Late Cretaceous amphibians from the Csehbánya Formation of Hungary (Iharkút, Bakony Mountains)

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At the Late Cretaceous (Santonian) locality at Iharkút in the Bakony Mountains, western Hungary several vertebrate fossils were unearthed: remains of fishes, amphibians, turtles, lizards, crocodiles, dinosaurs, pterosaurs and birds. As yet nobody documented the amphibian fauna of this locality because previously only a few and fragmentary remains represented this group. By means of intensive screenwashing at the locality we processed several tons of different fossiliferous rocks, thus the number of micro-vertebrates has been multiplied and with that fossils of amphibians too. Material from two different layers was examined. One of these layers is a bonebed type layer. 90% of the vertebrate remains came out from this sediment. The other one is a dark siltstone full of amber grains and high quantities of organic material.

After splitting up the bone-bed type sediment the rock was opened up with hydrogen-peroxide and was screen-washed. Screen-washing took place through three steps using different sieves with 2 mm, 1 mm and 0,5 mm mesh-sizes. The separated fraction was examined with stereo-microscope. A large number of amphibian bone-fragments and teeth of lizards, dinosaurs, crocodiles and fishes were identified. Amphibians are represented in this material by members of Allocaudata and Anura.

The Allocaudata is represented by three fragments of premaxillae and seven fragmentary dentaries. Though the teeth are badly preserved in them, these remains are useful for taxonomic purposes. One of the premaxillary fragments is well determinable by the features of the suprapalatal pit. The size, morphology and place of the suprapalatal pit refers to the family Albanerpetontidae.

The Albanerpetontidae are Middle Jurassic to Miocene salamander-like amphibian tetrapods that are of interest because of the long history of the group (ca. 155 million years). Till now albanerpetontids were not known from the Santonian of Europe. The previously known oldest Late Cretaceous occurrences were in the Late Campanian or Early Maastrichtian of the Haţeg Basin (Transylvania, Romania).

Unfortunately anurans are only represented by tibiofibulae of frogs. Two of these are almost complete and their bony epiphyses are observable as well. Several bone fragments turned up which show the doublebarrel-like cross-section typical that of anurans. These remains provide a few data for exact taxonomic determination.

The future aims include the precise taxonomic determination of the remains as well as paleobiogeographic implications, which still require more specimens.