

Diatom 7: 21-27 (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(2). *Caloneis*, *Cocconeis*, *Cyclotella*, *Cymbella*, *Diatoma*, *Eunotia*, *Fragilaria*, *Gomphoneis*, *Gomphonema* を第1位種とする群集

Toshiharu Watanabe and Kazumi Asai : Simulation of organic water pollution using highly prevailing diatom taxa (2). Diatom assemblage in which the leading taxon belongs to *Caloneis*, *Cocconeis*, *Cyclotella*, *Cymbella*, *Diatoma*, *Eunotia*, *Fragilaria*, *Gomphoneis* or *Gomphonema*

Abstract

Ecological characteristics of the diatom assemblage in which the predominating taxon belongs to *Cyclotella*, *Cymbella*, *Diatoma*, *Fragilaria*, *Gomphoneis* or *Gomphonema* are the following.

Cyclotella : They occur in oligosaprobic waters with 50–84 in DAIpo marks, when its second taxon is a saproxenous taxon. They also occur in polluted waters with less than 29 in DAIpo marks, when its second taxon is a saprophilous taxon.

Cymbella, *Diatoma* and *Gomphoneis* : They occur in clean water with over 50 in DAIpo marks respectively. When the predominating taxon is *Cymbella minuta* var. *minuta*, *C. sinuata* var. *sinuata* or *Gomphoneis quadripunctatum* respectively, they are commonly found in clean flowing waters with over 70 in DAIpo marks.

Fragilaria : The assemblages, in which the predominating taxon belonging to *Fragilaria* except *F. construens* var. *veneta* and *F. pinnata* var. *lancettula*, occur in clean standing waters with over 50 in DAIpo marks. *F. vaucheriae* var. *capitellata* occurs in very clean waters with over 70 in DAIpo marks as the predominating taxon.

Gomphonema : The assemblages in which the predominating taxon is *G. vibrio* and its varieties occur in clean waters with over 50 in DAIpo marks. However, when *G. angustatum* or *G. parvulum* with its varieties is the most abundant respectively, it appears in polluted waters with less than 49 in DAIpo marks.

Key index words

Cyclotella, *Cymbella*, diatom assemblage index (DAIpo), *Fragilaria*, *Gomphonema*, saprobic level.