

Upper Stephanian non-marine ichthyoliths of Bohemia (preliminary report).

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Since 1982 I have been collecting and studying isolated skeletal remains of vertebrates from the Bohemian limnic basins. The investigation of the Permo-Carboniferous non-marine fauna from numerous boreholes was the primary reason. In 1991 I attempted to dissolve carbonate sediments of various horizons in 8% acetic acid. A great amount of ichthyoliths was gained from a clayey limestone at the locality Klobuky (Klobuky Horizon, Stephanian C). So far the following taxa have been determined:-

- Acanthodians - *Acanthodes* sp.(scales and fin spines)
- Xenacanthids - *Orthacanthus* sp. (teeth)
- spiral coprolites
- Hybodonts - ?*Limnoselache* sp. (mucous membrane denticles)
- Actinopterygians - *Progyrolepis speciosus* (teeth)
- *Sphaerolepis kounoviensis* (scales)
- *Spinarichthys dispersus* (scales)
- ?*Watsonichthys* sp. (scales)
- remains indet. (teeth, scales, fragments of bones and jaws)
- Dipnoans - ?*Sagenodus barrandei* (fragments of scales)
- ? Amphibians - one fragment of jaw

The dissolution of sediments leads to an increase in the number of specimens and also new taxa of microremains (?*Limnoselache* sp. in the case of locality Klobuky). On the other hand, the classical method (the investigation of fossils on bedding surfaces) allows us to study very thin and delicate microremains (e.g. actinopterygian scales). The combination of the both methods is therefore of advantage.

The Uppermost Stephanian fish fauna is quite different from the Lowermost Autunian one in the Bohemian limnic basins (Zajíc 1990). Therefore, I propose that analysis of the microvertebrates could give more accurate determination of the Carboniferous/Permian boundary than the macrofloristic or palynological data.

Stamberg, S. 1989. Scales and their utilization for the determination of actinopterygian fishes (Actinopterygii) from Carboniferous basins of central Bohemia. - Cas. Mineral. Geol., 34, 3: 255-269. Praha.

Zajíc, J. 1990. Recent results of the study of Permo-Carboniferous vertebrates from boreholes in Bohemian limnic basins. - Acta Mus. reginaehradec., Ser. A, 22 (1989), 45-51. Hradec Králové.