



## **GBIF-Sweden: Annual Report 2013**

---

2014-02-10

### ***Introduction***

During 2013 the Swedish Museum of Natural History was reorganized structurally, and since March the 1<sup>st</sup> this year GBIF-Sweden is located within the museum's new Department of Bioinformatics and Genetics. The staff still consists of one 25% person equivalent project coordinator (divided amongst Prof. Fredrik Ronquist and PhD Karin Karlsson), one node manager (100%; Ass. Prof. Anders Telenius, and one systems developer (100%; MSc. Mickaël Graf). The GBIF node is also supported by the Natural History Museum by one secretary (25%; Mrs. Jane Parker, and by a reduction of the overhead cost of the externally funded project. Furthermore, during part of 2013 BSc Calle Svenningsson and MSc Stefan Daume have been employed using funds set aside for strategic investments.

### ***Milestones***

GBIF-Sweden expect

1. that all Swedish biodiversity databases (collections and observations) become available through GBIF,
2. that all Swedish natural history collections are rapidly and efficiently digitized,
3. that the national web portal becomes the most significant Swedish centre for extracting data and information concerning global biodiversity,
4. that Swedish researchers make use of biodiversity data provided by GBIF-Sweden,
5. that global biodiversity informatics is established as a research program in its' own right,
6. that biodiversity informatics is made available for use in developing countries.

## ***Results 2012***

### ***Focus areas***

#### **1. Data publication**

Facing the fact that the vast majority of collection specimens in Sweden are still not digitized, maintaining that all Swedish biodiversity databases (collections and observations) should become available through GBIF must be viewed as a long-term commitment, and rather an ambition than a set, measurable goal. To accomplish the inclusion into the GBIF repository of the estimated remaining collection data that are not yet available, a major digitization effort must be undertaken by the host institutions. In addition a small amount of digitized collection biodiversity data still remain to be published but all major providers are now either integrated or under way of becoming part of the DINA-system serving GBIF-Sweden with information. Some retain other automatic updating software. IT-support must be continue to be given to providers already included in the GBIF-system.

#### ***Activities during 2013***

- Continuing installation of transport protocol (IPT) to major Swedish data providers
- Employing the DINA-system for improved access to data from SMNH and other contributors.
- Continuous IT-support to database providers.
- Cooperation with colleagues in Estonia and Finland on data exchange will continue as under the Baltic Diversity Project ending in 2013.
- Preparations for repatriation of foreign-owned Swedish collection data.

#### **Milestone:**

All Swedish biodiversity databases (collections and observations) should become available through GBIF.

#### **2. Digitization effort**

In total, it is estimated that the major Swedish natural history collection institutions hold some 27 million specimens (not counting an estimated 80 million insects collected by the Swedish Malaise Trap Project), only 6 million of which have been digitized at least to some extent. Traditional digitization of museum specimens is labour-intensive and unsatisfactorily slow. Normally new acquisitions and as yet un-digitized specimens subject to loan are digitized, but the back-log of material kept in store is sometimes immense. To address this situation GBIF-Sweden will support the development and implementation of methods for rapid

and efficient digitization of natural history collections. Where appropriate, we will also support data providers with minor but crucial digitization efforts.

***Activities during 2013:***

- Preparations for an application in 2014 to the Swedish Research Council for economic support of the development of large-scale, mass-digitization methods.
- Participation in other biodiversity informatics projects and programs in Europe and elsewhere (e.g. NCB Naturalis [Leiden], MNHN [Paris], MfN [Berlin], Digitalium [Joensuu], NHM [Oslo], Digisam [Stockholm], MKC [Fränsta]) to stay up-to-date on the development of digitization efforts internationally.
- Preparations to include tools for digitization and handling of small datasets in the proposed new web portal of GBIF-Sweden (see below)
- Economic subsidies to add province flora project databases to GBIF.

**Milestone:**

All Swedish natural history collections should be rapidly and efficiently digitized.

### **3. Web portal**

The overriding aim of offering search facilities for Swedish biodiversity data, and information about GBIF via [www.gbif.se](http://www.gbif.se) is to serve a wide audience with specific information on Swedish conditions but also to provide a link to the international scene. To reach this goal the functionality and usability of the current [www.gbif.se](http://www.gbif.se) -web portal (launched in 2007) needs to be improved.

***Activities during 2013:***

- Software development for a customizable web portal 2014 has commenced in collaboration with GBIF-France and will be finished by the first half of 2014. The software is modular in structure and possible to adapt to the needs of different thematic or regional interests.
- Applications for handling occurrence data, metadata, news items and middleware have been focused in 2013, and the user interface will be completed early in 2014.
- Map functions in the new portal have been developed and will be used in collaboration with the Baltic Diversity and Swedish LifeWatch projects.
- To better understand the content needs of the user community a survey has been prepared and will be dispatched after the launch of the new portal.
- The existing advisory panel organized to collect in-depth user requirements has rested but will be re-invoked in 2014.

**Milestone:**

The web portal of GBIF-Sweden should become the most significant gateway to Swedish and International biodiversity data.

#### **4. Education and outreach**

GBIF-Sweden staff should take part in seminars, courses, workshops and meetings with researchers, encouraging education in this field of science. User statistics should be employed to highlight areas of deficit in relation to user demands. Information efforts should increase by continued participation from the GBIF-Sweden staff at various information events.

##### ***Activities during 2013:***

- GBIF-Sweden staff is responsible for organizing a course on “Collection Management and Biodiversity Informatics” as part of the Master Programme “Nordic Academy of Biodiversity and Systematics Studies”.
- Cooperation with the Swedish Species Information Centre, the Species Gateway and Swedish Lifewatch continues as apart from a proposition for a common Board/Steering Group, GBIF-Sweden is represented in the Coordinating Group and in the Scientific Advisory Group of the latter.
- The node manager has taken part in conferences, workshops and meetings presenting GBIF and what it can offer to scientists and other user groups. Among others this includes presentations at
  - the annual conference of the Swedish Society Oikos in Linköping,
  - European GBIF Nodes Meeting in Joensuu, Finland
  - SciFest Science Fair in Uppsala
  - NAMSA Spring meeting in Gothenburg
  - Nordic LifeWatch meeting in Akureyri, Iceland
  - GEO BON Meeting in Geneva, Switzerland
  - NAMSA Autumn meeting at Julita
  - GBIF GB20 Nodes Training Event, Global Nodes Meeting, Governing Board in Berlin, Germany
  - UNESCO EuroMAB Meeting in Brockville, Canada
  - 2013 TDWG Meeting in Florence, Italy
  - Systematikdagarna 2013 in Stockholm
- GBIF-Sweden has hosted two scholarship awardees from Utställningen Unga Forskare.
- A proposal has been put forward to apply to arrange the 2015 TDWG meeting in Stockholm/Jönköping.

##### **Milestones:**

**A.** Global biodiversity informatics should develop into a research topic in its own right.

**B.** Swedish researchers should significantly increase using GBIF-mediated data.

## **5. Support to biodiversity informatics in developing countries**

GBIF-Sweden should increase its contacts with potential cooperating agencies (Swedbio and others) for dissemination of biodiversity information in developing countries.

### ***Activities during 2012:***

- No active initiative has been taken on this account during 2013.

### **Milestone:**

The development and use of global biodiversity informatics in developing countries should be encouraged.

## Financial report 2013

	<i>Budget 2013</i>	<i>Output 2013</i>
Opening balance	955 000	766 000
Project grant VR 2013-01-01 - 2013-12-31	1 815 000	1 815 000
OH 2013-01-01 – 2013-12-31	363 000	363 000
Sum opening balance + project grant	<b>3 133 000</b>	<b>2 944 000</b>
Salaries	1 406 536	1 355 000
Travelling expenses + operation grant	200 000	111 000
Strategic investment	487 890	467 000
OH 2012-07-01 - 2012-12-31	363 000	363 000
	<b>2 457 426</b>	<b>2 296 000</b>
Balance	<b>675 574</b>	<b>648 000</b>

## GBIF time (Focus areas) spent on various activities during 2013

