FORAMINIFERA BIOSTRATIGRAPHY OF THE LOWER CRETACEOUS FLYSCH OF THE UKRAINIAN CARPATHIANS

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Three biostratigraphic units have been distinguished in the Lower Cretaceous flysch of the Ukrainian Carpathians. They are regarded as regional zones.

Verneulinoides neocomiensis zone (Upper Hauterivian-Barremian). This zone has been established in the upper part of the Rakhov section and the lower part of the Shipot and Spass sections. The index species is accompanied by *Hippocrepina depressa* VASICEK, *Reophax minutus* TAPPAN, *Trochammina vocontiana* MOULLADE, *Glomospirella multivoluta* (ROMANOVA), *Gaudryina oblonga* ZASPELOVA, and *Pseudobolivina variabilis* (VASICEK).

Haplophragmoides nonioninoides zone. It has been established in the lower part of the Shipot and Spass sections, which consist mainly of dark shales. *Reophax minutus* TAPPAN, *Trochammina vocontiana* MOULLADE, *Plectorecurvoides irregularis* GEROCH, *Gaudryina filiformis* BERTHELIN, and *Pseudobolivina variabilis* (VASICEK) accompany the index species.

Plectocurvoides alternans zones (Albian). This zone has been established in the upper part of the Shipot ans Spass sections, which are sandy. The base of the zone is defined by the first appearance of the index species. In the lower part, the index species occurs frequently together with *P. alternans*. In the upper part, *Hormosina crassa* GEROCH, *Recurvoides imperfectus* (HANZLIKOWA), *Haplophragmoides gigas minor* NAUSS and *Thalmanammina neocomiensis* GEROCH are abundant.

CORRELATION OF CALPIONELLID AND NANNOFOSSIL BIOZONES IN TITHONIAN-NEOCOMIAN DEPOSITS OF THE SOUTH CARPATHIANS

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The following caplionellid zones and subzones have been distinguished in Tithonian-Neocomian pelagic carbonate successions (Pop, 1990):

— Crassicollaria zone (Late Tithonian pp.), including the Remanei, Intermedia and Colomi subzones

— Calpionella zone (Early-Middle Berriasian), with the Alpina, Ferasini and Elliptica subzones

— Calpionellopsis zone (Late Berriasian-basal Valanginian), comprising the Simplex, Oblonga, and Murgeanui subzones

— Calpioellites zone (Early Valanginian pp), with the Darderi and Major subzones

— Tintinnopsella zone (Late Valanginian - Hauterivian)

The Tithonian-Berriasian boundary is placed at the base of the Calpionella zone, corresponding with the lower limit of the Jacobi-Grandis (ammonite) zone. In the same successions, the following nannofossil zones could be identified (Melinte, 1991):

— *Conusphaera mexicana* (Early Tithonian pp), corresponding with the Chitinoidella zone

— *Polycostella beckmanni* zone (Early Tithonian pp-Late Tithonian), covering the Chitinoidella (uppermost part), Praetintinnopsella and Crassicollaria zones

— *Nannoconus steinmanni* zone (Early Berriasian pp), correlating with the Alpina subzone

— *Micrantholithus obtusus* zone (Early Berriasian pp-Later Berriasian), including the intervals of the Ferasini, Elliptica, and Simplex subzones

— *Stradneria crenulata* zone (Late Berriasian pp-Early Valanginian pp), comprising the intervals of the Oblonga, Murgeanui, and the lower part of the Darderi subzones

— *Speetonia colligata* zone (Early Valanginian pp-Late Valanginian pp), corresponding with the upper part of the Darderi subzone and the Major subzone, as well as the lower (pp) part of the Tintinnopsella zone

— *Calcicalatina oblongata* zone (Late Valanginian pp-Early Hauterivian)

— *Lithraphidites bollii* zone (Early Hauterivian pp-Late Hauterivian)

The last two zones correspond with the middle and upper parts of the Tintinnopsella zone.

Calpionellid and nannofossil evolutive events, especially the first appearance of species, have been used for establishing this zonation. The biochronologic units are therefore essentially interval zones.

MARINE CRETACEOUS SEDIMENTS IN SOUTH MORAVIA

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On the SE slopes of the Bohemian Massiv, marine regression began in the Lower