

Diatom 2: 133-151 (英文)

伯耆晶子：猪名川（兵庫県・大阪府）の付着珪藻群集と DAIpo に基づく汚染地図の季節変化

Akiko Houki : Seasonal changes of epilithic diatom assemblage and water quality chart based on DAIpo (Diatom Assemblage Index to Organic Water Pollution) of the river Ina-gawa, Hyogo and Osaka prefecture

Abstract

Epilithic diatom assemblages on the river bed were collected in four seasons in the River Ina-gawa.

From 16 sampling sites 144 diatom taxa occurred in 57 samples obtained in this study.

The representative dominant taxa were *Achnanthes japonica* in upper stream of the river (sts. 1-3), *Nitzschia frustulum* and *Achnanthes minutissima* in middle stream (sts. 4-7) and *Navicula subminuscula*, *Nitzschia amphibia*, *Nitzschia palea* in lower stream (sts. 8-9).

The seasonal changes of the dominant taxa were found in 12 sites. The author was able to discover some trends in the change. However, the trends do not always correlate with the difference of sampling season.

DAIpo (Diatom Assemblage Index organic water pollution) values of the sampling sites decreased toward the lower stream throughout all seasons, and the water quality charts show the similar forms except two sites in lower streams (sts.8-9).

From the result of the cluster analysis based on percentage simlality among all assemblages, all assemblages were clasified into three groups.

It is considered that each group has a special characteristic addapted to the degree of water polltion. And, each group was able to be clasified into several groups whose difference of characteristics were caused by the seasonal change of environmental factors.

Key index words

seasonal change, epilithic diatom assemblage, water quality chart, cluster analysis