

Lobban, C.S., Harrison, P.J.: **Seaweed Ecology and Physiology**. - Cambridge University Press, Cambridge - New York - Oakleigh 1994. 366 pp. ISBN 0-521-40334-0.

The reviewed textbook is a thorough revision of a predecessor (The Physiological Ecology of Seaweeds). Both authors wrote the major part of the text, but six special essays and an appendix were written by nine additional scientists from the U.S.A., the U.K., and the Netherlands.

The text is divided into nine chapters. The first of them, dealing with algae morphology, life histories and morphogenesis, is followed by chapters on seaweed communities and biotic interactions. All the additional essays are part of Chapter 2 and describe special communities (rocky intertide, tropical reefs, kelp forests, estuaries and salt marshes, seagrass beds, Arctic subtidal). Chapter 4 deals with radiant energy (distribution in oceans, spectra) and photosynthesis (energy harvesting, pigment complexes, thylakoids, photoacclimation, growth rate, CO₂ fixation, action spectra, C₃ and C₄ cycles, polysaccharide formation, carbon translocation, primary productivity, diurnal changes, carbon losses, etc.). Chapter 5 deals with nutrients (algae requirements, macronutrients and micronutrients, algal mineralization, long-distance transport, growth kinetics affected by mineral nutrients, etc.). The effects of temperature and salinity on various metabolic processes (growth, photosynthesis, water relations, etc.) are described next. Chapter 7 is on the effects of water motion (water flow, wave action) on seaweed life. The important effects of water pollution (thermal pollution, heavy metals, oil, herbicides, polychlorinated biphenyls, antifouling compounds, complex wastes, pulp-mill effluents, etc.) on algae biomass and physiological processes are described next. The last chapter deals with seaweed mariculture (cultivation of *Porphyra*, *Laminaria*, *Undaria*, *Eucheuma*, *Kappaphycus*, etc.).

The appendix lists classified taxa that are mentioned in the text. The general list of references contains ca. 1900 references. A good subject index is supplemented. The text is based on examples of various sea algal species and is accompanied by many figures, schemes, photographs and tables that illustrate well the explanations. The book is suitable for students and their teachers as well as for marine biology scientists.

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