

Diatom 10: 35-47 (英文)

浅井一視・渡辺仁治：有機汚濁に関する付着珪藻種の 3 生態群への統計的類別（2）好汚濁性種と好清水性種

Kazumi Asai and Toshiharu Watanabe: Statistic classification of epilithic diatom species into three ecological groups relating to organic water pollution (2) Saprophilous and saproxenous taxa

Abstract

Species components of 1240 epilithic diatom assemblages were used for statistical studies on organic water pollution. The coexistence index of each pair of epilithic diatom species based on the order of tolerance index to organic water pollution was examined and compared (Asai 1995). As a result of the study, 709 epilithic diatom species were classified into three ecological groups (saprophilous species, indifferent species and saproxenous species) by the new method which was more reasonable from ecological viewpoint comparing with the old method (Watanabe *et al.* 1986). In this paper, we show all taxa with synonyms belonging to saprophilous and saproxenous species groups. The number of species belonging to the two groups increased and their ecological groups in some species changed. Almost all diatom taxa belonging to the two groups were cosmopolitans in the world. The diatom assemblage index to organic water pollution (DAI_{po}) can also be estimated more reasonably by using relative abundances of both saprophilous and saproxenous taxa which were listed in this paper, in each sample.

Key index words

DAI_{po}, saprophilous, taxa, saproxenous taxa, water pollution.