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Editorial

Biota Neotropica pays tribute to 60 years of FAPESP in this special issue

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In celebration of the 60th anniversary of FAPESP, this special issue of Biota Neotropica, published by the BIOTA/FAPESP Program, gathers in articles that analyse the contribution of the Foundation for Research in the characterization, conservation, restoration, and sustainable use of biodiversity. The objective is to highlight the enormous contribution given by FAPESP since 1962 to this great thematic area. Of course, emphasis is given to the projects developed under the BIOTA Program, since 1999.

The issue was organized to allow readers to understand the evolution of FAPESP's support for biodiversity research, detailed in the paper Contributing to the advancement of the state-of-the-art in biodiversity research: the role of FAPESP in the last 60 years. The initial stages of the BIOTA/FAPESP Program with the development of its Environmental Information System (SinBiota) is described in the paper speciesLink: rich data and novel tools for digital assessments of biodiversity. In its first phase, this project supported the digitalization of biological collections and established a public access network linking all past biodiversity information from 12 collections from São Paulo State. Given its importance, the speciesLink network has gained a life of its own with funding from various sources and has grown to become the most important Brazilian biodiversity data network with more than 15 million primary biodiversity data records.

Then we have three papers that address the contributions of the Program to the area of bioprospecting (microorganisms, plants, algae and invertebrates), developed under the BIO*prospec*TA, a subprogram of BIOTA/FAPESP, which evaluates the possibilities for sustainable use of native biota by identifying molecules with economic potential in partnership with the private sector. Thus, this special issue recalls the history of the importance of FAPESP both in the classical areas of biodiversity and the development of natural product chemistry, the basis of bioprospecting and BIO*prospec*TA, the Biota Network of Bioprospecting and Bioassays.

In its initial phase, the Programme supported several projects that filled gaps in our basic knowledge of biodiversity. Inventory, taxonomic, systematic, and natural history work resulted in a better knowledge of terrestrial invertebrates, algae and mammals. They have also resulted in the basis for work with other approaches including not only biogeography, phylogeography, population genetics, community phylogenetics, trait evolution, and disease ecology (see From genes to ecosystems: a synthesis of amphibian biodiversity research in Brazil), but also the study of interactions (From insect-plant interactions to ecological networks, The contribution of the BIOTA/FAPESP Program to the knowledge on pollination and plant reproduction) and the capacity for modelling and scenario development (see A multidisciplinary framework for biodiversity prediction in the Brazilian Atlantic Forest hotspot). This paper with a focus on the Atlantic Forest also shows the importance of international collaborations, because it is the result of a partnership between the BIOTA/FAPESP Program and the Dimensions of Biodiversity Program from the United States National Science Foundation.

In the paper Marine and coastal biodiversity studies, 60 years of FAPESP research funding, what we learned and future challenges authors analyse the 320 projects related to marine biodiversity funded by FAPESP between 1962 and 2021. The paper The importance of ethnoecological studies for the conservation and sustainable use of biodiversity: a critical analysis of six decades of FAPESP support follows the same path by evaluating 76 projects and 21 events funded by FAPESP in the area.

The article Research in education and communication in science: contributions of the BIOTA/FAPESP program for education in biodiversity, besides making this historical analysis, also brings proposals from the scientific community to encourage research in the theme discussed in the cycle of seminars to celebrate the 20 years of the Program. This path was also covered for the health area and the incidence of diseases associated with deforestation and climate change in the article Biodiversity and the interface with public health.

One of the striking features of BIOTA is including the approach of the public sector to generate subsidies for public policies improvement or creation in the Program's research areas. An example is presented in the article Science and implementation of environmental policy: the case of the Forest Code in the State of São Paulo, Brazil, which addresses the challenge of applying science in the establishment of environmental policies, specifically in the implementation of the "New" Forest Code in the State of São Paulo from a participatory interaction among all stakeholders. As declared by the participants of this Project "the lessons learned showed that even designing the project in a way to meet the needs to support the implementation of environmental policy, avoiding difficulties normally pointed out by similar projects, there was a great difficulty for scientific contributions to be adopted in the decision-making process", emphasize the researchers.

The biological collections - zoological, botanical, microorganisms, and marine invertebrates - are another focus of attention in this special

issue. FAPESP's support to the development of biological collections in the State of São Paulo was given both in the increase in specimens of collections, with the financing of projects whose sampling formed a large part of the majority of these collections, and in the support of infrastructure, modernization of facilities, and digitalization of the collections. The financial support to São Paulo's institutions goes beyond the limits of the state since many researchers approach more wide-ranging areas and/or establish several partnerships with institutions from other regions. This is also reflected in the taxonomic and geographic range of biological collections in the State, since they keep specimens/species from different regions of the country, or even from other countries.

Finally, in the Point of View BIOTA-FAPESP: supporting biodiversity, building partnerships, and filling the knowledge gaps, we have the opinion of one of the greatest experts in informatics for biodiversity, the Australian Arthur Chapman. "I am honoured to have had a small part in the development of what is an amazing program, and I will watch with interest its continued development. If one looks back on the goals of Agenda 21, one can see that the BIOTA-FAPESP program is contributing strongly toward "the collection and assessment of data, their transformation into useful information and their dissemination". However, there is still a lot to be done and many gaps to fill. It is estimated that only about 9–10% of Brazil's predicted biota of 1.8 to 2.4 million species have been described in the last 250 years. We can't wait another 2,500 years to describe the remainder. There is a need for increasing funding and more efficient methods to document Brazilian biodiversity. Programs like BIOTA-FAPESP are a good start".

Conflicts of Interest

The authors declare no conflicts of interest related to the publication of this manuscript.

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