

# *Limnologia* by J G Tundisi and T Matsumura Tundisi

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On a global scale, from 1960 to 2005, the total amount of freshwater in reservoirs rose by up to four times. During the same period, total loads of nitrogen doubled and loads of phosphorous trebled in water bodies, but with staggering figures: the whole quantity of freshwater in lakes and reservoirs is three times bigger than in natural rivers. Since many of these water bodies are located in tropical or subtropical regions, the field of science related to subtropical limnology welcomes complete, detailed and updated books which outline such disruptive trends in society. At the same time, today's reader demands textbooks that enhance the diversity of concepts and which do not hesitate to underpin discussions by reference to theory and praxis, or between traditional postulates and the imminent emergence of new paradigms from the Neotropics. Dealing with scenarios of land use and climate change, and of their respective adaptation measures, *Limnology of the 21<sup>st</sup> Century*, as it is now being called, seeks its own challenging topics, ranging from hydro-energy security to water quality classification charts in strategic river basin planning. These new directions in limnology should be of operational utility, not only for those in academic circuits but also for users, decision-makers, as well as for more vulnerable people, i.e. located in riverside human settlements. In this way, the masterpiece called *Limnologia*, authored by J G Tundisi and T Matsumura Tundisi, faithfully incorporates the aforementioned challenges, thereby writing concepts into comprehensive statements. These writings are progressive and didactically developed over more than 600 pages, 20 chapters and with generous inclusion of tables, figures, coloured photos, citations and bibliographical references and appendices. It is worth noting how the authors' international experience in research and development is here gathered in a single volume, with practical and easily readable sections in order to satisfy different audiences and needs. Because of the hardcover edition, the book allies the traditional biologic vision, i.e.

rich definitions, detailed biogeochemical process, genesis evolution, ecosystems and organisms, with complex dynamics of eco-hydrological fluxes in lakes, reservoirs, rivers and estuaries and coastal areas. With a strong bias towards South American and Brazilian case studies, this volume goes further when introducing comparative examples of limnological knowledge from African and temperate regions, thereby furnishing the reader with a kind of international perspective on the subject, for beginners as well as for experts. The last three chapters are addressed more to impacts, planning and management, and the prospective methodological strategies of limnology. In this way, the interdisciplinary nature and the permanent evolution of this field with related ones, e.g. engineering, economics, sociology, education, even policy-making, are conveyed to the reader. Not being limited to Biology circuits, the book is written with a balanced style, with the assumption that it could be assimilated into undergraduate or graduate classrooms and could be introduced partially as a guide/manual, or as a usual engineering textbook. Having a strong connection with processes and models, this book can undoubtedly encourage lecturers and students towards novel examples and exercises on water resources. This book is being incorporated as a textbook into syllabi and courses I lecture on, at subtropical latitudes, in the courses of Environmental Engineering and Civil Engineering, and in the Graduate Program of Hydraulic Engineering and Sanitation. Wishing all forthcoming readers pleasant and satisfactory use of this text, I urge the authors to seek its translation into Spanish and English, in order to share their successes here depicted with new overseas audiences.

## Reference

TUNDISI, JG. and MATSUMURA-TUNDISI, T. 2008. *Limnologia*. Oficina de Textos. 632 p.