

Diversity Workbench

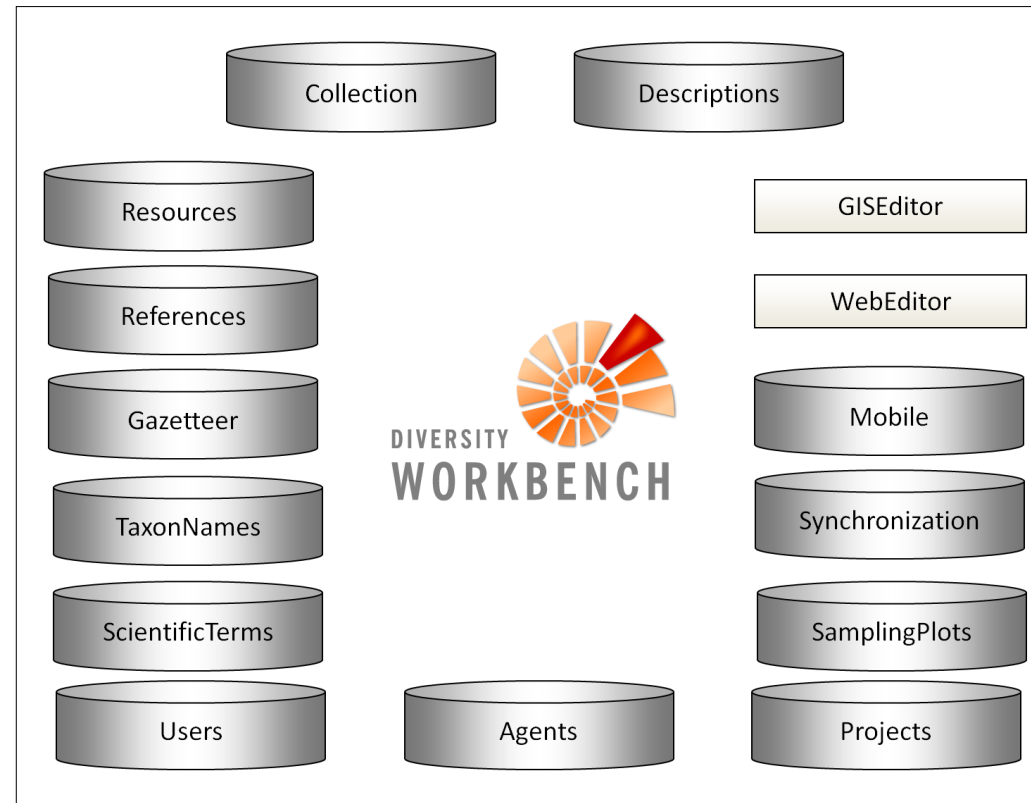
Datenmanagement in Projekten der Global Plants Initiative und der GBIF-Deutschland Knoten

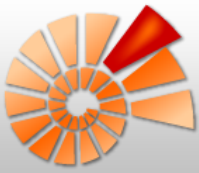
Tanja Weibulat, Konstanze Bensch & Dagmar Triebel



Diversity Workbench Framework

- Seit 1999 Modellierung (ER-Diagramme) und Implementierung
- 13 unabhängige relationale Datenbank-Komponenten
- DWB Namensraum mit ca. 4200 Datenelementen
- Datensätze aus allen organismischen Großgruppen Pflanzen, Algen, Pilze, Wirbeltiere, Insekten und andere Wirbellose, Fossilien





Management von Sammlungsdaten



Management von Sammlungsdaten aus **öffentlichen** Museen, Sammlungen und Herbarien mit der DWB

zoologische und paläontologische Sammlungen in Deutschland: SMNK, SMNS und SNSB (mit BSPG, JME, SAPM, ZSM), ZFMK

Herbarien (Gefäßpflanzen): HOH, M, MSB, REG, STU (=SMNS), TUB

Herbarien (Flechten, Pilze, Moose, Algen): B (=BGBM), GLM, HAL, KR (=SMNK), M, MB JMRC (Kultursammlung)

Herbarien außerhalb Deutschland (Pilze): LE



DFG Resources

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

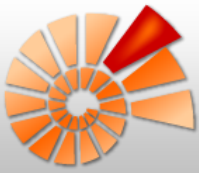
Menzinger Straße 67
80638 München
Bayern
Deutschland
➔ <http://www.snsb.info/>

Universität Bayreuth, DNA-Analytik und Ökoinformatik

Geb. NW1, Universitätsstraße 30
95447 Bayreuth
Bayern
Deutschland
➔ <http://www.daneco.uni-bayreuth.de>

Universität Bayreuth, Lehrstuhl für Angewandte Informatik IV Datenbanken und Informationssysteme

Universitätsstraße 30
95447 Bayreuth
Bayern
Deutschland



DWB Workshops und Training



HOME ABOUT US PEOPLE SERVICES WORKSHOPS

Workshops



www.snsb.info

Nächster Workshop: 14.01.2014

Ort:

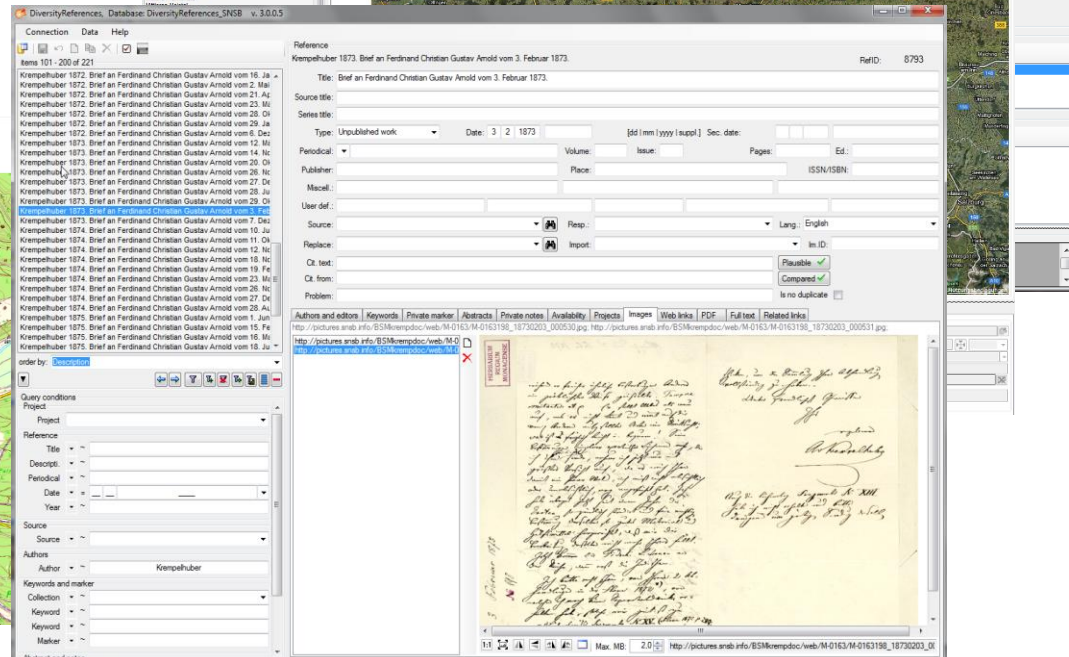
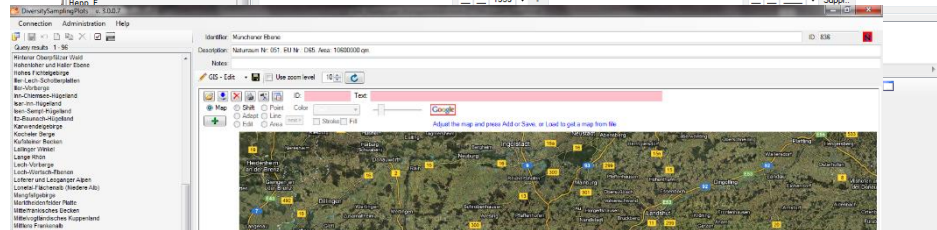
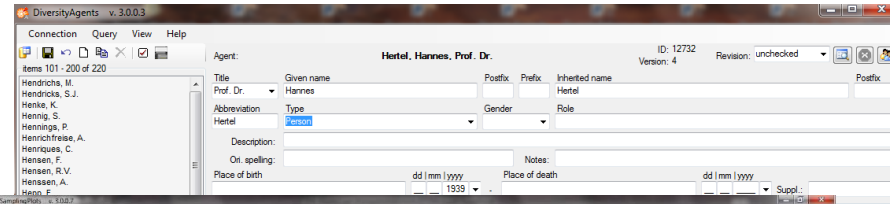
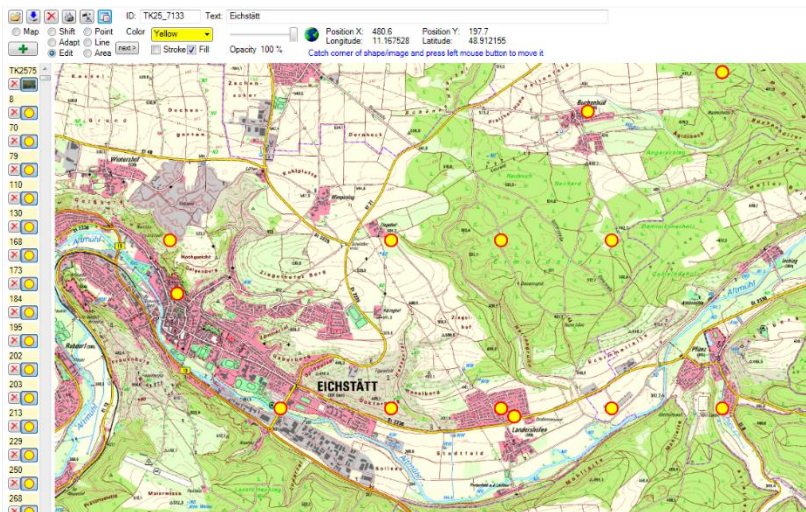
SNSB IT-Zentrum
Menzinger Str. 67
80638 München

staatliche
naturwissenschaftliche
sammlungen bayerns



DiversityWorkbench – Rich Clients

- Datenbank-Design publiziert
- Software frei verfügbar
<http://www.diversityworkbench.net>





DiversityCollection

DiversityCollection v. 3.0.6.20

Connection Grid Query Data Administration Help

Acc. Nr. **Plectocarpon concentricum Ertz, Diederich & Wedin** Specimen ID: **190407** Event: **218704** Version: **8 6** Withhold.: **Mellon**

Query results 1 - 10

- M-0040848
- M-0041412
- M-0042636
- M-0043015
- M-0044927
- M-0044928**
- M-0163590
- M-0163688
- M-0163689
- M-0163774

ordnen nach: Acc. Nr.

Suchkriterien

Event

Coll. Date: ~ ~ ~ ~ ~

Locality: ~ ~ ~ ~ ~

Country: ~ ~ ~ ~ ~

Place

Place: ~ ~ ~ ~ ~

Gazetteer: ~ ~ ~ ~ ~

TK25

TK25: ~ ~ ~ ~ ~

Quadrant: ~ ~ ~ ~ ~

Exsiccata

Exsiccata: ~ ~ ~ ~ ~

Organism

Last ident.: ~ ~ ~ ~ ~

Tax. group: ~ ~ ~ ~ ~

Family: ~ ~ ~ ~ ~

Identification

Presence: ~ ~ ~ ~ ~

Type stat.: ~ ~ ~ ~ ~

Tax. name: ~ ~ ~ ~ ~

Images of the specimen

Unit: ~ ~ ~ ~ ~

Type: photograph = photographic image of a spe

Part: ~ ~ ~ ~ ~

Withhold.: ~ ~ ~ ~ ~

Note: High resolution image IQ180

1:1 ~ ~ ~ ~ ~ Max. MB: 2.0 http: ~ ~ ~ ~ ~

1990/1/16 NEW ZEALAND South Island, Nelson, NW of Ma

Altitude (mNN): 750 m NN

New Zealand, West Coast, South Island, Springs Junction

Coord. WGS84 Long. (EW): 172.183333333333 Lat. (NS): ~ ~ ~ ~ ~

M-0044928

- Pseudocyphellaria homoeophylla (Nyl.) C. W. Dodge
- Pseudocyphellaria homoeophylla (Nyl.) C. W. Dodge
- Plectocarpon concentricum Ertz, Diederich & Wedin**
- Plectocarpon concentricum Ertz, Diederich & Wedin

Wedin, M. (No.: 2710)

M-0044928

- Plectocarpon concentricum Ertz, Diederich & Wedin**
- Plectocarpon concentricum Ertz, Diederich & Wedin
- Pseudocyphellaria homoeophylla (Nyl.) C. W. Dodge

Plectocarpon concentricum Ertz, Diederich & Wedin 228233

Tax. group: fungus No. of units: ~ ~ ~ ~ ~ Only obs ~ ~ ~ ~ ~

Sex: ~ ~ ~ ~ ~ Substr. rel.: ~ ~ ~ ~ ~

Family: Roccellaceae Order: Arthoniales

Identifier: ~ ~ ~ ~ ~ Descript.: ~ ~ ~ ~ ~

Life stage: ~ ~ ~ ~ ~ Circumst.: ~ ~ ~ ~ ~

Colon. part: ~ ~ ~ ~ ~ Note: ~ ~ ~ ~ ~

Identification / name changes

Tax. name: Plectocarpon concentricum Ertz, Diederich & Wedin

Vern. term: ~ ~ ~ ~ ~ Quali.: ~ ~ ~ ~ ~

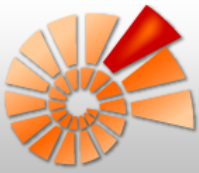
Det.: ~ ~ ~ ~ ~ Category: ~ ~ ~ ~ ~

Type notes: Holotype in UPS Type st.: isotype

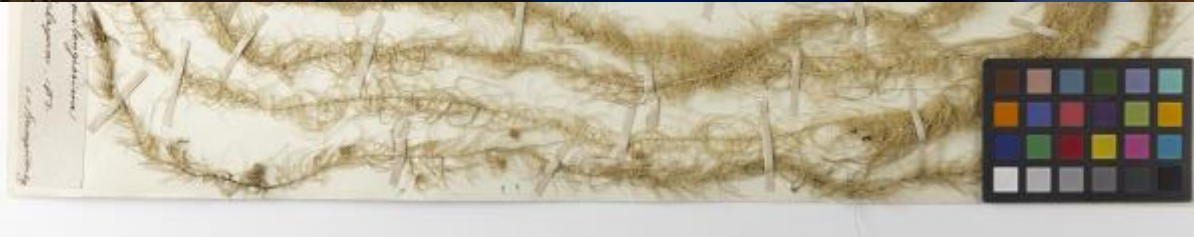
Date: ~ ~ ~ ~ ~ Suppl.: ~ ~ ~ ~ ~ Cat.: ~ ~ ~ ~ ~

Ref.: ~ ~ ~ ~ ~ Details: ~ ~ ~ ~ ~

Note: ~ ~ ~ ~ ~

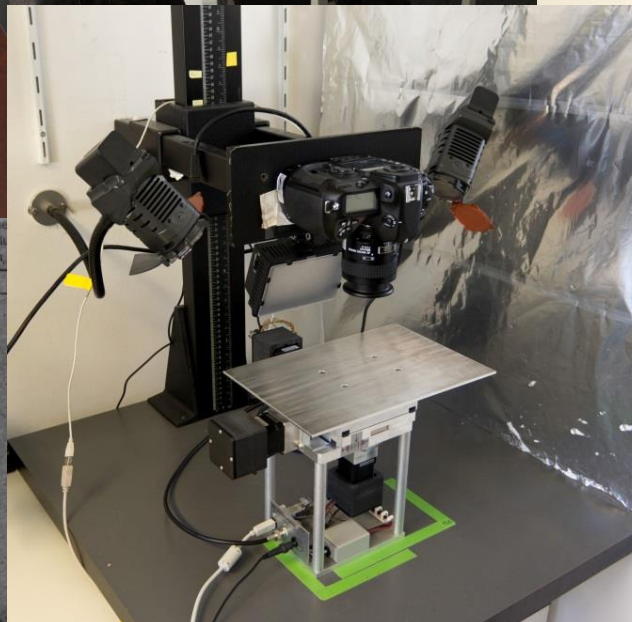


Digitalisierungsstationen





Digitalisierungsstationen



er-Nr. 6789

R. Santesson: FUNGI LICHENICOLI EXSICCATI

389 *Plectocarpon concentricum* Ertz, Diederich & Wedin Isotype

in Ertz, Christnach, Wedin & Diederich, Bibliotheca Lich. 91: 34–36 (2005).

On *Pseudocyphellaria homoeophylla* (thallus).

NEW ZEALAND. South Island, Nelson, NW of Maruia Springs, E of Springs Junction, along Rough Creek Walk. 42°20'S 172°11'E. Alt. 750 m. In mature *Nothofagus fusca* forest, on rotten log.

16.I.1990 leg. Mats Wedin (n. 2710) (Holotype in UPS)



Georeferenzierung

DiversityCollection v. 3.0.6.20

Connection | Grid | Query | Data | Administration | Help

Acc. Nr. **M-0044928** Specimen ID: **190407** Event: **218704** Version: **8 6** Withhold.: **Mellon**

Plectocarpum concentricum Ertz, Diederich & Wedin

Query results 1 - 10

- M-0040848
- M-0041412
- M-0042636
- M-0043015
- M-0044927
- M-0044928**
- M-0163590
- M-0163688
- M-0163689
- M-0163774

ordnen nach: Acc. Nr.

Suchkriterien

Event

Coll. Date

Locality

Country

Place

Place

Gazetteer

TK25

TK25

Quadrant

Exsiccata

Exsiccata

Organism

Last ident.

Tax. group

Family

Identification

Presence

Type stat.

Tax. name

Images of the specimen

1990/1/16 NEW ZEALAND So

Altitude (mNN): 750 m NN

New Zealand, West Coast

Coord. WGS84 Long. (EW)

M-0044928

Pseudocypbellaria h

Pseudocypbellaria h

Plectocarpum co

Plectocarpum co

Wedin, M. (No.: 2710)

M-0044928

Plectocarpum concent

Plectocarpum concent

Pseudocypbellaria hom

DiversityCollection v. 3.0.6.20

Connection | Grid | Query | Data | Administration | Help

Query results 1 - 10

- M-0040848
- M-0041412
- M-0042636
- M-0043015**
- M-0044928
- M-0163590
- M-0163688
- M-0163689
- M-0163774

ordnen nach: Acc. Nr.

Suchkriterien

State

Event

Coll. Date

Locality

Country

Place

Place

Gazetteer

TK25

TK25

Quadrant

Exsiccata

Exsiccata

Organism

Last ident.

Tax. group

Family

Identification

Presence

Type stat.

Distribution map

Specimen ID: **15126** Event: **56973** Version: **7 2** Withhold.: **Mellon**

Distribution

GIS - Edit

Symbol: **Red** Size x: **1.0**

Position X: **0.0** Position Y: **0.0**

Longitude: **109.511719** Latitude: **-31.052934**

Press left mouse button to shift or use slider to zoom working area

Images of the specimen

Altitude (mNN): 670 m NN - 710 m NN

New Zealand, Canterbury, South Island, Banks Penin

Coord. WGS84 Long. (EW): 172.824722290 Lat. (NS)

M-0043015

Placopsis perrugosa (Nyl.) Nyl.

Placopsis perrugosa (Nyl.) Nyl.

Polycoccum perugosae Brackel

Polycoccum perugosae Brackel - holoty

M-0043015

Polycoccum deformans R. Sant. (ined.)

Polycoccum perugosae Brackel

Placopsis perugosa (Nyl.) Nyl.

Collection event

Date: 19 1_ 1985 Suppl.: Category:

No.: Time: T.span:

Ref.:

Country: New Zealand Withhold.:

Notes:

Col.meth.:

Locality

Named area (DiversityGazetteer)

New Zealand, Canterbury, South Island, Banks Peninsula

Accuracy: Distance: Direction: Alt.:

Notes: Date: 12/17 Lat.:

Respons.:



Verknüpfung zwischen DiversityCollection und DiversityTaxonNames

DiversityCollection v. 3.0.6.20

Connection | Grid | Query | Data | Administration | Help

Acc. Nr. **M-0023374** **Thelotrema aemulans** Kremp. **Holotype** Specimen ID: **453474** Event: **320080** Version: **9 6** Withhold.

Query results 1 - 4

- M-0023372
- M-0023373
- M-0023374**
- M-0034671

Images of the specimen

Unit: Type: photo Part: Withhold.: Note: High

ordnen nach: Acc. Nr.

Suchkriterien

- Place
- Gazetteer
- TK25
- TK25
- Quadrant
- Exsiccata
- Exsiccata
- Organism
- Last ident. ~ trema lepad
- Tax.group =
- Family ~
- Identification
- Presence
- Type stat. =
- Tax. name ~
- Substrate
- Taxon ~
- Collector
- Collector ~
- Storage

Max. MB: 2.0 http:

DiversityTaxonNames (DiversityTaxonNames_Fungi) Server: 141.84.65.107 User: SchubertKonstanze

Database: DiversityTaxonNames_Fungi

Query conditions

Project = LIASNames

Taxonomic name

Name ~ thelotrema a

Genus ~

Rank =

Status =

Authors

Bas. auth. ~

Comb. aut. ~

Revision

Level =

Query results 1 - 22

- Thelotrema Ach.
- = Thelotrema actinotum Tuck.
- Thelotrema adjectum Nyl.
- = Thelotrema aemulans Kremp.**
- Thelotrema africanum (Hale) Hale
- Thelotrema albidopallens Nyl.
- = Thelotrema albidulum Nyl.
- = Thelotrema albidum Nyl.
- = Thelotrema albomaculatum Sipman
- Thelotrema albo-olivaceum Vain.
- = Thelotrema albulum Nyl.
- = Thelotrema allosporium Nyl.
- = Thelotrema allosporoides Nyl.
- = Thelotrema anamorphoides Nyl.
- = Thelotrema andamanicum Nyl.
- = Thelotrema antoninii Purvis & P. James
- = Thelotrema arecae Vain.
- = Thelotrema argenteum Müll. Arg.
- = Thelotrema asiaticum Vain.
- = Thelotrema auberianoides Nyl.
- = Thelotrema auratum Tuck.
- = Thelotrema australiense Müll. Arg.

ID: 1036816

Taxonomic name: Thelotrema aemulans Kremp.

Basionym: Thelotrema aemulans Kremp.

Rank: sp.

Genus: Thelotrema

Infrageneric epithet:

Species epithet: aemulans

Infraspecific epithet:

Authors: Kremp.

Nomenclatural status:

Publication: Verh. K. K. Zool.-Bot. Ges. Wien. 26, 453. 1876

Valid or ignored: Valid name

Hierarchy ranks

- Phylum (= division): Ascomycota Caval.-Sm.
- Subphylum (= subdivision): Pezizomycotina O. E. Erikss. & Winka
- Class: Lecanoromycetes
- Subclass: Ostropomycetidae V. Reeb, Lutzoni & Cl. Roux
- Order: Ostropales Nannf.
- Family: Graphidaceae Dumort.
- Genus: Thelotrema Ach.

Family: Graphidaceae

Order: Ostropales

Hierarchy: Ascomycota | Pezizomycotina | Lecanoromycetes |

Synonym: Thelotrema lepadinum (Ach.) Ach.

order by: Taxonomic Name indicated

Cancel OK

DiversityTaxonNames

Nova Zeelandica

Neuseeland

M-0023374

Thelotrema lepadinum (Ach.) Ach.

Thelotrema lepadinum (Ach.) Ach. [rev. by M]

Thelotrema aemulans Kremp. - Holotype [res]

Knight, C. (No.: 12)

M-0023372. isotype

Neuseeland

Neuseeland

M-0023374

Thelotrema lepadinum (Ach.) Ach.

Thelotrema lepadinum (Ach.) Ach.



DiversityTaxonNames



DiversityTaxonNames, Database: DiversityTaxonNames_Fungi v. 3.0.2.7

Connection Query Lists Data References Help

Taxon: Thelotrema aemulans Kremp. ID: 1036816 Vers.: 6 Ignore: Withhold reason: Revision:

Taxonomic name
Genus/supragen. Species epithet Aut.: Bas. auth. Comb. auth. Publ. auth. Sanct.
Thelotrema aemulans Kremp.

Rank: species Ori. orthogr.: Ana-/Teleomorph: Notes: Is hybrid ☐

Nomenclature
Code: Status: Creation type: Comment:

Taxonomic reference / Protologue
Verh. K. K. Zool.-Bot. Ges. Wien
Volume Issue Pages Details D. M. Y. of P. Suppl.
26 453 1876
Use ref.: on P.:
Protol.: <http://www.bio>

Hierarchy
Sup.tax.: Thelotrema Ach. ☐ Uncert. ☐ Ignore
Ref.: Det.:
Ascomycota Caval.-Sm.
Peizomycotina O. E. Erikss. & Winka
Lecanoromycetes
Ostropomycetidae V. Reeb, Lutzoni & Cl. Roux
Ostropales Nannf.
Graphidaceae Dumort.
Thelotrema Ach.
Thelotrema aemulans Kremp.

Typification **Geography** **Common names** **Resources** **Projects**
Reference: Reference for typification 1
Typification: holotype (M-0023374), isotype (M-0 Details:
Substrate: Locality:
Sp. notes: M-0023372, M-0023373, M-002337 Notes:
1 of 1

Synonymy **Taxon lists** **Specimen**
☒ Restrict to type specimen ☒ Restrict to local server
Specimens as defined in the module DiversityCollection
M-0023372
M-0023374
M-0034671
M-0023373
Holotype

Synonymy overview **External data sources**
Thelotrema lepadinum (Ach.) Ach., in Acharius, Method. Lich.: 132 (1803)
Lichen lepadinus Ach., Lich. Suec. Prodr.: 30 (1798)
Thelotrema aemulans Kremp., Verh. K. K. Zool.-Bot. Ges. Wien 26: 453 (1876)
Leptotrema aemulans (Kremp.) Müll. Arg., Bull. Herb. Boissier 2, append. 1: 75 (1894)
Thelotrema flavescens Darb., Wiss. Ergebn. Schwed. Südpolarexped. 4: 6 (1912)
Thelotrema obconicum Räsänen, Suom. Elain-ja Kasvit. Seuran Van. Tiedon. Pöytäkirjat 3: 184 (1949)

DiversityTaxonNames, Database: DiversityTaxonNames_Fungi v. 3.0.2.7

Connection Query Lists Data References Help

Taxon: Thelotrema aemulans Kremp. ID: 1036816 Vers.: 6 Ignore: Withhold reason: Revision:

Taxonomic name
Genus/supragen. Species epithet Aut.: Bas. auth. Comb. auth. Publ. auth. Sanct.
Thelotrema aemulans Kremp.

Rank: species Ori. orthogr.: Ana-/Teleomorph: Notes: Is hybrid ☐

Nomenclature
Code: Status: Creation type: Comment:

Taxonomic reference / Protologue
Verh. K. K. Zool.-Bot. Ges. Wien
Volume Issue Pages Details D. M. Y. of P. Suppl.
26 453 1876
Use ref.: on P.:
Protol.: <http://www.bio>

Hierarchy
Sup.tax.: Thelotrema Ach. ☐ Uncert. ☐ Ignore
Ref.: Det.:
Ascomycota Caval.-Sm.
Peizomycotina O. E. Erikss. & Winka
Lecanoromycetes
Ostropomycetidae V. Reeb, Lutzoni & Cl. Roux
Ostropales Nannf.
Graphidaceae Dumort.
Thelotrema Ach.
Thelotrema aemulans Kremp.

Typification **Geography** **Common names** **Resources** **Projects**
Reference: Reference for typification 1
Typification: holotype (M-0023374), isotype (M-0 Details:
Substrate: Locality:
Sp. notes: M-0023372, M-0023373, M-002337 Notes:
1 of 1

Synonymy **Taxon lists** **Specimen**
☒ Restrict to type specimen ☒ Restrict to local server
Specimens as defined in the module DiversityCollection
M-0023372
M-0023374
M-0034671
M-0023373
Holotype

Synonymy overview **External data sources**
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Leptotrema aemulans (Kremp.) Müll. Arg., Bull. Herb. Boissier 2, append. 1: 75 (1894)
Thelotrema flavescens Darb., Wiss. Ergebn. Schwed. Südpolarexped. 4: 6 (1912)
Thelotrema obconicum Räsänen, Suom. Elain-ja Kasvit. Seuran Van. Tiedon. Pöytäkirjat 3: 184 (1949)



Verknüpfung zwischen DiversityCollection und DiversityExsiccatae

The image displays a workflow for linking specimen data between two databases. On the left, the **DiversityCollection v. 3.0.6.13** application window shows a list of specimens. The specimen **M-0013463** is selected, and its details are visible in the center pane. The specimen is identified as **Lecidella turgidula var. atroviridis Arnold** (Isotectotype). The right pane shows a tree view of the specimen's history, including its collection by **Arnold, F.** in 1964/10. The bottom pane shows the specimen's location and event details.

On the right, the **DiversityExsiccatae** application window is open, showing the search results for the specimen. The search conditions are set to **Arnold, F.C.G.** and the group of organisms is **any group**. The search results show the specimen's details, including its taxonomic classification (Lecanoraceae, Ascomycota) and its location (Germany, Bavaria, Kreis Eichstätt, Eichstätt).

The **DiversityExsiccatae** window also displays a list of specimens, including **M-0013463** and **M-0013465**. The specimen **M-0013463** is highlighted, and its details are shown in the right pane. The specimen is identified as **Biatra ocelliformis (Nyl.) Arnold**.

The **DiversityExsiccatae** window also displays a list of specimens, including **M-0013463** and **M-0013465**. The specimen **M-0013463** is highlighted, and its details are shown in the right pane. The specimen is identified as **Biatra ocelliformis (Nyl.) Arnold**.



Daten Import – Import Wizard

DiversityCollection v. 3.0.4.4

Connection Grid Query Data Administration Help

Context: General

Items 201 - 300

M-0140350
M-0140351
M-0140352
M-0140353
M-0140354
M-0140355
M-0140356
M-0140357
M-0140358
M-0140359
M-0140360

order by: Acc. Nr.

Query conditions

Projects

Collection specimen

Acc. Nr. sp.

Depositor

Depos. Ac.

Orig. notes

Collection

Collection event

Coll. Date

Locality

Localisation of the

Place

Gazetteer

TK25

Quadrant

Exsiccata

Exsiccata

Number

31097

Organism

Table: CollectionSpecimen

CollectionSpecimen
AccessionNumber

Access-Daten Sa...

ZSM-No

ASuF

40033

31184

31356

35822

31097

Back

Import wizard

Series

Collection event

Specimen

Relations

Collectors

Organisms

Parts

Images

Organisms

Organism 1

Identifications

Identification 1

Taxonomic name

2 Taxonomic name

3 Taxonomic name

Vernacular term

Table: Identification1

Column: TaxonomicName

Identification1
TaxonomicName

Identification1
TaxonomicName

Family

Subfamily

Genus

Species

Cichlidae

Sarotherodon

cf. gallaeus

Cyprinidae

Leuciscinae

Rutilus

rutilus

Cyprinidae

Gobioninae

Romanogobio

vladykovi

Cyprinidae

Vimba

vimba

Cyprinidae

Tinca

tinca

Back

Transformation

Define the transformation for column CollectorsName in table CollectionEvent.

Split Transform

Position: Regular expression

1

Splitter: Replace by

&

Test the transformation

Source

F. Wicker &

A. Kolbinger

B. Ott, Dr. E

M. Schubert

D. Schleuter

Cancel

Transformation

Define the transformation for column CollectorsName in table CollectionEvent.

Split Transform

Position: Regular expression

2

Splitter: Replace by

&

Test the transformation

Source

F. Wicker &

A. Kolbinger

B. Ott, Dr. E

M. Schubert

D. Schleuter

Cancel

Transformation

Define the transformation settings for column CollectionMonth in table CollectionEvent.

Split Transform

Position: Regular expression

2

Splitter: Replace by

&

Test the transformation settings

Source

CollectionMonth

OK

Source	CollectionMonth	OK
24.IX.2008	9	☒
20.VII.2004	7	☒
12.V.2004	5	☒
05.VII.2007	7	☒
25.V.2004	5	☒
2004		☐
21.VII.2004	7	☒

Cancel

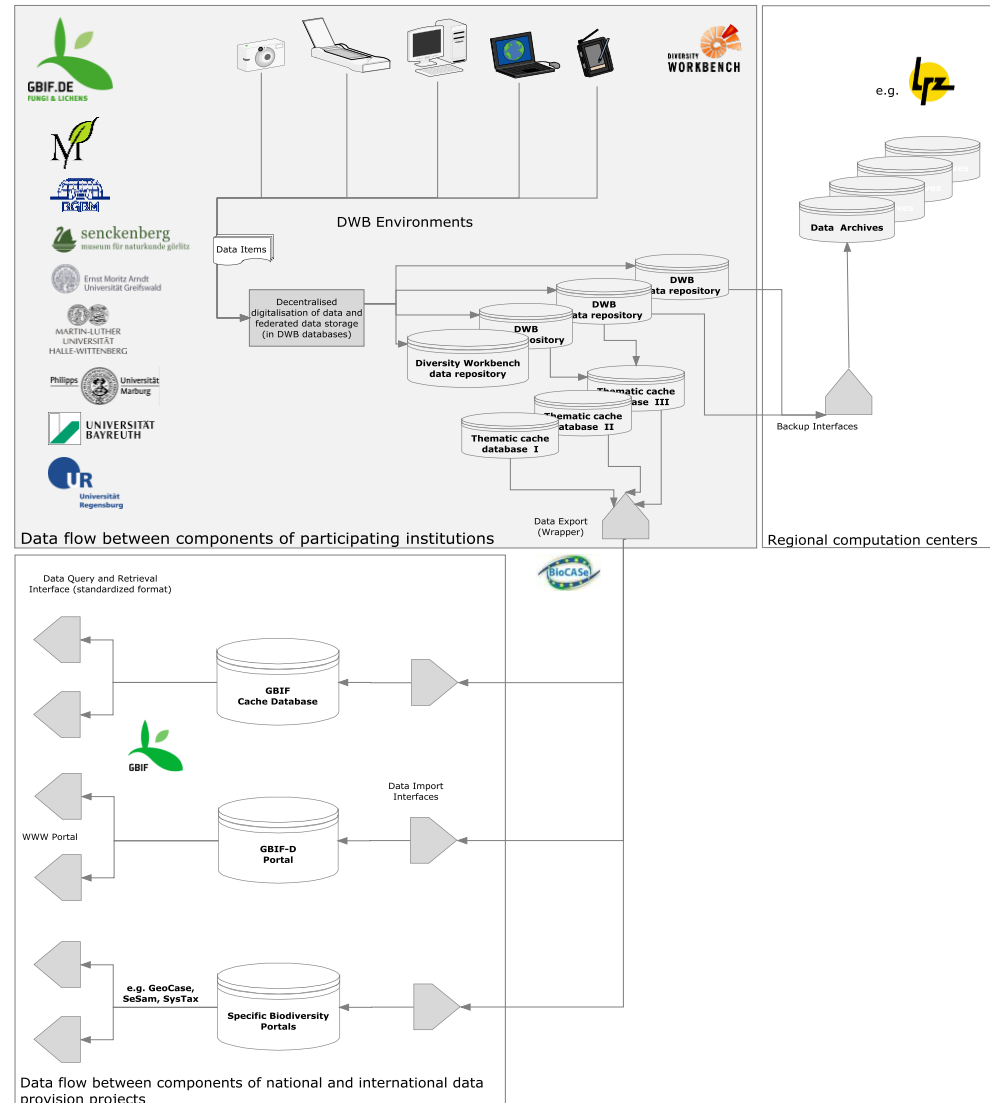
OK

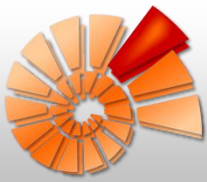


Datenmanagement und Datenfluss nach GBIF



- Anbindung von eigenen und gehosteten Datenbeständen an GBIF
- Infrastruktur für verschiedene Herbarien, z. B. B, GLM, HAL, KR, LE, M, MB, MSB





Export nach GBIF international



```
<?xml version="1.0" encoding="UTF-8"?>
<abcbd:DataSets xmlns:abcbd="http://www.tdwg.org/schemas/abcbd/2.06">
  <abcbd:DataSet>
    <abcbd:TechnicalContacts>
      <abcbd:TechnicalContact>
        <abcbd:Name>Dieter Neubacher</abcbd:Name>
        <abcbd:Email>neubacher@bsm.mwn.de</abcbd:Email>
      </abcbd:TechnicalContact>
    </abcbd:TechnicalContacts>
    <abcbd:ContentContacts>
      <abcbd:ContentContact>
        <abcbd:Name>Dagmar Triebel</abcbd:Name>
        <abcbd:Email>triebel@bsm.mwn.de</abcbd:Email>
      </abcbd:ContentContact>
    </abcbd:ContentContacts>
    <abcbd:Metadata>
      <abcbd:Description>
        <abcbd:Representation abcbd:language="en">
          <abcbd:Title>The Fungal Collection at the Botanische Staatssammlung München</abcbd:Title>
          <abcbd:Details>http://www.botanischestaatssammlung.de/DatabaseClients/BSMfungicoll/About.html</abcbd:Details>
          <abcbd:URI>http://www.botanischestaatssammlung.de/DatabaseClients/BSMfungicoll/About.html</abcbd:URI>
        </abcbd:Representation>
        <abcbd:Description>
          <abcbd:RevisionData>
            <abcbd:DateModified>04.07.2012</abcbd:DateModified>
          </abcbd:RevisionData>
          <abcbd:Owners>
            <abcbd:Owner>
              <abcbd:Person>
                <abcbd:FullName>Dagmar Triebel</abcbd:FullName>
              </abcbd:Person>
            </abcbd:Owner>
          </abcbd:Owners>
          <abcbd:EmailAddresses>
            <abcbd:EmailAddress>triebel@bsm.mwn.de</abcbd:EmailAddress>
          </abcbd:EmailAddresses>
          <abcbd:URIs>
            <abcbd:URL>http://www.botanischestaatssammlung.de/</abcbd:URL>
            <abcbd:LogoURI>http://www.botanischestaatssammlung.de/grafik/bslogo.jpg</abcbd:LogoURI>
          </abcbd:URIs>
          <abcbd:IPRSStatements>
            <abcbd:Copyrights>
              <abcbd:Copyright abcbd:language="en">
                <abcbd:Text>© Botanische Staatssammlung München</abcbd:Text>
                <abcbd:URI>http://www.botanischestaatssammlung.de/DatabaseClients/BSMfungicoll/About.html</abcbd:URI>
              </abcbd:Copyright>
            </abcbd:Copyrights>
            <abcbd:Licenses>
              <abcbd:License abcbd:language="en">
                <abcbd:Text>http://www.snsb.info/Disclaimer.html</abcbd:Text>
                <abcbd:URI>http://www.snsb.info/Disclaimer.html</abcbd:URI>
              </abcbd:License>
            </abcbd:Licenses>
          </abcbd:IPRSStatements>
        </abcbd:Description>
      </abcbd:Metadata>
    </abcbd:ContentContacts>
  </abcbd:DataSet>
</abcbd:DataSets>
```

xml

ABCD
→
Schema

Part of the GBIF-D Project

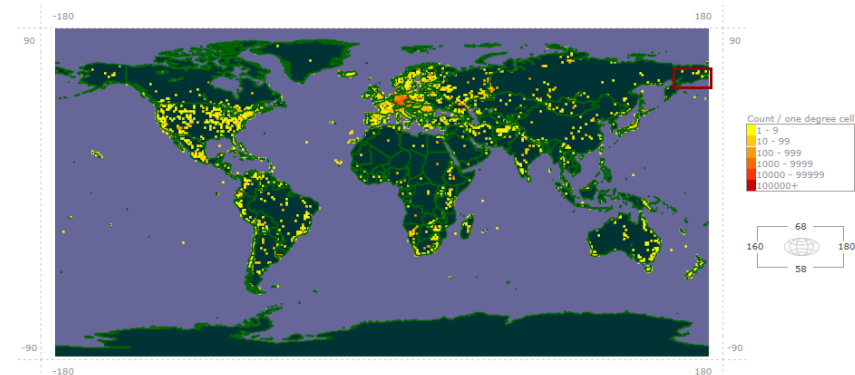


Data Publisher: Staatliche Naturwissenschaftliche Sammlungen Bayerns

Actions for Staatliche Naturwissenschaftliche Sammlungen Bayerns

Explore: Occurrences
Download: Darwin Core records One-degree cell density overlay for Google Earth Placemarks for Google Earth (limit 10,000)

Occurrence overview



Beta: GBIF Open Geospatial Consortium services
Disclaimer: This map only shows records with coordinates (302.915 records from a total of 413.323 records). Maps depict density of data registered within the GBIF network index and not necessarily true species occurrence density gradients. It includes records from all datasets shared by this data publisher.

Indexed data

Datasets:	33
Occurrences records indexed:	413.323
Occurrences with coordinates:	302.915

- Insgesamt ca. 410.000 Datensätze; davon ca. 300.000 georeferenziert
- Aus dem Münchner Herbar ca. 120.000 Datensätze; davon 79.000 georeferenziert



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All Collector (Arnold, F.) AND PlantNameAuthor:Arnold AND Country:Germany

Advanced search

Herbarium

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Filed as *Aspicilia grisea* Arnold [family MEGASPORACEAE]

Collector Arnold, F., #s.n.
Collection date 1888/8/10
Country Germany
Herbarium M, M0064057



Holotype of *Bilimbia marginata* Arnold [family PILOCARPACEAE]

Collector Arnold, F., #s.n.
Collection date 1864/9
Country Germany
Herbarium M, M0012883



Holotype of *Lecidea contigua* f. *alpina* Hepp ex Arnold [family LECIDEACEAE]

Collector Arnold, F., #s.n.
Collection date 1869/8/14
Country Germany
Herbarium M, M0033782



Holotype of *Lecidella aemulans* Arnold [family LECANORACEAE]

Collector Arnold, F., #s.n.
Collection date 1871/9
Country Germany
Herbarium M, M0061016



Holotype of *Litholeia chlorotica* f. *calcarea* Arnold: nom. nud. [family VERRUCARIACEAE]

Collector Arnold, F., #s.n.
Collection date 1858/3

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Export nach JSTOR Global Plants

Datenexport aus DiversityCollection über Data/Export/XML/GPI

The screenshot displays the DiversityCollection v. 3.0.6.20 software interface. The main window shows a list of specimens, with 'M-0023645' selected. The specimen details for 'M-0023645' are displayed, including the name 'Parmelia subcaperata Kremp. Holotype', ID '454185', and collection date '320791'. The 'Export for the Global Plant Initiative / JSTOR' dialog box is open, showing the export configuration. The 'Institution' is 'Botanische Staatssammlung München', and the 'Code' is 'M'. The 'Names' section is set to 'Export types and last identification'. The 'Type notes' section is set to 'Export type notes (attach to type status)'. The 'Restriction for notes (separator = |)' is set to '?'. The 'Include additional notes' checkbox is checked. The 'Start export' button is visible. Below the 'Start export' button, a list of 193 errors is displayed, including 'Accession number: M-0025044', 'Altitude notes not exported: Source: ws.geonames.org (Shuttle Radar Topography Mission)', and 'Accession number: M-0102639'. The 'Messages' section shows a list of messages, including 'Accession number: M-0086536' and 'in Notes replaced by "'. A warning message is displayed: 'Das Anzeigen aktiver Inhalte, die auf den Computer zugreifen können, wurde für diese Datei aus Sicherheitsgründen eingeschränkt. Klicken Sie hier, um Optionen anzuzeigen...'. The XML output is shown in the bottom pane, starting with the declaration: `<?xml version="1.0" encoding="utf-8" ?>`. The XML structure includes a `<DataSet>` element with a `xmlns:xsi` attribute pointing to `http://plants.jstor.org/XSD/AfricanTypesv2.xsd`. The `<InstitutionCode>` is 'M', and the `<InstitutionName>` is 'Botanische Staatssammlung München, München'. The `<DateSupplied>` is '2013-10-16', and the `<PersonName>` is 'SchubertKonstanze'. The `<UnitID>` is 'M0023645', and the `<DateLastModified>` is '2013-07-05'. The `<Identification StoredUnderName>` is 'true'. The 'Export file' path is 'C:\DiversityWorkbench_64bit\DiversityCollection_3_0_6_19_k\DiversityCollection_3_0_6_19_k\GPlexport_20131016_094850.XML'.



Export nach JSTOR Global Plants



Global Plants

```
<?xml version="1.0" encoding="utf-8" ?>
- <DataSet xsi:noNamespaceSchemaLocation="http://plants.jstor.org/XSD/AfricanTypesv2.xsd" xmlns:xsi="http://www.
  <InstitutionCode>M</InstitutionCode>
  <InstitutionName>Botanische Staatssammlung München, München</InstitutionName>
  <DateSupplied>2012-03-15</DateSupplied>
  <PersonName>Schubert, Konstanze (München)</PersonName>
- <Unit>
  <UnitID>M0012279</UnitID>
  <DateLastModified>2012-02-24</DateLastModified>
  <Identification StoredUnderName="true">
    <Family>THELENELLACEAE</Family>
    <Genus>Thelenella</Genus>
    <Species>cinerascens</Species>
    <Author>(Vain.) R. C. Harris</Author>
    <Identifier>Not on Sheet</Identifier>
  <IdentificationDate>
    <OtherText>Not on Sheet</OtherText>
  </IdentificationDate>
  </Identification>
- <Identification StoredUnderName="false">
  <Family>THELENELLACEAE</Family>
  <Genus>Aspidothelium</Genus>
  <Species>cinerascens</Species>
  <Author>Vain.</Author>
  <Identifier>Hertel, H.</Identifier>
  <IdentificationDate>
    <StartDay>26</StartDay>
    <StartMonth>03</StartMonth>
    <StartYear>1999</StartYear>
  </IdentificationDate>
  <TypeStatus>Isotype</TypeStatus>
  </Identification>
  <Collectors>Vainio, E.A.</Collectors>
  <CollectorNumber>s.n.</CollectorNumber>
- <CollectionDate>
  <StartYear>1885</StartYear>
  </CollectionDate>
  <CountryName>Brazil</CountryName>
  <ISO2Letter>BR</ISO2Letter>
  <Locality>[Brasilien,] Prov. Rio de Janeiro</Locality>
</Unit>
- <Unit>
  <UnitID>M0012294</UnitID>
  <DateLastModified>2012-03-07</DateLastModified>
  <Identification StoredUnderName="true">
    <Family>GOMPHILLACEAE</Family>
    <Genus>Asterothyrium</Genus>
    <Species>argenteum</Species>
    <Author>Müll. Arg.</Author>
    <Identifier>Hertel, H.</Identifier>
  <IdentificationDate>
    <StartDay>15</StartDay>
    <StartMonth>01</StartMonth>
```

xml

GPI

Schema



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Abelia serrata



Isolectotype of Linnaea buchwaldii Graebn. [family CAPRIFOLIACEAE]
Collector Maximowicz, C.J., #s.n.
Collection date 1863
Country Japan
Herbarium M, M0189554

Abelmoschus moschatus



Filed as Abelmoschus moschatus subsp. tuberosus (Span.) Borss.Waalk. [family MALVACEAE]
Collector Hosseus, C.C., #727 a
Collection date 1905/12/22
Country Thailand
Herbarium M, M0168889

Abies firma



Lectotype of Abies bifida Siebold & Zucc. [family PINACEAE]
Collector Siebold, P.F. von, #s.n.
Collection date 1842
Country Japan
Herbarium M, M0120952



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