

SCIENTIFIC RESEARCH, BIOLOGICAL DIVERSITY AND SOCIETY

This was the name chosen for the symposium organized in December 2010 in order to celebrate forty years of the *Centro de Ecología* at the *Instituto Venezolano de Investigaciones Científicas* (IVIC). In these words it was intended to synthesize the essence of the center, which has contributed through its research projects to face the new challenges that impose the need to make sustainable use of biological diversity so as to warrant its preservation for present and future generations of our society.

In the year 2000 it was decided to celebrate for the first time an anniversary of the *Centro de Ecología* with the symposium 'Tropical Ecology for the 21st Century: Biodiversity, Global Change and Ecosystems Restoration'. The history of the *Centro de Ecología* during its three initial decades was reviewed on that occasion. Also, the *leitmotiv* of that symposium intended to establish a course towards the themes that would motorize the advances of ecology in the following decade. In this second edition some of the most relevant achievements of these years are summarized. Another goal was to enlarge our impact by adding to the list of traditional guests from the academic community, other non-academic groups such as environmental managers, amateurs of environmental issues and general public.

The period 2000-2010 of the *Centro de Ecología* was characterized by a substantial increase of the roster of researchers and associated scientific personnel. This staff, trained within and outside the country, has contributed to the development of new lines of research and to the consolidation and expansion of other existing ones. The creation of support units represented an important organizational element whose purpose is to provide infrastructures of common usage for the development of projects of the center and its collaborators, in order to increase the efficiency in the use of spaces and financial resources whose availability was and continues to be hard to predict. The Unit of Genetic Ecology and the Unit of Geographical Information Systems were born. These support units will progressively enlarge its reach by offering their services beyond the scope of the *Centro*

de Ecología and IVIC. Another outstanding aspect of the last decade has been the planned growth of the *Centro*. The latter is shown by the Quinquennial Plan 2001-2006 and the Quinquennial Plan 2009-2014, whose objectives were to maintain the *Centro* as a national and regional reference in research and human resources training in tropical ecology. These quinquennial plans were the result of an initiative developed within the *Centro de Ecología*, without precedence in IVIC.

The current special issue of *Interciencia* presents a significant number of the research lines that are carried out in the *Centro de Ecología*. The orientation towards current topics and the harmony of the themes tackled with concrete problems affecting our society are noteworthy. This tendency has not been an exclusive one in the last years, but rather a structural characteristic of the majority of the research lines of the *Centro* since its creation, as it can be appreciated in the introductory paper by Ernesto Medina.

The contributions in this issue of *Interciencia* are varied. The issue opens with a historical analysis of the ecological studies in Venezuela since the decade of the 60's, with special emphasis on the role played by the *Centro de Ecología* in this process. Testimonials of our geological past are reported through fossil evidence. The articles cover diverse taxonomic groups –pathogenic fungi, mycorrhizal fungi, terrestrial and aquatic plants, crustaceans, amphibians, birds and felines- and address various themes, such as the management of endangered or commercially important species, the restoration of degraded ecosystems, the ecological consequences of changes in land use and of habitat fragmentation, the impact of exotic species upon native fauna and flora, the genetic improvement of crops, and the sustainable exploitation of floodplain river systems.

We wish to express our gratitude to the authorities of IVIC and its Directive Council, to the Marcel Roche Library, to *Ediciones IVIC* and to the *Centro Internacional de Ecología Tropical* for their logistic and financial support that made possible the symposium and this publication.

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