

THE HISTORY OF OSTRACODA (CRUSTACEA) FROM THE DANUBE DELTA DURING THE UPPER PLIOCENE–RECENT TIME

RADU OLTEANU

The evolution of the Danube Delta remains a real “terra incognita” and it is worth more than a mass. I have profited by one core (Cosna) traversing all the Danube Delta sediments. The oldest ostracod community belongs to the Uppermost Dacian, followed by the Apscheronian and finally by the Holocene marine, Mediterranean immigrants. I have identified almost 80 species and five successive different facies.

1. INTRODUCTION

The traditional Pliocene biostratigraphical units from the Dacic-Pontic-Caspian area have been defined by mollusks.

The Upper Pontian was the last temporal sequence with similar faunas between the Dacic and the Ponto-Caspian basins. But afterwards the correlation is very difficult to establish due to discrepancies existing between the two types of fauna, ecologically separated. There are only six *Limnocardiidae* and three *Congeria* common species, all of them having the greatest degree of intrapopulational variability. Some morphotypes have been recognized in the brackish-water sediments from circum-Mediterranean regions (Gillet, 1956).

The salinity reduction occurred in the Dacic basin sooner than in the Ponto-Caspian area and its ecological isolation generated numerous endemisms (the peculiar *Psilodon* genus, for example). Within the so-called Romanian stage, the Dacic basin became suddenly fresh. Much if not most of the fauna temporal hierarchy from that time, is totally anarchic, so that the three substages, three biostratigraphical zones and the ten subzones are further confused by inconsistencies in the criteria used as classical arguments based upon the strictly located mollusk fossils and mainly on the significance of valve morphology.

In the Ponto-Caspian area salinity was higher and more or less constant until the Quaternary with totally different taxa. No other valve-plan innovation occurred, all of them reminding of the “Pontian archetypes”. Apparently at least, the ostracod species are similar within the Pontian-Kimmerian interval of time from both areas.

It should be noted that many of them have been found in the Rhone Valley region, the southern regions of Spain, in Italy or the Greek islands as “Paratethys type” of ostracodes and strained into the Messinian age (Carbonnel, 1978). This is one of the most intriguing aspects of the brackish-water fossils. Similarly to Gillet’s mollusks, these “paleontological species” are not stratigraphical indicators. Likewise,