

Alternative proposal of International Standard References for the Middle and Late Permian Series

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After prolonged discussion the SPS Titular Members voted for the subdivision of the Permian System into three series (Cisuralian, Guadalupian and Lopingian). However, in reality two upper series and especially their constituent stages can serve only for the correlation within the marine basins of Equatorial belt. (5)

That is why the participants of the International Symposium "Upper Permian Stratotypes of the Volga Region" held in 1998 (Kazan, Russia) made a decision to conserve the contemporizing classical Late Permian scale (consisted of the Ufimian, Kazanian and Tatarian) based the reference sections exposed within Volga-Uralian area; the latter are represented by the complete spectrum of facies from normal marine to lagoonal marine and continental ones. This scale can be used for the Boreal and Notal antitropical realms. (8)

In accordance with this decision and for better coordination of collateral scales we propose formally: a.To introduce Transvolgian Series composed of the Ufimian and Kazanian stages corresponding to the Guadalupian approximately. The Urzhumian horizon (lower part of the Tatarian) must be included in the Kazanian in this variant. The point of Global Stratotype for the Upper Permian lower boundary is defined at the base of the Kozhim Rudnik Fm. (Kozhim River key section, Pechora coal basin). The materials studied evidence that the Solikamsk Horizon belongs to the Ufimian. b.We propose to raise the rank of the Tatarian stage into the series and its constituent horizons Severodvinian and Vjatikian consider as stages. It would correspond to the Lopingian in the International scale and to the Midian, Djoulfian and Dorashamian stages in the Tethyan regional scale. The lower boundary of the Tatarian Series would correspond to the base of Severodvinian stage which would coincide with Kiama/Illawara hyperzone boundary. The section of the Monastyrskiy ravine on the Volga-river (Tatarstan) has been already proposed as the stratotype of this boundary.