

## Abstract

The sandstone rock cities of the Bohemian Cretaceous Basin are traditionally considered floristically and faunistically impoverished areas, because the environment of acidic quartz sandstones complicates the development of developed biocenoses. The unfavourable abiotic conditions are compensated for geomorphological diversity of the landscape, which creates a wide range of locations providing habitats for many biological species with different ecological requirements. However, the current appearance of the sandstone areas is due to the extensive transformation of the environment in the late Holocene, as evidenced by the rich subfossil communities of terrestrial gastropods. In the presented study, the succession of postglacial malacocenoses was processed from five sites in the southern part of the Kokořínsko area, demonstrating the continuous development of species-rich forest habitats during the early and middle Holocene. The presence of calcareous encrustations on the surface of acidic sandstone walls, which allowed the continuous occurrence of calciphilous mollusc species, is also documented from this wet period. The gradual transformation of the natural environment is related to the beginning of the late Holocene and was caused by the leaching of nutrients from the soil horizons and the subsequent acidification of the landscape, which was reflected in its retrograde development. In accordance with archeological findings, the influence of prehistoric cultures on the development of the natural environment was observed, and it was likely not heavily influenced by human intervention until the medieval and modern periods. Similar development of abiotic and biotic environmental conditions is also evidenced by the subfossil malacofauna from the northern part of Kokořínsko and Bohemian Paradise PLA, to which the studied Holocene successions were compared. The results of this thesis contribute to the understanding of the postglacial development of the southern part of the Kokořínsko area and also show similar trends of the Holocene development of the North Bohemian sandstone rock cities.

**Keywords:** Mesolithic, paleoecology, sandstones, subfossil molluscs, nature environment transformation, human impact