**GLOBAL
BIODIVERSITY
INFORMATION
FACILITY**

free and open access to biodiversity data

GBits

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CSIRO's Tony Rees named 2014 Ebbe Nielsen Prize winner

GBIF has awarded the 2014 Ebbe Nielsen Prize to **Tony Rees,** whose ground-breaking informatics tools have significantly advanced the delivery of data about life on Earth.

Rees is manager of the marine research data centre at Australia's Commonwealth Scientific and Industrial Research Organisation (CSIRO). He will receive the €30,000 Ebbe Nielsen Prize at GBIF's 21st Governing Board Meeting (GB21), which takes place this year in New Delhi, India, from 16-18 September.

The GBIF Science Committee awards the annual prize to researchers combining biosystematics and biodiversity informatics research in an exciting and novel way. GBIF's Australian delegation nominated Rees in recognition of four innovative achievements that have advanced global progress in biodiversity informatics...

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2013 Young Researchers Awards

This year's GBIF Young Researchers Awards have gone to a master's student from Ireland helping to detect biases and identify gaps in biodiversity data and a PhD student from India looking at the potential for social networking sites to provide valuable biodiversity data.

The winners are **Caoimhe Marshall** of University College, Dublin (*above left*), and **Vijay Barve,** a research fellow at the Foundation for Revitalisation of Local Health Traditions (FRLHT) in Bangalore, and a PhD candidate at the University of Kansas, United States. Both receive a €4,000 prize in recognition of their research innovation and originality, the potential for significant contributions to biodiversity science, and the creative use of data published through GBIF.

Marshall's research project aims to validate a statistical method of estimating the relative amount of effort spent on recording species in different locations, based on data available through GBIF. Meanwhile, Barve will investigate whether images shared on sites such as Flickr, Facebook and Picasaweb may be untapped sources of very large volumes of photo-vouchered species occurrence data, especially in developing countries.

▶ **READ MORE** YRA winner Caoimhe Marshall
▶ **READ MORE** YRA winner Vijay Barve

GBIF publishes *2013 Science Review*

GBIF has released its annual compilation of peer-reviewed research that make use of data published through GBIF's global infrastructure.

This issue of the *Science Review* accounts for more than 250 scientific papers across a range of subject areas including: invasive species, climate impacts, human health, ecosystem services, biodiversity conservation, and food, farming and biofuels. Selected summaries highlight research that either makes substantial use of GBIF-mediated data or reflects key areas of interest for the scientific and policy communities.

The GBIF Secretariat maintains an ongoing programme of monitoring scientific literature that uses and discusses GBIF-mediated data. Web users can access an ongoing historical archive of such research citations.

▶ **DOWNLOAD** GBIF's 2013 Science Review

DATA PUBLISHING

Bringing species records to life

Users of GBIF.org can now search for and filter species occurrences that include visual and acoustic records. GBIF.org's index now displays more than 1.5 million species occurrences with photos, sound or video.

The new multimedia filter increases visitors' ability to access more of the detailed information that accompanies individual records published on GBIF.org. In addition to highlighting the practical power of digital media to document species, charismatic or otherwise, these improvements support practical applications that advance and extend the work of scientific researchers.

"Multimedia collections offer important tools for studying biodiversity, particularly given improvements in field techniques that make it possible to automate biodiversity inventory and monitoring," said Dr. Karl-Heinz Frommolt, curator of the Animal Sound Archive at the Museum für Naturkunde in Berlin.

▶ **READ MORE** News release

Version 2.1 of the IPT released

Developers at the GBIF Secretariat released version 2.1 of the Integrated Publishing Toolkit (IPT) in April. The Release Notes outline the 11 user-driven enhancements and 38 bug fixes that comprise this update, including key changes that

- Enable publishers to validate that each record within a dataset has a unique identifier (thereby improving stability of record-level identifiers across the GBIF network)
- Support Microsoft Excel as native data sources
- Translate the interface into Japanese, courtesy of Dr Yukiko Yamazaki from the National Institute of Genetics

  ▶ READ MORE GBIF Developer Blog

  ▶ READ MORE IPT User Manual

GOVERNANCE

Community consultations on endorsement and data licensing

The GBIF Secretariat closed a pair of community consultations in June after receiving input on two sets of proposed changes to GBIF processes for adding publishers to the network, and for licensing data mediated by the network.

The endorsement consultation examined an expansion of the current model for publisher endorsement that, by engaging expert communities, could provide a richer assessment of the value of each dataset to potential users, as well as facilitating publication of data from institutions in countries not currently participating in GBIF.

The consultation on data licensing followed up on a 2013 consultation that stems from GBIF's mission to promote free and open access to biodiversity data. This proposal outlined a standardized approach that would make datasets' terms of use and re-use restrictions clear to users.

The Secretariat has analysed and summarized the responses to both consultations in public documents, and will present proposals for the way forward on both issues to the GBIF Governing Board at September's GB21 meeting in New Delhi, India.

  ▶ READ MORE Report on endorsement consultation

  ▶ READ MORE All endorsement responses

  ▶ READ MORE Report on licensing consultation

  ▶ READ MORE All data licensing responses

Interior, Indian Habitat Centre. Photo 2011 CC BY-NC-ND, Phillip Kalantzis Cope (flic.kr/p/9nQa4J)

Registration open for GB21 in New Dehli

Official delegates and invited observers can register now to attend the 21st meeting of the GBIF Governing Board (GB21), co-hosted by the Wildlife Institute of India and the Ministry of Environment, Forests and Climate Change at the India Habitat Centre (*above*) in New Delhi from 16-18 September.

On 17 September, the public Science Symposium—entitled *Innovation and Impact through GBIF*—takes place, and citizens and journalists can register and attend for free. Look for an announcement on this year's list of speakers in early August.

  ▶ READ MORE Event details for GB21

CAPACITY BUILDING

Mentoring project update
France, Portugal and Spain

Staff from GBIF's national nodes in France, Spain and Portugal held the second meeting of their joint mentoring project at the Instituto de Investigação Científica Tropical in Lisbon from 28 to 30 April. Working topics included

- creating data papers using GBIF's Integrated Publishing Toolkit
- preparing e-learning courses
- journal options and requirements for publishing data papers
- exploring challenges and opportunities for other nodes that wish to make use of the Atlas of Living Australia's ALA-portal code
- cleaning biodiversity data using Open Refine

The group will reconvene in Paris on October 14-16 to explore a crowdsourcing platform for cataloguing collections, and tools for spatial visualization of biodiversity data, developed by GBIF France.

  ▶ READ MORE Event materials

Mentoring project update
Belgium, Mauritania, and Togo

The GBIF national nodes from Togo, Mauritania and Belgium co-organized a data workshop at the University of Lomé, Togo on 18-19 June 2014.

About 25 Francophone participants from Togolese academic and government institutions took advantage of this opportunity to learn about GBIF, the open data movement, data publishing and use, and fitness-for-use.

Following this more public gathering, IT staff from the three nodes began a hands-on collaboration around how to prepare and publish data through the GBIF IPT. Participants published two datasets—one a checklist of Togolese snakes and reptiles, the other occurrences of West African mushrooms—and began preparing several more datasets for publication. Attendees plan a follow-up workshop in Nouakchott, Mauritania, in early September.

NEW DATA

Brazil

The Brazilian Biodiversity Information System (SiBBr), the GBIF national node for Brazil, has mobilized the first published data from the Museu Paraense Emílio Goeldi in Belém. Representing just a small fraction of collections of Amazonian biodiversity dating to the 19th century, the ten initial datasets encompass more than 30,000 records, including 22,000 from the museum's collection of Araneae, the world's second most diverse group of spiders.

SiBBr has also facilitated publication of the first data from the National Institute of Amazonian Research (INPA) in Manaus. The appearance of its first two datasets on GBIF.org marks a milestone in INPA's long-term commitment and investment in digitization, infrastructure and publication that will increase access to its research collections.

Chinese Academy of Sciences

The Biodiversity Committee, Chinese Academy of Sciences has published the first portion of its historic plant collection through GBIF.org. This dataset consists of 163,199 species occurrence records drawn from various localities in Yunnan province in southwest China, one of the country's hotspots of biological diversity. These data are the

Type specimen of Pleurospermum arometicum*, collected by Scottish botanist George Forrest in Lijiang, Yunnan, in 1910. Photo courtesy of Chinese Academy of Sciences.*

first published by the Chinese Academy of Sciences through GBIF.org since joining the global network in October 2013 as an associate Participant.

▶ **READ MORE** News release

Colombia

Working with the Colombian Biodiversity Information System (SiB), Fundación Bosques y Humedales has published just over 2,000 records of striped catfish (*Pseudoplatystoma magdaleniatum) in the Magdalena-Cauca basin*. These data establish a baseline understanding for this newly described endemic species, which inhabit a basin rich in both Andean and Caribbean ecosystems.

SiB also endorsed publication of 1,200 beetle records from the Museum of Natural History Luis Gonzalo Andrade at the Universidad Pedagógica y Tecnológica of Colombia. These initial data represent a small portion of the Museum's specimens, nearly 40% of which come from the order Coleoptera.

Denmark
[DanBIF](#) has facilitated publication of a dataset collected by citizen scientists for the [Natural History Museum of Denmark](#). Children, adults, students and museum researchers worked together to collect the [582 records](#) during a one-day Bioblitz in Østre Anlæg, a public park in central Copenhagen. Researchers and experts associated with the Museum identified all 342 species and recorded them in a purpose-built registration system.

Germany
In its role as the German node for vertebrate data, the [Zoological Research Museum Alexander Koenig, Bonn](#) has published a large collection of [more than 150,000 bat banding records dating from 1900 to the present](#).

The FLORIVON dataset includes 51 occurrences from the genus Ophrys, commonly known as 'bee orchids'. Photo © 2011 Jurgen Rotteveel.

The Netherlands
[The Dutch Foundation for Botanical Research](#) (FLORON) has published its [FLORIVON dataset](#), containing nearly 600,000 observations of vascular plants collected during a nationwide survey conducted primarily between 1901 and 1949. The dataset is expected to grow as more of the records are digitized.

United States
An initial set of 85,000 records from four collections at the [North Carolina State Museum of Natural Sciences](#) has rapidly grown to comprise 216,000 of its specimens across eight collections.

AROUND THE NETWORK

Ireland's BioBlitz 2014 highlights NBDC's citizen science outreach
Ireland's annual BioBlitz took place on 23-24 May, with the [National Biodiversity Data Centre](#) convening more than 200 scientists and recorders at four sites across the island of Ireland to see which site would record the most species during a 24-hour period. As the largest event of its kind in Europe, the BioBlitz provides citizen scientists and professionals a valuable opportunity to network and exchange skills.

This year, volunteers at Glenarm Estate in County Antrim logged 1,116 species, surpassing the other three sites at Howth Head in County Dublin, Derrynane National Historic Property in County Kerry, and Clonbur/Cong Woodland in County Galway. The BioBlitz was supported by a dynamic real-time record capture system, developed by the Data Centre as an online record submission and management system that support the citizen science network in Ireland. The system has recorded more than 80,000 records from members of the public to date.

▶ **READ MORE** [BioBlitz 2014](#)
▶ **READ MORE** [NBDC Record Submission](#)

GBIF Norway seeks volunteers for transcribing labels
GBIF Norway launched a new citizen science crowdsourcing effort at a party marking the 200th anniversary of the Natural History Museum botanical garden in Oslo. Volunteers have been asked to provide assistance in transcribing the museum's thousands of records for African lichen specimens.

▶ **VOLUNTEER** [Lichens of Africa](#)

Regional nodes meetings

GBIF's 2014 work programme includes funding to support regional node meetings to advance the network's shared priorities. Four of GBIF's six regions have held their 2014 node meetings, and the Latin American Participants are set to convene later this year in Petrópolis, Brazil. Below are some brief summaries of the recently completed meetings in Africa, Asia, Europe and North America.

GBIF in Africa

13 African Participants attended GBIF's 5th African regional nodes meeting in Cotonou, Benin in July. Supported by the Faculty of Agricultural Science of the University of Abomey-Calavi, GBIF Benin, and the Benin Ministry of Environment, the gathering occurred on the heels of the first GBIF African Science Committee meeting as well as the third workshop of the regional collaboration on *Mobilising Africa's policy-relevant biodiversity data* (see below).

After highlighting new projects around data repatriation, alien invasive species and biodiversity in cities, attendees discussed nine previously adopted regional priorities for data mobilization, and established collaboration agreements for advancing toward shared goals. Node staff outlined the steps necessary to set up an African coordination mechanism for GBIF-related activities and appointed leaders to ensure progress on engagement, informatics, and content to align work in Africa with GBIF's strategic plan.

GBIF in Asia

Organized by JBIF, GBIF's Japanese node, the 5th Asian nodes meeting took place in Tsukuba, Ibaraki, Japan, hosted and funded by the National Museum of Nature and Science.

The eight participating nodes and one observer discussed progress to date on current regional science-based projects. The first will leverage FishBase, one of the region's most comprehensive checklist databases, to improve documentation on both marine and freshwater fishes across the region, focusing first on ASEAN countries, their local languages and species occurrences.

The second seeks to mobilize checklist data on invasive and Red List species, again focusing initially on ASEAN countries. While the task will require some outside taxonomic expertise, the Asian nodes expect to provide self-sustaining support through data analysis, data comparisons and other informatics techniques and procedures. The Asian Nodes will collaborate with the GBIF Secretariat to improve the GBIF taxonomic backbone and to increase the services to compare and synchronize country checklists (e.g. correction of errors in names).

The nodes also held elections, voting in Tsuyoshi Hosoya of GBIF Japan as the new Asian nodes representative and Yu-Huang Wang of TaiBIF as the deputy representative. The pair succeed Sheila Vergara of the Asian Centre for Biodiversity and Nakul Chettri of ICIMOD, for whose service the GBIF network is very grateful.

GBIF in Europe

Around 40 staff from 24 GBIF participants attended April's 6th European Nodes meeting in Brussels, with support from the Belgian Biodiversity Platform and the Belgian Federal Science Policy Office. In the course of sharing updates on several EU-related projects and initiatives, attendees analysed lessons learned from previous regional and global collaborations on invasive freshwater data mobilization, the Nodes Portal Toolkit and mentoring collaboration.

Node managers and staff also identified a set of regional priorities, which include engaging potential new members in Eastern Europe to increase GBIF's coverage, mobilizing content that closes regional data gaps and through large-scale digitization, and connecting other biodiversity informatics initiatives across the continent. Some nodes agreed to a joint focus on publishing European forest and vegetation data in support of the European Environment Agency.

GBIF in North America

The North American region held its fourth meeting in Guelph, Canada, with support of the International Barcode of Life and the Biodiversity Institute of Ontario. On-site and dial-in attendees discussed current project news and how adjustments to the region's governance model might stimulate further regional collaboration. The implications of the Nagoya protocol for collections and data licensing, the need for unique identifiers for records, and models for including other information through GBIF—such as both genetics and sample-based data—formed key topics of conversation.

The North American nodes also re-elected Bob Hanner as their representative for another two-year term.

African Participants flesh out a business case for mobilising biodiversity data

More than 20 African experts convened on 1 July at Hotel Pantagruel in Cotonou, Benin, to design a training programme and build a business case for mobilizing policy-relevant biodiversity data. The workshop occurred between meetings of the GBIF Africa Science Committee (30 June 2014) and the GBIF Africa Nodes Committee (2-4 July 2014).

The South African National Biodiversity Information Facility (SABIF) coordinated the workshop, the third in a series to support *Mobilising Africa's policy-relevant biodiversity data*, a project funded by the JRS Biodiversity Foundation that draws together GBIF's African Participants. The project's goal is to develop and implement a strategy for mobilizing African biodiversity data while strengthening regional collaboration and capacity in biodiversity informatics.

Workgroups sought to design pragmatic components of a biodiversity informatics training programme, seeking to alleviate chronic capacity constraints and streamlining the 'data-science-policy value chain'. The agenda included a presentation by Nadine Bowles-Newark of UNEP-WCMC and concluded with participants discussing the prospect of organizing a major African data-science-policy conference in 2015.

National data resource launched in Benin

GBIF Benin worked closely with INBio (Costa Rica's national node) to create a new national portal that displays GBIF-mediated data in a single resource. Developed with support from the JRS Biodiversity Foundation, **gbif-benin.org** is a Drupal implementation based on the NPT Startup.

BGBM launches system for annotating biodiversity data

The Botanic Garden and Botanical Museum Berlin-Dahlem (BGBM) has released a new system that enables the addition of online comments to biodiversity data.

The AnnoSys annotation data repository allows users to identify and propose corrections to errors and omissions in occurrence records. For each annotated record, the AnnoSys repository stores both the annotation and the original record, linking them through a persistent identifier. These records are accessible through the AnnoSys user interface and web service interfaces.

AnnoSys has been integrated and deployed within the Virtual Herbarium Berolinense, the SYNTHESYS portal for European biodiversity data and the EDIT Specimen Explorer.
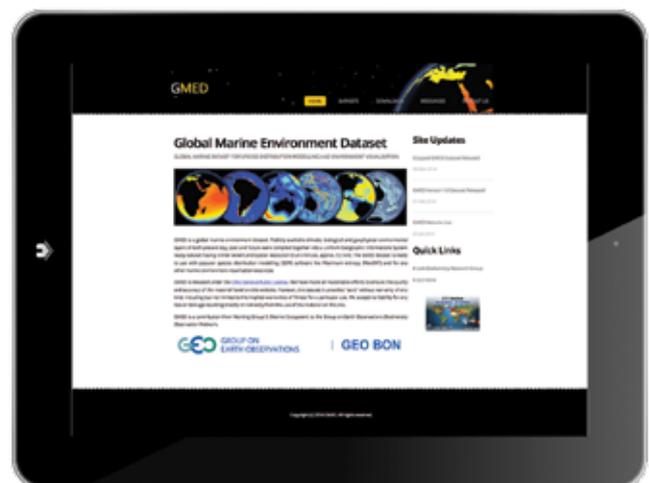
Language group news
Français, Español and Português

The collaborative work of translating recent community consultations has generated a welcome side effect: the creation of glossaries of the most common GBIF and biodiversity informatics terms in French, Spanish and Portuguese.

While still a work-in-progress, the glossaries have already streamlined the process of communicating within and across the tongues that make up the GBIF network. Secretariat staff sincerely thank the members of the community who have made such invaluable contributions to these efforts.

▶ **READ MORE** Glossaire Anglais › Français pour les termes utilisés par le GBIF

▶ **READ MORE** Diccionario inglés › español para la informática de la biodiversidad

▶ **READ MORE** Glossário inglês › português para a informática da biodiversidade

Global marine datasets for species distribution modelling and visualization

The Global Marine Environment Datasets (GMED) is a compilation of global climatic, biological, and geophysical environmental layers for the current, past and future conditions of marine environments.

Covering a wid range of environmental layers from the surface and the deepest oceans, GMED provides standardized, ready-to-use datasets with uniform spatial extent at high spatial resolution (5 arc-minute, c. 9.2 km near equator).

"Researchers can map GBIF-mediated data against these layers to quickly visualize environmental context for species distributions," says Mark Costello of the University of Auckland's Leigh Marine Laboratory (and vice-chair of the GBIF Science Committee). "MaxEnt and other species distribution modeling software can also import GMED to generate predictions of the geographic ranges of species and regions where, if introduced, a given species might find suitable conditions."

▶ **READ MORE** Global Marine Environment Datasets

OPPORTUNITIES

Vacancies at BeBIF
The Belgian Biodiversity Platform (BeBIF), the GBIF national node for Belgium, is seeking to fill two positions, one full-time and one part-time. BeBIF is a science-policy interface based in Brussels that provides services to scientists engaged in biodiversity research and policy makers,

▶ **READ MORE** Science Officer for biodiversity science-policy communication (full-time)

▶ **READ MORE** Biodiversity Expert for science-policy interface issues (part-time)

CESAB issues call for proposed proposals
CESAB (the Center for Synthesis and Analysis on Biodiversity), which funds high-level biodiversity research, has launched its annual call for research project proposals.

An initiative run by the French Foundation for Research on Biodiversity, CESAB offers to funding support of expert groups with resources and infrastructure to share datasets and conduct extensive investigations on biodiversity-related concepts. Projects are generally funded for a three-year period and must not require the collection of new primary data. Deadline for pre-proposals is 16 September 2014.

▶ **READ MORE** Call for presentations (English)

COMINGS AND GOINGS
The GBIF Secretariat has added three staff in recent months with another pair to follow shortly.

Dr **Siro Masinde** will join the Secretariat at the beginning of September as the new programme officer for content mobilization. As senior research scientist and previously as head of the botany department at the National Museums of Kenya, which includes the East African Herbarium and Nairobi Botanic Garden. Siro has extensive experience in digitization and databasing, including as African regional coordinator for JSTOR/ITHAKA, for which he helped develop the Global Plants Initiative.

In mid-October, **Dr Dmitry Schigel** will join as the new programme officer for content analysis and use. A Russian currently working in Finland, Dmitry is adjunct professor (docent) in mycology at the University of Helsinki. He also acts as taxonomy coordinator for the ICT team at the Finnish Museum of Natural History, host of the GBIF national node for Finland, and runs a research project on wood-decaying fungi for the university's Metapopulation Research Group.

Meanwhile, **Maheva Bagard Laursen** has joined as Communications Officer as a maternity-leave replacement for **Sampreethi Aipanjiguly**, who will return in February 2015. Maheva has worked in communications, networking and project management in Europe and in China, most recently as an outreach communication consultant at the European Environment Agency (EEA). Maheva will be the main contact point for suggested contributions to GBits in coming months and can be reached at mblaursen@gbif.org and via Skype at mahevalaursen.

Kyle Copas started as the Secretariat's science writer in May, focused on creating content for GBIF.org and other communication platforms, as well as crafting and leading implementation of GBIF's communication strategy. Kyle contributes experience across the realms of biodiversity conservation and sustainability, having spent the past seven years in a variety of content, communications, and strategy roles at NatureServe, a U.S.-based associate Participant in the GBIF network. Kyle can be reached at kcopas@gbif.org and via Skype at kylecopas.

Finally, **Marlene Dalsgaard Nielsen** started March 1 as the Secretariat's administrative assistant. Trained at the Ministry of Foreign Affairs in Copenhagen, Marlene worked at the Royal Danish Embassy and European Medicines Agency (EMA) in London, and most recently worked in Copenhagen for Novo Nordisk. She can be reached at mdnielsen@gbif.org.

EVENTS

Meetings and conferences

Scientific Committee on Arctic Research (SCAR) 2014 Open Science Meeting
27-28 August 2014, Auckland, New Zealand

4th GBIF Latin American Nodes Meeting
1-3 September 2014, Rio de Janeiro, Brazil

2014 ALTER-Net summer school: 'An Interdisciplinary Perspective on Biodiversity and Ecosystem Services'
3-13 September 2014, Peyresq, France

GB21: 21st GBIF Governing Board Meeting
16-20 September 2014, New Delhi, India

COP12: Conference of the Parties to the CBD
3-17 October 2014, Pyeongchang, Republic of Korea

2014 TDWG Conference
27-31 October 2014, Jönköping, Sweden

IUCN World Parks Congress
12-19 November 2014, Sydney, Australia

2nd International Ocean Research Conference
17-21 November 2014, Barcelona, Spain

Arctic Biodiversity Congress
2-4 December 2014, Trondheim, Norway

Training courses

Spatial Conservation Planning with Marxan
18-22 August 2014, Els Hostalets de Pierola, Spain

Biodiversity Diagnoses Course
1-9 September 2014, Cotonou, Benin

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

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