

Jakha, Patara Jakha; near the villages Sadzeguri, Korinta, Ananuri, Muguda, Avenisi, Pavleuri) have been studied.

Detailed study of the assemblage composition of calcareous plankton contents (calcareous nannofossil and planktonic foraminifera) of the Late Cretaceous sediments of the Zhinvali-Gombori subzone of the Mestia-Tianeti zone of the Greater Caucasus fold system (GCFS) has been carried out for the first time in this region to define biozonation. Within the limits of the Cenomanian-Maastrichtian 9 small foraminiferal and 19 nannoplankton biostratigraphic units (zones and subzones) have been established. Here are specified volume and age of lithostratigraphic units (successions) composing the Upper Cretaceous of the Mestia-Tianeti zone of GCFS: the Ukughmarti succession – CC9 (Early Cenomanian); the Ananuri succession – CC9-CC11 (Early Cenomanian-Early Turonian); the Margalitisklde succession – CC12-CC13 and planktonic foraminifera zones *Marginotruncana pseudolineiana*-M. *lapparenti* and *Marginotruncata sigali*. (Late Turonian-Early Coniacian); the Eshmakishevi succession - CC14-CC19 (Late Coniacian-Early Campanian) and zones *Archaeoglobigerina basquensis* and *Globotruncana arca* (upper part of the succession); the Jorchi succession – CC20-CC25a (Middle Campanian-Lower Maastrichtian), in the sediments of CC22c is established the small foraminiferal zone *Globotruncana ventricosa*-*Rugoglobigerina rugosa*; the Sabue succession – CC25b-CC26 and foraminiferal zone *Gansserina gansseri* (Late Maastrichtian).

The analysis of the Late Cretaceous nannoplankton and foraminifers association of the Zhinvali-Gombori subzone of the Mestia-Tianeti zone of GCFS has shown the existence of four sedimentary cycles: Cenomanian-Early Turonian, Middle Turonian-Early Campanian, Late Campanian-Early Maastrichtian and Late Maastrichtian. On the territory of Georgia contained in the Late Albian pool there were established some large sites of a land, where the Cenomanian sediments with the washout rest on the underlying formations. In the Cenomanian-Early Turonian there was a basin of isolated, regressive sea in the southern part of the moderately cold-water belt. From the Late Turonian the boundary between the warm- and moderately cold-water belts moved to the north. Transgression that started in the Late Turonian lasted till the Early Coniacian. In the middle part of the Early Coniacian is outlined shoaling of the basin. From the Late Coniacian to the end of the Santonian sedimentation took place in the shallow, calm marine basin. The omission of the nannoplankton CC19, CC20, CC21 and CC22a, b zones from the sections of the Zhinvali-Pkhoveli nappe and the analysis of the redeposited forms enables to admit break in sedimentation caused by Early Campanian regression and Late Campanian transgression. At the end of the Middle Maastrichtian took place a short-term regression that was replaced by the Late Maastrichtian transgression.

A latest Anisian radiolarite event in the High Karst Nappe in the Dinarides (Montenegro)

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In the High Karst Nappe in southern Montenegro radiolarites of unknown age topped the Upper Anisian Bulog Limestones (Late Pelsonian to Illyrian) in the investigated sections Boljevici near Virpazar and Obzovica on the road Budva to Cetinje. Radiolarian faunas from the radiolarites as well as conodonts from the overlying red hemipelagic limestones prove an Illyrian age of the radiolarites. The time interval of the deposition of the up to 5 m thick radiolarite successions is relatively short and started and ended in the Illyrian.

In the section Boljevici the hemipelagic succession starts with red hemipelagic Bulog Limestone on top of shallow-water limestones equivalent to the Ravni Formation (Dedovici Member) in the Outer Dinarides or the Steinalm Formation in the Eastern Alps/West

Carpathians. The drowning of the platform sediments can be dated by the occurrence of *Nicoraella germanicus*, *Nicoraella kockeli*, *Gondolella bulgarica*, and *Gondolella cf. bifurcata* as Late Pelsonian; these conodonts derive from the overlying Bulog Limestones. Deposition of the Bulog Limestones in this section lasted until the Illyrian, proven by the occurrence of *Gondolella excelsa*, *Gondolella trammeri*, and *Gondolella liebermanni*. Following radiolarians from the reddish laminated radiolarites on top of the Bulog Limestones prove an Illyrian age (Spongosilicarmiger italicus Zone to lower part of Ladinocampe multiperforata Zone; equivalent of Reitziites reitzi Ammonoid Zone): *Baumgartneria cf. retrospina*, *Cryptostephanidium cornigerum*, *Oertlispongos inaequispinosus*, *Paroertlispongos multispinosus*, and *Triassocampe scalaris*. The directly overlying sequence of the radiolarite is not exposed, but upsection follow Late Ladinian to Early Carnian shallow-water limestones and dolomites.

In the section Obzovica the drowning sequence of the carbonate platform is not exposed. Red limestones below the radiolarite succession belong to the Bulog Limestone. Upsection follows a five metre thick succession of red and partly grey well-bedded radiolarites. From the red radiolarites we isolated a well preserved Illyrian radiolarian fauna (Spongosilicarmiger italicus Zone; equivalent of Reitziites reitzi Ammonoid Zone) with: *Baumgartneria bifurcata*, *Baumgartneria cf. yehae*, *Cryptostephanidium cornigerum*, *Eptingium manfredi*, *Eptingium ramovsi*, *Falcispongos calcaneum*, *Hozmadia sp.*, *Oertlispongos inaequispinosus*, *Parasepsagon asymmetricus*, *Pseudostylosphaera japonica*, *Pseudostylosphaera tenuis*, *Spongostephanidium sp.*, *Triassocampe deweveri*, *Triassocampe scalaris*. In the upper part of the radiolarite sequence up to ten centimetre thick intercalated hemipelagic filament-bearing limestones are of latest Anisian to earliest Ladinian age, proven by the following conodonts: *Gondolella excelsa*, *Gondolella trammeri*, and *Gladigondolella tethydis*. Upsection the radiolarian cherts decrease rapidly and the following hemipelagic red limestones are of earliest Ladinian age, proven by conodonts. These red limestones pass continuously into grey hemipelagic limestones of Late Ladinian age (with *Gladigondolella tethydis* and *Gondolella foliata*), topped by shallow-water dolomites of Late Ladinian to Early Carnian age.

This short-lasting latest Anisian radiolarite event in the succession of the High Karst Nappe is contemporaneous with the complete demise of shallow-water carbonate production in the whole western Tethyan realm and corresponds to the onset of the first radiolarites on the Neotethys Ocean floor, as proven in Albania and northern Croatia as well as in the Meliata Unit in Slovakia and Hungary. In the late Anisian the huge parts of the passive margin facing the newly formed Neotethys Ocean became flooded and volcanic ashes and radiolarites were deposited in the whole Dinarides reaching the palaeogeographic realm of the High Karst Nappe. Obviously, volcanics in our sections are preserved only as some thin intercalations of metabentonites. The latest Anisian radiolarite deposition corresponds also to the onset of intense volcanism in the Dinarides more to the north and in the southern Alps in Italy. The studied successions are nice examples of short-lived hemipelagic basins that formed on continental margin during the late Anisian rifting and were later, in the Ladinian and Early Carnian, completely infilled with sediments of prograding carbonate platforms.

Palaeoenvironment of the Eocene-Oligocene of the northern Ukraine in the light of palynological analysis and comparison with coeval Carpathian strata

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Eocene-Oligocene sequence of the northern Ukraine consists of diversified, mainly non-calcareous clastic deposits representing following lithostratigraphic units: Kanev Formation (?Ypresian), Buchak Formation (Lutetian), Kiev Formation (Upper Lutetian-