

INBio: Inventory and monitoring, environmental education and bioprospecting in Costa Rica



THE WORK DONE BY INBIO IS KNOWN FOR

- Documenting a new specie every **2 days**.
- Have **documented 30%** of all known species in Costa Rica.
- **Share in a free and open way** through the system Atta, the information INBio has about the species of Costa Rica.
- Have developed the **second largest biological collection in Latin America** and the only fully digital with about **3,400,000 specimens**.
- And, have produced to date more than **2,500 scientific publications**.
- More than a **million and a half educational and recreational experiences** on biodiversity
- Publication of over **250 books and educational materials** on Costa Rica's biodiversity
- Several **courses and workshops**

Contributions to reinforce the science development

INBio's mission is to promote greater awareness of the value of biodiversity as a means to preserve this biodiversity and to improve the quality of human life. Therefore, the main activities carry out by the Institute focus on the benefits of conserving biodiversity as a way to ensure the proper functioning of the ecosystem, which provide essential services for human well-being, such as water, food, construction materials, clean air, control of natural events such as landslides and floods, scenic beauty and tourism, among others.

During the 25 years of existence INBio has generated and published information on the Costa Rica's biodiversity with the goal of providing quality information to support decision-making on biodiversity conservation, and to generate knowledge and support bioliteracy.

Collaborative work

In the frame of the collaborative work at nationally and internationally level, INBio has established partnership with both public and private institutions. In the field of communication and information technologies (CTI), INBio is part of the international community of informatics for biodiversity, participating in the development of tools and standards that allow implementing portals and technology platforms that support various national, regional and thematic networks.

Examples of these networks are the Thematic Network of Species and Specimens of the Inter-American Biodiversity Information Network (IABIN), the Herbarium Network of Central America and the Caribbean, the Biodiversity Network of Environmental Information System of Mesoamerica (SIAM), and the national information biodiversity networks of Bhutan, Benin and Chile.



PHOTO: INBio

International network

Among the tools and technology that INBio shares with the scientific community, it is important to underline the tool kit to build web portal on biodiversity, which is intended to support scientific research, educational and decision-making processes concerning biodiversity conservation. Among these tools we can highlight:

- The Customizable Portal of the Global Biodiversity Information System –GBIF (2006-2013). This free software tool was developed by GBIF to integrate data from more than 400 million records of specimens distributed in several databases around the world.
- The Node Portal Toolkit - NPT (2013 -2014). The NPT is based on the software Drupal and it includes a functionality to integrate and share open and free data on biodiversity.
- Participation in the Plinian Standard Core (PLIC), which specifies the basic concepts needed to integrate and retrieve species information stored in databases managed by institutions distributed on a regional basis. In this partnership are involved the University of Granada, the GBIF Node in Spain, the National Commission for the Knowledge and Use of Biodiversity (CONABIO, Mexico), the Alexander Von Humboldt Institute (Colombia) and the University of Sao Paulo (Brazil).
- Atta Information System, for the management of processes for capture, management, generation and dissemination of information on biodiversity.



About INBio

The National Biodiversity Institute, INBio, is a research and biodiversity management center, established in 1989 to support efforts to know the Costa Rica's biodiversity and to promote its sustainable use.

Costa Rica is ranked among the richest countries in biodiversity in the world. Within its territory live more than half a million species, representing 3.6% of the global biodiversity. However, only 18% of these species are known which makes difficult to effectively manage the country's biological richness.

INBio's work focuses on generating, processing and sharing information on Costa Rica's biodiversity, in order to use this information to build values, to promote actions and to support public policy. The actions of INBio have been based on different important elements such as, the biodiversity national inventory, the environmental education or bioliteracy, the bioprospecting or search for sustainable uses of biodiversity, the use of ICT for biodiversity, and the territorial management for the conservation and sustainable use of biodiversity.