



NEWSLETTER

Issue 7



More information on page 10

Credit: Pensoft



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Welcoming words by the EU BON coordinator

Join us for our Final Meeting!

Dear Colleagues and Friends,

For more than three years, EU BON has now been dedicatedly working towards its goals to build a Europe-wide Biodiversity Observation Network. The time has already come to announce our Final Meeting and invite all interested parties to join us for the big presentation and celebrations of final project results.

The EU BON Final Meeting will take place from 14 to 16 March 2017 in Brussels/Meise, Belgium. I take this opportunity to ask you to already mark these dates in your calendars, and invite you all to attend!

During the last six months the project has entered its final phase where major results and outcomes started emerging. We are proud to have launched the beta-version of our new European Biodiversity Portal, which offers free access to a rich collection of relevant databases and new analytical tools and visualizations, all developed to enhance and support sharing and re-using of biodiversity data. These tools are now open for testing, and further improved versions will become available with the official launch of the portal.

Furthermore, we stated a joint initiative with the previous EU project EuMon, where we strive to update and integrate information and metadata about individual projects and initiatives to exchange biodiversity monitoring data in Europe. Read more on how to do this on pages 3 and 4.

From 31st May to 2nd June we proudly co-hosted the 10th GEO European projects workshop in Berlin, which proved to be a very successful and inspiring meeting. Additionally, over the past six months we have also conducted a series of project workshops to present, share and discuss the project's achievements with researchers, citizen scientists and interested stakeholders.

Once again we have been glad to add 3 new members to our growing family of associated partners. We welcome the projects EKLIPSE and ConnectinGEO, as well as the European Citizen Science Association (ECSA).

Read about these latest developments and learn what is yet to come in this seventh issue of our EU BON newsletter.

With best wishes from the entire EU BON team,

Christoph Häuser & Anke Hoffmann

EU BON website: www.eubon.eu





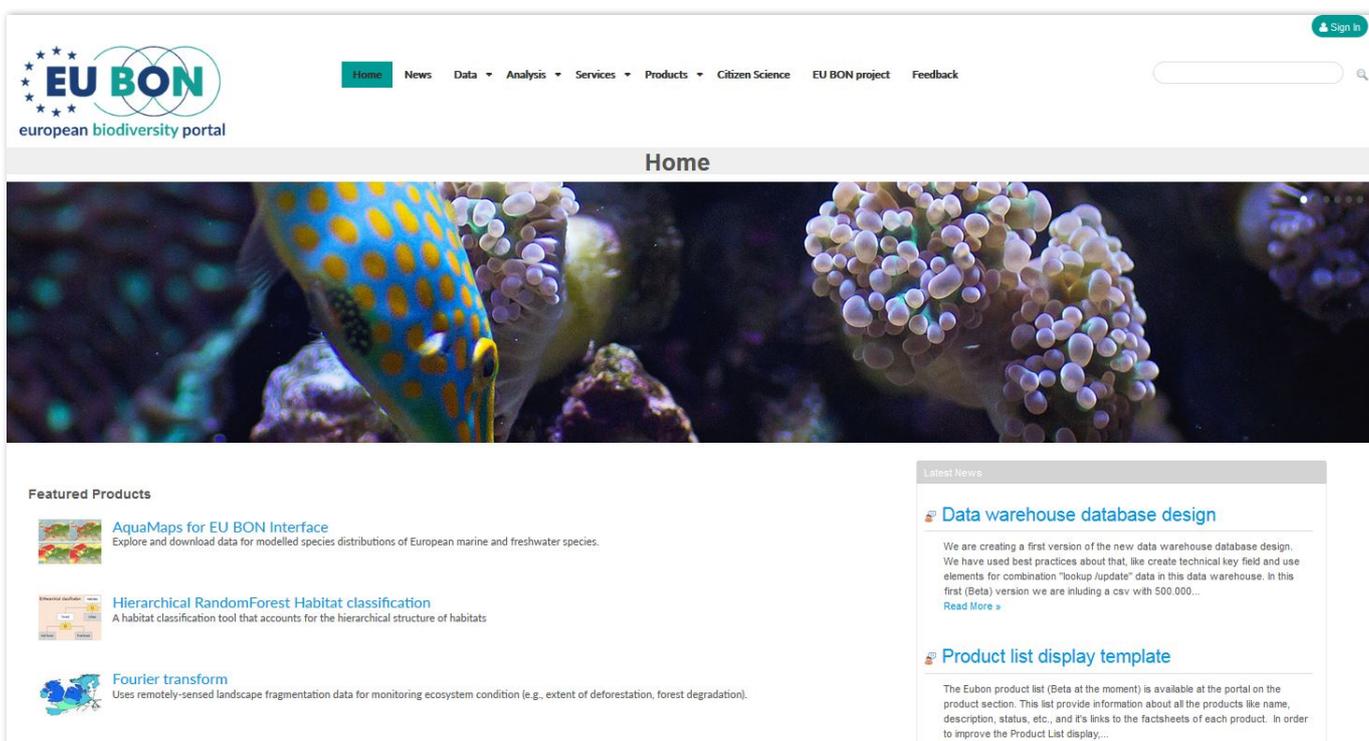
Hot from the project

A new Biodiversity Portal for Europe to enhance access to monitoring data

Set to compile the largest biodiversity data collection for Europe to date, the EU-funded FP7 project **Building the European Biodiversity Observation Network (EU BON)** has now launched the beta-version of its **European Biodiversity Portal**.

Despite being a beta-version, this release already addresses the main aim to offer a unique service for analysing and understanding biodiversity change in Europe. For instance, users can explore how relative abundance of species (within a larger group) changes over time by using big data mediated by GBIF.

The service will provide all interested parties with a professional database platform containing a large amount of implications. For example, coordinators can receive information about related monitoring programs in



different countries. Initiatives could integrate their data and compare the trends and status across different countries and regions.

We invite everyone to test the new portal and send us their feedback and suggestions for improvements via our [Feedback Form](#).

Read the full news item.

Join our forces to enhance access to biodiversity monitoring data

EU projects EuMon and EU BON call out to monitoring programs to share data and expertise for building the European Biodiversity Portal.





Combining forces, two large scale EU projects, EuMon and EU BON, are set to compile the largest data collection on biodiversity monitoring activities in Europe to date. Using existing biodiversity data and metadata collected by the two projects, the initiative is a stepping stone in completing a comprehensive European Biodiversity Portal. The projects now call out to monitoring programs across the Old Continent and beyond, to join in, provide information about their schemes and share their expertise for the cause.

Read the full announcement [here](#).

How to take part:

To access the EuMon database, please visit <http://eumon.ckff.si/biomat>. For sharing information about your monitoring program, please register [here](#). You will then be able to provide metadata about your scheme via a simple online questionnaire. Answering the full set of questions is desirable, but not compulsory.

EU BON events

We've been busy: Biodiversity Portal prototype & strategies for focused biodiversity data mobilization and citizen science

The last six months proved to be eventful for EU BON, hosting the presentation of two major project results, as well as two successful citizen science workshops.

Discussing the portal:

In a dedicated session at the WP2 meeting in Sevilla, Spain, EU BON partners had the chance to view their work for the last couple of years materialising into one of the main expected project results - the **European Biodiversity Portal**. That said, what was then presented on 29 April is a beta-version, with the final release of the portal planned to become available in early 2017.



Participants at the Sevilla workshop, April 2016. Credit: A. Hoffmann



Integrated biodiversity data mobilization:

During a workshop which took place in Stockholm, Sweden, developers in the sphere of bioinformatics were presented with the project's Data Mobilization Toolkit. This particular workshop was mainly focused on Docker as a tool to move towards a more integrated environment. Docker has revolutionized system integration and in the workshop the Swedish team shared their experience with dockerizing the DINA-system.



*Discussions during the Stockholm workshop, April 2016.
Credit: K. Karlsson*

More information about the two events available [here](#).

Open access to biodiversity data:

Open access to biodiversity is the key for addressing pertinent ecological issues such as biodiversity loss and impacts of climate change. On 22 & 23 March 2016, experts from EU BON met with scientists, policy makers and practitioners from across Europe to discuss issues of biodiversity data sharing, curation and publishing.



Participants at the EU BON data sharing & data publishing workshop in Sofia, March 2016. Credit: Pensoff

The workshop, which took place in Sofia, Bulgaria, introduced participants to key concepts, demonstration and practical exercise in biodiversity data sharing using the **GBIF Integrated Publishing Toolkit (IPT)**.

More on the workshop [here](#).

Citizen science:

The EU BON workshop "Biodiversity research for and by citizens in Eastern Europe: tools, information services and public engagement" was organized to present the EU BON citizen science gateway, share accomplishments of the project, promote products, raise and discuss challenges of citizen science and facilitate networking between countries, especially eastern and central European countries. The workshop took place in June 2016 in Tartu, Estonia.

Read a first hand report from the workshop in the two great blog posts ([1](#) and [2](#)) by Egle Marija Ramanauskaite (a workshop participant from Lithuania).

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



*Participants in the Tartu workshop, June 2016.
Credit: K. Karlsson*



EU BON at international meetings

EU BON at the 10th GEO European Projects Workshop

The 10th GEO European Projects Workshop took place from 31 May until 2 June 2016 in Berlin, Germany. Representatives from science, business and public administration met in Berlin to discuss how European Earth observation initiatives can contribute to the Global Earth Observations System of Systems (GEOSS).

During the meeting EU BON was presented at a specialized session focusing on the “Challenges for Biodiversity and Ecosystem Observation for the Next Ten Years”. EU BON’s co-ordinator Dr. Christoph Häuser alongside project partner and WP2 leader Dr. Hannu Saarenmaa presented the latest project developments and results. Special attention was paid to presenting and explaining the functionalities of the recently launched beta-version of the **EU BON European Biodiversity Portal**, which aims to provide a substantial part of GEO BON’s Global Portal.



Credit: F. Wetzel

For further information see:
Presentations
General Programme
Read the full story [here](#).



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Group photo of the participants at the 10th GEO European Projects Workshop. Credit: H. Götz



Our new friends

Welcome to EKLIPSE, ECSA and ConnectinGEO!

EU BON is pleased to have welcomed three exciting initiatives in our ever growing family of associated partners. In the course of the last six months the project has signed Memoranda of Understanding (MoUs) with two related projects - EKLIPSE and ConnectinGEO, as well as with the European Citizen Science Association (ECSA).



EKLIPSE is a EU project that will set up a sustainable and innovative way of knowing, networking and learning about biodiversity and ecosystem services. EKLIPSE is an unusual project in several ways, particularly:

- The project is funded for four years to **develop a sustainable mechanism** that will be in place for many years to come.
- The development of the support mechanism through the project is facilitated by project partners. Their role is to facilitate linkages between science, policy and society, through different actions, such as **knowledge synthesis, identifying research priorities, and building the Network of Networks** that will support the other actions.



*EKLIPSE, Dr. Anke Hoffmann and Dr. Carsten Neßhöver.
Credit: EKLIPSE*



ECSA is a network of Citizen Science initiatives, research institutes, universities, museums, other organisations and individuals from 20 EU countries, Switzerland, Israel and the US, who are working together with the mission to connect citizens and science through fostering active participation. ECSA is a registered non-profit association administered by a Secretariat hosted at the Museum für Naturkunde, Leibniz Institute for Evolution and Biodiversity Research (MfN) in Berlin, Germany.



Signing the MoU with ECSA, Dr. Jaume Piera and Dr. Anke Hoffmann. Credit: H. Götz

ConnectinGEO

ConnectinGEO is under the umbrella of GEOSS and the EU funding with the aim of linking existing coordinated Earth observation networks with the science and technology (S&T) communities, the industry sector and the GEOSS and Copernicus stakeholders. The goal is to facilitate a broader and more accessible knowledge base to support the needs of the GEO Societal Benefit Areas (SBAs) and their users. A broad range of subjects from climate, natural resources and raw materials, to the emerging UN Sustainable Development Goals (SDGs) will be addressed.



ConnectinGEO, Dr. Christoph Häuser (left) and Dr. Joan Masó. Credit: EU BON

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

EU BON publications

EU BON digital identifiers for fungal species in Science

A recent article in the academic journal Science published by Prof. Urmas Kõljalg and colleagues aims to explain the possibilities for identifying species determined based on DNA samples only.

The article was published as a response to David Hibbetts paper "The invisible dimension of fungal diversity". The American mycologist Hibbett argues that a huge amount of fungal species cannot be identified and described scientifically as the international code does not permit describing new species based on DNA samples derived from molecular surveys of the environment. However, the Estonian and Swedish scientists show – analysing the same data – how DNA based fungal species have been

identified and communicated for several years now using the database UNITE (<https://unite.ut.ee>).



EU BON digital identifiers for fungal species in Science Credit: U. Kõljalg

UNITE – the global unified system for the DNA based fungal species – contains information of all the fungal species known from sequence data, hundreds of researchers from all over the world are collaborating.

Original Source:

Kõljalg, U. et al. (2016). Digital identifiers for fungal species. Science, 369: 1182-1183.

doi: [10.1126/science.aaf7115](https://doi.org/10.1126/science.aaf7115)

UNEP GEO-6 Assessment for the pan-European region released

As part of the new 6th Global Environment Outlook (GEO-6) UNEP has just released a separate Assessment for the pan-European region. The report provides an overview on the current state, trends and an outlook for the environment, and also highlights environmental factors that contribute to human health and well-being at the regional level.

Original Source:

UNEP/UNECE (2016). GEO-6 Assessment for the pan-European region. United Nations Environment Programme, Nairobi, Kenya.

Download the report [here](#).



New EU BON article looks into incorporating spatial autocorrelation in rarefaction methods

A new EU BON acknowledged article looks at the recently introduced methods in scientific literature for constructing Spatially Explicit Rarefaction (SER) and their implication for ecologists and conservation biologists. The research was published in the journal *Ecological Indicators*.

Original Source:

Bacaro, G., Altobelli, A., Camelletti, M., Ciccarelli, D., Martellos, S., Palmer, M.W., Ricotta, C., Rocchini, D., Scheiner, S.M., Tordoni, E., Chiarucci, A. (2016). Incorporating spatial autocorrelation in rarefaction methods: implications for ecologists and conservation biologists. *Ecological Indicators*, 69: 233-238. [5years-IF: 3.494].

doi: [10.1016/j.ecolind.2016.04.026](https://doi.org/10.1016/j.ecolind.2016.04.026)

Potential of satellite remote sensing to monitor species diversity

The importance of measuring species diversity as an indicator of ecosystem health has been long recognized and it seems that satellite remote sensing (SRS) has proven to be one of the most cost-effective approaches to identify biodiversity hotspots and predict changes in species composition. What is the real potential of SRS and what are the pitfalls that need to be avoided to achieve the full potential of this method is the topic of a new research, published in the journal *Remote Sensing in Ecology and Conservation*.

Original Source:

Rocchini, D., Boyd, D. S., Féret, J.-B., Foody, G. M., He, K. S., Lausch, A., Nagendra, H., Wegmann, M., Pettorelli, N. (2016). Satellite remote sensing to monitor species diversity: potential and pitfalls. *Remote Sensing in Ecology and Conservation*, 2: 25-36.

doi: [10.1002/rse2.9](https://doi.org/10.1002/rse2.9)

EU BON's collection in the RIO Journal is growing!



The mission of RIO is to catalyse change in research communication by publishing ideas, proposals and outcomes. EU BON's pioneering comprehensive project outputs compilation is taking advantage of RIO's unique option to publish **collections of project results**. Up to now EU BON has published a total of 5 unconventional outputs:

The report "**Data Policy Recommendations for Biodiversity Data. EU BON Project Report**" was the first contribution to the collection, followed by a second report titled "**Data sharing tools for Biodiversity Observation Networks**".

Later on a collection of 3 EU BON stakeholder roundtable reports provided a summarized overview of shared experiences gained in the three different workshops that were organized from 2013 to 2016.

Follow the **EU BON Collection** as more exciting outputs are yet to come!

Building the European Biodiversity Observation Network (EU BON) Project Outcomes

This collection hosts outputs from the FP7-funded EU project *Building the European Biodiversity Observation Network (EU BON)*. The project proposes an innovative approach in terms of integration of biodiversity information systems from on-ground to remote sensing data, for address policy and information needs in a timely and customized way.

<p>Data Policy Recommendations for Biodiversity Data. EU BON Project Report Willi Egloff, Donat Agosti, David Patterson, Anke Hoffmann, Daniel Mietchen, Puneet Kishor, Lyubomir Penev Project Report doi: 10.3897/rio.2.e8458 12-03-2016 Unique: 666 Total: 1040 Reprint: € 4,80</p>	<p>1st EU BON Stakeholder Roundtable (Brussels, Belgium): Biodiversity and Requirements for Policy Florian Wetzel, Anke Hoffmann, Christoph Häuser, Katrin Vohland Workshop Report doi: 10.3897/rio.2.e8600 23-03-2016 Unique: 349 Total: 572 Reprint: € 4,80</p>
<p>2nd EU BON Stakeholder Roundtable (Berlin, Germany): How can a European biodiversity network support citizen science? Katrin Vohland, Christoph Häuser, Eugenie Regan, Anke Hoffmann, Florian Wetzel Workshop Report doi: 10.3897/rio.2.e8616 24-03-2016 Unique: 357 Total: 562 Reprint: € 4,80</p>	<p>3rd EU BON Stakeholder Roundtable (Granada, Spain): Biodiversity data workflow from data mobilization to practice Katrin Vohland, Anke Hoffmann, Evelyn Underwood, Lauren Weatherdon, Francisco Javier Bonet, Christoph Häuser, Florian Wetzel Workshop Report doi: 10.3897/rio.2.e8622 24-03-2016 Unique: 398 Total: 594 Reprint: € 7,20</p>



Future events of interest

Save the date for EU BON's Final Project Meeting!

The Final EU BON Meeting is scheduled to take place from 14-16 March 2017 at the Royal Belgian Institute of Natural Sciences in Brussels and at the stunning backdrop of Botanic Garden in Meise.

EU BON invites all interested parties to mark the dates in their diaries and come to learn about the project's results and outputs some of which are presented in this newsletter and some are yet to come.

More information is to follow soon on the EU BON website!



4th EU BON roundtable: Pathways to sustainability for EU BONs network of collaborators and technical infrastructure

The fourth stakeholder roundtable aims to present current achievements and products of the project EU BON and discuss sustainability issues of the different components of the European Biodiversity Observation Network. The fourth and final roundtable of the project is scheduled for Thursday, 17 November 2016 and will take place in Berlin at the premises of the Museum für Naturkunde.

One of the key questions will be how to achieve sustainability for the many different products of EU BON, such as tools, software, models and infrastructure after the project ends. It should be discussed how the essential components could be sustained, by which institutions or networks and how they can be used in the best way for European policy and research needs (e.g. monitoring, reporting) as well as for the global level (e.g. for the Group on Earth Observations, GEO).

Contact: [Dr. Florian Wetzel](#) and [Dr. Katrin Vohland](#)



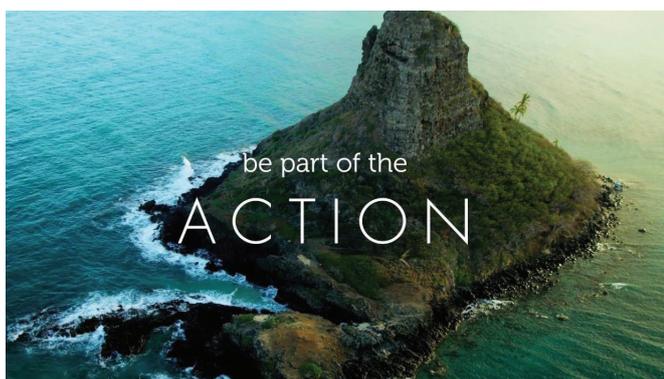
Science, Business and Environment: a UNEP-GRID Conference

As a part of the celebrations of a 25th Anniversary, GRID-Warsaw is holding an international conference Science, Business and Environment. The conference entitled "Science, Business and Environment" will take place on 15 September 2016 and is organized in partnership with the United Nations Environment Programme (UNEP).

EU BON is partner of the conference - the conference is also connected to relevant issues of EU BON, namely collecting, sharing, and utilizing data and geo information tools for environmental investigations and biodiversity assessments. These topics will fill the most of a special panel session dedicated to biodiversity and be also present at the plenary opening session "Environmental changes in the pan-European region - current trends and challenges".

For further information about the event, please visit the [website](#).

IUCN World Conservation Congress



Held once every four years, the next IUCN World Conservation Congress will take place 1-10 September in the Hawai'i Convention Center, in the Hawaiian capital, Honolulu. The Congress is the place where IUCN's more than 1,300 Member organisations exercise their rights, influence the global conservation agenda and guide IUCN's work plan for the four years to follow.

Find out more [here](#).

European Ecosystem Services 2016 Conference



The European Ecosystem Services 2016 conference will take place from 19 to 23 September 2016 in Antwerp, Belgium. The theme 'Helping nature to help us' focuses on the important role that healthy ecosystems play in supporting human well-being and the protection of nature. This conference will be the biggest European event in 2016 that links science, policy and practice on ecosystem services and natural capital.

To register and find out more about the event, please visit the [official website](#).

GEO XIII Plenary

The [GEO XIII Plenary](#) will take place from 7 - 10 November 2016 in St. Petersburg, Russia. The event will also feature a GEO-XIII Exhibition to take place from 8 to 10 November 2016.

More information [here](#).

TDWG 2016 Annual Conference

The TDWG 2016 Annual Conference will take place from 5 to 9 December 2016 in Santa Clara de San Carlos, Costa Rica. The conference theme this year is: "Standards Supporting Innovation in Biodiversity Research and Conservation".

For more information and to register follow the [link](#).



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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