ORGANISMS IN BODY CHAMBERS OF FOSSIL CEPHALOPODS

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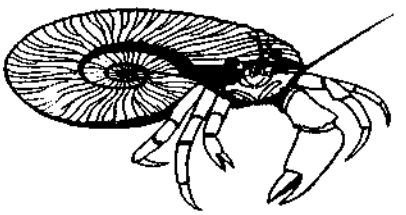
In 1841 Mary Anning drew H. Strickland's attention to some black substances in the interior of Liassic ammonites from Lyme Regis, UK. She considered them to be inksacs of the ammonite animals. Strickland (1845) described Mary Anning's and some other specimens from the British Liassic and concluded them to be appendages and / or aptychi. Since then fossils occurring in cephalopod body chambers have received only scant attention.

In 1997, Jäger & Fraaye listed all previous data on stomach contents of ammonites and described in detail the diet of the Toarcian ammonite *Harpoceras falciferum* from the Posidonienschiefer of southern Germany. New data on the diet of the contemporary ammonite genera *Dactylioceras*, *Hildoceras*, *Phylloceras* and *Lytoceras* are now under study; preliminary results will be presented. Westermann's (1996) model of *Dactylioceras* as a planktonic drifter seems applicable to juveniles but probably not to adults. *Hildoceras* fed on organisms or parts of organisms lacking hard tissues. Large *Phylloceras* and *Lytoceras* probably were the producers of the phosphatic coprolites full of fish remains.

An ammonite inquilinistic mode of life has been reported for smaller ammonites (Matsumoto & Nihongi, 1979) and for decapods and fishes (Fraaye & Jäger, 1995a, b). Many newly collected specimens substantiate the view that the inquiline use of cephalopod shells by arthropods was a common and important co-evolutionary phenomenon in marine ecosystems from the Ordovician to at least the Eocene.

The first *in ammonite* occurrence of a hermit crab from the Early Cretaceous of Speeton, England is presented. This new find suggests that palaeontologists have looked in the wrong class of the "Mesozoic real estate market" and throws new light on the evolution of Cretaceous pagurids.



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PASSENDORFER'S MIDDLE JURASSIC AMMONITES FROM THE HIGH TATRAS

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In the 1930's Edward PASSENDORFER; eminent Polish palaeontologist and geologist with life-long admiration of the Polish Tatras, published two important papers on Bathonian ammonites from the Tatras. He has continued collection works in the localities for decades, and this resulted in an extensive material, which is still kept at the University of Warsaw.

We revised the collection, identifying the original specimens described and figured by PASSENDORFER, and we visited the most important locality: Wielka Swistówka. The field studies indicate that most of the fossils (mainly ammonites, nautiloids, belemnites, brachiopods) came from a single condensation horizon sandwitched between Upper Triassic shallow-water carbonate and Upper Jurassic pelagic limestone. The ammonite bed is a 8--12 cm thick ferruginous limestone with a some centimetres stromatolitic layer in its lower part and a very fossilferous upper part, where the (commonly fragmented) fossils are embedded together with angular limestone extraclasts and stromatolitc oncoids.

The composition of the ammonite fauna indicates Submediterranean affinity, with strong Tethan influence: 1/3 of the total fauna is represented by phylloceratids, and the most common ammonitid groups are perisphinctids e.g. *Procerites, Choffatia),* prohecticoceratids, oppeliids (*Oxycerites, Paraoecotraustes*), tulitids (*Bullatimorphites*) and cadomitids (*Cadomites*). The systematic evaluatiion of the fauna proved the presence of several stratigrphically diagnostic forms: e.g. *Thraxites thrax* STEPHANOV, *Prohecticoceras ochraceum* ELMI, *Bullatimorphites eszterensis* (BÖCKH), B. (*Sphaeroptychius)* spp. and the richly represented *Cadomites bremeri* TSERETELI. These species indicate the topmost part of the Middle Bathonian, i.e. the Bremeri Zone. However, the taphonomic phenomena, and the presence of some younger elements (e.g. macrocephalitids) in the fauna may suggest reworking and thus a younger age for the formation of the fossil bed.

The occurrence of the fauna (in stromatolitic condensation level) and the stratigraphic position of the fossiliferous bed (appearance with considerable hiatus below and a shorter temporal lack above) suggest sequential setting similar to other Middle Jurassic ammonite beds in the wider palaeogeographic area: e.g. the early Bathonian of Swinitza (Soutern Carpathians, Romania) and the Middle Callovian of Villány (South Hungary).