

A new, large species of *Gomphonema* Ehrenberg from ancient Lake Matano, Indonesia

Kociolek J., Kapustin D., Kulikovskiy M.

Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

© 2018, © 2018 The International Society for Diatom Research. A large species of the diatom genus *Gomphonema* Ehrenberg, *G. matanensis* sp. nov., is described as new to science from ancient Lake Matano, Indonesia. Light and scanning electron microscopic observations of the valve morphology of this species are presented. The morphology of this species is similar to other large species that have ovoid areolar openings without external flaps or occlusions, such as *G. gomphopleuroides* Amossé ex Kociolek, Glushchenko & Kulikovskiy and members of the *G. kaznakowi* species complex, both known from Southeast Asia. This species has the special features of bi- and triradiate siliceous growths at the valve mantle junction, continuing onto the mantle. Though an analysis of the phylogenetic relationships of the diatom genus *Gomphonema* is currently wanting, it would appear that gigantism occurred several times within the genus.

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Keywords

ancient lakes, Bacillariophyceae, diatoms, *Gomphonema*, Indonesia, morphology, systematics

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