

Abstract

The review part of this thesis focuses on the synthesis of knowledge about male cones of Mesozoic conifers and their pollen based on selected examples from Upper Cretaceous of Europe. This thesis especially examines families Cheirolepidiaceae, Podocarpaceae, Araucariaceae and Cupressaceae. In this thesis the characteristics of these families are supplemented with a comparison to their recent genera. The main method described in this thesis is the study of pollen *in situ* due to the majority of these selected examples being preserved as compressions.

The practical part of the thesis aims to taxonomically classify the fossilized male cones provided from the collections of the National Museum, originating from the Peruc-Korycany Formation locality of Pecínov. One of these cones was assigned to the genus *Classostrobus* associated with the conifer *Frenelopsis alata* (family Cheirolepidiaceae) based on the presence of *in situ* pollen genus *Classopollis* and the shape of its microsporophylls.

Key words: Cretaceous, conifers, pollen in situ