



Factor determining the distribution of benthic foraminiferal assemblages in the Saltpan and Salt Lakes of Gulf of Saros

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In the framework of this study, foraminifera of some of the salt lakes located in the Gulf of Saros were investigated. 27 sediment samples were collected from various salt lakes (Enez Salt Lake, Dalyan, Kuvalak and Isik Lakes, Karagol, Vakif and Erikli Salt Lakes, Uzungol). Physicochemical measurements, such as temperature, pH and salinity were also recorded in order to compare the marine and hypersaline foraminifera fauna and the related environmental conditions.

Sediment samples from some of the saltpans and salt lakes located on the Gulf of Saros were analysed. 8 benthic foraminifera species were recorded. In the 19 samples analysed, *Quinqueloculina seminula* (Linné), *Asterigerinata mamilla* (Williamson), *Nonion depressulum* (Walker and Jacob), *Ammonia tepida* Cushman, *Criproelphidium poeyanum* (d'Orbigny), *Elphidium crispum* (Linné) were abundantly observed. The two most dominant species were found to be *Nonion depressulum* (Walker and Jacob) and *Ammonia tepida* Cushman.

Morphological anomalies are observed in the benthic foraminifera species. The results show that foraminiferal density and species richness of the assemblages decrease with an increase in TPH concentration 0,43-227,22 microg/g wet weight. The more polluted areas (Dalyan Lake and Vakif Salt Lake) are dominated by the tolerant species *Nonion depressulum* (Walker and Jacob) and *Ammonia tepida* Cushman that may be used as bio-indicator of pollution. In the framework of this study, the foraminiferal composition of normal marine environment is compared with that of the lagoon environments, in which high salinity are observed during summer times.

Marine microfauna of the Northeastern Aegean Sea have been investigated in detail (Meric ve Avsar, 2001; Avsar, 2002; Meric, Avsar and Bergin, 2002a; Meric, Avsar, Gormuþ and Orak, 2002b; Meric, Avsar, Nazik, Eryilmaz and Eryilmaz-Yucesoy, 2002c; Meric, Avsar, Bergin and Barut, 2003; Meric, Avsar and Bergin, 2004; Meric, Avsar, and Barut, 2004). 163 foraminifera species have been identified in Gulf of Saros, 104 foraminifera species around Gokceada Island, 58 foraminifera and 24 ostracod species around Bozcaada Island, 44 foraminifera species around Mitillini Island, 160 foraminifera species in the Gokceada-Bozcaada-Canakkale triangle and 101 species of foraminifera in Gulf of Edremit. In a study concerning the 27 samples from Izmir Camalti Saltpan, due to hypersaline environment (45-52%), a different but not much diverse foraminifera fauna have been identified. Besides, twin and triplet, as well as morphologicall aberrant forms of *Ammonia tepida* CUSHMAN have been abundantly observed.