Jurassic-Cretaceous boundary in the Eastern Crimea

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An integrated study of Jurassic-Cretaceous boundary interval study was carried out in the Crimea by geologists from Saint Petersburg, Saratov and Moscow over a long period of time. It includes bio- and magnetostigraphy, sedimentology and ichnology. Marine Upper Tithonian–Berriasian sediments are represented by carbonate flysh of Dvuyakornaya Formation in the Eastern Crimea (BARABOSHKIN et al., 2016). The age of the Formation is based on the ammonites, calpionellids and magnetostratigraphy. In the Feodosiya City region was interpreted as Late Tithonian *Microcanthum* and *Durangites* Zones and Early Berriasian *Jacobi* Zone (GUZHIKOV et al., 2012). The *Microcanthum* Zone was proven by *Oloriziceras* cf. *schneidi*, and the *Durangites* Zone – by *Paraulacosphinctes transitorius, P. cf. senoides*, and *Neoperisphinctes* cf. *falloti. Jacobi* Zone is subdivided into *Jacobi* and *Grandis* Subzones. Ammonite assemblage of *Jacobi* Subzone includes *B. chomeracensis, B.* sp., *Fauriella* cf. *floquinensis, Ptychophylloceras semisulcatum, Haploceras* sp. Ammonite assemblage of *Grandis* Subzone is represented by *Pseudosubplanuites grandis, P. ponticus, P. subrichteri, P. lorioli, P. combesi, P. crymensis, P. fasciculatus, D. crimensis, D. obtusenodosa, D. tresannensis, D. delphinensis, D. janus, D. pectinate, Berriasella berthei, B. oppeli, B. subcallisto, B. paramacilenta, Retowskiceras andrussowi, R. retowskyi, Spiticeras orientale, Negreliceras proteum, N. mirum, N.* ex gr. *negreli, Bochianites neocomiensis, B. goubechensis, B. crymensis* (ARKADIEV et al., 2012). Calpionellid assemblage is very poor, but three Zones were identified (PLATONOV et al., 2014): *Chitinoidella* (*Dobeni* and *Boneti* subzones, Tithonian), *Crassicollaria* (*Remanei* and *Massutiniana* subzones, Tithonian) and *Calpionella* (*Alpina* and *Elliptica* subzones, Berriasian).

The magnetic scale of GUZHIKOV et al., (2012) was revised after the fieldworks in 2016. Now it is interpreted as M20n-M17r Magnetic Chrons for the interval of Upper Tithonian Beds with *Oloriziceras cf. schneidi* to Lower Berriasian *Jacobi* Zone. The traditional J/K boundary based on ammonites must be located inside the magnetic Chron M19n in Crimea (GUZHIKOV et al., 2012), which is very similar to the Puerto Escano section (PRUNER et al., 2010). In our opinion, the base of the M18r magnetic chron is a good criterium for placement of the Jurassic-Cretaceous boundary, because the base of the M18r is close to the base of the Grandis Subzone, traced in sections of France, Spain, Bulgaria, Crimean Mountains and Caucusus more reliably than the base of the *Jacobi* Zone. The project is supported by grants of RBSF (16-05-00207a) and RHSF (15-37-10100).

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