

BOOK REVIEW

DOBRINA TEMNISKOVA, MAYA STOYNEVA, 2011.
ALGOLOGY. I. GENERAL PART. II. SYSTEMATIC PART. SOFIA,
“PENSOFT”: 1140 P. (ISBN 978-954-642-606-2, ISBN 978-954-642-607-9.

In the end of 2011, a significant in scope and content book with a brief title “Algology” appeared in Bulgarian scientific and educational literature. This important modern publication in two volumes is the first one in Bulgaria, and as far as I know, also in the neighboring East-European countries. The



Prof. D. Temniskova

authors – well-known explorers of the algae in Bulgaria – Prof. DrSc D. Temniskova and Assoc. Prof. Dr M. Stoyneva, named the book in a modest way as a textbook, developed for students in the Faculty of Biology of Sofia University. However, it goes far beyond the notions and requirements for a handbook and has the character of a serious monographic work. The book is dedicated to the founder of Bulgarian algology – the Academician Dr. Stephan Petkoff (1866-1951), one of the pioneers of the botanical science in Bulgaria.

In the first, general part of the book (512 pages), the authors first acquaint the readers with the history of algology as a science and with its most authoritative pioneers from the Greek philosopher Theophrastus (371-328 BC.) till its recent makers in 20th and 21st centuries. There in a brief way are represented all Bulgarian algologists, starting from the founder of algology in Bulgaria – Prof. S. Petkoff till the recent scholars of Bulgarian algal flora. This gives a clear idea about the development of the algological studies in the country, which are quite versatile and cover different topics in algology.



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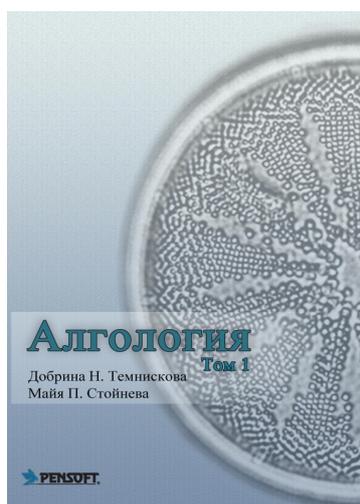
In the general part of the book the following main chapters are developed: “Biosystematics and biodiversity. Species concepts” (chapter 4), “Thallus – levels of morphological differentiation” (5), “Characteristics and peculiarities of the algal cell” (6), “Reproduction, alteration of nuclear phases, alteration of generations, life cycles” (7), “Ecology and distribution of algae” (8) и “Algae and human affairs” (9). There it is written in detail about the morphological and cytological organization of algae, their reproduction, distribution, ecology, hypotheses about algal origin and evolution and their importance for mankind and nature. Many recent data on the physiology and biochemistry of algae and also molecular-genetic investigations on given species or algal groups are included.

The second volume is named “Systematic part” (628 pages). There the main taxa (divisions/phyla, classes, orders and genera) of prokaryotic and eukaryotic algae are represented in systematic order. The classification, introduced concisely, is based generally on the schemes of GRAHAM & WILCOX (2000), DE REVIERS (2003), LEE (2004, 2008) and GRAHAM et al. (2009). In the descriptions of the taxonomic groups, the results from the modern molecular-phylogenetic studies are outlined and the new classifications of protists (e.g. FENSOME 2003, ADL et al. 2005, 2007) are taken into account. The divisions/phyla and classes are described in detail and this enhances

the identification of the orders and genera, which are included in the relevant group.

The organization of the systematic part in evolutionary lines deserves consideration: 4 main lines (blue-green - Cyanoprokaryota, red - Rhodophyta, yellow-brown - Ochrophyta / Chrysophyceae, Synurophyceae, Dictyochophyceae, Pelagophyceae, Tribophyceae, Eustigmatophyceae, Raphidophyceae, Bacillariophyceae, Bolidophyceae, Pinguiphyceae, Phaeothamniophyceae, Phaeophyceae, Chryso-merophyceae/ and green - Chlorophyta and Streptophyta) and 6 small lines: (Cryptophyta, Haptophyta, Pyr-rhophyta, Euglenophyta, Chlorarachniophyta and Glaucocystophyta). They are briefly summarized and represent in a table on the inner cover of the first volume. On the inner cover of the second volume the summary of the International Biostratigraphic scale (GRADSTEIN et al. 2004, OGG et al. 2008) in translation by NIKOLOV (2011) is reproduced, which helps for better understanding of the time when the separate algal groups originated and developed.

A useful peculiarity of the design and text formatting is usage of two print types – normal print for the general exposition on given problem or taxon and a small print for additional information and details on the same problem. In small print are also written some of the chapters, which contain information useful for readers with more special interests in algology. The main and obligatory text for learners from each chapter is in grey rectangular fields.



These peculiarities make the book a useful textbook for students in biology and ecology.

At the end of the second part there is a list with 1339 references (monographies, guides, scientific papers, etc.) on the main problems of algology in a global scale and the cited publications of Bulgarian and foreign authors, who studied the algal flora of Bulgaria. Worthiness of the book, which facilitates its usage, are the both indices – of terms and of the Latin names of the taxa included in the text.



The book is prepared for print and issued by the well-known publishing house “Pensoft” (Moscow-Sofia), which is specialized in biological literature. The numerous graphic illustrations in the book – drawings of separate genera and species, schemes, tables, etc. – altogether ca. 600, are prepared and reproduced in a precise way and are a good addition to the text information.

In conclusion, I consider that the book “Algology” of Prof. D. Temniskova and Assoc. Prof. M. Stoyneva, briefly represented here, is a serious achievement not only for the both authors, but for the Bulgarian algological school. The book is a very useful modern guide and basis for studies of the rich algal flora for students, university teachers, ecologists and especially for young scientists, devoted to research in algology and botany.

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