Резюмета на научните публикации
на гл. ас. д-р Вяра Идакиева Стоянова

за участие в конкурса за заемане на академичната длъжност "*доцент*" по научно направление *4.4 „Науки за Земята",* научна специалност „Палеонтология и стратиграфия"

Научни статии в периодични издания

1. **Idakieva, V**. 2007. Taxonomy of scleractinian corals from the Barremian-Lower Aptian of Central North Bulgaria (Lovech Urgonian Group). – *Ann. Univ. de Sofia, Fac. Geol.-geogr.,* 100, 1, 29-66.

Abstract. The aim of the present paper is taxonomical descriptions of the scleractinian corals from the Urgonian complex (Lovech Urgonian Group) in Bulgaria. The study area is situated in the vicinity of the Central Fore-Balkan, Central North Bulgaria. The Lovech unit is formed by an alternation of carbonate and terrigenous formations. Biostratigraphic data, based chiefly on ammonites, determine Early Barremian-Early Aptian age of the sediment successions. Object of investigations is the coral fauna from the siliciclastic intervals, coming from different stratigraphic levels and showing high taxa diversity. This paper is divided into two parts. The present part includes descriptions of 21 species, belonging to 14 genera of 10 families and 5 suborders.

2. **Idakieva, V.** 2008. Taxonomy of scleractinian corals from the Barremian-Lower Aptian of Central North Bulgaria (Lovech Urgonian Group). – *Ann. Univ. de Sofia, Fac. Geol.-geogr.,* 101, 1, 5-32.

Abstract. The purpose of the present paper is to describe taxonomically scleractinian corals from the Urgonian complex (Lovech Urgonian Group) in Bulgaria. The Lovech unit is formed by an alternation of carbonate and terrigenous formations. Biostratigraphic data, based chiefly on ammonites, determine Early Barremian-Early Aptian age of the sediment succession. Object of investigations is the coral fauna from the siliciclastic intervals, coming from different stratigraphic levels and show high taxa diversity.

3. Иванов, М., Стойкова, К., **Идакиева, В.** 2010. Нови биостратиграфски данни за горния титон и долния бериас в част от Краището (Югозападна България). – *Год. Соф. унив. Геол.-геогр. фак., 102,* 1, 21-41.

Abstract. The Lower Cretaceous Series in Krayshte area (SW Bulgaria) is represented by siliciclastic sediments, referred to the Kostel Formation. The latter consists of two members: Bobovo Mb and Gorochevtsi Mb. The Lower Cretaceous rocks are building up the upper part of the Gorochevtsi Mb only. The present study covers the Upper Tithonian — Lower Berriasian interval of the Gorochevtsi Mb in the section cropping out between Polyana hamlet (ex-Tyutyundzhiiska) of Kosacha village and Kopanitsa, Pernik District (SW Bulgaria). The biostratigraphic interpretations are based on ammonite and calcareous nannofossils finds. The recorded ammonite fauna indicates or proves the occurrence of several ammonite zones. In the Upper Tithonian, Micracanthoceras microcantum Zone (with Paraulacosphinctes transitorius Subzone in its upper part) is indicated and Durangites Zone is distinguished (with

Durangites singularis, Durangites cf. vulgaris, Durangites aff. astillerensis, Protacanthodiscus cf. andreaei, Protacanthodiscus sp.). In the basal Berriasian, Berriasella jacobi Zone is evidenced (comprising Berriasella jacobi, Subapinites aff. aristidis, Delphinella janus, Fauriella shipkovensis, Berriasella sp.).

The Durangites Zone is detected for the first time in Bulgaria, which provokes a necessary revision of the ammonite criteria for drawing Jurassic-Cretaceous boundary in Bulgaria. The problem is pending long ago in Bulgarian stratigraphic practice, especially after the results of detailed micropaleontological studies across the J-K boundary interval (Lakova et al., 1997; 1999).

At present, Bulgarian ammonite workers traced the J-K boundary between Malbosiceras chaperi Subzone (Upper Tithonian) and Pseudosubplanites grandis Zone (Lower Berriasian). Here we suggest in Bulgaria to draw this boundary at the top of Durangites Zone and at the base of Berriasella jacobi Zone. In this way, it will match the worldwide accepted agreement/criteria and will tie up to the position already recognized by microfauna and nannoflora (Lakova, 1993; Lakova et al., 1997; 1999).

4. Fenerci-Masse, M., Masse, J.-P., Ko1odziej, B., Ivanov, M., **Idakieva, V**. 2011. *Mathesia darderi* (Astre) (Bivalvia, Hippuritoidea, Monopleuridae): Morphological, biogeographical and ecological changes in the Mediterranean domain during the late Barremian-Albian. – *Cretaceous Research, 32*, 407-421.

Abstract. Mathesia darderi, a slender cylindrical monopleurid genus, formerly documented from the late Aptian-Albian of Spain, France, Tunisia, Algeria, Egypt and Turkey, has been discovered in the upper Barremian and the lower Aptian of Bulgaria and Spain. Notwithstanding some morphological changes, Barremian-lower Aptian forms and those of the upper Aptian-Albian possess the same myocardinal organisation and the same microstructural attributes. The inner shell margin of the right valve displays scalloped, festooned, tubular and vermiform microstructures. The most prominent evolutionary trait of M. darderi is the increase in body size through time. A statistical analysis of size distributions show that populations of the late Barremian-early Aptian, and the late Aptian, and those of the early to middle Albian, are significantly different; a pattern which has a biostratigraphic potential. Ecological changes through time are expressed by a displacement of communities from the central/distal part, to the proximal part of carbonate platforms. M. darderi is present locally in the upper Barremian-lower Aptian, and has its major spreading over the European and Arabo-African margins of the Mediterranean Tethys during the Clansayesian-lower to middle Albian. The disappearance of the species at the Middle-Upper Albian boundary, correlates with a critical, spatial reduction of carbonate platforms.

5. Reboulet, S., Rawson, P.F., Moreno-Bedmar, J.A., Aguirre-Urreta, B., Barragán, R., Bogomolov Y., Company, M., González-Arreola, C., **Idakieva, V.**, Lukeneder, A., Martrion, B., Mitta, V., Vasicek, Z., Baraboshkin, E.J., Bert, D., Bersac, S., Bogdanova, T., Bulot, L., Latil, J.-L., Mikhailova, I., Ropolo, P., Szives, O. 2011. Report on the 4th International Meeting of the IUGS Lower Cretaceous Ammonite Working Group, the "Kilian Group" (Dijon, France, 30st August 2010). – *Cretaceous Research*, 32, 786-793.

Abstract. The 4th Kilian Group meeting (Dijon, France, 30th August 2010) focused on the Aptian and Albian Stages. For the Aptian, a two-fold division of the stage was adopted for the

Mediterranean area with a boundary between the Dufrenoyia furcata and Epicheloniceras martini Zones. The main changes to the zonal scheme concern the Lower Aptian with: the introduction of a Deshayesites luppovi Subzone in the upper part of the Deshayesites oglanlensis Zone; the replacement of Deshayesites weissi by Deshayesites forbesi as new index-species of the second interval zone; the introduction of a Roloboceras hambrovi Subzone in the upper part of the D. forbesi Zone; and the subdivision of the D. furcata Zone into the D. furcata and Dufrenoyia dufrenoyi Subzones. For the Albian, the upper part of the Douvilleiceras mammillatum Zone (Lower Albian) is now characterized by a Lyelliceras pseudolyelli Subzone. The main amendments concern the Upper Albian. The base of this substage is defined by the base of the Dipoloceras cristatum Zone. Above it, the Upper Albian zonal scheme comprises in stratigraphic order the Mortoniceras pricei, Mortoniceras inflatum, Mortoniceras fallax, Mortoniceras rostratum, Mortoniceras perinflatum and Arrhaphoceras briacensis Zones.

6. Kolodziej, B., Ivanov, M., **Idakieva, V**. 2012. Prolific development of pachythecalines in Late Barremian, Bulgaria: Coral taxonomy and sedimentary environment. – *Annales Societatis Geologorum Poloniae, 82*, 291-330.

Abstract. Diversified and abundant corals of the suborder Pachythecaliina (order Hexanthiniaria) are described from Upper Barremian, biostromal reefs of the Emen Formation, Lovech Urgonian Group, north central Bulgaria. The corals are mostly of the phaceloid growth form and represent 14 species (six new), 12 genera (three new), belonging to five families. Pachythecaliines occur with the small, monopleurid cylindrical rudist *Mathesia darderi*. The rudists frequently are densely clustered, occur between coral branches or are in contact with them. Other corals, with the exception of the phaceloid *Calamophylliopsis*, and other rudists, are rare. Non-laminated microbialite crusts provided additional, structural support for bioconstruction development. Microbialites (automicrites) can be interpreted as a product of microbial activity, or alternatively, as a result of carbonate precipitation, brought about by non-living organic substrates (organomineralization *s.s.*). In addition to microbialites, metazoans are encrusted by heterotrophic skeletal microorganisms, while photophilic and oligotrophic microencrusters, usually common in other coral-bearing limestones of the Emen Formation, are very rare. The section at the Rusalya Quarry (NW of Veliko Tarnovo), about 42 m thick, provides the sedimentary and environmental context for the reefal biostromes. The vertical biotic and sedimentary succession displays a general shallowing trend: from the outer carbonate platform with bioclastic limestones containing small boundstone patches (corals, but not pachythecaliines, *Lithocodium aggregatum*), to the inner platform with rudist biostromes. The pachythecaliine-rich biostromes, 2.5 m thick, were developed in a low-energy environment, referred to the distal part of the rudist-dominated area of the platform. The development of microbialites was facilitated by a low sedimentation rate, and possibly by increased nutrient level. Only poorly diversified and non-phaceloid pachythecaliines occur in other coral-rich limestones and marls of the Urgonian complex in Bulgaria. The assemblage described is the most remarkable, Early Cretaceous coral community worldwide, with regard to pachythecaliines. Phaceloid pachythecaliines are only more common in the Upper Jurassic rocks, being particularly diversified in the Tithonian–Lower Berriasian Štramberk Limestone (Czech Republic) and its equivalent in the Polish Outer Carpathians. However, their sedimentary context differs from that described for the corals of the Emen Formation.

7. Ivanov, M., **Idakieva, V**. 2013. Lower Aptian ammonite biostratigraphy and potential for further studies of OAE 1a in Bulgaria. – *Cretaceous Research*, *39*, 47-69.

Abstract. Sediments of Early Aptian age in Bulgaria can be assigned to four different facies: platform carbonates (Urgonian complex), shallow-water siliciclastics, hemipelagic and flyschoid siliciclastics. The taxonomic analysis of the ammonite faunas of 18 sections from these four different facies resulted in a revision of the existing ammonite zonation scheme so far applied in Bulgaria and adjoining areas. A new biostratigraphic scheme, which bridges the western and eastern Tethys, is thereby proposed for the Lower Aptian of Bulgaria. The Upper Barremian *Martelites sarasini* Zone is characterized in its upper part by the *Pseudocrioceras waagenoides* Subzone in the shallow-water sections and by a horizon with *Turkmeniceras turkmenicum* in the deep-water settings. The Upper Barremian/Lower Aptian boundary is fixed by the first appearance of *Paradeshayesites oglanlensis*. For the Lower Aptian the following ammonite zones were established (from bottom to top): The *Paradeshayesites oglanlensis* Zone, the *Deshayesites forbesi* Zone (= formerly *Paradeshayesites weissi* Zone) including the *Roloboceras hambrovi* Subzone in the upper part, the *Deshayesites deshayesi* Zone including the *Paradeshayesites grandis* Subzone in the upper part and the *Dufrenoyia furcata* Zone. The Lower-Middle Aptian boundary has been defined by the appearance of species belonging to the genera *Epicheloniceras* and *Colombiceras*. The Lower Aptian ammonite faunas of Bulgaria, allow an interregional correlation with other areas of the Tethyan Realm. The presence of Turkmeniceras in the Upper Barremian enables a correlation with the Transcaspian region, whereas *Roloboceras*, *Koeneniceras* and *Volgoceratoides* found in the middle part of the Lower Aptian are more typical representatives of the ammonite faunas in northern Europe (England, Germany, Volga region). The analysis of the ammonite successions in combination with sedimentological observations enable us to conclude that the marls and marly limestones of the Lower Aptian studied here also cover the interval of the Oceanic Anoxic Event 1a. An interval of thin-laminated clays, rich in organic matter, was identified in the upper part of the *D. forbesi* Zone (*Roloboceras hambrovi* Subzone). This interval is characterized by a total lack of benthic faunas.

8. Reboulet, S., Szives, O., Aguirre-Urreta, B., Barragán, R., Company, M., **Idakieva, V.**, Ivanov, M., Kakabadze, M.V., Moreno-Bedmar, J.A., Sandoval, J., Baraboshkin, E.J., Çaglar, M.K., Fözy, I., González-Arreola, C., Kenjo, S., Lukeneder, A., Raisossadat, S.N., Rawson, P.F., Tavera, J.M. 2014. Report on the 5th International Meeting of the IUGS Lower Cretaceous Ammonite Working Group, the "Kilian Group" (Ankara, Turkey, 31st August 2013). – *Cretaceous Research*, *50*, 126-137.

Abstract. The 5th meeting of the IUGS Lower Cretaceous Ammonite Working Group (the Kilian Group) held in Ankara, Turkey, 31st August 2013, discussed the Mediterranean ammonite zonation, and its calibration with different ammonite zonal schemes of the Boreal, Austral and Central Atlantic realms. Concerning the standard zonation, that corresponds to the zonal scheme of the West Mediterranean province, some changes have been made on two stages. For the Valanginian, the *Busnardoites campylotoxus* Zone was abandoned; the upper part of the lower Valanginian is now characterised by the *Neocomites neocomiensiformis* and *Karakaschiceras inostranzewi* zones. For the upper Barremian, the former *Imerites giraudi* Zone is here subdivided into two zones, a lower *I. giraudi* Zone and an upper *Martellites sarasini* Zone. The *I. giraudi* Zone is now subdivided into the *I. giraudi* and *Heteroceras emerici* subzones, previouslyconsidered as horizons. The current *M. sarasini* and *Pseudocrioceras waagenoides* subzones correspond to the lower and upper parts of the *M. sarasini* Zone, respectively. The *Anglesites puzosianum* Horizon is kept. The Berriasian,

Hauterivian, Aptian and Albian zonal schemes have been discussed but no change was made. The upper Hauterivian zonal scheme of the Georgian (Caucasus) region (East Mediterranean province) has been compared with the standard zonation. Discussions and some attempts at correlations are presented here between the standard zonation and the zonal schemes of different palaeobiogeographical provinces: the North-West European area for the Valanginian and Hauterivian, the Argentinean region for the Berriasian, Valanginian and Hauterivian, and the Mexican area for the Valanginian-Hauterivian and Aptian-lower Albian. The report concludes with some proposals for future work.

9. Kolodziej, B., **Idakieva, V**., Ivanov, M., Salamon, K. 2016. New record of endolithic algae syn-vivo associated with an Early Cretaceous coral. – *Carnets de Géologie, 16*, 633-640.

Abstract. Euendolithic microorganisms (boring endoliths) *syn-vivo* associated with modern corals are commonly reported, but their fossil record is extremely rare. This paper reports the new finding recognized in the colonial scleractinian coral *Clausastrea saltensis* from the Upper Barremian of Bulgaria. Large microborings (up to 50 μm, most ca. 15-25 μm in diameter) filled with calcite cement are distributed medially along coral septa of some corallites. Borings were produced by microeuendoliths growing from the skeleton interior outward during the life of the coral host. They are compared to traces produced by the recent oligophotic filamentous chlorophyte *Ostreobium*, which is known to be the most common skeleton-dwelling alga in modern living corals and regarded as neutral or beneficial to the coral. In terms of general morphology, diameter and distribution pattern, the borings are similar to those recently recognized in the Early Cretaceous microsolenid coral.

10. Chen, X., **Idakieva, V.**, Stoykova, K., Liang, H., Yao, H., Wang, C. 2017. Ammonite biostratigraphy and organic carbon isotope chemostratigraphy of the early Aptian oceanic anoxic event (OAE 1a) in the Tethyan Himalaya of southern Tibet. – *Palaeogeogr. Palaeoclimatol. Palaeoecol., 485*, 531-542.

Abstract. The early Aptian oceanic anoxic event (OAE 1a) is well known in the western Tethys, the North Atlantic and the Pacific Ocean, but has not been reported in the eastern Tethys to date. In this paper,we present bulk organic carbon isotope data and ammonite biostratigraphy of a lower Aptian succession from the Gucuo area (southern Tibet). These findings document the occurrence of the OAE 1a for the first time fromthe eastern Tethys. The studied sequence can be attributed to the *D. forbesi* and *D. deshayesi* ammonite zones of the lower Aptian. The $\delta^{13}C_{org}$ data can be correlated with published early Aptian carbon isotope records from the western Tethys and the Pacific. A distinctive negative carbon isotope excursion of 2.4‰ in the upper part of the section corresponds to segment C3 of the OAE 1a, and the following positive excursion correlates to segment C4. The absolute values of the carbon isotope ratio in the Gucuo area are higher than those of known sections in the western Tethys and equatorial Pacific. We suggest that diagenetic alteration is the major cause of the higher absolute values in the Gucuo area.

11. Dochev, D., **Idakieva, V.**, Ivanov, M., Velev, S., Bonev, K. 2017. Ammonite fauna from the Byers Peninsula, Livingston Island, South Shetland Islands, Antarctica. – *C. R. Acad. bulg. Sci., 70*, 11, 1557-1566.

Abstract. The Byers Group, exposed on the Byers Peninsula (Western Livingston Island, Antarctica), comprises thick Upper Jurassic{Lower Cretaceous sedimentary and volcanic

succession, deposited in marginal fore-arc environments. The mudstones and coarse-grained sandstones of the Devils Point Formation and the President Beaches Formation, which are the most fossiliferous parts of the Byers Group, yielded various invertebrate fossils and plant remains. Relatively abundant and varied in species ammonite fauna was found in the upper Tithonian{lower Berriasian sediments in the Devils Point and a part of President Beaches areas, in the southwestern part of the Byers Peninsula. The main focus of this work is the biostratigraphic interpretation of the newly collected ammonites, belonging to the genera *Haplophylloceras* Spath, 1925; *Argentiniceras* Spath, 1925; *Spiticeras* Spath, 1922; and *Protancyloceras* Spath, 1924.

12. Stoykova, K., **Idakieva, V.**, Ivanov, M., Reháková, D. 2018. Calcareous nannofossil and ammonite integrated biostratigraphy across the Jurassic-cretaceous boundary strata of the Kopanitsa composite section (West Srednogorie Unit, southwest Bulgaria). – *Geol. Carpathica, 69*, 2, 199-217.

Abstract. Calcareous nannofossil, calpionellid and ammonite occurrences have been directly constrained across the Jurassic–Cretaceous boundary interval in the section of Kopanitsa, SW Bulgaria. This section reveals a continuous and expanded sedimentary record through the Upper Tithonian and Lower Berriasian, besides an excellent calcareous nannofossil and ammonite record. The topmost part of the NJT 16b and the base of NJT 17a nannofossil Subzones correspond to the ammonite Microcanthum / Transitorius Subzone. The major part of the NJT 17a Subzone equates to the Durangites spp. ammonite Zone, whereas the NJT 17b Subzone correlates to the lower part of the B. jacobi ammonite Zone. The NKT nannofossil Zone approximately corresponds to the upper part of the B. jacobi Zone and the NK-1 nannofossil Zone correlates at least to the lowest part of the T. occitanica Zone. The FOs of *Nannoconus globulus minor, N. wintereri, N. kamptneri minor, N. steinmannii minor, N. kamptneri kamptneri* and *N. steinmannii steinmannii* are confirmed as reliable bio-horizons for correlations in the Mediterranean Tethys area. The first occurrence of *Nannoconus wintereri* is regarded as an almost concomitant event with the first occurrence of *Berriasella jacobi*. We suggest it could be the most useful nannofossil proxy for approximating the base of the B. jacobi Zone. Rare, but relatively well preserved calpionellids and calcareous dinoflagellates together with microfacies analysis were used additionally for stratigraphical and palaeoenvironmental interpretations. The investigated sediments are typical for the steep slope of a steepened ramp, with accumulation of hemipelagic and gravitational deposits.

Публикувани доклади и разширени резюмета от научни форуми

1. Ivanov, M., **V. Idakieva**, B. Kolodziej, V. Zlatarski. 2007. Scleractinian assemblages and bioconstructions from Urgonian Complex of Central Northern Bulgaria. – *X International Congress on Fossil Cnidaria and Porifera*, St. Petersburg, p. 45-46.

Abstract. The Lovech Urgonian Group from Central North Bulgaria consists of four terrigenous and four carbonate formations formed during Barremian-Early Aptian, along the northern Tethyan margin. Corals, rudists, chaetetids and microbialites participated in the formation of bioconstructions. Coral assemblages from marls and limestones do not show significant differences in coral content and diversity, but different sedimentological regimes influenced coral morphology, associated biota and lithology.

2. Kolodziej, B., **V. Idakieva**, M. Ivanov, V. Zlatarski. 2007. Coral growth forms and growth-interruptions in turbid-water bioconstructions: examples from Lower

Cretaceous, Bulgaria. *X International Congress on Fossil Cnidaria and Porifera*, St. Petersburg, p. 54-55.

Abstract. The Lovech Urgonian Group (Barremian-Early Aptian) in the Central North Bulgaria contains coral bioconstructions both in limestones and marls. The latter are examples of turbid-water bioconstructions which are formed by corals adapted to turbidity and terrigenous sedimentation, as well as to increased nutrient input. Growth form and its modifications have a great potential as indicator of environmental factors, such as water depth and energy, sedimentation rate, substrate stability, and illumination. The analysed coral assemblages are abundant and diversified. Sedimentation input, reduced illumination, and a soft substrate seems to be the main stress factors controlling distribution, growth form, and growth interruptions of the studied corals.

3. Idakieva, V., M. Ivanov. 2008. Morphological specificity of scleractinian corals in selected marl-clay intervals in the Lovech Urgonian Group (Central North Bulgaria). – В: *60 години специалност геология (юбилеен сборник)*. С. Унив. изд. "Св. Кл. Охридски", 141-144.

Abstract. The Lovech Urgonian Group is typical mixed unit, consisting of four carbonate and four siliciclastic bodies. The study is specially focused on the corals from marly and calcareous clayey intervals of the siliciclastic-carbonate sequences of the group. The aim of this investigation is to analyze the influence of some environmental factors (sediment input, turbidity, substrate) on the coral growth forms and on the degree of polyps integrations. The dominance of fasciculate and flabellate corals is typical feature, which is indicative of areas with rapid fine-grained sediment accumulation and respectively high water turbidity. Most probably these corals were of high sediment tolerance and had the potential to keep peace with the substantial sedimentation. The morphological variety among the specimens of *Gyrodendron* probably is a result of high ecological plasticity, or due to species diversity. Specific shapes of massive colonies are indicative of coral growth under conditions of high episodic sedimentation on soft and unstable substrate. The shift in the regime of sedimentation, related to the specific platform evolution and sea-level fluctuations, resulted in development of various types small-scaled bioconstructions in upper parts on the sections.

4. Иванов, М., **В. Идакиева**. 2008а. Стратиграфия на кондензирания разрез в граничния интервал хотрив-барем северно от гр. Шумен (Североизточна България). – В: *60 години специалност геология (юбилеен сборник)*. С. Унив. изд. "Св. Кл. Охридски", 93-98.

Abstract. The condensed intervals within the sediment sequences of Barremian have been known from northeastern Bulgaria. They composed of thin beds (from 5 to 20 cm), which are included in limestones or marls in the scope of Razgrad Formation. Commonly, the condensed intervals in the sections are marked by increased contents of glauconite and by presence of phosphoritic concretions and phosphatized fossils (cephalopods, bivalves, gastropods etc.). The prevailing part of ammonites occurs as fragments with bad-preserved ornamentation that hamper its precise taxonomic identification. Only a small part of them are well-preserved and could be used for biostratigraphic interpretations. From the condensed section near Kalino (to the north of Shumen) were collected and identified ammonite species of genera *Crioceratites, Pseudothurmannia, Acrioceras, Valdedorsella, Barremites, Plesiospitidiscus, Paraspiticeras*. From this condensed interval is specified mixed ammonite association from the Uppermost Hauterivian (Pseudothurmannia angulicostata Zone) and

Lowermost Barremian ammonites (Taveraidiscus hugii Zone). This time interval is practically synchronous to the well-known anoxic event "Faraoni" from North Italy and Southeast France. The condensed interval is overlain by marls and alternation of marls and clayey limestones. Within these sediments were found a few specimens of the index species of the Lowermost Barremian Taveraidiscus hugii Zone.

5. Иванов, М., **В. Идакиева**. 2008b. Нови данни за амонитното зониране на баремския етаж в част от СИ България. – Сб. разширени резюмета от Нац. конф. Геонауки, 2008, С., Унив. изд. "Св. Кл. Охридски", 59-60.

Abstract. On the base of a new ammonite findings and taxonomic revision of already published taxa, a new ammonite zonation of the Barremian Stage in NE Bulgaria is proposed. The following zones are established: in Lower Barremian — *Taveraidiscus hugii* Zone, *Kotetishvilia compressissima* Zone and *Coronites darsi* Zone (with *Heinzia caicedi* Subzone); in the lower parts of the Upper Barremian — *Toxancyloceras vandenheckii* Zone (with *Barrancyloceras barremense* Subzone) and *Gerhardtia sartousiana* Zone. The presence of *Kotetishvilia nicklesi* and *Nicklesia pulchella* zones is not evidenced up to now.

6. Иванов, М., **В. Идакиева**. 2009. Амонитна биостратиграфия на Горния Барем в Централна Северна и Североизточна България – Сб. разширени резюмета от Нац. конф. Геонауки, 2009, С., Изд. Бълг. геол. д-во, БУЛГЕД ООД, 55-56.

Abstract. In the Upper Barremian, the following zones have been presented in the studied area: Toxancyloceras vandenheckii Zone (with Barrancyloceras barremennse Subzone), Gerhardtia sartousiana Zone, Imerites giraudi Zone and Martelites sarasini Zone (with Pseudocrioceras Subzone in shallow and Turkmeniceras turkmenicum horizon in relatively deep waters palaeoenvironments). The lower boundary of the Upper Baremian is set by the disappearance of *Moutoniceras moutonianum* and *Heinzia caicedi*, appearance of *Toxancyloceras vandenheckii,* diversification and turnover of Ancyloceratoidea and Hemihoplitidae. At this point we revise the biostratighraphic criteria for the upper boundary (Barremian/Aptian). The boundary is defined by with the disappearance of *Martelites* and appearance of the earliest Deshayesitidae — *Paradeshayesites olganensis* and co-occurence of *P. weissiformis, Deshayesites luppovi.*

7. Иванов, М., К. Стойкова, **В. Идакиева**. 2009. Ревизия на амонитните критерии за границата Юра-Креда в България – Сб. разширени резюмета от Нац. конф. Геонауки, 2009, С. Изд. Бълг. геол. д-во, БУЛГЕД ООД, 57-58.

Abstract. In this study the ammonite zone Durangites spp. (Upper Tithonian) is recognized for the first time in Bulgaria. Here we propose a new position for the Jurassic—Cretaceous (J/K) boundary by ammonites in Bulgaria: between the zones Durangites spp. (Upper Tithonian) and Berriasella jacobi (Lower Berriasian). Thus, the lower boundary of the Cretaceous System in Bulgaria will be fixed on the first occurrence of *Berriasella jacobi* and shall be consistent to the widely accepted ammonite criteria for the J/K boundary in the Tethyan area. The presence of the genus *Durangites* within the Tithonian of Bulgaria clearly determines the Tethyan affiliation of Bulgarian ammonite fauna.

8. Ivanov, M., **Idakieva, V.** 2010. Ammonite biostratigraphy of Lower Aptian and potential for finding out OAE 1a in Bulgaria. – *„4-th French Congress on Stratigraphy – Strati-2010", Abstracts,* 30 August – 3 September, Paris, 2010, 136-138.

Abstract. The Lower Aptian in Bulgaria includes sediment sequences from several lithostratigraphic units belonging to different facies. Recently intensive investigations have been carried out on the Barremian and partially on the Aptian Stage (Ivanov & Idakieva, 2008-2009). The Barremian-Aptian boundary in Bulgaria now is fixed by the appearance of the early Deshayesitidae and by the disappearance of the representatives of *Pseudocrioceras*. The Lower Aptian Substage is divided into four zones. The analysis of the ammonite successions as well as some sedimentological characteristics enable us to conclude that in the marl and clayey limestone sequences there are indications for the presence of the anoxic event OAE 1a.

9. Ivanov, M., **Idakieva, V.** 2010. Ammonite criteria for the Jurassic-Cretaceous boundary in Bulgaria – a review and new data. – *„4-th French Congress on Stratigraphy – Strati-2010", Abstracts,* 30 August – 3 September, Paris, 2010, 134-136.

Abstract. New investigations on the ammonite successions in SW Bulgaria have provoked a correction of the criteria and a revision of the position of the Jurassic-Cretaceous boundary in Bulgaria (*Ivanov et al*., in press). We propose to put the boundary in Bulgaria at the base of Berriasella jacobi Zone. There are a good potential for characterizing and specifying of the position of this boundary in the hemipelagic, as well as in the siliciclastic successions.

10. Kołodziej, B., **Idakieva, V.**, Ivanov, M. 2011. Unique Early Cretaceous development of phaceloid pachythecaliines (Scleractinia?, Hexanthiniaria?): Upper Barremian, Bulgaria. – In: M. Aretz, S. Delculée, J. Denayer & E. Poty (Eds.), Abstracts, 11th Symposium on Fossil Cnidaria and Porifera Liège, August 19–29, *Kölner Forum Geol. Paläont., **19***, 80-82.

Abstract. Pachythecaliines are known from the Late Triassic to Late Cretaceous. Abundant and highly diversified pachythecaliines have been recognized in three localities (Rusalya, Vishovgrad, Zarapovo) of Upper Barremian limestones of the Emen Formation, north-west of Veliko Tarnovo, Central Northern Bulgaria (Central Fore-Balkan). They represent 14 species (3 new) and 9 genera (3 new) (families: Amphiastraeidae, Carolastraeidae, Donacosmilliidae, ?Heterocoeniidae). Most of them – 10 species, 7 genera represent phaceloid (pseudocolonial) growth form. Particularly common are specimens of the genus *Pleurophyllia*. Their large skeletons commonly preserved in growth position attain 1 m in high. In contrast, coral assemblages from other localities of the Emen Fm and other formations (both siliciclastic and carbonate) contain only cerioid amphiastreids (*Amphiaulastraea*), and heterocoenids (*Latusastraea*). The section in the Rusalya quarry provides the sedimentary and environmental context of the pachythecallines-bearing limestones. In general this section shows a transition from the outer to inner platform. Biostromes built by rudists and Pachythecaliina were possibly developed in the outer part of the platform, but rather in its more inner part.

11. Kołodziej, B., **Idakieva, V.**, Ivanov, M., Zlatarski, V. 2011. Clear- and turbid-water coral assemblages from Barremian–Lower Aptian of Bulgaria. – In: M. Aretz, S. Delculée, J. Denayer & E. Poty (Eds.), Abstracts, 11th Symposium on Fossil Cnidaria and Porifera Liège, August 19–29, *Kölner Forum Geol. Paläont., **19***, 83-85.

Abstract. During Barremian–Early Aptian times several carbonate platforms existed on the northern Tethyan margin in Bulgaria. In particular the Lovech Urgonian Group in the Central Fore-Balkan contains abundant and diversified corals (about 120 species). Occurrence of turbid- and clear-water environment is a characteristic feature of this mixed siliciclastic carbonate Urgonian system. Turbid-water coral assemblages form segment or cluster (matrix-supported) reefs and level-bottom assemblages, rarely small frame (skeleton-supported) reefs. Usually massive colonies formed the core of the isolated patch reefs, whereas phaceloid, dendroid or ramose corals grew on the periphery of the buildups. These later, often still in life position, indicate constratal growth fabric (low syndepositional relief). Corals are represented mainly by stylininans, cyathophorids, actinastreids, faviids, clausastreids and microsolenines. Coral skeletons show features typical for turbid-water and soft-substratum environments, such as growth anomalies due to partial colony mortality, reorientation of growth direction, and the presence of colony and corallite morphologies adapted to stressful factors of turbid-water settings.

12. Grabowski, J., **Idakieva, V.**, Ivanova, D., Ivanov, M., Lakova, I., Petrova, S., Shnabl, P., Sobien, K., Stoykova, K., Tchoumatchenco, P. 2015. Integrated bio-, magnetostratigraphy and magnetic susceptibility of Upper Berriasian hemipelagic carbonates in West Balkan Mts. – *7th BgGS National Conference with International Participation "GEOPHYSICS 2015"*. Sofia, 1-6.

Abstract. An integrated bio- and magnetostratigraphic study of the Barlya section (West Balkan Mts) has been undertaken by a Bulgarian–Czech–Polish team in order to create a high resolution stratigraphic subdivision which might be added to database of already existing Tethyan sections. Here we present new results of paleomagnetic, magnetic susceptibility and biostratigraphic studies of the Barlya section, embracing the Upper Berriasian up to the Berriasian/Valanginian boundary. The results from lower part of the Upper Berriasian were briefly reported at the "Geosciences 2013" conference in Sofia (Grabowski et al., 2013) and at 10th meeting of the Berriasian Working Group in Warsaw (Grabowski et al., 2014). The lower part of the hemipelagic limestone-marl succession (Salash Formation) in the West Balkan Mts is of late Early and Late Berriasian and earliest Valanginian age. The calpionellid subzones Elliptica, Simplex, Oblonga, Murgeanui and Darderi have been directly correlated to a succession of magnetozones from M17r to M14r. The calcareous dinocyst zones Proxima, Wanneri and Conferta, as well as calcareous nannofossil zones NK-1, NK-2 and NK-3 have also been determined. Magnetic susceptibility that reflects detrital influx of fine clayey particles shows positive shifts in the lower part of M16n close to the Simplex/Oblonga boundary, as well as in M14r in the lowermost Valanginian. Increasing trends in the magnetic susceptibility are interpreted as being related to sea-level regression and/or climate humidity increase.

13. Dochev, D., **Idakieva, V**., Ivanov, M., Velev, S., Bonev, K. 2016. Ammonite findings from Byers Peninsula, Livingston Island, Antarctica. – *National Conference with international participation "GEOSCIENCES 2016"*, Bulgarian Geological Society, "GEOSCIENCES 2016" – Short Communications, 111-112, ISSN 1313-2377.

Abstract. Byers Peninsula is the largest ice-free area of Livingston Island, South Shetland Islands, Antarctica. Exposed Upper Jurassic–Lower Cretaceous sedimentary and volcanic rocks are included in Byers Group, which is composed of formal lithostratigraphic units.

During the field season in 2016 we found a relatively abundant ammonite fauna in the SW part of Byers Peninsula at the vicinity of Devils Point and President Beaches areas. In the locality in Devils Point area we recognized *Haplophylloceras strigile* (Blanford, 1864) and *Protancyloceras* sp. indet. The following ammonite taxa were identified in the locality of President Beaches area: *Spiticeras (Spiticeras) spitiensis* (Blanford, 1864), *S. bilobatum* (Uhlig, 1903), *?Spiticeras tripartitum lovaldesensis* Biro-Bagoczky, 1980 and *Argentiniceras lonchochense* (Steuer, 1897). The biostratigraphic interpretation of the newly collected fauna from the two localities allowed us to establish Upper Tithonian–Lower Berriasian age for Devils Point Fm and ?Upper Berriasian age for President Beaches Fm. Thus, the specified age gave us a reason to conclude that the Devils Point Fm has position below the President Beach Fm in accordance with the scheme of Crame et al. (1993).