- Index of Exsiccatae -

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Exsiccateae are "published, uniform, numbered sets of preserved specimens distributed with printed labels" (Pfister 1985).

*The latin term: “exsiccateae, ae” is feminine and used for a set of dried published (!) specimens, whereas the term “exsiccatum, i” is neutral and used for dried specimens in general*
More than 2,100 series known

The eldest started anno 1732: J. B. Ehrhart, vivum recens collectum .... (Ulm)

Some herbaria house the historical series in their original condition.

Most herbaria divided the original volumes by cutting and distributed the specimens in their collections.
• Some exsiccatae are distributed with only few numbers; some other series are famous with thousands of numbers published by one herbarium; e.g., with similar title over more than 80 years (s. example Krypt. Exs.)
• Some editors were highly productive.

• R. F. Hohenacker, e.g., published 34 series with more than 18,000 numbers between 1831 and 1875
The exsiccatal system is most relevant as reference system in botany and mycology.

It has explicit rules in the ICN.

More than 60 series are running and are part of the herbarium exchange programs of major herbaria.

Some series are distributed in an edition of < 10 exemplars, very few with ~ 100 exemplars (i.e. ~ 100 duplicates per sample number).

Estimated **20 million specimens** could be assigned to exsiccatal series.
**DiversityExsiccatae (DE)**

- Is a module of the Diversity Workbench (DWB) database system (www.diversityworkbench.net) and part of the DWB cloud services.

- IndExs is the browser-based web interface for search and download of content of DiversityExsiccatae.
DiversityExsiccateae and IndExs in numbers

- 2,173 series, 1,490 with images
- 916 spermatophytes
- 726 fungi, lichens
- 530 bryophytes
- Other categories (algae, pteridophytes, zooecidia, mines)
IndExs: bibliography of exsiccate (=exsiccatal series)

- Editors
- Title and standard abbreviation
- Editing institution/publisher
- Time span and numbers
- Categorization
- Stable and Persistent Exsiccate ID
- Preceding and superseding series
- Exemplary image(s)
- References
IndExs Services

IndExs

- SOAP Web Service (since 2007)
- REST Web Service (in planning stage)
- Service for use in DWB network for collection digitisation

IndExs – Web Service

The IndExs Web service is a web program that enables developers to access IndExs via the Simple Object Access Protocol (SOAP). Programmers may write software applications that access IndExs using any SOAP development tool.

The service has been tested with

- SOAP Message Console Eclipse Plugin
- Java (Apache Axis 2.0)
- SOAP Monitor
- C# and Visual Basic in MS Visual Studio .NET.

Service WSDL: http://www.snsb.info/axis2/services/IndExsService?wsdl
Service EPR: http://www.snsb.info/axis2/services/IndExsService
Service REST epr: http://www.snsb.info/axis2/rest/IndExsService

Service Description: IndExsService

Service Status: Active
Available Operations

- SearchExsiccateaeEditors
- SearchExsiccateaeTitles
- SearchByExsiccateaID
Collection digitisation
Ongoing cooperations

- Cooperation with **41** herbaria for images

Ongoing cooperations

- **Symbiota** Portals of Consortium of North American Herbaria, iDigBio repository
Cooperation with CETAF, DiSSCo, EU projects Horizon 2020

- Extension of technical services, e.g. REST, for more comfortable access to the stable IndExs exsiccatae identifiers
- Inclusion of new services, e.g. by direct linking of references (..BHL) and original schedae publications
- Continuation of enrichment and improvement of bibliographic content; new series
- Continuation of imaging efforts together with CETAF institutions (for more than 600 series images are lacking!)

Exsiccate are an European invention!
Thank you!

http://indexs.botanischestaatssammlung.de/