GLOBAL BIODIVERSITY INFORMATION **FACILITY**

free and open access to biodiversity data

New GBIF portal going live

GBIF is using the 20th meeting of its Governing Board to launch a new version of its global web portal, providing greatly enhanced access to the world's largest database of documented evidence for the distribution of species across the planet.

The event is being broadcast online via https://new. livestream.com/gbif/.

Read more on page 2...

New framework to deliver biodiversity knowledge



A new initiative launched this month aims to coordinate global efforts and funding to deliver the best possible information about life on Earth, and our impacts upon it.

The Global Biodiversity **Informatics Outlook** sets out a framework to harness the immense

power of information technology and an open data culture to gather unprecedented evidence about biodiversity and to inform better decisions.

The framework is outlined in a document and website entitled Delivering Biodiversity Knowledge in the Information Age, inviting policy makers, funders, researchers, informatics specialists, data holders and others to unite around four key focus areas where progress is needed.

Visit the GBIO website for more information...

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Contd... New GBIF portal going live

GBIF's new web portal combines data search and communication into a single platform, enabling users to discover and access examples of research uses, tools, methodologies and national activities – thus helping to demonstrate GBIF's value to all stakeholders.

The portal's launch is open to the press and public and is being streamed live via https://new.livestream.com/gbif/.

The launch is accompanied by presentations showing how GBIF's partners in <u>Colombia</u> and <u>Japan</u> are <u>providing free and open access to information about biodiversity in their own countries</u>, using open-source tools and resources developed by the global network.

Later on the same day, the annual GBIF Science Symposium, also being streamed live, is showcasing key uses of the data made available through the network, including the identification of priority areas for plant conservation in South America; and an investigation of how tropical forests are responding to climate change.

See the science symposium programme...

GBIF Secretariat to coordinate Global Invasive Species Information Partnership

The GBIF Secretariat is to coordinate a global initiative to improve the information available to decision makers to help tackle the threat of invasive alien species.

Under an agreement with the Secretariat of the Convention on Biological Diversity (SCBD), the GBIF Secretariat will be the primary focal point of the Global Invasive Alien Species Information Partnership (GIASIP), which brings together a number of organizations (see) focussed on improving the interoperability of different information sources on this major driver of biodiversity loss.

Through the agreement, GBIF's role includes leading the implementation of the GIASIP information infrastructure and linking or integrating it with the GBIF data network.

NEW MEMBERS

Chinese Academy of Sciences is newest GBIF Participant

The <u>Chinese Academy of Sciences</u> (CAS), the national academy in China for the natural sciences, is the latest organization to become a GBIF Participant.

The Academy signed the GBIF Memorandum of Understanding making it an organizational Associate Participant. The new status gives CAS a place on the GBIF Governing Board and the possibility of endorsing institutions to publish data via GBIF.

The institution launched the GBIF-CAS node on 14 September in a ceremony in Shanghai and has started work on a data portal that will help mobilize data from China and the East Asia region.

Keping Ma, Professor of Plant Ecology at the Institute of Botany, CAS and temporary Head of Delegation to GBIF said, "As part of the GBIF family, CAS will work to promote the development of biodiversity informatics. Our priorities will be to publish data from China, promote the use of GBIF data and enhance the development and integration of biodiversity datasets from different institutions in the country.

"We hope to help address the biodiversity data gap of the GBIF network in Asia", he added. CAS was established in 1949 and includes thirteen branches in various regions in China, over a hundred institutes and two universities. The headquarters of the Academy are located in the Chinese capital, Beijing.

The organization is active in many biodiversity informatics activities globally and in the Asian region, including the establishment of the Asia Biodiversity Conservation and Database Network (ABCDNet). It is the Chinese partner within the Catalogue of Life, the Encyclopedia of Life, the Biodiversity Heritage Library and a range of other international biodiversity initiatives and is engaged in digitization of national collections and collection of field observations and images from survey activities and from the broader public.

Donald Hobern, Executive Secretary of GBIF commented, "CAS is a natural partner for GBIF and we look forward to working with the Academy to integrate more data from east Asia into GBIF and to developing a closer relationship with China."

Data publishing network VertNet joins GBIF

<u>VertNet</u>, a network that provides open access to vertebrate natural history collections and observations, is now an Associate Participant of GBIF.

It will now have a place on the GBIF Governing Board and is able to endorse institutions wishing to publish data through the GBIF network.

VertNet is funded by the National Science Foundation in the United States and aims to make vertebrate data from observations and collections available online. It currently helps to mobilize collections from 38 countries.



The chair of the VertNet steering committee, Robert Guralnick said, "VertNet is excited to be able to serve as an Associate Participant. We have been working not only in the United States, but also more broadly to help publishers make their data available online. The move to official Associate Participant status is a benefit especially for those publishers located in countries that are not yet GBIF Participants."

TRAINING

Ecological niche modelling training videos available

Videos from the ecological niche modelling workshop organized by GBIF Spain in May 2013 are now available at http://www.gbif.es/videos/videos. php. All sessions, including the discussions, can be viewed via the link, and learning materials can be accessed at http://www.gbif.es/formaciondetalles.php?IDForm=110#descargas.

Data digitization training held in Madagascar

The Madagascar Biodiversity Information Facility (MadBIF) and the Madagascar Biodiversity Network (REBIOMA) organized biodiversity informatics training on 22 and 23 August. Twenty-three participants from the University of Mahajanga were trained in digitizing and publishing biodiversity data during the event.

NEW DATA

Brazil

A major plant collection founded by the Brazilian emperor in the 19th century has become the first dataset from Brazil to be published through GBIF since the country joined the network last year.

More than half a million individual records from the Rio de Janeiro Botanic Gardens (JBRJ) Herbarium can now be searched and downloaded via the GBIF data portal.

The dataset is focussed on Brazilian and South American flora, and includes specimens collected by some of the most important naturalists of the 19th and 20th centuries.

The initial collection was made up of 25,000 specimens donated by the emperor Dom Pedro II in the late 19th century, including the herbarium of the French botanist Antoine-Laurent Apollinaire Fee. Other notable botanists whose specimens are included in the collection are Adolpho Ducke, Johan Löfgren, João Geraldo Kuhlmann, Paulo Campos Porto and Alexander Curt Brade.

The records in the GBIF dataset are digitized from hundreds of thousands of herbarium vouchers, containing dried plant specimens and labels giving information such as the species, location and date of collection and the name of the collector. All of this information is now searchable via the GBIF data portal.

Chinese Taipei

The Taiwan Biodiversity Information Facility (TaiBIF) has published over 11,000 records of moths, based on citizen observations. The data come from an online community, whose members post images of moths with dates and locations onto a Facebook page. Members discuss and identify the species, and the data are then captured and stored.

Activities such as 'Moth Alerts', where moderators post an image of a moth species and invite group members to post other images with date and location data, have encouraged the sharing of information.



The Facebook group can be accessed at https://www.facebook.com/groups/enjoymoths/.

TaiBIF has also published over <u>9,000 records of moths</u> from the collection and surveys of the <u>Endemic Species Research Institute</u> in Taiwan. Images of specimens are <u>available on Flickr</u> and licensed under CC-BY for public use.

Canada

Canada's oldest botanical garden, based at the University of British Columbia and established in 1916, has published 9,500 records of plants curated in its gardens. Nearly 90 per cent of taxa represented in the gardens' collection are included in the dataset available through the GBIF data portal.

The University's botanical gardens hold a collection of around 12,000 plants representing 8,000 taxa from temperate regions around the world.



The <u>Spencer Entomological Collection</u>, the second largest in western Canada, has published <u>4,500</u> records relating to 475 insect species occurring in the country. The collection has particularly strong holdings of true bugs, dragonflies and damselflies, fleas and lice. Images of some of the specimens held in the collection are available at http://www.biodiversity.ubc.ca/entomology_pictures/.

Colombia

Colombia continued to add datasets from its institutions to the GBIF network, bringing the total of records published from the country to nearly a million. The latest datasets are from the Asociación para el estudio y conservación de las aves acuáticas en Colombia, which has published 4,300 observation records of aquatic birds from the country's Caribbean coast. Data come from 39 locations in six of the eight departments of the region.

The Association has also published over 400 occurrence records of birds from the Sanquianga National Park on the Pacific coast of Colombia. The data come from a survey which focussed on whimbrels (*Numenius phaeopus*) in the protected area, but data on other bird species were also gathered via counts at roosting areas. The dataset contains information on 32 species of birds.

Denmark

The Department of Bioscience at the Aarhus University has published 1.1 million vegetation data records from detailed surveys of the protected areas in the country. The inspections were carried out to ensure uniform and reproducible ways of gathering data, and contribute to protected area management.

More information on the technical specifications for the surveys...

Germany

A new publisher, the <u>Natural History Museum of</u> <u>Mainz</u> has made available over <u>half a million records</u> <u>of plant observation data</u> from all over Germany, with an emphasis on Rhineland-Palatinate – one of the 16 federal states of the country. Almost all the plant data were collected after 1990, and have been integrated into a recent distribution mapping project on the flora of Germany.

The Museum für Naturkunde Berlin, host of the 20th meeting of the GBIF Governing Board, has published 47,500 records from its collection of Sphaeroceridae – a family of true flies that are commonly referred to as dung flies. These flies are found all over the world barring places with permanent ice cover.

Japan

The National Institute of Genetics, located in Mishima, eastern Japan, has published 7,900 records of plants from the Fuji-Hakone-Izu national park. Data were collected by members of a volunteer association who have been monitoring plant species along hiking trails in the park since 2001. The observation records gathered have been published as a data paper in the peer-reviewed journal Ecological Research.

Norway

More than a <u>quarter of a million records of Norwegian seabirds</u>, gathered as part of a long-term monitoring and mapping programme, have been published by the <u>Norwegian Institute for Nature Research</u>. The programme, called SEAbird POPulations (SEAPOP) was set up in 2005, and aims to map the distribution of breeding and wintering seabirds along the coastlines of Norway and the Svalbard archipelago. The data gathered will help maintain in better management of the marine environment.

United Kingdom

The People's Trust for Endangered Species (PTES), a registered charity, has published 16,200 records of hedgehogs from a 2005-2006 survey, when volunteer recorders and rural landowners in Britain and Ireland were asked to send in information on sightings of the species in their gardens. The Trust has also published 3,300 records from a survey which logged when hedgehogs came out of hibernation. Hedgehogs are a flagship species – a decline in their numbers indicates a deterioration of the environment.

United States

The Essig Museum of Entomology, a new GBIF publisher, has made available over a 150,000 records of insects through the GBIF network. The museum's focus is the surveying of Californian insects, which is reflected in the large number of records from the state.

GBIF IN THE NEWS

In the last two months, GBIF was mentioned in

- a special report in the Economist on the impact of economic growth on biodiversity. Read the article...
- an article on the role of technology in saving biodiversity, in Huffington Post's Green Section. Read the article...
- an article on the value of natural history collections, in The Conversation, a research news site. Read the article...



AROUND THE NETWORK

New report released on national biodiversity profiling

A new study by CSIRO, the Australian Bureau of Meteorology and the Atlas of Living Australia explores combining data from natural history collections and conservation agencies with mapping data to help set up a system to monitor biodiversity at the national and continental scales.

Results of the study are published in the report Biodiversity Profiling: Components of a continental biodiversity information capability.

Read a blog post on the study....

UPCOMING EVENTS

Meetings and workshops

20th meeting of the GBIF Governing Board, new GBIF portal launch and Science Symposium 8-10 October 2013, Berlin, Germany More information...

17th Meeting of the CBD Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) 14-18 October 2013, Montreal, Canada More information...
Global Botanic Gardens Congress 20-25 October 2013, Dunedin, New Zealand More information...

5th International Barcode of Life Conference 27-31 October 2013, Kunming, China More information...

TDWG Annual Conference 30 October - 1 November 2013, Florence, Italy More information...

Training events

GB20 Nodes training course: building stronger GBIF Nodes 4-5 October 2013, Berlin, Germany More information...

Online workshop about georeferencing using GEOLocate by GBIF Spain 16-30 October 2013, Internet More information...

Training session for African local governments as part of the 2013 Local Climate Solutions Congress 30 October - 1 November 2013, Dar es Salaam, Tanzania

More information...

Workshop for German herbarium curators Co-organized by GBIF Germany and the German Society for Biological Systematics (GfBS) 4-5 November 2013, Berlin, Germany More information (in German)...

Introduction to workflows for taxonomic refinement, biogeographic analysis, and species distribution modelling by BioVeL *26-27 November 2013, Cardiff, UK* More information...

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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http://www.gbif.org/

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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GBits archive: http://www.gbif.org/communications/ resources/newsletters/