoperability of the many thousands of space-based, airborne and in situ Earth observations around the globe. Without concerted efforts to coordinate across diverse observations, these separate systems often yield just snapshot assessments, leading to gaps in scientific understanding and hampering data fusion in support of better decision making for society. GEO aims to fill such gaps by providing a comprehensive, more integrated picture of our changing Earth. GEO is accomplishing this by establishing a Global Earth Observation System of Systems, known as GEOSS, and a Portal through which data and other information can be easily accessed at little or no cost.

Full text here.



European Commission launches a new pilot to open up publicly funded research data

On 16 Dec 2013 the European Commission announced the launch of a new Pilot on Open Research Data in Horizon 2020, to ensure that valuable information produced by researchers in many EU-funded projects will be shared freely. Researchers in projects participating in the pilot are asked to make the underlying data needed to validate the results presented in scientific publications and other scientific information available for use by other researchers, innovative industries and citizens. This will lead to better and more efficient science and improved transparency for citizens and society. It will also contribute to economic growth through open innovation. For 2014-2015, topic areas participating in the Open Research Data Pilot will receive funding of around €3 billion.

Neelie Kroes, Vice-President of the European Commission for the Digital Agenda said "We know that sharing and re-using research data holds huge potential for science, society and the economy. This Pilot is an opportunity to see how different disciplines share data in practice and to understand remaining obstacles."

The Pilot will give the Commission a better understanding of what supporting infrastructure is needed and of the impact of limiting factors such as security, privacy or data protection or other reasons for projects opting out of sharing. It will also contribute insights in how best to create incentives for researchers to manage and share their research data. The Pilot will be monitored throughout Horizon 2020 with a view to developing future Commission policy and EU research funding programmes.

To find out more, follow the link.

Taking the data out of paper

Ecological modellers require reliable sources of data for their analysis. Often, these sources are databases, checklists and specimen labels. Yet another rich source is the corpus of biological literature. It is estimated that there are well over 100 million pages of scientific publications and the volume grows every year. Publishing in advanced XML-based journals, such as Zookeys, Phytokeys or the Biodiversity Data Journal is recommended for new data, but what is the solution for legacy texts?



The EU FP7 project proiBiosphere has been piloting the mark-up and extraction of biological information from literature, which has been pioneered by Plazi (Agosti & Egloff, 2009). The EU FP7 Coordination and Support Action "pro-iBiosphere" was launched to investigate ways to increase the accessibility

of biodiversity data, improve the efficiency of its curation and increase the user base of biodiversity data consumers and applications.

In order to reach these objectives three pilots for data mark-up and one for interoperability are being conducted (for detailed information on the pilots please see here). The mark-up pilots are evaluating accessibility of data within literature for a wide range of organisms and data types; and ways to facilitate extraction of biological information from literature, including observations, traits, nomenclature, habitat information and interactions between organisms. For example, one pilot is looking at biogeographic data using the species Chenopodium vulvaria as a subject. In another, trait data is being extracted from literature on tropical mistletoes; while yet others are extracting data from papers on spiders, ants, centipedes, mosses and fungi.

EU BON (task 3.4) is to develop tools to prepare, extract and mine published biodiversity literature (led by Plazi - Donat Agosti). For this task Plazi is looking for rich sources of data from the biodiversity literature, particularly where those data can be applied within other EU BON tasks. For further information please contact Plazi

Agosti, D., & Egloff, W. (2009). Taxonomic information exchange and copyright: the Plazi approach. BMC research notes, 2(1), 53. doi:10.1186/1756-0500-2-53

Read the whole article on our website.



New framework to deliver biodiversity knowledge



Global Biodiversity Informatics Outlook sets out key steps to harness IT and open data to inform better decisions.

A new initiative launched on 2 Oct

2013 aims to coordinate global efforts and funding to deliver the best possible information about Life on Earth, and our impacts upon it. The framework arose from the Global Biodiversity Informatics Conference which gathered around 100 experts in Copenhagen in July, 2012, to identify critical questions relating to biodiversity and tools needed answer them. Workshop leaders at that conference went on to draw up and author the current document.

The framework is outlined in a document and website entitled Delivering Biodiversity Knowledge in the Information Age, inviting policy makers, funders, researchers, informatics specialists, data holders and others to unite around four key focus areas where progress is needed. The Global Biodiversity Informatics Outlook includes examples of projects and initiatives contributing to its objectives, and the accompanying website www.biodiversityinformatics. org invites feedback from others wishing to align their own activities to the framework.

Future events of interest

8th Annual Meeting of Macroecologists



The 8th Annual Meeting of the Specialist Group for Macroecology of the Ecological Society of Germany, Austria, and Switzerland (GfÖ) will take place between 4-6 Mar 2014 in the MartinLuther-University Halle-Wittenberg, Halle (Saale), Germany. The meeting aims to offer a forum for presenting and discussing both tested approaches and new ideas to make these links: http://www.macroecology.org/

2nd International Conference on Research Infrastructures



The 2nd International Conference on Research Infrastructures (ICRI 2014) will take place from 2-4 April 2014 in Athens, Greece.ICRI 2014 will be held under the

auspices of the forthcoming Greek Presidency of the European Union, co-organised and supported by the European Commission. http://www.mcst.gov. mt/node/593

Open Science Conference -Integrated Marine Biogeochemistry and Ecosystem Research (IMBER)



The Integrated Biogeochemistry and Ecosystem Research (IMBER) Project will convene an Open Science Conference from 23-27 June 2014 in Bergen, Norway, with the goals of highlighting research results from the IMBER project and activities, promoting integrated syntheses of IMBER-relevant research, and developing a new global research agenda for marine biogeochemistry and ecosystems in the Anthropocene. http://www.imber.info/index.php/Meetings/IMBER-OSC-2014

More information about those and many more forthcoming events of interest is available in the project events calendar: http://www.eubon.eu/events/



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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