U.S. Fish & Wildlife Service

Working with People to Conserve Nature in the Americas

An Activities Report for the Wildlife Without Borders Regional Program for Latin America and the Caribbean

Our regional programs facilitate sustainable, grassroots conservation emphasizing an increased in-country human capacity for long-term natural resource management.

Working with People to Conserve the Nature of our World

The U.S. Fish and Wildlife Service established its Wildlife Without Borders Program to promote, facilitate, and support vital conservation efforts across the globe. With a focus on working with people, our program aims to conserve the planet's rich diversity of wildlife for generations to come.

Wildlife Without Borders (WWB) utilizes a three-pillared approach: Our species programs support projects which seek to stem the decline of at-risk wildlife and habitats. Our regional programs facilitate sustainable, grassroots conservation emphasizing an increased in-country human capacity for long-term natural resource management. Finally, our global programs target cross-cutting conservation issues, such as climate change and human-wildlife conflict, by working in close collaboration with key international partners.

WWB regional programs currently focus on five geographic areas: Africa, China, Latin America and the Caribbean, Mexico, and Russia. This report specifically highlights the Wildlife Without Borders Regional Program for Latin America and the Caribbean (WWB-LAC), emphasizing fiscal years 2005-2010.

The following pages provide a program overview, including project highlights which demonstrate how the Service and its partners are making a lasting impact in Latin America and the Caribbean. By informing, training, and empowering new generations of conservation leaders, the WWB-LAC program helps build in-country human and institutional capacity to effectively conserve natural resources for the benefit of the people of the Americas and the world.

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Herb Raffaele (second from right) with the late USFWS Director, Sam Hamilton (third from right) and participants in the RESERVA training program in Mexico.
DUMAC

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Acknowledgements

We would like to express our deep appreciation to our many grantees and partners in conservation who so willingly shared their insights, images, and expertise. Without their dedication and on-the-ground conservation successes, this document would not have been possible.

This document was developed by Sarah Gannon-Nagle at the U.S. Fish and Wildlife Service, with assistance from Jennifer Keyser who volunteered her time to help with editing, photo selection, and graphics, and with assistance from Angela Michalek who successfully mapped five years of program history – no small accomplishment. Thanks also to Jai Singh, who initiated our first mapping efforts. For invaluable review, thanks to Herb Raffaele, Megan Hill, Ethan Taylor, Jenny Martinez, Allison LePage, Rachel Penrod, Tamara Ward, and Derek Litchfield.

A special thanks to all of our grantees who generously donated their images, notably Finding Species, the Upper Amazon Conservancy, and the Smithsonian Conservation Biology Institute.

Graphic design provided by MajaDesign, Inc. (Majadesignvt@comcast.net). Line art provided by the Catalog of Botanical Illustrations, Department of Botany, Smithsonian Institution. Maps created by MajaDesign, Inc., and Angela Michalek of the School of Natural Resources and Environment, University of Michigan.

Cover Photos from Left to Right: Volunteer Park Guard from the Yurua River Watershed in Perú by C. Fagan, Upper Amazon Conservancy; Orange-Winged Amazon Parrot *(Amazona amazonica)*, Spix's Night Monkey *(Aotus vociferans)*, and Scarlet Macaw *(Ara Macao)* by Finding Species; and Women from the Ashéninka tribe of Perú, by C. Fagan, Upper Amazon Conservancy

Conservation Across the Americas

The neotropics are defined as that part of the Western Hemisphere between the Tropic of Cancer and the Tropic of Capricorn.

Unlike Any Other Place on Earth

Among the most environmentally significant regions on the planet, Latin America and the Caribbean (LAC) is home to an estimated forty percent of the world's biological diversity. From the high elevation forests of Central America's Talamanca mountains to the dry woodlands of Bolivia's Gran Chaco, to the fragile island ecosystems of the West Indies, the complexity and richness of species found in the region make it unlike any other place on Earth. For example, the Amazon River basin alone harbors more than 2,500 species of fish - approximately half of the world's known fish species. Of the world's 10,000 bird species, more than 4,000 are from the neotropics. And one of the highest concentrations of mammals on the planet can be found in South America, including iconic species such as the jaguar, Baird's tapir, the maned wolf, and the spectacled bear.

Gary Stolz/USFWS

Fast Fact: The jaguar *(Panthera onca)* is the largest cat of the Americas. Historically, it could be found from the U.S. to Argentina, but today much of its remaining habitat is within the Amazon basin. Unlike other big cats, jaguars do not avoid water; in fact, they are very good swimmers. Their name is derived from the Native American word "yaguar," which means "he who kills with one leap."

These incredible resources, on which people around the globe depend for clean air, water, regulation of climate systems, and restorative medicines, are increasingly at risk. Shifting slash and burn agriculture, population growth, and consumption are all on the rise, leading to greater demand for natural resources. As a result, habitat loss in Latin America is occurring at an alarming pace. The region has one of the highest deforestation rates in the world. Furthermore, climate change is causing unprecedented stress on wildlife and ecosystems as local temperature and precipitation patterns shift.

The U.S. Fish and Wildlife Service's International Commitment

As early as 1941, the United States recognized the international importance of conserving natural resources throughout the Americas, specifically through building locally-based capacity to manage and protect key landscapes and migratory species. This was demonstrated by the U.S. ratification of the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere (also called the Western Hemisphere Convention), which emphasizes the protection of habitat in order to reduce or avoid the loss of animal and plant species.

In a 1982 amendment to the Endangered Species Act, the Department of the Interior was tasked with developing human and institutional capacity abroad to facilitate the execution of the Western Hemisphere Convention. Shortly thereafter, the U.S. Fish and Wildlife Service, an agency of the Department of the Interior, was awarded a $150,000 Congressional appropriation to address the need for better conservation of landscapes throughout the Hemisphere. These initial funds were used to develop a conservation grants program which over time came to be known as the Wildlife Without Borders Regional Program for Latin America and the Caribbean (WWB-LAC).

Working with People to Conserve Nature

One of the core issues of conservation is the ever-increasing pressure to alter natural environments to sustain immediate human needs. Unfortunately, poverty is a reality for millions of people throughout Latin America and the Caribbean. The United Nations Development Programme, for example, estimates that nearly 50 percent of all income generated in the region is received by a mere 10 percent of the population. In the face of severe impoverishment, people will often extract what resources they can from the land with little or no environmental

"No conservation effort in Latin America will be successful in the long run unless it builds the capacity of the people who live and work there."

—The late Juan Pablo Arce, Director for Latin America and the Caribbean at NatureServe

Participants in a wetlands education workshop in Antigua practice a vegetation survey. Lisa Sorenson/SCSCB

Silvia Centrón

Fast Fact: The Gran Chaco ecosystem is made up of grasslands, savannah, and dry forest, roughly the size of France and Spain combined. It spans four countries: Argentina, Paraguay, Bolivia, and Brazil. The Chaco is a bastion of biodiversity, hosting almost as many large mammals as the Amazon tropical rainforest, yet only 1% of it is protected.

consideration. These actions often result in severe degradation or total destruction of natural systems, and ultimately the fragile resource base on which they depend.

Growing populations lead to an increase in demand for natural resources. In 1940, when the Western Hemisphere Convention was being drafted, Latin America supported a population of approximately 130 million people. By the time the U.S. Congress appropriated the first funds for the Convention's implementation in 1983, the population had more than doubled. Today, the region is home to more than 500 million people, with estimates predicting that total to exceed 800 million people by the year 2050. Rapid growth in human population has accelerated the destruction of tropical ecosystems at a pace unparalleled in the course of human history.

Because conservation is fundamentally a human issue, the Wildlife Without Borders Program has a strong focus on working with people to conserve nature. The program is built on the premise that investment in training and education of people, the region's single most important resource, is the most effective way to foster the development of sound environmental policies and practices.

Specifically, the Regional Program for Latin America and the Caribbean supports conservation training projects that are interdisciplinary in nature and take into account the local social, cultural, and economic contexts. These projects provide critical capacity building to international and local non-governmental organizations, LAC government agencies, environmental educators, and community leaders. By informing and empowering local conservationists, the program strives to achieve a multiplier effect across the region.

The Spectacled Bear is the only species of bear in South America. It is named for the whitish rings around its eyes which resemble large eyeglasses. Spectacled bears' markings on their faces, neck, and chest are unique to each bear like human fingerprints.

An Andean bear - also known as the spectacled bear (Tremarctos ornatus).
©Hugo Mogollón/Finding Species

Fueling Vital Conservation Efforts

A Proven Track Record

The WWB-LAC program first began providing grants to conservation partners in 1983, making it the longest-standing of the Wildlife Without Borders programs. Since its inception, the program has invested more than $15 million in support for conservation throughout the region. In addition, our conservation partners have helped us effectively leverage this investment by providing an estimated $40 million in matching financial and human resources.

By partnering with more than 100 organizations and institutions over nearly three decades, the WWB-LAC program has supported much needed training opportunities for thousands of people. From 2005 to 2010, the program supported projects in 34 countries, which provided training for over 4,000 conservationists. The WWB-LAC program seeks to involve people at all levels in wildlife and habitat conservation, including individual citizens, senior government administrators, academic and nongovernmental organizations, and local communities. These people, and others like them, are part of the great cooperative effort required to achieve the conservation of wildlife and habitats throughout the region.

Wildlife Without Borders Projects (2005-2010)

Focusing on the Greatest Need

The ultimate aim of the WWB-LAC program is to facilitate the conservation of the region's wealth of biological diversity – much of which is at risk. WWB-LAC grant awards are directed to initiatives which strengthen local capacity to effectively manage areas of high biological significance.

"Wildlife Without Borders has helped us in many, many different ways, but one of the most important ways is in training professionals. I cannot conceive of any effort in building capacity in a country where we don't focus on our richest resource, which is the human resource."

—Carlos Manuel Rodriguez, former Minister of the Environment, Costa Rica

Rainforest flower, Amazonas state, Colombia.
Amazon Conservation Team

Biodiversity Hotspots in Latin America and the Caribbean*

**The hotspot methodology was used to evaluate program investments from the past six fiscal years. Note that the U.S. Fish and Wildlife Service does not endorse the hotspot methodology or its sole use in ecosystem valuation.*

Specifically, the program is designed to support projects that benefit high priority landscapes or ecosystems by providing conservation training targeted at enhancing the management of these areas. Projects supported by the WWB-LAC program must demonstrate a positive conservation impact on an area of local, national, and/or global priority.

One widely-recognized method of prioritizing landscapes or ecosystems is the biodiversity hotspot model. Under this approach, hotspots are defined as areas that have lost more than 70 percent of their natural vegetation and have a high occurrence of animal and plant species that are found no where else. Using map data

provided by Conservation International, the WWB-LAC program recently evaluated how well its projects align with regional hotspots.

From fiscal years 2005-2010, the WWB-LAC program supported a total of 182 projects. Of these projects, 86 percent (or 156 projects) were implemented within a biodiversity hotspot. Of the 26 projects that occurred outside of hotspots, 11 took place within the Amazon Basin, which harbors the world's largest tropical rainforest. The remaining 15 projects implemented outside of designated hotspots took place in the grassland/savanna biomes of southern South America, in Argentina, Bolivia, and Paraguay. These grasslands are highly productive systems that support a variety of wildlife, including many globally threatened endemic and migratory birds.

The WWB-LAC program addresses areas of greatest conservation need in the region, and it does so by providing funding for projects which build in-country human and institutional capacity to manage and conserve natural resources. In this way, the program seeks to achieve a long term impact. Priority initiatives incorporate a holistic and inter-disciplinary approach to conservation with a strong emphasis on the local social context. For the purposes of our program, capacity building is defined as:

"Strengthening the **ability** of individuals and organizations to **conserve** biodiversity."

Where **ability** refers to enhancing knowledge, skills, attitudes, empowerment, and enabling environments. And **conserve** refers to use and non-use, with the purpose of maintaining or increasing the resource base over time.

NASA/WWF

Fast Fact: According to Conservation International, the Tropical Andes region is the most diverse region on the planet, containing 1/6 of all plant species in less than 1 percent of the earth's total land area.

"The assistance provided by the Wildlife Without Borders Regional Program has been of great importance as it has allowed Paraguay to participate in a network of countries that share migratory species and to advance the efforts for their conservation."

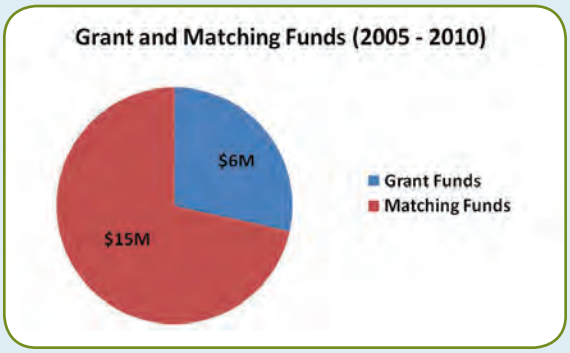
—Dr. José Luis Casaccia, Minister of the Environment, Paraguay

Birding at Great Pond on St. Croix, US Virgin Islands. Lisa Sorenson/SCSCB

"By training and empowering a younger generation of conservationists across Latin America and the Caribbean, the Wildlife Without Borders Program has made a tremendous contribution to those regions which are important to the people there and to the biodiversity of the whole world."

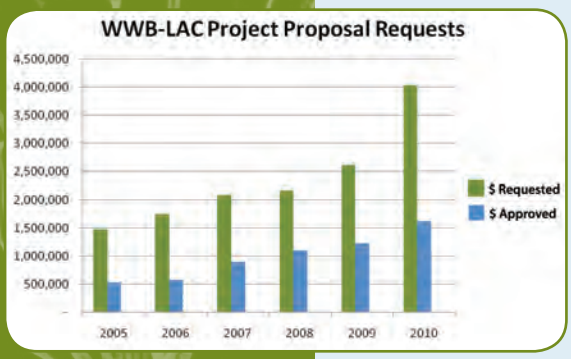
—Bill Millan, Senior International Policy Advisor, The Nature Conservancy

Historically, the WWB-LAC program has focused on high quality training programs benefitting priority ecosystems and targeted at key audiences associated with protected areas. These audiences include land managers, park guards and administrators, environmental educators, graduate students, and local community leaders who influence protected areas. More recently, the program has broadened its focus to include audiences that impact important natural resources on landscapes that may not be protected.



Funding History

In recent decades, funding for the WWB-LAC program has gradually increased, with a corresponding increase in the number of annual grants awarded by the program. For example, the program provided a total of $1.2 million in funding for 88 conservation projects in the region during the 1980's. By comparison, today the program awards $800,000 to $1 million in funding annually to support an average of 30 to 40 conservation projects.



In a region which contains such a wealth of natural resources – an estimated 40 percent of the planet's biodiversity – the need for trained conservation professionals is significant. Because the WWB-LAC program is one of the few funding sources that supports conservation training in the region, requests for funds consistently exceed the program's budget. Current WWB-LAC funding levels translate into grant awards for less than half of qualifying applicants (see graph at left).

One of the strengths of the WWB-LAC program is its ability to provide small grants that are in turn leveraged by partner contributions (see graph above). For a modest program grounded in local efforts and community empowerment, the benefits to conservation are extraordinary.

Looking to the Future

In the coming decade, the WWB-LAC program will build upon its long track record and its commitment to capacity building for conservation results in the region. For fiscal year 2011 and beyond, the WWB-LAC program is designing a suite of conservation strategies focused on preparing future conservation leaders, building and sustaining networks of conservation professionals for enhanced collaboration and learning, and engaging key conservation constituencies. Measuring the long term effectiveness and impact of these conservation investments will also be a program priority. For more information on the WWB-LAC program, please visit us at www.fws.gov/international.

On the Ground Success in the Caribbean

Wildlife Without Borders Projects Funded 2005 - 2010

"People need to know and care about something before they are going to take action to conserve it. Education at all levels is essential to securing the long-term survival of the West Indian Whistling-Duck and many other unique and endangered Caribbean birds."

—Lisa Sorenson, West Indian Whistling-Duck and Wetlands Conservation Project, SCSCB

The West Indian Whistling-Duck and Wetlands Conservation Project

Grantee: Society for the Conservation & Study of Caribbean Birds
Funded: 1999-present
Location: Caribbean Region

Impact:

The West Indian Whistling-Duck (WIWD) and Wetlands Conservation Project is reversing the decline of the globally threatened duck and the continuing loss of wetlands throughout the Caribbean. The project raises awareness of the many functions and values of wetlands and equips educators and community leaders with the materials, knowledge, skills, and commitment needed to teach and inspire others to conserve local wetlands. More than 3,500 people have participated in "train the trainer" wetlands appreciation workshops in 19 Caribbean countries. Many of these trainees have since become involved in local monitoring and protection of Whistling-Ducks. As a result, the number of ducks has increased significantly on several Caribbean islands, the range of this species has expanded, and local mangroves and wetlands have been restored.

West Indian Whistling-Ducks (Dendrocygna arborea) on Andros, Bahamas.
Pete Attanasia/SCSCB

Summary:

Once widely distributed throughout the Caribbean, West Indian Whistling-Ducks have a small and fragmented range. The primary threat to their survival is loss of habitat. West Indian Whistling-Ducks depend on wetlands, unfortunately a declining habitat in the Caribbean. Some estimates indicate that as much as 50 percent of the Caribbean's wetlands have been destroyed, and the pressure to convert wetlands for development continues.

Launched by the Society for the Conservation and Study of Caribbean Birds (SCSCB) in the late 1990s, the WIWD and Wetlands Conservation Project is a region-wide public education and awareness program. By providing local teachers and educators with training and materials the project raises awareness and appreciation for the value of local wetlands. Specifically, the project has built its unique training program around a 276-page workbook, the "Wondrous West Indian Wetlands: Teachers' Resource Book" which has been distributed in English, Spanish, and French. The book provides resources for conducting a complete wetlands education unit in the classroom, including background information on ecological concepts and natural history, field techniques, and detailed instructions for student activities and projects. SCSCB works with local partners throughout the region to implement training workshops on how to use the workbook and a related toolkit. The training materials provide ideas for follow-up student action projects in local communities.

Arlington James/SCSCB

Lesson Learned: Partnership is the key to achieving conservation success. The success of the WIWD and Wetlands Conservation Project is due in no small part to the collaboration among conservation organizations, government agencies, educators, and committed individuals.

Secondary teachers in training at Pterocarpus Swamp on Dominica.

The WIWD and Wetlands Conservation Project is an SCSCB partnership supported by the U.S. Fish and Wildlife Service together with Wetlands International, the MacArthur Foundation, the GEF Grant Program of the United Nations Environment Program, the U.S. Environmental Protection Agency, BirdLife International, The Royal Society for the Protection of Birds, and many local partners throughout the Caribbean.

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My Island-My Community: Building Public Awareness and Action Around Climate Change in the Caribbean

Grantee: PCI-Media Impact
Funded: 2010, 2011
Location: Caribbean Region

Impact:

The My Island – My Community program is creating the first-ever radio serial drama to raise awareness about the impacts of climate change on small island communities in order to support human and ecological resilience. Specifically, My Island – My Community will promote ecosystem-based adaptation to climate change, multiple-use marine zoning, and community livelihood opportunities by integrating these messages into radio serial dramas.

These dramas will reach nearly 4 million listeners in the Caribbean in two years. In addition, PCI-Media Impact and partners are hosting training workshops on how to use radio as a tool for conservation. Twelve training workshops will be held for coalition members from each of the countries, with an estimated 150 participants. In the spring of 2010, more than 60 people received core training in communications for change methods and background on climate change during a two week workshop in Saint Lucia.

Latin American youth participating in a PCI-Media Impact campaign.
PCI-Media Impact

"My idea of climate change has been expanded from this workshop. One statement stands out in my mind: climate change is more than just sea level rise, climate, biodiversity, et cetera; it involves the impact on life styles, social changes, land use planning and so much more."

—Hazel D. Riley, Office of the Deputy Governor, Montserrat

Summary:

Small islands are especially vulnerable to the impacts of climate change on ecosystems, protected areas, economies, tourism, and the communities that live there. In many places throughout the Caribbean, key coastal habitats are threatened further by new shoreline development projects and invasive species. These stressors, when coupled with overfishing and land and water pollution, are straining the islands' fragile eco-systems.

While climate change is recognized as a serious threat to humans and the natural systems on which they depend, there remains a critical communications challenge: how to effectively engage the public, ensuring they have access to sound and timely information and a clear vision of what they can do to help mitigate the challenges posed by climate change.

In January 2010, PCI-Media Impact and 15 partner organizations launched My Island – My Community, an ambitious new program committed to building public awareness across the Caribbean to encourage wide-spread behavior change with regard to small island community preparedness and adaptation to climate change. It brings together a unique network of organizations committed to using the power of communications to enhance knowledge sharing, engage the public, and support community-based adaptation activities across 12 Caribbean countries.

On an issue as complex as preparing for climate change, using a single communications vehicle is unlikely to produce the widespread and lasting changes needed to develop the resilience needed for climate change adaption. Thus My Island – My Community targets multiple target audiences – decision makers, opinion leaders,

St. Lucia Landscape. PCI-Media Impact

Lesson Learned: Government engagement is critical to project success. To ensure sound involvement from key governmental agencies, My Island-My Community was able to build on the experience of Alleyne Regis, PCI-Media Impact's project manager, who previously worked with the Organization of Eastern Caribbean States (OECS). Through partnership with OECS, nine countries have provided input into the design of this project.

faith-based groups, youth, women, government, and other publics – via a multi-faceted communications strategy.

The program will build on the concept of a regional radio serial drama to weave together relevant information on climate change with a compelling story. In each partner country, national coalitions have been built, bringing together local environmental organizations, government agencies, radio stations, academics, and scientists. Each national coalition is in the process of developing country-specific climate change campaigns to complement the radio drama through multi-tiered public awareness activities, including interactive radio call-in shows, capacity development activities, music festivals, and community action campaigns.

Through the My Island – My Community program, new appreciation for the effects of climate change will encourage constituents to embrace conservation actions including the rehabilitation of mangroves and coral reefs, implementation of sound coastal development practices (ensuring that regulations are enforced), and citizen involvement with local conservation organizations.

My Island – My Community is a Media Impact partnership supported by the U.S. Fish and Wildlife Service together with U.S. Agency for International Development, The Nature Conservancy, Global Island Partnership, and the GEF Small Grants Programme, implemented by the United Nations Development Programme.

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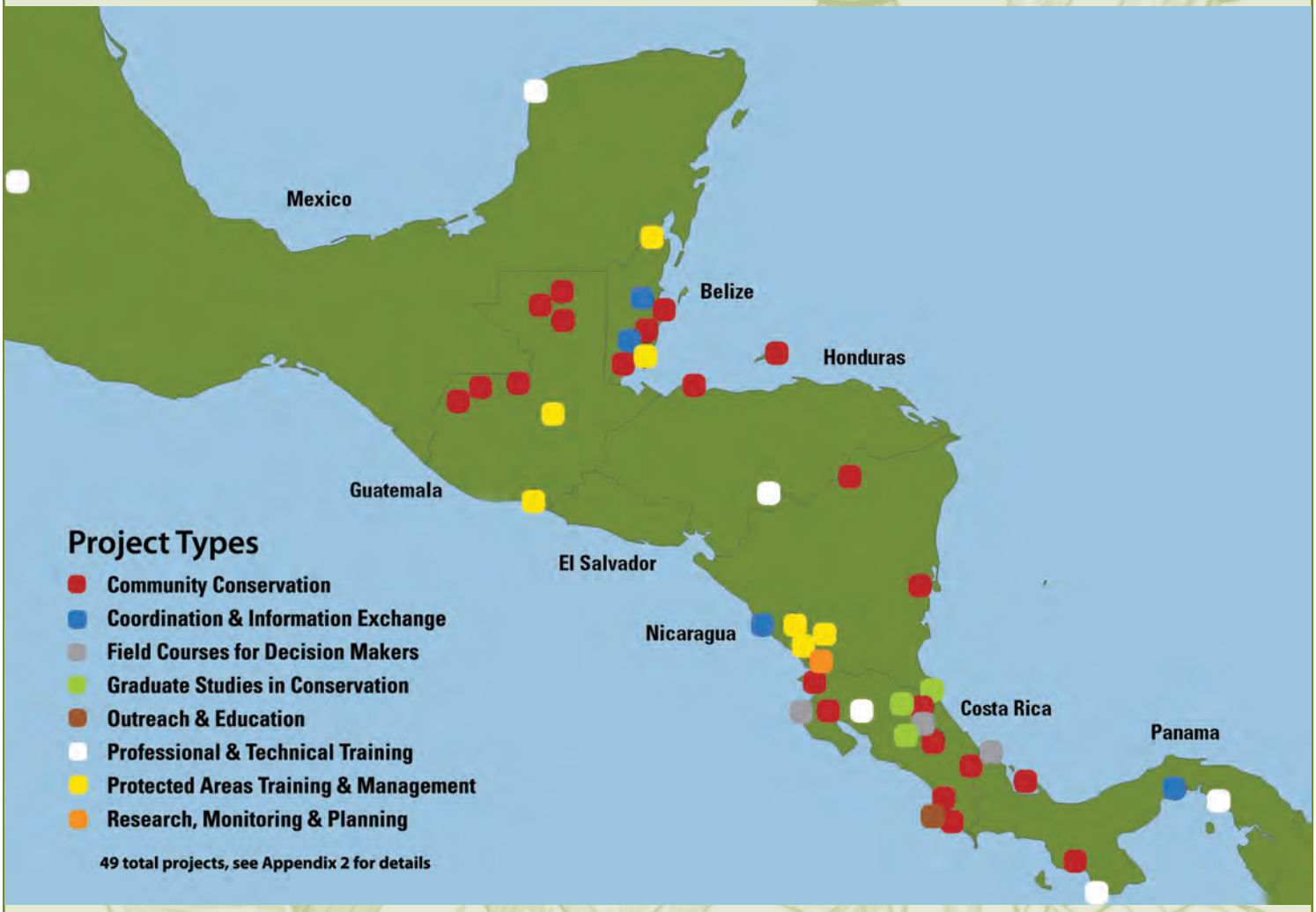
On the Ground Success in Central America

Wildlife Without Borders Projects Funded 2005 - 2010



"Local people appreciate the need for the Ometepe Fund. FFI is working diligently to ensure Ometepe becomes a self-sufficient, effective protected area for generations to come."

—Salvadora Morales, Ometepe Project Coordinator

Building Protected Area Management Capacities through the Implementation of Conservation Finance Mechanisms on the Island of Ometepe, Nicaragua

Grantee: Fauna & Flora International
Funded: USFWS: 2010, 2011
Location: Nicaragua

Impact:

At 27,600 hectares (68,200 acres) in size, the island of Ometepe in Lake Nicaragua is one of the world's largest freshwater islands. Ometepe contains a suite of habitat types that includes every major habitat found in Nicaragua, including rain, cloud, and dry forest. It is also renowned for its rich archaeology. Fauna & Flora International is working with local stakeholders to establish and manage the Ometepe Biosphere Reserve Conservation Fund. The fund is a crucial first step towards ensuring the long-term protection of Ometepe's biological and cultural resources. As a result of this initiative, a tangible, steady source of financial support for managing the island's natural resources will be established and local expertise in developing finance mechanisms will be enhanced. The Ometepe Fund will serve as a national model with potential for replication in other parts of the country.

©Fauna & Flora International, German Development Service, and the Nicaraguan Ministry of Environment and Natural Resources

Summary:

In June, 2010, Ometepe Island and its surrounding waters were designated as Biosphere Reserve by the United Nations Education, Scientific and Cultural Organization (UNESCO). The island – made up of two volcanoes – supports a population of approximately 40,000 people. The local economy is based on agriculture and tourism. Economic needs must be met while also conserving the island's natural resources. This delicate balance presents significant challenges for the new biosphere reserve. In addition, this exciting recognition from UNESCO has elevated the profile of Ometepe, increasing the need for an integrated conservation management paradigm.

The new Biosphere Reserve includes three protected areas: Maderas Volcano National Park, Concepción Volcano Natural Reserve and the Peña Inculta-Humedal Istian Wildlife Refuge. The island also has two municipalities, whose

leaders played a crucial role in the Biosphere Reserve nomination process. Additional leaders in the process included the Ministry of Environment, a non-governmental organization called Fundación Entre Volcanes, and the local tourism sector organization, the Gabinete de Turismo.

Fauna & Flora International (FFI) is collaborating with each of these stakeholders to make biodiversity conservation practices more robust on the island. Specifically, through the adoption of a Biosphere Reserve approach, FFI and partners will demonstrate a sustainable relationship between conservation and economic interests. In implementing the new reserve, FFI aims to ensure that all stakeholders have a clear role and shared responsibility in land use management and zoning decisions. While much can be achieved simply through collaboration and coordination amongst local actors, there is also a need for a steady source of funding for environmental management of the Biosphere Reserve, especially for its core conservation areas. FFI conducted a feasibility study of sustainable financing based on entry fees to the island and for visits to special sites. Results indicated that through entrance fees, 90 percent of the necessary funds could be generated in five years. The focus of this project is the implementation of the Ometepe Fund which includes putting in place the necessary agreements for its management, and building local capacity for its administration.

Lake Nicaragua is the largest lake in Central America and one of the largest freshwater lakes in the world.

A yellow-naped parrot (Amazona auropalliata) on Ometepe Island, Nicaragua.
Evan Bowen-Jones

Lesson Learned: Thoughtful communication is essential to building good will among local stakeholders. This project is a challenge in every sense of the word. Establishing a conservation fund has required much raising of awareness, negotiation and inter-institutional coordination across all levels, from local to national. In order to change how people perceive and manage their environment requires a great deal of patient, well-planned communication.

To build consensus and facilitate the development of the fund, FFI has conducted training workshops for private sector and governmental stakeholders, at local and national levels. In addition, FFI has collaborated with local governors and the Ministries of Environment and Natural Resources and Tourism in order to coordinate their roles in relation to the establishment of the fund.

Ometepe Island's local municipalities – Altagracia and Moyogalpa – have publicly committed to establishing the biosphere reserve conservation fund. In addition, the mayors of each municipality organized the collection of five thousand signatures of local residents in support of the Ometepe Biosphere Reserve law. The petition was presented to Nicaragua's Minister of the Environment, Juanita Argeñal.

The Ometepe Fund will be formally established through the same national legislation that will recognize Ometepe as a Biosphere Reserve. The process is slow and requires significant efforts to build public awareness and support. However, a well-thought out approach will ensure a solid foundation for the fund while eliminating any potential legal contradictions. FFI has collaborated with local municipalities to host more than 20 meetings and workshops on the draft legislation. Over 900 participants have attended, including community leaders, students, and managers in land use decisions.

To build positive support for successful implementation of the reserve and the Ometepe Fund, FFI has implemented a local and national campaign to generate awareness of the cultural and biodiversity value of the island. The campaign included the production of a short video, distribution of 2,500 posters and 3,000 brochures, and a two-day festival organized with the support of the Nicaraguan Government. The festival culminated with a concert featuring eight national musical groups, and ninety stands showing sustainable Ometepe products from honey to hotels. At least 20 different Nicaraguan news media outlets covered the event.

With significant public support, draft legislation is moving forward. In anticipation of its approval, FFI and local stakeholders actors are working diligently to put in place management procedures for the fund.

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Mixing the Matrix: Parks, Pasture, and Coffee

Grantee: Centro Agronómico Tropical de Investigación y Enseñanza (CATIE)
Funded: 2008, 2010
Location: Costa Rica

Impact:

Mixing the Matrix is a participatory avian biodiversity monitoring program focused on the role of agroecosystems in the conservation of birds. The program utilizes citizen science as an outreach tool targeted at audiences which impact the landscape within the Volcánica Central Talamanca Biological Corridor (VCTBC) of Costa Rica. As citizens from these target audiences – ecotourism guides, park guards, coffee growers, and cattle ranchers – come together to collect data on occurrence of a set of "indicator" birds on the landscape, this information is in turn used to assess the health of the biological corridor across different land uses. Through training workshops in the VCTBC project area, a network of over 120 local citizen monitors was created. An additional 40 people were trained in how to launch avian citizen science programs in Guatemala and Nicaragua, and training manuals were created. Finally, the project expanded to create an educational program, called Life in Flight or "La Vida en Vuelo" (for its meaning in Spanish), using birds as a hook to generate interest in conservation. More than 100 teachers, students, and volunteers will participate in the Life in Flight program during its inaugural year.

Living fences act as barriers the way a typical fence would, but because they are created with live vegetation, they also act as biological corridors for birds.

Volunteers on the CATIE farm plant a new living fence. Sarah Gannon-Nagle/USFWS

"I was wondering why we could not do the same for mammals…you know I work with Jaguars and I think this is something we could work together on to complement bird information with mammal information."

—Roberto Salom, Mesoamerica Coordinator, Panthera

Summary:

Biodiversity conservation on the Mesoamerican landscape continues to be threatened by the expansion of agricultural activities. As land around protected areas is increasingly developed, the conservation value of these reserves is dependent upon management of their surrounding landscapes – the matrix within which these protected areas operate. Protected areas in Costa Rica are increasingly becoming dependent on the surrounding agricultural matrix to provide secondary habitat and connectivity between reserves. The main challenge in achieving landscape level conservation lies in coordinating efforts across public and privately managed lands, focusing on the "matrix" as well as the protected areas that lie within them.

Costa Rica's Volcánica Central Talamanca Biological Corridor (VCTBC) represents a mosaic of eight protected areas as well as privately owned coffee plantations, forest lands, cattle ranches, indigenous territories, and residential areas.

The VCTBC plays an important ecological role in linking Costa Rica to the broader Mesoamerican Biological Corridor, established to connect habitat from Mexico to Panama for the benefit of more than 100 endangered species. As development pressures increase within this corridor, known to be important to resident and migratory birds alike, it has become increasingly important to bring together the conservation and production sectors within the Corridor.

In response to this need, the Mixing the Matrix project specifically targeted both the conservation sector and the production sector. Using birds as an indicator of the general health of the landscape, scientists from the Centro Agronómico Tropical de Investigación y Enseñanza (CATIE) worked with participants to select 15 easily identifiable bird species that are also indicators of change on the landscape. These species formed the basis of the field identification training workshops for volunteers. The bird monitoring program has successfully established a baseline of data on bird diversity across different land uses in the Volcánica Central Talamanca Biological Corridor, including agroforestry coffee plots, agroforestry cacao plots, living fences (within pastures), sugar cane plots and forest. Equally important, the bird

Lesson Learned: Seek partner opportunities across sectors to effectively leverage conservation outreach efforts. One of the most important lessons while implementing Mixing the Matrix was the importance of partnership. Recruiting participants for the bird monitoring program proved to be an initial challenge. By collaborating with local partners, Mixing the Matrix achieved a multiplier effect with its outreach messaging. This in turn allowed the project to leverage the collective networks of all partners to successfully enroll over 100 participants.

Fabrice DeClerk of CATIE demonstrates bird monitoring. CATIE

monitoring program – (locally referred to as the Programa Monitoreo de Aves, or simply PMA) has had a great impact on the community. Participants indicated that this workshop and the participatory monitoring activities filled a need that had not been served in the Biological Corridor. In addition, CATIE has hosted several "train the trainer" workshops on how to create participatory monitoring programs in Nicaragua and Guatemala.

Building on the success of the bird monitoring program for adult volunteers, CATIE recently expanded the project to launch a new educational program for schoolteachers and children. Life in Flight (or La Vida en Vuelo in Spanish) has been a tremendous success – providing a rare hands-on opportunity to connect kids to nature throughout the VCTBC. A minimum of 50 teachers and 500 students are expected to participate in the program within the first two years. Mixing the Matrix is a CATIE partnership supported by the U.S. Fish and Wildlife Service together with Optics for the Tropics, The Tropics Foundation, Idea Wild, Lighthawk, the Institute for Bird Populations, and the University of California at Los Angeles. Additional funding was provided by the following two CATIE projects: CAFNET with funds from the European Union) and PCP *(Agroforestry with Perennial Crops* with funds from Cirad France).

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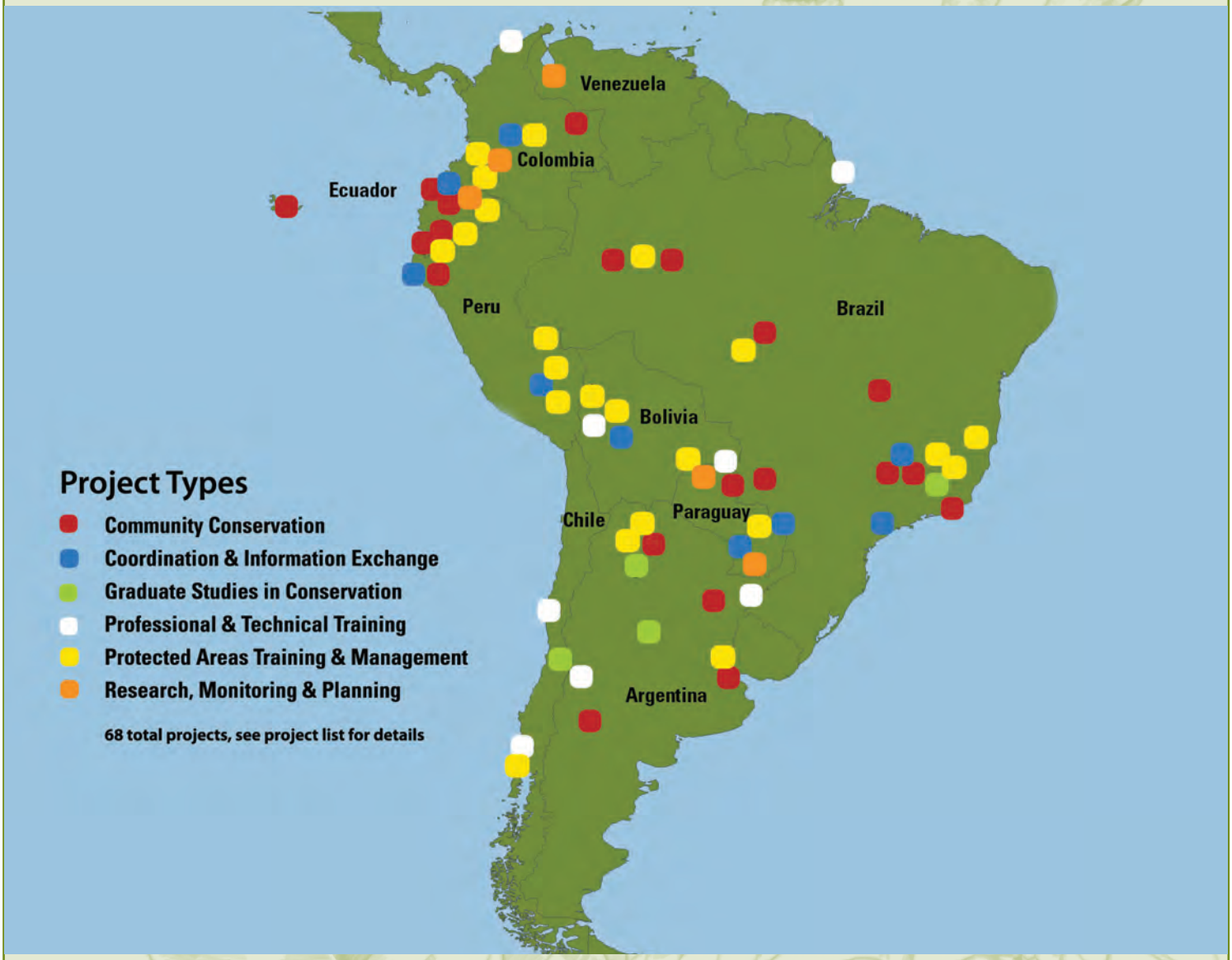
On the Ground Success in South America

Wildlife Without Borders Projects Funded 2005 - 2010



Conserving the Andean Tapir in the Central Andes of Ecuador

Grantee: Finding Species
Funded: 2009, 2010
Location: Ecuador

Impact:

The Andean Tapir Conservation Project is enhancing the protection of tapirs –one of the world's most endangered large mammals–within their last remaining stronghold in Ecuador. Finding Species has reached more than 1,300 local people through its education and conservation campaigns targeting park staff at Sangay and Llanganales National Parks, government authorities, and local communities. As a result, rangers in both parks are monitoring tapir populations for the first time, reports of tapir poaching in the area have decreased significantly, communities are adopting tapir-friendly land use practices, and local authorities are evaluating new conservation policies for the parks' buffer zones.

Andean Tapir (Tapirus pinchaque). ©Finding Species

Summary:

Fewer than 2,500 Andean tapirs (also known as mountain tapirs) are thought to remain in the wild, and the International Union for the Conservation of Nature (IUCN) estimates that the total population is decreasing. Hunting, habitat destruction, and ranching are the major threats to the survival of this species, which makes its home in the cloud forests and high elevation páramo of Colombia, Ecuador, and northern Perú. Ecologically, the mountain tapir plays an important role as a seed disperser, helping to maintain high plant species diversity throughout its habitat.

While mountain tapir populations are very low on the western slopes of the Ecuadorian Andes, the species is still present in some areas on the eastern slopes. Within the Tungurahua Province, there are two large national parks, Llanganales and Sangay. These parks – and the corridor that runs between them around the city of Baños – represent the Ecuador's largest remaining area of habitat for the Andean tapir. Because

Lesson Learned: Distribute ownership of the project across all key participants in order to ensure its long-term success. In order for a project to succeed, it must not be dependent on any one organization or institution. By distributing ownership of the project at the local level by involving the community and seeking their input, the project becomes something the community views as its own. One way Finding Species worked to ensure the Andean Tapir Conservation Project did not become associated with any specific organization was to create a logo for the project with feedback from local partners.

"Working with communities is important to us. To be effective, conservation must start at the community level. The only way to know whether a species will be protected is to learn whether the community values it – if the answer is yes, then the species will be conserved. We work to create the 'yes.'

—Hugo Mogollón, Executive Director, Finding Species

Searching for mountain tapirs in the páramo. ©Finding Species

Lesson Learned: Distribute ownership of the project across all key participants in order to ensure its long-term success. In order for a project to succeed, it must not be dependent on any one organization or institution. By distributing ownership of the project at the local level by involving the community and seeking their input, the project becomes something the community views as its own. One way Finding Species worked to ensure the Andean Tapir Conservation Project did not become associated with any specific organization was to create a logo for the project with feedback from local partners.

The Andean tapir (also known as the mountain or woolly tapir) can be found in high elevation areas, where temperatures often drop below freezing. Tapirs have adapted to this climate by developing a thick, woolly coat.

of the high quality of tapir habitat in this area, Sangay and Llanganales have become the focal area for conservation efforts. By bolstering the last viable populations of tapirs in Ecuador, it may be feasible for the species to recover in the future.

The main obstacle to Andean tapir conservation is a lack of recognition by national and local government, communities, and park officials about the dire status of the tapir and the importance of the habitat contained within these two parks. Local communities and governments around the parks, prior to the Andean Tapir Conservation Project, were not engaged in any kind of conservation effort.

The Andean Tapir Conservation Project has three components: research, community education, and on the ground conservation. Regarding research, Finding Species worked closely with the Tapir Specialist Group of IUCN to photograph and monitor the status of mountain tapir populations within the project area (see map on the following page). Prior to this project, little was known about local tapir distribution, habitat, and areas of greatest local threat. Information collected during the research phase of the project has informed Ecuador's National Strategy for the Conservation of Tapirs, published in September, 2010. In addition, Finding Species photographers used stunning images of tapirs and their habitat as an important educational tool for community outreach.

Through compelling visual materials and storytelling, Finding Species created an education campaign aimed at increasing knowledge and pride in the mountain tapir among elementary school students. Local partner organizations

– the Oscar Efren Reyes Foundation and the Technological Center for Amazon Resources – worked with Finding Species and the Tapir Specialist Group to successfully deliver this tapir conservation education program to over 450 students in eleven different schools associated with park buffer zone communities. Complementary seminars were held for parents, reaching 220 adults in these same communities. The campaign culminated in a "Tapir Festival" held in the town of Baños.

To increase the knowledge of Andean tapirs within the target national parks, Finding Species implemented Ecuador's first training workshop for park rangers (community leaders were also invited) on how to monitor for tapir presence and abundance. At the end of this workshop, more than 60 rangers and community leaders were trained in management of equipment and data collection techniques (e.g. the use of GPS, camera traps, identification of animal tracks, and radio telemetry). In addition, each park committed to implementing a long-term tapir monitoring program.

The next steps for Finding Species include working with local authorities (and former tapir workshop participants) to develop conservation land-use policies for the parks' buffer zones. Using the tapir as a local flagship species, Finding Species hopes to improve the protection wildlife habitat through the implementation of new legislation.

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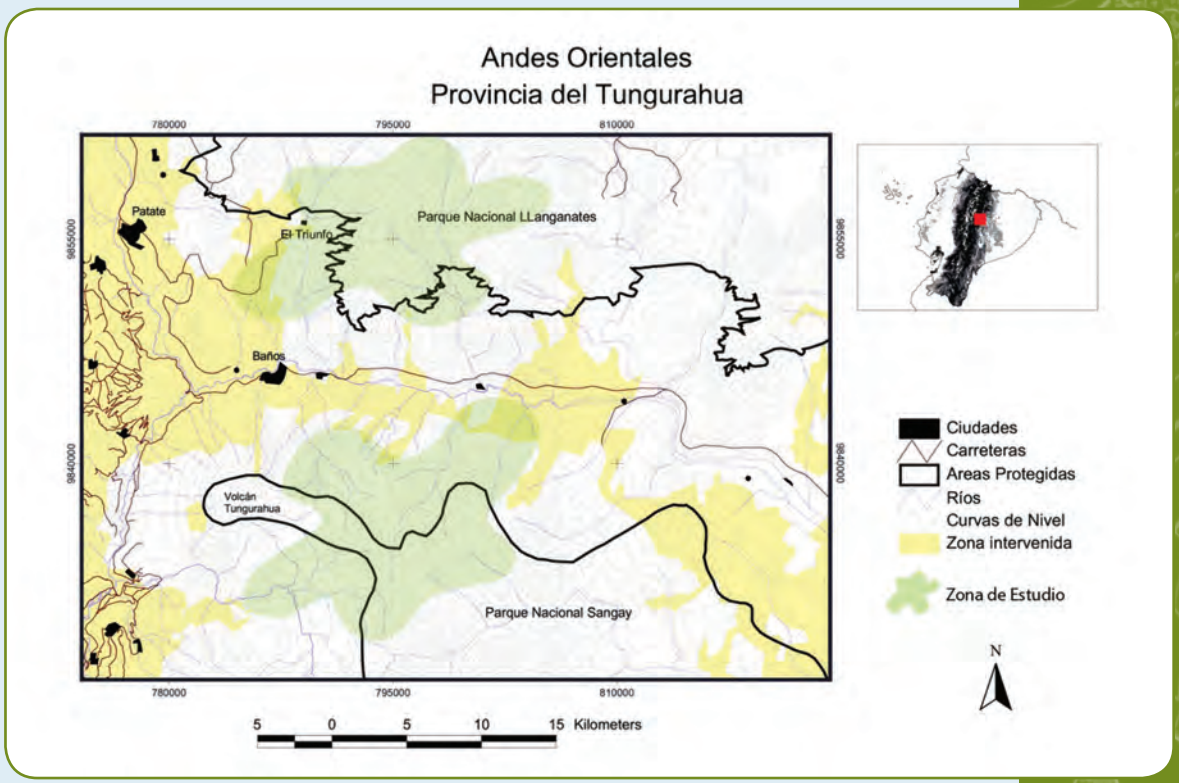


Andean Tapir Conservation Project Area. ©Finding Species

The Purús River, for which the Alto Purús area is named, is one of the largest tributaries of the Amazon. It flows through Brazil and Perú, drains an area of 24,000 square miles (15 million acres).

Alto Purús Protection Initiative

Grantee: *Upper Amazon Conservancy
Funded: 2009
Location: Perú

Impact:

The Alto Purús region of southeastern Perú is arguably the best-preserved and most important wildlife corridor in the entire upper Amazon, where intact plant and animal communities sustain some of the last nomadic, uncontacted indigenous tribes left on earth. The Alto Purús Protection Initiative is providing much needed training for Alto Purús National Park guards in effective protected areas management. The initiative is also strengthening the capacity of local communities to participate in and benefit from conservation efforts so they can become effective stewards of the region. As a result, 17 guards, eight of whom were just recently hired received training in protected areas administration, patrolling for illegal activities, working with isolated indigenous tribes. Training was also provided to the voluntary community guards. For example, a workshop on the Yurua River included eighty community representatives – including the Presidents of the Purus and Yurua indigenous federation as well as chiefs of several local tribes. Volunteers are organized into patrol committees, and have successfully completed patrols for illegal activities along the Alto Purús, La Novia, Inuya, and Yurua Rivers. As a direct outcome, illegal mahogany logging activities have been discovered inside the park, and this information has been shared with the Peruvian government, the U.S. government, and has been distributed to the international news media. Consequently Perú's protected areas agency has launched a special follow-up investigation of logging in the Park.

An Amahuaca youth standing in front of a felled mahogany tree.
©Chris Fagan/Upper Amazon Conservancy

Lesson Learned: Adequate training resources must be made available to protected areas staff to ensure the viability of these reserves. The Park experienced significant, unexpected turnover among its guards; 8 of the 12 guards stationed in the Purús sector of the Park were replaced in early 2010. The new guards are from local communities and lacked any formal training in protection activities like patrolling, or working with the community volunteers to protect endangered species and respond to threats. In February, the Upper Amazon Conservancy responded by holding a training workshop specifically for the new guards. Having adequately trained guards is critical to the viability of the Park. In 2011, we will increase efforts to build capacity among the official guards as well as the community volunteers.

**In partnership with Round River Conservation Studies.*

Summary:

The Alto Purús region of southeastern Perú is a vast, roadless frontier of relatively undisturbed tropical forest that has been spared from oil and gas exploration and the expanding agricultural frontier so prevalent in other parts of the Amazon. It is arguably the best-preserved and most important wildlife corridor in the entire upper Amazon, where intact plant and animal communities sustain some of the last nomadic, uncontacted indigenous tribes left on earth.

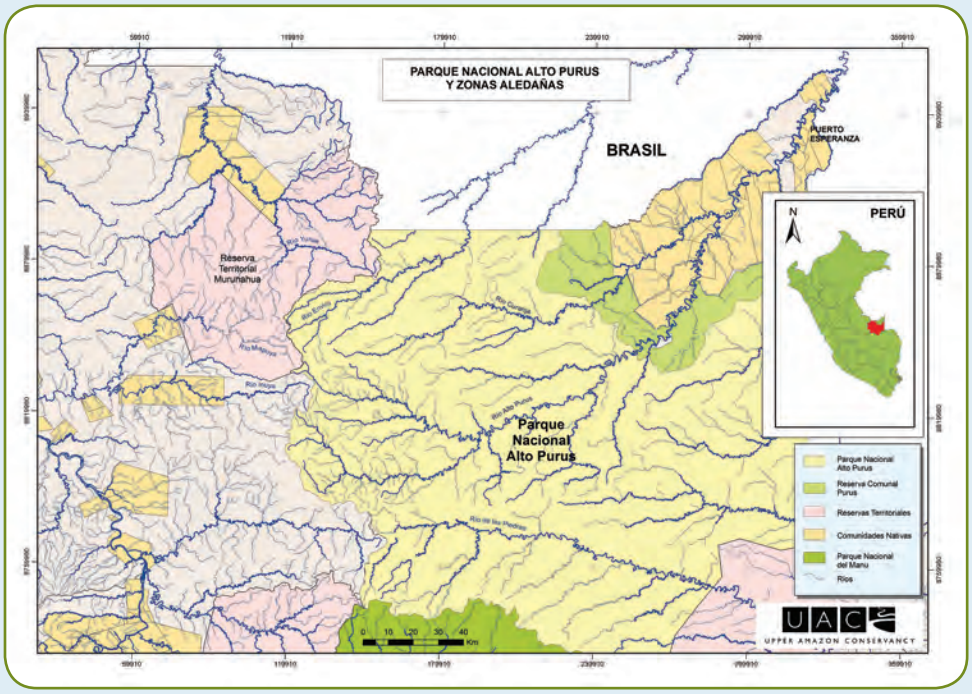
Recognizing its extraordinary ecological and cultural value, in 2004 the Perúvian government protected the region's core as the Alto Purús National Park, which, at 2.5 million hectares (6.2 million acres), is Perú's largest park. It is also the central link in one of largest networks of strictly protected land in the Amazon basin. Adjacent to the Park is roughly 300,000 hectares of titled indigenous lands divided among approximately 40 small communities representing ten distinct ethnic groups. The Park and surrounding lands support numerous rare and endangered species and hold world record levels of mammal and bird diversity. It is truly one of the wildest places left on earth, an international conservation priority of the highest magnitude.

The Alto Purús region is the last place in Perú with large stands of bigleaf mahogany, one of the world's rarest and most valuable timber species. Recently loggers have targeted the region for extraction of mahogany trees using tractors and illegal roads to pull giant logs out of the park and nearby areas. In addition to being detrimental to the ecosystem, it is an immediate threat to the survival of the uncontacted tribes. In communities outside the park, income opportunities are severely limited, so leaders have been willing to trade mahogany trees for food and other goods, creating an exploitative debt-patronage system between indigenous groups and loggers.

The Peruvian Park Service, like many natural resource management agencies in the region, lacks sufficient funding and technical capacity to effectively monitor and protect the park. In addition, most communities, especially those in the most remote areas nearest the park, suffer from poor nutrition, inadequate health care, and lack of schools or teachers.

Logging settlements on the lower Mapuya River. ©Chris Fagan/Upper Amazon Conservancy

Bigleaf mahogany *(Swietenia macrophylla)* is a highly valued evergreen tree which is the most commercially valuable mahogany species. It is a giant, typically emerging above the canopy layer at heights of up to 60 meters (nearly 200 feet). Commercial exploitation threatens this species, considered vulnerable to extinction by the International Union for the Conservation of Nature (IUCN).



Alto Purús Protection Initiative Project Area. ©Upper Amazon Conservancy

Led by the Upper Amazon Conservancy, the Alto Purús Protection Initiative focuses on improving the effectiveness of the national park in order to prevent illegal activities, protect uncontacted tribes, and maintain ecosystem health. Similarly, the project also has a strong focus on strengthening the capacity of local communities to participate in and benefit from conservation efforts. By working with local communities around the park via the voluntary park guard training program, the initiative has created eight Vigilance Committees that work with the park to patrol the area, resulting in an improved relationship between the communities and the park and an increased sense of stewardship among the local population.

Through the Alto Purús Protection Initiative, the UAC is making significant strides in increasing local awareness of conservation issues, including the protection of endangered species, and the sustainable use of community resources. Having worked in the region since 2002, UAC cultivates the emergence of a new generation of conservation and cultural leaders in indigenous communities of the Alto Purús.

The Alto Purús Protection Initiative is a project of the Upper Amazon Conservancy (UAC) initiated with logistical support from Round River Conservation Studies, and supported by the U.S. Fish and Wildlife Service together with the Gordon and Betty Moore Foundation and the Blue Moon Fund.

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Community Engagement and Training Local Parabiologists for the Protection of Globally Threatened Species in and Around Sangay National Park

Grantee: Carnivore Coexistence Lab - University of Wisconsin-Madison with Fundación Cordillera Tropical
Funded: 2009
Location: Ecuador

Impact:

This partnership between the Carnivore Coexistence Lab (CCL) of Wisconsin and Fundación Cordillera Tropical (FCT) of Ecuador is reducing retaliatory killings of the Andean Bear *(Tremarctos ornatus)* by identifying and promoting methods to deter bears from approaching human settlements. Through a combination of field research, conservation training for communities, and conflict mitigation workshops for landowners, this initiative has resulted in outreach to 50 landowning families around Sangay National Park. As a result, 10 local community members are now contributing to field research on human-wildlife conflicts in the area, and four families which experienced recent bear attacks have been trained in practices to reduce conflicts between livestock and carnivores. In addition, FCT has pre-enrolled 168 landowners on 50 properties in a Payment for the Protection of Environmental Services (PPES) program, making 5,260 hectares (or nearly 13,000 acres) available to Ecuador's new national private land conservation program, Socio Bosque.

Summary:

Ongoing human-wildlife conflicts threaten the integrity of wild animal populations and habitats found within southern Sangay National Park (SNP), Ecuador. Far ranging animals, like the Andean bear and large cats, frequently foray onto private lands where they encounter people and livestock. People often retaliate against the offending animals or clear habitat preemptively, negatively impacting these species, many of which are threatened. Long-term solutions to these conflicts require community engagement, training, and collaborative management.

"I can live with bears; however, one needs assistance… In my opinion, we have invaded their territory. They have not invaded my land, because they have always lived there."

—Patricio Arce, Affected Landowner in the community of Mazar

Project area shown in red.
©Fundación Cordillera Tropical

Fast Fact: Parabiologists are local community members who have been trained in field research methods, especially for conservation purposes. Typically a parabiologist works in high priority habitats with a focus on reporting conservation threats or monitoring for wildlife.

"Conservation should be understood as a participatory process in which learning is part of the experience. In conjunction with our neighbors, FCT and CCL seek to identify innovative solutions to existing human-wildlife conflicts in the Nudo del Azuay region of southern Ecuador."

—Lucas Achig, Research and Monitoring Coordinator, Fundación Cordillera Tropical

The partnership between the FCT and the University of Wisconsin has focused on field research, local capacity building, and environmental education to identify site-specific solutions to human-wildlife conflicts. The primary objective of this collaboration has been to provide local landowners with the tools and knowledge to live alongside these far-ranging populations of wild animals in southern Sangay National Park. Specifically, FCT and CCL have focused intensively on training landowners, park guards, and FCT staff to respond nimbly to human-wildlife conflicts and to document successful stewardship of endangered species on private and communal lands.

Community parabiologists trained in wildlife monitoring techniques (such as the use of camera traps and GPS), have contributed greatly to the success of this project as liaisons to their home communities. Parabiologists conducted 50 informal household interviews in communities around SNP to identify landowners affected by bear attacks during the past twelve months. Five affected landholders were identified. In response, FCT led a conflict mitigation workshop for these landowners from the Mazar and Llavircay sub-watersheds. Prior to the workshop, landowners indicated a limited knowledge of mitigation techniques. Training focused on fencing, increased patrol, noise, or visual deterrents.

This training has taken place in the context of a larger biodiversity monitoring project to verify landholder compliance with a new national payment for the protection of environmental services (PPES) initiative in Ecuador called Socio Bosque. FCT has worked to establish a local PPES initiative that would link downstream water users to upstream providers for nearly five years. However, in August, 2009, Socio Bosque approached FCT with a proposal to work together on its national conservation initiative which will provide funding for 20-year conservation contracts on qualifying private land.

CCL and FCT to complement each other with the following division of labor: CCL provides wildlife monitoring expertise

Lesson Learned: Combine external technical knowledge with local expertise at every stage. Just as outside experts benefit from understanding the local context, local experts similarly benefit from an outside perspective. This synergy should exist not only at the training and design phases of a project but should be integrated throughout. In training community parabiologists, for example, this approach resulted in high quality monitoring data, local participation and acceptance of field activities, and effective dissemination of results locally, regionally, nationally, and internationally. CCL and FCT achieved this continuous and complementary mix of expertise at different times and in different places. Specifically, CCL brought lessons, methods, equipment, and funding from several disciplines and countries via quarterly, intensive training and planning visits. FCT supported a pair of trained biologists to transfer knowledge to community monitors (parabiologists). Community members, in turn, contributed their knowledge of local people, wildlife, and the landscape to inform continuous surveillance and systematic surveys of patrol routes.

with respect to carnivores and large vertebrates, training and technical support in human dimensions of wildlife. FCT coordinates with participating stakeholders, provides training and logistical support in the field, and critical on the ground project implementation. For example, CCL brings to the project experience with carnivore recovery in agro-ecosystem mosaics of private and public lands and research on wildlife threats to humans around park edges in six countries. Combining FCT's local expertise with the depth of CCL's international experience has brought a highly complementary mix of perspectives to the conservation challenges in southern SNP.

This conservation initiative is a University of Wisconsin-Madison and Fundación Cordillera Tropical partnership supported by the U.S. Fish and Wildlife Service together with the Land Tenure Center, the Electric Corporation of Ecuador - Hidropaute, and the U.S. Agency for International Development through the TRANSLINKS agreement.

Fast Fact: Payment for the Protection of Ecosystem Services (PPES) represents a transaction between buyers and sellers of a given environmental service. Consumers provide monetary or in-kind incentives for landowners in exchange for managing their land in a way that continuously provides for the protection and provision of a given ecological service. In the case of Ecuador, the Socio Bosque program of the Ministry of Environment administers this kind of voluntary PPES agreements.

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CCL trains a Sangay National Park guard in the use of camera trapping.
University of Wisconsin

On the Ground Success: Legacy Programs

The WWB-LAC program has a long history of providing funding support for training for wildlife conservation professionals in the Latin America and Caribbean region. An early focus of the program was to support the creation of regional centers of excellence to provide practical training for professionals who would become leaders in the conservation field. Graduate programs that for wildlife biologists and managers were developed with partners in Costa Rica, Brazil, and Argentina, including:

- National University of Costa Rica
- Federal University of Minas Gerais
- National University of Córdoba

All programs offer master of science degrees, and some also offer a Ph.D. These programs provide training for future conservation professionals, local leaders, and policymakers. In addition, a fourth program called RESERVA, designed to provide professional field training for protected areas managers, recently celebrated more than 20 years of partnership with the WWB-LAC program.

Specifically, WWB-LAC provides funding for scholarships, field courses, thesis work, and visiting professors. This financial commitment has generated great dividends for wildlife conservation. In contrast to the mid-1980s when no such graduate level education programs existed in the region, today more than 500 highly skilled graduates of these local programs work as conservation professionals in their home countries.

As countries within the region expand their conservation efforts, the demand for trained conservation professionals continues to grow. The following pages highlight each of the four legacy training programs which collectively represent 89 years of WWB-LAC partnership.

The International Institute for Conservation and Management of Wildlife, National University of Costa Rica

Launched in 1984 as the first Master of Science program in Wildlife Management in Latin America, today the International Institute for Wildlife Conservation and Management (ICOMVIS, by its Spanish acronym) is a model program. Since its inception, the WWB-LAC program has provided financial assistance in the form of scholarships, support for thesis work, and field courses throughout Central America.

In 1995, ICOMVIS was awarded the prestigious Rainforest Alliance Award in recognition of the program's contribution to natural resource conservation. In the fall of 2009, the program celebrated its 25th anniversary. More than 150 students from 19 different countries throughout Latin America and the Caribbean are graduates of the program. These professionals have gone on to have a multiplier effect in the conservation community as directors of wildlife agencies in their home countries, non-profit program managers, biology professors, and political leaders.

For example, Roció Polanco Ochoa from Colombia (see photo) was part of the 8th cohort to graduate from ICOMVIS. Today Roció is a project manager for Tropenbos International Colombia, a non-governmental conservation organization focused on sustainable forestry use. In this role, Roció coordinates forest management and policy activities among six partner institutions in Colombia, Perú, and Ecuador as well as 20 local indigenous community organizations in the region.

"In ICOMVIS, we are creating new generations of conservation leaders, not just from within Costa Rica, but at the regional level that includes leaders from across Latin America."

—Grace Wong Reyes, Professor of Biology, ICOMVIS

Roció Polanco Ochoa (at right) works with indigenous tribes in Colombia, Ecuador, and Perú.
National University of Costa Rica

Ecology, Conservation, and Wildlife Management Program
Federal University of Minas Gerais, Brazil

Brazil's graduate program in Ecology, Conservation and Wildlife Management (ECMVS by its Portuguese acronym) enrolled its first students in 1989. The ECMVS Program offers Master's and Doctoral degrees in wildlife and ecosystem management. To date, at least 40 students have received degrees through this program.

Similar to the Costa Rica and Argentina programs, funding from the WWB-LAC program supports thesis work, field studies, and visiting professorships. Students receiving thesis scholarships focus their research on protected areas or surrounding buffer zones. Students are encouraged to research issues such as land-use planning, conservation policy, and human-wildlife conflict, as well as environmental education activities within communities inside and near protected areas.

For example, Katia Torres Ribeiro graduated from the ECMVS program in 1997, having focused her master's research on the ecology of endemic plant species within Serra do Cipó National Park in Brazil (see photo). Following graduate school, she began working in the park full time as its Environmental Coordinator. Katia established the first community volunteer fire program for the park, and also helped launch the park's first visitor center.

I participated in the ECMVS master's program from 1995 to 1997. It was a pioneer program, having shaped a generation interested in conservation and management. This experience influenced me to work in the Brazilian protected areas system.

—Katia Torres Ribeiro, Research Support Coordinator, Chico Mendes Institute for the Conservation of Biodiversity at Serra do Cipó National Park, Brazil

UMFG graduate Katia Torres Ribeiro (center) at Serra do Cipó National Park, Brazil.

Erio Curto, a graduate of CZA, releases a Rosy-billed Pochard (Netta peposaca) into the wild. National University of Córdoba

Center of Applied Zoology National University of Córdoba, Argentina

The hemisphere's most recent addition to graduate training programs was established in 1992 at the National University of Córdoba's Center of Applied Zoology (CZA by its Spanish acronym). The Graduate Program in Wildlife Management emphasizes integration of multidisciplinary skill development for resolving complex problems at habitat and ecosystem levels. Students are encouraged to complete internships at national parks and other protected areas to provide practical experience in solving conservation management challenges.

More than 61 students from 10 countries in the region have graduated from the program since its inception. As with the Costa Rica and Brazil wildlife management programs, many of the CZA graduates are now leaders in the conservation field.

For example, Erio Domingo Curto is a graduate of the program who now serves as Coordinator of the Mar Chiquita Biological Station in Argentina. Mar Chiquita is a naturally occurring saline lake in Córdoba, Argentina and a "wetland of international importance" under the Convention on Wetlands of International Importance (or Ramsar Convention). Beyond his role as coordinator of the biological station, Erio continually raises public awareness about environmental issues by providing guidance to local governments in and around the Mar Chiquita Ramsar site.

Maestria en Manejo de Vida Silvestre (UNC)

"The Córdoba program has demonstrated that it is possible to contribute to conservation and regional development by concentrating on a few key protected areas where the threshold of effort required to achieve significant changes can be overcome."

—Enrique Boucher, Ph.D., Director of the Graduate Program in Wildlife Management at the Center of Applied Zoology, National University of Córdoba from 1992 – 2009

"The RESERVA course provided me with important tools in protected area management, but most importantly, it created a foundation in me for a better understanding of the need to manage protected areas in an inclusive fashion, integrating various disciplines such as wildlife management, environmental education, and community participation. This understanding prepared me well."

—Rafael Manzanero, graduate of RESERVA, Executive Director of Friends for Conservation and Development in Belize

The RESERVA Program

Simply designating protected areas does not guarantee achievement of conservation and sustainable resource use goals. Currently, only a fraction of the protected area managers needed for conservation in the region is available to assume such responsibility and few are trained in the skills to achieve successful management.

To address this need, in 1989 the WWB-LAC program partnered with Ducks Unlimited of Mexico (DUMAC) to launch the Ecological Reserve Manager Training Program (or RESERVA by its Spanish acronym). The program is designed to provide in-service training to accommodate professionals who are already working in protected areas management. It is unique in that it provides practical, intensive training and unlike traditional master's programs, participants are not required to be full-time students for an extended period of time.

RESERVA offers a two month multidisciplinary, field-based, wildlife management training curriculum to Latin American and Caribbean park guards, biologists, planners and others currently working in natural resource management. Based in Monterrey, Mexico, the program provides instruction in applied fields ranging from terrestrial and marine ecology to community outreach. Natural resource managers from every Latin American country and several Caribbean countries have participated in the RESERVA program. After completion of the course, participants immediately begin putting their new knowledge to use in their home countries.

Since its inception, the Service has invested more than $2.5 million in RESERVA, with partners providing more than $3 million in matching funds. With these funds, approximately 300 reserve managers from 22 countries in the Western Hemisphere have been trained.

Appendix 1: Wildlife Without Borders Program Partners (2005 - 2010)

The following list includes all organizations and institutions that have received conservation funding support from the Wildlife Without Borders Regional Program for Latin America and the Caribbean during fiscal years 2005-2010. For more information on how to become a grantee, please check our website www.fws.gov/international.

Amazon Conservation Association
www.amazonconservation.org

Amazon Conservation Team
www.amazonteam.org

American Bird Conservancy
www.abcbirds.org

Asociación ANAI
anaicr.wordpress.com

Asociación de Rescate y Conservación de Vida Silvestre
(Association for Rescue and Conservation of Wildlife, ARCAS)
www.arcasguatemala.com

Asociación Guyra Paraguay
www.guyra.org.py

Asociación Latinoamericana de Conservación y Manejo de Vida Silvestre
(Latin American Association of Conservation and Wildlife Management, ALCOM)
www.alcomlatino.org

Asociación para el Desarrollo Sostenible del Área de Conservación Tempisque
(Association for Sustainable Development in the Tempisque Conservation Area, ASOTEMPISQUE)
asotempisque@costarricense.cr

Asociación para la Conservación de Ambientes Marinos y Costeros
(Association for the Conservation of Coastal and Marine Environments)
www.proyectotortugasmarinas.org

Asociación Universidad para la Cooperación Internacional
(Association of the University for International Cooperation)
www.uci.ac.cr

Association of State Wetland Managers
www.aswm.org

Association of Zoos & Aquariums
www.aza.org

Aves Argentinas
(Birds of Argentina)
www.avesargentinas.org.ar
www.avesargentinas.org.ar/cs/en/english.php

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Bat Conservation International
www.batcon.org

Caribbean Natural Resources Institute
www.canari.org

Centro Agrónomo Tropical de Investigación y Enseñaza
(Center for Tropical Agronomy Research and Learning, CATIE)
www.catie.ac.cr

Centro Científico Tropical
(Tropical Science Center)
www.cct.or.cr

Centro Neotropical de Entrenamiento en Humedales
(Neotropical Center for Wetlands Training, CNEH)
www.centroneotropical.org

Centro Regional para el Hemisferio Occidental
(Regional Ramsar Center for the Western Hemisphere, CREHO)
www.creho.org

Colorado State University
www.colostate.edu

Conservation International
www.conservation.org

Cornell University
www.cornell.edu

Ducks Unlimited de Mexico, A.C.
www.dumac.org

EcoLogic Development Fund
www.ecologic.org

Ecology Project International
www.ecologyproject.org

Environmental Concern
www.wetland.org

Fauna & Flora International
www.fauna-flora.org

Finding Species
www.findingspecies.org

Friends of the Environment
www.friendsoftheenvironment.org

Friends of the Osa
www.osaconservation.org

Fundação Biodiversitas
(Biodiversity Foundation)
www.biodiversitas.org.br

Fundación Conservación y Desarrollo
(Conservation and Development Foundation)
www.fundacionconydes.org

Fundación Conservación y Estudio de la Biodiversidad
(Foundation for the Conservation and Study of Biodiversity, CEBIO)
www.cebio.org.ar

Fundación Conservación, Naturaleza y Vida
(Foundation for Conservation, Nature and Life, CONAVI)
www.conavida.org

Fundación de Parques Nacionales y Medio Ambiente
(Foundation for National Parks and the Environment, Fundación PA.NA.M.A.)
fundacionpanama.org

Fundación Defensores de la Naturaleza
(Defendors of Nature Foundation)
www.defensores.org.gt

Fundación pour la Protection de la Biodiversite Marine
(Foundation for the Protection of Marine Biodiversity, FoProBiM)
www.foprobim.org

Fundación PROTEGER
(Foundation PROTECT)
www.proteger.org.ar

Fundación Vida Silvestre Argentina
(Wildlife Foundation of Argentina)
www.vidasilvestre.org.ar

Houston Zoo
www.houstonzoo.org

Instituto Pro-Carnívoros
(Pro-Carnivore Institute)
www.procarnivoros.org.br

Instituto Terra Brasilis
(Brasilis Earth Institute)
www.terrabrasilis.org.br

Instituto Venezolano de Investigaciones Cientificas
(Venezuelan Institute for Scientific Research)
www.ivic.gob.ve

International Conservation Caucus Foundation
www.iccfoundation.us

International Fund for Animal Welfare
www.ifaw.org

International Iguana Foundation
www.iguanafoundation.org

Jaguar Conservation Fund
www.jaguar.org.br

LifeScape International
species1@hotmail.com

Lubee Bat Conservancy
www.batconservancy.org

National Audubon Society
www.audubon.org

NatureServe
www.natureserve.org

Organización de Profesionales en Biodiversidad y Medioambiente
(Organization for Professionals in Biodiversity and the Environment, PROBIOMA)
probioma-probioma.blogspot.com

Organización Nacional para la Conservación y el Ambiente
(National Organization for Conservation and the Environment, ONCA)
www.asociaciononca.org

Organization for Tropical Studies
www.ots.duke.edu

Organization of American States
www.oas.org

Panthera
www.panthera.org

Paso Pacífico
www.pasopacifico.org

PCI Media Impact
www.population.org

Perry Institute for Marine Science
www.perryinstitute.org

Rainforest Alliance
www.rainforest-alliance.org

Round River Conservation Studies
www.roundriver.org

Saint Louis Zoo
www.stlzoo.org

Sarteneja Alliance for Conservation and Development
sacdsarteneja@gmail.com

Serra do Cipó National Park, Brazil
www.ufmg.br/pos/ecologia/usfish/index.php/inicial
katia.ribeiro@icmbio.gov.br

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Sociedad Zoológica de Francfort Perú
(Zoological Society of Frankfort in Peru)
www.szfperu.org

Society for the Conservation and Study of Caribbean Birds
www.scscb.org

Texas Tech University
www.ttu.edu

The Conservation Land Trust
www.theconservationlandtrust.org

The International Ecotourism Society
www.ecotourism.org

The Society for Conservation GIS
www.scgis.org

Toledo Institute for Development and Environment
www.tidebelize.org

Truman State University
www.truman.edu

Universidad Austral de Chile Campus Isla Teja
(Austral University of Chile, Teja Island Campus)
www.ciencias.uach.cl/instituto/ecologia_evolucion

Universidad de San Carlos de Guatemala,
(University of San Carlos of Guatemala)
www.usac.edu.gt/cecon.php

Universidad Mayor de Chile
www.umayor.cl

Universidad Nacional Agraria de La Selva, Perú
www.universidadperu.com/universidad-nacional-agraria-de-la-selva.php

Universidad Nacional de Córdoba, Argentina
www.unc.edu/ar
www.unc.edu/ar/english

Universidad Nacional de Costa Rica
www.una.ac.cr

Universidade Federal de Minas Gerais, Brazil
www.ufmg.br
www.ufmg.br/english

University of Missouri, St. Louis
www.umsl.edu

University of Wisconsin Madison
www.nelson.wisc.edu

Upper Amazon Conservancy
upperamazon.org

Wider Caribbean Sea Turtle Conservation Network
www.widecast.org

Wildlife Conservation Network
www.wildnet.org

Wildlife Conservation Society
www.wcs.org

Wildlife Trust
www.wildlifetrust.org

Windsor Research Centre
www.cockpitcountry.com

World Wildlife Fund
www.worldwildlife.org

Zoological Society of San Diego
www.sandiegozoo.org

Appendix 2: Wildlife Without Borders Projects (2005 - 2010)

Caribbean

Community Conservation

***1. Strengthening Capacity to Conserve Protected Wetlands: The West Indian Whistling Duck Conservation Project**
SCSCB, FY 2007, 2008, & 2009
USFWS: $173,492

2. Local Community Empowerment to protect Cyclura ricordii in the Dominican Republic and Haiti
International Iguana Foundation
FY 2010, USFWS: $24,926

3. Bi-national Campaign for Community Education and Conservation of the threatened Hispaniolan Parrot
National Aviary in Pittsburgh, Inc.
FY 2007, USFWS: $10,417

4. McKenzie Sanctuary: A Living Education Center
Friends of the Environment
FY 2007, USFWS: $5,000

*Projects with a region-wide impact.

"It is clear that biodiversity threats cross borders: habitat fragmentation, deforestation, invasive species, and climate change are just a few examples. Our responses have to cross borders, too."

—The late Juan Pablo Arce, Director for Latin America and the Caribbean at NatureServe

Fast Fact: Mangrove forests provide excellent protection against coastal erosion and storm surge – both of which are expected to intensify due to climate change. For this reason, the My Island – My Community project is promoting conservation and rehabilitation of mangroves. These trees are unique in that they grow in salt water and can tolerate low-oxygen environments.

5. Environmental Education and Capacity Building in Haiti
Fondation pour la Protection de la Biodiversité Marine,
FY 2006, USFWS: $5000

Coordination & Information Exchange

***6. Building Capacity for Conservation and Sustainable Use of Birds and their Habitats**
SCSCB, FY 2009, USFWS: $23,644

***7. Strengthening In-country Capacity for Avian Conservation and Research**
SCSCB, FY 2005 & 2007,
USFWS: $43,800

***8. Increasing SCSCB's Capacity to Provide Leadership in Avian Conservation**
SCSCB, FY 2006, USFWS: $18,720

Outreach & Education

***9. Strengthening Capacity to Conserve and Sustainably Manage Birds and Important Habitats in the Caribbean**
Society for the Conservation and Study of Caribbean Birds, FY 2010,
USFWS: $58,750

***10. My Island – My Community, Climate Change Awareness & Adaptation**
PCI Media, FY2010, USFWS: $135,000

***11. Andros Iguana Outreach Campaign**
Zoological Society of San Diego
FY 2006, USFWS: $9,884

Insects, such as these grasshoppers, make up a significant portion of the world's biodiversity. ©Finding Species

Protected Areas Training & Management

12. Managing Marine Parks in The Bahamas: Bonefish Pond National Park and Central Andros Marine Parks
Perry Institute for Marine Science
FY 2009, USFWS: $24,477

Research, Monitoring & Planning

13. Towards the Protection and Conservation of the Jamaican Boa in its Stronghold of Cockpit Country, Jamaica
Windsor Research Center
FY 2009, USFWS: $28,722.15

14. Ricord's Iguana Education Initiative in the Dominican Republic
International Iguana Foundation
FY 2006, USFWS: $8,600

15. Status, Breeding Ecology and Conservation Genetics of the Endangered Bay-breasted Cuckoo *(Hyetornis rufigularis)*
American Bird Conservancy
FY2005, USFWS: $5,000

Other Regional Initiatives (not shown on map)

***Second Edition of Los Maravillosos Humedales del Caribe Insular: Libro de Trabajo para el Maestro**
SCSCB, FY 2008, USFWS: $1,500

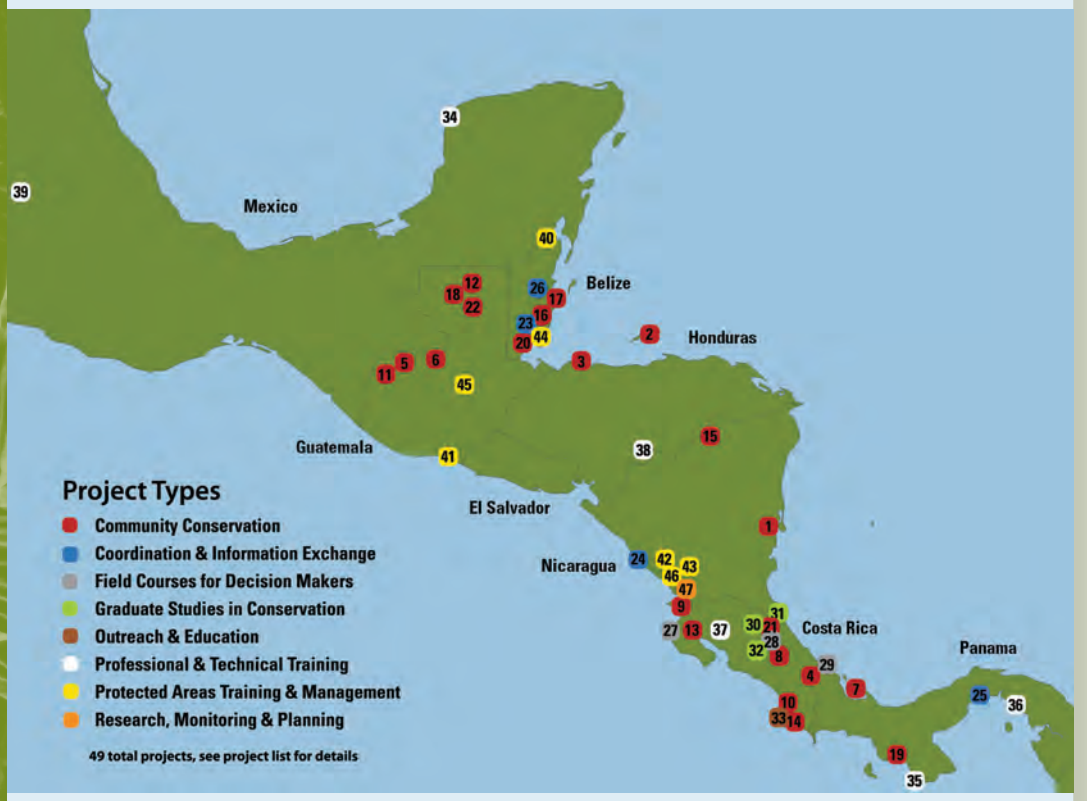
***The West Indian Whistling Duck and Wetlands Conservation**
West Indian Whistling Duck Working Group
FY 2005 & 2006, USFWS: $88,000

Learning the wetland sounds of Guadeloupe.
©Lisa Sorenson/SCSCB

***Supporting Conservation in the Caribbean region: Training of NGO Stakeholders as a Tool to Enhance Partnership**
The International Ecotourism Society
FY 2008, USFWS: $36,964

***Building capacity to care for sick and injured Sea Turtles: Standard Guidelines and Criteria for the Wider Caribbean Region**
Wider Caribbean Sea Turtle Conservation Network (WIDECAST),
FY 2006 & 2008, USFWS: $25,540

Central America



Community Conservation

1. A Paradigm Shift Toward Alternative Livelihood Strategies in Pearl Lagoon Basin, Nicaragua
Cornell University, FY 2010, $32,417

2. Conserving the Critically Endangered Spiny-Tailed Iguanas of Islas de la Bahia, Honduras
Truman State University,
FY 2010, $24,905

3. Conservation, Management and Participatory Protection in the Jeanette Kawas National Park, Honduras
Panthera, FY 2010, $24,985

4. A Participatory Approach to Threats to Aquatic Biodiversity & Biological Corridor Function in Talamanca Asociación
ANAI, FY 2009, $30,174

5. Community Based Forest Stewardship in Guatemala's Western Highlands
EcoLogic Development Fund
FY 2009, $25,000

6. Participative Environmental Education Program for Indigenous Maya-Q'eqchi' Communities
Organización Nacional para la Conservación y el Ambiente
FY 2009, $24,950

*Projects with a region-wide impact.

7. Training of Stakeholders and Environmental Committees of the Indigenous Communities Ngobe Bugle and Naso in the Panamánian Caribbean Region
Conservation International
FY 2008, $24,829

8. Participatory Avian Biodiversity Monitoring within the Volcan Central Talamanca Biological Corridor
CATIE, FY 2008 & 2010, $53,071

9. Conservation of Wild Cats and Their Prey Inside Cattle Ranches
FUNDAUNA, FY 2007 & 2010, $35,199

10. Community Involvement in the Protection of Mangrove Habitat and Endemic Birds on the Osa Peninsula
Friends of the Osa, FY 2007, $15,208

11. Capacity Building in Municipal/ Communal Protected Areas in the Pine-Oak Forests of Huehuetenango
Conservation International
FY 2007, $14,992

12. Conservation of Baird's Tapir in Guatemala
Organizacion de Profesionales en Biodiversidad y Medioambiente (PROBIOMA)
FY 2007, $9,700

13. Education of Priority Social Sectors to Ensure Conservation of the Jabiru in Costa Rica
ASOTEMPISQUE, FY 2007, $9,994

14. Training Osa Peninsula Youth on the Importance of Wildlife Conservation
FUNDAUNA, FY 2007, $9,900

15. Environmental Education in Indigenous Communities of Bosawas
Saint Louis Zoo, FY 2006, $24,227

16. Cockscomb Jaguar Project: Addressing Problem Felids in Belize
Wildlife Conservation Society
FY 2006, $10,000

17. Strengthening Conservation and Management Initiatives for the Antillean Manatee in Belize
Wildlife Trust, FY 2006, $9,997

18. Scarlet Macaw Conservation in the Mayan Biosphere Reserve, Peten, Guatemala
Asociación de Rescate y Conservación de Vida Silvestre (ARCAS)
FY 2006, $5,000

19. Management of Sea Turtle Rookeries & Dry Tropical Conservation, Panama
Fundación de Parques Nacionales y Medio Ambiente, FY 2005, $20,000

20. Watershed Approach to Environmental Education in Southern Belize
Toledo Institute for Development and Environment, FY 2005, $15,000

***21. Environmental Magazines & Photography**
FUNDAUNA, FY 2005, $14,860

22. Parque Ecologico Nueva Juventud - San Andres, Peten, Guatemala
Volunteer Petén, Inc., FY 2005, $5,000

Coordination & Information Exchange

23. Development and Sustainable Implementation of a National Ranger Training School in Belize
Fauna & Flora International
FY 2010, $30,934

***24. Workshop: Preparing Highly Effective Conservation Professionals for the Future** Fauna & Flora International, FY 2009, $150,102

"I work for Friends of the Osa, a small organization with a mission to protect the land and water resources of the Osa Peninsula region. The Wildlife Without Borders program and the Friends of the Osa have been working together to build alliances that help us strengthen the capacity of local people so they can work in the mangroves without exploiting them.

—Guido Saborio, Science Director for Friends of the Osa

"The resources provided by the U.S. Fish and Wildlife Service have enabled me to create educational materials for the schools and communities around Corcovado National Park... I've strived for a multiplier effect among the local people so they become knowledgeable about the importance of the wildlife."

—Grace Wong Reyes, Professor of Biology, ICOMVIS

***25. Strengthening the Capacity of the Ramsar Regional Center (CREHO) Centro**
Regional para el Hemisferio Occidental
FY 2005-2008, $164,017

26. Baird's Tapir Conservation Workshop: Population and Habitat Viability Assessment
Houston Zoo, FY 2005, $5,000

Field Courses for Decision Makers

27. International Conservation College Costa Rica Program
International Conservation
Caucus Foundation, FY 2009, $50,000

***28. Training Managers and Environmental Decision-Makers to Integrate Wildlands into a Sustainable Landscape**
Organization for Tropical Studies
FY 2006, $40,000

29. U.S. Decision Maker Course: Conservation and Development in Tropical Countries
Organization for Tropical Studies
FY 2005-2008, $83,175

Graduate Studies in Conservation

***30. Masters Program in Conservation and Wildlife Management for Latin Americans**
FUNDAUNA
FY 2005-2010, $308,214

***31. Integrated Training Courses for Graduate-level Wildlife Management Students & Protected-Areas Decision Makers**
NatureServe
FY 2008, $30,000

***32. Support for the Latin American School for Protected Areas (ELAP)**
Asociación Universidad para la
Cooperación Internacional
FY 2008, $25,000

Outreach & Education

33. Raising Awareness of the Importance of Capacity Building to Support Conservation of Habitat
Association of Zoos & Aquariums
FY 2008, $40,600

Professional & Technical Training

***34. RESERVA Course, Session XXIV**
Ducks Unlimited de Mexico, A.C.
FY 2005-2009, $125,000

35. Azuero Dry Tropical Forest Training Project, Panama
Fundación Conservación,
Naturaleza y Vida, FY 2010, $25,000

36. Panama Bay Shorebird Conservation Partnership Initiative
National Audubon Society
FY 2009, $21,045

37. Training Program for the Environmental Education Commission, Monteverde
Centro Cientifico Tropical
FY 2007, $5,000

***38. Bat Conservation Priorities and Networks in Mesoamerica and the Caribbean**
Lubee Bat Conservancy
FY 2007, $6,000

39. Support for a Wetland Management Program in the Peruvian Yungas Amazon
Universidad Nacional Agraria
de la Selva
FY 2006, $10,000

Protected Areas Training & Management

40. Developing a Framework for Environmental, Financial & Social Sustainability for the Effective Management of the Corozal Bay Wildlife Sanctuary
Sarteneja Alliance for Conservation & Development, FY 2010, $24,936

41. Coordination and Development of the University Protected Area System, while Emphasizing the Role of Park Rangers
Universidad de San Carlos de Guatemala (USAC), FY 2010, $19,420

42. Strengthening the Health Management of Wildlife Species
Universidade Ciencias Comerciales
FY 2010, $17,622

43. Implementation of Conservation Finance Mechanisms on the Island of Ometepe, Nicaragua
Fauna and Flora International
FY 2009, $24,997

44. Strengthening Management Capacity for Belize's Bladen Nature Reserve
Fauna and Flora International
FY 2009, $23,943

45. Fortalecimiento de Capacidades Tecnicas de Reservas Naturales Privadas
Fundación Defensores de la Naturaleza
FY 2009, $22,356

46. Building Protected Area Management Capacity on the Island of Ometepe, Nicaragua
Fauna and Flora International
FY 2008, $26,740

Research, Monitoring & Planning

47. Protecting the Critically Endangered Black-Handed Spider Monkey in Nicaragua
Paso Pacífico, FY 2010, $21,280

Other Regional Initiatives (not shown on map)

***A Children's Education Manual on the Impact of Climate Change on Wildlife**
FUNDAUNA, FY 2009, $53,777

***Evaluación y Conservación e la Biodiversidad en Paisajes Fragmentados de Mesoamerica**
FUNDAUNA, FY 2005, $7,000

Guanacos (Lama guanicoe) with an oil field in the background.
©Martin Monteverde-Natalia Radovani Wildlife Conservation Society

South America

Community Conservation

1. Strengthening Marine Education in Schools and Building Capacity of Field Managers for Marine Conservation in Tumbes, North Perú
Asociación para la Conservación de Ambientes Marinos y Costeros
FY 2010, $13,710

***2. Community Management: Traditional & Scientific Knowledge Working Together for Wildlife Conservation in Brazilian Amazonia**
Wildlife Conservation Society
FY 2009, $27,033

3. Strengthening Local Capacity to Ensure Wildlife Conservation in the Tamshiyacu-Tahuayo Community Regional Reserve, in Northern Perú
Wildlife Conservation Society
FY 2009, $26,556

4. Wetland Conservation of Four Protected Areas in the High Andes: Providing Water to the City of Quito
Finding Species, FY 2009, $24,711

5. Conservation and Management of Guanacos in Northern Patagonia
Wildlife Conservation Society
FY 2006 & 2009, $38,715

*Projects with a region-wide impact.

6. Capacity Building for the Conservation of the Long-Wattled Umbrella Bird and its Habitat
Finding Species, FY 2009, $27,243

7. Building the Capacity of Managers in Argentina's Urban Reserves to Combat Invasive Species
Aves Argentinas, FY 2008, $9,886.80

8. Environmental Education of Private Landowners for Species and Ecosystem Conservation in the Colombian Orinoquia
ALCOM, FY 2007, $17,900

9. Jaguars & People: Designing an Educational Program for the Cerrado Based on Regional Perception
Jaguar Conservation Fund
FY 2007, $14,300

10. Building Partnerships for the Conservation of a Critically Endangered Species, the Brazilian Merganser
Instituto, Terra Brasilis,
FY 2007, $11,891

11. Education for Wildlife Conservation in the Pantanal
Guyra Paraguay, FY 2007, $10,000

12. Landscapes and Sustainable Communities for Conservation of the Atlantic Forest, Brazil
Associação Mico Leao Dourado
FY 2007, $10,000

13. Maned Wolf and Farmers: Improving their Relationships in the Brazilian Cerrado
Instituto Pro-Carnivoros
FY 2007, $10,000

14. The Don Oso Project: Andean Bear Research, Awareness, and Protection in Southeastern Ecuador
Round River Conservation Studies
FY 2006 & 2007, $25,000

15. Building Capacities for Management: Conservation and Wise Use of Fishing Resources Jaaukanigas
Fundación PROTEGER
FY 2007, $9,000

16. Community Participation in San Pedro Mangrove Conservation and Management Plan Development
CNEH - Perú, FY 2007, $6,990

17. Alder Amazon project: Conservation Action in Argentina
Fundación Conservación y Estudio de la Biodiversidad (CEBIO), FY 2007, $9,900

18. Protecting Jaguars in the Brazilian Pantanal
Jaguar Conservation Fund
FY 2006, $15,000

19. Participatory Community Awareness Program for the Endangered White-Whiskered Spider Monkey
Fauna & Flora International
FY 2006, $10,000

20. Galapagos Islands Ecology Program
Ecology Project International
FY 2005, 2006 & 2010, $44,942

Coordination & Information Exchange

21. Developing Fundación Sirua's Long-term Sustainability in Ecuador's Awacachi Corridor
Fauna & Flora International
FY 2010, $26,129

"The quality of life in the United States is intimately connected with the thoughtful stewardship of wildlife throughout the Americas. The Wildlife Without Borders program trains professionals to solve local challenges, such as deforestation and migratory bird conservation, in ways that transcend national boundaries and touch Americans back home."

—Mary Klein, President and CEO, NatureServe

"What makes Wildlife Without Borders great is that it works from the ground up, from the project up. And if you lace these projects together, as we have, you get a very, very strong fiber."

—Dr. Steven Sanderson, President & CEO, Wildlife Conservation Society

***22. Western Hemisphere Migratory Species Initiative-Third Hemispheric Conference**
Guyra Paraguay, FY 2008, $151,684

***23. Development & Management of a Database for Academic and Technical Programs**
ALCOM, FY 2008, $12,000

24. Strengthening the Network of Volunteers for Jaguar Conservation in Argentina, Fundación Vida Silvestre Argentina, FY 2006, $10,009

25. Building Conservation Leadership in Bolivia, Cochabama, & La Paz
Wildlife Trust, FY 2006, $10,230

26. Lowland Tapir Conservation Workshop: Population and Habitat Viability Assessment
Houston Zoo, FY 2006, $5,000

27. Institutional Strengthening of CNEH-Perú & Capacity-Building for the San Pedro de Vice Mangrove Communities
CNEH-Perú, FY 2006, $5,000

28. High Andean Polylepis Forest Conservation: Alliance Building and Community Participation
American Bird Conservancy
FY 2006, $4,187

29. Maned Wolf Workshop- Population and Habitat Viability Analysis (PHVA)
Instituto Pro-Carnivoros,
FY 2005, $4,500

Graduate Studies in Conservation

***30. Graduate Program in Wildlife Management at the National University of Córdoba, Argentina**
Centro de Zoología Aplicada
FY 2005-2009, $281,120

***31. Graduate Program Support: Ecology, Conservation, and Wildlife**
FUNDEP, FY 2007 & 2008, $67,880

***32. Master of Science in Biodiversity Conservation**
Universidad Mayor de Chíle
FY 2005, $10,000

***33. Bird Ecology & Conservation: Analysis of Ecological Communities Graduate Course**
University of Missouri, St. Louis
FY 2006, $5,000

Professional & Technical Training

34. Bats without Borders: Building Capacity for the Protection of Colombia's Biodiversity and National Park Habitats
Bat Conservation International
FY 2010, $25,000

35. A Burning Issue: Creating a Fire Control Service for the Paraguayan Pantanal Reserve, Paraguay
Guyra Paraguay, FY 2010, $24,970

***36. Human and Institutional Capacity-Building for Wetland Conservation & Management in Protected Areas**
Centro Neotropical de Entrenamiento en Humedales, FY 2008, $27,000

***37. Capacity Building in the Management of Nature Reserves and Other Protected Areas**
Colorado State University,
FY 2006 & 2008, $24,316

***38. Interdisciplinary Principles and Tools for Endangered Species Recovery: Training Course for Latin American Conservation Leaders**
Conservation Land Trust
FY 2008 & 2007, $13,720

***39. Environmental Policy Analysis Training Course: a Social, Economic and Biodiversity Conservation Approach**
NatureServe, FY 2007, $18,757

40. Strengthening Management to Conserve Natural Protected Areas in Mendoza: Tourism Guide Training
Fundación Conservación y Desarrollo
FY 2007, $9,615

41. Creating a Sustained Effort to Locate Populations of Darwin's Fox and Guigna in Chile
Wildlife Conservation Network
FY 2006, $9,776

Protected Areas Training & Management

42. Building Local and Indigenous Conservation Management Capacity for Perú's Manú National Park & Surrounding Conservation Areas, Perú
Amazon Conservation Association
FY 2010, $28,438

43. Strategic Planning of Protected Areas
Fundación Vida Silvestre Argentina
FY 2008 & 2010, $37,460

44. Indigenous Park Guard Training: Monitoring Alto Fragua Indi Wasi National Park in Colombia
Amazon Conservation Team
FY 2010, $25,000

45. Reserva Natural Laguna Blanca: Collaboration of Educational, Governmental, and Non-governmental Organizations in Paraguay
Texas Tech University
FY 2010, $24,772

46. Training Key Personnel of Urban Natural Reserves to Develop and Implement Management Plans in Argentina
Aves Argentinas, FY 2010, $10,904

47. From Capacity Building to Implementation: Designing a Long-term Monitoring Program for Threatened Wildlife in Southern Chile
Universidad Austral de Chile
FY 2010, $14,270

48. Building Capacity for Monitoring in 5 Adjacent Protected Areas & Indigenous Territories in Greater Madidi-Tambopata
Wildlife Conservation Society
FY 2009, $42,560

49. Strengthening Conservation Know-how while Promoting Productive Dialogue Amongst Key Stakeholders in the Southern Brazilian Amazon
Fauna & Flora International
FY 2009, $31,975

50. Community Engagement & Parabiologist Training to Protect Globally Threatened Species, Ecuador
University of Wisconsin
FY 2009, $32,552

51. Strengthening Park Guard Control & Monitoring in Yasuní National Park, Ecuador
Wildlife Conservation Society
FY 2009, $24,138

52. Alto Purús Protection Initiative in Perú
Upper Amazon Conservancy (via Round River Conservation Studies)
FY 2009, $18,152

Guyra Paraguay eco club builds environmental stewardship among local kids.
Emily Horton/Guyra Paraguay

53. Building Local Capacity for Wildlife Monitoring & Landscape Level Planning, Bolivian Chaco
Wildlife Conservation Society
FY 2008, $25,194

54. Scientific Inquiry and the Environmental Education Program of Colombia's National Parks
Wildlife Conservation Society
FY 2008, $24,995

55. Building Capacity to Strategically Manage the National System of Protected Areas
Sociedad Zoologica de Frankfurt-Perú,
FY 2008, $22,455

56. Capacity Building for Co-Management of Pilón Lajas Biosphere Reserve and Indigenous Territory, Bolivia
Wildlife Conservation Society
FY 2008, $20,000

57. Science, Environmental Interpretation & Management in Serra do Cipó National Park, Brazil
Serra do Cipó National Park
FY 2008, $25,000

***58. 12th and 13th Courses in Protected Areas Management (AMUC Course)**
Fundação Biodiversitas
FY 2006 & 2008, $70,000

***59. Support for the Park Ranger Qualification Course & the Course in Protected Areas Management**
Fundação Biodiversitas
FY 2005 & 2008, $65,365

60. Regional Train-the-Trainer Workshop for Protected Area Management in the Tropical Andes and Amazon, Podocarpus National Park, Ecuador
World Wildlife Fund, FY 2007, $23,669

61. Building Capacity to Survey and Monitor Spectacled Bears in Colombia
Wildlife Conservation Society
FY 2007, $13,000

62. Conserving Lowland Tapirs & White-Lipped Peccaries in Argentina
Wildlife Trust, FY 2007, $10,000

63. Wildlands Management - Brazilian Amazon Course
Organization for Tropical Studies
FY 2005, $30,000

Research, Monitoring & Planning

64. Movements and Resource Utilization of Ducks in Central - Eastern Argentina
Centro de Zoología Aplicada
FY 2008 & 2009, $154,400

65. Improving the Conservation Status of the Andean Tapir on Ecuador's Eastern Andean Slopes
Finding Species
FY 2008 & 2009, $47,471

66. Conservation Status, Mortality, and Livestock Depredation of Jaguars in the Gran Chaco
LifeScape International
FY 2009 & 2010, $48,400

67. Regional Planning for Spectacled Bear Conservation in the Central Andes of Columbia
Wildlife Conservation Society
FY 2005, $20,773

68. Determining the Epidemiological Risk Associated with Chytrid in Amphibians, Yucatan
Instituto Venezolano de Investigaciones Científicas, FY 2005, $14,935

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Scouting for parrots in the Morne Diablotin National Park, Dominica, West Indies.
Dominica Forestry & Wildlife Division

Photos on page 9 (left to right):
Hummingbird by Cyndi Perry/USFWS, Students in a wetlands workshop by Lisa Sorenson/SCSCB, Bromeliad by Sarah Gannon-Nagle/USFWS, Loggerhead turtle hatchling *(Caretta caretta)* by USFWS, and Brown pelicans *(Pelecanus occidentalis)* by Dr. Thomas Barnes/USFWS

Photos on page 15 (left to right):
Alejandra Martínez releasing a mist-netted bird by CATIE, Ometepe Island by Fauna & Flora International, Three toed sloth *(Bradypus variegatus)* by Manfred Meiners, Emerald Glass Frog *(Centrolene prosoblepon)* on a leaf/Brian Gratwicke, Smithsonian Conservation Biology Institute, and Harpy eagle *(Harpia harpyja)* by Finding Species

Photos on page 22 (left to right):
Andean bear cub *(Tremarctos ornatus)* by K Timmerman/Fundación Cordillera Tropical, Sally Lightfoot crab *(Grapsus grapsus)* by Finding Species, Brazilian farmer receiving information on soil conservation by Instituto Terra Brasilis, Cashinahua girl in Perú by Chris Fagan/Upper Amazon Conservancy, and Spider monkey *(Genus ateles)* by Finding Species

U.S. Fish & Wildlife Service

International Affairs

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November 2010

Printed on recycled paper with vegetable based inks.