

Abstract Title

The Volgian Stage in the type area, its subdivision and world-wide correlation

Abstract Text

Discussions concerning the last Jurassic stage began more than 100 years ago and still remain as acute as last decades. In our opinion using of the separate stages for the terminal Jurassic of different areas is still necessary. Here we reviewing state-of-art of Volgian subdivision and propose level of SSSP (Secondary Stage Section and Point) for the Volgian Stage, which was previously suggested by Zakharov (2003). The base of the Volgian lies close to those of Tithonian and Bolonian stages and marked by appearance of *Ilowaiskya* accompanied by *Neochetoceras ex gr. steraspis* and *Eosphinctoceras*. It also marked by shift in nannofossil assemblages and magnetic susceptibility. We propose SSSP at the base of *Ilowaiskya klimovi* Zone (= base of bed 1/15) of the Gorodischi section (for bed numbers see Rogov et al., 2006), the lectostratotype of the Volgian, located in the Ulianovsk area, Russia. Now the Volgian stage of the type area could be subdivided into three substages, 9 zones and at least 30 faunal horizons. As has been shown recently by paleomagnetic evidences (Housa et al., 2007; Zakharov, Rogov, this volume) the Upper Volgian belongs to Jurassic. Subdivision of the Volgian Stage remains more detailed in comparison with those of Tethys. At the same time correlativity of the different parts of the Volgian with its Tethyan equivalents gradually decreased from the base to the top of the stage. There are 4 major correlative levels within the Volgian provides framework of the Boreal-Tethyan correlation from the base of the stage to the uppermost Volgian (upper one determined by means of magnetostratigraphy only). Within the Volgian succession of the different areas (from Northern Sea and E.Greenland through the whole Arctic to Chukotka and Canada) there are some well-traced levels, marked with widely scattered ammonite taxa. These ammonites are Lower Volgian *Pectinatites* of the *pectinatus* group, Middle Volgian *Pavlovia*, *Crendonites*, *Epivirgatites*, *Laugeites*, Middle-Upper Volgian *Subcraspedites* and *Praechetaites*, Upper Volgian – Ryazanian *Craspedites* and *Chetaites*, which provides basement for the trans-Arctic correlation. In addition to troubles in Boreal-Tethyan correlation there are some disagreements in Volgian-Portlandian comparison. They based upon different interpretation of age and determination of some ammonites and widely accepted view about numerous gaps within Middle-Upper Volgian. We showed recently numerous evidences against biostratigraphically recognized gaps within Volgian, taking into account ammonite evolution and paleobiogeography. New records of *Subcraspedites* in the uppermost part of Middle Volgian provides data that *Nikitini* Zone partially correspond to *Primitivus-Preplicomphalus* Zones of England, while English *Epivirgatites* were misinterpreted and perhaps belongs to *Epipallasiceras* or related genera. This study supported by RFBR grant 06-05-64284, program 14 of the Earth Sci Div. RAS.

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