

Middle Miocene Ostracods from the Działoszyce Trough, Northern Part of the Carpathian Foredeep

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Middle Miocene (Badenian–Sarmatian) ostracods were sampled from two sites (Posadza 10S and Szczytniki 11S) situated in the Działoszyce Trough, i.e., the northernmost part of the Carpathian Foredeep, about 40 km SE from Cracow. In the Posadza 10S borehole, evaporites spanning the entire Badenian were found, while the single sample from Szczytniki 11S borehole suggests its Sarmatian date. In these geological sections three (I–III) main assemblages of ostracodes may be distinguished, of which I–II referred to the Badenian, while III to the Sarmatian:

I: Evidently deep-sea and (palaeo-)geographically broadly distributed association is represented by *Argilloecia*, *Buntonia*, *Bythocypris*, *Cnestocythere*, *Costa*, *Cytherella*, *Cytheropteron*, *Eucythere*, *Eucytherura*, *Henryhowella*, *Krithe*, *Nipponocythere*, *Paijenborchella*, *Parakrithe*, *Pterygocythereis*, *Saida* and *Xestoleberis*. It is moderately abundant and markedly diversified in the lowest part of the section, corresponding to the *Globigerinoides* ecozone, distinguished as assemblage Ia, whereas less diversified and less frequent, represented by *Argilloecia*, *Henryhowella*, *Krithe* and *Parakrithe* in sediments underlying evaporites, corresponding to the *Globigerina* ecozone, designated as assemblage Ib.

II: A new ostracode assemblage (following samples without ostracods), consists of rather numerous specimens, both adults and juveniles, assigned to *Xylocythere* and *?Microxestoleberis* (or *?Microceratina*). Pyrit infillings in the foraminiferal tests as well as pyritised wood remains suggest their peculiar environment. Interestingly, both these taxa occur among the much more diversified and rather exotic (when consider Middle Miocene Central Paratethyan microfauna) ostracods described from the Upper Badenian deposits of the Upper Silesia, SW Poland (AIELLO & SZCZUCHURA 2004).

III: Shallow marine forms contain *Aurila* (juveniles), *Callistocythere*, *Cytherois*, *Leptocythere* and *Polycope* representatives. Members of this ostracode assemblage, including almost identical *Polycope* species, which were described from the Sarmatian of the other part of the Polish part of the Carpathian Foredeep (SZCZUCHURA 2000), as well as from the Upper Badenian of the Upper Silesia (AIELLO & SZCZUCHURA 2004).

References

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