

Diatom 25: 21-36 (和文)

廣瀬孝太郎・後藤敏一：大阪湾北東部における珪藻遺骸の水平分布

Kotaro Hirose and Toshikazu Gotoh: Horizontal distribution of diatom remains in the northeastern part of Osaka Bay

Abstract

We investigated the recent diatom assemblages in 30 surface sediment samples from Osaka Bay, Japan, with the identified diatoms divided into five categories [halobious system; Oligoeuryhaline Polyhalobous (OPH), Euryhaline Polyhalobous (EPH), Mesohalobous (MEH), Euryhaline Oligohalobous (EOH) and Stenohaline Oligohalobous (SOH)] based on their tolerance for salinity. The horizontal distribution pattern of each category suggested that the recent diatom distribution pattern of the bay is mainly controlled by the transportation of brackish/freshwater species from the mouth of the Yodo River through the riverwater discharge into the bay. In other words, the distance from the river mouth controls the relative abundance of brackish/freshwater species at each site, which is a major part of the total floral composition and could be a useful paleoecological indicator for riverwater discharge. The distribution pattern of *Chaetoceros* resting spores suggests they have potential as a paleoecological indicator for anthropogenic environmental degradation in exploited embayments. Taphonomic processes of recent diatoms are also discussed.

Key index words : diatom assemblage, distribution, halobious system, Osaka Bay, resting spores, surface sediments