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BOOK REVIEW

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Beszteri, B. and Jordan, R. W. (eds) (2021): Diatoms and Chrysophytes – Unravelling their mysteries through light and electron microscopy. Richard M. Crawford – A lifetime dedicated to mircroalgal research. On the occasion of his 80th birthday. – Nova Hedwigia Beiheft 151: 1–324. (with 672 figures, 16 tables and 12 plates) (ISBN 978-3-443-51074-9, paperback)

The special volume of Nova Hedwigia is dedicated to the world-famous diatomologist Richard M. Crawford, who started his researches in the Botany Department of London University with three freshwater dinoflagellate species. His main scientific activity focused on diatoms, particularly their morphology and taxonomy, utilising various microscopical techniques. He published 95 papers and the famous book (Diatoms: Biology & Morphology of the Genera).

Although there is no single common scientific thread connecting all contributions, they are all influenced, in some way, by the work of Crawford. The present volume includes 16 papers covering a broad range of topics in diatom and a single of chrysophyte (flagellar apparatus and lorica of *Lepochromulina bursa*) research. Four papers treat new recent species from seawater: *Cocconeis crawfordii*, 3 *Simonsenia* spp., *Chaetoceros crawfordii*, *Chaetoceros turingii*. In three papers there are descriptions of new fossil species from Lake Ochrid sediment: *Cyclotella crawfordii* and new fossil genera from different marine sediments: *Crawfordia*, *Praecorethron crawfordii* gen. et sp. nov. There are name changes or "lost name" of diatom species: *Aulacoseira scala*, *Corethron unguiculatum*. In several papers we can read about the fine details of valve and cell morphology and ultrastructure (like new type of girdle band in Bacillariaceae), supplemented with detailed DNA analyses, in many cases in an ecological and/or biostratigraphic context; to attempts at clarifying some hard-to-resolve questions on the evolutionary history of diatoms from genera: *Asteromphalus*, *Ellerbeckia*, *Fallacia*, *Hydrosera*, *Monopsia*, *Rhizosolenia*. There are about four hundred excellent, high quality SEM, and several dozen LM and TEM micrographs, showing the morphology of frustules/valves and living cells.

Overall, this volume provides a great overview on recent and fossil diatoms, and it can be successfully used for identification during microscopy investigations. It can be recommended to everyone interested in studying diatoms, chrysophytes and other microalgal groups.

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