

Diatom 4: 49-58 (英文)

渡辺仁治・浅井一視・伯耆晶子：有機汚濁に対する珪藻群集による汚濁指数 DAIpo と密接に関連した生物学的情報

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Abstract

The common saprophilous and saproxenous species groups in the flowing and standing waters were obtained based on mathematical principle. The number of taxa belonging to the former is 29, and that to latter is 58.

DAIpo 50 mark is a common boundary which distinguished between oligosaprobic and mesosaprobic zone in the flowing and standing waters.

Occurring of such a diatom assemblages as saprophilous taxon becomes dominant species, is limited in the water quality zone with below 50 in DAIpo marks, and that of saproxenous species becomes dominants, is limited in where with over 50 in DAIpo marks, in both flowing and standing waters.

Saprophilous and saproxenous species do not usually coexist with each other as dominant or subdominant species.

Shannon's diversity index vary describing a parabola with increase of pollution degree. And the variational pattern of the index shows a symmetry between the right and left halves separated by the boundary of which DAIpo marks is 50.

Key index words: numerical diatom assemblage index (DAIpo), flowing waters, standing waters, pollution spectrum, diversity index.