PERMO-TRIASSIC TRANSITION IN RUSSIA, SOUTH AFRICA AND CHINA

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The most complete sections of the Permo-Triassic continental deposits and successions of the biotic assemblages are represented in Russia, South Africa and China. The stratigraphic succession at the Russian platform presents sixteen stages in the Late Permian, Early and Middle Triassic distinguished in the biotic history. They are very important for the reconstruction of the scenario of greatest global biotic crisis at Permo-Triassic boundary.

Paleozoic groups of vertebrates became extinct at this boundary and were replaced by Mesozoic ones. The last stage of the Permian biotic history was characterized earlier by gorgonopian-pareiasaurian-dicynodontian assemblage with carnivorous saber-tooth theromorphs – gorgonopians, herbivorous parareptiles – pareiasaurs and herbivorous theromorphs – dicynodontid dicynodonts (Sokolki assemblage or *Scutosaurus karpinskii* zone of Eastern Europe, *Dicynodon* zone of South Africa). After the mass extinction at Permo-Triassic boundary they were replaced by carnivorous thecodonts – proterosuchids and by herbivorous lystrosaurid dicynodonts respectively. These last groups formed a new, proterosuchian-lystrosaurian community at the beginning of Triassic throughout the world. The extinction of gorgonopians, pareiasaurs and dicynodontids and the appearance of proterosuchids and lystrosaurids are suggested as main characters marking the Permo-Triassic boundary on the continents.

The disappearance of pareiasaurs during the terminal Permian of South Africa and also the appearance of earliest lystrosaurids as well as their coexistence with dicynodontids in the terminal Permian of South Africa and China have been recognized recently. A unique and diverse Vyazniki biotic assemblage of the terminal Permian was discovered recently in Central Russia. Vyazniki assemblage includes the earliest world's proterosuchids (*Archosaurus*) and dicynodontids, excluding lystrosaurids.

Thus, the latest data demonstrate that Permo-Triassic biotic transition was more complicated and gradual than believed earlier. Endemic constraints of biotic evolution as well as abiotic environments might have caused the peculiarities of the East-European Vyazniki assemblage. This assemblage represented the last typical of only Eastern Europe stage of the global ecological crisis of the continental biota at the Permo-Triassic boundary.

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