TO THE CENOMANIAN AMMONITES FROM THE BOHEMIAN CRETACEOUS BASIN

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The paper is dedicated to systematic elaboration of some older findings of the Upper Cretaceous ammonites coming from the lower part of marine deposits in the Bohemian Cretaceous Basin, which are deposited in some Czech collections. In the study following six species are described: *Calycoceras (Newboldiceras) newboldi* (Kosmat, 1897), *Pseudocalycoceras lattense* (Thomel, 1966), *P.* ex gr. *harpax* (Stoliczka, 1865), *Thomelites* cf. *flandrini* (Thomel, 1966), *Metoicoceras geslinianum* (d'Orbigny, 1850) and *Sciponocerasbaculoides* (Mantell, 1822). From a stratigraphic point of view the oldest species are *Sciponoceras baculoides* and *Newboldiceras newboldi*, which indicate the Middle Cenomanian. The other species occur according to data of literature in the Upper Cenomanian. It is especially the species *Metoicoceras geslinianum*, which has the zone importance in the Upper Cretaceous of Western Europe.

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NEW UPPER EOCENE CYCLOSTOMATA (BRYOZOA) FROM THE CENTRAL WEST CARPATHIANS (CZECHOSLOVAKIA)

ZAGORŠEK Kamil, Slovak Academy of Sciences, Bratislava

Biodetritic bryozoan limestones on the basis of the Priabonian Borové Formation (Liptov Basin, localities Partizánska Lupča, Hybica valley, and Východná) and the Zuberec Formation (Rajec Basin, locality Rajecké Teplice) contain a rich cyclostomatous assemblage. From this assemblage five new species are described.
(Submitted to: Geologica Carpathica, Bratislava)

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UPPER EOCENE BRYOZOA FROM THE CENTRAL WEST CARPATHIANS (CZECHOSLOVAKIA)

ZAGORŠEK Kamil, Czechoslovak Academy of Sciences, Bratislava

A detailed revision of the rich Priabonian bryozoan fauna from Slovakian part of the Central West Carpathians is presented. The main part of the work is description of 91 species from 61 genera and 37 families of cyclostomatous and cheilostomatous Bryozoa (25 species are described as new ones). Taxonomical study is completed by palaeoecological analysis of various bryozoan assemblages from different bathymetric conditions and by an attempt to give a palaeoecological reconstruction of their environment and living strategy. An original solution of chemical preparation of the bryozoan zoaria from hard sandy limestones is interesting from methodological point of view. A large vocabulary of over 400 morphological terms and a short survey of regional geology and stratigraphy of studied area is added.
(Unpublished thesis, Charles University, Prague)

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STEPHANIAN ACANTHODIANS OF BOHEMIAN LIMNIC BASINS

ZAJÍC Jaroslav, Geological Survey, Prague

The isolated acanthodian scales and fin spines are relatively common in the Bohemian Stephanian. The partially articulated specimens are rare and no complete specimen has been found up to now. However, the fragmentary material has not only disadvantages. The isolated bones can be thoroughly prepared. For example, suprascapulae are mostly not visible in complete specimens but after the particular preparation of shoulder girdles they are frequently discovered. Similar situation was found in case of procoracoids. The most complete specimen shows one, probably unpaired "pelvic" fin spine. It is the same situation as in *Acanthodes bronni* and *A. gracilis* coming from the Rudník Horizon. However, reliably determined remains of the above mentioned species are limited to the Autunian. The procoracoid has a different shape that the procoracoids of other *Acanthodes* species. It rather looks like the procoracoid of *Howittacanthus kentoni* Long, 1986 from the Australian Upper Devonian. However, the taxonomical position of acanthodian remains from the Bohemian Stephanian is still uncertain.

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FAUNA OF THE LOCALITY VRCHLABÍ (KRKONOŠE PIEDMONT BASIN, UPPER STEPHANIAN - LOWER AUTUNIAN)

ZAJÍC Jaroslav, Geological Survey, Prague

The road cut at Vrchlabí yielded numerous animal fossils of the Rudník Horizon of the Vrchlabí Formation (Lower Autunian, 7 fossiliferous layers) and the burrows in the Semily Formation (Upper Stephanian). Following taxa have been found in the Rudník Horizon: *?Anthraconaia* sp., *Pseudestheria palaeoniscorum* (Fritsch, 1901), *P.* aff. *breitenbachensis* Martens, 1983, *Acanthodes gracilis* (Beyrich, 1848), *Xenacanthus carinatus* (Fritsch, 1890), *Paramblypterus* sp., Palaeonisciformes indet., *?Melanerpeton* sp., and *Protritonichnites lacertoides* (Geinitz, 1861). *?Anthraconaia* sp., *Pseudestheria* aff. *breitenbachensis*, and *Protritonichnites lacertoides* represent the new taxa for the Rudník Horizon. Carapaces of *Pseudestheria breitenbachensis* are the best preserved conchostracans of the horizon. Specimens of *Acanthodes gracilis* have uniquely preserved branchial skeleton (the best in Bohemia) and amphibians *?Melanerpeton* sp. are unusually common. The Rudník Horizon is consequently possible to join the *Pseudestheria palaeoniscorum* biozone (based on conchostracans), the *Acanthodes gracilis* biozone (based on fishes), and *Protritonichnites lacertoides* biozone (based on footprints).

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ICHTHYOLITHS OF THE KLOBUKY HORIZON (STEPHANIAN C)

ZAJÍC Jaroslav, Geological Survey, Prague

The clayey limestone from the locality Klobuky has been dissolved by 8% acetic acid. The great amount of ichthyoliths has been so far gained. The dissolution has not been finished yet and therefore the following determination of taxa is only

preliminary: Acanthodians - *Acanthodes* sp. (scales and fragments of fin spines), 2 spiny scales (new genus ?). Xenacanths - *Orthacanthus* sp. (teeth), spiral coprolites. Hybodonts - *?Limnoselache* sp. (mucous membrane denticles). Palaeoniscoids - *Progyrolepis speciosus* (sculptured teeth), *Sphaerolepis kounoviensis* (scales), *Spinarichthys dispersus* (scales), *?Watsonichthys* sp. (scales), gen. et sp. indet. (fragments of bones and jaws, teeth, scales, and segments of lepidotrichia). Dipnoans - *?Sagenodus barrandei* (fragments of scales). ?Amphibians - gen. et sp. indet. (one fragment of jaw).

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THE MIDDLE AND UPPER JURASSIC FAUNAS OF SOUTH PART OF THE ARABIAN PENINSULA

ZÁRUBA Bořivoj, National Museum, Prague

Almost 1500 remains of fossil invertebrate fauna have been found in the south part of South Yemen during the geological mapping programme conducted by Czech geologists. Altogether 79 species, mostly molluscs, from the Middle and Upper Jurassic were determined. A detailed account of fossil fauna of that region is presented.
(Submitted to: Časopis Národního muzea, Prague)

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A NEW EXOGYROIDAL OYSTER FROM THE LOWER CENOMANIAN OF ALGERIA

ZÁRUBA Bořivoj, National Museum, Prague

Numerous shells of exogyroidal oysters were found during the paleontological description of the various groups of Lower and Upper Cretaceous invertebrata that were obtained by the paleontological expedition of the National Museum of Prague from the Algerian mountains at Oulad Nail, in the vicinity of Bou-Saada. Their characters show a number of morphological and functional deviations from the species *Gryphaea africana* Lamarck 1801 (=*Rhynchostreon africanum*). Although several generic and sub-generic taxa have been distinguished from the original, rather broadly-based genus of *Exogyra*, this Algerian material cannot be identified. The overall shape of the shell and particularly the shape of its coiled umbo are reminiscent of *Exogyra*, but it differs very markedly from that genus by its characteristic sculpture and extension of the left valve. In the genus *Exogyra*, the radial costae cover the entire surface of the left valve, but in these new forms the radial costae are limited to the umbonal region of the left valve. As this character appears to show a very major morphological difference from other described exogyroidal taxa, I think it is necessary to describe these fossils as *Algerogyra* gen. nov., with *Algerogyra apicostulata* as type species.
(Submitted to: Časopis Národního muzea, Prague)

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PALYNOLOGICAL STUDIES IN THE BOREHOLES ŽDÁNICE 67 AND 68

ZDRAŽÍLKOVÁ Nela, Masaryk University, Brno

Single samples were studied from the coal sediments of the boreholes Ždánice 67 (780-785 m) and 68 (815-820 m). According to faunistic evaluation the age of deposits was determined as the Karpatian. These deposits were found in the underlayer of the Ždánice unit. Both associations show many facial influences. They represent plants of coastal swamps. Except pollen and spores, the plant tissues, spores of fungi and planktonic organisms occur. Among the plankton *Dinoflagellata* occurs, that demonstrates flood of the sea water into the basin. The more temperate elements were common, but only in low frequencies (Sapotaceae, Arecaceae, *Symplocos, Tricolpopollenites henrici, Calamus*, Sterculiaceae, *Engelhardtia* and *Platycarya*, Araliaceae). Both communities have very low percentage of arctotertiary elements (*Juglans, Betula, Carpinus*). Only *Ulmus* and *Alnus* are more numerous. The swamp environment is demonstrated by Taxodiaceae, Cupressaceae, Myricaceae, *Cyrilla, Ulmus*. Tricolpate and pricolporate forms are also significant components. Samples from the borehole Ždánice 68 include numerous grains of *Tilia*.In contrast to samples from Ždánice 67, a higher frequency of *Engelhardtia* and *Platycarya* and lower frequency of arctotertiary elements are typical. In the borehole Ždánice 67 the great amount of pollen grains of myricoid character (often with one subequatorial pore) is significant. It probably belongs to the group *Myricaceoipollenites* aff. *megagranifer* described by M. Konzalová from the Sloj Formation of the Chomutov and Žatec basins.

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A REVIEW OF THE SARMATIAN OSTRACODA OF THE VIENNA BASIN

ZELENKA Jaromír, Geological Survey, Prague

Based on the ostracod fauna, the Sarmatian is subdivided into *Cytheridea hungarica - Aurila mehesi* Assemblage Zone and the *Aurila notata* Total Range Zone. The latter zone can be subdivided into the *Aurila notata - Cyamocytheridea leptostigma leptostigma* Acme Zone and the *Hemicytheria hungarica - Leptocythere cejcensis* Subzone. A list of the typical ostracod fauna of each biozone is presented. The ostracod zonal division correlates well with zones based on foraminiferal fauna and can be distinguished throughout the entire area of the Central Paratethys.
(Published in: Whatley R. and C. Maybury, eds.: Ostracoda and Global Events. British Micropaleontological Society Publication Series, pp. 263-270. Chapman and Hall, London)

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OSTRACODA OF THE NORTHERN PART OF THE VIENNA BASIN

ZELENKA Jaromír, Geological Survey, Prague

Ostracod fauna significantly contributed to the stratigraphical determination of the Badenian, Sarmatian and Pannonian sediments of the northern part of the Vienna Basin. A list of studied localities of this area with ostracod occurrences is given in this paper. A stratigraphical division of the localities into corresponding stages, substages or biozones was accomplished on the basis of ostracods. Presented biostratigraphic characteristics of each stage enable correlations with biozones determined on the basis of other important groups (Foraminifera, Mollusca).