

Abstract

The diploma thesis revises ten selected species of sphenopterid ferns of Carboniferous age deposited in the National Museum in Prague, the West-Bohemian Museum in Pilsen and the British Geological Survey in Keyworth, England. Sphenopterid ferns were studied based on reproductive organs acquired by maceration of coalified plant remains preserved as compressions. Sporangia and their annulus are important diagnostic features for individual genera and species of sphenopterid ferns and for selected species have not been described yet. Following species were studied: *Boweria schatzlarensis*, *Myriotheca anglica*, *Renaultia crépini*, *Sturia amoena*, *Oligocarpia gutbieri*, *Zeilleria hymenophylloides*, *Zeilleria avoldensis*, *Discopteris* sp. („doubravensis“), *Scolecoperis elegans* a *Waldenburgia corynepteroides*. With the exception of *Waldenburgia corynepteroides*, *Scolecoperis elegans*, *Zeilleria hymenophylloides* and *Zeilleria avoldensis* species type material was studied. Maceration of sporangia of *Boweria schatzlarensis* showed presence of lateral annulus while in case of *Myriotheca anglica* the annulus is lateral or more likely of a special type, placed on both sides of the sporangia. Annulus type determination of *Renaultia crépini* also made possible to assign this species within the range of the genus *Tenchovia* and allowed for new combination *Tenchovia crépini* to be established. Maceration of *Sturia amoena* provided oblique annulus. The following species, *Discopteris* sp. (undescribed new species „doubravensis“) has a lateral annulus. For *Zeilleria hymenophylloides* paracytic stomata have been found. For *Zeilleria avoldensis* the sporangia maceration confirm that it belongs to the true ferns and not to pteridosperms as it has been assumed by various authors. For *Scolecoperis elegans* the maceration confirmed well preserved synangia and spores of the *Granulatisporites*. Maceration of *Oligocarpia gutbieri* confirmed presence of sporangia with oblique annulus.