

## **Abstract**

This thesis provides an overview of the Carboniferous flora in the Czech part of the Upper Silesian Basin and its applications in stratigraphy. The sediments of the Upper Silesian Basin with wetland carboniferous vegetation were deposited for about 10 million years. During this period, the floristic character was varying. According to the associations of species we can divide the filling into the stratigraphical units. The basin includes lycopodiophytes, horsetails, ferns, fern-like plants, cordaites, and ginkophytes. The filling began by the Ostrava formation with paralic basin flora with the leading species *Sphenopteris adiantoides*. Coal seams alternate with non-coal facies with culm flora. Thanks to the paleogeographic changes and marine transgression, the floristic associations changed. Sk. f. h. Enny is the major borderline between middle and upper floristic zones of the lower Namur, in which culm flora disappeared. After the hiatus, Karvinská formation with the important seam Prokop sediments. The formation is characterized by middle Namurian to the Lower Westphalian plants, without non-coal sections. The Upper Namurian plants are located in the sedlové and sušské layers. In the lower sušské layers the biostratigraphical interface of Namur/Westphal is indicated by *Lyginopteris hoeninghausii*. The youngest Carboniferous plant associations have been found in dětmarovické layers.

**Keywords:** Carboniferous, flora, biostratigraphy, Upper Silesian Basin