

Diversity dynamics of Early-Middle Jurassic brachiopods of Caucasus, and the Pliensbachian-Toarcian mass extinction

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Taxonomic diversity of NW Caucasus brachiopods changed cyclically in the Early-Middle Jurassic. Diversifications took place in the Late Sinemurian-Early Pliensbachian, Middle-Late Toarcian and Late Aalenian-Early Bajocian, while diversity decreases occurred in Late Pliensbachian-Early Toarcian, Early Aalenian and Late Bajocian. Outstanding diversity decline in the Late Pliensbachian-Early Toarcian corresponds to a global mass extinction interval, whose peak has been documented in the Early Toarcian. Similar diversity changes of brachiopods are observed in other Tethyan regions, including the well-studied Bakony Mountains, although in NW Caucasus the recovery after demise have begun earlier. The causes of Pl-To mass extinction in the studied region are enigmatic. Probably, it could be linked to anoxia, but its correspondence to the beginning of transgression is not coincident with the global record, so eustatic causes seem to be doubtful for this region.

Key words: Brachiopoda, taxonomic diversity, mass extinction, Jurassic, Caucasus, Russia.

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