

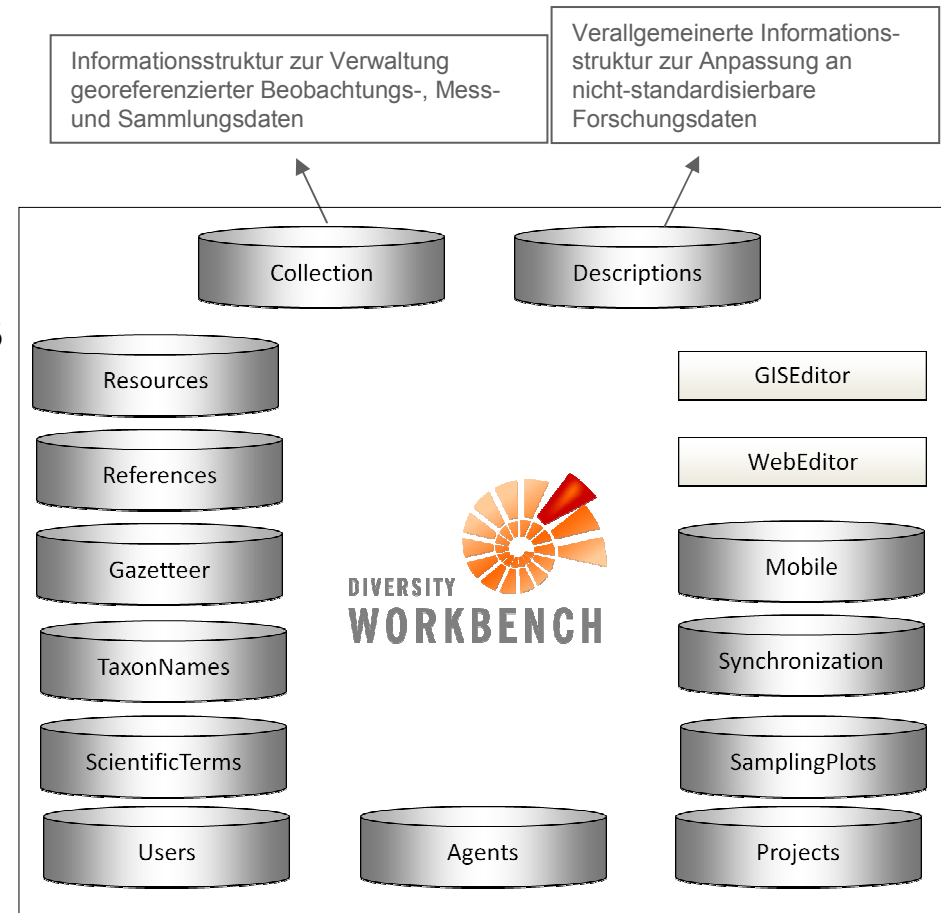
# DiversityDescriptions

DD 2.0 – DD 3.0

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# DiversityDescriptions als Modul der DWB

- DeltaAccess / DD seit 1995
- seit 1999 eine Komponente der DWB
- Modul zur Beschreibung von Eigenschaften von Organismen, Beobachtungs-/ Mess-Ereignissen, „Untersuchungsobjekten“, „Items“ der Diversitätsforschung



# Datenmanagement von deskriptiven Daten und Messdaten

## DiversityDescriptions DD

- Vorgänger-Version: v. 2.2 (MS Access); Entwickler Dr. G. Hagedorn
- Neue Version v. 3.0 (C# im .Net Framework; SQL Server) ab 2012
- **Letztes Release → Januar 2014**

## Beschreibung von **Eigenschaften (properties)**

Organismen, Forschungsobjekte, -ereignisse (items, objects, units),

Ökosysteme, pflanzensoziologische Einheiten usw.

Nukleinsäure- und Aminosäuresequenzen

Messreihen

(Sozioökonomische) Interviewdaten

# Datenmanagement von deskriptiven Daten und Messdaten

## DiversityDescriptions DD

- Triple Store-Architektur: **description (item) – descriptor (character) – value**
- Deskriptoren betreffen alle Typen von Merkmalen und Eigenschaften
- Generelle Unterscheidung von kategoriale (qualitativen) und quantitativen Merkmalen („Deskriptoren“)
- Merkmalsstruktur ist frei definierbar

# DiversityDescriptions – Datenbeispiel LIAS

## Phänotypische Daten: Webschnittstelle NaviKey

The screenshot shows the 'LIAS light' web interface. At the top, there are flags for various countries and the 'LIAS light' logo. Below the flags, there is a red text notice: 'Submission of pdf files with descriptions of missing taxa is highly appreciated. If your language is not yet supported, you are very welcome to create that translation. Please contact us for obtaining relevant template files.' The main heading is 'Identifying lichen species of the World' with a sub-note '(Experimental subset of taxa from various regions of the world)'. A paragraph of instructions follows, mentioning Java requirements and providing a URL (http://lias.net). Below this is the 'NaviKey' applet interface. It has three tabs: 'Identification', 'Options', and 'About'. The 'Identification' tab is active. It is divided into two main sections: 'Characters available' and 'Character states available'. Under 'Characters available', there are several radio and checkbox options: 'genus <taxon>', 'family <taxon>', 'global occurrence <continent>', 'substrate <kind>' (checked), 'thallus <growth habit>' (checked), 'thallus <compartmentation>', '[th] upper surface <colour>', and '[th] upper surface] <pruinosity>'. The 'Character states available' section is currently empty. Below these sections is a 'Selection criteria' field and a 'Resulting items' list. The 'Resulting items' list contains several entries, including ']- LIAS light - BSM, München, Germany - License: CC-by-nc-nd 3.0 -]', 'Absconditella amabilis T. Sprib.', 'Absconditella antarctica Sæchting & Vězda', 'Absconditella celata Döbbeler & Poelt', 'Absconditella delutula (Nyl.) Coppins & H. Kilius', 'Absconditella lignicola Vězda & Pišút', 'Absconditella pauxilla Vězda & Vivant', and 'Absconditella sphagnorum Vězda & Poelt'. At the bottom of the applet, there are buttons for 'Remove Selection' and 'Remove All'. Below the applet, it shows 'All items: 9422' and 'Resulting items: 9422'. At the very bottom, there is a small logo and the text 'An interactive key using'.

# DiversityDescriptions – Datenbeispiel

## Nukleinsäure- und Aminosäuresequenzen

e.g., FASTA format

```
>AB000263 |acc=AB000263|descr=Homo sapiens mRNA for prepro cortistatin like peptide, complete cds.|len=368  
ACAAGATGCCATTGTCCCCGGCCTCCTGCTGCTGCTGCTCTCCGGGGCCACGGCCACCGCTGCCCTGCC  
CCTGGAGGGTGGC  
CTCCTGACTTTCT  
AAGCTCGGGAGGT  
CTGCAGGAACTTC  
TTTAATTACAGACC
```

The screenshot displays the DiversityDescriptions software interface. The main window is titled "Test sequence 1" and shows a list of descriptors for the sequence. The descriptors are:

Nr.	Type	!	Descriptor name
1	text	•	gi
2	text	•	accession
3	text	•	description
4	quantitative	•	length
5	categorical	•	5_base
6	categorical	•	6_base
7	categorical	•	7_base
8	categorical	•	8_base
9	categorical	•	9_base
10	categorical	•	10_base
11	categorical	•	11_base
12	categorical	•	12_base
13	categorical	•	13_base
14	categorical	•	14_base
15	categorical	•	15_base
16	categorical	•	16_base
17	categorical	•	17_base
18	categorical	•	18_base
19	categorical	•	19_base
20	categorical	•	20_base
21	categorical	•	21_base
22	categorical	•	22_base
23	categorical	•	23_base
24	categorical	•	24_base

The "Categorical states" table shows the following data:

x	Nr.	State	Notes
<input checked="" type="checkbox"/>	1	A (adenine)	
<input type="checkbox"/>	2	W (A T (weak bonds))	
<input type="checkbox"/>	3	B (G T C (all but A))	
<input type="checkbox"/>	4	D (G A T (all but C))	
<input type="checkbox"/>	5	H (A C T (all but G))	
<input type="checkbox"/>	6	V (G C A (all but T))	
<input type="checkbox"/>	7	N (A G C T (any))	
<input type="checkbox"/>	8	C (cytosine)	
<input type="checkbox"/>	9	G (guanine)	
<input type="checkbox"/>	10	T (thymine)	
<input type="checkbox"/>	11	R (G A (purine))	
<input type="checkbox"/>	12	Y (T C (pyrimidine))	
<input type="checkbox"/>	13	K (G T (keto))	
<input type="checkbox"/>	14	M (A C (amino))	

The "Status data" table shows the following data:

x	ID	Status
<input checked="" type="checkbox"/>	!	To be checked
<input type="checkbox"/>	o	Not to be recorded
<input type="checkbox"/>	-	Not applicable
<input type="checkbox"/>	?	Data unavailable
<input type="checkbox"/>	#	Not interpretable
<input type="checkbox"/>	\$	Data withheld
<input type="checkbox"/>	0	Missing data

# DiversityDescriptions – Datenbeispiel

## (Sozioökonomische) Interviewdaten

- 10: Tomato
- 11: Adenophora triphylla var. japo
- 12: Pimpinella brachycarpa (Kom.)
- 13: Spinach
- 14: Cabbage
- 15: Perilla seed
- 16: Broccoli
- 17: Chinese goose
- 18: Codonopsis lar
- 19: Lettuce
- 20: Sweet pepper
- 21: Red cabbage
- 22: Phaseolus ang
- 23: Pleurospermun
- 24: Aster scaber T
- 25: Leek
- 26: Aster scaber T
- 27: Cirsium sp.
- 28: Allium microdic
- 29: Maize
- 30: Platycodon
- 31: Kalopanax pict
- 32: Bracken
- 33: Aralia elata
- 34: Cucumber
- 35: Rice
- 36: Carrot
- 37: Onion
- 38: head lettuce
- 39: Sesam vegetab
- 40: Shallot
- 41: Chinese cabbag

- 74: Pilose Asiabell
- 75: Madonna Lily ['9288' added to
- 76: Sesam vegetable 2

- 1: Low profit
- 2: Increased number of imported a
- 3: Because of affecting areas caus

The screenshot shows the DiversityDescriptions database interface. The main window displays a list of descriptors (Nr. 1-24) with their types and names. The selected descriptor (Nr. 101) is shown in the 'Main attributes' view. The 'Categorical states' view shows a list of states (Nr. 1-5) with their names and notes. The 'Status data' view shows a list of status codes (ID) and their meanings.

Nr.	Type	Descriptor name
1	categorical	[SQ1] Interview partner - Living site district [Where d...
2	categorical	[SQ2] Interview partner - Living location in the same...
3	categorical	[SQ2-1] Interview partner - Fam areas where famer...
4	categorical	[SQ2-2] Interview partner - Farmland location admini...
5	quantitative	[A1] Interview partner - Years of farming experience ...
6	categorical	[A2] Interview partner - Designated distributors or m...
7	categorical	[A3] Interview partner - Cultivated main crops in 201...
8	categorical	[A4] Interview partner - [obsolete]
9	categorical	[A4-1] Interview partner - Conventional farming - Cult...
10	categorical	[A4-2] Interview partner - Conventional farming - Cult...
11	categorical	[A4-3] Interview partner - Conventional farming - Cult...
12	categorical	[A4-4] Interview partner - Conventional farming - Cult...
13	categorical	[A4-5] Interview partner - Conventional farming - Cult...
14	quantitative	Cultivated area 1 - Rice paddy - [obsolete]
15	quantitative	Cultivated area 1 - Annual crops - [obsolete]
16	quantitative	Cultivated area 1 - Perennial crops - [obsolete]
17	quantitative	Cultivated area 1 - Vinyl greenhouse crops - [obsolete]
18	quantitative	Cultivated area 1 - Others - [obsolete]
19	categorical	Farming techniques - Rice paddy 1 - [obsolete]
20	categorical	Farming techniques - Annual crops 1 - [obsolete]
21	categorical	Farming techniques - Perennial crops 1 - [obsolete]
22	categorical	Farming techniques - Vinyl greenhouse crops 1 - [ob...
23	categorical	Farming techniques - Others 1 - [obsolete]
24	categorical	[A4-6] Interview partner - Environmental friendly fam...

x	Nr.	State	Notes
<input type="checkbox"/>	1	Rice paddy	
<input checked="" type="checkbox"/>	2	Annual crops	
<input type="checkbox"/>	3	Perennial crops	
<input type="checkbox"/>	4	Vinyl greenhouse crops	
<input type="checkbox"/>	5	Others	

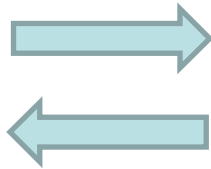
x	ID	Status
<input checked="" type="checkbox"/>	!	To be checked
<input type="checkbox"/>	o	Not to be recorded
<input type="checkbox"/>	-	Not applicable
<input type="checkbox"/>	?	Data unavailable
<input type="checkbox"/>	#	Not interpretable
<input type="checkbox"/>	\$	Data withheld
<input type="checkbox"/>	0	Missing data



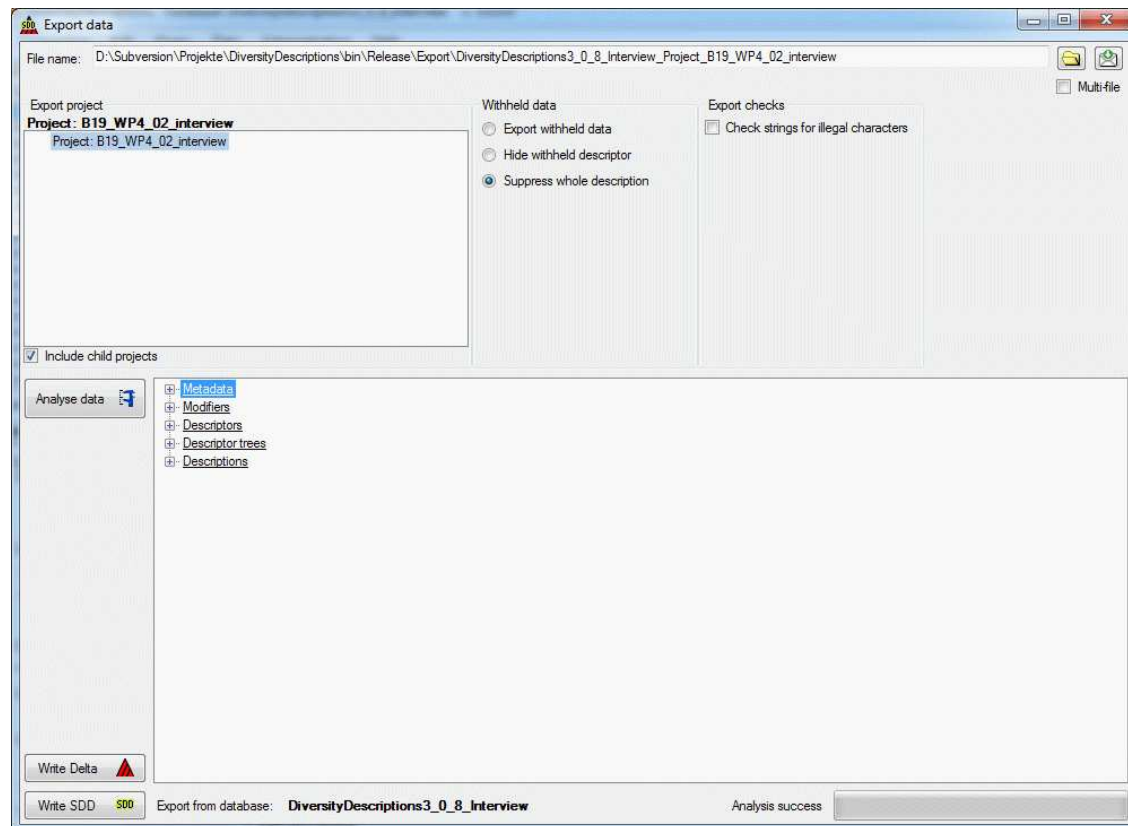
# DiversityDescriptions – Import, Export

- Datenaustauschformate

DELTA  
und  
SDD



Biodiversity  
Information  
Standards  
TDWG





# DiversityDescriptions V. 3

- Software-Demonstration: A. Link

