

Aims of the thesis

The general objective of the thesis was to taxonomically evaluate the rich material of *Lachnum* s.l. deposited in Czech herbaria, as well as the personal field collections. In the case of taxonomic or nomenclatural problems, the problematic groups were studied in detail. Various methods were used to solve the taxonomic problems and important collections from other herbaria were also studied.

Outline of the thesis

Problematic groups in *Lachnum*. I paid attention to lignicolous and herbicolous species of *Lachnum* and to the group of *Lachnum pygmaeum* (Article III, VII) from the taxonomic point of view. Field collections of the whole spectrum of *Lachnum* species were included to the check-list (Article I).

Species concept in *Capitotricha*. Central European species of *Capitotricha* with asci arising from simple septa were sequenced and a larger set of data supplementing the previously known sequence was obtained and analysed. Interesting data on *Capitotricha* species from *Nothofagus* from southern hemisphere were obtained. Long-spored lignicolous species of the genus *Erioscyphella* Kirschst. close to *Lachnum* and *Capitotricha* from the tropics and subtropics were also studied and discussed.

Taxonomy of *Trichopeziza*. There was a lot of confusion connected with the name *Peziza sulphurea* Pers. At first, it was used for a fungus with the violet reaction in KOH which is not in agreement with the type. Secondly, confusion arised from its synonymization with *Erinella nylanderii* Rehm. This was pointed out by Svrček (1979), unfortunately, it was not generally accepted. After revision of the type, the name *P. sulphurea* is proposed to be rejected.

Conclusions

Within the studied group (i.e. *Lachnaceae* excl. *Lachnellula*), 61 species were confirmed from the Czech Republic. However, there are

still groups less studied, e.g. *Dasyscyphella*, lignicolous species of *Lasiobelonium* and *Perrotia*. So, a higher number of species in the Czech Republic is expected.

The following species are reported for the first time from the Czech Republic (Article I): *Brunnipila calycioides* (Rehm) Rehm, *Capitotricha fagiseda* Baral, *Dasyscyphella conicola* (Rehm) Raitv. et Arendh. (collections by J. Velenovský, M. Svrček and J. Kubička), *Dasyscyphella montana* Raitv., *Fuscolachnum dumorum* (Roberge) J. H. Haines (leg. M. Svrček), *Lachnum clavigerum* (Svrček) Raitv., *Lachnum impudicum* Baral, *Lachnum luteodiscum* (Peck) J. H. Haines, *Lachnum relicinum* (Fr.) P. Karst., *Lasiobelonium variegatum* (Fuckel) Raitv., *Trichopeziza lizonii* (Svrček) Baral et E. Weber and *Trichopeziza sulphureopilosa* M. Chleb.

The new combinations *Brunnipila brunneola* (Desm.) M. Chleb. and *Incrucipulum uralense* (Chleb.) Chleb. et Suková (Ural) were proposed (Article I, IV). A new species *Fuscolachnum hainesii* Chleb. et Suková (Chukotka) was described (Article IV). New name *Neodasyscypha* Suková et Spooner was proposed (Article II).

A correct interpretation of the following names was introduced: *Brunnipila brunneola*, *B. fuscescens*, *B. fuscescens* var. *fagicola*, *Lachnum pubescens* (Rehm) Svrček, *L. rhizophilum* (Fuckel) Velen., *Peziza dryophila* Pers. and *Peziza sulphurea*.

The taxonomic study of herbicolous species of *Lachnum* inferred from individual specimens (Article VII) was started

During molecular study (Article VI), we found out that the specimens of *Capitotricha bicolor* from *Alnus viridis* may be different from *Capitotricha bicolor* s.str., however, it still needs a larger set of material to be studied from the molecular point of view. The clade of subtropical long-spored species sequenced and studied by Cantrell and Hanlin, later proposed to be close to *Capitotricha* by Baral, stood up as a separate genus in our analysis. The generic name available for these species is *Erioscyphella* Kirschst. *as proposed by Haines and Dumont.*

The work exceeded the area of Central Europe several times.