

## MORPHOLOGICAL AND TAXONOMICAL STUDIES OF SMALL PANDURIFORM *DIPLONEIS* FROM MARINE IN SOUTHERN JAPAN.

Takanori Matsuoka & Tamotsu Nagumo

Department of Biology, The Nippon Dental University

We found small panduriform-shaped diatoms belonging to the genus *Diploneis*, collected from Iriomote-jima, southern islands in Japan. We observed these specimens using light microscopy and scanning electron microscopy.

As a result, we identified several of them as *D. gravelleana* Hagerstein, and *D. interrupta* var. *caffra* Giffen (*D. caffra* Witkowski.) whereas others (*Diploneis* sp.) could at present not be identified.

*D. gravelleana* Hagerst was described from San Juan Bay in Puerto Rico by R. Hagerstein in 1938. The valves are panduriform-shaped, 16-18 µm in length, 7-8 µm in breadth, striae 14-15 in 10 µm. The fine structure of the areolate striae reveals many series of areolae which are occluded by cribra. The external interstriae are smooth.

*D. interrupta* var. *caffra* Giffen (*D. caffra* Witkowski) was described from Kowie River, Port Alfred, Eastern Cape Province in South Africa by Giffen in 1970. Valves are 18-20 µm in length, 7-8 µm in breadth with striae 12-15 in 10 µm. The fine structure of the areolate striae shows that they are composed of slits with foramen lips and occluded internally by cribra.

Other species with small panduriform-shaped valves could not identified in this study. These species showed three to five series of areolae which are occluded by cribra.

In addition to the taxa mentioned above, we will also discuss some related species.