

## EDITORIAL

The scientific journal *Acta Limnologica Brasiliensia* is known for publishing articles on Limnology that are spontaneously sent by researchers in the field of ecological knowledge. As emphasized in the editorials of its recent issues, the articles address different processes, communities and types of environments, and are developed in different geographical regions. However, like other journals of the biological sciences, we have encouraged the publication of thematic issues that meet the yearnings of limnologists. Number 2, Volume 22 (2010) was the first thematic issue published in the recent history of our periodical and addressed the community of aquatic macrophytes. The current issue (number 3, volume 25) was proposed by Professor Vinícius Fortes Farjalla, faculty member of the Department of Ecology of the Federal University of Rio de Janeiro (UFRJ). It discusses different aspects of the coastal lagoons located in the northern region of the state of Rio de Janeiro. The procedures for publication in this thematic issue were the same as those adopted for the production of our regular numbers, which contain articles of spontaneous demand, that is, the manuscripts were subjected to peer review and rigorous assessment by our editors. Although the articles address environments of a restricted geographical area, the results and conclusions are of general interest to limnologists working in other geographical areas, because they approach topics such as artificial eutrophication, the carbon cycle, predation and the teaching of ecology, among other aspects. Thus we are enormously pleased to present this special issue of *Acta Limnologica Brasiliensia* Journal dedicated to the coastal lagoons of northern Rio de Janeiro state. In a few kilometers of coastline, these ecosystems are a mosaic of limnological conditions seldom found in the specific literature. In a short walk, it is possible to find fresh water lagoons and hypersaline lagoons, with salt concentrations higher than those in the adjacent ocean; clear water lagoons and lagoons of very dark water, rich in dissolved organic matter; and oligotrophic lagoons and lagoons that constantly receive input of sewage into their waters. This wide variation of abiotic conditions results in profound differences in the structure and functioning of these ecosystems, which need to be considered for the understanding of the regional environmental importance of these lagoons and for the development of strategies for management and conservation of these ecosystems. Moreover, the knowledge and experience obtained in these lagoons can be applied to lagoons of other geographical regions.

For over two decades, the Laboratory of Limnology of the Federal University of Rio de Janeiro and the Center for Ecology and Socio-Environmental Development of Macaé (NUPEM/UFRJ) have been researching various aspects of the structure and functioning of the coastal lagoons of the northern region of that Brazilian state. Throughout this long journey, many students have completed their theses and dissertations, many articles have been published in national and international periodicals and a National Park (PARNA Restinga de Jurubatiba), which has the preservation of several of these ecosystems as one of its main objectives, was created in the region with the participation of these groups. In short, many years have been dedicated to the study of these ecosystems, and a part of this work is presented in this thematic issue.

This special issue consists of 12 articles that seek to encompass several objects, approaches and scales of the studies conducted in the coastal lagoons of northern Rio de Janeiro state. The first article is a theoretical work that mathematically models the effects of predation risk on the structure and functioning of benthic food chains. The second, third, fourth and fifth articles are based exclusively on field sampling and address various aspects of the structure of aquatic communities in coastal lagoons, focusing primarily on the effects of salinity and nutrient concentration on these communities. The sixth, seventh, eighth and ninth articles are based on laboratory and field experiments that discuss issues since the decomposition of aquatic macrophytes in these lagoons until the effects of the diversity of organisms on the functioning of these ecosystems. The tenth and eleventh articles are reviews focusing on two important forms of carbon present in these ecosystems: dissolved organic carbon and methane. Finally, the twelfth paper deals with the use of coastal lagoons as a resource for the teaching of ecology, using the Imboassica lagoon as its case study. In the name of the authors of all these articles, I hope you enjoy this special issue.

**Vinicius Fortes Farjalla**

**Antonio Fernando Monteiro Camargo**

*Editores*