

Diatom 2: 125-131 (英文)

渡辺仁治・肥塚利江・田中志穂子：川床への付着珪藻群集組成からみた大和川の汚濁状況*

Toshiharu Watanabe, Toshie Hizuka and Shihoko Tanaka : Water quality chart of the river Yamato-gawa—using diatom assemblage index to organic water pollution (DAIpo) based on attached diatom assemblage on river bed.—

Abstract

The diatom communities in the River Yamato-gawa, a most polluted river in Japan, were surveyed in October 1985. In these communities, we can find *Navicula minima*, *Navicula mutica*, *Nitzshia palea*, *Nitzshia amphibia* or *Nitzshia frustulum* var. *perpusilla* (the former three are Saprophylic taxa and the latter two are Eurysaprobic taxa) without the most upperstream station. From the data of diatom flora in each sampling station, water qualities were estimated by using Diatom Assemblage Index to organic water pollution (DAIpo), and water quality chart was made using the indices computed. River Pollution Index (RPI), whose value is able to be shown the general degree of pollution of river system, was 29. The value is remarkably lower than those of other rivers in Japan.

Key index words

Water quality chart ; most polluted river ; Diatom Assemblage Index to organic water pollution (DAIpo) ; River pollution Index (RPI) to general degree of water pollution of the river system.