

Title: Sytematics, palaeoecology and trophical structure of bivalve associations within the OAE2 in the Bohemian Cretaceous Basin (Upper Cenomanian): Pecínov quarry

Author: Bc. Lucie Kunstmüllerová

Department: Institute of geology and palaeontology

Supervisor: doc. RNDr. Martin Košťák, Ph.D.

Abstract: This master thesis provides an updated taxonomic inventory of the bivalve fauna of the Pecínov locality, places the fauna in its palaeobiogeographic setting, and addresses its palaeoecological significance. In the literature research part of the thesis the basic geology of the locality and an overview of the Bohemian Cretaceous Basin are presented. Processes connected to the ocean anoxic events, specifically to the OAE 2 are also discussed. The research part of the thesis describes the systematics of the bivalve assemblage (with the exception of Inoceramidae) and its statistical evaluation with the emphasis on the environment interpretations of the locality.

In total, over 350 specimens have been considered and assigned to 20 genera within 15 families and 9 orders. Bivalve functional morphology and guilds are described to interpret palaeoecology. Guilds are based on life habit and feeding category. Four main guilds are recognized: epifaunal suspension-feeders, semi-infaunal suspension-feeders, infaunal suspension-feeders and infaunal deposit-feeders. The results are discussed in details and new data for interpretation of the locality are presented.