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NEWSLETTER

Issue 2

(January/April 2013)

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22.04.2013

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"Bee" a taxonomist!

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(http://wiki.pro-ibiosphere.eu/wiki/Workshops_Leiden_February_2013) that took place in February 2013... [more](#)

Join the project community!

29.03.2013

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13.03.2013

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Thank you pro-ibiosphere

08.03.2013

By Siti-Munirah, M.Y. (sitimunirah@frim.gov.my) Forest Research Institute Malaysia I am a Research Officer and a young botanist at the Kepong Herbarium (KEP), Forest Research Institute Malaysia (FRIM), Kuala Lumpur, Malaysia. At present, I'm working for the Flora of Malaysia project, revising families for the Flora of Peninsula Malaysia, such as, Lythraceae,... [more](#)

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01.03.2013

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pro-iBiosphere Management Meetings in Leiden

27.02.2013

On Friday the 15th of February 2013, meetings with the pro-iBiosphere Advisory Board (AB) and Consortium members took place. At present, the AB is composed of four members from major global biodiversity initiatives with interests from the users' and the developers' side. AB members will meet at least once per year... [more](#)

The Future of Botanical Monography: Report from an international workshop, 12–16 March 2012, Smolenice, Slovak Republic

21.02.2013

Monographs are fundamental for progress in systematic botany. They are the vehicles for circumscribing and naming taxa, determining distributions and ecology, assessing relationships for formal classification, and interpreting long-term and short-term dimensions of the evolutionary process. Despite their importance, fewer monographs are now being prepared by the newer generation of... [more](#)

Data paper describes Antarctic biodiversity data gathered by 90 expeditions since 1956

20.02.2013

Huge data encompassed into a unique georeferenced macrobenthic assemblages database A new peer-reviewed data paper offers a comprehensive, open-access collection of georeferenced biological information about the Antarctic macrobenthic communities. The term macrobenthic refers to the visible-for-the-eye organisms that live near or on the sea bottom such as echinoderms, sponges, ascidians, crustaceans.... [more](#)

EU BON: Working towards integrated and comprehensive global biodiversity data

12.02.2013

The European Union funded EU BON "Building the European Biodiversity Observation Network" project now holds its official Kick-off Meeting, taking place from 13 to 15 February 2013 in Berlin. An International Symposium "Nature and Governance – Biodiversity Data, Science, and the Policy Interface" precedes the kick-off (11-12 February 2013), to... [more](#)

International biodiversity data symposium to mark the kickoff of the EU BON project

12.02.2013

EU BON (2012) stands for "Building the European Biodiversity Observation Network". This European research project, financed by the 7th EU framework programme for research and development (FP7), started activities on the 1st of December 2012 and will continue for 4.5 years. EU BON seeks ways to better integrate biodiversity information... [more](#)

Biodiversity exploration in the 3D era

06.02.2013

Taxonomy – the discipline that defines and names groups of organisms – is a field of science that still employs many of the methods used during the beginnings of the discipline in the 18th century. Despite the increasing use of molecular information to delineate new species, the study of the... [more](#)

The first SPREE newsletter is now available

Pensoft Publishers 22.04.2013



[SPREE](#) is a three-year EU (FP7) funded research project launched in July 2012. Its overarching goal is to bring the European community closer to achieving a truly sustainable and prosperous economy characterized by efficient use of resources. The project focuses on the concept of Servicizing which represents the shift from traditional purchasing to service acquisition.

The first SPREE newsletter is now a fact providing a project description, key facts, a list of partners and a workflow overview for the project. There is also a useful link to a video explaining the concept of Servicizing for the wider public.

SPREE project aims at designing innovative servicizing systems in the water, mobility and agrifood sectors that will enable a more radical and at the same time practical change in the way resources are being used and consumed. The Agent-Based Modeling (ABM) of these systems together with simulations of their potential effects will be supplemented by the composition of Servicizing Policy for Resource Efficient Economy.

For more information please find the first SPREE newsletter attached below.

A new article provides a decadal view on the importance and future of biodiversity informatics

Pensoft 19.04.2013



A new article "A decadal view of biodiversity informatics: challenges and priorities" published by [BMC Ecology](#) focuses on the challenges and perspectives for biodiversity informatics after a decade of development. The authors Alex Hardisty and Dave Roberts alongside 77 contributions from the biodiversity informatics community share experience and set future directions of biodiversity informatics as a tool for addressing conservation and ecological issues.

Biodiversity informatics plays a central enabling role in the research community's efforts to address scientific conservation and sustainability issues. This community consultation paper positions the role of biodiversity informatics, for the next decade, presenting the actions needed to link the various biodiversity infrastructures invisibly and to facilitate understanding that can support both business and policy-makers. The community considers the goal in biodiversity informatics to be full integration of the biodiversity research community, including citizens' science, through a commonly-shared, sustainable e-infrastructure across all sub-disciplines that reliably serves science and society alike

The full text of the article can be accessed [here](#).

The "ICT2013 – Create, Connect, Grow" event held in Vilnius - call for proposals

Stephanie Morales 18.04.2013



Europe's most visible forum for ICT research and innovation, namely [ICT2013](#), will take place from November 6 to 8th, 2013 in Vilnius, Lithuania.

This event will bring together Europe's best & brightest in ICT research, with businesses old & new, web start-ups and digital strategists to chart a path for Europe's ICT research policy.

Participants will have the opportunity to share their vision for the future with EU policy-makers, and see the latest advances in EU-funded ICT research.

ICT2013 will be the first opportunity to learn the details of research funding for ICT-related projects under Horizon 2020, the EU's new research program for 2014-2020.

ICT2013 will also offer participants opportunities to showcase their most advanced research, ICT products and most innovative creations and to meet delegates with common or similar topical interests with whom they could collaborate in the future. This would be possible by organising networking sessions and holding an exhibition stand.

So as to participate, you should submit proposals:

- For networking sessions **before 26 April 2013** by completing the [online form](#),
- For exhibition, **until 7th June 2013 16.00**, log in [here](#).

To follow the latest news on ICT2013 on Twitter go to [@ict2013eu](#).



The 3rd BioVeL newsletter is now available

Pensoft Publishers 18.04.2013



The newest newsletter of the [BioVeL](#) project is now available, offering a range of biodiversity related news, including brief coverage of the EU BON Kick-off and International Symposium Workshop in February, 2013. Among the other stories covered are:

- Letter from Alex Hardisty, Project Coordinator
- Running Workflows Just Got a Whole Lot Simpler
- Friends of BioVeL: Friendships and collaborations are also blooming! (featuring news about: LifeWatch-BioVeL cooperation;; i4Life project; Micro B3 and GENSC are now friends of BioVeL.

The newsletter also contains information about the upcoming workflows and research within the project, as well about events planned for the future.

To read the article and find out more about the news stories covered click [here](#).

"Bee" a taxonomist!

Thibaut DeMeulemeester 09.04.2013



I am working as a postdoctoral researcher at the [Naturalis Biodiversity Center](#) on bee systematics and bee identification. At present, my morphological studies focus on wing shape analyses using geometric morphometrics. During the pro-iBiosphere workshop and training on "*e-platforms and e-tools for taxonomy*" (http://wiki.pro-ibiosphere.eu/wiki/Workshops_Leiden_February_2013) that took place in February 2013 (Leiden, the Netherlands) I gained information about state-of-the-art platforms & tools that I could use for my work and learnt how to use them.

In bees, wing shape is a reliable diagnostic trait at different taxonomical levels: from families to species and sometimes even populations. This encouraged me to develop an identification tool for bee species based on wing venation patterns. During the session on "[Developing organism identification apps for Android devices](#)", given by Dr. Alexander Krings, I developed a prototype of an android app that includes morphological keys, tips for rapid identification, and general information about most common bees. This app can be a handy tool for taxonomists and naturalists to obtain information while doing field work. Of course, the thousands of published keys, papers, and books are very precious, but they are mainly available in the lab or at home. e-tools bring us highly valuable published information everywhere we go, where we need it, and where we find the bees.

My PhD research on bee systematics included description and taxonomic revision of several bee fossils. For these studies, wing shape allowed for quantitative assessment of taxonomic affinities of bee fossils with extant taxa. One of the best examples of the power of this method was the identification of a fossil bee wing (which was all that was available) as a [Bombus randeckensis](#) specimen from the Miocene. Bee fossils are rare, and until recently a comprehensive list was not available. e-platforms such as "[scratchpads](#)" (funded by the EU FP7 ViBRANT project) are an easy-to-use tool that allows sharing knowledge among taxonomists. As a result of the pro-iBiosphere training, I managed to upload the complete bee fossil list, including general information on each fossil and on the main deposits into a scratchpad. This platform facilitates open access and provides a significant help for my scientific work: the website makes available a fast search tool for taxonomical names, and allows easy publication of the new updates of our research activities.

e-tools and e-platforms for taxonomy help to diffuse and share scientific knowledge among taxonomists and the general public. Training on these tools and platforms invites taxonomists to change their way of thinking about the design of their projects and on how to effectively disseminate their results to a wider audience. With continuously updated information, collaborative platforms, interactive keys, and android apps, taxonomy can hardly be considered an 'old-fashioned' field!. If scientists want to increase their impact on society, they have to follow the evolution of our knowledge-hungry society.

pro-iBiosphere is helping to close the gap between technology and taxonomists!.

* *The bee identification app and the [bee fossil scratchpad](#) are under construction and will be available very soon*

Thibaut DeMeulemeester, Postdoctoral researcher (Naturalis Biodiversity Center, Leiden, the Netherlands). Contact:

thibaut.demeulemeester@naturalis.nl; koos.biesmeijer@naturalis.nl

Join the project community!

Stéphanie Morales 29.03.2013



Looking for even more ways to interact with the pro-iBiosphere project and the main stakeholders in the field, while getting real time access to the latest news, event and project activities information?

Be sure to check out our social media, follow us and join the conversation!



Facebook - like us [here](#)

- Access information on the latest biodiversity research developments
- Interact with key stakeholders in the field
- Discover our project events latest pictures and videos



Twitter - follow us [here](#)

- Be instantly updated on the latest project, biodiversity and EU news
- Get involved in the discussions during project events
- Follow other key biodiversity initiatives and players



LinkedIn - join us [here](#)

- Get the latest news on EU fundings
- Participate in the fruitful discussions and debates
- Promote your project among experts

BiodiversityKnowledge Side Event - IPBES Plenary January 2013

Pensoft 20.03.2013



The first meeting of the Platform's plenary (IPBES-1) took place in Bonn Germany from 21 to 26 January 2013. BiodiversityKnowledge together with SPIRAL, EBONE and EUBON - organized a side event on Regional support approaches to IPBES – Europe as showcase. This side event aimed to outline the importance of regional interactions to support and facilitate input into the work programme activities of IPBES. ([Full report, pdf](#))

Research Data Alliance (RDA) is now launched

Pensoft Publishers 20.03.2013



The [Research Data Alliance \(RDA\)](#) has been recently launched. Its [First Plenary](#) took place between 18-20 March, 2013 in Gothenburg, Sweden. The hot topic of the Plenary was the RDA vision towards open access data without barriers. The 3 days of meetings and working sessions brought the research data community together to contribute and set milestones for the future work of the RDA towards open access data-driven innovation.

Over the last decade, significant investments have been made all over the globe for developing scientific data infrastructures to support the work of research communities and improving shared access to

data. There is a common understanding that solutions must be global and that the development of an integrated and interoperable data domain can only be achieved through increased global cooperation.

As "big data" emerges as an international priority, the Research Data Alliance (RDA) is a newly formed organization whose goal is to accelerate data-driven innovation world-wide through research data sharing and exchange.

At its first Plenary, the RDA was launched by sponsors from the [European Commission](#), the [U. S. Government](#) and the [Australian Government](#) and leaders in the data community. The Plenary was used as a working meeting to accelerate discussion, Working and Interest Group interaction, and data community development.

ICSU-WDS Data Publication Charter: <http://www.icsu-wds.org/working-groups/data-publication>



BiodiversityKnowledge Second Conference in Berlin, September 24-26

Pensoft 20.03.2013



BiodiversityKnowledge is organizing its second international conference on September 24th to 26th 2013.

For the venue we choose the green and atypical [Jerusalemkirche](#), right in the middle of Berlin between Checkpoint Charlie and the Jewish museum.

The objective of this second conference is to discuss and finalize the recommended design of a future Network of Knowledge (NoK) on biodiversity and ecosystem services in Europe.

Registration for the conference will be open in beginning of April 2013.

More information on the conference will soon be available on conference [website](#).



Newsletter



Creating a Network of Knowledge for biodiversity and ecosystem services in Europe

ALTER-Net Conference in Ghent, April 15-18

Pensoft 20.03.2013



We kindly invite you to attend the BiodiversityKnowledge side event on the first day of the [ALTER-Net Conference "Science Underpinning the EU 2020 Biodiversity Strategy"](#). The primary focus of the conference will be the objectives and targets of the EU's 2020 Biodiversity Strategy, which should be realized by the end of this decade. Being a science-policy interface network, ALTER-Net wants to help the EU in realizing these targets by providing scientific knowledge, e.g. by pointing out possible weaknesses, opportunities and necessities, and by helping to find solutions and evidence-based actions. The BiodiversityKnowledge session on Monday afternoon will first present our project's approach in short, concise talks and then give the opportunity for discussing major issues related to governance of the structure, involvement and acknowledgment, quality control and other main challenges.



New "LinkOut" tool by National Center for Biotechnology Information (NCBI) providing easy link to PubMed and GenBank data

Pensoft 18.03.2013



A new "LinkOut" feature introduced by the National Center for Biotechnology Information (NCBI) allows the easy linking to content on [PubMed](#) and [GenBank](#). [Dryad](#) has already introduced the feature benefitting from easy and fast linking of associated content to the two resources.

PubMed and GenBank, from the National Center for Biotechnology Information (NCBI), are hugely popular resources for searching and retrieving article abstracts and nucleotide sequence data, respectively. PubMed indexes the vast majority of the biomedical literature, and deposition of nucleotide sequences in GenBank or one of the other INSDC databases is a near universal requirement for publication in a scientific journal. LinkOut allows the data from an article to be distributed among repositories without compromising its discoverability.

Dryad, intends to expand on this feature in a couple of ways. First, it is planned to make Dryad content searchable via the PubMed and GenBank identifiers, which because of their wide use will provide a convenient gateway for other biomedical databases to link out to Dryad. Second, open web standards will be used to expose relationships between content in Dryad and other repositories, not just NCBI.

Original source: [Dryad news and views](#)

pro-iBiosphere participated in the the European Commission's 10th e-Infrastructure Concertation Meeting

Stephanie Morales 13.03.2013

March 6-7, 2013 - Brussels



The 10th e-Infrastructure Concertation Meeting (March 6-7, 2013 - Brussels) was organised by the European Commission (e-Infrastructure Unit, DG CONNECT) with the support of the e-ScienceTalk project. The main aim of the meeting was to bring EU funded infrastructure projects together to discuss issues related to the completion of the EC 7th Framework Programme (FP7) and the start of the framework of Horizon 2020 (2014-2020).

The first day was dedicated to discuss the EU e-Infrastructure vision, impact and metrics. The second day focused on the e-infrastructure priorities (parallel tracks) and on future sustainability of e-infrastructures. The meeting provided excellent networking opportunities and helped participants to gain a better understanding of the current and the future Horizon 2020 programme's challenges. Slides of the meeting are available on the event web-page [here](#).

Thank you pro-ibiosphere

Siti-Munirah, M 08.03.2013



By Siti-Munirah, M.Y. (sitimunirah@frim.gov.my) Forest Research Institute Malaysia

I am a Research Officer and a young botanist at the Kepong Herbarium ([KEP](#)), Forest Research Institute Malaysia ([FRIM](#)), Kuala Lumpur, Malaysia. At present, I'm working for the [Flora of Malaysia project](#), revising families for the Flora of Peninsula Malaysia, such as, Lythraceae, Rafflesiaceae, Droseraceae, Cabombaceae, Ranunculaceae and a few others. I am also interested in *Rafflesia* (a parasitic group of plants), *Drosera* (a carnivorous plant group), and *Cabomba* (an invasive plant group). From my botanical exploration in the green forests of Malaysia I also focus on, *Sonerilla*, *Argostemma* and *Thismia*. I have been conducting fieldwork throughout Peninsular of Malaysia since 2007, and have collected more than 958 herbarium specimens. I am also involved with monitoring *Rafflesia* distribution and in its conservation in Malaysian Peninsular.

After attending the pro-iBiosphere workshops and hands-on training sessions (http://wiki.pro-ibiosphere.eu/wiki/Workshops_Leiden_February_2013), I gained new knowledge and understanding on how to use various e-platforms and e-tools for taxonomy. It benefited my career path development as a taxonomist and gave me the opportunity to share and spread the information among my colleagues, also within my country.

Recently, I have published my first new species via [Phytokeys](#), my first encounter with an online journal. The whole process only took around 4 months.

The main resources of biodiversity data are from basic research, therefore the foundation support for basic research exploring biodiversity should be available and sustained persistently. In my opinion, e-tools and e-platforms for taxonomy should be taught during degree or school level and applied for masters and PhD students. The extensive promotion should be done widely especially in the countries with high biodiversity. This will help to develop a good biodiversity center base for

a region or country key players.

Technology transfer should be an important concern by the institutes involved in biodiversity studies.

I think pro-iBiosphere is in the right direction, pro-iBiosphere is functioning as the meeting point for those who are involved with biodiversity activities, such as scientists, taxonomists, IT people and developers. It also fosters collaboration among projects and key players. Last but not least, I would like to suggest a **'One stop centre: Biodiversity of the world' website**, where all the related links of Biodiversity are gathered in one place.

Evaluation of pro-iBiosphere workshops

Quentin Groom 01.03.2013

Leiden (11th-14th February 2013)



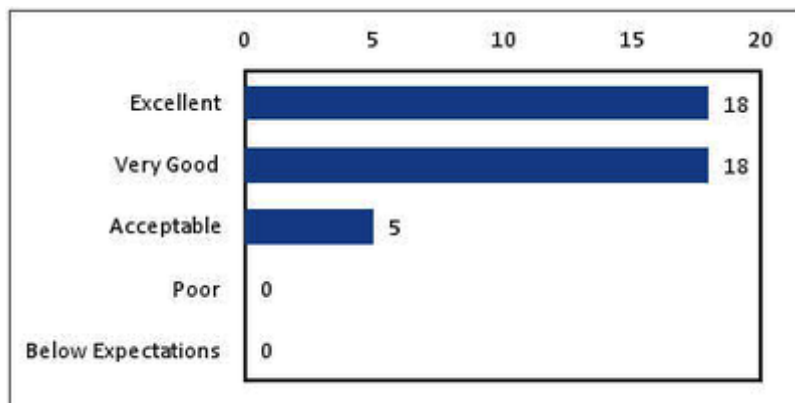
The pro-iBiosphere workshops that took place on the 11th to 14th of February 2013 aimed to get taxonomists and IT developers together to discuss digital tools for taxonomy; the digital mobilization of legacy literature and developments towards the next generation of digital taxonomic literature.

In a packed [agenda](#), which included an intense day of training workshops, participants learned about [Biovel](#), Charparser, [EDITor](#), Android Apps, [BiowikiFarm](#), [Scratchpads](#), [XPer2](#) and many more active projects.

After the event attendees were asked to evaluate the event. Forty percent of the 101 participants responded to our questionnaire and 88% of them rated the content either "excellent" or "very good". Other positive indicators of a successful event were that only one person would not recommend our events to others and only one person had no intention to attend another pro-iBiosphere event.

The event was a good opportunity for people to network. Almost three-quarters felt they had made five or more useful contacts. We also received a positive evaluation for the level of interest in the event. Again more than three-quarters of the respondents rated it "very interesting" and only two rated it "not so interesting".

We hope to do even better during our next event in May (21st-23rd) 2013, when we examine the [requirements of the downstream users of taxonomic information](#) and [mechanisms for paying for taxonomic services](#) and [coordination and routes for cooperation](#).



pro-iBiosphere Management Meetings in Leiden

Stephanie Morales 27.02.2013



On Friday the 15th of February 2013, meetings with the pro-iBiosphere Advisory Board (AB) and Consortium members took place.

At present, the AB is composed of four members from major global biodiversity initiatives with interests from the users' and the developers' side. AB members will meet at least once per year to provide their recommendations for improvement of the overall project results and activities.

Additional members have been contacted and will join the project AB during the next months.

The Consortium Meeting, aimed at providing an overview of the project status, progress of the different work packages and tasks, and to take actions for the next 3 months of the project.

Discussions centered on the outputs and first impressions on the project series of workshops organised in Leiden and the suggestions on how to improve the quality and effectiveness of future workshops to be organised in the coming months. Taking into account the feedback received by participants of the meeting, all partners agreed that the first series of workshops that were organised resulted in being a success.

The first report on partners' "exploitation plans and sustainability" was released by the end of February 2013. Further dissemination efforts undertaken by all partners in the coming months will ensure a broad project visibility among the biodiversity community and also that first project results reach a wide audience.

At present, various pro-iBiosphere pilots are being conducted and first results will be available by the end of May 2013.

The next and third Consortium Meeting will take place on May 24, 2013 in Berlin on the occasion of pro-iBiosphere Meeting #3 http://wiki.pro-ibiosphere.eu/wiki/Workshops_Berlin_May_2013.



The Future of Botanical Monography: Report from an international workshop, 12–16 March 2012, Smolenice, Slovak Republic

Lyubomir Penev 21.02.2013



Monographs are fundamental for progress in systematic botany. They are the vehicles for circumscribing and naming taxa, determining distributions and ecology, assessing relationships for formal classification, and interpreting long-term and short-term dimensions of the evolutionary process. Despite their importance, fewer monographs are now being prepared by the newer generation of systematic botanists, who are understandably involved principally with DNA data and analysis, especially for answering phylogenetic, biogeographic, and population genetic questions.

As monographs provide hypotheses regarding species boundaries and plant relationships, new insights in many plant groups are urgently needed. Increasing pressures on biodiversity, especially in tropical and developing regions of the world, emphasize this point. The results from a

workshop (with 21 participants) reaffirm the central role that monographs play in systematic botany. But, rather than advocating abbreviated models for monographic products, we recommend a full presentation of relevant information. Electronic publication offers numerous means of illustration of taxa, habitats, characters, and statistical and phylogenetic analyses, which previously would have been prohibitively costly. Open Access and semantically enhanced linked electronic publications provide instant access to content from anywhere in the world, and at the same time link this content to all underlying data and digital resources used in the work. Resources in support of monography, especially databases and widely and easily accessible digital literature and specimens, are now more powerful than ever before, but interfacing and interoperability of databases are much needed. Priorities for new resources to be developed include an index of type collections and an online global chromosome database. Funding for sabbaticals for monographers to work uninterrupted on major projects is strongly encouraged. We recommend that doctoral students be assigned smaller genera, or natural portions of larger ones (subgenera, sections, etc.), to gain the necessary expertise for producing a monograph, including training in a broad array of data collection (e.g., morphology, anatomy, palynology, cytogenetics, DNA techniques, ecology, biogeography), data analysis (e.g., statistics, phylogenetics, models), and nomenclature. Training programs, supported by institutes, associations, and agencies, provide means for passing on procedures and perspectives of challenging botanical monography to the next generation of young systematists.

Source: Crespo, A., Crisci, J.V., Dorr, L.J., Ferencová, Z., Frodin, D., Geltman, D.V., Kilian, N., Linder, H.P., Lohmann, L.G., Oberprieler, C., Penev, L., Smith, G.F., Thomas, W., Tulig, M., Turland, N. & Zhang, X.-C. 2013. The Future of Botanical Monography: Report from an international workshop, 12–16 March 2012, Smolenice, Slovak Republic. *Taxon* 62: 4–20.

Data paper describes Antarctic biodiversity data gathered by 90 expeditions since 1956

Pensoft 20.02.2013



Huge data encompassed into a unique georeferenced macrobenthic assemblages database

A new peer-reviewed data paper offers a comprehensive, open-access collection of georeferenced biological information about the Antarctic macrobenthic communities. The term macrobenthic refers to the visible-for-the-eye organisms that live near or on the sea bottom such as echinoderms, sponges, ascidians, crustaceans. The paper will help in coordinating biodiversity research and conservation activities on species living near the ocean bottom of the Antarctic. The data paper "[Antarctic macrobenthic communities: A compilation of circumpolar information](#)", published in the open access journal *Nature Conservation*, describes data from approximately 90 different expeditions in the region since 1956 that have now been made openly available under a CC-By license. The paper provides unique georeferenced biological basic information for the planning of future coordinated research activities, for example those under the umbrella of the biology program [Antarctic Thresholds – Ecosystem Resilience and Adaptation](#) (AnT-ERA) of the [Scientific Committee on Antarctic Research](#) (SCAR). The information collected could be also beneficial for current conservation priorities such as the planning of [Marine Protected Areas](#) (MPAs) by the [Commission for the Conservation of Antarctic Marine Living Resources](#) (CCAMLR).

The expeditions were organised by several famous explorers of the Antarctic. The area covered by the paper consists of almost the entire Southern Ocean, including sites covered by a single ice-shelf. The vast majority of information is from shelf areas around the continent at water depth shallower than 800m. The information from the different sources is then attributed to the classified macrobenthic assemblages. The results are made publicly available via the "[Antarctic Biodiversity Facility](#)" ([data.biodiversity.aq](#)).

A specific feature of this paper is that the manuscript was automatically generated from the [Integrated Publishing Toolkit](#) of the Antarctic Node of the Global Biodiversity Information Facility ([AntaBIF IPT](#)) and then submitted to the journal *Nature Conservation* through a novel workflow developed by GBIF and [Pensoft Publishers](#). (see previous [press release](#)). Data are made freely available through the AntaBIF IPT, and sea-bed images of 214 localities through the data repository for geoscience and environmental data, [PANGAEA](#)- Data Publisher for Earth and Environmental Science (sample: <http://doi.pangaea.de/10.1594/PANGAEA.198682>).

Speaking from on board the research vessel 'Polarstern', the paper's lead author Prof. Julian Gutt of the [Alfred Wegener Institute Helmholtz Centre for Polar and Marine Research, Germany](#) commented:

"The most important achievement of this paper is that data collected over many years and by various institutions are now not only freely available for anyone to download and use, but also properly described to facilitate future work in re-using the data. The Data Paper concept is certainly a great approach that multiplies the effect of funds and efforts spent by generations of scientists."

The data will also be used for a comprehensive [Biogeography Atlas of the Southern Ocean](#) project to be released during the XI SCAR Biology Symposium in Barcelona July 2013.

SOURCE: [EurekAlert!](#)



EU BON: Working towards integrated and comprehensive global biodiversity data

Pensoft 12.02.2013



The European Union funded [EU BON](#) "Building the European Biodiversity Observation Network" project now holds its official Kick-off Meeting, taking place from 13 to 15 February 2013 in Berlin. An International Symposium "Nature and Governance – Biodiversity Data, Science, and the Policy Interface" precedes the kick-off (11-12 February 2013), to discuss the current landscape of monitoring and integration of biodiversity data, and stress on the relevance of EU BON on both European and global scales.

The EU BON project will be working towards advancement and development of the technological platform for [GEO BON](#) (Group on Earth Observations Biodiversity Observation Network), which operates and systemizes biodiversity data on a global scale.

Launched in 2005, the Group on Earth Observations, GEO, is a response to the need to address issues of biodiversity preservation as well as eight other societal benefit areas: agriculture, climate, disasters, ecosystems, energy, health, water and weather. The GEO BON venture was established to coordinate the provision of sustained, cross-cutting, integrated and accessible earth observation data and information.

The aim of GEO BON is to build a monitoring network that presents a full picture of what is happening to biological diversity worldwide. The system will use masses of biological information with data and forecasts on climate change, pollution, land use, biological invasions and other threats to biodiversity. Currently, the lack of comprehensive information about the world's biological resources continues to undermine the efforts of policymakers and managers to set priorities, elaborate strategies and assess the effectiveness of their actions.

EU BON project offers an innovative approach in terms of integration of biodiversity information system from on-ground to remote sensing data, for addressing policy and information needs in a timely and customized way. The project will reassure integration between social networks of science and policy and technological networks of interoperating IT infrastructures. EU BON's aims to facilitate GEO BON's work towards the creation of global biodiversity data network through contributing to the overall European capacities and infrastructures for environmental information management.

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All interested parties are most welcome to attend the symposium or to follow it on [Twitter](#), [Facebook](#), or [Google+](#).

Additional information

[EU BON](#) (2012) stands for "Building the European Biodiversity Observation Network" and is an European research project, financed by the 7th EU framework programme for research and development (FP7). EU BON seeks ways to better integrate biodiversity information and implement into policy and decision-making of biodiversity monitoring and management in the EU.

[GEO BON](#) stands for "Group on Earth Observations Biodiversity Observation Network". It coordinates activities relating to the Societal Benefit Area (SBA) on Biodiversity of the Global Earth Observation System of Systems (GEOSS). Some 100 governmental, inter-governmental and non-governmental organisations are collaborating through GEO BON to organise 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. Moreover, GEO BON has been recognized by the Parties to the Convention on Biological Diversity. More information at: <http://www.earthobservations.org/geobon.shtml>.



International biodiversity data symposium to mark the kickoff of the EU BON project

Pensoft 12.02.2013



[EU BON](#) (2012) stands for "Building the European Biodiversity Observation Network". This European research project, financed by the 7th EU framework programme for research and development (FP7), started activities on the 1st of December 2012 and will continue for 4.5 years. EU BON seeks ways to better integrate biodiversity information and implement into policy and decision-making of biodiversity monitoring and management in the EU. The aim of EU BON is to build a substantial part and contribute to the Group on Earth Observation's Biodiversity Observation Network ([GEO BON](#))*, through an innovative approach of integration of biodiversity information systems. The project, built as an answer to the need of a new integrated biodiversity data, will facilitate access to this knowledge and will effectively improve the work in the field of biodiversity observation in general.

The [EU BON International Symposium "Nature and Governance – Biodiversity Data, Science, and the Policy Interface"](#), took place in Berlin from 11 to 12 February 2013. The symposium, hosted by the [Museum für Naturkunde](#) Berlin, brought together high-ranking speakers and guests from across the world to talk and discuss the different aspects of the EU BON Project. The symposium aimed at clarifying and popularizing EU BON's objectives prior to the official [EU BON Kick-off Meeting](#). Main issues covered were the future of biodiversity information, challenges in front of new data policies, new approaches in collecting information, and ways to engage the public in biodiversity monitoring and assessments, a.o.

For more information on the EU BON project please visit [Twitter](#), [Facebook](#), or [Google+](#).

* Launched in 2005, the Group on Earth Observations, GEO, is a response to the need to address issues of biodiversity preservation as well as eight other societal benefit areas: agriculture, climate, disasters, ecosystems, energy, health, water and weather. The GEO BON venture was established to coordinate the provision of sustained, cross-cutting, integrated and accessible earth observation data and information.

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Biodiversity exploration in the 3D era

Pavel Stoev 06.02.2013



[Taxonomy](#) – the discipline that defines and names groups of organisms – is a field of science that still employs many of the methods used during the beginnings of the discipline in the 18th century. Despite the increasing use of molecular information to delineate new species, the study of the morphology of specimens remains one of the major tasks of taxonomists. These studies often require first-hand examination of the reference specimens (so-called type material) deposited at museum collections around the globe - a time-consuming and laborious task.

To facilitate this procedure, a group of researchers from the [Hellenic Centre for Marine Research](#) (HCMR) are exploring the possibilities offered by 3D digital imaging. In a recent article published in the open-access journal [ZooKeys](#), the researchers use X-ray computed tomography to create digital, [three-dimensional representations of tiny animals](#), displaying both internal and external characteristics of the specimens at a detail level similar to that of the microscope.

To demonstrate their method, the researchers imaged a number of [polychaete](#) species (marine bristle-worms)—the choice of this group being obvious to Sarah Faulwetter, the leading author, because "despite being ecologically very important, these animals exhibit a fascinating diversity of forms and tissue types, allowing to test the methodology across a range of samples with different characteristics".

The resulting interactive 3D models allow any researcher to virtually rotate, magnify or even dissect the specimen and thus extracting new scientific information, whereas the structure and genetic material of the analysed specimen are kept intact for future studies.

The team stress the importance of 3D imaging methods for taxonomy on its way into the twenty-first century: "Our vision for the future is to provide a digital representation of each museum specimen, simultaneously accessible via the internet by researchers and nature enthusiasts worldwide," says the team leader, Dr Christos Arvanitidis from [HCMR](#).

The instant accessibility of specimens will speed up the creation and dissemination of knowledge. As the authors point out, "human efforts, combined with novel technologies, will help taxonomy to turn into a cyberscience whose discoveries might rival those made during the great naturalist era of the nineteenth century."

See also the playlist in the Pensoft video channel at

<http://www.youtube.com/playlist?list=PLrYfgSbGP4qRsKnc-47wkgz6ww1HMHox>

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