RECENT FORAMINIFERA AND OSTRACODA FROM THE SALTPANS AND SALT LAKES OF NORTHEASTERN AND EASTERN AEGEAN SEA (TURKEY)

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Abstract

In the framework of this study, microfauna (foraminifers, ostracods) and microflora (charophytes, diatoms) of some of the salt lakes located on the Aegean coasts of Turkey were investigated. In total, 43 sediment samples were collected from various salt lakes (Büyük Kemikli Cape, Gallipoli Peninsula; Diremin and Dalyan, Biga Peninsula; Gökçeada Island). Physicochemical measurements, such as temperature, pH and salinity were also recorded in order to compare the marine and hypersaline foraminifera and ostracod faunas and the related environmental conditions.

Keywords : Aegean Sea, Foraminifera, Diatoms, Sediments.

Sediment samples from several of the saltpans and salt lakes located on the Turkish Aegean coastline were analysed (Fig. 1). In total, 31 benthic foraminifera and 13 ostracod species were recorded. Five samples also included three species of Charophytes. Four diatom species were observed only in one of the samples. Morphological anomalies were observed in the benthic foraminifera species. In the framework of this study, the foraminiferal composition typical of the marine environment is compared with that of the lagoon environments, characterized by high salinity during summer.

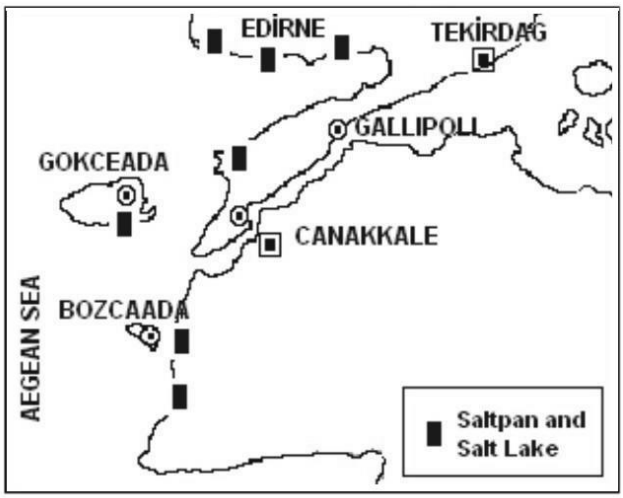

Fig. 1. Map showing the saltpans and salt lakes sampled.

Marine microfauna of the Northeastern Aegean Sea have been investigated in detail [1, 2, 3, 4, 5, 6, 7, 8]. The species composition differed considerably among sampling sites: 163 foraminifera species have been identified in the 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 ÇamaltıSaltpan, due to hypersaline environment (45-52 psu), a different but not much diverse foraminifera-ostracod-mollusc fauna have been identified. Besides, several twin and triplet, as well as morphological aberrant forms of *Ammonia tepida* Cushman have been observed.

In the 43 samples analysed, the most abundant species observed comprised *Adelosina carinata-striata* Wiesner, *A. mediterranensis* (Le Calvez, J. and Y.), *Quinqueloculina disparilis* d'Orbigny, *Quinqueloculina seminula* (Linné), *Nonion depressulum* (Walker and Jacob), *Ammonia compacta* Hofker, *A. tepida* Cushman, *Elphidium complanatum* (d'Orbigny), and *E. crispum* (Linné). The two most dominant species were found to be *N. depressulum* (Walker and Jacob) and *A. tepida* Cushman. The ostracod species most frequently observed were *Cyprideis torosa*, *Eucypris virens*, *Cypridopsis vidua*, and *Loxoconcha elliptica*. *C. torasa* and *L. elliptica* are known to be freshwater species [9].

Brackish and freshwater species of charophytes were also found in the samples. But the presence of the genus *Lamprothamnium* indicates special ecological conditions. The diatom species observed in one sample belong to the Family Cocconeidaceae Kützing.

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