Diatom 7: 29-35 (英文)

渡辺仁治・浅井一視：高優占度珪藻による有機汚濁度の判定(3). *Navicula* が第１位種となる群集

Toshiharu Watanabe and Kazumi Asai : Simulation of organic water pollution using highly prevailing diatom taxa (3). Diatom assemblage in which the leading taxon belongs to *Navicula*

Abstract

The assemblage in which the most abundant taxon belongs to *Navicula* appeared in 281 sites among 1287 sampling sites in flowing and standing waters. The number of the most abundant taxon belongs to *Navicula* and that of sites in where such the diatom assemblage occurred in each saprobic level are the following.

DAIpo	Saprobic level	Number of taxa	Number of sites
85－100	xenosaprobic	1	1
70－ 84	β-oligosaprobic	4	9
50－ 69	α-oligosaprobic	15	58
30－ 49	β-mesosaprobic	12	85
15－ 29	α-mesosaprobic	9	59
0－ 14	polysaprobic	6	63

From these facts, it can be seen that the taxa which belong to *Navicula* occur so frequently as the dominating taxon in attached diatom assemblage, and in the polluted waters than the clean waters. The dominating taxa with much frequency of occurrence are the following ten taxa ; *Navicula atomus* var. *atomus*, *N. gregaria*, *N. minima* var. *minima*, *N. mutica* var. *mutica*, *N. mutica* var. *goeppertiana*, *N. mutica* var. *stigma*, *N. mutica* var. *ventricosa*, *N. pelliculosa*, *N. seminulum* var. *seminulum*, *N. subminuscula*.

Key index words

biotic index, diatom assemblage index (DAIpo), dominancy, *Navicula*, saprobic level, water pollution.