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the identification of five ammonite zones, one subzone and two horizons, namely: the zones *Dufrenoyia justinae*, of the Lower Aptian, *Caseyella aguilerae* and *Kazanskyella* sp. of the Upper Aptian, *Immunitoceras* sp. of the Upper Aptian-Lower Albian and finally *Douvilleiceras* sp. which is assigned to the Lower Albian; the subzone *Gargasicerat? adkinsi*, at the topmost of the Lower Aptian D. *justinae* Zone; and the horizons *Huastecoceras trispinosoides* and *Paracheloniceras* sp., which define the base and the top of the Upper Aptian respectively. The preliminary ammonite zonation presented herein is based on an exhaustive taxonomic revision of the Aptian and Albian species, including sampled material and specimens of previous works being currently held in official paleontological collections. Several Mexican endemic species as well as some genera, also present in the south of the United States and probably in some Latin American countries, are currently under revision. The Mexican ammonite zonation will be improved with the incorporation of the stratigraphic ranges of those taxa into the scheme.

1242 - The Lower Upper Cenomanian deposits at El Golea from Tademaït Basin (Central Algerian Sahara) Sedimentologic Paleoenvironmental and Taphonomic analysis.

*Bouregaa Slimane*¹, Bensalah Mustapha²

Laboratoire Géologie du Sahara Université Kasdi Merbah Ouargla Sciences de la Terre et de l'Adrar-Algeria¹

Laboratoire de Recherche n° 25 « PRHPM-LECT », Université de Tlemcen Sciences de la Terre et de l'Univers Tlemcen-Algeria²

In this work, the basal part of Upper Cenomanian deposits from the "Calcaires inférieurs" Formation at El Golea in north of Tademaït Basin (Algeria) is studied from the sedimentological, taphonomic and environmental points of views for the first time.

The successions which are sampled and measured correspond to the *Neolobites vibrayeanus* zone where it is represented by three facies : a- dolomitic limestones containing scarce pioneer oyster, b- white chalky limestones which are very bioturbated (mainly thalassinoids), which contain rich fauna represented by bivalves, cephalopods, gastropods, echinoids, stromatoporoids and coral; c- bioclastic limestones with pecten rich beds.

By the analysis of lithofacies and biofacies we suggest that these facies, in first marks the onset of transgression, within were deposited under shallow subtidal conditions in the offshore system; and secondly, it indicates very shallow conditions (intertidal to supratidal); which reflect a shallowing upward evolution. The presence of ammonites and echinoids in this facies suggest Stenohaline conditions, with low energy; Also, the occurrence of high bioturbation indicates that the bottom water was well oxygenated throughout this time. But the low specific diversity may reflect an eventual stress in paleo-environmental conditions.

By analysis of the taphonomic parameters of macrofauna such: the orientation of shells, the degree of disarticulation, bioerosion and encrustation we distinguished that there were different taphonomic features point to the manifest of an episodic storm events.

The studied successions can be interpreted as there were deposited during transgressive/regressive cycle of third order. This case study gives us valuable insights in order to understand the effects of sea level changes in carbonates depositional systems.

1133 - Early Cretaceous marine gastropods from west-central Argentina and their palaeoecology and palaeobiogeographic affinities

Cataldo Cecilia Soledad¹, Lazo Dario Gustavo¹

Universidad de Buenos Aires Ciencias Geológicas-FCEN-IDEAN Buenos Aires-Argentina¹

The Lower Cretaceous outcrops of the Argentinean Neuquén Basin bear an abundant and relatively diverse marine gastropod fauna that was scarcely studied in the past and required a thorough taxonomic revision. Also, its palaeoecological and palaeobiogeographic implications were not assessed so far. The present work is based on the revision of former collections in addition to further field collecting. More than 2200 specimens were studied, coming from 39 localities in west-central Argentina where the Lower Valanginian-Lower Barremian bearing units are exposed. The taxonomic study revealed the presence of 26 gastropod species belonging to 20 genera and 18 families. Eight taxa were recorded for the first time in this basin. This fauna shows palaeobiogeographic affinities at different taxonomic levels with the lower Cretaceous gastropods from the Andean basins of Chile, Peru, northwest South America, the Argentinean Austral Basin, the Antarctic Peninsula, the Tethys area and northern Europe. The palaeoautoecology of the recorded taxa was evaluated and a predominance of epifaunal over semi-infaunal and

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infaunal species was found. Also, epifaunal grazing and/or deposit feeding were more common, although several carnivore species were present. This work represents a landmark advance in our knowledge of the Lower Cretaceous gastropod faunas of the Southern Hemisphere.

1179 - *Pseudocosmaticeras brandti* (Redtenbacher) and *Cataceramus barabini* (Morton) a key fossil assemblage from the uppermost Campanian of the East-Fore Balkan (Bulgaria)

*Dochev Docho*¹

Sofia University Geology, Paleontology and Fossil fuels Sofia -Bulgaria ¹

The eastern part of the East Fore-Balkan tectonic unit (Bulgaria) contains varied epicontinental carbonate Upper Cretaceous rocks. The latter usually compose prominent outliers that occur near the northern boundary of the East Fore-Balkan. One of them called "Pizdrishki kairyak" and located close to the Tsonevo dam (Varna District) offers good Campanian–Maastrichtian exposures that yielded interesting coeval ammonites and inoceramids. The ammonites of *Pseudocosmaticeras brandti* (Redtenbacher, 1873) and the inoceramids of *Cataceramus? barabini* (Morton, 1836) have been identified and referred this assemblage to the Campanian.

P. brandti is widely distributed ammonite species in Europe, and designated as Upper Campanian marker fossil in Northern Aquitaine (France). It has been described from different localities in Bulgaria before, but always associated with Lower Maastrichtian strata. *C.? barabini* is an inoceramid taxon that occurs in the uppermost Campanian and the lowermost Maastrichtian in the U. S. Western Interior, whereas in Europe (including Bulgaria), it appears later on, and associates with the lower Maastrichtian.

The fossil assemblage of the Pizdrishki kairyak locality gives a new data about the stratigraphic occurrence of *C.? barabini* in Bulgaria, and suggests an earlier lower FAD of this inoceramid at the uppermost Campanian in Bulgaria. This study is supported by the Bulgarian National Science Fund (Grant DMU 03/64).

1113 - New ammonite data for the biostratigraphy of the Upper Barremian in North Bulgaria

*Idakieva Vyara*¹, Ivanov Marin ¹

Sofia University "St. Kliment Ohridski" Department of Geology, Palaeontology and Fossil Fuels Sofia-Bulgaria ¹

The objective of this work is to represent a modern detailed biostratigraphic subdivision of the Upper Barremian based mainly on recent findings of an abundant and well-preserved ammonite fauna in North Bulgaria. The sediments with Late Barremian age are widely distributed in the studied area, belonging to different facies. The richest cephalopod assemblages have been collected from the clayey limestone and marl deposits. The ammonite assemblages are dominated by heteromorphic taxa and by the last representatives of Pulchellidae. In the last years the standard Mediterranean ammonite zonation has been significantly modified, due to changes in the zonal and subzonal ranks, correction in ammonite ranges, taxonomic revisions, etc. This leads to highly differentiated zonal scheme for the Upper Barremian. The newly established representatives of the genera *Artareites*, *Camereiceras*, *Gassendiceras*, *Pseudoshasticoceras* are reported for the first time in Bulgaria. Of a particular interest are some recently collected specimens belonging to genus *Gassendiceras*, which representatives were proposed for a horizon markers in the Tethyan Realm. This study allowed the recognition of the following ammonite zones: *Toxancyloceras vandenheckii*, *Gerhardtia sartousiana*, *Imerites giraudi* and *Martelites sarasini*. These zones and their subdivisions can be correlated with the standard Mediterranean ammonite zonal scheme.

1081 - Lower Valanginian ammonite biostratigraphy in the Betic Cordillera (southeastern Spain) new data

*Company Miguel*¹, Tavera José M. ¹

Universidad de Granada Departamento de Estratigrafía y Paleontología Granada-Spain ¹

The Lower Valanginian ammonite biostratigraphy in the Mediterranean region has little changed during the last fifteen years, which strongly contrasts with the substantial improvements introduced in the zonal schemes for other Lower Cretaceous stratigraphic intervals. In this communication, we present a new zonation for the Lower Valanginian in the Betic Cordillera, based on the analysis of the stratigraphic distribution of more than 10000 ammonites collected bed-by-bed in some fifteen sections in the Caravaca-Cehegín region (SE Spain). From bottom to top, the following biostratigraphic units can be distinguished: