



## Action plan for information on invasive alien species

Government experts meeting under the Convention on Biological Diversity (CBD) have endorsed a wide-ranging programme to strengthen information available to decision-makers on the spread of invasive alien species (IAS).

The plan, presented to the CBD's Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) in Montreal, arose from a workshop held at the GBIF Secretariat in Copenhagen in September.

The joint work programme (JWP, see UNEP/CBD/SBSTTA/15/INF/14 at <http://www.cbd.int/doc/?meeting=sbstta-15>) unites eight information service providers behind nearly 50 action points aimed at combining and harmonizing data on IAS from a wide range of different databases and networks.



Water hyacinth, *Eichhornia Crassipes*

The specific activities to be led by GBIF in the JWP include:

- Incorporating information on invasive alien species in the fields available to data publishers using Darwin Core Archive (DwC);
- Promoting the use of the GBIF Integrated Publishing Toolkit (IPT) to publish data for IAS;
- 'Tagging' species in the GBIF Data Portal to make it easier to extract country lists of invasive alien species, and making the millions of existing records on IAS available to other information systems;
- Promoting the use of the Global Names Architecture – the infrastructure developed by GBIF to help identify names used in various taxonomic references and/or checklists;
- Helping identify gaps in data on IAS and developing strategies to mobilize them.

[Read more...](#)

### SCIENCE AND POLICY . . . . . 2

Use of GBIF helps clarify environment-species links

Data publishing in Pensoft journals integrated with the Dryad Data Repository

GBIF-enabled data used to study potential spread of bullfrog in S. America

Data accessed through GBIF used to model spread of coffee pest in East Africa

### GB18 AND SCIENCE SYMPOSIUM . . . . . 2

Training course on biodiversity data publishing

New Executive Secretary announced

Danish scientist awarded €30,000 Ebbe Nielsen Prize

### INFORMATICS . . . . . 3

GBIF Data Portal upgrades now live

International collaboration for sharing of biodiversity data

### GBIF COMMUNITY . . . . . 4

Australia's Volunteer Portal is open for business

GBIF training manual available in French

Welcome box for Nodes launched

### DATA PUBLISHING NEWS . . . 4

New publishers

Other datasets

### UPCOMING EVENTS . . . . . 5

Courses on biodiversity data and information management in East Africa

Biodiversity data analysis and use workshop by GBIF France

Training course on persistent identifiers

VertNet biodiversity informatics training workshop

## SCIENCE AND POLICY

### Use of GBIF helps clarify environment-species links

Analysis of a massive set of mammal data accessed through the GBIF Data Portal has helped quantify the influence of various environmental factors on which species are present in a particular area.

A team of Israeli scientists based at the Technion Institute, Haifa, used all available mammal occurrence records with detailed coordinates in the lower 48 states of the continental United States.

Some 308,000 records of 284 species, from 70 datasets published through the GBIF network to global standards, were mapped against a number of environmental variables at ten spatial scales, ranging in resolution from 20 sq km to 10,000 sq km 'grain' size, and from 20,000 sq km to 10m sq km in extent.

Lead author Rafi Kent says, "The study would not be possible if we did not have such free access to the data as provided by the GBIF portal."

The results, [published in PLoS One](#), suggest that at the larger scale and coarser resolution, climate is the biggest factor influencing the composition of mammal species communities, while land use and land cover (human uses and natural vegetation types) become increasingly important at smaller scales and higher resolution.

[Read more...](#)

### Data publishing in Pensoft journals integrated with the Dryad Data Repository

Following the partnership between GBIF and Pensoft publishing on citable Data Papers, the data publishing workflow of eight journals published by Pensoft has now been integrated with the Dryad Digital Repository, facilitating data archiving.

[Read more...](#)

### GBIF-enabled data used to study potential spread of bullfrog in S. America

A study using GBIF-enabled data confirms the vulnerability of the Atlantic Forest biodiversity hotspot to invasive American bullfrog, and warns of future suitability of Andean-Patagonian forest, eastern Paraguay, and northwestern Bolivia to bullfrog invasion.

[Read more...](#)

### Data accessed through GBIF used to model spread of coffee pest in East Africa

The coffee berry borer (*Hypothenemus hampei*), a beetle native to Africa, is one of the most harmful pests to coffee crops worldwide. Rising temperatures in East Africa have benefited the insect, whose distribution range has expanded. A recent study uses GBIF-enabled data in the mapping of future distributions of *H. hampei* in coffee producing areas of the region.

[Read more...](#)

## GB18 AND SCIENCE SYMPOSIUM

The [18th meeting of the Governing Board \(GB18\)](#) and associated events were held in Buenos Aires, Argentina, from 28 September to 7 October.

Participants at the board meeting, held on 4 and 6 October, included representatives from 30 countries, 12 international organizations and observers. Meetings of the advisory committees, training sessions for the nodes and the GBIF annual science symposium also took place in the city.

### Training course on biodiversity data publishing

A three-day training course for nodes was held from 28 to 30 September as an associated event of GB18. The workshop provided node managers information on new biodiversity data publishing options, building data discovery and publishing strategies and on data quality and fitness for use.

The course, held in parallel sessions in English, French and Spanish, attracted 43 participants from 36 countries and organizations. In their evaluation of the sessions, node managers said that there was particular interest in the sessions on the handling of metadata and the use of the Darwin Core Archive format. Having the sessions and resources in different languages also received positive feedback.

### New Executive Secretary announced

The GBIF Governing Board approved the appointment of Donald Hobern as its new Executive Secretary. Currently the director of the [Atlas of Living Australia \(ALA\)](#), Hobern will take up the post at the end of January 2012. He will arrive at the Copenhagen-based Secretariat as GBIF starts to implement its new strategic plan for 2012-16, aimed at advancing the data content, informatics and engagement of its worldwide network.



In addition to the appointment of Donald Hobern, the Governing Board approved the GBIF work programme for 2012-13 and a revised budget for 2012, and re-elected Joanne Daly as the Chair of GBIF.

[Read more...](#)

## Danish scientist awarded €30,000 Ebbe Nielsen Prize

Among the events associated with GB18 was an award ceremony for Jens-Christian Svenning, professor of ecoinformatics and biodiversity at Aarhus University, Denmark, who was selected as the 2011 winner of the Ebbe Nielsen Prize. This prize is awarded annually by GBIF to recognize novel use of biosystematics and biodiversity informatics.

The prize was awarded in recognition of Svenning's work in the field of macroecology, which deals with the relationship between organisms and their environment at a large scale, to describe patterns of abundance, distribution and diversity.

Jens Svenning also presented his work at the 2011 GBIF Science Symposium, *GBIF at 10: Reaping Benefits for Science and Society*, which was organized on 5 October in Buenos Aires as an associated event of GB18. Other presentations at the symposium highlighted GBIF's work and impact in its first decade, from the point of view of eight national and thematic Participant nodes.

[Read more...](#)

The science symposium presentations can be downloaded at <http://www.gbif.org/communications/news-and-events/gbif-symposia-and-workshops/gbif-annual-science-symposium/#c2118>

A summary of the symposium can be read at [http://www.iisd.ca/ymb/gbif/sc2011/brief/brief\\_gbif\\_sc2011.html](http://www.iisd.ca/ymb/gbif/sc2011/brief/brief_gbif_sc2011.html)

## INFORMATICS

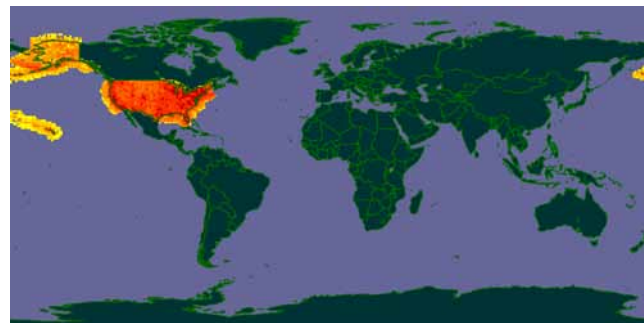
### GBIF Data Portal upgrades now live

A major upgrade to enhance the quality and usability of data accessible through the GBIF Data Portal has gone live.

The enhancements are the result of a year's work by developers at the GBIF Secretariat, in collaboration with colleagues throughout the worldwide network.

They respond to a range of issues including the need for quicker 'turnaround' time between entering new data and their appearance on the portal; filtering

out inaccurate or incorrect locations and names for species occurrences; and enabling species checklists to be indexed as datasets accessible through the portal.



US records on the GBIF Data Portal after data clean-up

After a testing period, the changes now apply to the more than 312 million biodiversity data records currently indexed from some 8,500 datasets and 340 publishers worldwide.

[Read more...](#)

### International collaboration for sharing of biodiversity data

GBIF and the Encyclopedia of Life (EOL) have developed a new technical collaboration aimed at promoting efficient sharing of biodiversity data for science and society.

EOL, a GBIF Associate Participant, is now able to 'harvest' information from content partners using data standards compatible with, and derived from, the Darwin Core Archive (DwC) used by GBIF.

The collaboration aims to enable institutions to use a single publication process to make their data accessible through both platforms, simultaneously reaching a wide spectrum of users from scientists and decision-makers to students and the general public.

As reported in the last issue of GBits, the new version of EOL, launched in August, also includes recently-updated maps via the Map tab found on each EOL taxon page (see <http://eol.org/pages/1045608/maps> for an example) displaying the locations of species occurrences published to the GBIF network and accessible through the GBIF Data Portal. These maps will be updated automatically every time data in the GBIF index is refreshed.

[Read more...](#)



## GBIF COMMUNITY

### Australia's Volunteer Portal is open for business

The Atlas of Living Australia (ALA), in partnership with the Australian Museum (AM), has developed an online volunteer portal for members of the public to help capture non-digital information (e.g. typed or handwritten) that describes collection material within Australian museums.



The aim of the project is to encourage volunteers to work on transcribing specimen labels, field notes and expedition diaries from various Australian museums, turning them into digitized records. So far, several hundred volunteers have joined the programme and around 7,000 individual tasks have been completed. ALA says there is still much to do, and welcomes new volunteers. Interested people may sign up at <http://volunteer.ala.org.au/>

Currently three projects are on offer from the Australian Museum.

The first two projects concern transcribing labels associated with images of physical specimens of cicadas and Hawk Moths into digitized records. Data such as the collector, date, location, and identification are transcribed into their component fields. A team of validators checks and if necessary alters the submitted records, which are then available to update digital specimen databases using standard [Darwin Core](#) metadata format.

The third project is to transcribe images of handwritten entomological field expedition diaries of the Scott sisters who, during the 1930s, collected insects and painted beautiful illustrations of specimens.

Other projects soon to be released are label transcription of leafhoppers for the Australian Museum, and a collection of cicadas from CSIRO's Australian National Insect Collection.

Each of these projects tries to liken the experience to being out in the field with the specimen collectors of the past. A scoreboard logs volunteer efforts and

allows them to move through the ranks based on the number of labels or diary pages they transcribe.

### GBIF training manual available in French

The six booklets that form the first GBIF training manual *Digitization of Natural History Collections* are now available in French.

The manual covers topics such as starting a digitization project, biodiversity data quality and cleaning, including geo-referencing, dealing with sensitive data and various uses of biodiversity data.

The manual is the result of joint efforts of GBIF, the Belgian Development Cooperation (DGD), the Royal Museum of Central Africa (RMCA) in Tervuren, Belgium and GBIF France.

The booklets can be accessed through the [GBIF Online Resource Centre](#).

### Welcome box for Nodes launched

The GBIF Nodes Welcome Box v.1.0 (WBox) was launched at the global meeting of nodes held in Buenos Aires in conjunction with the GBIF Governing Board meeting.

The WBox provides new node managers and their teams materials designed to provide an introduction to GBIF and to establishing a Biodiversity Information Facility (BIF). The material is available through the GBIF Online Resource Centre ([www.gbif.org/orc](http://www.gbif.org/orc)).

Requests for a WBox CD may be sent to [wbox@gbif.org](mailto:wbox@gbif.org), and feedback on this first version is welcome.

## DATA PUBLISHING NEWS

### New publishers

The Institute of Traditional Medicine at the Muhimbili University of Health and Allied Sciences, Tanzania has published 4021 records from its herbarium collections. These include mostly medicinal plant species recorded by local healers in various parts of the country. The institute researches traditional healing systems in Tanzania, and identifies materials which can be developed into drugs. (<http://data.gbif.org/datasets/resource/13540>)

Ecocean USA, a non-profit organization, has published records from its Manta Matcher library, the first global manta ray database. The published records link to photos of individual mantas sighted. These photos show patterns and markings, which help identify individuals and help keep track of the population. (<http://data.gbif.org/datasets/resource/13529>)



## Other datasets

The 7.4 million records submitted by Birds Australia, an organization that works for the conservation of Australia's native birds, have been indexed and are available through the GBIF Data Portal. (<http://data.gbif.org/datasets/resource/13030/>)

The Natural History Museum of Denmark has published 9585 records of Tanzanian bird material. The Zoological Museum, which is part of the natural history museum, has one of the largest bird collections from Tanzania. The records cover 18 orders, 64 families, 283 genera and 621 species. The dataset includes 1475 image links. (<http://data.gbif.org/datasets/resource/13546>)

The Slovakian Institute of Botany has published over a 100,000 records of plants from herbaria in the country, relating both to native flora and plants that occur outside Slovakia. (<http://data.gbif.org/datasets/resource/13502>).

## UPCOMING EVENTS

### Courses on biodiversity data and information management in East Africa

*Kigali, Rwanda, 4-6 December 2011 and December-January 2012*

ARCOS (the Albertine Rift Conservation Society) is organizing two workshops as part of its project to build competence for biodiversity information systems in the region. The first, to be held from 4-6 December 2011, covers data integration, planning, design and testing. The second workshop will cover data verification and validation, standards, data delivery, data summaries, analyses and reports, distribution mechanism and feedback. Both courses are open to participants from Burundi, Democratic Republic of Congo, Rwanda, Tanzania and Uganda.

[Read more...](#)

### Biodiversity data analysis and use workshop by GBIF France

*Paris, France, January-February 2012*

This workshop gives researchers, publishers, and others in charge of organizing biodiversity information networks an overview of the different ways to access GBIF-mediated data as well as various possible uses of such data.

[Read more...](#)

### Training course on persistent identifiers

*Madrid, Spain, 8-10 February 2012*

The workshop aims at increasing the knowledge of teams leading the development of biodiversity informatics tools on persistent identifiers. The training looks specifically at issuing, using, publishing and resolving identifiers.

[Read more...](#)

### VertNet biodiversity informatics training workshop

*Boulder, Colorado, U.S., 24-30 June 2012*

VertNet invites applications for its first biodiversity informatics workshop, which will provide participants with the training to work with primary biodiversity data sources. The course is open to undergraduates, recent post baccalaureates and early-career graduate students.

Application materials are available at <http://vertnet.org/about/BITW.php>.

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

GBIF Secretariat  
Universitetsparken 15  
DK-2100 Copenhagen Ø  
Denmark

<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.*

Tel: +45 35 32 14 70  
Fax: +45 35 32 14 80  
E-mail: [info@gbif.org](mailto:info@gbif.org)

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