## "Diatoms"

## From past to present and from freshwater to marine environments

## **FOREWORD**

Diatoms cover an immensely broad range of study interests, from conventional taxonomy based on morphology to genetics and phylogeny, from geology to present oceanography, and from ecology to experimental physiology. One topic of interest concerns, for example, the use of diatoms as indicators of freshwater pollution. Another promising application is the use of diatoms as signature of past climatic changes (i.e., polar sea-ice proxies). Due to the diversity of the themes exposed, a recollection of papers on diatoms may lack homogeneity in area coverage, but gives sharply up-to-date contributions on each particular topic.

Two previously published fascicles of Vie et Milieu/ *Life and Environment* were dedicated to "Diatoms" [1995 vol. 45 (3-4) and 2004 vol. 54 (2-3)], after the 13<sup>th</sup> and the 22<sup>th</sup> colloquia of the Association of French speaking diatomists (ADLaF for its acronym in French), respectively. The two present special issues on "Diatoms" (2010 vol. 60(2) and (3) follow and integrate results exposed at the 28<sup>th</sup> ADLaF colloquium, held in Banyuls (Laboratoire d'Océanographie Biologique de Banyuls-sur-Mer, France), during 7-10 September, 2009.

Eighteen papers devoted to diatoms compose these two fascicles. Several authors, such as Hernández-Becerril D.U., Jordan R.W., Kociolek J.P., Sar E.A. and Sullivan M.J., proposed contributions responding to a call for publication from the Journal, while the others, Ács É., Cejudo-Figueiras C., Cordonier A., Cornet C., Lai G., Morin S., Riaux-Gobin C., Rimet F., Roubeix V., Sabbe K., Wet-

zel C. and Witkowski A., proposed contributions that had been presented at the 28<sup>th</sup> ADLaF colloquim as an oral communications.

The two special issues contain numerous new diatom species from freshwater and marine environments, new combinations, the new genus *Pierrecomperia*, the description of a Pliocene fossil, several ecological contributions on lakes, nutrient monitoring using epiphytes, the effects of bactericides on the structure of communities, and a revue about variation and polymorphism in diatoms.

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C. Riaux-Gobin, L. Ector, Y. Rincé & M. Coste, Associate Editors

Referees involved: Barinova S., Beltrami M.E., Cocquyt C., Cox E.J., Crawford R.M., Cremer H., Dell'Uomo A., Denys L., Falasco E., Gómez N., Hallagraeff G., Jahn R., Jewson D.H., Jordan R.W., Kociolek J.P., Le Cohu R., Leira M., Levkov Z., Lobban C.S., Morales E.A., Navarro J.N., Potapova M.G., Prasad A.K.S.K., Raeder V., Rimet F., Sar E.A., Saint Martin S., Sato S., Stenger-Kovacs C., Straub F., Suzuki H., Van de Vijver B., Vernet M., Williams D., Witkowski A.