### GLOBAL BIODIVERSITY INFORMATION FACILITY

free and open access to biodiversity data

### **GBIF** ready to support new science-policy platform

The GBIF community has an important role to play in supporting the new Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), according to executive secretary Donald Hobern.

Hobern was speaking after the opening plenary meeting of IPBES which took place in Bonn from 21-26 January. The meeting put in place many of the administrative and staffing structures needed to implement its work (see final press release at <u>http://www.ipbes.net/</u>).

The GBIF Secretariat issued a <u>briefing note</u> before the Bonn meeting outlining the potential areas in which GBIF had a significant role to play in supporting the IPBES work programme, which will be drafted during 2013. Those areas included:

- identifying and prioritizing knowledge gaps;
- partnerships with long-term observation and monitoring programmes;
- addressing capacity building needs; and
- increasing access to data, information and knowledge.



Alfred Oteng-Yeboah, GBIF Head of Delegation for Ghana, elected as Vice-Chair of the IPBES Bureau during the plenary meeting in Bonn.

Following the conclusion of the IPBES plenary, Hobern said: "With the structures and procedures of IPBES now in place, we look forward to discussing with GBIF Participants, stakeholders and partners how best we can collaborate constructively with the new platform.

# **GBits**

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"A key principle of IPBES is that it will work with existing initiatives on biodiversity, building on their work while avoiding duplication. I believe the GBIF infrastructure for biodiversity data access, built up over more than a decade, represents an important foundation upon which IPBES can now build."

During the consultations on the IPBES work programme in the coming months, GBIF will work closely with a range of partners including a stakeholder group coordinated by the International Union for the Conservation of Nature (IUCN) and the International Council for Scientific Understanding (ICSU); as well as with major data publishers to the GBIF network such as the Ocean Biogeographic Information Service (OBIS), operating under the Intergovernmental Oceanographic Commission (IOC) of UNESCO. Submissions to IPBES from OBIS, IUCN and other organizations can be downloaded at <u>www.</u> <u>ipbes.net/bonn</u>.

### **COLLABORATIONS**

# GBIF receives €300,000 to assist in European platform

GBIF is participating in a major new project to build a European Biodiversity Observation Network, aimed at helping scientists, policy makers and the public to access a wide range of biodiversity information.

The <u>EU BON project</u>, funded by the European Union, brings together 30 partners from 18 countries. The work will cost €9 million, spread over four and a half years.

Among the products will be a European integrated biodiversity portal, a roadmap for handling citizen science data and a framework for open data publishing.

GBIF's specific contributions, costed at nearly €300,000, include helping to improve data standards and interoperability, providing a metadata registry and catalogue, and providing access to data through robust web services.

EU BON is led by the Museum für Naturkunde, Berlin, and will contribute to the <u>Group on Earth</u> <u>Observations Biodiversity Observation Network</u> (<u>GEO BON</u>). An <u>EU BON 'kick-off meeting'</u> will be held in Berlin from 13-15 February, preceded by an international symposium entitled <u>Nature and</u> <u>Governance – Biodiversity Data, Science, and the</u> <u>Policy Interface</u>, taking place on 11-12 February.

### **DATA PUBLISHING**

# Support for projects to promote 'data paper' publication

The GBIF Secretariat has announced support for three co-ordinated projects aimed at promoting publication of peer-reviewed biodiversity 'data papers' in Spain, Latin America and Asia.

The successful proposals are a response to a call issued last year, to stimulate activities among GBIF nodes promoting the culture of authoring detailed dataset descriptions (metadata), and publishing them in academic journals.

In one project, GBIF Spain will hold a <u>workshop on</u> <u>data paper publication</u> in March involving more than 20 existing and potential dataset publishers in Spain. It is hoped that each of the participants will be able to publish a data paper as a result of the workshop.

In addition, the Humboldt Institute's journal, <u>Biota</u> <u>Colombiana</u>, will introduce a special section for the publication of data papers according to the GBIF model. This will make it the first journal in Latin America to publish biodiversity data papers.

The final project has been developed by the Wildlife Institute of India, host of the Indian national node, which will also hold a workshop to stimulate publication of data papers, using training material developed by Spain and Colombia. This is intended to result in the submission of at least 20 data paper manuscripts, and publication of new datasets to the GBIF network, from south and southeast Asia.

Each of the three projects will receive catalytic support of €5000 from GBIF's core funds.

For more information, please contact Vishwas Chavan, GBIF Secretariat, <u>vchavan@gbif.org</u>

### **INFORMATICS**

## Duplicate and redundant records cleaned up in GBIF data portal

Sharp-eyed visitors to the GBIF website may have noticed a drop in the total number of records from 389 million to 383 million in December 2012.

The explanation is that software and processing upgrades have made it easier to spot duplicates and old versions of records and datasets that are no longer being published.

The removal of such records cleans up the data accessible via the GBIF network, thanks to the informatics tools developed and promoted by the GBIF community.

Details of the changes are explained by GBIF systems analyst Andrea Hahn in the GBIF developer blog. <u>Read more...</u>

### **SCIENCE AND POLICY**

As usual, the current issue of GBits is accompanied by a supplement summarizing the uses of GBIFmediated data identified in the past two months. The sixth GBits Science Supplement includes details of a study projecting the likely impact of climate change on mammals in the far north of Europe, and the latest GBIF data paper describing a new survey of mollusc species on a volcanic island off Taiwan. Download the supplement ...

**AROUND THE NETWORK** 

### Colombia

#### New portal on Colombia's biodiversity

A portal that provides free access to information on Colombia's biological diversity has been launched by the GBIF national node at <u>http://www.sibcolombia.net</u>.

The site allows users to explore, filter, access and download all specimen records and taxon lists published by museums, herbaria, universities and government agencies, which are partners of the Sistema de Información sobre Biodiversidad (SiB) – Colombia's biodiversity information facility. Records can also be searched at the department level, which is the second tier of administration in the country.

SiB Colombia created the portal by customizing the open source tools developed by GBIF. Recycling the GBIF source code has saved SiB Colombia over six years of efforts to build a data integration and publishing platform. The source code for the national version is available at <u>http://code.google.com/p/sib-dataportal/</u>.

SiB Colombia has also released a <u>seven-step guide to</u> <u>publishing data</u> on the portal. It is based on a <u>guide</u> <u>developed previously by Canadensys</u> on publishing primary biodiversity data using the GBIF Integrated Publishing Toolkit (IPT).

### Brazil

### Brazilian GBIF delegation and node manager appointed

GBIF's newest Participant, Brazil, has announced details of the individuals and national institutions that will represent the country and coordinate its participation in the network. The Head of Delegation to the GBIF Governing Board will be Carlos Nobre, National Secretary for Policies and Programmes at the Brazilian Ministry of Science, Technology and Innovation (MCTI). The Director of Thematic Policies and Programmes at MCTI, Mercedes Bustamante, has been designated as Additional Delegate. The national node will be hosted at the <u>National Laboratory for</u> <u>Scientific Computation (LNCC)</u>, a national research institution in computer science, linked to the MCTI and located in the city of Petrópolis, in the state of Rio de Janeiro. Luiz Gadelha of LNCC will represent Brazil on the GBIF Participant Node Managers Committee. Contact details can be found on the GBIF website at <u>http://www.gbif.org/communications/directory-ofcontacts/</u>

### France

### Crowdsourcing to help digitize French herbarium collections

Citizen 'herbonauts' can now contribute to science by helping to digitize the vast quantity of plant records held in the National Museum of Natural History (MNHN) in Paris, host of the GBIF national node.

The French website <u>lesherbonautes.mnhn.fr</u> enables volunteers to transcribe essential information from around six million scanned images of labelled plant specimens from the museum's National Herbarium.

It would take a person working alone about 500 years to enter data from these images. In order to involve and get help from the public, 'missions' have been set up, each with 250-2500 images of specimens. Volunteers randomly choose images and enter information from its label.

Digitizing the collections enables data to be published, searched and accessed online, contributing to scientific research. The data from the project will feed into national databases such as those of the Inventaire National du Patrimoine Naturel (National Inventory of Natural Heritage, INPN) and into international data networks such as GBIF.

The digitization project is an effort of the MNHN, the francophone botanical network <u>Tela Botanica</u> and E-ReColNat, a project to mine biodiversity data in the French natural history collections.

Australian volunteers have already been helping to digitize biodiversity data through the <u>Biodiversity</u> <u>Volunteer Portal</u>, operated by the Atlas of Living Australia, another GBIF national node.

### Denmark

### New tool available to manage zoological collections

<u>Papis</u>, a tool developed by the Zoological Museum of Denmark to help manage zoological collections,



is now freely available for users. Papis is GBIFcompatible and adds to the suite of software tools available for managing biodiversity data.

Managing zoological collections involves cataloguing specimens stored in various forms – such as dried material or in solution, and often accompanied by field notes, making the process much more complex than managing plant collections. Papis helps in storing specimen data, managing specimen loans and keeping track of maintenance.

Papis is based on FileMaker software. More tools for managing natural history collections are available on the <u>GBIF Online Resource Centre</u>.

### Germany

### Prototype system for annotating biodiversity data

AnnoSys, a system to enable adding comments to biodiversity data available via the Internet, is being tested in prototype by the <u>Botanic Garden and</u> <u>Botanical Museum Berlin-Dahlem (BGBM)</u>, host of the GBIF German node.

The prototype is expected to be available for public testing in a few weeks, and to be ready for use in April 2014.

AnnoSys will provide a user-friendly interface for researchers to annotate single datasets as well as sets of collection objects. It will also allow a user to search for annotations.

The system will help correct errors and rectify omissions through community input, thus acting as an important quality control mechanism.

The project is funded by <u>German Research</u> <u>Foundation (DFG)</u>. More information on AnnoSys is available at <u>https://annosys.bgbm.fu-berlin.de/</u>. For details, please contact Okka Tschoepe, BGBM at <u>o.tschoepe@bgbm.org</u>.

### Ireland

### Irish data centre announces 2013 workshops

The National Biodiversity Data Centre, Ireland, has released its programme of training workshops for 2013. A series of 26 workshops will be held this year to build capacity amongst the volunteer and professional recording community in Ireland on the identification and recording of the country's biological diversity.

The programme is devised to provide introductory and refresher courses for beginners for some of the more popular taxonomic groups, but there are also more specialist workshops to improve the skills of existing recorders. More on the <u>NBDC website</u>...

### CBOL

### GBIF partner CBOL wins \$3m award from Google

The Consortium for the Barcode of Life (CBOL) has received \$3 million from the Google Global Impact Awards to create a public library of DNA barcodes for CITES-listed species.

The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) is an agreement between governments to ensure that international trade in wild animal and plant species does not threaten their survival.

CBOL, a GBIF Associate Participant, will work with researchers in six developing countries, and the DNA library is intended to be a useful tool for border and customs officials in controlling wildlife trade. Read more...

### **NEW DATA**

### Austria

The Austrian Institute of Technology has published 21,600 records from its <u>gene repository centre</u>, which houses over half a million DNA samples of plant and animal origin. The centre gives scientists online access to decoded genetic material from across Europe. (<u>http://data.gbif.org/datasets/resource/14569</u>)

### Estonia

The Estonian Environment Information Centre, a state agency administered by the Ministry of the Environment, has published 166,500 records from its <u>nature observations database</u>. The database gathers citizen observations of Estonian species and invites members of the public to input information. (http://data.gbif.org/datasets/resource/14570)

### Ireland

A new dataset published through GBIF includes more than 31,000 records of marine species observed by volunteer sports divers around the Irish coastline. The data, published by the GBIF node at the National Biodiversity Data Centre, come from the <u>Seasearch</u> <u>project</u> which offers courses to divers to help them identify and record marine life. (<u>http://data.gbif.org/datasets/resource/14563</u>)

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### France

The National Museum of Natural History, Paris has published nearly 400,000 records of animals, plants

### **United Kingdom**

Data from a system to alert UK authorities to invasive alien marine species are now accessible through the GBIF network. The UK National Biodiversity Network has published 121 records of Chinese Mitten Crab, Japanese kelp (Wakame) and Carpet Sea Squirt, all of which are non-native species whose spread has harmful impacts on local marine biodiversity. The data come from the Recording Invasive Species Counts (RISC) and ALERT system, launched in 2010, and are mostly provided by the public through an on-line recording form. Records are submitted with a photograph, and only those verified by designated experts are included in the dataset. The recordings send a rapid notification to the Non-Native Species Secretariat, which works to stop their spread.

(http://data.gbif.org/datasets/resource/14568)

and fungi from the public forests of France and Corsica, submitted by staff of the national forest office (Office National des Forêts). The dataset forms part of the national inventory of natural heritage (Inventaire National du Patrimoine Naturel, INPN), which manages and makes available online information on the terrestrial and marine biodiversity of France and its overseas regions.

(http://data.gbif.org/datasets/resource/14580)

### Colombia

The Asociación de Becarios del Casanare, a non-profit organization based in the Casanare department of Colombia, has published 3,535 records of birds and mammals observed at Laguna Tiniie, a lake in the region. Over 3.400 of these are bird observations from the dry and rainy seasons of 2009. (http://data.gbif.org/datasets/resource/14557 and http://data.gbif.org/datasets/resource/14559)

Another Colombian non-profit organization, Asociación Selva, has published 5,250 records of captures and recaptures of banded or ringed birds in the Sierra Nevada de Santa Marta, a mountain range near Colombia's Caribbean coast. Each record includes detailed information including geographic coordinates and altitude, the date taken, name of the bander, the number of the band and characteristics of the individual bird. Banders involved in the study possess field certificates, ensuring data quality. (http://data.gbif.org/datasets/resource/14571)

### **Netherlands**

The Royal Dutch Angling Association has published 380,000 records from its Piscaria database, which is used as the country's standard for the storage and analysis of fish data. The dataset includes common fish species like the European bullhead



Japanese Kelp / Wakame (Undaria pinnatifida) Photo by Kathryn Birch - CCW

and the northern pike, as well as rare species such as the brook lamprey, which is threatened in the Netherlands.

(http://data.gbif.org/datasets/resource/14574)

### **OPEN CALLS**

### Call for nominations for GBIF science awards

GBIF invites proposals for the 2013 Ebbe Nielsen Prize and Young Researchers Awards.

The €30.000 Ebbe Nielsen Prize is awarded annually to a person or team who demonstrates excellence in combining biodiversity informatics and biosystematics research. Read more...

The Young Researchers Awards are available to graduate students from a GBIF Voting Participant or Associate Participant country, for innovative research in biodiversity informatics. Two awards of €4,000 are available. Read more ...

### Call for mentoring activity proposals

The 2013 call for proposals under the GBIF mentoring programme is now open to GBIF Participant Nodes. The deadline for submitting proposals is 2 April 2013, and selected proposals will be announced by the end of April 2013.

The GBIF mentoring programme brings together GBIF Participant Nodes to share their expertise. It was designed as a mechanism to speed up the establishment of biodiversity information facilities in participant countries.

More on the 2013 call for proposals...



### **IN THE NEWS**

# Biodiversity data access project in India 'to start soon'

The Hindu national daily newspaper in India has reported that a prototype of the Indian National Biodiversity Grid, a platform to share open access data on the country's ecosystems, is currently being tested. The project involves GBIF partners in India, and follows a recommendation of the draft <u>National</u> <u>Biodiversity Information Outlook (NBIO)</u> for India, launched at the Convention on Biological Diversity meeting in Hyderabad in October 2012.

### Read the article here...

# GBIF's work highlighted in International Innovation

The Chair of the GBIF Governing Board Joanne Daly, Executive Secretary Donald Hobern and Senior Programme Officer for Engagement Tim Hirsch discuss the challenges and future of GBIF's work in the January edition of the magazine International Innovation – North America.

Read the story...

### **UPCOMING EVENTS**

### **Meetings and workshops**

**Biodiversity Information Architecture workshop** 4-8 February 2013, Kirstenbosch, Cape Town, South Africa Hosted by <u>South African National Biodiversity Institute</u> (SANBI)

Symposium: Nature and Governance – Biodiversity Data, Science, and the Policy Interface 11-12 February 2013, Berlin, Germany More information...

**EU BON kickoff meeting** 13-15 February 2013, Berlin, Germany More information...

#### Eye on Earth network, first user conference

Organized by the European Environment Agency (EEA) 4-6 March 2013, Dublin, Ireland More information...

### European regional nodes meeting

6-8 March 2013, Joensuu, Finland More information...

Latin American regional nodes meeting 11-13 March 2013, Santo Domingo de Heredia, Costa Rica

African regional nodes meeting 16-18 April 2013, Pretoria, South Africa

### **Training events**

Training workshops associated with the 'Capacity Building for Conservation' congress 15 February 2013, Villa de Leyva, Colombia More information...

Biodiversity data cleaning and data publishing training course in ICIPE 18-22 February 2013, Nairobi, Kenya More information...

III Workshop on biodiversity data migration by GBIF Spain 19-20 February 2013, Madrid, Spain More information...

**Ecological niche modeling course in ICIPE** 25-28 February 2013, Nairobi, Kenya More information...

Global Taxonomy Initiative Capacity-building Workshop by CBD 4-7 March 2013, Dakar, Senegal More information...

**Training course in biodiversity information** *3-28 June 2013, Tervuren, Belgium* Deadline for applications: 15 March 2013 <u>More information...</u>

VISION OF GBIF: A world in which biodiversity information is freely and universally available for science, society, and a sustainable future.

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MISSION OF GBIF: To be the foremost global resource for biodiversity information, and engender smart solutions for environmental and human well-being.

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