Microfossils accompanying some Perisphinctoid Ammonites from the Štramberk Limestone (Tithonian to Early Berriasian from the Silesian Unit, Czech Republic)

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In Moravian-Silesian museums in the Czech Republic, Vienna Museum of Natural History and Bayerische Staatssammlung für Paläontologie und historische Geologie of the University in Munich, ammonites collected previously in the Štramberk Limestone are deposited. A common feature of all of these older collections is that the finds miss precise localization. Museum original labels usually state only Stramberg or Štramberk. The oldest finds come before the year 1861especially from the Castle Hill (Zámecký vrch) Quarry. This material was taxonomically processed in a monograph by Zittel (1868). Another collection was processed by Blaschke (1911). His specimens come largely from the Kotouč Quarry (formerly Gutmann Quarry).

At present, the stratigraphic position of the presented ammonites can be derived in the case of well determinable species only on the basis of data in literature if such species were also found in other stratigraphically dated sections in foreign localities. Moreover, a significant auxiliary element is the occurrence of guide microfossils provided by microfacies analysis of associated rocks surrounding or filling the ammonites.

We make efforts to define a more precise stratigraphic position of the above-mentioned finds containing stratigraphically important microfossils. For this reason, from of 27 ammonite specimens 38 thin sections were prepared. Only a small part of them (17 cases) contain however guide microfossils.

The oldest of the established species belongs to a large specimen of *Lithacoceras eigeltingense* Ohmert & Zeiss, 1980. According to Schweigert and Scherzinger (1995) and others, this species occurs there as a guide “eigeltingense-Horizon” in the basal part of Lower Tithonian ammonite zone with *Hybonoticeras hybonotum*. A specimen of the mentioned species represents the stratigraphically oldest species yet found in the Štramberk Limestone. The Early Tithonian age is also documented by the occurrence of common cyst of *Parastomiosphaera malmica* (Borza) observed in pelbiointraclastic wackestones to packstones.

Based on study of the type material of *Blaschkeiceras schoepflini* (Blaschke, 1911) deposited in Vienna and a single specimen found by us recently in the Kotouč Quarry,

we have come to the conclusion that *B. schoepflini* represents microconchs to *Blaschkeiceras kittli* (Blaschke, 1911). Pelbiointraclastic wackestones, packstones to grainstones contain cysts of *Parastomiosphaera malmica* and morphological varieties of saccocomid skeletal elements indicating Early Tithonian age of sediments.

To the same subfamily, *Kutekiceras pseudocolubrinus* (Kilian, 1895) belongs as well. The mentioned species is abundant in the Early Tithonian of Mediterranean Bioprovince.

The both smaller specimens (less than about 100 mm in diameter) and larger specimens (from 100 mm to 260 mm) of *Paraulacosphinctes transitorius* (Oppel, 1865) were identified. With reference to the development of ribbing of both size groups, we regard this as a result of sexual dimorphism, i.e. we consider them as microconchs and macroconchs. According to Zeiss (2001), *P. transitorius* occurs in the Early Tithonian at Štramberk and in Lower Austria. Even the content of microfossils in the thin sections does not contradict this.

What is remarkable in the Štramberk Limestone is the occurrence of Riasanites cf. swistowianus (Nikitin, 1888). The riasanitids belong to the category of boreal ammonites. Pelbiointraclastic packestones to grainstones contain rare but predominantly small forms of *Calpionella alpina* Lorenz, *Crassicollaria parvula* Remane and *Globochaete alpina* Lombard among small fragments of hydrozoans, algae, sponge spicules, crinoids, ophiurids, echinoids, ostracods, bivalves, brachiopods, benthic foraminifera indicating their Early Berriasian age.

The last representative of ammonites belongs to *Pseudargentiniceas abscissum* (Oppel, 1865). In the thin section, small forms of Calpionella alpina predominate over loricas of *Crassicollaria parvula*, *C. brevis* and *Tintinnopsella carpathica*. Similarly to the previous case, it is rather Early Berriasian calpionellid assemblage.

In addition to the knowledge of sexual dimorphism of some species, the most important acquired findings are stratigraphic data. The occurrence of *Lithacoceras eigeltingense* moves the existing stratigraphic range of the Štramberk Limestone from the higher part of Early Tithonian to the basal part of Early Tithonian (ammonite Hybonoticeras hybonotum Zone). The stratigraphically youngest finds belong to the Early Berriasian (Berriasella Jacobi Zone), which corresponds to currently accepted knowledge.

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