

## GBIF opens BID call for proposals from Africa

The first call for proposals for the [Biodiversity Information for Development](#) (BID) programme, published in September, brought in 143 initial concept notes for projects coordinated from 34 African countries.

A panel of experts has evaluated the concept notes and successful applicants are being invited to prepare full proposals by the end of February 2016.

The €900,000 funding assigned to this call will go towards projects in sub-Saharan Africa that will:

- Mobilize biodiversity data relating to protected areas, threatened species, and invasive alien species
- Use and extend best practices for digitizing natural history collections and mobilizing other biodiversity data
- Apply biodiversity data in support of decision-making and research
- Develop lasting national, regional or thematic networks to support ongoing data sharing and reuse

► **READ MORE**

[News release on the call](#)

## Private sector holds key data to help preserve Gulf and West Asia ecosystems

A workshop held in Muscat, Oman, on 15-16 September 2015, brought together government regulators and environmental consultants in the Gulf Cooperation Council (GCC) / West Asia region to discuss the benefits of wider sharing of species data collected through environmental impact assessments (EIAs).

Entitled ‘*Unlocking biodiversity data from environmental impact assessment*’, the workshop was jointly organized by GBIF, the United Nations Environment Programme – Regional Office for West Asia (UNEP-ROWA) and the Ministry of Environment and Climate Affairs (MECA), Sultanate of Oman.

### NEWS UPDATES

GBIF opens BID call for proposals from Africa

Private sector holds key data to help preserve Gulf and West Asia ecosystems

Winners named for first GBIF Ebbe Nielsen Challenge

GBIF releases 2014 science review

Public consultation: GBIF invites comments on data gap analysis guide

Videos from New York biodiversity informatics symposium online 2

22nd meeting of the GBIF Governing Board held

NEW PARTICIPANTS .....3

SECRETARIAT STAFF CHANGES.....3

DATA PUBLISHING ... 4

GBIF COMMUNITY ... 4

GBIF DATA IN USE.... 7

NEW DATA..... 8

To subscribe to the GBits newsletter, visit [www.gbif.org/newsroom/summary#signup](http://www.gbif.org/newsroom/summary#signup) or email [comms@gbif.org](mailto:comms@gbif.org)

The event is part of a GBIF-led project funded by the Abu Dhabi Global Environmental Data Initiative (AGEDI) through the Eye on Earth Initiative. The overall aim is to encourage the use of tools that enable sharing and reuse of digitized data that EIAs capture about the distribution of plants, animals and other species.

The project has also enabled GBIF Secretariat to engage governments and practitioners in a region that until now does not include any GBIF Participants. The Environment Agency of Abu Dhabi has now set up a GBIF Integrated Publishing Toolkit (IPT) through which it intends to publish datasets arising from EIAs.

► **READ MORE**

[News release on the event](#) (In English and Arabic)

[Workshop documents and presentations](#)

## Winners named for first GBIF Ebbe Nielsen Challenge

An expert jury awarded first prize in the inaugural 2015 GBIF Ebbe Nielsen Challenge to a Belgium-based trio known as Datafable for “GBIF dataset metrics”, a browser extension that provides at-a-glance insights about datasets available through GBIF.org. Biologist Richard Pyle earned the second prize for BioGUID.org, a web service that crosslinks identifiers linked to data objects in the biodiversity realm



NICOLAS NOÉ OF DATAFABLE

The recipients receiving first prize are Peter Desmet, Bart Aelterman and Nicolas Noé, whose entry earned the highest marks from among six finalists to capture the €20,000 prize.

► **READ MORE**

[News release](#)

## GBIF releases 2014 science review

GBIF has released the 2014 Science Review, documenting 350 scientific papers published in 2014 that applied data drawn from across the GBIF network. The Review also illustrates the range of data applications through selected summaries of articles of special interest for the scientific and policy communities.

► **DOWNLOAD**

[2014 Science Review](#)

## Public consultation: GBIF invites comments on data gap analysis guide

GBIF invites interested users to offer their input and feedback on the [Best Practice Guide for Data Gap Analysis for Biodiversity Stakeholders](#).

The guide summarizes 16 actual exercises to analyse gaps in accessible data and provides an overview of principles to be considered when designing a gap analysis. According to the authors of the best practice guide, analysing gaps in available data helps prioritize data mobilization activities and “informs policy- and decision-makers on what pitfalls need to be avoided because of lack of adequate data.”

Feedback on the guide may be submitted [via the GBIF Community site](#) by 1 February 2016.

## Videos from New York biodiversity informatics symposium online

Videos are now online from the symposium and panel discussion, ‘*Frontiers Of Biodiversity Informatics and Modelling Species Distributions*’, an event convened by the [Center for Biodiversity and Conservation at the American Museum of Natural History](#) (CBC-AMNH) and GBIF and hosted at AMNH in New York City on 4 November 2015.

The event represented the public face of a three-day working meeting for the [GBIF Task Group on Data Fitness for Use in Distribution Modelling](#), held at the City College of New York. GBIF asked the task group to assess the state of the art in the field, to connect with the worldwide scientific and modelling communities, and to share a vision of how GBIF should support them in the coming decade.

► **WATCH**

[#GBIFfrontiers on Vimeo](#)

## 22nd meeting of the GBIF Governing Board held

Representatives from 38 countries and six international organizations attended the [22nd meeting of the GBIF Governing Board \(GB22\)](#) in Antananarivo, Madagascar on 8 and 9 October 2015.

A two-day training event, organized in conjunction with GB22, introduced the publishing of sample-based data to GBIF nodes' staff. In addition to the training event, the week's programme included a two-day meeting of GBIF nodes, a half-day public symposium to present achievements across the GBIF network, and a full day national symposium presenting the biodiversity of Madagascar.

In his video message at the opening of the Governing Board meeting, Braulio Dias, Executive Secretary of the Convention on Biological Diversity expressed CBD's full support for GBIF's open data infrastructure, which "enables research not possible before and informs better decisions to conserve and sustainably use Earth's biological resources."

At the meeting, the Governing Board approved the new GBIF Strategic Plan for 2017-21, a new financial model to take GBIF through that period, and the updated Work Programme for 2016.

### ► WATCH

[Message from Braulio Dias, Executive Secretary of CBD, on YouTube](#)

## NEW PARTICIPANTS

The **Democratic Republic of Congo (DRC)**'s entry into the GBIF community as an **Associate Participant** brings the total number of national members to 54, including 14 countries from Africa.

DRC is Africa's second largest country by area, and is among 17 so-called 'megadiverse' countries that collectively harbour the majority of the world's species.

The **Horn of Africa Regional Environment Centre and Network** (HoA-REC&N), an autonomous institution under the Addis Ababa University, has joined GBIF as Associate Participant.

The centre and network works on climate change adaptation and mitigation, environmental governance and ecosystem conservation in

the region, and promotes more than 40 higher education, research and civil society organizations in six east African countries: Djibouti, Ethiopia, Kenya, Somalia, South Sudan and Sudan.

The West African nation of **Guinea has become the 38th Voting Participant** in the GBIF network, having joined as an Associate Participant in March 2005.

Since joining GBIF, Guinean staff have participated in several training events, notably those [organized under the SEP-CEPDEC initiative](#), which supported the development of national biodiversity information networks in Francophone countries and promoted the engagement with GBIF.

### ► READ MORE

[News update on Guinea's membership](#)

[News update on DRC's membership](#)

[News update on HoA-REC&N's entry into GBIF](#)

## SECRETARIAT STAFF CHANGES

The GBIF Secretariat informatics team has recruited four new staff members to help deliver high-quality data publishing tools.

- Morten Hoefft is Danish, and has been hired to help improve the navigation and future development of GBIF.org. Morten is trained as an architect and as a software developer. He has previously worked with developing online maps and on displaying geographical data.
- Matthew Blissett is from the UK and has a degree in computing. He comes to GBIF after six years in the biodiversity informatics team at the Royal Botanic Gardens, Kew, where he worked on the Plant List and Kew's names backbone, as well as with collections systems. As part of the GBIF informatics team, Matt will be working on the GBIF backbone taxonomy.
- Christian Gendreau is a software developer from Québec, Canada. Before joining GBIF, he worked with [Canadensys](#) for four years, and refined the technology behind the database of [Vascular Plants of Canada](#) (VASCAN). He also developed a new set of components including the [Canadensys data explorer](#). Christian will be focusing on the technical side of data quality at GBIF.

- Alessio Checcucci is Italian and has worked as system engineer and database administrator in the last 20 years for various international organizations in Italy, Spain, Germany, Chile, Australia and the United Kingdom. Alessio has been hired as system administrator and is tasked with leading various aspects of system operations, including installation, deployment, monitoring and updates.

The Secretariat has seen three staff departures in 2015 - Éamonn Ó Tuama, Senior Programme Officer dealing with interoperability issues for biodiversity data; Oliver Meyn, software developer; and Ciprian Vizitiu, system administrator. Additionally, system administrator Andrei Cenja's last working day at GBIF is 31 December 2015. We wish them all well for the future.

## DATA PUBLISHING

### IPT v2.3 released

A new version of the GBIF Integrated Publishing Toolkit (IPT), used to publish and share biodiversity data through the GBIF network, is [available for download](#).

This version, v2.3, supports the publishing of sample-based datasets. The [release notes](#) provide information on upgrading existing IPT installations, and on publishing sample-based data.

An updated version of the [IPT User Manual](#) is also available.

### New plugin converts metadata into scholarly manuscripts at the click of a button

A new plugin to a workflow previously developed by GBIF and [Pensoft](#), and tested with datasets shared through GBIF and [DataONE](#), has streamlined the conversion of metadata into a manuscript for scholarly publications.

GBIF has been working with Pensoft to promote the [data paper](#) – a searchable metadata document describing a particular dataset - as a means of bringing credit and recognition to all those involved in data publication. The new feature allows publishers of datasets on either GBIF, DataONE or any other portal storing metadata in the same format, to create a manuscript and submit it to the open access, peer-reviewed [Biodiversity Data](#)

[Journal](#) with just two clicks of the mouse.

#### ► READ MORE

[Pensoft press release on Eurekalert](#)

[Pensoft blog post on streamlined metadata conversion into manuscripts](#)

## GBIF COMMUNITY

### Workshop in Luanda discusses participation of Angola in GBIF



About 30 participants from Angolan museums, universities and national environment, agriculture and fisheries agencies attended a workshop on biodiversity data sharing in Luanda, in September. The event was organized by the Ministry of Science and Technology of Angola, in collaboration with GBIF Portugal, and in association with the 4th National Conference on Science and Technology.

In his opening speech, the National Director of Scientific Research, Domingos Neto, discussed the need for a data policy framework in Angola. Representatives from five museums, universities and research institutes, which together host more than 100 thousand specimens, then presented the institutions' collections and research.

Tim Hirsch from the GBIF Secretariat gave an overview of the benefits of participation in GBIF, and Rui Figueira, from GBIF Portugal, summarized information about biodiversity in Angola available through GBIF.org, and presented the guidelines for the creation of a national node.

The workshop offered an opportunity for Angolan researchers to discuss participation in GBIF, and the next steps towards it.

#### ► READ MORE

[News update on GBIF Portugal's website](#)

## Six GBIF nodes meet on developing national biodiversity data portals

Software developers from the GBIF nodes in Argentina, Brazil, France, Portugal, Spain and Australia met at the Royal Botanical Garden in Madrid, Spain in October, to move forward on the development of national biodiversity portals based on the [Atlas of Living Australia](#) (ALA) site. The emphasis of the meeting was on developing species and geospatial modules for the portals.



The meeting, organized by GBIF Spain, was the second of the [CoopBioPlat working group](#), set up to build a common platform to serve biodiversity information at the national level. The working group is funded by the European Commission.

At the meeting, progress was also made towards the translation of key technical documentation and web user-interface of the ALA portal into French, Portuguese and Spanish. This activity is part of the [Encounter Bay project](#), which was one of six projects to receive GBIF support in 2015.

### ► READ MORE

[Information on the CoopBioPlat working group](#)

[Encounter Bay - ALA Node Portal internationalization project](#)

## Mobilizing a network to promote GBIF in Russia

A seminar in Moscow in October helped build on the growing interest among Russian researchers to provide global access to their data through GBIF. The 23 participants were mostly data holders and represented 17 academic institutions, universities, nature reserves and NGOs from across the Russian Federation.

The seminar was organized by Natalya Ivanova and Maxim Shashkov - representatives of the Institute of Mathematical Problems of Biology at the Russian Academy of Sciences, creators and administrators of the new website [www.gbif.ru](http://www.gbif.ru), which provides GBIF-related information in Russian. The meeting

was hosted by Varos Petrosyn at the A.N. Severtsov Institute of Ecology and Evolution at the Russian Academy of Sciences.

The event is one of a number of recent activities to mobilize interest in GBIF in Russia. Interested data holders and users in the country discuss various aspects of GBIF-mediated data through the mailing list [gbif-in-russia@googlegroups.com](mailto:gbif-in-russia@googlegroups.com).

### ► DOWNLOAD

[Presentations from the seminar](#)

[GBIF brochure in Russian](#)

## Malawi's participation in GBIF endorsed by national stakeholders

GBIF Malawi held a consultation with key national stakeholder institutions to introduce and seek commitment for the new node's activities. Malawi joined GBIF in February 2015.

The event included representatives from the National Herbarium and Botanical Gardens of Malawi, Forestry Research Institute of Malawi, Museums of Malawi, Mulanje Mountain Conservation Trust, University of Malawi Chancellor College - Biology Department, Malawi Plant Genetics Resource Centre, Environmental Affairs Department, Fisheries Research Institute, African Parks and the National Commission for Science and Technology (NCST), host institution of the GBIF national node.

Participants in the meeting agreed that the NCST, through its Department of Documentation and Information Services, should host a national biodiversity portal, and that signed agreements with stakeholders would facilitate the publishing of biodiversity data.

The meeting is an activity of the [GBIF Malawi advocacy action project](#), which received support through the GBIF capacity enhancement support programme for 2015.

## Brazil workshop promotes publishing of sample-based data

A workshop held at the National Council for Scientific and Technological Development (CNPq), in Brasilia, trained 16 researchers from various national programmes in the methodologies, tools and standards used by the [Brazilian Biodiversity Information System](#) (SiBBr) and GBIF for publishing biodiversity data.

The workshop centred around the publishing of sample-based data collected through the [Brazilian Long Term Ecological Research Program](#) (LTER / PELD), an initiative created in 1996 to gather information related to biodiversity conservation in Brazil. The LTER programme focuses on the establishment of permanent research sites in various Brazilian ecosystems, and the network comprises 30 research sites currently. Researchers from 15 of these were represented at the workshop.

► **READ MORE**

[News release on the SiBBR website \(In Portuguese\)](#)

## GBIF network members from five African countries trained in ecological niche modelling



Staff and collaborators of GBIF nodes in Mauritania, Benin, Uganda, Kenya and South Africa were trained in ecological niche modelling and generating [data papers](#) in a workshop organized by the Endangered Wildlife Trust (EWT) in Johannesburg from 3 to 6 November 2015. Participants were required to bring a dataset from their country to use in practical exercises, and learned to prepare datasets for analyses, use GIS and MaxENT software, and to interpret and improve models.

The workshop is part of [a project receiving support](#) through the GBIF capacity enhancement support programme for 2015.

Course materials will be made available through the EWT e-learning platform shortly.

## Uruguayan data technicians trained in publishing tools

A data publishing workshop, jointly organized by GBIF Uruguay, [SiB Colombia](#), [SiB Brazil](#) and [Canadensys](#), helped train 24 data technicians, mostly from government, and from the non-governmental sector and academia. Of these 21 participants were from Uruguay and 3 from Argentina, Chile and Cuba.

An objective of the workshop was to build capacity for data publishing to the planned national biodiversity portal for Uruguay and to GBIF. The workshop also focussed on strengthening capacity in assessing data quality.

The workshop was held from 30 November to 2 December 2015 in Montevideo, Uruguay, as part of the [2015 capacity enhancement support project towards setting up Uruguay's data portal](#). The training builds on the success and resources developed by [Colombia as part of their 2014 capacity enhancement project](#).

## Workshop identifies actions for limiting the spread of invasive species in sub-Saharan Africa

Representatives of ten organizations from four countries – Mauritania, Burkina Faso, Senegal and France – met in November in Nouakchott, Mauritania, to discuss the establishment of a coordinated alert and response network on invasive species in the sub-Saharan region. The workshop also focussed on developing an inventory of exotic and invasive species at the national and regional levels.

Participants agreed that the most dramatic spread observed in the region in the last few years are of aquatic and wetland plants – including water cabbage (*Pistia stratiotes*), kariba weed (*Salvinia molesta*) and the common reed (*Phragmites australis*).

The workshop participants made recommendations for better understanding of the extent of the spread of invasive species, and identified research programmes and actions to limit their impact.

The event, an activity of a [project supported by a 2014 GBIF capacity enhancement programme grant](#), was organized by Ecole Normale Supérieure, host of the GBIF node in Mauritania.

## GBIF DATA IN USE

*The Secretariat maintains a programme to monitor use of GBIF-mediated data in scientific literature. The following peer-reviewed articles represent some recent highlights.*

Brummitt NA, Bachman S, Griffiths-Lee J *et al.* (2015) [Green plants in the red: a baseline global assessment for the IUCN Sampled Red List Index for Plants](#). *PLoS ONE* 10(8): e0135152.

*Author countries:* United Kingdom, South Africa  
*Research funding:* The Rufford Foundation; the MAVA Foundation; Environment Agency of Abu Dhabi

While global assessments of extinction risks for birds, mammals, amphibians and other groups are available to help guide their conservation, no similar baseline has existed for plants, despite the fundamental role they play in the biosphere. The IUCN Sampled Red List Index unveiled here offers the first accurate view of how threatened plants are around the world.

Drawing on specimen collections from the world's herbaria, including records accessed through GBIF, the authors assessed a 7,000-species sample from five major plant groups to represent the world's nearly 380,000 described plant species. Upon reaching the conclusion that more than one in five plants already faces the threat of extinction—a risk that is generally twice as high in the tropics—they encourage combining actions to mitigate the climate change impacts not considered here with efforts to stem biodiversity losses.

Escobar LE, Awan MN & Qiao H (2015) [Anthropogenic disturbance and habitat loss for the red-listed Asiatic black bear \(\*Ursus thibetanus\*\): Using ecological niche modeling and nighttime light satellite imagery](#). *Biological Conservation* 191: 400-407.

*Author countries:* United States, Pakistan, China  
*Research funding:* U.S. Armed Forces Health Surveillance Branch; National Natural Sciences Foundation of China

Despite its broad range across eastern Russia, northern India and northeastern China, the Asiatic black bear (*Ursus thibetanus*) is globally red-listed as vulnerable, and its declining population faces rising conflict with humans over habitat and resources. A unique research team from the US,

Pakistan and China modeled the bear's ecological niche—testing it against data accessed through GBIF, VertNet and other sources—and then looked to refine the resulting measures of long-term suitable habitat. Using data for artificial nighttime lighting as a proxy for human occupancy, the results account for human disturbance while highlighting the most intact regions for long-term conservation and protected area planning.



ASIAN BLACK BEAR (*URSUS THIBETANUS*). BY RUHOLAH AHMADI. CC BY SA 3.0

Alimi TO, Fuller DO, Qualls WA *et al.* (2015) [Predicting potential ranges of primary malaria vectors and malaria in northern South America based on projected changes in climate, land cover and human population](#). *Parasites & Vectors* 8: 431.  
*Author countries:* United States, Colombia, Brazil  
*Research funding:* U.S. National Institutes of Health

Byers JE, Smith R, Pringle J *et al.* (2015) [Invasion expansion: time since introduction best predicts global ranges of marine invaders](#). *Scientific Reports* 5: 12436.

*Author countries:* United States, Australia, New Zealand  
*Research funding:* Macquarie University; University of New South Wales; U.S. National Science Foundation

van Kleunen M, Dawson W, Essl F *et al.* (2015). [Global exchange and accumulation of non-native plants](#). *Nature* 525(7567): 100-103.  
*Author countries:* Germany, Australia, Czech Republic, United States, Russia, New Zealand, Spain, Colombia, Costa Rica, Switzerland, South

Africa, Portugal, Belgium, Chile, India, Brazil, Uruguay, Belize, Oman, Thailand, China, Saudi Arabia, Netherlands  
*Research funding:* Deutsche Forschungsgemeinschaft; Austrian Climate and Energy Fund; Czech Science Foundation; Czech Academy of Sciences; Ministry of Science and Culture of Lower Saxony; VW-Foundation; Flora de Guinea Ecuatorial; King Saud University

Leiblein-Wild MC, Steinkamp J, Hickler T, *et al.* [Modelling the potential distribution, net primary production and phenology of common ragweed with a physiological model](#). Journal of Biogeography.  
*Author country:* Germany  
*Research funding:* Hesse Ministry of Higher Education, Research, and the Arts

Magwé-Tindo J, Zapfack L & Sonké B. [Diversity of wild yams \(\*Dioscorea\* spp., Dioscoreaceae\) collected in continental Africa](#). Biodiversity and Conservation.  
*Author country:* Cameroon

Mendoza R, Luna S & Aguilera C (2015) [Risk assessment of the ornamental fish trade in Mexico: analysis of freshwater species and effectiveness of the FISK \(Fish Invasiveness Screening Kit\)](#). Biological Invasions 17(12): 3491-3502.  
*Author country:* Mexico  
*Research funding:* Mexican National Fisheries Institute, Universidad Autonoma de Nuevo Leon

Meyer C, Kreft H, Guralnick RP & Jetz W. [Global priorities for an effective information basis of biodiversity distributions](#). Nature Communications 6: 8221.  
*Author countries:* Germany, United States  
*Research funding:* Deutsche Bundesstiftung Umwelt (DBU), German Academic Exchange Service (DAAD), German Research Council (DFG), NSF, Yale University, University of Göttingen.

Wagner N, Mingo V, Schulte U & Lötters S (2015) [Risk evaluation of pesticide use to protected European reptile species](#). Biological Conservation 191: 667-673.  
*Author country:* Germany  
*Research funding:* German Research Foundation

Ware C, Berge J, Jelmert A *et al.* [Biological introduction risks from shipping in a warming Arctic](#). Journal of Applied Ecology.  
*Author countries:* Norway, Australia, Denmark, Switzerland, Russian Federation, Poland  
*Research funding:* Tromsø University Museum, the University Centre on Svalbard, Svalbard Environmental Protection Fund, the Fram Centre, the Norwegian Polar Institute, the Norwegian Ministry of Foreign Affairs

Yañez-Arenas C, Peterson AT, Rodríguez-Medina K & Barve N. [Mapping current and future potential snakebite risk in the new world](#). Climatic Change.  
*Author country:* United States  
*Research funding:* CONACYT

## NEW DATA

### eBird update adds 58 million new observations

With the addition of more than 58 million new observations, the 2014 update to the [eBird Observational Dataset](#) contains nearly 212 million records encompassing 98% of the world's known bird species. This single update has pushed the total number of records available through GBIF.org to above the 600 million mark.

Led by the [Cornell Lab of Ornithology](#) (CLO), eBird engages more than a quarter million volunteer birdwatchers to collect observations. [VertNet](#), a collaborative U.S.-based project and GBIF participant has again prepared and published a Darwin Core Archive version of the updated dataset.

► **READ MORE**

[News release on eBird update](#)

### ANTARCTIC

[Biodiversity of Antarctic intertidal communities](#)  
 Publisher: [Antarctic Biodiversity Information Facility](#) (ANTABIF)  
 Total records: 3,902

Observations dating back to 1897, of 1,416 intertidal species/taxa from 229 locations, verified using the World Register of Marine Species (WoRMS). Majority of the data come from published manuscripts.

### [At sea observations during icebreaking expedition](#)

Publisher: [Antarctic Biodiversity Information Facility \(ANTABIF\)](#)

Total records: 4,343

Observations of seabirds and marine mammals during a 2013 icebreaking expedition. Data were gathered to establish their quantitative distribution.

## ARCTIC

### [Circumpolar Seabird Monitoring Plan](#)

Publisher: [Conservation of Arctic Flora and Fauna](#)

Total records: 3,439



PUFFIN (FRATERCULA ARCTICA), ICELAND. BY RICHARD BARTZ. CC BY-SA 3.0

Observations of Arctic seabird species gathered by the Conservation of Arctic Flora and Fauna to monitor populations and to provide circumpolar information on the species' status to management agencies of Arctic countries.

## BELGIUM

### [Observations of invasive American bullfrog in Flanders](#)

Publisher: [Research Institute for Nature and Forest \(INBO\)](#)

Total records: 7,623

Occurrences of American bullfrog (*Lithobates catesbeiana*) recorded during monitoring to manage the alien invasive species' populations. Issues with the dataset can be reported via [a Github link](#).

### [Chinese mitten crab occurrences in Flanders](#)

Publisher: [Research Institute for Nature and Forest \(INBO\)](#)

Total records: 6,186

Observation records, dating back to early 2000, of the alien species Chinese mitten crab (*Eriocheir*

*sinensis*). Native to the Pacific coasts of China and Korea, mitten crabs arrived in European waters in the early 1900 and were first recorded in Belgium in 1933. The species is believed to have been introduced via ship's ballast water and, possibly, intentionally released to establish fisheries.

## BENIN

### [National census of \*Lepidochelys olivacea\*](#)

Publisher: [GBIF Benin](#)

Total records: 589

Observations of the olive ridley sea turtle along Benin's coast.

### [Ecology of teak plantations](#)

Publisher: [GBIF Benin](#)

Total records: 2,416

Species recorded in 16 plots demarcated in private teak (*Tectona grandis*) plantations in southern Benin.

### [Census of plant and animal species in sacred forests of RAMSAR sites](#)

Publisher: [GBIF Benin](#)

Total records: 837

Occurrences of plant and animal species recorded in November 2013, in sacred forests located in two RAMSAR sites in southern Benin.

## BIOFRESH

*Data gathered as part of the EU-funded BioFresh project for the conservation of freshwater biodiversity.*

### **Balkans**

#### [Freshwater fishes of the Western Balkans](#)

Publisher: [BioFresh](#)

Total records: 10,007

Occurrence records of freshwater fish in Slovenia, Croatia, Bosnia & Herzegovina, Montenegro and Macedonia, gathered from existing databases in regional and national institutes and from literature.

### **Italy**

#### [Freshwater fish of Italy](#)

Publisher: [BioFresh](#)

Total records: 52,545

Fish observations from the last 20 years, compiled from fisheries plans, administration databases and from studies in Italy.

### [European riparian ground beetles](#)

Publisher: BioFresh

Total records: 7,950

Occurrence data records of Central European ground beetles gathered from literature, unpublished collections and private data banks.

## BRAZIL

### [Fish biodiversity of the Vitória-Trindade Seamount Chain](#)

Publisher: [Brazilian Marine Biodiversity Database](#)

Total records: 531

Data acquired during three scientific diving expeditions to the VTC seamounts and islands, in the southwestern Atlantic, in 2009 and 2011. Records from fishery surveys were later incorporated into the database.

### [Tree diversity of Seu Nico forest](#)

Publisher: [Laboratory of Ecology and Evolution of Plants, at Universidade Federal de Viçosa](#)

Total records: 2,868

Observation records from a one-hectare plot with 2,868 trees in the Seu Nico forest of southeastern Brazil, a species-rich old growth forest.

## CANADA

### [Inventory and BioBlitz Records from rare Charitable Research Reserve](#)

Publisher: [University of Guelph](#)

Total records: 28,924

Observation records from a four-month inventory and a BioBlitz in the 900+ acre rare Charitable Research Reserve.

### [Bryophytes from the Marie-Victorin Herbarium](#)

Publisher: [Université de Montréal Biodiversity Centre](#)

Total records: 26,193

Dataset with the digitized half of the Marie-Victorin Herbarium's 50,000 + specimens of non-vascular plants.

## COLOMBIA

### [Distribution of introduced gecko](#)

Publisher: [Instituto de Investigación de Recursos Biológicos Alexander von Humboldt](#)

Total records: 81

Records of exotic Colombian specimens of the common house gecko (*Hemidactylus frenatus*).

## DENMARK

### [Vascular plants in Danish coastal meadows](#)

Publisher: [Department of Biology, University of Copenhagen](#)

Total records: 3,595

Vascular plant observations from a 1982-85 study of vegetation in salt and brackish coastal meadows in southeastern Denmark.

Citizen science data from surveys

Publisher: [Danske-Dyr, Condidact](#)

Total records: 15,311

Records from eight citizen science surveys of ladybirds (2013), spiders (2004, 2011, 2014), snails (2012, 2015, 2006), amphibians (2007) and butterflies (2005). The data provider – ConDidact – is a publisher of online educational material.

## ESTONIA

### [PlutoF platform observations](#)

Publisher: [Natural History Museum, University of Tartu](#)

Total records: 741,967

Observation records from citizen science and research projects hosted by the PlutoF platform, and verified on the PlutoF workbench by appointed experts. The platform was created for ecologists and taxonomists to manage their research data.

### [Citizen science observations with audio recordings](#)

Publisher: [Natural History Museum, University of Tartu](#)

Total records: 371

Audio records indicating species occurrences collected by citizen scientists through the PlutoF workbench – a web-based workbench for taxonomic research – and connected mobile application *Minu loodusheli* (My naturesound).

### [Collections of the Estonian Museum of Natural History](#)

Publisher: [Natural History Museum, University of Tartu](#)

Total records: 212,157

Specimens, including type specimens, in the

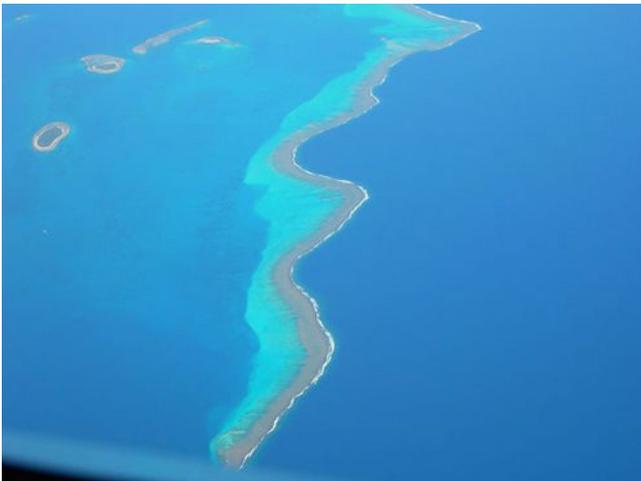
collections of the Estonian Museum of Natural History. The museum contains nearly 260,000 specimens, which include around 90% of the plant, beetle, butterfly and moth, bird and mammal species found in Estonia.

## FRANCE

[Données flore des CBN agrégées par la FCBN](#)  
 Publisher: [SPN - Service du Patrimoine naturel, Muséum national d'Histoire naturelle, Paris](#)  
 Total records: 20,855,528

More than 20 million data records of the flora of France, held by the country's eleven national botanical conservatories (CBN). These conservatories were formed into a federation – Fédération des Conservatoires Botaniques Nationaux (FCBN) – in 1999, and set about the task of establishing an information system to share vegetation data. The project was completed early 2014.  
 Data gathered are from field surveys, herbaria and literature.

[Marine biodiversity data from New Caledonia](#)  
 Publisher: [SPN - Service du Patrimoine naturel, Muséum national d'Histoire naturelle, Paris](#)  
 Total records: 4,791



ANNIBAL REEF, NEW CALEDONIA. BY J BREW. CC BY SA 2.0

Underwater observations from the reefs and lagoons of New Caledonia, from LAGPLON, an information system on marine biodiversity of the area, set up by the French research agency, Institut de Recherche pour le Développement (IRD).

## GERMANY

Lepidoptera and Trichoptera of the Palatinate forest / North Vosges  
 Publisher: [University of Kaiserslautern](#)  
 Total records: 3200

[Butterflies](#) and [caddis flies](#) observed in southwestern Germany, in and around the UNESCO biosphere reserve of the Palatinate forest / North Vosges mountain range.

## IRELAND

[Lichen.ie data](#)  
 Publisher: [National Biodiversity Data Centre](#)  
 Total records: 895

Records of lichens from different locations around the country.

Cetacean sightings  
 Publisher: [National Biodiversity Data Centre](#)  
 Total records: 7,763

Three datasets from the [Irish Whale and Dolphin Group \(IWDG\)](#) of [whale observations by citizen scientists](#), [whale sightings from the Constant Effort Sighting Scheme](#) – a monitoring effort operated by the IWDG and of [cetacean strandings](#).

## NETHERLANDS

[Breeding Bird Monitoring Program](#)  
 Publisher: [Dutch Centre for Field Ornithology \(Sovon\)](#)  
 Total records: 94,696

Observations of breeding birds gathered during mapping of bird territories in demarcated study plots.

[European Invertebrate Survey - Orthoptera observations](#)  
 Publisher: [European Invertebrate Survey \(EIS\) - The Netherlands](#)  
 Total records: 68,939

Orthoptera (grasshoppers, groundhoppers, crickets, bushcrickets), earwig and cockroach observations from the Netherlands, from 1800-2002.

[Migration of Pacific golden plovers through north-eastern Mongolia](#)  
 Publisher: [Working Group International Waterbird and Wetland Research \(WIWO\) - Netherlands](#)

Total records: 12,808

Records from a 16-day monitoring expedition in May 2005 of Pacific golden plovers through the Mongol-Daguur Strictly Protected Area in north-eastern Mongolia.

Great Grey Shrike Count  
 Publisher: [Waarneming.nl](http://Waarneming.nl)  
 Total records: 13,559

Eight datasets with observation records from annual great grey shrike counts in the Netherlands. Data were gathered by citizen scientists between 2007 and 2015 during winter surveys organized by Waarneming.nl to monitor the species' populations in the country.

## NORWAY

*The first two datasets described below are among the earliest examples of datasets published using the new sample event data standard enabled in the new IPT.*

[Lepidurus arcticus survey Northeast Greenland 2013](#)  
 Publisher: [NTNU University Museum](#)  
 Total records: 16

A sampling dataset of tadpole shrimp (*Lepidurus arcticus*) observations from ponds and lakes of the Zackenberg area in northeast Greenland, from July and August 2013.

[Lowland lakeshore vegetation in Nord-Trøndelag](#)

Publisher: [NTNU University Museum](#)  
 Total records: 782

A sampling dataset with 391 plant observations from vegetation plots in six protected areas in the Nord-Trøndelag county of Norway.

[Database of tagged fish](#)  
 Publisher: [Norwegian Institute for Nature Research](#)  
 Total records: 32,762

Occurrence records from the national database of tagged salmonids - Atlantic salmon, brown trout and Arctic char.

[ARKO strandeng](#)  
 Publisher: [Norwegian Institute for Nature Research](#)

Total records: 3,669

Vascular plant observations from salt meadows in southern Norway.

[The avian collection at the Natural History Museum, Oslo, Norway](#)  
 Publisher: [Natural History Museum, University of Oslo](#)  
 Total records: 110,660

Preserved specimens, eggshells, sperm and DNA of birds from the collections of the Natural History Museum in Oslo. The specimens and eggshells are part of historical collections going back to the 17th and 18th centuries, respectively.

## SPAIN

[Neotropicmyxo - A database of Myxomycetes from the Neotropics](#)  
 Publisher: [Real Jardín Botánico](#) (CSIC)  
 Total records: 43,066

Occurrences of slime moulds from the Neotropics, ranging from Mexico to Tierra del Fuego in Argentina and Chile. Data come from literature, herbaria and collections.

[Free-living nematode species Lake Varano, southern Italy](#)  
 Publisher: [Natural History Museum of Barcelona](#)  
 Total records: 284

Data, including those relating to 40 species new to the southern Adriatic, from the first study to document roundworms or nematodes in Lake Varano.

## SWEDEN

[Porpoises](#)  
 Publisher: [Swedish Museum of Natural History](#)  
 Total records: 2,188

Citizen observations of harbour porpoises, published after verification by the Swedish Museum of Natural History.

Collections of the Swedish Museum of Natural History  
 Publisher: [Swedish Museum of Natural History](#)  
 Total records: 218,982

[Fish specimens; insect, arachnid and myriapod specimens](#) and [Cenozoic vertebrate and Palaeozoic](#)

[invertebrate specimens](#) from the collections of the Swedish Museum of Natural History.

[Swedish Malaise Trap Project collection inventory](#)

Publisher: [Swedish Museum of Natural History](#)

Total records: 99,083

Records of insects caught in malaise traps – tent-like structures used to trap flying insects – as part of the Swedish Malaise Trap Project, which aims to identify the 80 million insect specimens obtained between 2003 and 2006. The project has discovered more than 500 undescribed species, as well as species that have not been previously recorded in Sweden.

[Axel W. Erikssons African bird collection at Vänersborg Museum](#)

Publisher: [GBIF-Sweden](#)

Total records: 1,000

Bird specimens collected by Swedish ornithologist [Axel W. Eriksson](#) between 1867 and 1887 in southwestern Africa, an area which includes Namibia, Angola, South Africa and Botswana today.

## SWITZERLAND

Collections of the Geneva Herbarium

Publisher: [Conservatoire et Jardin botaniques de la Ville de Genève - G](#)

Total records: 252, 889

[Plant specimens from the general collection](#) of the Geneva Herbarium, [specimens used for the preparation of Prodrômus](#) – the 17-volume treatise on botany, intended to be a summary of all known seed plants, started by De Candolle in 1824; [European plant specimens from the Burnat Herbarium](#) and specimens from a [herbarium reconstituted in the 1960's](#) based on citations in

Swiss botanist Edmond Boissier's Flora Orientalis. The latter three collections are '[closed herbaria](#)', whose collections are never loaned.

## UNITED STATES

[Big Island Invasive Species Committee - Pest Reports - 2005-2010](#)

Publisher: [United States Geological Survey](#)

Total records: 9,264

Observations of invasive plants recorded by the [Big Island Invasive Species Committee](#), through the [Hawaii Invasive Species Council's](#) reporting system.

[Changing Arctic Ecosystems – Alaskan birds](#)

Publisher: [United States Geological Survey](#)

Total records: 3,377

Bird observation data gathered through the USGS' [Changing Arctic Ecosystems](#) initiative, established to provide scientific information on ecosystem responses to climate change. Data were collected by USGS Alaska Science Center, which monitors bird populations in several sites identified as representative of Alaska's ecosystems.

Native Bee Inventory and Monitoring Lab

Publisher: [United States Geological Survey](#)

Total records: 266,346

Two datasets with specimen-based bee, insect and wasp occurrence records, one from [Canada, Mexico and the United States](#) (including U.S. territories and outlying islands), and the other representing [baseline bee species occurrences from Armenia, Bahamas, Belgium, Bhutan, Bolivia, Chile, Cuba, Dominican Republic, Ghana, and Israel.](#)



**GBIF VISION** *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/>

Tel +45 35 32 14 70  
Fax +45 35 32 14 80  
Email [info@gbif.org](mailto:info@gbif.org)  
**GBits Archive** <http://www.gbif.org/newsroom/newsletter>