

CENTROAMÉRICA: Biodiversidad para el desarrollo

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Introduction

Central American Biodiversity on Your Computer

In Central America, a million species of organisms share their surroundings with other 40 million inhabitants. Over half of this human population lives in poverty conditions and most of them dwell at rural biodiversity-rich zones. This reality and everything you need to know about the status of biodiversity in this region is available at the Internet site: www.inbio.ac.cr/web-ca.

Thanks to the Project, "Developing Abilities and Sharing Technology to Manage Biodiversity in Central America", which, with aid from Norwegian cooperation to support countries in the region in their effort to conserve and use biodiversity in a sustainable way, users have a new portal handy. With the name, "Central America: Biodiversity for Development", the portal shows information both at a regional and each country levels on groups of organisms such as mammals, insects and plants. It includes images and taxonomy data, common names, natural history, distribution, conservation status and their relevance for humankind. In the case of plants alone, it contains information of over 900,000 specimens, which represents one of the most valuable consolidated works of all herbaria in the region. The site also presents news about the project and the policies and general principles of the work done by Instituto Nacional de Biodiversidad (INBio) In Central America.



Some achievements

Honduras Up to Date in Status of Biodiversity

Thanks to the work of Honduran academics and scientists, the compilation of researcher Héctor Portillo and the support of governmental institutions related to environmental matters; the Norwegian government, INBio and The Nature Conservancy (TNC), Honduras have been able to update the information of the status of its biodiversity up to June 2006. The results of the assessment can also be found at web site www.inbio.ac.cr/web-ca.

The appraisal is about obtaining information on wild fauna, focusing in vertebrates and their ecosystems in the country. It also includes an analysis of the main threats that endangered fish, amphibians, reptiles, birds and mammals are facing, which are of relevance for conservation. The first chapter describes the knowledge level about biodiversity in Honduras, and points out its biophysical aspects and main components: ecosystems, species and genes. In addition, it presents the results of research that has been done to date in the governmental, non governmental and academic areas, and its relation to the decision-making processes. The second chapter describes the conservation status of the main ecosystems, the species they comprise and their genetic information, as well as in situ and ex situ conservation in the country. The third chapter is about biodiversity use in Honduras, including its economic valuation and ecotourism. The fourth chapter refers to biodiversity management: its legal and institutional aspects and the main input used by different actors. The assessment also lists species, agreements and legislative rulings on protection, as well as the official protected wild areas map in the country.

Mayan Botanical Knowledge in Copan

In addition to some of the most interesting assemblages of Mayan art, visitors to the Copan Ruins Archaeological Park in Honduras will be able to see an additional attraction, the interpretative ethno-botanical trail. It encompasses around 62 plant species that Mayans used to grow and utilize in several applications.

Next to important and recognized contributions such as the Mayan calendar, their astronomic knowledge, the construction of great pyramids and the delicate art of their trails, Mayans also had a profound knowledge of plants and their diverse uses. Thanks to the research work performed by Honduran ethno botanist Paul House, visitors will access some of that wisdom, since they will be able to walk through an archaeological orchard within the secondary forest guided by a manual. This document, which will be handed to tourism guides and community leaders in the forthcoming months,



contains information about 34 plant species that grow at the orchard and their use. Anything that can be observed at the trail through the forest was already present in the era of Mayans and was used to satisfy many needs, whether for medicinal, food, crafts or ceremonial uses. Two of the species that were used at that time, for instance, were the tree named, breadfruit and a variety of passion fruit.

Besides the institutions responsible for the project (Norway and INBio), Copán Asociación, Instituto Hondureño de Antropología e Historia, Centro Zamorano de Biodiversidad, Instituto Regional de Biodiversidad and Centro Agronómico Tropical de Investigación y Enseñanza (CATIE) have joined this initiative.

Activities in progress

Folkloric Use of Plants in Panama

The information of 30 plant species that possess a folkloric and craft-making use in Panama will soon be available, thanks to a study carried out by researcher Carla V. Chizmar, under supervision by Dr. Mireya Correa. The research comprises plants that are used for different purposes, such as live fences, rustic furniture, dyes and decoration.

Data includes the species' common and scientific names, families, description, distribution, uses and their corresponding process -craft-making, traditional or folkloric-, as well as other uses -medicinal or nutritional-, and bibliographic references. An example of them is bamboo, which can be found in cities such as Colon, Veraguas and Panama. It is used to elaborate various kinds of crafts, such as lamps, candles, necklaces, hanging ornaments, pipes, oil burners, screens, boxes, carved figures and furniture. Bamboo sprouts are edible. This plant is also used in the production of paper pulp, carpentry, construction, as an ingredient in many home remedies, and as ornamental material.

Leon Prepares its Botanical Garden

Leon, the Nicaraguan city, will soon have its own botanical garden, an educational and recreational space aiming to promote and inform of biodiversity conservation in the country within both local population and foreign tourists. It will also seek to strengthen the national identity sense of its inhabitants regarding their natural patrimony and to help develop and improve education in natural sciences.

Currently, they are working on completing the financial feasibility assessment, as the last

required step to formulate the proposal.

The garden will encompass a representation of the populations of plants of the main ecosystems in Nicaragua, including endangered, timber, ornamental and cultural-value species, medicinal plants and those utilized in autochthonous medicine, crafts and religious ceremonies, in order to make community to come closer to their natural richness.



Some of the activities that the botanical garden will offer are self-guided and naturist guided walks, conferences, extension courses in subjects such as plant uses, environmental conservation and conservational agriculture practices -i.e. tree-planting and worm-composting-, in addition to lectures, sale of biodiversity-related items, restaurant service, cafeteria and a souvenir shop. The garden will also have a butterfly farm, orchards to grow vegetables that would be used at the restaurant, permanent displays about environmental local culture, a nursery, a library, research laboratories to study biodiversity and monitor waters, an aquarium with river fish, a wild and domestic animals area, an area for outdoor games for children, a lookout point, and a cascade.

Protected Vulnerable Species in International Trade

A consulting assessment carried out by VIMU-GAIA-EON S.R.L. as part of the INBio-Norway project, made possible to increase the number of plant species in each Central American country and Dominican Republic to be included at the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). This was done through the review of updated data about taxonomy and distribution of species. This means that more species that were not reported before as vulnerable in the countries of the region have now been included at CITES. This is the particular case of Orchidaceae, Cactaceae and Cyatheaceae families, to which orchids, cactus and ferns belong.

The updated lists of species with some degree of vulnerability evidenced changes so substantial for some countries that for instance, in the case of orchids, the number in Costa Rica increased from 609 to 1,656 species, in Panama from 444 to 1,016, in El Salvador from 130 to 450 and in Belize from 83 to 325.

CITES was established in 1975 with the objective to prevent international trade from threatening the survival of wild animal and plant species. With that purpose, it contains different protection levels according the vulnerability status of the species. So far, 172 countries are signatories of the convention, which offers various degrees of protection to over 30,000 plant and animal species.

For more information

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