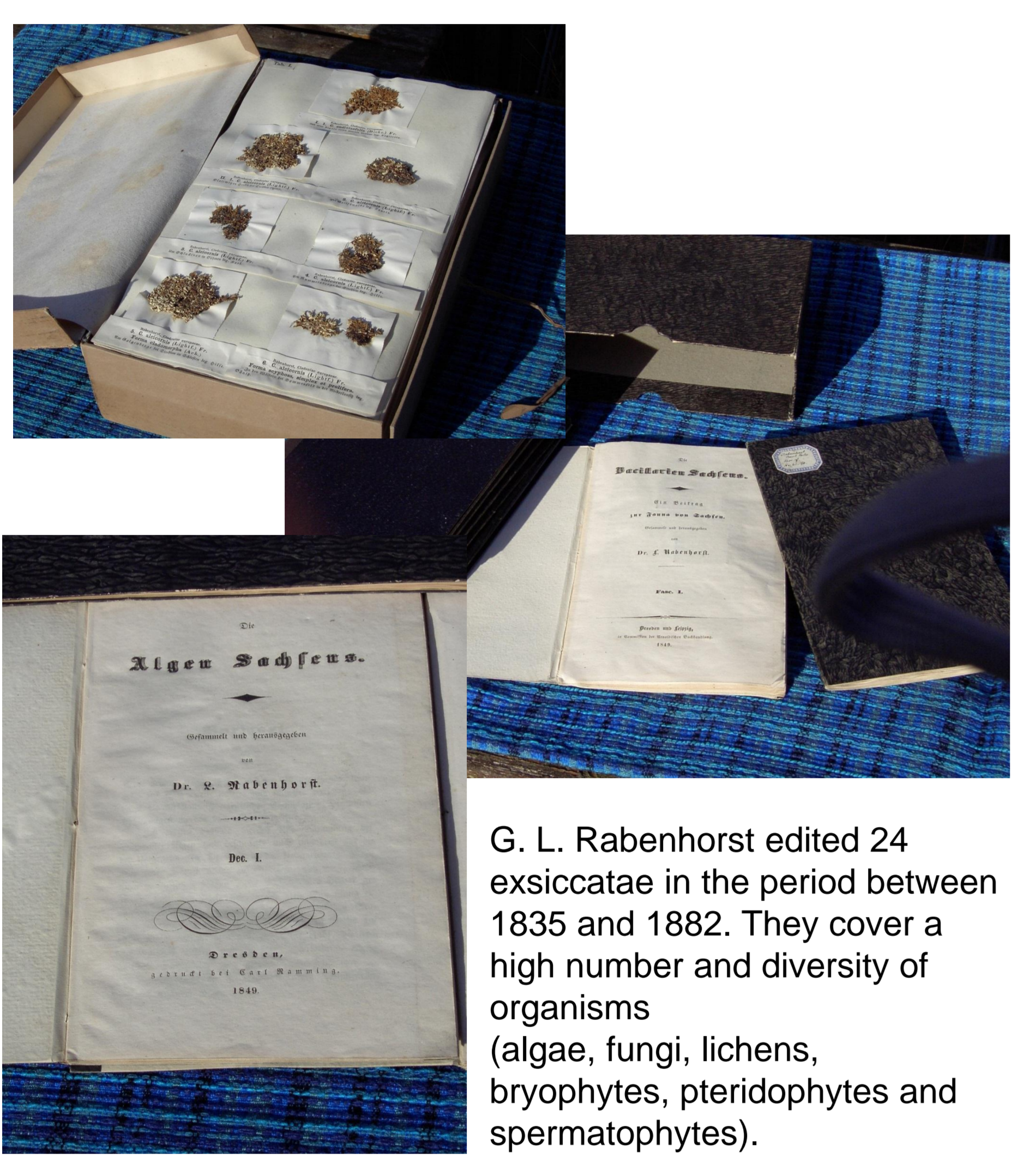


## An Online Thesaurus for Standard Bibliographic Data on Exsiccatae in Botany and Mycology

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G. L. Rabenhorst edited 24 exsiccatae in the period between 1835 and 1882. They cover a high number and diversity of organisms (algae, fungi, lichens, bryophytes, pteridophytes and spermatophytes).

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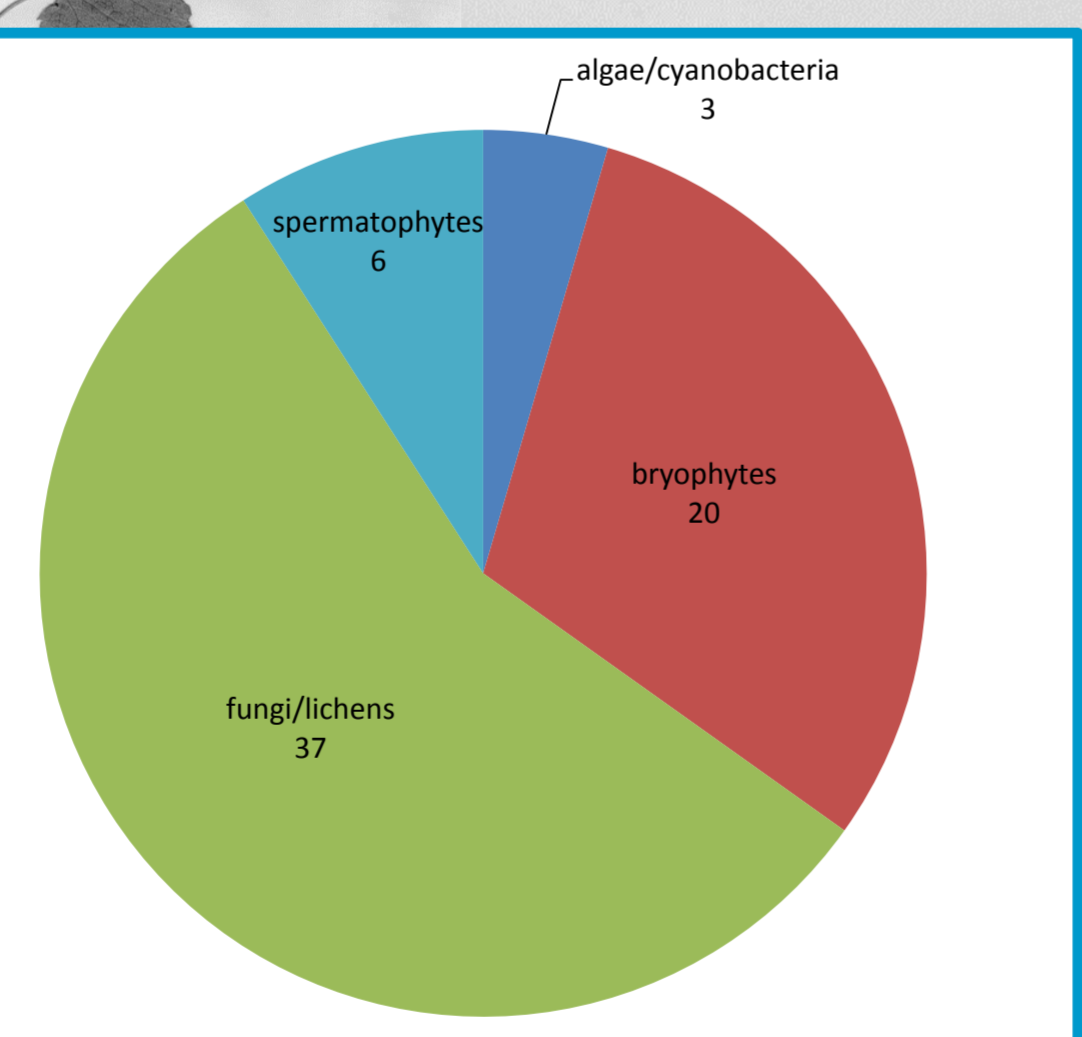
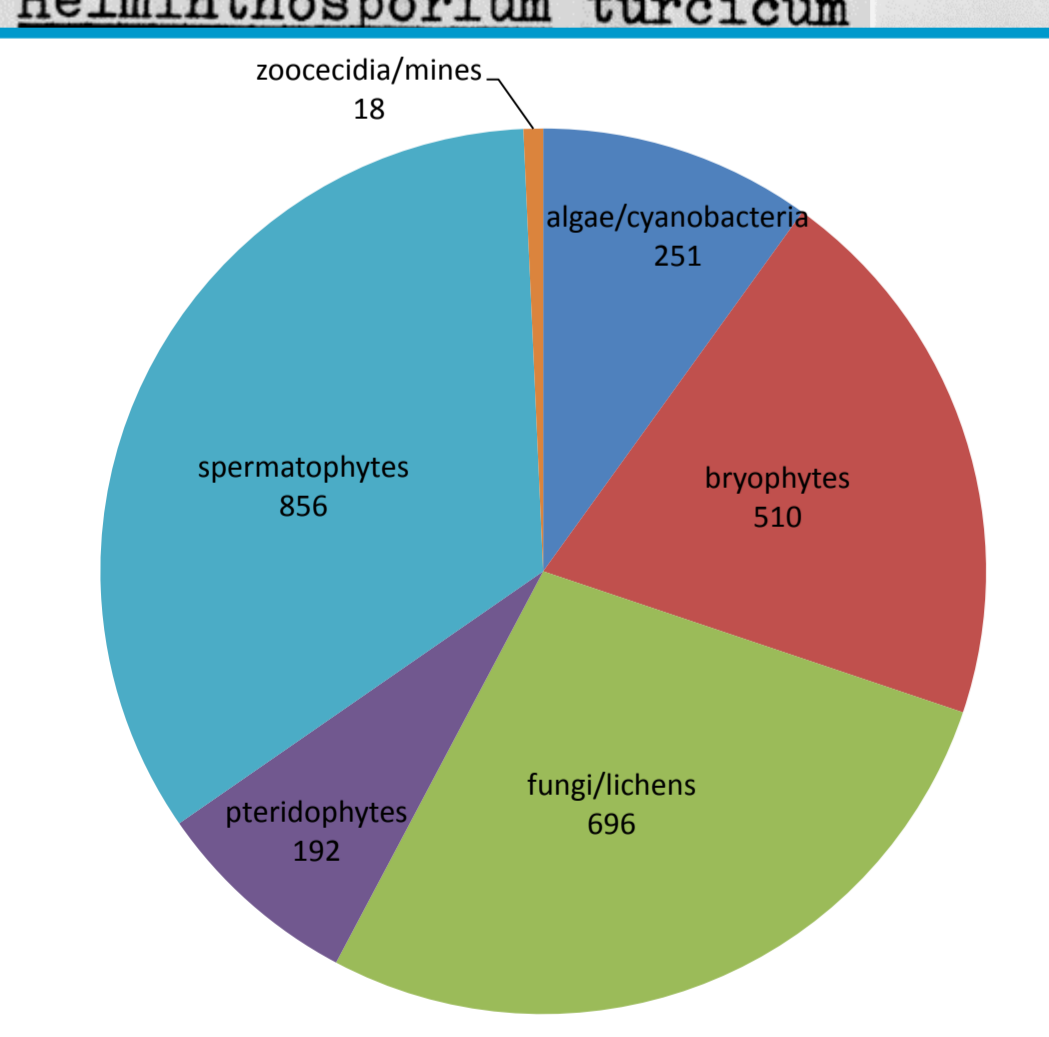
So-called exsiccatae (singular exsiccata) are series of published, uniform and numbered sets of preserved specimens distributed together with printed labels. These series have informative titles and are usually accompanied by printed booklets with labels ('schedae'). The nomenclatural status of these printed matters with regard to the effective publication of names is treated by the International Code of Botanical Nomenclature (Art. 30.4). Over 2,000 plant and fungus exsiccatae have been issued since the end of the 18th century, with more than 20 million specimens distributed in varying numbers of duplicates to institutions worldwide.

Typically, exsiccatae are devoted to thematic subjects, such as medicinal plants, or material from 'exotic' countries, for example WIRTGEN, Herb. Deutsch. Arzneipfl. or KALB, Lich. Neotrop., SMITH, Pl. Guatem. Others are restricted to particular taxonomic or ecological groups, e.g., LINTON & LINTON, Brit. Willows; SMITH, Diatom. Spec. Typ.; LUNDQVIST, Fungi Fimicoli Exs. During the 19th century, well-known series, such as SCHIMPER, Iter Abyssin., were managed and sold by trade companies. Some 1,000+ exsiccatae contain vascular plants, c. 700 fungi and lichens, c. 500 bryophytes, and c. 250 algae. More than 60 exsiccatae projects are currently active, usually as part of the regular exchange programs of the publishing institutions (e.g., ALLEN & PURSELL, Maine Mosses; TRIEBEL, Microf. Exs.).

Often, the specimens of exsiccatae sent out to herbaria are not preserved in the original context, but instead divided and inserted in the receiving institution's main collection. To support the digitalization of exsiccata material, the Botanische Staatssammlung München has established an online thesaurus database called IndExs. It aims at a complete catalogue of all series worldwide, offering standard abbreviations and bibliographic details as well as additional data and images for recognizing exsiccatae and facilitating their databasing. With the help of IndExs, data capture during retro-digitalization becomes more efficient because exsiccatae specimens can be assigned to known series, with all accompanying information already including in IndExs. Since 2001, we have provided search and download options via an internet interface (<http://indexs.botanischestaatssammlung.de>). A SOAP web service is running. IndExs is powered by Diversity Workbench ([http://www.diversityworkbench.net/Portal/DiversityExsiccatae\\_Information\\_Models](http://www.diversityworkbench.net/Portal/DiversityExsiccatae_Information_Models)).

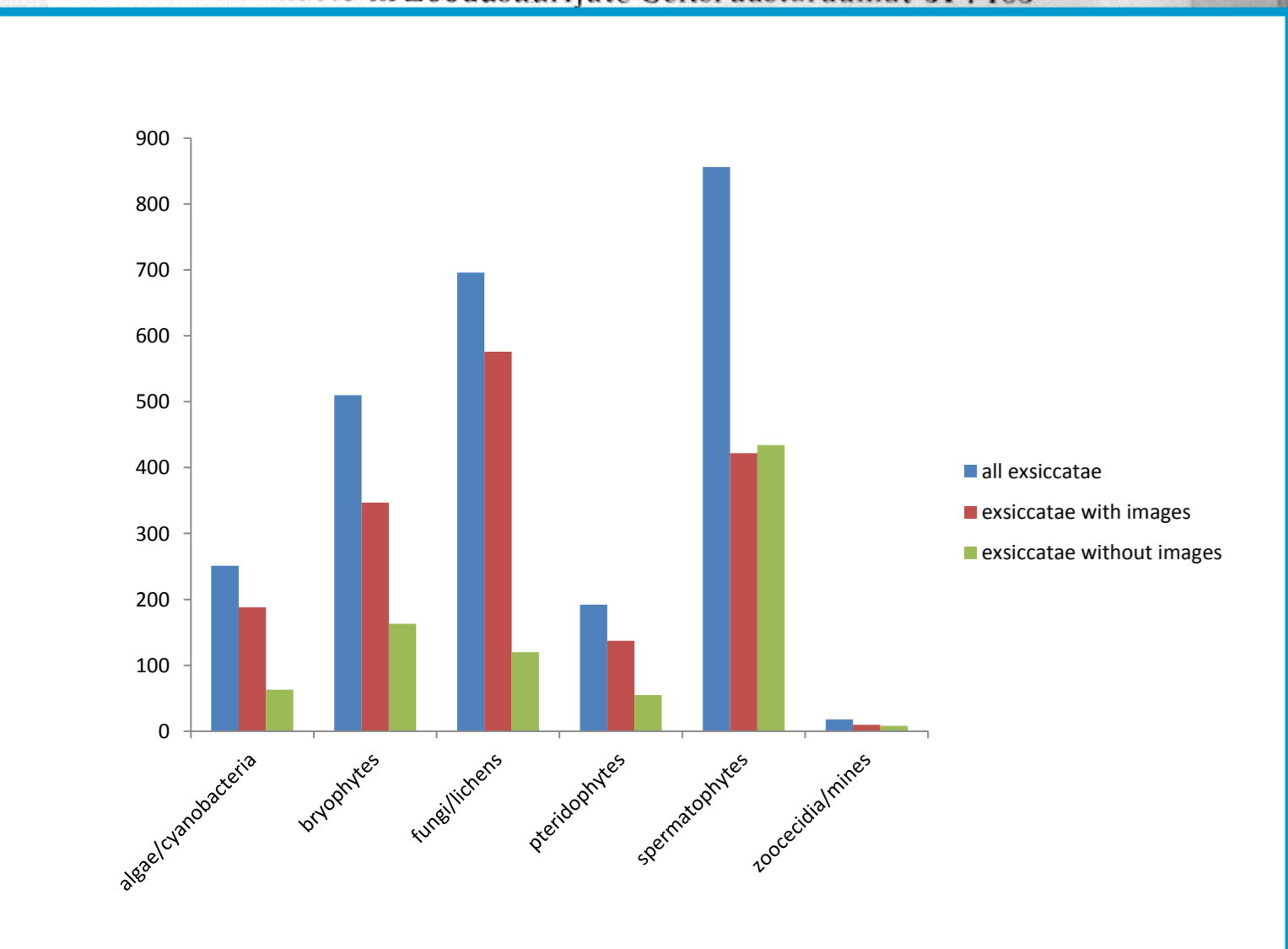
The oldest exsiccata started in 1732. It is called 'Herbarium vivum recens collectum, in quo centuriae V plantarum officinalium, tum et nonnullarum sacris litteris, auctoribus classicis, et usu oeconomico celebratarum, magna diligentia exsiccatarum et methodo hactenus probata, et published by Ehrhart, J.B.(Abbreviation: Ehrhart, Herb. Viv. Coll.)

Search result	Title [ExsNumberFirst - ExsNumberLast]	Group(s) of Organisms
Reichenbach, Fl. Germ. Exs.	Flora Germanica exsiccata sive Herbarium normale plantarum selectarum criticarumve, in Germania propria vel in adjacentibus Borussia, Austria et Hungaria, Tyrol, Helvetia Belgicaque nascentium, concinnatum editumque a Societate Florae Germanicae curante [1 - 2600]	pteridophytes, spermatophytes
Reichenbach, Scleranthus-Orig.	Erste Ausgabe normaler Scleranthus-Originale für Botaniker und Landwirthe [1 - 40]	spermatophytes
Reichenbach, Scleranthus-Orig. II	Zweite Ausgabe normaler Scleranthus-Originale [41 - 80]	spermatophytes
Reichenbach & Breutel, Fl. Germ. Exs. Crypt.	Flora Germanica exsiccata Centuria III. Cryptogamia [= Herbarium Florae Germanicae] [1 - 100]	fungi/lichens, algae/cyanobacteria, bryophytes, pteridophytes
Reichenbach & Schubert, Lich. Exs.	Lichenes exsiccati collecti atque descripti auctoribus L. Reichenbach et C. Schubert. Die Flechten in getrockneten Exemplaren, gesammelt und beschrieben von L. Reichenbach und C. Schubert [1 - 25]	fungi/lichens
Reichenbach & Schubert, Lich. Exs.	Lichenes exsiccati auctoribus L. Reichenbach et C. Schubert. Die Flechten in getrockneten Exemplaren, herausgegeben von L. Reichenbach und C. Schubert [26 - 150]	fungi/lichens



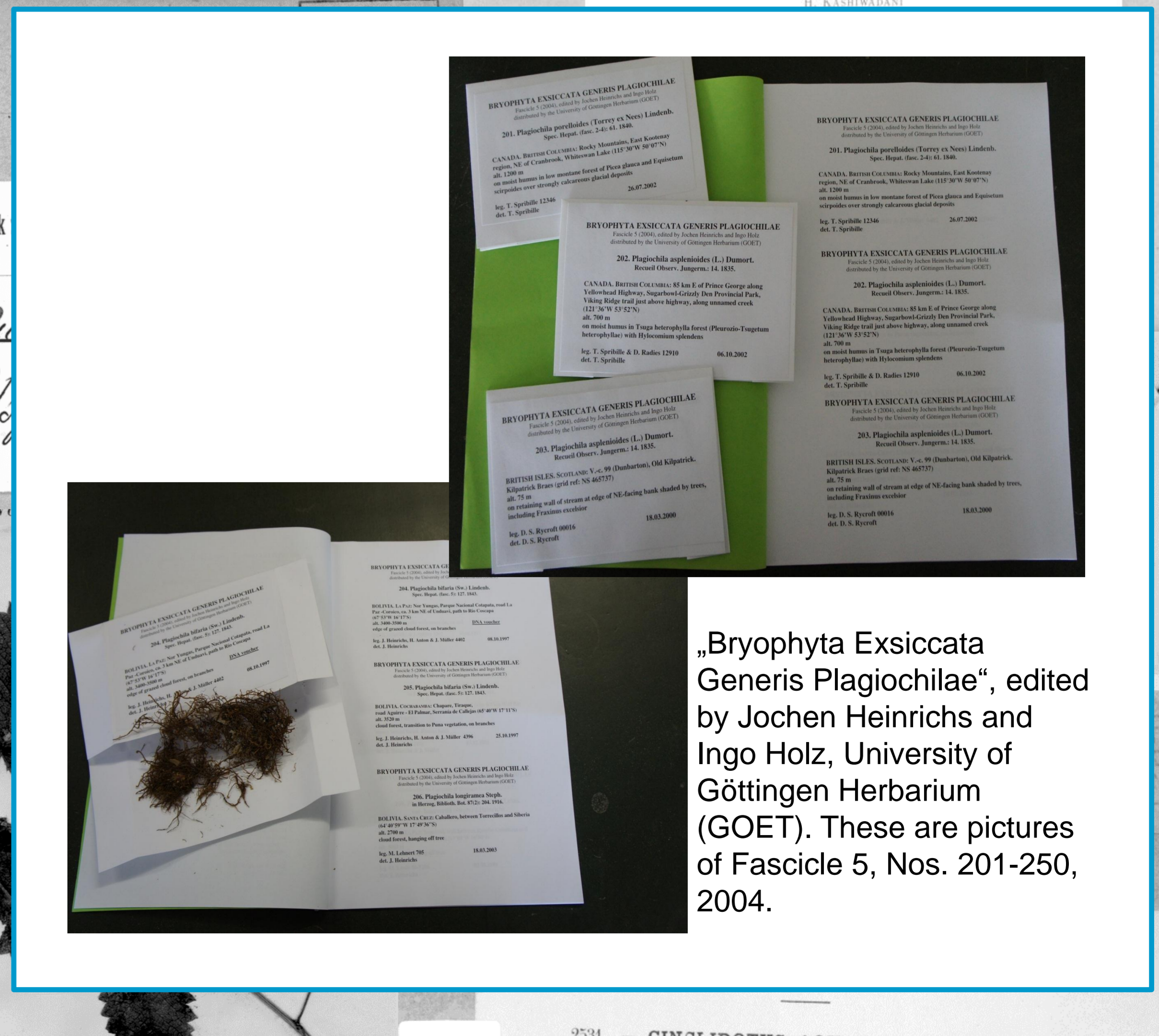
The distribution of the 2084 exsiccatae in the database IndExs on the groups of organisms.

The distribution of the 63 current exsiccatae on the groups of organisms.



The amount of exsiccatae in IndExs documented by label images.

Rich client for data entry in DiversityExsiccatae, a component of the DiversityWorkbench.



'Bryophyta Exsiccata Generis Plagiochilae', edited by Jochen Heinrichs and Ingo Holz, University of Göttingen Herbarium (GOET). These are pictures of Fascicle 5, Nos. 201-250, 2004.

**Acknowledgment**

The IndExs label images are from material located in the herbaria M (the majority), ASU, B, BM, BR, BRX, BUCM, CUP, DR, E, FR, G, GOET, H, HAL, IB, IBF, JE, K, KR, LD, MO, MSB, NMW, S, UC and UPS. We thank the contributors.