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CHRONICLE

The First All-Russia Meeting on "Jurassic of Russia: Problems of Stratigraphy and Paleogeography"

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The First All-Russia Meeting on "Jurassic of Russia: Problems of Stratigraphy and Paleogeography" was held on November 21–22, 2005, at the Geological Institute, Russian Academy of Sciences, with support of the Russian Foundation for Basic Research, project no. 03-05-64297. The collection of 84 submitted papers (269 pages in total) was published by the beginning of the meeting.[1] Sixty two specialists from scientific, educational and industrial organizations attended the meeting. They represented Geological Institute (GIN RAN), Institute of Oil and Gas Geology (IOGG SD RAS), Paleontological Institute (PIN RAN), Vernadsky State Geological Museum (SGM RAN), Moscow State University (MGU), St. Petersburg State University (SPGU), Yaroslavl State Pedagogical University (YGPU), Saratov State University (SGU), Tomsk State University (TGU), All-Russia Research Institute of Geological Prospecting (VNIGRI), All-Russia Research Institute of Geology (VSEGEI), Institute of Geology and Exploration of Fossil Fuel (IGIRGI), Institute of Biology and Soil Sciences (BPI DVO RAN), State Unitary Enterprise KhMAO NATs RN, Research Institute of Natural Sciences (NII SGU); TsIK "PF KogalymNIPIneft," SNIIGGiMS, Undorov Paleontological Museum; FGUP NPTs "Nedra," FGUP "TsNIIgeolnerud," OOO "TyumenNIIgiprogaz," SibNIIINP, OAO "NGK Slavneft," OAO "Sibneftegeofizica" and the Institute of Geophysics and Geology (IGG Moldova AN). Participants got acquainted with 32 oral and 23 poster presentations dedicated to Jurassic stratigraphy, paleogeography, sedimentology, paleobiogeography, paleoecology, oil geology, paleontology, etc.

The key problems discussed at the meeting were dedicated to aspects of zonal and infrazonal scales of the Boreal Jurassic, which are elaborated based on the Arctic and Subarctic sections. V.A. Zakharov and coworkers (GIN RAN) proposed for discussion a renewed version of the Boreal Jurassic zonal standard. They suggested most essential changes for the Bathonian, Callovian, and Volgian ammonite zonations. The parallel ammonite scales were proposed for the Toarcian and Kimmeridgian. The English succession is recommended for the lower Oxfordian Substage. Three lower stages are unchanged. The new standard is aimed in general at optimal Panarctic correlations. The parallel belemnite, foraminifer, ostracode, and dinocysts zonations (Callovian and Upper Jurassic) are drastically modified. Yu.S. Repin (VNIGRI) presented the ammonite zonal standard for the Arctic Middle Jurassic based on correlation of regional zonations established in the Pechora River basin, Franz Josef Land, North Siberia, Northeastern Russia, Northeastern Greenland, and Arctic regions of North America. Data on Jurassic stratigraphy of the Russian Platform were considered in several communications. V.V. Mitta (PIN RAS) suggested the Bathonian zonation that includes the new *Paracadoceras keuppi* Zone and is correlated with the East Greenland ammonite zonation. D.N. Kiselev and M.A. Rogov (GIN RAS) presented the new scheme of parallel fauna-bearing horizons for the upper Callovian and lower Oxfordian of the Russian Platform and elucidated geology of the middle–upper Volgian boundary sediments. The new data presented substantiate correlation of the upper Callovian–lower Oxfordian sequences in the Russian plate and England and prove the lack of hiatus between the middle and upper Volgian substages. V.B. Sel'tser (SGU) analyzed the Callovian infrazonal units of the Saratov region at the Volga River and concluded that biostratigraphic units are inadequately substantiated in particular intervals. For instance, it is still impossible to recognize with confidence the middle Callovian *coronatum* Zone in the Saratov sections, whereas the resolution of the *lamberti* Zone is higher here than the recent West European zonation. D.B. Gulyaev (FGUP NPTs "Nedra") suggested the new infrazonal

[1] Proceedings of 1st All-Russia Meeting on "Jurassic of Russia: Problems of Stratigraphy and Paleogeography," Ed. by V.A. Zakharov, M.A. Rogov, and O.S. Dzyuba, Geol. Inst., Ross. Akad. Nauk, Moscow 2005, 269 p.

subdivision of the upper Bathonian-lower Callovian based on a thorough study of sections, where phylogenetic lineages of cardioceratids, cosmoceratids, and macrocephalitids are traceable. A group of geologists and geophysics from the SGU (M.V. Pimenov and his colleagues) presented new data on paleomagnetic properties of the Kimmeridgian-Volgian sediments in the Volgian lectostratotype near Gorodishchi Village, the Russian Plate. The communication by M.A. Rogov (GIN RAS) and coworkers was devoted to biostratigraphy of the Jurassic-Cretaceous boundary sediments in the western Crimea. They expounded substantiation of the Tithonian Stage in the Crimean Mountains and suggested a new zonation for the Kimmeridgian and Tithonian.

Problems of paleobiogeography, biogeography, and biofacies were considered either as special issues or in connection with stratigraphic and sedimentological research. A thorough communication by B.N. Shurygin and B.L. Nikitenko (IGNG SO RAN) was dedicated to a detailed analysis of the Early and Middle Jurassic biogeography in the Arctic. They studied dynamics of ecotones between the Arctic, Boreal Atlantic and Pacific biogeographic provinces using materials on bivalves and microfauna. B.L. Nikitenko demonstrated the high correlation potential of 56 biostratigraphic units recognized in the Jurassic foraminiferal zonation of Siberia and of 15 ostracode zones and beds discriminated in the Lower–Middle Jurassic. Successions of these units are traceable over the vast territory of Arctic regions.

Jurassic stratigraphy, paleogeography, and conditions of sediment accumulation in West Siberia were considered in the other series of reports. A.L. Beizel' (IGNG SO RAN) attempted to prove inversion of marine cyclic units into continental ones formed concurrently under influence of a shore barrier zone. Demonstrating maps compiled for Jurassic ages, V.P. Devyatov (SNIIGGiMS) considered paleogeographic history of West and East Siberia and presented his concept of the land and sea landscapes association with tectonic regime. Paleogeographic reconstructions and formation conditions of different sedimentary bodies in the West Siberian basin were discussed by L.G. Vakulenko, A.G. Mukher, S.V. Ryzhkova, G.D. Ukhlova, and L.S. Chernova. L.G. Vakulenko (IGNG SO RAN) considered the accumulation of the Bathonian Horizon Yu_2 in the Yugansk region at the Ob River. Productive beds of the Vasyugan Formation (Callovian-Oxfordian), which bear oil and gas in southeastern Siberia, were studied by S.V. Ryzhkova, L.S. Chernova and their colleagues (IGNG CO RAN). In a series of paleogeographic maps, A.G. Mukher and coworkers (GUP "KhMAO NATs RN") demonstrated the complicated Early-Middle Jurassic history of sediment accumulation in central areas of the West Siberian basin, the diverse forms of buried topography, and frequently alternated paleogeographic environments. An active discussion was triggered by G.D. Ukhlova and S.N. Varlamov (OAO "Sibneftegeofizika") who dedicated their report to genesis of the Bazhenovo Formation and structure of its anomalous sections. They hold the viewpoint that the highly carbonaceous Bazhenovo Formation was deposited in a close spatial and genetic association with the formation of Neocomian clinoforms and the Achimovka sequence. A.A. Nezhdanov (OAO "TyumenNIIgiprogaz") considered debatable topics of the Lower Jurassic stratigraphy and showed that the Lower–Middle Jurassic cyclic units correspond in ranges to the stages of the International Stratigraphic Scale. Being persistent in space, clay horizons, for instance, the Togur Horizon, enabled correlation of sediments recovered by wells SG-7 and SG-6. The Jurassic base is accepted to be at a depth of 6012 m in Well SG-6. The Yatra and Saranpaul formations together with the Sem'inskoe sequence should be assigned to the Lower Jurassic. It is also believed that volcanism of Jurassic time was characteristic of West Siberia. P.A. Yan with coauthors (IGNG SO RAN) suggested to regard the black argillites of the Lower Vasyugan Subhorizon as a separate Yana member well traceable in West Siberia. The condensed clayey member accumulated during a high sea level stand, thus being a reliable correlation marker.

Paleontology was discussed in 11 reports. O.S. Dzyuba (IOGG SD RAS) elucidated probable genetic roots and degree of homogeneity of the belemnite family Cylindroteuthidae in the terminal Middle Jurassic. She considered peculiarities of cylindroteuthid dispersal in Arctic from conceivable radiation centers in North Atlantic and North Pacific ecotones. L.K. Levchuk (IGNG SO RAN) reported new paleontological data on foraminifers, A.A. Goryacheva (IGNG SO RAN) on spores and pollen, and O.S. Urman (IGNG SO RAN) on bivalves from Jurassic sediments of West Siberia. A.G. Ponomarenko with colleagues (PIN RAS) described fossils from the Upper Jurassic Karatau locality (Kazakhstan) and inferred similarity between the entomofauna of that ancient lake and Solenhofen marine fauna of Germany. L.F. Romanov (IGG Moldova AN) emphasized a wide geographic distribution of peculiar bivalve genera *Bositra, Aulacomiella*, and *Silberlinga.* All these genera are referred to planktonic organisms. A.G. Sennikov with coauthors (PIN RAS) reported about the unique locality in the Moscow region (Peski) with remains of terrestrial and freshwater vertebrates, namely, fishes, amphibians, reptiles, and primitive mammals rather archaic for the Bathonian time. The remains were buried in channels of underground streams or in karst sinkholes in Carboniferous limestones. A.N. Solov'ev and A.V. Markov (PIN RAS) stated that the Early Cretaceous irregular echinoid toxasterids and holasterids with a closed apical system originated after dysasterids with an open apical system, which appeared first in the Bajocian. E.V. Popov (SGU) presented new data on chimaerids (Chondrichthyes, Holocephali) from the Bathonian, Callovian, and Volgian sediments of central Russia and the Volga region. The fossil assemblages from European Russia

are similar to concurrent assemblages of Western Europe, but their generic composition is more diverse, comprising the relict taxa. Yu.M. Gubin and colleagues (PIN RAS) reported new data on the Late Mesozoic fauna and flora from the tetrapod locality Teete in Yakutiya. A.V. Guzhov (PIN RAS) demonstrated that dominant gastropod species can be useful for the Callovian and Upper Jurassic biostratigraphy in central Russia, if advantages of gastropods of various dimensions and differentiation of dominating forms over the area, which likely depended on climatic zoning, are taken into account.

The investigation history of Jurassic System was covered in report by V.A. Zakharov (GIN RAS) who emphasized contributions of Russian paleontologists V.I. Bodylevskii, N.S. Voronets, I.I. Tuchkov, V.N. Saks, M.S. Mesezhnikov, N.I. Shul'gina, and others to development of stage and zonal scales of the Boreal Jurassic. V.A. Prozorovskii (SPGU) told about works of V.F. Pchelintsev, G.Ya. Krymgolts, and N.V. Beznosov on Jurassic deposits of the Peri-Tethys. B.T. Yanin (Moscow State University) reasonably argued for the priority of papers on the Jurassic paleozoogeography by M. Neumayer (1883) but not by Uhlig (1911). He recommended to revise resolution of the International Working Group "Friends of Paleobiogeography," in which the year of 1911 is given a priority as compared to subsequent publications on the paleobiochore nomenclature.

The participants of the First All-Russia Meeting devoted to the Jurassic of Russia were satisfied with its organization and arrangement and concluded that it was a highly effective, summarizing recent results on Jurassic geology and stratigraphy in Russia and adjacent regions. It was emphasized that a broad spectrum of specialists participated in its work, many young (up to 30 years old) and relatively young (up to 50 years old) geologists and paleontologists included. Final resolutions of participants are as follows:

1. Meetings of this kind should be regular, held once every two years.

2. Participants apply to the head of the Yaroslavl State Pedagogical University for organizing and holding in 2007 the Second All-Russia Meeting on "Jurassic of Russia: Problems of Stratigraphy and Paleogeography" that should be dedicated to 100-year anniversary of A.N. Ivanov, Professor of the Yaroslavl State Pedagogical University.

3. The most successful reports are suggested to be published in periodicals "Stratigraphy and Geological Correlation" and "Paleontological Journal".