



EDITORIAL

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Proceedings of the “I Brazilian Workshop on Ecosystem Modeling applied to Fisheries”

This Special Volume of the *Pan-American Journal of Aquatic Sciences* is a collection of papers representing some of the study cases presented by a group of researchers gathered at the *I Workshop Brasileiro sobre Modelagem Ecológica aplicada à Pesca*, that took place in the Instituto Oceanográfico of the Univ. of São Paulo (São Paulo, SP, Brazil) from March 5th to 7th, 2007.

This event, idealized some time ago by Drs. Gonzalo Velasco C., Júlio N. de Araújo and Ronaldo Angelini, was co-organized at this time by Drs. Carmen L. D. B. Rossi-Wongtschowski, G. Velasco, and J. Araújo. It brought together, for the first time, the majority of the local researchers that have been dealing with ecosystem and mathematical modeling applied to fisheries in recent years (see the list of participants at the end of the [Annex](#) of this Volume).

It is hard to tell when ecosystem modeling has started in Brazil. However, some events were essential for the consolidation of this field in Brazil, as the 1991 course on “Modeling of aquatic ecosystems with Ecopath II”, in Fortaleza, by Dr. Silvia Opitz; the 1994 course on “New approaches in marine ecology: Construction and analysis of trophic flow networks” by Dr. Astrid Jarre; and latter, in 1998, a course on Ecopath by Drs. Villy Christensen and Daniel Pauly, following the meeting “Placing fisheries in their ecosystem context”, both in São Paulo. Many of the attendees to these courses were present at the present Workshop and/or are co-authors or referees of the articles published here.

In different regions of Brazil, some researchers have been dealing with different ecosystem models. From their work and their collaborators and graduate students', one can trace almost all the dissertations and published papers in the area. In Rio de Janeiro state, Prof. Dr. Jean L. Valentin (UFRJ) and some of his colleagues and students have been constructing ecosystem models since the 1980'. In São Paulo state, Profs. Drs. Carmen L. D. B. Rossi-Wongtschowski, Lucy S. Hashimoto Soares (IO-USP) along with some of their graduate students and other colleagues, have built some ecotrophic models since that decade, as well. Still in south-eastern and central Brazil, Profs. Drs. Ângelo Agostinho, Luiz Carlos Gomes (UEM), Miguel Petrere Jr. (UNESP), and Ronaldo Angelini (UEG) have assessed several continental ecosystems using both ecotrophic and mathematical models since the 1980'. Dr. Eduardo T. Paes (INPE) and other colleagues also deal with oceanographic and weather models related to fish and ecosystem production. In Rio Grande do Sul state, Prof. Dr. Milton L. Asmus (FURG) had worked with and supervised many students that built different ecological models for both continental and marine aquatic ecosystems. More recently, Prof. Dr. Jorge P. Castello and graduate students from the same institution have been dealing with models applied to the assessment of ecosystem impacts of aquaculture and fisheries. In Pará state, Prof. Dr. Victoria Isaac (UFPA) and some colleagues have also been modeling the impacts of fisheries on marine and mangrove ecosystems. And our list should go on but would never be completed... The following generation (Gecely Rocha, Marcelo Vasconcellos, María A. Gasalla, Kátia Freire, G. Velasco and J. N. Araújo, among others) is active, following the steps of these pioneers. And more new students are coming each year.

On the other hand, some researches have faced the fisheries and ecosystem management issues using more “mathematical” fisheries models, including traditional and Bayesian statistical approaches. Dr. M. Petrere (UNESP), already named, and Dr. Paul G. Kinas (FURG) along with some collaborators and graduate students, have a big share of the responsibility on the development of this quantitative approach. Also Dr. Silvio Jablonski (UERJ) had been working with non-parametric statistical models applied to the analysis of fish recruitment and other fisheries issues.

In this sense, this event was unique not only for being the first workshop to bring together ecosystem modelers from different generations, but also for joining bio-ecological researchers with more quantitative ones. This has opened a whole new path for modeling, allowing the interaction and collaboration of different research groups with the same goal: the better understanding and managing of our aquatic ecosystems.

The *Pan-American Journal of Aquatic Sciences* is proud to publish these articles and to be part of this particular event in the history of Latin-American science evolution.

Gonzalo Velasco, Cristina Oddone, Daniel Loebmann and Alexandre Garcia

Special thanks to Drs. Jorge P. Castello, Júlio N. Araújo, James Tony Lee and Ronaldo Angelini.



Picture of some of the participants of the “I Brazilian Workshop on Ecosystem Modeling applied to Fisheries”. Front row, from the left: Julio N. Araújo, Carmen L. D. B. Rossi-Wongtschowski, Hiram L Pereira, Jean L. Valentin, Gecely A. Rocha, Victoria J. Isaac (in yellow), Silvio Jablonski, Maria de los Angeles Gasalla, Henrique C. Giacomini. Back row, from the left: Jarbas Bonetti, Paul G. Kinas, Agnaldo S. Martins, Gonzalo Velasco and Humber A. Andrade; far right: Kátia F. Freire and Luiz C. Gomes.