

Sedimentology and ichnoassemblages of the Jurassic / Cretaceous boundary interval of Feodosia region (SE Crimea)

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The Jurassic / Cretaceous boundary section of Feodosiya region is well-known due to good exposures and stratigraphic completeness. These outcrops were intensively studied during last years (GUZHIKOV et al., 2012; BARABOSHKIN et al., 2016, etc.). It was demonstrated the section was formed in the conditions of the deeper part of distally steepened ramp (GUZHIKOV et al., 2012). The recently collected material gives a possibility to detailise this model. The succession (~0,4–3 m) is represented by alternation of calciturbidites and hemiplegic deposits. Calciturbidites demonstrate Meischner-type cycles. Main and distributary channels, and interchannel facies are recognisable. The redeposited grains (pack-, grain- to rudstones) were transported from the shallow ramp and contain microencrusters *Crescentiella morronensis*, and *Lithocodium-Baccinella* assemblage. Gradual reduction of thickness of envelop of *Crescentiella morronensis* in the resedimented grains from the base to the top of the section indicates shallowing of the carbonate ramp (FLÜGEL, 2010).

All hemipelagic carbonates are intensively bioturbated (BI=5-6: DROSER & BOTTJER, 1986), but the Titonian trace fossil association differs from the Berriassian one. Titonian ichnoassemblage contains *Zoophycos insignis*, *Z. isp.*, *Flexorhappe miocenica*, *Chondrites intricatus*, *Ch. isp.*, *Planolites isp.*, *?Petaloglyphus isp.*, *Taenidium satanassi*, *T. isp.*; *Ophiomorpha annulata*, *O. rudis*, *Thalassinoides isp.* *Chondrites* is the most abundant trace fossil there. It is interpreted as deeper-water upper fan *Nereites* ichnofacies, *Ophiomorpha rudis* ichnosubfacies (UCHMAN, 2009). Berriassian ichnoassemblages are more diverse and represented by *Nereites missouriensis*, *N. isp.*, *Chondrites intricatus*, *Ch. isp.*, *Planolites isp.*, *Rhizocorallium isp.*, *?Glockerichnus parvula*; *Bergaueria perata*; *Belorhappe zickzack* (Heer), *Cosmorhappe lobata* (Seilacher); *Ophiomorpha annulata*. *Ophiomorpha* is primarily in the channel turbidites. In the same interval following structures were fixed: *Paleodictyon isp.*; worm burrows: *Taenidium isp.*, *?Petaloglyphus isp.*, *P. krimensis*, *?Stelloglyphus isp.*, *Haentzschelinia isp.*, *Spirorhappe isp.*, *Zoophycos isp.*, feeding structures *Asterichnus isp.*, *Rhizocorallium commune* (Schmid) *Alcyonidiopsis isp.*, *Pilichnus isp.*, *Phycosiphon incertum*, *Skolithos isp.* *Chondrites* traces are less abundant, in presence of other various traces. Berriassian ichnoassemblage is interpreted as shallow-water *Cruziana* ichnofacies. The changes in the trace-fossils confirm conclusion from the microfacies analysis on the shallowing of the Crimean carbonate ramp at the J/C boundary. The study was funded by RFBR (project 16-05-00207a) and RHSF (project 15-37-10100). Special thanks to «Total E&P Russie» for provision of fellowship.

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