



GBIF

www.gbif.org

...free and open access
to biodiversity data

The GBIF Registry: improving discovery and access

Components and interactions

Integrated Publishing Toolkit (IPT)

Whenever anybody installs an IPT instance in their institution, they can register it to the GBIF Network. Any resources being hosted by that IPT instance can be published as well. This is possible because the IPT interacts directly with the GBIF Registry's Web Service API.

Harvesting and Indexing Toolkit (HIT)

The HIT is the tool responsible for harvesting and indexing biodiversity data from access points throughout the GBIF network. It has a dependency on the Registry's Web Service API, used to discover all available access points.

Other GBIF participant systems

There are a number of external GBIF participant systems making use of the Registry's Web Service API for their own purposes. The API documentation is simple and clear, so it is quite straightforward to make use of the API with minimal technical knowledge.

Refactoring to improve

The GBIF Registry's codebase has been improving through time to meet the needs expressed by the GBIF community. Currently all the code is open for anybody to make use of and hopefully improve. It is an ongoing development, as requirements are always being added.

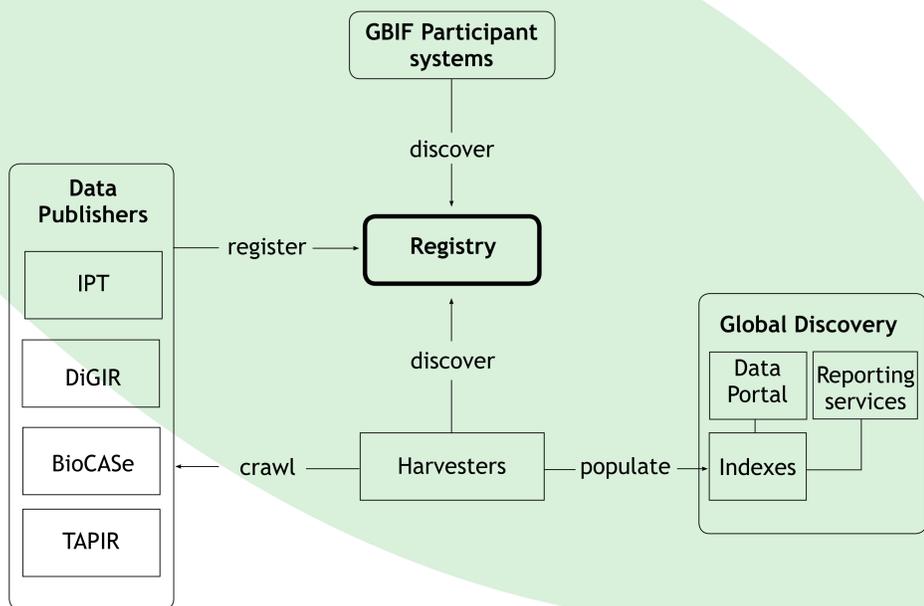
One of the major challenges for existing biodiversity informatics infrastructure is to enable users to improve substantially their ability to discover and access relevant biodiversity information and data resources.

The GBIF Registry

The GBIF Registry is a critical component of the GBIF network. Its main purpose is to hold the information about the entities that constitute the whole GBIF network, as it stores metadata on Participant nodes, institutions and resources along with their contact information. In order to enable discovery of this information the GBIF Registry exposes a Web Service Application Programming Interface (API) to allow third party tools (e.g. harvesters) to discover and access biodiversity data. This API also offers the possibility to publish/update/delete resources on the network, using the proper authorization credentials.

Monitoring the GBIF Network

As the status of the network is ever-changing, the GBIF Registry needs to be able to detect these changes and take appropriate action (e.g. new contact info for a resource). A newly-developed monitoring service keeps track of 1) the availability (online/offline status) of the access points throughout the network, 2) changes in number of records shared throughout time and 3) changes in metadata information. This service runs periodically to keep the Registry's information as up to date as possible.



The Registry as a component of the GBIF network

About GBIF

The Global Biodiversity Information Facility (GBIF) was established by governments in 2001 to encourage free and open access to biodiversity data, via the Internet. Through a global network of national and thematic nodes, and a Secretariat based in Copenhagen, Denmark, GBIF promotes and facilitates the mobilization, access, discovery and use of information about the occurrence of organisms over time and across the planet.

Vision - A world in which biodiversity information is freely and universally available for science, society, and a sustainable future.

Mission - To be the foremost global resource for biodiversity information, and engender smart solutions for environmental and human well-being.

www.gbif.org

