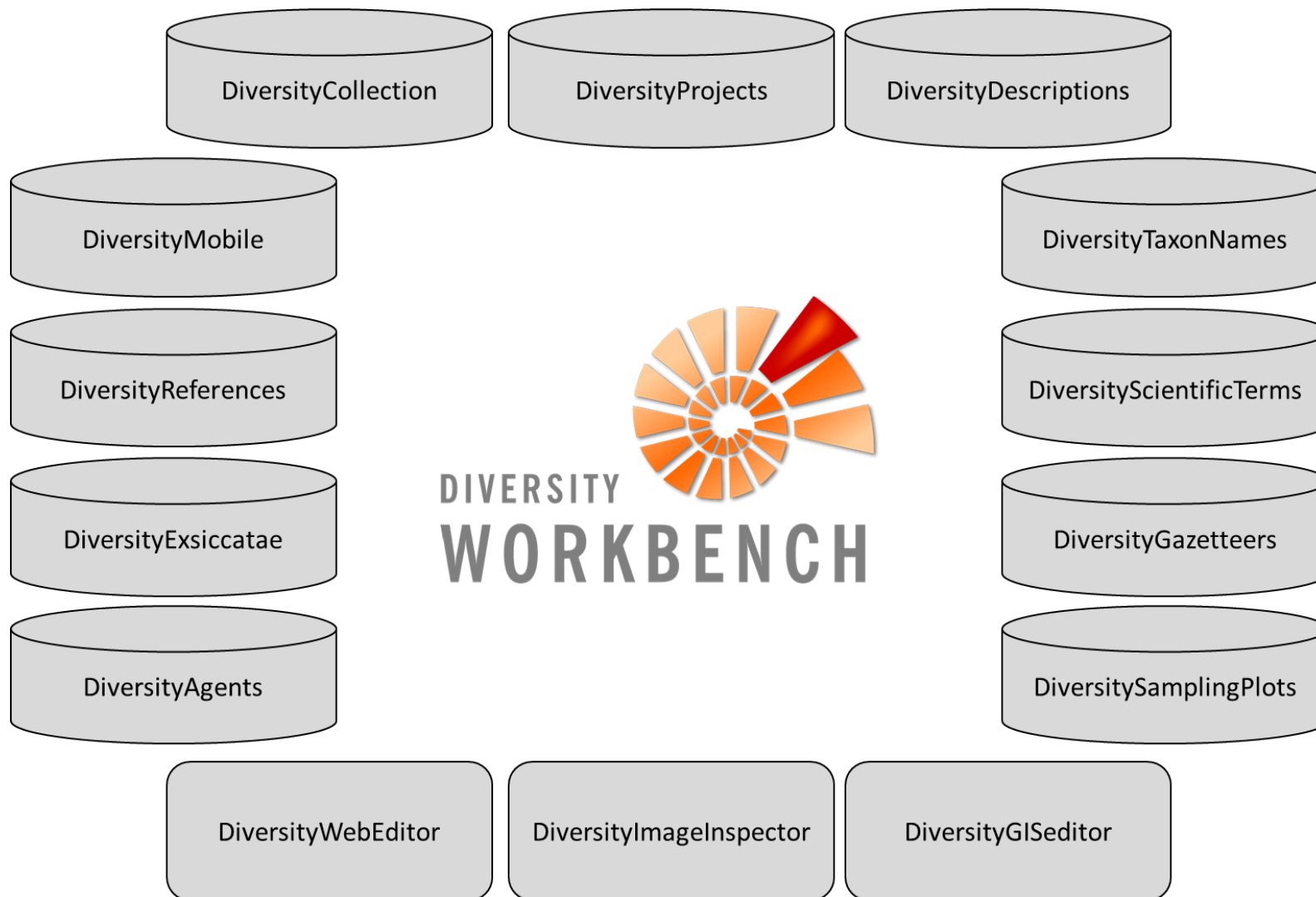
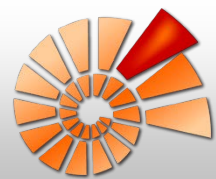
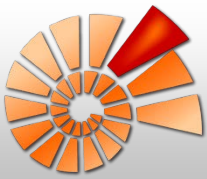


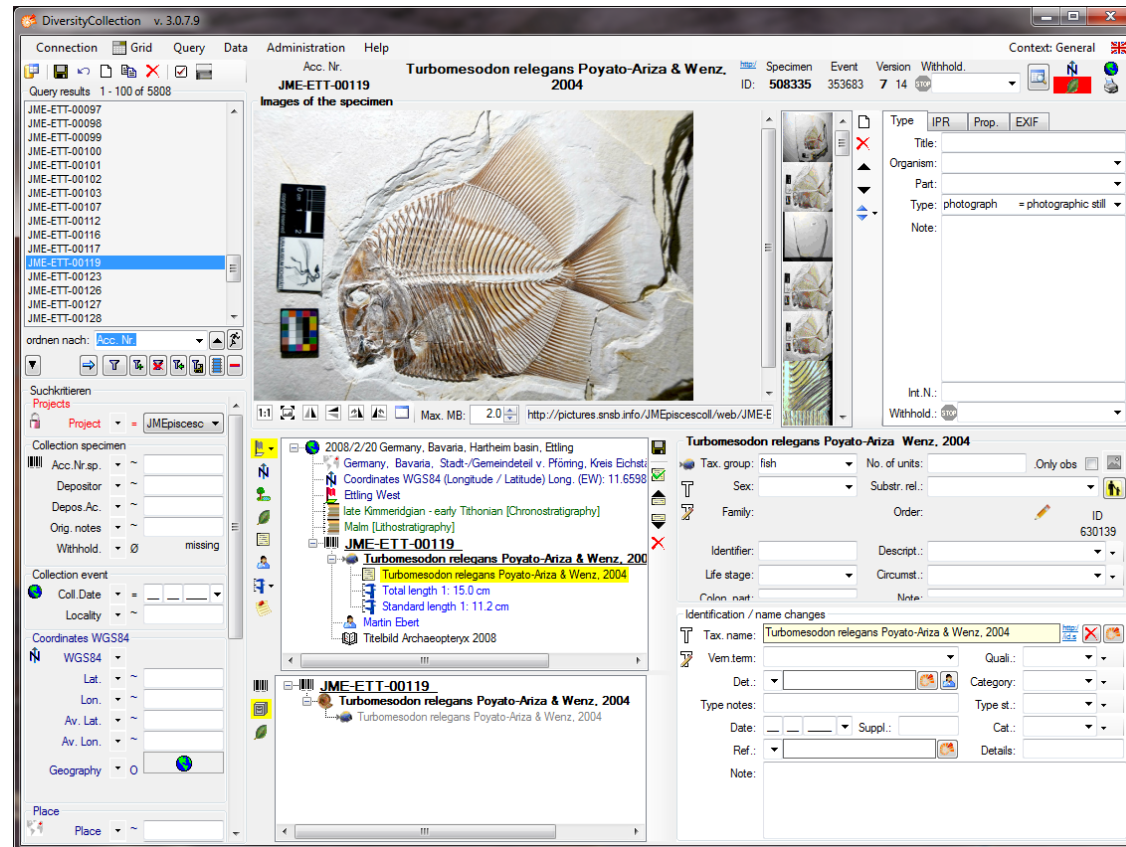
DWB software in 15 steps

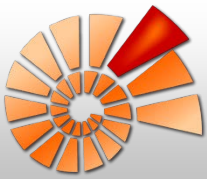




DiversityCollection

- SQL-database and rich client for the management of collection and observation data
- To document data about
 - Collection events
 - collection objects/ observations
 - experiments and analyses
 - object transfer/ exchange
 - preparation and storage of specimens
 - multimedia files
- Labels can be printed.
- Distribution maps can be created.





Areas of the DWB Clients

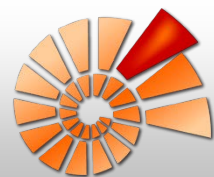
Query results

Query conditions

Details to the specimen/ observation like collection event, collection date, identifications, type status, collector, transactions, ...

Details to the storage of the specimen, the material category (herbarium sheet, DNA sample), the different parts, ...

...and according to the information which is selected in one of the two areas on the left, the details to the chosen line are visible in here.



DiversityCollection – ImportWizard

Import specimen data

File: C:\Users\Sanz\Documents\Purpurascences\Schmidt-Stohn-Purpurascences Nr. 1-41_150521_fin.txt

Encoding: ANSI Start line: 2 End line: 42

☒ First line contains column definition Language / Country: US

Schema: C:\Users\Sanz\Documents\Purpurascences\Schmidt-Stohn-Purpurascences Nr. 1-41_150521_fin_20150611_142709.xml

Schedule for import of tab-separated text files into DiversityCollection

Target within DiversityCollection: **Specimen**

Schedule version: 1 Database version: 02.05.58

Lines: 2 - 42 First line contains column definition: ☒

Encoding: ANSI Language: US

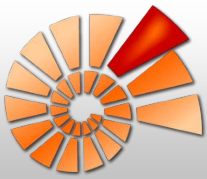
Tables

CollectionEvent (CollectionEvent)

Merge handling: **Insert**

Column in table	Key	Copy	Pre	Post	File pos.	Transformations	Value	Source	Table
CollectionEventID								Database	
CollectionDay	?				7	Split at Pos. Dir. 1 ⇌		File	
CollectionMonth	?				7	Split at Pos. Dir. 2 ⇌		File	
CollectionYear	?				7	Split at Pos. Dir. 3 ⇌		File	

	Specimen	Part 1 StorageLocation Organism 1	Event CountryCache	Event LocalityDescription	Agent 1 CollectorsName Agent 2 CollectorsName	Agent 1 CollectorsNumber	Event CollectionDay Event CollectionMonth Event CollectionYear	Event LocalityDescription Event HabitatDescription
	AccessionNumber	LastIdentificationCa Identification 1.1						
1	Nr.	M-Nummem	Art	Land	Fundort	Sammler	Koll.-Nr.	Datum
2	1	M-0275820	Cortinarius purpur...	Ungarn	Szentendre	B. Dima	DB3362	16.10.2008
3	2	M-0275821	Cortinarius purpur...	Ungarn	SzSzb, Bátorliget	L. Albert & B. Dima	DB1339	02.10.2004
4	3	M-0275822	Cortinarius purpur...	Deutschland	Kyffhäuser/Leop...	G. Schmidt-Stohn	SS07-211	09.10.2007
5	4	M-0275823	Cortinarius subpu...	Italien	Matschatsch	C. Rossi	Rossi4034	03.10.1998
6	5	M-0275824	Cortinarius purpur...	Italien	S. Vito Comedo	C. Rossi	Rossi4906	22.10.2000
7	6	M-0275825	Cortinarius purpur...	Italien	Calangianus	C. Rossi	Rossi5053	02.11.2000



DiversityDescriptions

- SQL-database and rich client for the management of descriptive data
- To describe
 - traits with values of individual organisms and summarized data for taxa
 - characters of any research items (entities/ objects)
- Descriptions are characterized by a triple structure, e.g. 'item-descriptor-value'

DiversityDescriptions, Database: DiversityDescriptions_GF8IO v. 3.0.1.9

Connection Edit Data Query Administration Help

Aridibacter kavangonensis Ac_23_E3

Query results 1 - 5

- Aridibacter famidurans A22_HD_4HT
- Aridibacter kavangonensis Ac_23_E3
- Blastocatella fastidiosa A2-16
- Edaphobacter aggregans Wbg-1
- Edaphobacter modestus jbg-1

order by: Description

Query conditions

Description

Title ~

Project = BactDescC

Descriptor

Categoric. =

Quantitati. =

Text =

Sequence =

Data status

Scope

Taxon =

Geography =

Specimen =

Descriptor view

Nr.	Type	Descriptor name
270	quantitative	Fatty Acids summed feature 2
283	quantitative	Cell length
285	quantitative	Doubling time
291	quantitative	pH range for growth
293	quantitative	Temperature range for growth
298	quantitative	Cell width
306	quantitative	Colony width (mm)
21	sequence	Partial ribosomal sequence 16S
0	text	Determination of relationship
1	text	Domain
2	text	BacDive_ID
3	text	Culture medium name
5	text	Biosafety level/Risk group (German classification)
6	text	Closest relative name (Species and strain designa...
7	text	Description source reference
9	text	Phylum
10	text	Culture medium composition
11	text	Enrichment culture medium
14	text	Strain history
15	text	PubMed ID
17	text	Subdivision
19	text	Isolation Date
22	text	Culture collection accession number
25	text	Isolation/enrichment procedure

Molecular sequence

AGAGTTTGAATCCTGGCTCAGATCAACGCTGGCGGCG
TGCCTCAGACATGCAAGTCGACGATTAACCTC
TCCTTCGGGAGAGATATAAAGTCGGCAGGGTGAGT
AACACGTAAGTAATCTACCTCGAGCGGGGAAT
AACACGGAACGGTTGCTAATACCGATAATGCAGC
GGCATCGGAGATGACAGTTGTTAAAGAAATTT
ATTTCGCTTGAAGAGGAGCTTCGGGCAGATTAGCTAGT
TGGTAAGGTAAAGGCTTACCAAGGCGACATCT
GTATCCGGCTTAAGAGGAGGCTGGGACACACTGACAC
TGAATACGGGTTCAGACTCCTACGGGAGGCAGC
AGTCGGGAATTTTGGGCAATGGGCAAAAGCCTGACCC
AGCAACGCCGCTGAAGGATGGGAAGTTCTCGGA
ATGTAACCTCGTAAGAAATGGGAAGAAATGACGG
TACCAATTTGAAGCTCCGGCTAACCTAGCTGCCA
CGAGCGCGGTAAATACGTAGGGAGCAGCGTTGTTTCG
GATTTACTGGGCGTAAGGGGCGGTAGCGGCA
ATTCAAGTCAGCTGTGAATTCGGGCTTAACCTCGGA
ACGGTCAGCTGATCTGCTTGTAGAGTGCA
GAAGGGGCAATCGGAATCTTGGTGTAGCGGTGAAT
GCGTAGATATCAAGAGGAACACCTGAGGTGAAG
ACGGGTTGCTGGGCTGACACTGACGCTGAGGCGCGAA

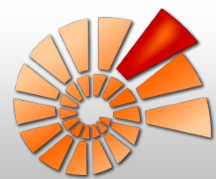
Nucleotide Len: 1 Gap: - Pos: 1506

Notes:

Status data

x	ID	Status	Notes
☒	!	To be checked	
☐	@	Not to be recorded	
☐	-	Not applicable	
☐	?	Data unavailable	
☐	#	Not interpretable	
☐	\$	Data withheld	
☐	0	Missing data	

Edit descriptions



DiversityDescriptions – ImportWizard

☒ Descriptor

☒ Categorical state 1

☐ Categorical state 2

☒ Descriptor node

☒ Rec. stat. measure 1

☒ Rec. modifier 1

☒ Rec. frequency 1

Descriptor

?

statistical_measurement_sc

From file

Pre.:

Post.:

?

usually_exclusive

From file

Pre.:

Post.:

?

state_collection_model

From file

Pre.:

Post.:

?

measurement_unit

From file

Pre.:

Post.:

?

measurement_unit_precede

From file

Pre.:

Post.:

?

min_plausible_value

From file

Pre.:

Post.:

?

max_plausible_value

From file

Pre.:

Post.:

?

wording_before

From file

Pre.:

Post.:

?

wording_after

From file

Pre.:

Post.:

?

data_entry_note

From file

Pre.:

Post.:

?

values_are_integer

From file

Pre.:

Post.:

?

sequence_type

From file

Pre.:

Post.:

?

symbol_length

From file

Pre.:

Post.:

?

enable_ambiguity_symbols

From file

Pre.:

Post.:

Insert

For all: interval

For all: no

For all: AndSeq

For all:

For all: no

For all:

For all:

For all:

For all:

For all: no

For all: Nucleotide

For all: 1

For all: no

Hide logging columns

File

Attachment

Merging

Descriptor

- ID Descriptor ID
- Descriptor name
- 123 Sequence number
- Subclass
- Mandatory
- Dependability

Categorical state 1

- ID Categorical state ID
- Categorical state name
- 123 Sequence number

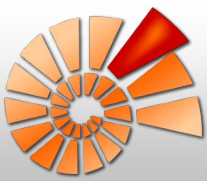
Testing

Import

	Descriptor id	Descriptor label	Descriptor subclass	Categorical state 1 id Categorical state 1 label
1	DescriptorID	DescriptorLabel	Subclass	CategoricalStates
2	1	01_Which country are you from?	T	
3	2	02_How old are you?	C	<=20 21-25 26-30 31-35 36-40 41-45 46-50 51-55 56-60 61-65 66-70 71-75...
4	3	03_What is your employment role / ...	C	Government Business Non-profit Academia Media Other (please specify)
5	4	04_Which of the following are you?	C	Data User Data Provider Data Manager Other (please specify)
6	5	05_Which discipline community do ...	C	Physical sciences Chemical sciences Earth Sciences and environmental sciences ...
7	6	06.01_Which attributes do you thin...	C	Very Important Intermediate Important Not Important
8	7	06.02_Which attributes do you thin...	C	Very Important Intermediate Important Not Important
9	8	06.03_Which attributes do you thin...	C	Very Important Intermediate Important Not Important
10	9	06.04_Which attributes do you thin...	C	Very Important Intermediate Important Not Important
11	10	06.05_Which attributes do you thin...	C	Very Important Intermediate Important Not Important
12	11	06.06_Which attributes do you thin...	C	Very Important Intermediate Important Not Important
13	12	06.07_Which attributes do you thin...	C	Very Important Intermediate Important Not Important

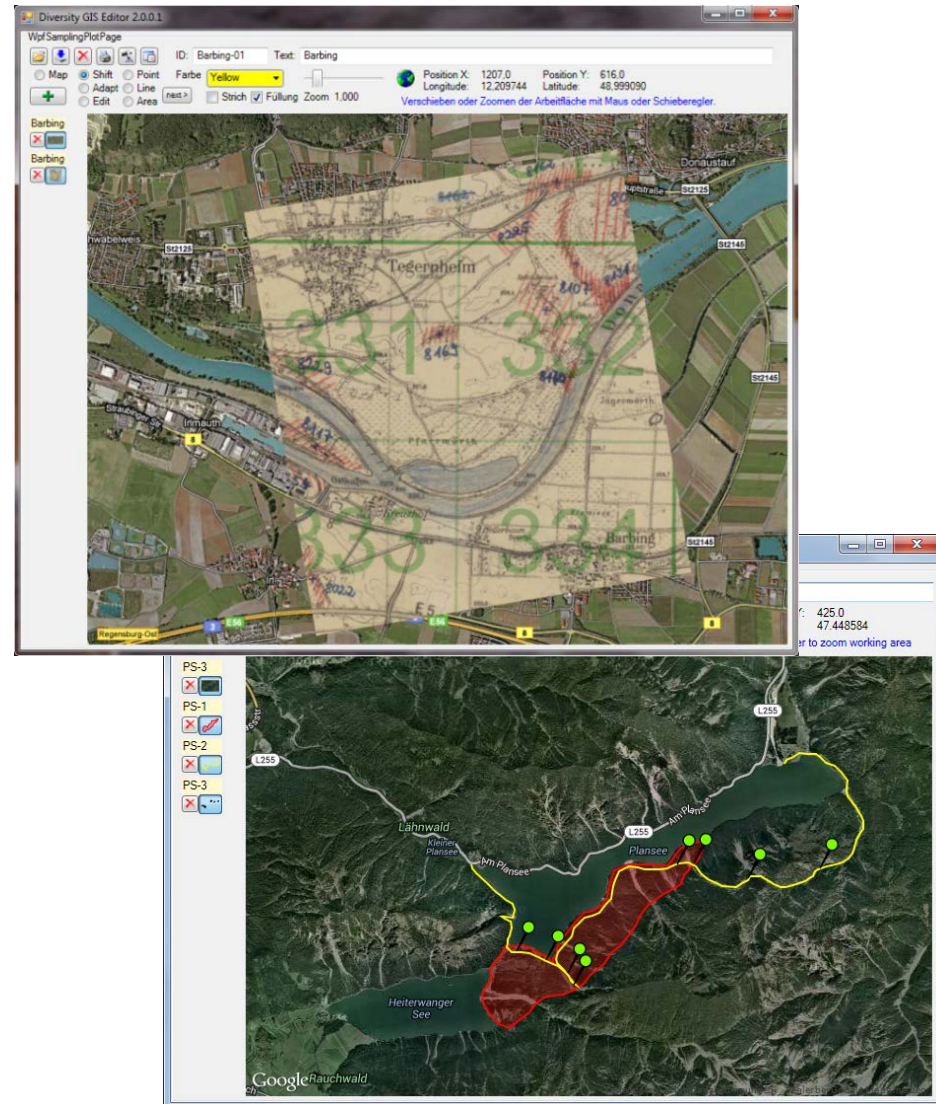
Tanja Weibulat

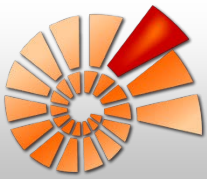
snsb
it center



Diversity GIS Editor

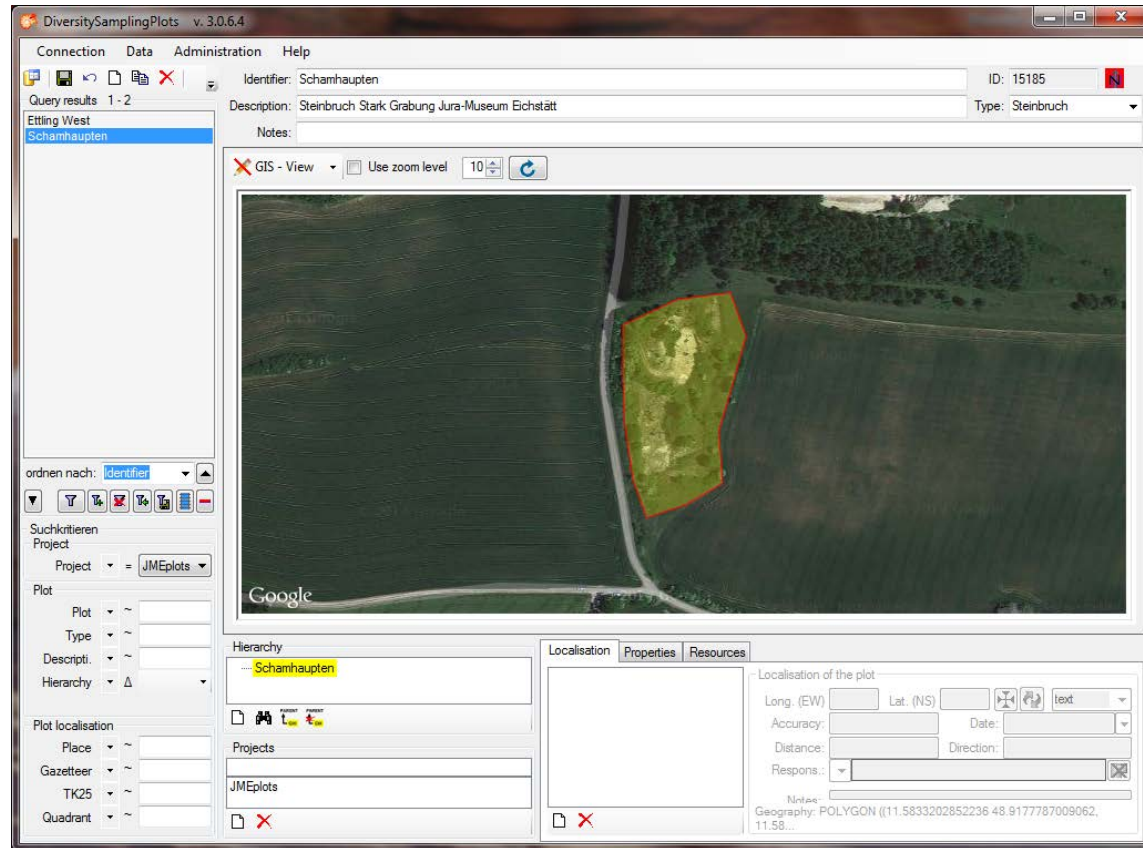
- Tool to create, visualize, edit and store samples within a geographical environment (geoobjects)
- Stand-alone application or integrated component as part of other DWB applications, e.g. DiversityCollection or DiversitySamplingPlots
- Historical maps without coordinates can be georeferenced.
- Microsoft SQL Geometry Objects (points, lines and areas) may be displayed and edited with a background map.

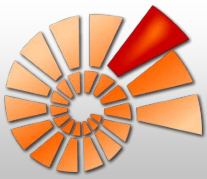




DiversitySamplingPlots

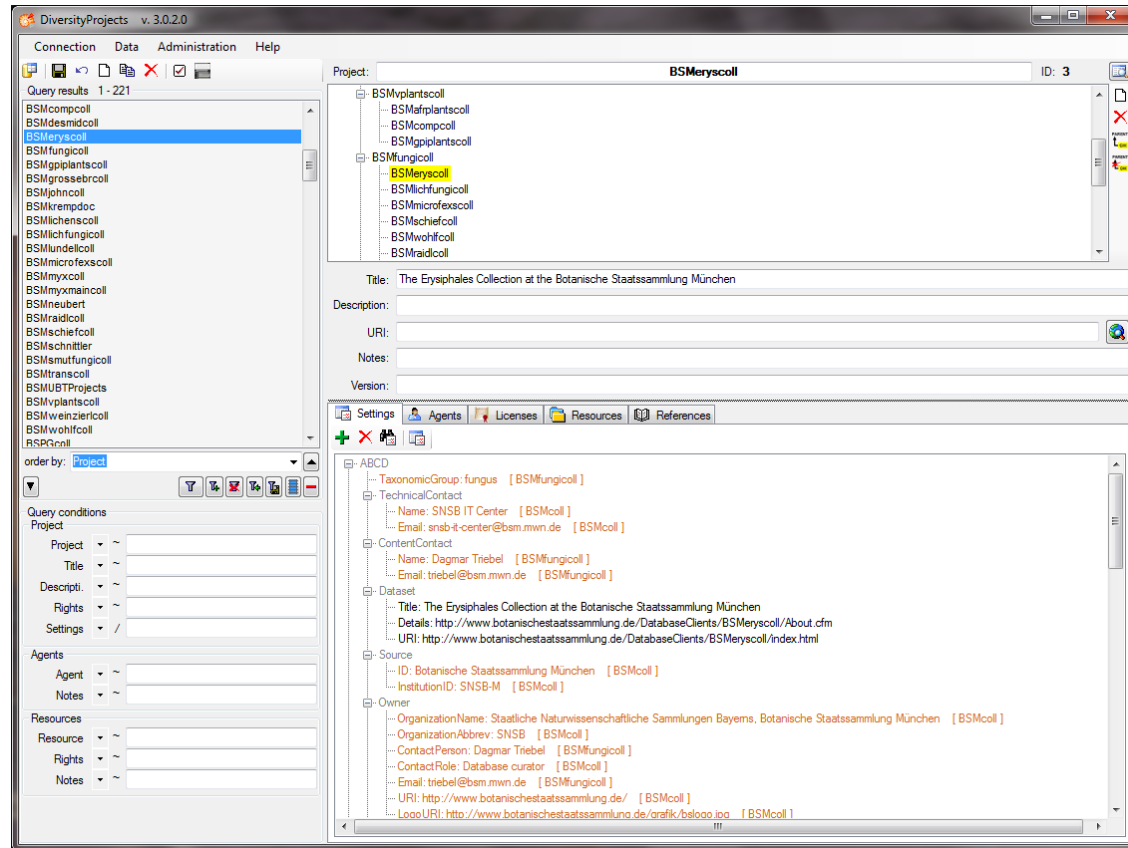
- SQL-database and rich client for the management of sampling plots
- Designed to document the geographical position of geoobjects and the geometry of the plots as well of georeferenced objects on the plots
- Management of the hierarchical relation between plots and subplots

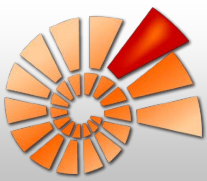




DiversityProjects

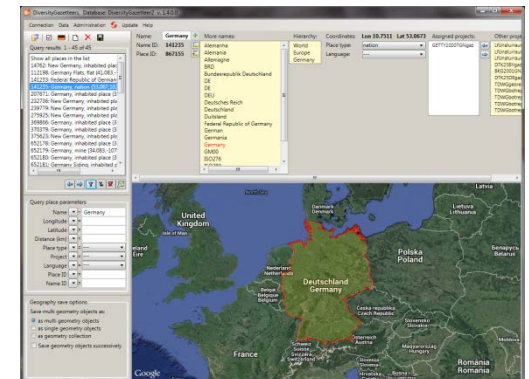
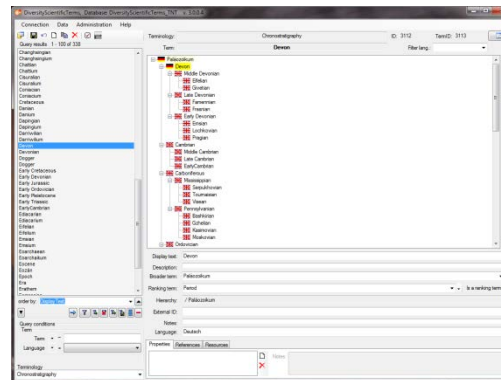
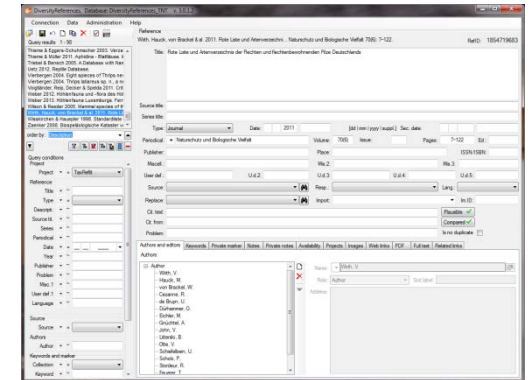
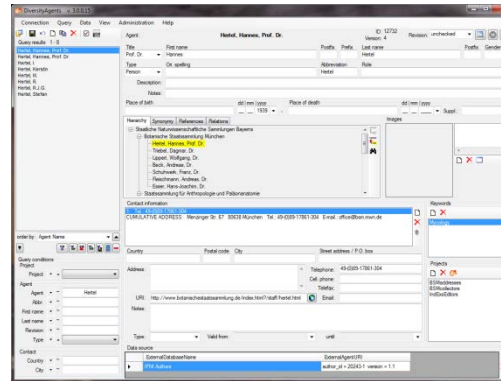
- SQL-database and rich client for the management of research projects and data sets defined and used by components of the Diversity Workbench
- Designed to document basic information about the projects/ data packages/ data sets/ research objects, their relations and hierarchy, settings, data assets like documents and resources
- All metadata on data set level are processed here, e.g. data set owner, licenses

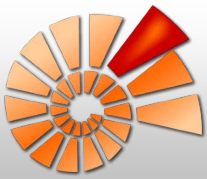




Ontologies

- DiversityAgents is the component for the management of persons and organisations.
- DiversityReferences is the component for the management of literature references and literature resources.
- DiversityScientificTerms is the component for the management of scientific ontologies, vocabularies, terminologies and terms.
- DiversityGazetteers is the component for the management of geographic thesauri like the GettyThesaurus.



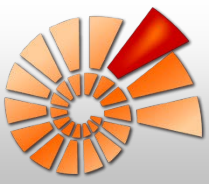


DiversityTaxonNames

- SQL-database and rich client for the management of taxonomic names and related information
- Designed to document taxonomic names with nomenclature, accepted names, synonyms, classification, typification and common names
- It is appropriate to create taxon reference lists, checklists with geographical or nature conservation categories as well as with other parameters

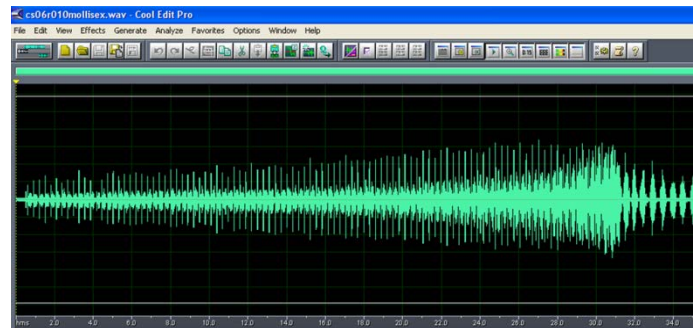
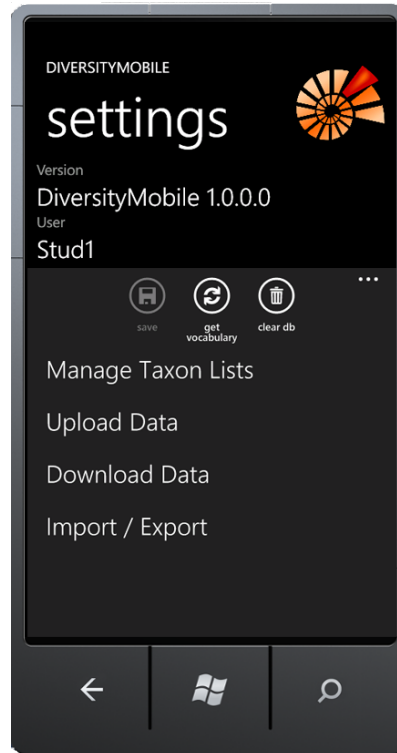
The screenshot displays the DiversityTaxonNames software interface, version 3.0.1.5, with the database set to DiversityTaxonNames_Fungi. The main window shows the entry for *Biatora sylvana* Korb. The interface is divided into several panes:

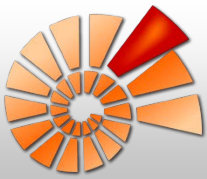
- Left Pane:** A list of items (101-152 of 152) with a search bar and filters. The current selection is *Biatora sylvana* Korb.
- Top Pane:** Taxonomic name details including the name (*Biatora sylvana* Korb.), rank (species), and author (Korb.).
- Center Pane:** Nomenclature and taxonomic reference information, including the code, status, and creation type.
- Right Pane:** Typification, Geography, Common names, and Projects. The current entry is *Biatora sylvana* Korb.
- Bottom Pane:** Synonymy overview and external data sources. The current entry is *Biatora sylvana* Korb., Syst. Lich. Germ.: 200 (1855).



DiversityMobile

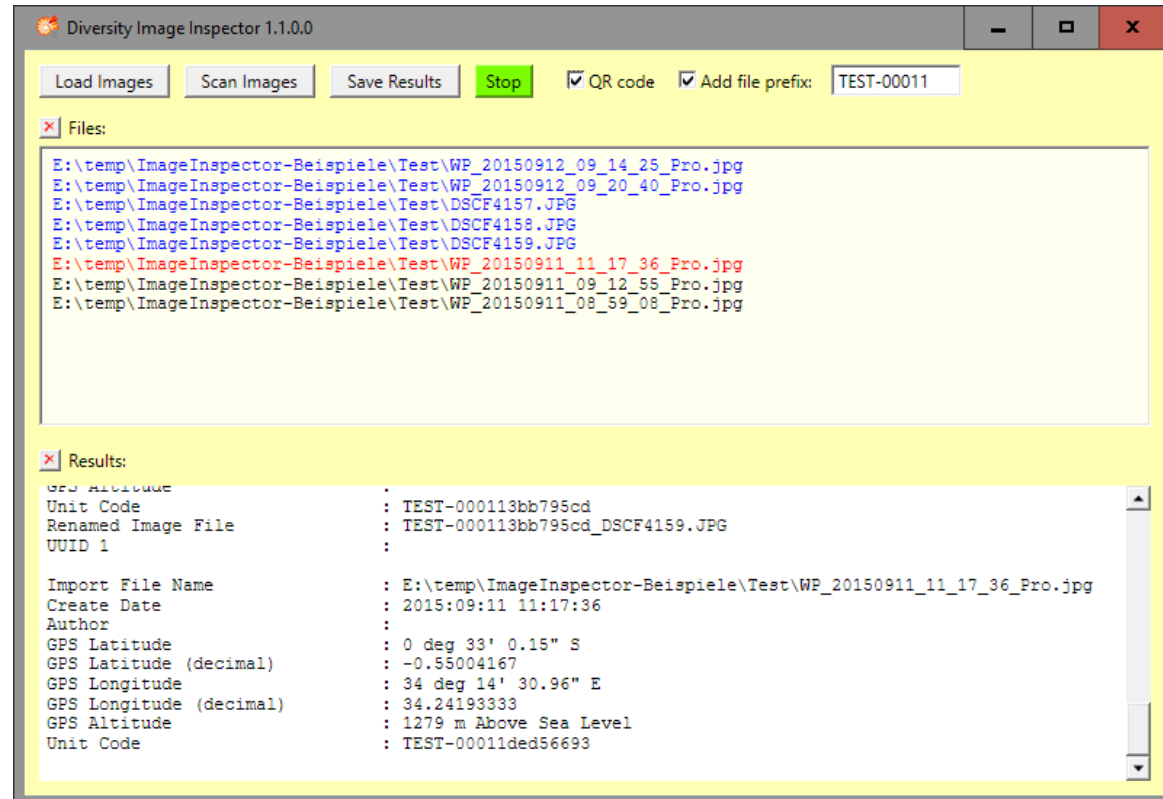
- Smartphone App for scientists
- Monitoring ecological and biodiversity data offline in the field
- Monitoring data (offline) in natural history collections
- Taxon lists, vocabularies and topographic maps are provided
- Recording multimedia data
- Option to create individual analysis

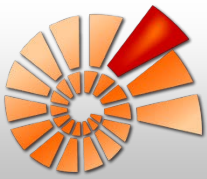




DiversityImageInspector

- Scans a bulk of images for included barcodes and configurable EXIF metadata (e.g. GPS coordinates, author, date and time)
- The results are shown in a table, which may be saved as a TAB separated text file
- The text file might be used for Wizard guided import in DiversityCollection
- There is a function to rename the input image files by adding a prefix to the file name





DWB Links

<http://diversityworkbench.net>

http://diversityworkbench.net/Portal/Technical_documentation_at_a_glance

http://diversityworkbench.net/Portal/DWB_environments_alternatives

http://diversityworkbench.net/Portal/DWB_network

[http://diversityworkbench.net/Portal/DWB_network_and_installations: Real life examples](http://diversityworkbench.net/Portal/DWB_network_and_installations:_Real_life_examples)

http://diversityworkbench.net/Portal/How_to_create_a_personal_local_DWB_environment

http://diversityworkbench.net/Portal/Recommendations_for_developers

<http://www.diversitymobile.net>

http://www.diversitymobile.net/wiki/DTN_Taxon_Lists_Services