

**INTERVIEW WITH DR. FRANCISCO DALLMEIER
SMITHSONIAN CONSERVATION BIOLOGY INSTITUTE**



The Smithsonian's contribution to the Andean Bear Conservation Center are very significant to Inkaterra. What are your expectations for scientific research in the Machu Picchu cloud forest?

The Andean Bear Conservation Center at Inkaterra Machu Picchu Pueblo has a tremendous potential for conservation and education on this species in the Andean region. The Center serves as a focus for the stewardship of captive bears that, due to the conditions of their rescue and their habituation to humans, cannot be reintroduced into wildlife. However, these animals are the educational ambassadors for the species' conservation in the Historic Sanctuary of Machu Picchu and also carriers of the valuable genetic diversity of the wild bear population. The Andean Bear Rescue Center has the potential to develop and implement husbandry management approaches and veterinary protocols for this species in captivity. This will contribute to national and international conservation best captive management practices and reproduction with the purpose of managing the captive genetic pool for this species.

What are the common aspects you see between Inkaterra and the Smithsonian's conservation strategies?

Both organizations contribute in different ways to promote conservation of biodiversity and protected areas for the benefit of society. Inkaterra integrates ecotourism to educate and inspire people to value and conserve the environment. Smithsonian integrates science best practices to achieve conservation and sustainability. Together we aim to develop strategies and procedures to allow a better management of Andean bears in captivity and in the wild near the Historic Sanctuary of Machu Picchu and to expand better conservation practices at the national and regional levels. These activities shall allow potential research studies, species monitoring and educational programs for both locals and visitors.



How would you describe the greatest challenges in such projects?

The most serious challenge is the continuing loss of natural habitat for Andean bears and many other species from the region. These changes are related to human land use. This process generates more conflict between bears, other wild species and people as animals are displaced from their historical range. Due to



this challenging situation, it is important that protected areas are big enough to maintain viable populations of native species to prevent their local extinction.

From being Director of La Salle Museum of Natural History (Caracas, Venezuela) at age 20, to leading the Center for Conservation and Sustainability at Smithsonian Conservation Biology Institute. What encouraged you to dedicate your life to biodiversity conservation?

As long as I can remember, animals and their environment always fascinated me. My attention focused on bugs, birds, mammals and I enjoyed visiting the Natural History Museum and the Zoo. At the age of fourteen I consistently begged the museum managers to let me volunteer at La Salle Museum of Natural History in Caracas, Venezuela. They gave me many reasons why I was too young and not fit for the job. Eventually I was successfully admitted as a volunteer.

Initially, I was given the least desirable jobs to discourage me. I boiled numerous animal heads to clean the skulls and prepared museum specimens. Some of the skulls were partially decomposed and not very appealing. However, I forged ahead and mastered the skills and demonstrated that I was fit for the variety of jobs that were yet to come. I was prepared to do whatever it took! I quickly gained skills and expertise in museum curation processes and protocols, managing expeditions, collecting and preparing specimens, and eventually leading the Museum. I loved every minute and spent most of my later teenage years immersed in the collections and going on expeditions in remote areas of the country.

My parents gave me inspiration, motivation and support throughout my life and tolerated the practice of my museum skills at home. I was also encouraged when reading the works or hearing the stories of relevant scientists, such as Humboldt or my great-great-grandfather Adolfo Ernst. He established the Faculty of Biology and the Herbarium at the Universidad Central de Venezuela. I continue to do what I have always loved to do alongside many of my colleagues, students and collaborators that I work with.

What are the main satisfactions of being committed to conservation and sustainability?

My main drive is to explore biologically unique places and learn about the diversity of life that makes these places special and functional. It allows my team to study and raise conservation awareness of these areas for better management

and protection for future generations. I have had the privilege of working in more than 80 countries with professionals and students of multiple cultures and disciplines contributing to knowledge, education and global conservation and sustainable development. My work in Peru during the 80's was one of my first assignments with the Smithsonian. It put me in the Manu National Park, one of the most species rich places in the world and later in many other places in the Amazon and the Andes.



Which SCBI initiatives do you feel most enthusiastic about?

Working at SCBI is always exciting and energizing. At SCBI we have the opportunity to study the biology of wildlife species of conservation concern to contribute to their long-term viability. We work with many species such as gorillas and forest elephants from Central Africa; the clouded leopard from South East Asia; tigers from India and Nepal, as well as rainforest mammals, birds, reptiles and amphibians, forest ecosystems and wetlands.

We are also involved in strategic partnerships to design and implement sustainable infrastructure projects. These partnerships with the private sector, government organizations and multiple stakeholders are designed to integrate



biodiversity conservation into main stream project planning, design, construction and operation. This approach promotes smart green infrastructure development that avoids sensitive and critical habitats, minimize project impact in areas that can't be avoided, restores the impacted areas by the project and contributes with conservation and offset strategies toward no net lost or net gain of species and habitats. In Peru we have implemented biodiversity monitoring and assessment programs called BMAP in development projects in the Amazon, the Andes and marine coastal areas. These initiatives have produced valuable scientific information, best conservation and development practices and capacity building for the next generation of conservation practitioners.

How would you describe your team research in the Amarakaeri Communal Reserve, Peru?

Our research in the Amarakaeri Communal Reserve is exciting, innovative and relevant. The reserve is located in-between the cloud forest and the low land Amazon rain forest in Peru. We have found a mix of species of animals and plants in these different forests such as the spectacled bear. We use a combination of methodologies with satellite images, camera traps, sound recordings and sampling of specimens to understand the species diversity of Amarakaeri, its conservation value and the services that its ecosystem provides to the Madre de Dios Department. The information generated by the SCBI team and Peruvian colleagues provides a baseline and best practices for conservation and development. Camera traps have produced thousands of images in two years, including frequent and abundant species such as the many bird species, families of collared peccaries, many of the cats, such as jaguars, pumas, and ocelots to rare and threaten giant armadillos and bush dogs.

What would be your advice for anyone who wants to contribute with biodiversity conservation?

Biodiversity conservation is a social responsibility that involves everyone! All disciplines and perspectives are important for the common goal of protecting and sustainably managing the natural resources that gives us life. Whatever your profession or interest may be, get involved in the local, regional or international conservation projects such as the Andean bear and the preservation of its habitat.



Dr. Francisco Dallmeier (Caracas, Venezuela) is one of the world's leading wildlife biologists and an expert on biological diversity. Dr. Dallmeier has devoted himself to integrating studies of biodiversity among species and natural resources with conservation and management programs that promote sustainable development. As director of the Center for Conservation and Sustainability at the Smithsonian Conservation Biology Institute (SCBI), he has coordinated efforts to educate people around the world on issues of conservation and the preservation of threatened species, while formulating strategies for sustainable use of natural resources in developing countries. As co-designer and trainer for the Smithsonian Environmental Leadership Course, Dr. Dallmeier has taught leadership, communication, and negotiation skills that can be used to promote biodiversity conservation.