User interfaces for data transfer as part of the Diversity Workbench platform

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The modularised Diversity Workbench (= DWB) represents a virtual research environment for multiple scientific purposes with regard to management and analysis of biological data.

The platform offers a number of user interfaces for data transfer between the single components and for import and export of data.

We will describe several user-initiated processes realised to facilitate the data maintenance by data transfer between the single database components and allowing an effective import and export of object-related and taxon-related measurement and observation data from and to external data resources:

- Each component within the DWB includes functionality to search for or update entries of related datasets in linked components.

- Data can be exported as text or XML files in various formats.

- A tool for data replication of observation data exists - a precondition for the use of Tablet PCs with DWB components for ecological research.

- A specific interface for checking, validating and importing lists of taxonomic names in taxon databases exists.

- The communication between DWB components and web services providing name thesauri, nomenclators, species databases and Catalogue of Life data is realised as single object data access.

- To deliver collection and observation data for megascience platforms like GBIF and GPI/JSTOR, special user interfaces for data exports in the required XML schemas were built.

- To deliver ecological data, the DELTA and SDD data exchange formats, being TDWG standards, are supported.

- With a mobile client interface for smartphones, data from field surveys can be gathered, georeferenced and connected with photos, videos and audio comments. These data are transferred to other DWB components via web services.

- Flexible data import of observation and collection data from textfiles are realised by use of a fully configurable data import wizard.