Late Barremian–Aptian Ostracod biostratigraphy in the Mountain Crimea

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Lower Cretaceous (particularly upper Barremian–Aptian) deposits of the Crimea have been studied for many decades. Several biostratigraphical schemes based on ammonites (BARABOSHKIN et al., 2004 etc.), Planktonic Foraminifera (PF) (GORBACHIK, 1986) and Calcareous Nannoplankton (CN) (SHCHERBININA & LOGINOV, 2012) were developed for these sediments. However, no ostracod biostratigraphy has as yet been established.

Abundant and various complexes of ostracodes from eight outcrops were analyzed and a zonation upon ostracods was established. This zonation is correlated with PF (MOULLADE et al., 2015) and CN zones (SHCHERBININA & LOGINOV, 2012). Correlation with ammonite zones is impossible because of their rarity. Comparison of the studied ostracodes with evenaged complexes from Eastern Europe, South America, Africa and Caucasus showed high level of endemity of the Crimean ostracodes. There are only a few common species that cover an extensive stratigraphical range; it completely constrains the direct correlations between the regions. The only exception is Protocythere triplicata, that occurs in the lowest part of the studied interval (lower part of upper Barremian) and represents an index of cognominal zone, established by CHRISTENSEN (1974) in Hauterivian–upper Barremian. The other established zones are local and are traced only in the Mountain Crimea. These are Robsoniella minima – Loxoella variealveolata cooccurrence zone (from FO of R. minima to LO of L. variealveolata), which covers the upper part of upper Barremian to lower part of Lower Aptian and corresponds upper part of Globigerinelloides blowi PF zone and upper part of NC5E and lower part of NC6 zones. Monoceratina bicuspidata – R. minima interval-zone (from FO of M. bicuspidata to FO of Saxocythere omnivaga), which corresponds Leopoldina cabri, Hedbergella luterbacheri and G. ferreolensis heptacameratus PF zones and lower part on NC7 zone. S. omnivaga zone (from FO to LO of S. omnivaga), corresponds G. fereolensis fereolensis, G. barri, G. algerianus and lower part of H. trocoidea PF zones and the middle part of NC7 zone. M. bicuspidata – D. stafeevi interval-zone (from LO of S. omnivaga to LO of M. bicuspidata), corresponds the upper part of H. trocoidea and lower part of Paraticinella eubejaouaensis PF zones and upper part of NC7 zone.
