

Diatom 13: 161-169 (英文)

墨田 勉彰・渡辺 仁治 : 石川県金沢市及びその近郊部湧水の DAIpo

Michiaki Sumita and Toshiharu Watanabe : The attached diatom assemblage index (DAIpo) in springs in Kanazawa City and its suburbs, in Ishikawa Prefecture

Abstract

The water quality of 21 springs in Kanazawa City and its suburbs was surveyed from 1992 to 1996, using diatom assemblages as environmental index, supplemented by measurement of some physicochemical variables.

DAIpo values ranged from 50 to 89, indicating that the degree of water pollution at all sites corresponded to the oligosaprobic level in the former saprobic system. There was a significance between DAIpo and EC values. All the springs in this study were classified into 3 types according to geographical features and then into 7 types with reference to DAIpo values

- I. Mountainous regions : (1) Springs with clean water quality (DAIpo 60-89) in Morimoto mountainous region (Nos. 1-3, No. 14) and Utatsu-yama mountainous region (No. 7) ; (2) Springs with somewhat worse water quality (DAIpo 55-56) in Utatsu-yama mountainous region (Nos. 4-6).
- II. Plateaus ; (3) Springs with clean water quality (DAIpo 61-69) in Kodachino plateau (Nos. 8, 9) ; (4) Springs with somewhat worse water quality (DAIpo 53-60) in Kodachino plateau (Nos. 10-12) and Teramachi plateau (No. 13).
- III. Alluvial fans and lowlands ; (5) Springs with clean water quality (DAIpo 60-82) in Tedorigawa alluvial fan (Nos. 18-21) ; (6) Spring with somewhat worse water quality (DAIpo 50, 51) in Kanazawa lowlands (No. 15) and Tedori alluvial fan (No. 17) ; (7) Spring with clean water quality (DAIpo 73) in Awagasaki dune (No. 16).

Some springs described in (2), (4) and (6) with DAIpo values of 50-54 seemed to have been affected by domestic drainage. They also showed high EC values.

Key index words

attached diatom assemblage, DAIpo, spring.