Abstract

Epilithic algae were collected at the outflow of the Suzumeno-yu at Isobe Hot Springs, Gunma Prefecture in June, 2000; at the time of sampling, the water temperature was 31°C, the pH was 7.6 and the concentration of NaCl was 0.49%. Almost 100% of the collected algae belonged to the taxon in this study. The valves of these specimens were elliptical to linear-lanceolate, and the ends were acute or rostrate. The valves length was 9-24 (30) μm, breadth was 3-5 μm and there were 13-18 striae in 10 μm. The striae were perpendicular to the raphe or weakly radiate from the valve center. This taxon resembles several taxa in *Navicula* (e.g. *N. aquaedurae*, *N. arcotenelloides*, and *N. caterva)*, but appears to be a new taxon due to differences in valve form. Since we believed this species to be identical to the species recorded as *Navicula* sp. at Mine Hot Springs by Tanaka and Nakajima (1985), we propose the new name *Navicula tanakae* Fukush., Ts.Kobay. & Yoshit. nov. sp. in honor of Hiroyuki Tanaka, at first author of that study.

Key index words

diatom, holophile species, morphology, *Navicula tanakae* Fukush., Ts.Kobay. & Yoshit. nov. sp.