A NEW NAVICULOID DIATOM GENUS *MORENEIS* GEN. NOV. (BACILLARIOPHYCEAE) FROM SAND FLATS IN KOREA

<u>Jinsoon Park</u>¹, Chul-Hwan Koh², Jong Seong Khim¹, Taisuke Ohtsuka³ & Andrzej Witkowski⁴

A new diatom genus Moreneis has been described from the Yellow Sea sand flats on the west coast of Korea. The new genus is characterized by a unique combination of morphological characteristics including the shape of the plastids. The valve morphology resembles other genera belonging to Lyrellaceae, within which we place this genus. In terms of areolae structure Moreneis resembles Petroneis and Placoneis, however, it differs from both genera with respect to the raphe system and plastid shape. Cells of *Moreneis* spp. have a single large plastid appressed to the girdle of the secondary side of the valve, with two lobes extended toward the primary side of the valve. Furthermore, the unique feature of Moreneis frustules is the raphe, which has both external central and apical endings bent in opposite directions. Four taxa were differentiated and describe as new for science. However, based on our findings, several established species from Navicula should also be formally transferred to Moreneis, including N. alpha Cleve, N. besarensis Giffen, N. epsilon Cleve, N. menaiana Hendey, N. polae Heiden, and N. quadri-undulata F. Meister. Analysis of published data revealed that species belonging to Moreneis are numerous in tropical marine littoral waters, and in moderate climate zones, especially in the western Pacific, with only a few species occurring in the Mediterranean and Atlantic.

¹Division of Environmental Science and Ecological Engineering, Korea University

²School of Earth and Environmental Sciences (Oceanography), Seoul National University

³Biwa Lake Museum

⁴Institute of Marine Sciences, University of Szczecin