

Phycology

Phycology is the study of algae, the primary photosynthetic organisms in freshwater and marine food chains. As a food source for zooplankton and filter-feeding shellfish, the algae are an extremely important group.

Since the publication of the first edition in 1980, this textbook has established itself as a classic resource on phycology. This revised edition maintains the format of previous editions, whilst incorporating the latest information from nucleic acid sequencing studies. Detailed life-history drawings of algae are presented alongside information on the cytology, ecology, biochemistry, and economic importance of selected genera.

Phycology is suitable for upper-level undergraduate and graduate students following courses in phycology, limnology or biological oceanography. Emphasis is placed on those algae that are commonly covered in phycology courses, and encountered by students in marine and freshwater habitats.

ROBERT LEE has had a long and varied career, teaching worldwide in countries including South Africa and Iran, as well as at Harvard Medical School, and Colorado State University, where he currently works as a Teaching Coordinator in the Department of Biomedical Sciences.

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To Patricia, Nicole, Alana, and Christian

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Preface to the first edition

It was that eccentric British soldier of fortune Col. Meinertzhagen, in his *Birds of Arabia*, who expressed the sentiment that prefaces should be kept short because few people ever read them. Accordingly, I would like to take a brief opportunity to express my gratitude to the people who offered encouragement and assistance during the preparation of this book. I would like to thank Adele Strauss Wolbarst, Robert Cnoops, Charmaine Slack, Sophia Skiordis, Caroline Mondel, Jill Keetley-Smith, Heather Edwards, Gail Arbeter, and the Lending Library at Boston Spa, England, for help while most of this manuscript was being prepared at the University of the Witwatersrand. For general encouragement while at Pahlavi (Shiraz) University and for providing assistance during the last turbulent and chaotic

year of imperial rule in Iran, while the manuscript was being finished, I would like to thank Mark Gettner, Brian Coad, and Mumtaz Bokhari.

When photographs or drawings have been taken directly from the original material, this is indicated by stating in the legend that it is *from* the original work. Most of the drawings have been redrawn to suit my tastes, and these drawings are indicated by stating that the work is *after* the original. In some cases I have made drawings from photographs or have incorporated a number of drawings in one, in which case I state that the finished drawing is *adapted* from the original work or works.

I have used the metric system in this book, and the fine-structural illustrations are expressed in micrometers (μm) and nanometers (nm).