

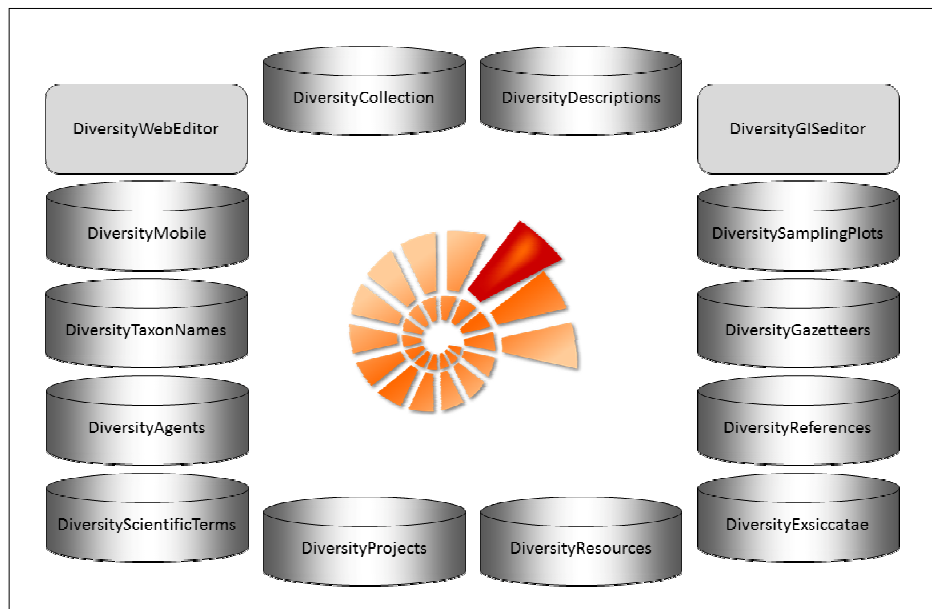
Diversity Workbench

Einführung

Dagmar Triebel

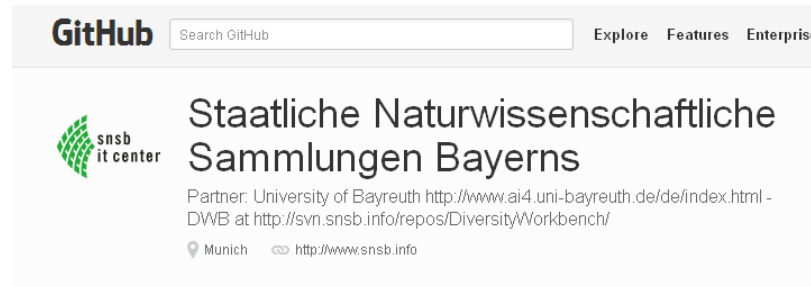
DWB – System aus SQL-Datenbanken

- Für Datenzentren/ Sammlungen, aber auch für Einzelanwender und große Forschungsprojekte
- Direkte Interoperabilität von 12 Datenbank-Komponenten
- Datenbanken nach Datendomänen
- Lokale Installation möglich, wie auch Client-Server Netzwerke
- Diversitätsdatensätze aus allen organismischen Großgruppen
.... Pflanzen, Algen, Pilze, Wirbeltiere, Insekten, andere Wirbellose, Fossilien
- Monitoringdaten, ökologische und molekulare Daten



DWB – Open Source Code Repositorien

- z. Zt. 5 Entwickler: SNSB + UBT
- Quellcode in 2 Code-Repositorien
- Quellcode-Zeilen >1.3 Mill.
(in 2.835 Quellcode-Dateien)
(*Status 10.2015)
- GPL 2 Lizenz

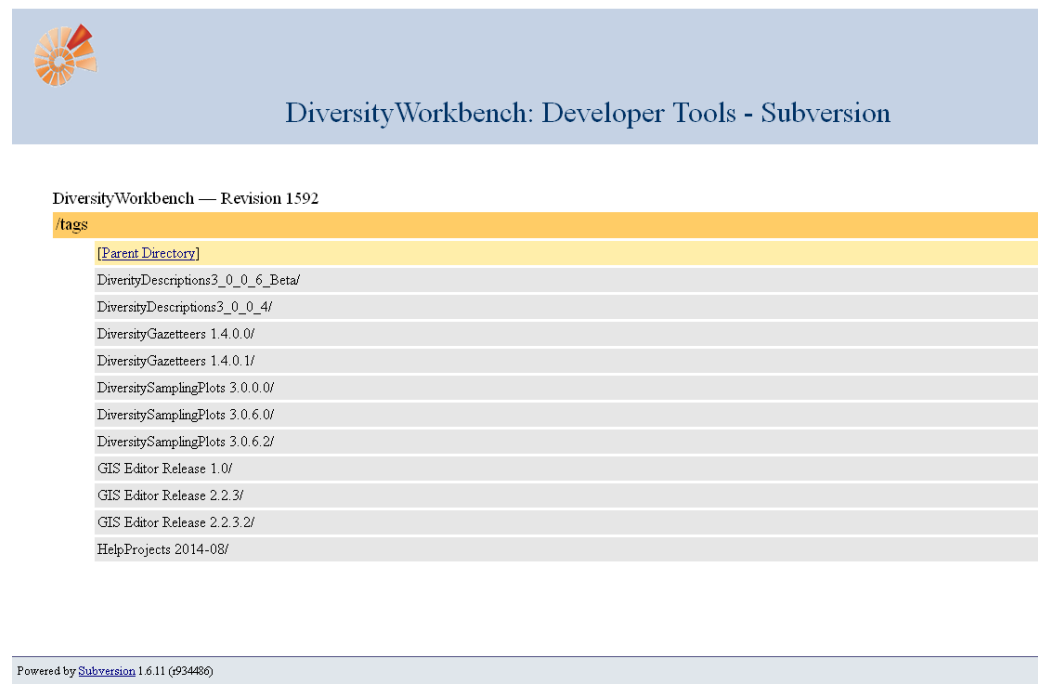


GitHub Search GitHub Explore Features Enterprise

 **Staatliche Naturwissenschaftliche Sammlungen Bayerns**

Partner: University of Bayreuth <http://www.ai4.uni-bayreuth.de/de/index.html> - DWB at <http://svn.snsb.info/repos/DiversityWorkbench/>

Munich <http://www.snsb.info>



 DiversityWorkbench: Developer Tools - Subversion

DiversityWorkbench — Revision 1592

/tags

[Parent Directory]
DiversityDescriptions3_0_0_6_Beta/
DiversityDescriptions3_0_0_4/
DiversityGazetteers 1.4.0.0/
DiversityGazetteers 1.4.0.1/
DiversitySamplingPlots 3.0.0.0/
DiversitySamplingPlots 3.0.6.0/
DiversitySamplingPlots 3.0.6.2/
GIS Editor Release 1.0/
GIS Editor Release 2.2.3/
GIS Editor Release 2.2.3.2/
HelpProjects 2014-08/

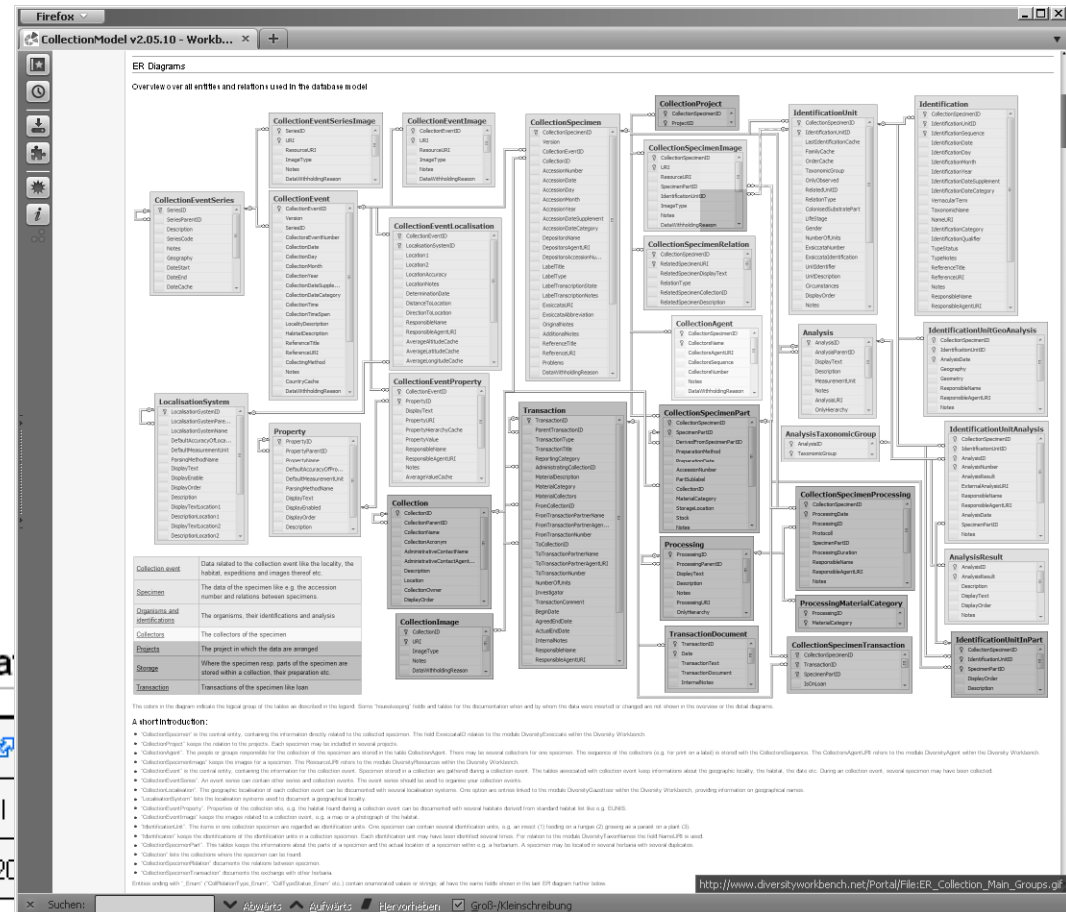
Powered by [Subversion](#) 1.6.11 (r934486)

DWB – Dokumentation online

- www.diversityworkbench.net
- Technische Dokumentation
- Download von Software
- ER Diagramme
- Mailingliste zur Info über neue Software-Versionen

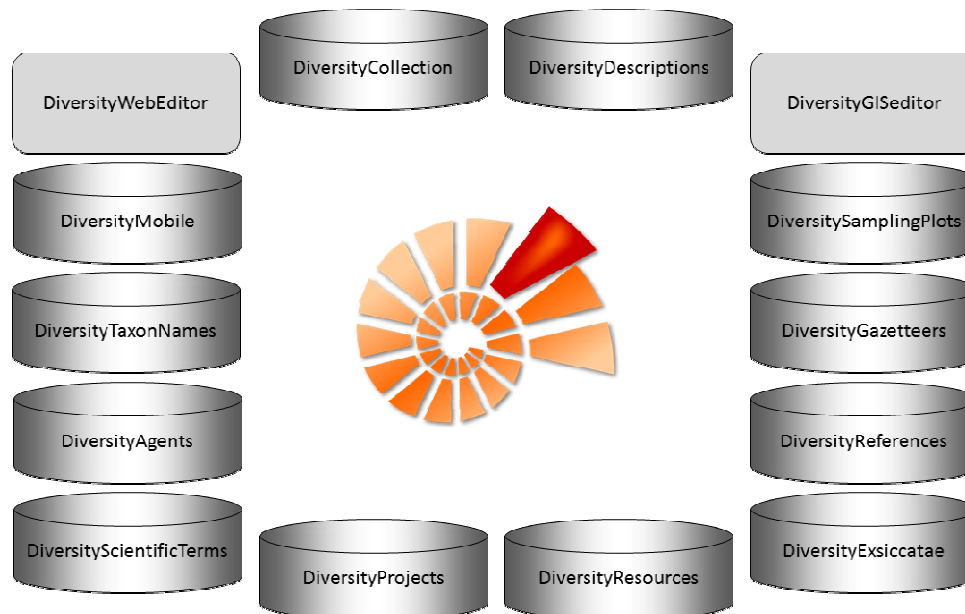
Technical documentation for the core applica

Name of the database framework	Diversity Workbench 
DWB contact persons	T. Weibulat, D. Triebel
Operating system server	MS Windows Server 2008
Database system	MS SQL-Server 2008 R2 to MS SQL-Server 2014 
Clients	C# desktop applications (local clients) (and web APIs for various projects)
Operating system local clients	MS Windows XP (not recommended), MS Windows 7 to MS Windows 8



DWB-Anwender mit DB-Installationen (soweit bekannt)

- Installationen am SNSB inkl. ZSM (diverse VM und Instanzen;
inkl. Datenbank(DB)-Hosting für rund 20 Partnerorganisationen; v.a. Unis)
z. Zt. 150 Anwender
- Installationen am ZFMK
z. Zt. 40 Anwender
- Installation am SMNK
z. Zt. 15 Anwender
- Installation am SMNS
z. Zt. 15 Anwender



DFG RIsources: DWB empfohlen

 Deutsche Forschungsgemeinschaft

 RIsources
The Research Infrastructure Portal
funded by DFG

[Leitseite](#) | [Katalog](#) | [Suche](#) | [Über RIsources](#)

Detailseite [→ Zurück](#)

Diversity Workbench – Software components for building and accessing biodiversity information (DWB) 

Das Projekt Diversity Workbench (=DWB) wurde in 2000 gestartet und wird kontinuierlich fortgesetzt. Basierend auf dem DWB Konzept werden SQL-Datenbanken und Datenbankschnittstellen entwickelt, um sämtliche Typen von georeferenzierten quantitativen und qualitativen Beobachtungs-, Sammlungs- und Messdaten aus den Bereichen Bio- und Geodiversitätsforschung und Ökologie zu verwalten. Dazu wird ein modularisiertes Komponenten-Framework zur Datengenerierung, -erhaltung und -prozessierung aufgebaut (12 eigenständige, interoperable Datenbanken, jeweils mit Rich-Clients zum Datenmanagement sowie browserbasierten Anwender-Schnittstellen, s.u. www.diversityworkbench.net/Portal/Diversity_Workbench_Performance und Apps für Smartphones). Der DWB Namensraum umfasst rund 2.000 Elemente. ER-Modelle zu den einzelnen Entwicklungen werden in regelmäßigen Abständen publiziert. Die Software steht als open source-Entwicklung zum download bereit. Neben den unten genannten Trägern agiert das Julius Kühn-Institut Berlin http://www.jki.bund.de/nn_813794/ als weiterer Partner.

Adresse: Menzinger Straße 67
80638 München
Bayern
Deutschland

[↗ Zur Webseite](#)

Träger

**Staatliche Naturwissenschaftliche Sammlungen Bayerns, SNSB
IT-Zentrum**
Menzinger Straße 67
80638 München
Bayern
Deutschland
[↗ http://www.snsb.info/](http://www.snsb.info/)

Universität Bayreuth, DNA-Analytik und Ökoinformatik
Geb. NW1, Universitätsstraße 30
95447 Bayreuth
Bayern
Deutschland
[↗ http://www.daneco.uni-bayreuth.de](http://www.daneco.uni-bayreuth.de)

**Universität Bayreuth, Lehrstuhl für Angewandte Informatik IV
Datenbanken und Informationssysteme**
Universitätsstraße 30
95447 Bayreuth
Bayern
Deutschland

Diversity Workbench – Schnittstellen zum Datenmanagement

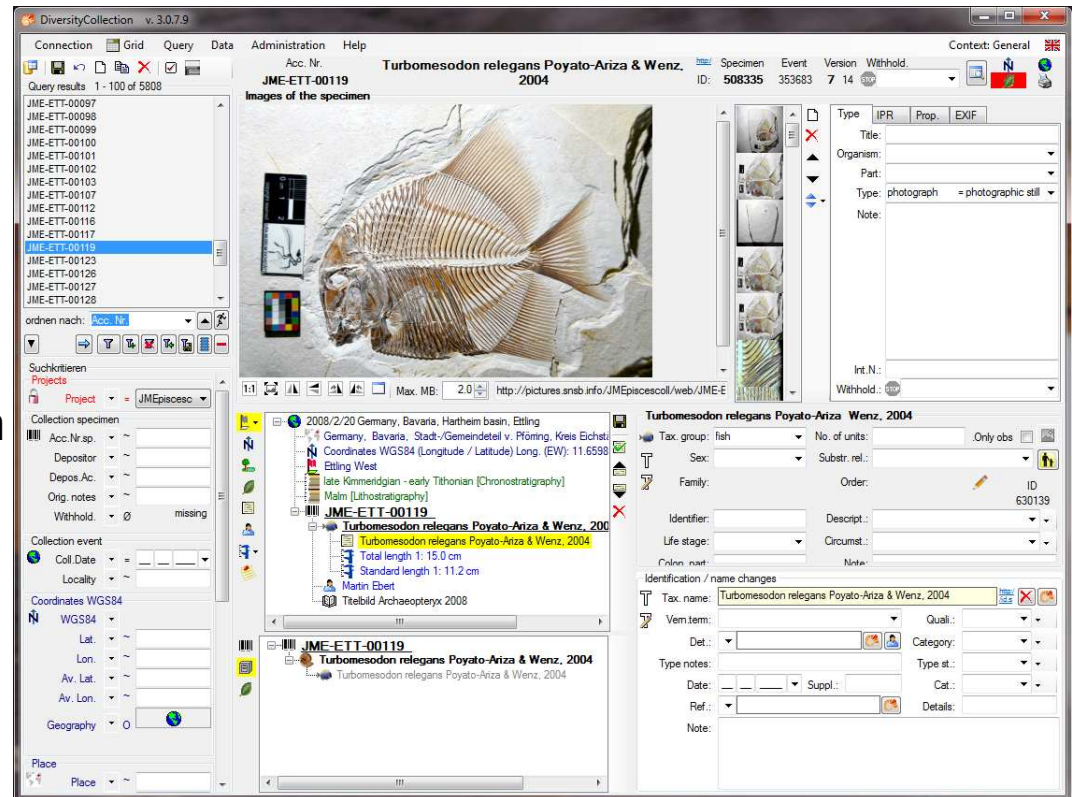
The screenshot displays the Diversity Workbench software interface, which is used for managing biodiversity data. The interface is divided into several windows and panels:

- DiversityCollection v.3.0.3.6:** This window shows a list of specimens with columns for Accession number, Collection year, Country, and Locality. A table of specimens is visible, including entries like SAPIM-MA-00129, SAPIM-MA-00130, etc.
- DiversityScientificTerms v.3.0.0.0:** This window displays a list of scientific terms, including "Indusium", "Indusium", "Indusium", etc.
- DiversityAgents v.3.0.0.3:** This window shows a list of agents, including "Hertel, Hannes, Prof. Dr.", "Hendricks, S.J.", "Henning, S.", etc.
- DiversityTaxonNames, Database: DiversityTaxonNames_Fungi v.3.0.1.5:** This window displays a detailed view of a taxonomic entry for "Biatora sylvana Korb". It includes fields for Taxonomic name, Species epithet, Rank, Nomenclature, Taxonomic reference / Protologue, Typification, Geography, Common names, and Projects. The entry is identified as "Biatora sylvana Korb" with a rank of "Species" and a status of "Accepted".

The interface also includes various toolbars and panels for navigating and managing the data, such as "Select the displayed fields", "Request", "Display text", "Ranking term", "Hierarchy", "External ID", "Notes", "Language", "Query conditions", "Terminology", "Chronostratigraphy", "Agent", "Title", "Given name", "Postfix", "Prefix", "Inherited name", "Gender", "Role", "Description", "On spell", "Place of birth", "Hierarchy", "Contact info", "Country", "Address", "Telephone", "URI", "Notes", "Type", "Data source", "Project", "Agent", "Forename", "Surname", "Revision", "Level", "Synonymy overview", and "External data sources".

DiversityCollection

- Management von Beobachtungs- und Sammlungsdaten
 - Ereignisse, Expeditionen
 - Beobachtungs- und Sammlungsobjekte
 - Experimente und Analysen
 - Administration von Objekten (Transfer, Inventarisierung)
 - Präparation und Lagerung von Objekten
 - Verwaltung von Multimedia-objekten
- Druckoptionen: Reporte, Etiketten
- Erzeugung von Verbreitungskarten



Portale mit DWB Daten, dynamischer Datenfluss

Access provided by National Botany Collection Munich

Login

BiNHum

The biodiversity portal of the

Results filtered by

Institution: M

Country: Afghanistan

Remove all filters.

Additional Filter

Scientific name

asragalus (90)

milk-vetches (90)

milkvetch (90)

Genus

Astragalus (90)

Cousinia (34)

Acantholimon (20)

Country

Afghanistan (332)

Type status

isotype (93)

not a type (83)

holotype (72)

Collector

Podlech, D. (138)

Rechinger, K.H. (70)

Griffith, W. (33)

Institution

M (332)

Collection

BSMplantscoll (287)

Arbeitsgemeinschaft Flora von Bayern - www.bayernflora.de

Ambrosia artemisiifolia
Beifußblättriges Traubenkraut

167 Angaben aus 92 Quadranten, davon: 144 Qua
0 1/4-Qu
23 1/16-

Bayernflora

www.bayernflora.de

FLORA VON BAYERN

»Entdecken und Bestimmen

»Forum »Quiz »Veranstaltungen

»Infos für Experten

»Daten »Erfassung »Dokumente

WWF Deutschland Datenschutz Über die Flora von Bayern Kontakt Impressum

Datenmanagement

Matrixdaten → DiversityDescriptions

Matrix

Alternative import formats:
DELTA and SDD

Triples:

- > item-descriptor-state
- > item-character-state
- > entity-attribute-value
- > element-property-value

Triple

I_ID	Item	D_ID	Descriptor	V_ID	Value

I_ID	D_ID	V_ID

DiversityDescriptions, Database: DiversityDescriptions3_0_6_Erythroneura v. 3.0.0.7

Connection Edit Query Data Administration Help

Erythroneura aclys McAtee Project: Erythroneura Language: en DB key: 868

Suchergebnisse 1 - 54

- Erythroneura aclys McAtee
- Erythroneura acuticephala Robinson
- Erythroneura amanda McAtee
- Erythroneura ancora Beamer
- Erythroneura anfracta Beamer
- Erythroneura aza Robinson
- Erythroneura bakeri Dmitriev & Dietrich
- Erythroneura beameri Robinson
- Erythroneura bidens McAtee
- Erythroneura bistrata McAtee
- Erythroneura browni Dmitriev & Dietrich
- Erythroneura caetra McAtee
- Erythroneura calycula McAtee
- Erythroneura cancellata McAtee
- Erythroneura carinata Dmitriev & Dietrich
- Erythroneura coloradensis Gillette

ordnen nach: Description

Suchkriterien

Description

Title ~

Project Erythroneura

Descriptor

Categoric. =

Quantitati. =

Text =

Data status = +

Scope

Taxon =

Geography =

Specimen =

Observati. =

Reference =

Other =

Description: Erythroneura aclys McAtee

Main attributes Descriptor view Continuous view Resource links

ID	Type	Descriptor name
1	categorical	Ground color of dorsum
2	categorical	Coloration of vertex
3	categorical	Coloration of vertex midline
4	categorical	Anteclypeus coloration
5	categorical	Pronotum color pattern
6	categorical	Color pattern of mesonotum
7	categorical	Coloration of thoracic venter
8	categorical	Presence of crossbands on forewings
9	categorical	Presence of oblique pattern on forewings
10	categorical	Presence of a brown spot in forewing inner apical cell
11	categorical	Presence of distal spot in forewing apical cell II
12	categorical	Clavus color pattern
13	categorical	Length of forewing outer apical cell
14	categorical	Length of 2S abdominal apodemes (Males)
15	categorical	Length of aedeagus preatrium (Males)
16	categorical	Dorsal apodeme of aedeagus in ventral view (Males)
17	categorical	Presence of teeth in distal part of aedeagal shaft (Males)
18	categorical	Width of aedeagal shaft in lateral view (Males)
19	categorical	Position and length of aedeagus ventral processes (Males)
20	categorical	Position and length of aedeagus distal processes (Males)
21	categorical	Shape of pygofer dorsal appendages (Males)
22	categorical	Shape of pygofer lobe (Males)
23	categorical	Apex of aedeagus in ventral view (Males)
24	categorical	Apical vestiture of aedeagus (Males)

Categorical states

x	ID	State	Modifier	Frequency	Notes
☐	1	entirely pale			
☐	2	pale, with dark late...			
☒	3	entirely dark			
☐	4	pale, with dark bro...			

Media view

http://ctap.inhs.uiuc.edu/dmitriev/images/aclys1.gif

Not to be recorded

- Not applicable

? Data unavailable

Not interpretable

\$ Data withheld

0 Missing data

Edit description

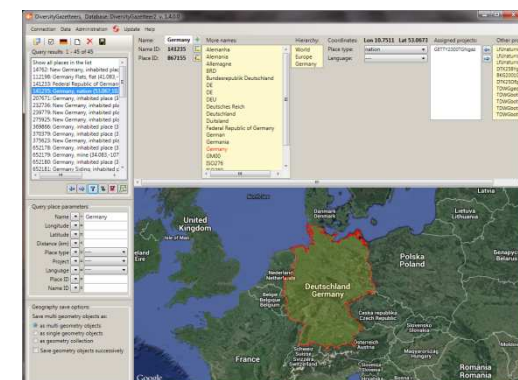
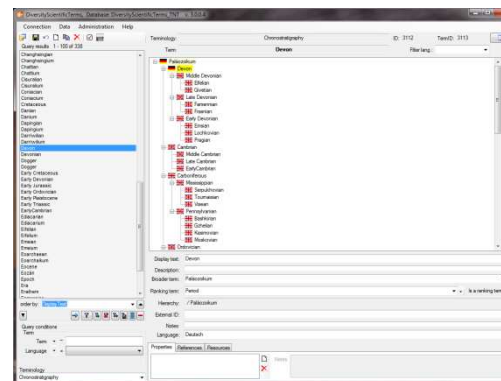
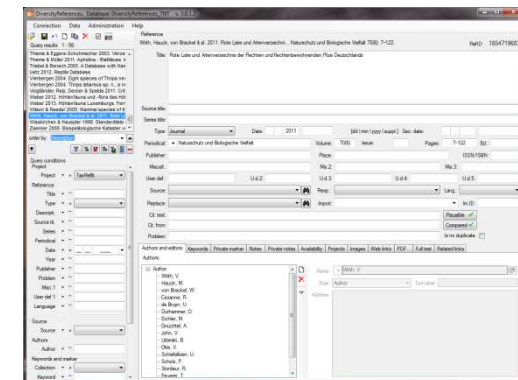
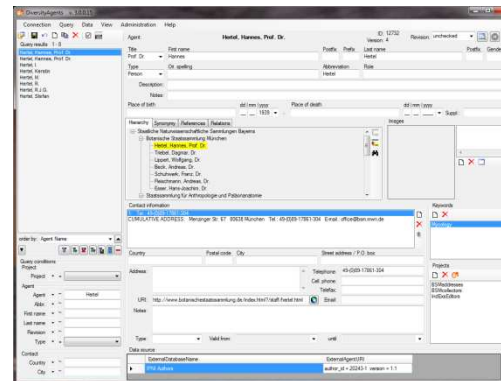
Terminologien, Referenzen, Vokabularien.....

DiversityAgents
Verwaltung von Personen und Organisationen

DiversityReferences
Verwaltung von Literaturreferenzen und Literaturdokumenten

DiversityScientificTerms
Management von Ontologien, Terminologien

DiversityGazetteers
Verwaltung geographischer Namensbestände, oft mit GIS Information und Hierarchien



DiversityTaxonNames

- Management von taxonomischen Namen, verknüpfter Information
- Management von Synonymen, akzeptierten Namen, Klassifikationen, Typifizierung und Volksnamen
- Erstellung von Taxonreferenzlisten, Checklisten mit z. B. geographischen, naturräumlichen oder Naturschutzkategorien

The screenshot displays the DiversityTaxonNames software interface, version 3.0.1.5, with the database set to DiversityTaxonNames_Fungi. The main window shows the taxonomic details for *Biatora sylvana* Korb. (ID: 1036334). The interface is divided into several panels:

- Left Panel:** A list of items (101-152 of 152) with a search bar and filters. The list includes various *Biatora* species and their authors.
- Top Panel:** Taxonomic name details for *Biatora sylvana* Korb., including rank (species), orthography, and author (Korb.).
- Center Panel:** A hierarchical tree view showing the classification of *Biatora sylvana* within the Ascomycota, Pezizomycotina, and Lecanoromycetes.
- Right Panel:** Typification and synonymy information. It shows the reference (New reference 1) and the type (isotype M-0061230). The synonymy section lists *Lecania hyalina* (Fr.) R. Sant. as a heterotypic synonym.
- Bottom Panel:** A list of external data sources, including references to *Biatora sylvana* Korb. in various scientific publications.

DWB – DiversityTaxonNames

- ER-Modell publiziert
- Eine Reihe Installationen am SNSB IT-Zentrum: intern und auf TNT Server „DWB Cloud“ stellen Inhalte bereit
- Verschiedene maschinen- und menschenlesbare Webschnittstellen greifen darauf zu

The screenshot displays the DiversityTaxonNames v2.4 web interface. The top section shows an ER diagram titled "Overview over the main entities and relations used in the database model". The diagram includes entities like TaxonName, TaxonNameProject, TaxonHierarchy, TaxonSynonymy, and TaxonAcceptedName, with their attributes and relationships. Below the diagram is a legend for "Nomenclatural information", "Taxonomic opinion", "Sources of the names", "Projects (access)", and "Lists of the names".

The bottom section shows a detailed taxonomic record for *Biatora sylvana* Korb. The record includes fields for Taxon, Species epithet, Rank, Nomenclature, Taxonomic reference / Protologue, Hierarchy, Typification, Geography, Common names, Projects, Synonymy, and External data sources. The record is currently set to "New reference 1" and shows a list of synonyms, including *Lecanora sylvana* Korb. and *Lecanora sylvana* Korb. f. *hyalina* (Fr.) R. Sant.

Portale und Webdienste – DiversityTaxonNames

The screenshot displays the LIAS names web service interface. The browser window shows the URL `liasnames.lias.net`. The page header includes the text "A Database with Names of Lichens, Lichenicolous Fungi and Non-Lichenized Ascomycetes" and navigation links for "About" and "Cooperating Websites". The main content area is divided into a left sidebar and a right main panel.

Left Sidebar:

- QUERY** and **WEB SERVICE** tabs.
- Name** and **Epithet** input fields. The "Name" field contains "Lecano".
- A message: "Please enter at least the first 2 characters."
- Checkboxes for "Accepted names only" (checked) and "Include non-nomenclatural names" (unchecked).

Right Main Panel:

- Search Result** section showing:
 - Entered Name:** *Lecanora albescens* (Hoffm.) Branth & Rostr.
 - Name ID:** 1009252
 - Accepted Name:** *Lecanora albescens*
 - Synonyms:** *Psora albescens*, *Placodium albes*, *Lecanora galact*
- LIAS names** logo and a list of links: LIAS, LIAS light, LIAS checklists, LIAS glossary.

Bottom Section:

- Regionalised and Domain-specific Taxon Lists**

The DWB REST Webservice for Taxon Lists is part of a Diversity Workbench (DWB) services network. It is delivering basic information on taxon names in use, synonyms, classification and German vernacular names of a number of groups of animals, fungi and plants.

The current focus is on domain-specific lists (checklists, taxon reference lists, red lists) from Germany under active curation by experts on taxonomy or floristics and faunistics. Each regionalised and domain-specific taxon list has its own history and objectives, is managed completely separately and has its own hierarchical classification. The DiversityTaxonNames (DTN) data resources accessed by the REST API may include additional taxon-related data useful, e. g., for regional nature conservation agencies and environmental projects. This information might be mobilised in a next step.

For more information please refer to [DTN_Taxon_Lists_Services](#)
- Regionalisierte und domän-spezifische Taxonlisten**

Der DWB REST Webservice für Taxon Listen ist Teil eines Netzwerkes aus Diversity Workbench (DWB) Diensten. Er liefert Basisinformation zu anerkannten Taxonnamen, Synonymen, Klassifikationen und deutsche Volksnamen für eine Anzahl von Tier-, Pilz- und Pflanzengruppen.

Inset Window:

A smaller browser window is overlaid on the main page, showing the URL `www.melastomataceae.net/MELnames/MELnames_Details.jsp?NameID=385435`. It displays the MELNET logo and a banner image of purple flowers.

LIAS GSD – DiversityTaxonNames

Catalogue of Life - 18th March 2015

Species 2000
indexing the world's known species

ITIS

English French Spanish Chinese Russian Portuguese Dutch German Polish Lithuanian Thai Vietnamese

Durchsuchen
Suchen
Information

Details zur Datenbank

LIAS

Datenbank Qualitätskriterien

Umfang: Global

Vollständigkeit: 65%

Vertrauenswürdigkeit der Checkliste: ★★★★★

Voller Name: A Global Information System for Lichenized and Non-Lichenized Ascomycetes

Namensabkürzung: LIAS

Version: Jan 2013

Datum der Veröffentlichung: 2013-01-08

Autoren/Editoren: Rambold G. (lead editor); for detailed information see <http://liaslight.lias.net/About/Impressum.html> and <http://liasnames.lias.net/About/Impressum.html>

Taxonomische Abdeckung: Eurotiomycetes - Pyrenulales, Verrucariales, Mycocaliciales
Dothideomycetes - Arthopyrenia, Eopyrenula, Lichenothelia, Mycoporum, Leptorhaphis, Naetrocymbe, Tomasellia, Peridiothelia, Pseudopyrenula, Cyrtidula, Cystocoleus, Kirschsteiniothelia, Mycoglaena, Racodium
Leotiomycetes - Thelocarpaceae, Vezdaaceae
Sordariomycetes - Sarcopyrenia

Englischer Name für diese Gruppe: Lichens

Anzahl von Arten: 8,949

Anzahl von innerartlichen Taxa: 196

Anzahl von Synonymen: 7,283

Anzahl von Vernakularnamen: 1,829

Gesamtzahl von Namen: 18,257

Zusammenfassung: LIAS is a multi-authored information system for the collection and distribution of descriptive and other biodiversity data on lichens and selected groups of non-lichenized ascomycetes. LIAS is a long-term designed project with the final goal to comprise global data – estimates for the total number of lichen species worldwide range between 13.500 and 20.000. As GSD for Lichens LIAS is delivering combined data from LIAS light at <http://liaslight.lias.net> and LIAS names at <http://liasnames.lias.net>.

Organisation: LIAS, Botanische Staatssammlung München, Germany

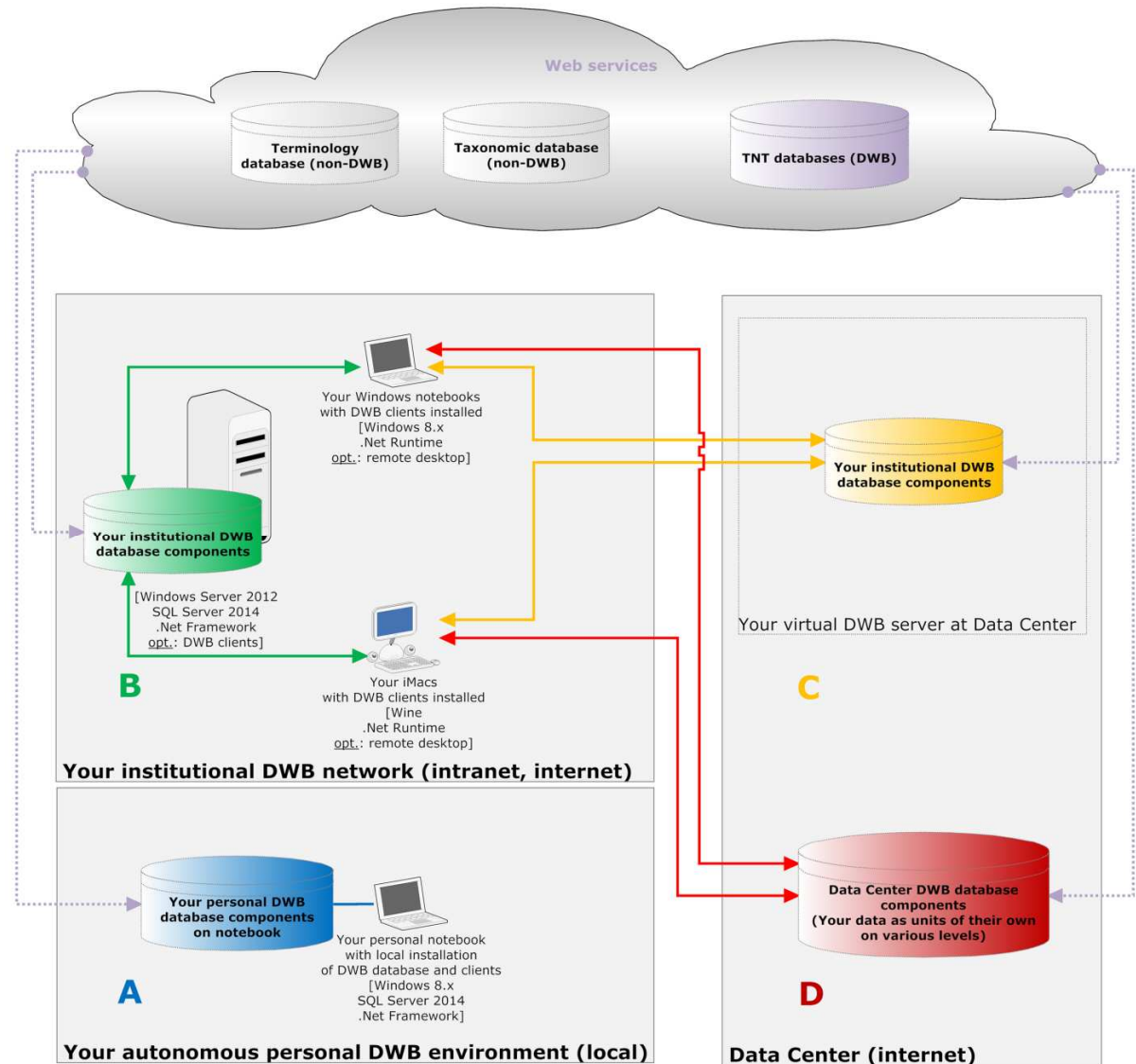
Website: <http://www.lias.net>

Zurück zur letzten Seite | Neue Suche

Annual Checklist Interface v1.8.1 r1397 Entwickelt von ETI Naturalis. Bitte beachten sie – diese Seite benutzt cookies. Wenn sie weiterhin diese Seite nutzen, nehmen wir an, dass Sie der Verwendung zustimmen.

DWB – Alternativen der Installation

- Interoperabilität und Flexibilität
- TNT Cloud/ Server
- Installations-Alternativen A-D
 - Web-basiert
 - Stand-alone (A)



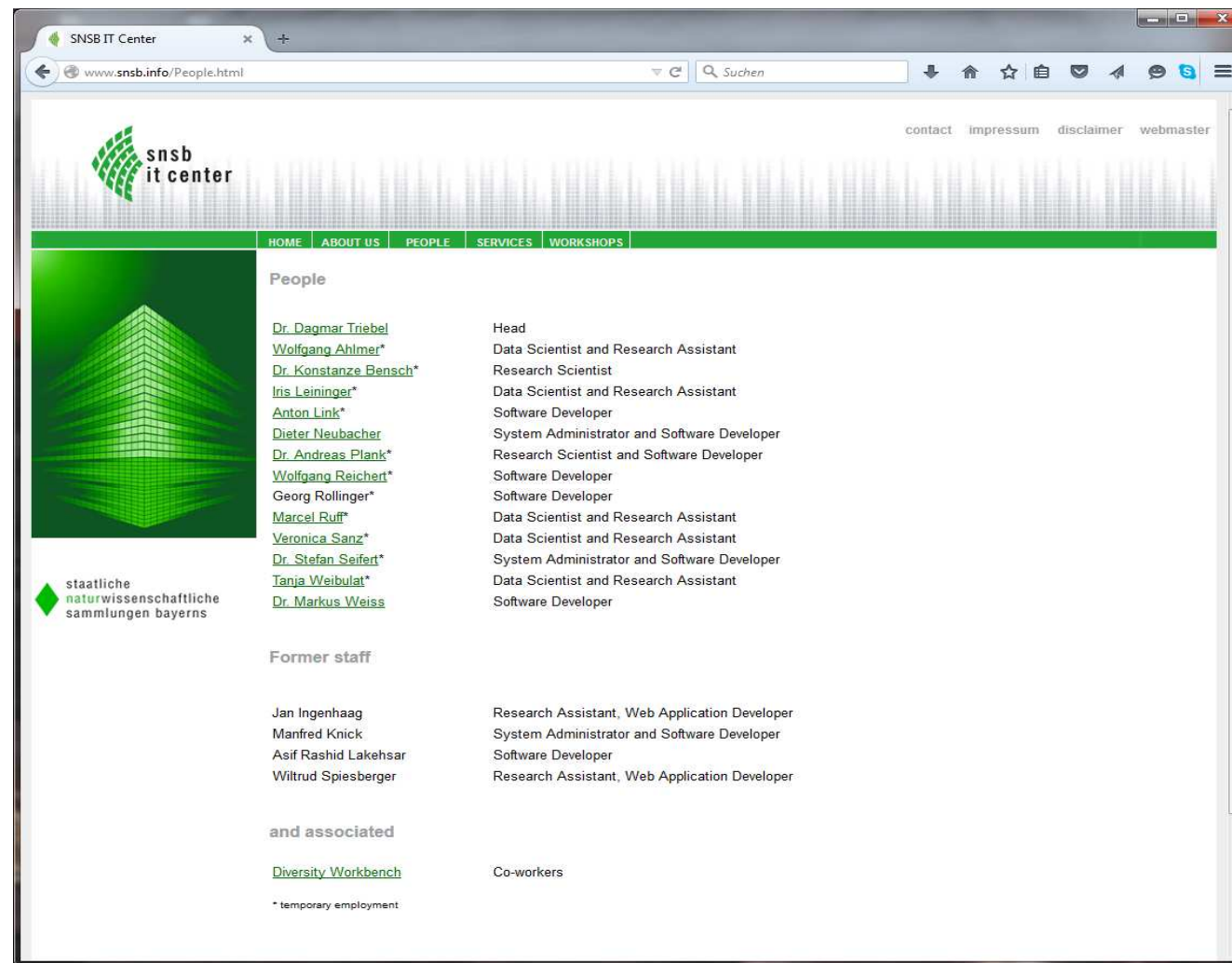
Installation: Mobile Intranet Lösung

- Als Arbeitsumgebung zum Einsatz in Feldstationen ohne Internetzugang
- Als IT Trainingsumgebung für DWB Workshops an Orten mit unsicherer Stromversorgung

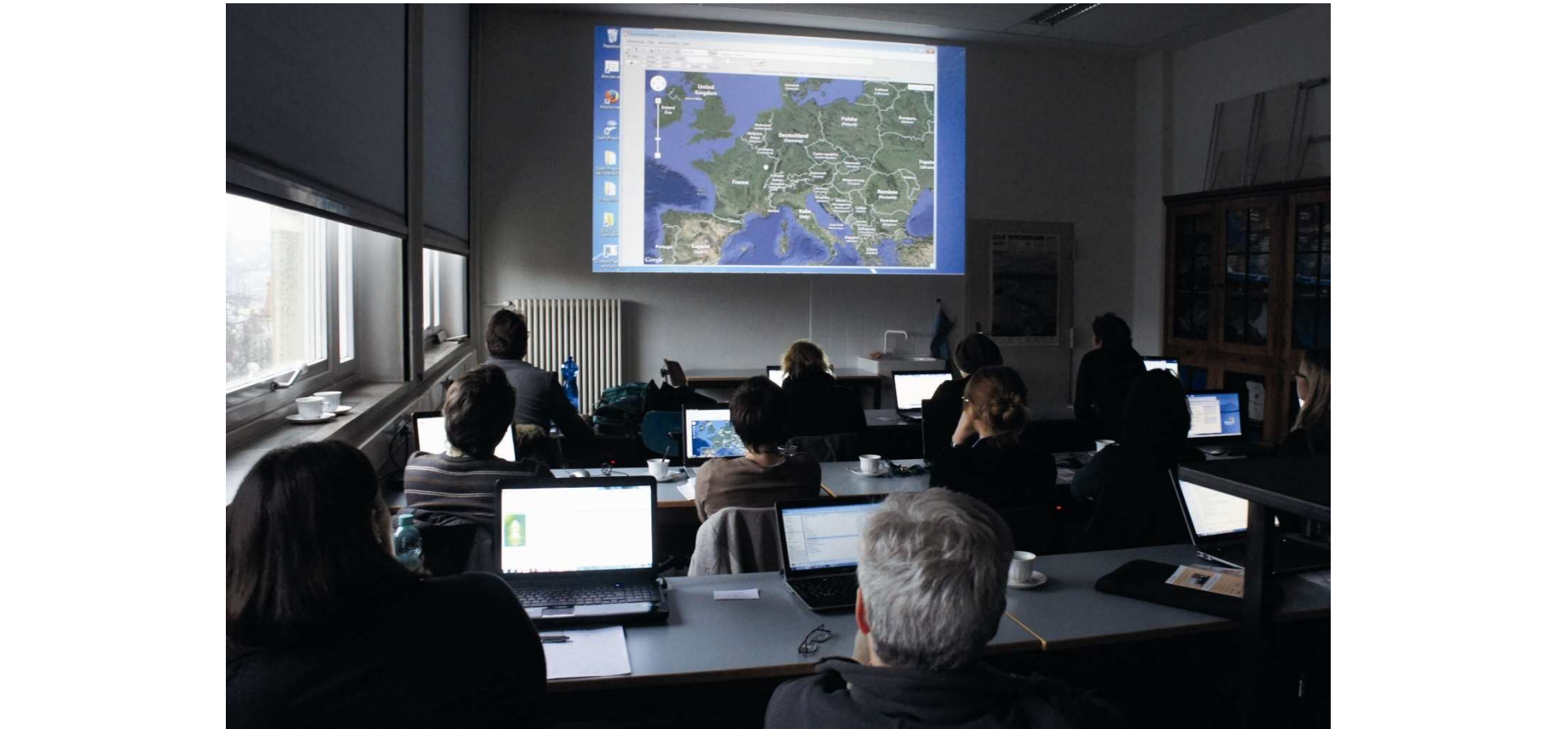
mehr unter http://diversityworkbench.net/Portal/Mobile_intranet_solution_for_DWB



SNSB IT Center



Danke



http://wiki.bayernflora.de/web/Siebenundzwanzigster_Diversity_Workbench_Workshop_am_IT_Zentrum_der_SNSB