

Diatom 2: 117-124 (英文)

渡辺仁治・田中志穂子・肥塚利江：紀ノ川の汚染地図—付着珪藻群集に基づく有機汚濁指数 (DAIpo) を用いて—

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

#### Abstract

The diatom communities in the River Kinokawa, a less polluted river in Japan, were surveyed in summer 1985. In almost all stations, *Homeothrix janthina* was dominant in algal communities on river bed. In these communities, we can find *Achnanthes japonica* or *Nitzschia frustulum* var. *perpusilla* with high abundance. The former occurred usually in upper stream, the latter in downstream. From the data of diatom flora in each sampling station, water quality was 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), of which value is able to be shown the general degree of pollution of river system, was 57. The value is comparatively higher than those of other rivers in Japan.

Key index words

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