The GBIF Node System -
three years down the road

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The German GBIF Participant Node system

GBIF-D, the German National Node System of the Global Biodiversity Information Facility (GBIF), substantially contributes to GBIF's primary mission: making the world's primary data on biodiversity freely and universally available via the Internet. Germany has established GBIF-D (www.gbif.de) in 2001 to fulfil the commitments taken on by signing the international Memorandum of Understanding for GBIF.

GBIF-D is a system of seven nodes, each responsible for a range of taxonomic groups (Fig. 1). The approach towards information provision and the priorities set by the different nodes vary according to the specific needs and the established information infrastructures in the respective communities.

A total of 48 institutes look after 66 funded sub-projects and already contributed more than 3,800,000 specimens and observation records to the GBIF network – making Germany currently the fourth-largest GBIF Data Provider.

Fig. 1: GBIF-D Node System

Tab. 1: The German system of GBIF Nodes

GBIF-D nodes	sub-projects	involved institutes	taxonomic groups in current projects
Prokaryotes & Viruses	5	6	prokaryotes, viruses, cyanobacteria
Mycology	11	9	fungi und lichens
Botany	10	11	vascular plants, mosses, algae, protista
Evertebrata I	10	9	insecta
Evertebrata II	7	5	mollusca, chelicerata (acari), myriapoda
Evertebrata III	11	7	cnidaria, porifera, crustacea, marine invertebrates
Vertebrata	5	11	fishes, amphibians, reptiles, birds, mammals

Technical platforms

Prokaryotes & Viruses: is currently building its database at the DSMZ and already contributed 13,000 prokaryotic strains to the GBIF network.

Mycology: is building its network based on the Diversity Workbench suite of software tools. Data entered reached 32,000 records, more than 5,000 records are accessible via GBIF International. About 50 % of the remaining 27,000 data records will be transferred to GBIF within the next 6 month.

Botany: is mainly networking existing collection databases and botanical networks. In September 2004, for example, the German Federal Agency for Nature Conservation connected 2,7 million plant observation records to the GBIF Network.

Three of the zoological nodes (Vertebrata, Evertebrata I and II) are using the *SysTax* system as a common data warehouse and GBIF data node. *SysTax* is based on an Oracle database and now holds 257,000 records that are accessible through GBIF.

Evertebrata I: all current insect data from GBIF Entomology are provided in the SysTax portal.

Evertebrata II: captured 32,500 records of primary types**,** about 20-30% more records than expected for the groups tackled.

Evertebrata III: uses the collection management system *SeSam*, with an SQL-server database centrally installed at the Senckenberg Institute. The *SeSam* Server holds more than 25,000 records that will be accessible through the GBIF Portal by the end of 2004.

Vertebrata 11,000-12,000 records have been collected by the node and had been transferred to *SysTax* in October 2004.
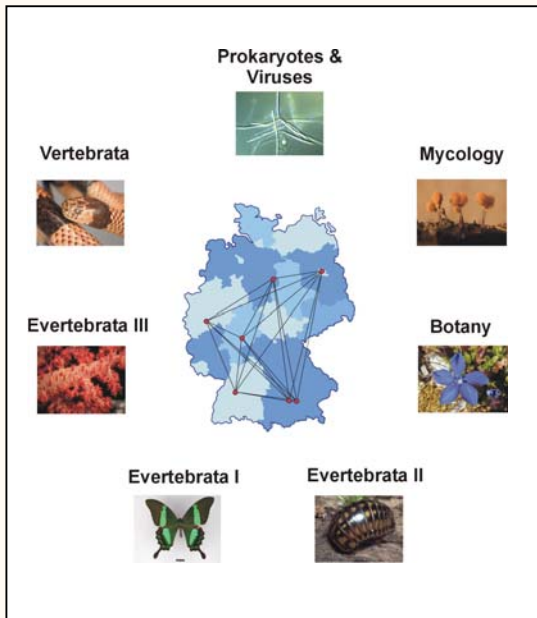
Co-ordination structure

The co-ordination of GBIF-D is carried out by a committee of the Node project co-ordinators providing the overall direction and co-ordination. This committee is supported by a working group of Node delegates and an ad-hoc group of IT Experts (Fig. 2).
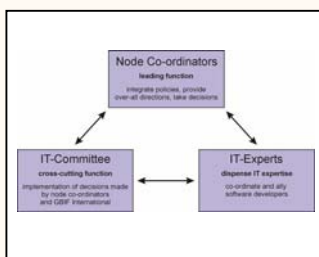

The speakers of these committees are assisted by an overall co-ordination structure organised as an auxiliary project to ensure the exchange of experiences, communication, interoperability and technical harmonisation within the German system, with other Participant Nodes, the GBIF-Secretariat and further international organisations.

Fig. 2: Co-ordination structure of GBIF –D

Outlook

The co-ordination structure set up for GBIF-D has maintained the special character of the German GBIF system as a network of partners representing major parts of the German community of data providers (and potential data providers). GBIF-D will continue to connect actively German collections and centralised repositories of collection data to the network. Apart from the digitisation and networking role, its main task is to encourage further mobilisation of data resources in Germany and thus to enhance the network building of GBIF-D and GBIF International.

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