

# An approach to the virtual flora of Mongolia

- from a data repository to an expert system

## What is FloraGREIF?

The FloraGREIF project presents the flora of Mongolia, combining taxa (species descriptions), images, distribution, and records of former excursions.

## Why Germany – Mongolia?

- Long term research experience in Mongolia since the 1970s at different Institutions in (former East) Germany
- Large herbaria collections from Mongolia in Germany

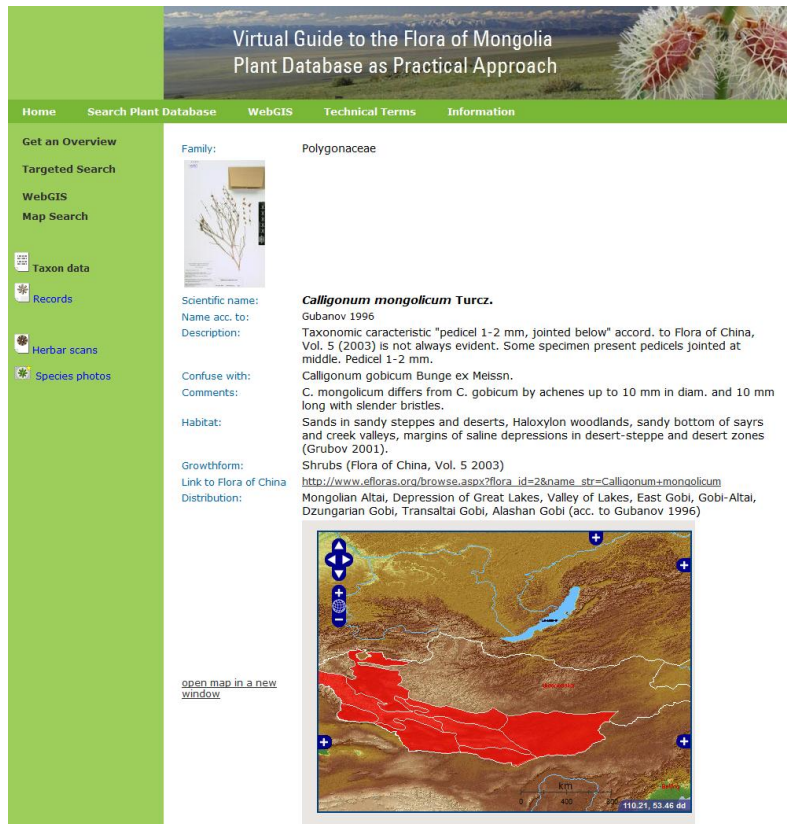
## To whom is it addressed?

At first it is for ecologists, specialists in plant taxonomy, students of biological sciences and amateur botanists. But it is also addressed to all people which are fascinated by the nature of Mongolia, beautiful plants and impressive photos.

## Our Partners:

- Academy of Science of Mongolia, State University of Khovd
- Herbaria of Halle, Gatersleben, Berlin, and Jena
- Botanical Garden and Botanical Museum Berlin-Dahlem (Interface to GBIF Network – Global Biodiversity Information Facility)
- The Museum of Natural History Görlitz
- University of Halle and Hamburg

<http://greif.uni-greifswald.de/floragreif>



The screenshot shows the website interface for the Virtual Guide to the Flora of Mongolia. The page title is "Virtual Guide to the Flora of Mongolia Plant Database as Practical Approach". The navigation menu includes Home, Search Plant Database, WebGIS, Technical Terms, and Information. The main content area displays the entry for *Calligonum mongolicum* Turcz., including its family (Polygonaceae), scientific name, author (Turcz.), and collector (Gubanov 1996). It provides a detailed description, notes on confusion with *C. gobicum*, habitat (sandy steppes and deserts), growth form (shrubs), and distribution (Mongolian Altai, Depression of Great Lakes, Valley of Lakes, East Gobi, Gobi-Altai, Dzungarian Gobi, Transaltai Gobi, Alashan Gobi). A map of Mongolia is shown with the distribution area highlighted in red. The website also features a sidebar with navigation options like "Get an Overview", "Targeted Search", "WebGIS", "Map Search", "Taxon data", "Records", "Herbar scans", and "Species photos".

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## What is it made of?

### Database

- 2871 Mongolian plant species
  - 264 synonym names of these plant species
  - 4977 herbarium specimen from 26 herbaria
  - 1781 photo records from 12 photographers
- Last updated 03/2012*



Species Name	Date	Family	Genus	Species
... ..	1807	Ranunculaceae	Thalictrum	... ..
... ..	2004	Fabaceae	Trigonotis	... ..
... ..	1186	... ..	Tachypodium	... ..
... ..	2377	Apocynaceae	Tachodanum	... ..
... ..	1730	... ..	Tonitara	... ..
... ..	1733	... ..	Tonitara	... ..
... ..	1734	... ..	Tonitara	... ..
... ..	1735	... ..	Tonitara	... ..
... ..	2488	Lamiaceae	Thymus	... ..
... ..	2493	Lamiaceae	Thymus	... ..

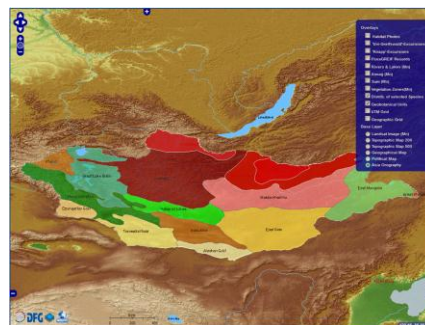
### Virtual Herbarium and Photo Library

- 1339 scans of herbarium specimen
  - 10600 species photos
  - 733 macro photos
  - 758 habitat photos
- Last updated 03/2012*



### WebGIS

- Elevation and Distribution Maps
- Satellite Images, Topographic Maps
- Visualization of Geobotanical Units and Vegetation Zones
- Track Logs and other Functionality



### What is the future of FloraGREIF?

- Interactive key to determine family and genera
- Built in Gazetteer- Service (toponyms for geographical regions)
- More determined records, more photos
- Gain further project partners
- Extend to other regions in central asia