SNSB and Flora Silvae Gabretae

Introduction for the Kick-off meeting
SNSB = Staatliche Naturwissenschaftliche Sammlungen Bayerns; Bavarian Natural History Collections

is the umbrella organisation for

- Botanische Staatssammlung München (herbarium M)
- SNSB IT Center

and acts as administrative partner for the EU project Interreg 5 A „Flora Silvae Gabretae“

PI: Dr. Dagmar Triebel

to be employed starting with 1.2019:

Wolfgang Diewald (half-time)

and to be employed: N.N. (IT, half-time)

Financial Administration: Ulla Biener-Miller
coordinated at SNSB, ongoing until 2020, financially supported by the Bavarian Environmental Agency (LfU)

- Lead: Dr. Andreas Fleischmann, several co-workers

https://wiki.bayernflora.de/web/Aktualisierung_der_Roten_Liste_der_Gefäßpflanzen_Bayerns
BFL is a long-term initiative, IT hosted by the SNSB

- mobilise and organise data and information on vascular plants in Bavaria
- analyse data, describe the recent flora and study the influence of land use and climatic factors on flora changes over the time
- long-term grid-based **floristic mapping by c. 150-200 expert volunteers**
- integrating datasets from different sources: volunteer projects, research projects and governmental projects of Bavarian state agencies in the data management system Diversity Workbench
BIB data portal since 2003

- checklist information for > 4,000 taxa
- > 6,500 images
- distribution maps, dynamically generated
- red list information

Steckbriefe zu den Gefäßpflanzen Bayerns

Cardamine resedifolia L
Resedablättriges Schaumkraut

Systematik und Morphologie
Trichosiphonphyta
Spermatophyta
Magnoliophyta
Magnoliopsida DC.
Cannabidae Thunb.
Capparidales Hutch.
Brassicaceae Burnett.
Cardamine L.
Cardamine resedifolia L.

Abbildungen zu Cardamine resedifolia L.

http://daten.bayernflora.de

Dagmar Triebel, Wolfgang Diewald
BFL Wiki since 2013

- ~ 800 pages with information
- > 100 registered users → up to 10 active editors
- 2017: 89 calendar entries for events
- 2017: 17 „News“
- forum for plant identification

Flora approaches in Bavaria – since 16th century ...

*History under*
https://wiki.bayernflora.de/web/Geschichte

www.bayernflora.de
BFL: Increasing data volume

Florenkartierung Bayern

<table>
<thead>
<tr>
<th>Jahr der Zählung</th>
<th>Vorkommen Nachweise (Mio.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1969</td>
<td>Beginn der Datensammlung</td>
</tr>
<tr>
<td>1990</td>
<td>Stand Bayernatlas</td>
</tr>
<tr>
<td>2008</td>
<td>Stand BIB</td>
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<tr>
<td>2015</td>
<td>Stand Deutschlandatlas</td>
</tr>
<tr>
<td>2018</td>
<td>Stand Projekt &quot;Flora von Bayern&quot;</td>
</tr>
</tbody>
</table>

- **50.000**
- **1.2**
- **3.2**
- **0.3**
- **4.9**
- **6**
- **1.8**
- **7.9**

Legend:
- **Grundfarbe (Bodenfarbe)**: bereits importiert
- **Hellgrau**: noch zu importieren
- **Dunkelgrau**: im LFU-Auftrag erhobene Daten
- **Weiß**: ehrenamtlich erhobene Daten
LfU funded project from 2018 until 2022 with two partners:

- **SNSB** with Botanische Staatssammlung München (herbarium M) and SNSB IT Center
- Bavarian Environmental Agency (**LfU**)  

Scientific and biodiversity informatics lead: **Dr. Dagmar Triebel**

Scientific staff: **Marcel Ruff, Wolfgang Diewald** (W.D. until end of 2018)

DWB Software development: **Dr. Markus Weiss**

*Further info under
https://wiki.bayernflora.de/web/Coordination_office_for_flora_conservation_in_Bavaria*
More than **15 million** BFL data records in *DiversityCollection* from

- regional flora projects
- Bavarian state agencies
- herbaria
- literature
- archival documents
- other sources
BFL Data pipeline – Occurrence data
Currently, SNSB is delivering

- occurrence data as ABCD 2.06 zip archives under http://biocase.snsb.info/wrapper/downloads
- occurrence data for dynamic access (ABCD and DwC standards) under http://biocase.snsb.info/wrapper/

Contact: GFBio e.V. with Tanja Weibulat
GBIF

- data available for download
- occurrence data: CC BY
- images: CC BY SA

www.gbif.org
GFBio

- data available for download
- data available for analysis tool VAT

www.gfbio.org
BFL data from Silva Gabreta until 2018-11-21:

- **309,622** occurrences (< 7,000 with point coordinates)
- < 2000: 264,543 occurrences
- ≥ 2000: 45,080 occurrences

BFL data from Silva Gabreta until 2018-3:

- Number of taxa recorded per TK25/Q

All together, existing data concern: **2,146 taxa**
(incl. synonyms and infraspecific taxa)
**DiversityTaxonNames (DTN), Status 2018:**

- taxa: 13,261
- accepted names: 8,637
- synonyms: 4,618
- indigenous: 4,891
- information from several red lists managed

Data curation: **Wolfgang Diewald**
Regionalised Taxon Lists in DiversityTaxonNames

Taxon Lists Services at SNSB

- Data management in DTN
- MS SQL-Databases as DWB Cloud service
- Web service with REST API for the lists including taxonomic hierarchy and RL information
- Service is part of GFBio terminology service
- DTN Lists published with DOI in GBIF and build part of the GBIF Backbone Taxonomy
- Service done since 2012, until now for 58 red lists with 119,938 Latin names mainly from organisms in Germany

Thus, we might coordinate the DTN management of an agreed „Taxon list of vascular plants from Silva Gabreta“ with two concept views (CZ, BY)

http://services.snsb.info/DTNtaxonlists/rest/v0.1/static/api-doc.html
Goals and challenges – SNSB perspective

- technical interoperability, data transformation and data exchange
- quality assessment and data enrichment in DWB, new data
- GPS tracked species monitoring with DiversityMobile
- harmonisation of taxon concepts and occurrence data across project partners
- agreed taxon list for Silva Gabreta with two concept views and red list information for conservation issues
- additional flora information
- morphological and ecological characterisation of plant species

https://wiki.bayernflora.de/web/GPS_genaue_BFL_Erg%C3%A4nzungskartierungen_2017
Thank you!