

# Preliminary report on chitinozoans of the Kopanina Formation (Ludlow, Silurian, Prague Basin)

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**Ch**itinozoan assemblages of the Silurian Kopanina Formation of the Prague Basin have been preliminarily studied with an emphasis on the *kozłowskii* extinction event. About twenty-five samples of Ludfordian age were dissolved using a routine palynological methodology.

Two sections were studied for the analyses of chitinozoans and the associated changes in chitinozoan assemblages through the *kozłowskii* extinction event, namely the Kosov quarry and the section near the Všeradice village.

## **Kosov quarry**

Complicated geology of the Kosov quarry was studied and comprehensively described by Horný (1955), Turek (1983, 1990), Kříž (1992) and more recently also by Lehnert et al. (2006). Sampled levels in this section agree with samples as given in detail by Lehnert et al. (2006). At all, forty samples from an almost ten meters thick section were taken. Eight samples coming from the lowermost part of the section were dissolved by P. Tonarová (Charles University Prague) with the goal to study benthic assemblages of scolecodonts; residues of these samples were analysed for consequently chitinozoa. This section terminates just below the *kozłowskii* extinction level. All the samples come from the *Neocucullograptus kozłowskii* graptolite Zone. Samples were numbered by numbers of appropriate beds as: sample N<sup>o</sup>. 2, 4, 6, 7, 9, 10, 11 and 12. All samples bear chitinozoa of moderate to quite good preservation. Samples number 6, 10, and 12 contain the richest chitinozoans. Due to different techniques of dissolving, used primarily to get scolecodonts,

some of the samples were encapsulated by rock residues.

Other three samples were provided by Š. Manda (Czech Geological Survey, Prague) and come also from the Kosov section. These samples could be correlated with samples from the first section and completed the sampling above the *kozłowskii* level.

## **Section at Všeradice:**

Natural outcrops near the village Všeradice comprise only the lower part of the Kopanina Formation. Therefore a borrow-pit in Všeradice was dugged to open the upper part of the section; it represents a continuous development in deeper part of the Prague Basin.

Two main lithological types are known to be present in this part of the basin; (1) black to grey calcareous shales, with abundant graptolites and (2) bioclastic limestones. These two lithotypes alternate each other, reflecting most probably the sea-level changes.

Eighteen samples from the Všeradice section were analysed for chitinozoan study. Eleven of them represent grey to black, calcareous, graptolite-bearing shales, they were provided by Dr. P. Štorch (AVČR Prague). These samples come from the *Saetograptus linearis* graptolite Zone.

Only eight samples were successfully dissolved, showing a very low content of chitinozoans and/or chitinozoans are absent.

Next dataset from the Všeradice section, was provided by Š. Manda. Seven limestone samples from this section were correlated with the Kosov section and they were analysed to document the *kozłowskii* extinction.