

## Some Neogene to Recent Candoninae species flocks

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In restricted areas of some closed lakes, ostracods fill all the niches available. In my field of interest, I had four such experiences with Candoninae: Central Macedonian Lake (Upper Miocene), Metohia and Baraolt Lakes (both Pliocene), and recent Lake Balkal.

The Central Macedonian Lake is restricted to the Skopje plain. Curious, reverse valved Candoninae were collected in Skopje under the fortress. They are placed in the genus *Macedocandona*. Specimens of *Macedocandona* are numerous and have some similarity to the genus *Potamocyprella* from the Chinese Paleogene. There are 4 closely related species of *Macedocandona* and one additional, more robust form. These were found associated with “normal” freshwater ostracods (*Cypria*, *Plesiocypridopsis*, *Cypridopsis*), coming from tributaries, as slightly halotolerant. One *Euxinocythere* indicates slight salinity of lake waters.

In the Metohia Lake (Pliocene) two special Candoninae genera were found. Frequent are members of the tribus Candonini with the genus *Carpathocandona*, which comprises the species *Carpathocandona ?autariatica*, *C. drimensis*, *C. kliei* and *C. cf. kliei* and, possibly *C. cf. triangularis* (SCHWEYER). Less numerous are thin-shelled members of the tribus Fusocandonini with the genus *Metohicandona* with *M. duskaiae* and *M. bataniica*, which are not closely related to the first group. Both genera are associated with numerous other Candonidae valves (rarely *Cypria*), sometimes with many leptocytherid and rare *Paralimnocythere* as well as with very rare *Cyprideis* specimens. The presence of leptocytherids and *Cyprideis* hints to some (variable) salinity of the lake water.

In the Pliocene Baraolt Lake, there are six species/subspecies known, belonging to *Carpathocandona* (Fig. 1). The material (Lower Levantinian) was collected by I. LÖRENTHEY. OLTEANU (2003) placed all different forms of mucronate Candoninae into only one species: *Candona bimucronata* KLIE. But in fact, these represent one species flock, evolved in this closed lake system. Except them, OLTEANU described some other Candoninae of different shape and ornamentation, accompanied by *Hungarocypris*, leptocytherids and tuberculate *Cyprideis*. Thus, the community indicates slightly saline the lake waters.

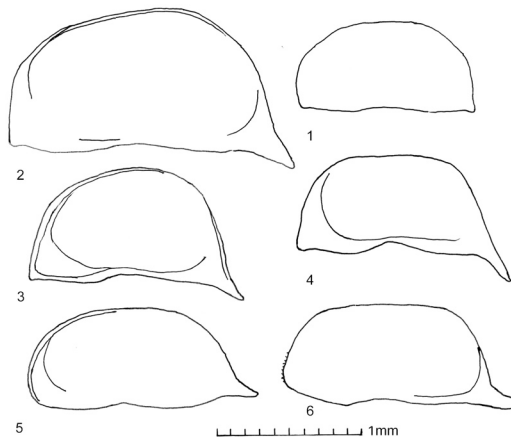


Fig. 1: Baraolt *Carpathocandona* species flock – female LV: 1. *C. aff. bimucronata* KLIE, 2. *C. loerenthei* n. sp., 3. *C. aff. loerenthei* n. sp., 4. *C. krezoii* n. sp., 5. *C. brasovica* n. sp., 6. *C. aff. krezoii* n. sp.

In deep and long-lived Lake Baikal two aberrant genera were described *Metacandona* and *Baicalocandona*. They are closely related and probably belong to the same species flock. But, six additional endemic species of *Candona* were reported, which could belong to the same speciation event as well. *Metacandona* and *Baicalocandona* can be distinguished by a less expressed swelling and a dorsal, rib-like thickening of the valve in *Baicalocandona*. Further, valves of the later genus are less distinctly pitted, while *Metacandona* could be even finely reticulated. Perhaps, about 19 species belong to *Metacandona* and 5 species to *Baicalocandona*, respectively. Descriptions and drawings of MAZEPOVA (1990) point out that, among the species arranged into *Candona*, there are 6 (+2?) representatives of the subterranean genus *Phreatocandona*, two of the “typical Pannonian” genus *Camptocypris* (*C. birsteini*, *C. gracilentia*) and, maybe, *Neglecandona*? (*C. digitata*, *C. walucani*), *Graviacypris*? (*C. humilis*, *C. longiformis*) as well as *Fabaeformiscandona* (*C. limosa*, *C. wasilievae*, *C. flava* – the last with a posterior overlap). Some others have its counterparts in Metohia Lake and southern Greece. What was the connection – by bird transport only? – as today exists from Siberia to Scutari Lake, via the Caspian “gateway”? It is possible that many groups represent different ancestors and/or indicate different invasion events into Lake Baikal or, conversely, immigrations out of this lake, but westwards only (compare MAZEPOVA 1990: 158 and 444).

This small overview aims to provoke the audience to scan their data in order to enlighten possible palaeogeographical relationships.

## References

- MAZEPOVA, G.F. (1990): Rakushkovye rachki (ostracoda) Baykala (Ostracoda of Lake Baikal). – 472 p., Nauka, Novosibirsk.
- OLTEANU, R. (2003): The last representatives of the “Pannonian” realm (Ostracoda, Crustacea). – In: Chronostratigraphie und Neostatotypen, Romanien. – 350-375, Editura Academiei Române, București.

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