

Diatom 2: 23-73 (英文)

渡辺仁治・浅井一視・伯耆晶子・田中志穂子・肥塚利江：有機汚濁に対する好汚濁性種と広適応性種、および珪藻群集による汚濁指数 (DAIpo)

Toshiharu Watanabe, Kazumi Asai, Akiko Houki, Shihoko Tanaka and Toshie Hizuka : Saprophilous and eurysaprobic diatom taxa to organic water pollution and diatom assemblage index (DAIpo)

Abstract

The diatom appeared in attached algal communities on river bed were classified into saprophilous, eurysaprobic and saproxenous species groups, by the statistic analysis to the tolerance for organic water pollution.

Diatom assemblage index to organic water pollution (DAIpo) can be calculated by the equation developed by us, using the relative frequencies of taxa belonging to the former two groups.

Relative abundances of the three groups in diatom assemblage appeared in attached algal community show a remarkable regularity correlating with the change of DAIpo values. Consequently, it should be considered that DAIpo value is an index expressing the regularity in the numerical value, and an appropriate biological index to organic water pollution from the ecological viewpoint.

In this paper, we will describe the method of the statistic analysis to the tolerance of diatom taxon for organic water pollution, and show the all taxa belonging to saprophilous and eurysaprobic species groups with microphotographs or drawing figures.

Key index words

diatom assemblage index to organic water pollution (DAIpo), tolerance index, saprophilous taxa, eurysaprobic taxa