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The first detailed record of Permian-Triassic boundary sediments in deep-water facies in North-East Asia (Kolyma-Omolon region)

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The first detailed record of Permian-Triassic boundary (PTB) sediments in deep-water facies in the North-East Asia (Balygchan basin, Kolyma-Omolon region) is obtained. Pre-*Otoceras* part of the Changhsingian stage (Pautovaya Fm) where Late Changhsingian bivalve *Claraioides* aff. *primitivus* (Yin) was found [1] are characterized here by relatively high $\delta^{13}\text{C}_{\text{org}}$ values (about -23 – -25 ‰), decreasing to event-level (lower part of the Gherba Fm) to -27 ‰. This level supposedly corresponds to the base of *Otoceras* layers and is associated with the extinction of typical Permian fauna (*Inoceramus*-like bivalves of *Intomodesma* genus and gastropods *Straparolus* sp.), and the complete disappearance of the bioturbation. Previously, we recorded the signs of anoxia at this level [2]. In the lower part of the Gherba Fm $\delta^{13}\text{C}_{\text{org}}$ values constitute about -27 ‰, gradually decreasing up the section to -29 ‰. Weakly expressed negative excursion (-29.9 ‰) is fixed at approximately 5 m below the first finds of ammonoid *Tompophiceras* (about 80 m from the event level), with which we associate the position of the PTB. The new data show a good agreement with both the Setorym section in the South Verkhoyansk region [3], where the same excursion is fixed and determined the approximate position of the PTB, and with a number of other sections of the Boreal and Tethyan superrealms.

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References

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