A taxonomic backbone for EU BON
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European Biodiversity Observation Network
EU BON seeks to enhance biodiversity data availability and integration. It is a contribution to GEO (Group on Earth Observations) and the wider Global Earth Observation System of Systems (GEOSS).

A common obstacle to integration of biodiversity monitoring data: Mapping names to taxa
Biodiversity data is related to taxa. In biodiversity data sets taxa are nevertheless often referenced only by a scientific name. This lack of information obstructs the integration of data sets, since a scientific name can refer to multiple taxa at the same time. Data sets sharing the same name must consequently be considered to potentially hold information on different taxa. Prior further processing or analysis the data sets must therefore be assigned to the correct taxon. Otherwise derived knowledge would be based on wrong assumptions.

A Unified Taxonomic Information Service (UTIS)
UTIS is a federated search engine which provides unified and fast access to taxa managed in various checklists. It allows searching for taxa by scientific names, vernacular names or by stable identifiers. The heterogeneous data provided by the underlying checklists are unified. UTIS can be accessed via its REST web service: http://cybertaxonomy.eu/eu-bon/utis/

Taxa
A taxon always refers to a group of organisms which share the same selected features.

INSPIRE
UTIS is compliant to the INSPIRE directive: “EU-Nomen is the preferred reference list …, the second choice is EUNIS, if not in EUNIS, Natura2000 can be used.”

Next steps
Automatic taxonomic integration of biodiversity data is hardly feasible. Providing crossmapping information on the relationships of taxa from one checklist to taxa in other checklists will fill another major gap in the process of integrating biodiversity data.

The EU BON Portal uses UTIS for search query expansion: (1) The taxon query term is used to send a request to UTIS. (2) The EU BON system receives the set of matching taxa. (3) This set of taxa is used to search for data sets among the biodiversity data sources. (4) Which in turn deliver data matching the taxa or names.