



**GBIF**

[www.gbif.org](http://www.gbif.org)

...free and open access  
to biodiversity data

## Global Biodiversity Resources Discovery System (GBRDS)

### Components and Interfaces

#### Integrated Publishing Toolkit (IPT)

The Integrated Publishing Toolkit (IPT) will enable efficient and easy serving and hosting of occurrence data, taxonomic information and metadata. The IPT registers business information on the data publisher in the GBRDS, and through it, issues Persistent Identifiers for the data it publishes. It will include an integrated metadata editor allowing a user to prepare metadata documents for data that are being managed using the IPT. A GBIF metadata profile of Ecological Metadata Language (EML) is available. The IPT also communicates with the GBIF Portal for upload of data/metadata.

#### GBRDS Registry

The central registry within the GBRDS can be viewed as an extended UDDI registry. In addition to the standard UDDI business information (e.g., names, addresses, service URLs), it will also act as a registry for GUIDs (including LSIDs) that have been issued for biodiversity resources (e.g. agent or dataset). The Biodiversity Collections Index (BCI) service will be incorporated into the GBRDS.

#### Metadata Portal

The Metadata Portal constitutes one of three entry points (taxon occurrences, names data, metadata) to biodiversity information on the GBIF Portal. It will provide an interface for searching the metadata catalogue used for storing and managing metadata documents submitted via the IPT or through harvesting from other metadata repositories.

#### Metadata Networks

Through the reciprocal sharing of metadata via a harvesting mechanism such as the Open Archives Initiative Protocol for Metadata Harvesting (OAI-PMH), the GBIF Metadata Portal will enable efficient cross-searching of distributed biodiversity repositories. Cross walks will be developed as required between the main metadata formats. Potential partners include, e.g., NBII Clearinghouse, ILTER and OBIS.

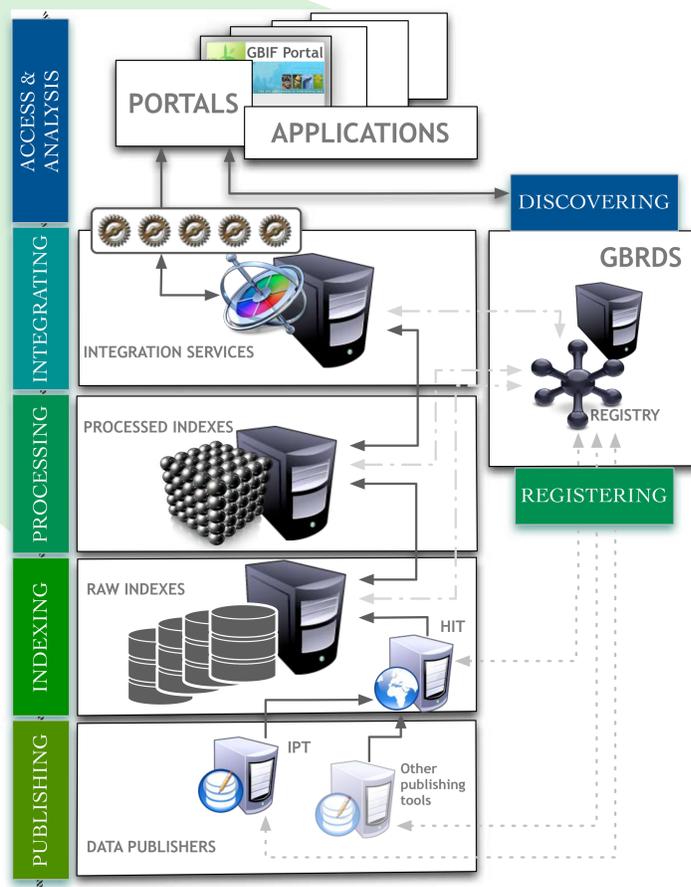
### Improving Discovery and Access

One of the major challenges for existing biodiversity informatics infrastructure is to provide users with ways that substantially increase their ability to discover and access relevant biodiversity information and data resources.

This challenge is being addressed by GBIF through the development of a Global Biodiversity Resources Discovery System (GBRDS) for the registration and discovery of biodiversity information, data resources and services.

### The GBRDS

The GBRDS is: 1) a Registry of resources and services; and 2) a set of discovery services interacting with the existing infrastructure such as the GBIF data network to facilitate the discovery of biodiversity information. The most important component, the Registry, would facilitate the inventory of information resources by creating a single annotated index of publishers, institutions, networks, collections (datasets), schema repository and services. The envisaged GBRDS is not conceived to be designed as simply a collection of centralised indexes but much more as an integrated 'Yellow Pages' reference of all biodiversity information resources, reconciling all distributed resources and providing a meaningful way to discover them in a distributed manner.



### Community Participation

The GBRDS Stakeholders Planning Workshop (17-18 Sep. 2009, Copenhagen) envisioned the GBRDS as a 'widely shared global system facilitating discovery of ALL biodiversity information resources digital and non-digital'. The GBRDS will work between all levels of biodiversity from Genes to Species to Ecosystems and needs to be shared by all biodiversity and allied information systems / networks, as many existing and future initiatives require such a system for integration and interoperability amongst them.

### About GBIF

GBIF makes digital biodiversity **data openly and freely available** on the Internet for everyone, and endorses both open source software and open data access. [www.gbif.org](http://www.gbif.org)

GBIF provides **scientific biodiversity data** for decision-making, research endeavours and public use. [data.gbif.org](http://data.gbif.org)

GBIF is a network of **data publishers who retain ownership and control** of the data they share. Linked datasets provide a more robust representation of biodiversity than any single dataset.

GBIF provides access to primary biodiversity data held in institutions in developed and developing countries. **Data shared through GBIF are repatriated data.**

GBIF is a **dynamic, growing partnership** of countries, organisations, institutions and individuals working together to mobilise scientific biodiversity data.

GBIF invites you to download species occurrence data freely and openly from <http://data.gbif.org>

GBIF invites you to **join** the GBIF network **and share** your biodiversity data, as well as participate in developing **new tools and services.**

