

## **Wildlife Without Borders-Mexico Summary of Projects**

17 Grants Total FWS Funding \$596,570 Total Leveraged Funding \$1,078,323

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### *Support for U.S. State Agencies to Participate in the Wildlife Without Borders-Mexico Program & the Trilateral Committee.*

In partnership with the Association of Fish and Wildlife Agencies (AFWA). Through this project, support will be provided for U.S. state agencies (California, New Mexico, Arizona, and Texas) to conduct field evaluations of projects funded under the Wildlife Without Borders-Mexico Program, as well as participate in the Canada/Mexico/U.S. Trilateral Committee for Wildlife and Ecosystem Conservation and Management Annual Meeting, to take place in Halifax, Nova Scotia, on May 10-14, 2010.

FWS: \$25,786 Leveraged Funds: \$100,000

### *Capacity building for community participation in protected natural areas in southern Mexico.*

In partnership with Pronatura Sur, A.C. Chiapas. This project aims to consolidate local interinstitutional alliances and launch a capacity building program for natural resources professionals to perform social analysis in order to promote community participation and self-management in Natural Protected Areas (NPAs) in Mexico. It focuses in the generation of skills and acquisition of knowledge in methodologies and tools for community work, conflict resolution, strategic communication, diagnostic assessment and capacity building in social organization.

FWS: \$40,000 Leveraged Funds: \$54,800

### *A sustainable model for recovery and conservation of the San Juan micro-watershed in the Monarch Butterfly Biosphere Reserve.*

In partnership with Alternare A.C.. Conservation and restoration of the ecosystems in the San Juan micro-watershed is urgent because its forests shelter the western hemisphere's monarch butterflies during hibernation, have a rich biodiversity and capture rain water for the Balsas River and Lerma River that are part of two important basins. This project is part of the educational process that Alternare has developed with MBBR's inhabitants since 1997. The goals are to adopt sustainable communal productive practices and recover the ecosystems of the area.

FWS: \$45,000 Leveraged Funds: \$309,595

### *Monitoring biodiversity on conservation areas in the state of Oaxaca, Mexico through community advocates.*

In partnership with Centro de Estudios Andayú, S.C. Oaxaca is considered the most diverse state in Mexico and is recognized for its active community participation in land conservation. Local communities and ejidos have agreed to certify Community Conservation Areas to protect their natural resources. This process is particularly advanced in the Chinantla region with approximately 11,400 acres of land already

certified. The goal of this proposal is to train community promoters to manage and monitor community conservation areas.

FWS: \$40,000 Leveraged Funds: \$40,505

*Building capacity through workshops on research, conservation and monitoring methods for bats and amphibians in Sonora and Sinaloa, Mexico.*

In partnership with Naturalia. Mexico has the potential to make significant contributions to the understanding of amphibian and bat population declines worldwide. Globally, Mexico possesses the greatest biodiversity of amphibian (318) and bat (139) species. Naturalia is seeking to build capacity of resource managers and biologists and university students wishing to conduct work within Federal reserves to improve the conservation status of bats and amphibians in Sonora and Sinaloa.

FWS: \$25,370.05 Leveraged Funds: \$23,246

*Capacity building for monitoring carnivores in Natural Protected Areas in northern Mexico.*

In partnership with Protección de la Fauna Mexicana A.C. Natural Protected Areas in northern Mexico are home to many carnivores species of concern and human-carnivore conflicts are frequent. Of great concern is that personnel in these areas lack the formal training and experience to conduct monitoring activities and to resolve human-carnivore conflicts. Furthermore, only a selected number of NPAs perform monitoring of a selected number of wildlife species. This project will build human and institutional capacity of NPAs in northern Mexico to develop a carnivore monitoring program and cope with human-carnivore conflicts.

FWS: \$35,000 Leveraged Funds: \$30,523

*Strengthening human and social capital for the administration of two Communitarian Natural Protected Areas in the Lacandona Jungle and Sierra Costa of Chiapas.*

In partnership with Instituto para el Desarrollo Sustentable en Mesoamérica, A.C. (IDESMAC). Local communities and ejidos (farming cooperatives) own large forest areas in Mexico. The National government has certified Voluntary Conservation or Communitarian Natural Protected Areas (CNPAs) to achieve conservation strategies at local communities or ejidos. These local units have preserved areas with high biodiversity through approximately 188 CNPAs. However, there is a need for coordinated management and vigilance in CNPAs, including social and human capital to strengthen the process of conservation. This proposal intends to advance capacity building by training land managers from local communities or ejidos in long-term monitoring, management and organization of CNPAs.

FWS: \$40,000 Leveraged Funds: \$16,580

*Education for sustainable peasant land management in Chilapa, Guerrero: Training custodians for land conservation.*

In partnership with Grupo de Estudios Ambientales A.C. The Chilapa region in Guerrero, Mexico is one of the poorest region in the country. The Group for Environmental Studies has implemented a program to educate peasants about sustainable use of natural resources and land management. This educational program has included

workshops on land and water resources issues, management of agriculture and urban areas, food consumption and environmental health. Seven community advocates are fully integrated in the program's work team. This project will consolidate the knowledge and skills of the seven community advocates into a new generation of instructors. The propose plan is to work with students from kindergarten to college to carry out an environmental fair in open spaces, therefore reaching out to other members of the community.

FWS: \$35,000 Leveraged Funds: \$85,578.85

*Local capacity building to restore the mountain cloud forest on the Gavilanes River micro-watershed in Veracruz, Mexico.*

In partnership with Pronatura México A.C. Unsited land use practices in the Gavilanes River micro-watershed in Veracruz, Mexico are detrimental to forest and water conservation. Forest cover and groundwater recharge in this micro-watershed has diminished due to conversion of forests to grazing land. This practice has caused other environmental effects including loss of topsoil, increase river sedimentation, reduce underground water storage capacity, and variation in the local climate such as loss of humidity and evapotranspiration. This project is to establish a technically trained community to conduct restoration activities in sites identified as priority for hydrologic environmental services. It also aims to develop alliances between private, government and civil institutions to share responsibility in the conservation of cloud forests in the study area.

FWS: \$45,000 Leveraged Funds: \$64,785.60

*Training community instructors as biocultural educators: understanding deforestation and climate change.*

In partnership with Sierra Madre Alliance Inc. Pine oak forests in the Tarahumara mountain range are home to approximately 25% of the flora in Mexico. Vegetation surveys within these ecosystems in the municipalities of Guadalupe and Calvo revealed the existence of 264 species of vertebrates. However, forest cover for pine-oak in Mexico has declined about 50% - 60% of its original habitat area. Local dwellers have identified fires, land use patters and domestic by-products as the main causes of deforestation in Tarahumara. This project responds to the need for local information, capacity building and education in the municipalities of Guadalupe and Calvo in Chihuahua, Mexico to reduce deforestation and the associated impacts of climate change. The project aims to educate local communities on sustainable practices for forest use and management, and the consequences of the connection between deforestation and climate change.

FWS: \$40,000 Leveraged Funds: \$66,542

*Environmental education in support of conservation and natural resource management for the Natural Protected Area of Ajos-Bavispe in Sonora, Mexico.*

In partnership with Universidad de la Sierra. The Mexican Federal Government declared Ajos-Bavispe a Natural Protected Area (NPA) in the mid to late 1930s to preserve the ecological integrity of three major watersheds in the state of Sonora, Mexico. Sonora, Bavispe-Yaqui and San Pedro watersheds are the main sources of drinking water, and crop and livestock productivity in the region. The reserve is home to 1,234 species of

plants, 208 birds and 156 species of butterflies. Anthropogenic activities have caused changes in vegetation, soil erosion and species lost. A lack of information and expertise has induced an unsound management of natural resources. This proposal aims to develop an environmental education program for the Natural Protected Area Ajos-Bavispe, particularly the southern area.

FWS: \$44,076.78      Leveraged Funds: \$74,324.97

*Smart schools: Green practices in Baja California.*

In partnership with San Diego Society of Natural History. The San Diego-northern Baja California region is internationally recognized for its rich biological biodiversity. This region suffers from existing environmental degradation due in part to a growing population and poorly planned development. As a response to environmental challenges, the Mexican Government has mandated that environmental education be taught in its schools. However, schools are in need of support to carry out this mandate. This project will design a Smart Schools program to create environmentally sustainable schools. The program will strengthen participants' learning through hands-on activities and participation in community action projects.

FWS: \$35,000      Leveraged Funds: \$32,725

*A Conservation and training program for the winter breeding habitats of the humpback whales in the Nayarit-Jalisco, Mexico.*

In partnership with Instituto Tecnológico de Bahía de Banderas. Urban development and anthropogenic activities are threatening the winter breeding corridor for humpback whales. Banderas-Guayabitos-San Blas Bay in the coasts of Jalisco and Nayarit, Mexico is a critical winter breeding habitat for humpback whales. Permits for whale tours are issued under regulation NOM-131-ECOL-1998 to conduct official whale watching businesses. Tour operators have received training to help sustain the species and habitat since 2001. Operators in Guayabitos and San Blas, two new permit zones, have not yet received enough training and information. This project will establish a program to train tour operators on best practices for approaching, observing and navigating near the breeding habitats of humpback whales. It will also inform the public on navigation practices that lessen the impact on the resources.

FWS: \$34,987.34      Leveraged Funds: \$91,748.77

*Conservation of cycads in the Tehuacán-Cuicatlán Biosphere Reserve.*

In partnership with Sociedad para el Estudio de los Recursos Bióticos de Oaxaca, A.C. Cycads are listed in CITES under the maximum level of protection. Although this group of plants is little known, it is considered a highly vulnerable plant to disappear worldwide. The Tehuacán-Cuicatlán Biosphere Reserve is home to various species in the genus *Dioon* that are endemic to this area. The need for accurate and adequate information is identified as a limitation for protection, conservation and management of the species. Illegal removal creates another issue for management of the species. This project will address illegal removal of two populations of cycadas located in two communities within the Reserve, Teotitlán de Flores Magón and San Juan Coyula. It will generate information regarding species distribution, areas most vulnerable, uses by dwellers and conservation activities.

FWS: \$24,200 Leveraged Funds: \$20,050

*Diploma on prevention and control of invasive species in areas designated for native biodiversity conservation.*

In partnership with Unidos para la Conservación, A.C. Managing invasive species in Mexico is an enormous challenge to government officials in charge of natural resources conservation. The presence of invasive species is highly documented and is expected to increase in the future. Mexico is in great need of trained technical personnel to become responsible of natural conservation areas, particularly in biodiversity conservation of native species. Thus, this project proposes to enhance knowledge and technical capacity of government officials regarding invasive species impacts and management across Mexico.

FWS: \$50,000 Leveraged Funds: \$145,932

*Bats in my community: an environmental education strategy to increase knowledge on the value to conserve bats in two areas of La Encrucijada Biosphere Reserve.*

In partnership with Tierra Verde Naturaleza y Cultura. Human-bats interactions are frequent within the communities of Ceniceros and Salto de Agua in La Encrucijada Biosphere Reserve. A number of bat species (e.g. *Artibeus jamaicensis*, *A. lituratus*, *Uroderma bilobatu*, *Saccopteryx bilineata*) have found refuge in these localities; using trees, artesian wells, houses, streets and other surroundings as shelters. The use of human centers as refuges, the negative perception of local residents and the destruction of refuges are all threats to bats. This project aims at educating local communities about bats and working with locals to perform biological surveys of the species.

FWS: \$32,832 Leveraged Funds: \$13,600

*A workshop on water resources for journalists in northern Mexico.*

In partnership with Fondo para la Comunicación y Educación. The demand for water resources in the north and central parts of Mexico is exceeding sustainable limits. Conflicts among users are growing in the area, where only 23% of the national total for water is available. Water scarcity is a great challenge for sustainable development in Mexico. Wells are overload and population continues to growth. Thus, the need to educate the population about water scarcity and demand, while drawing attention to the implication of current water use practices. This project plans to develop an environmental journalism workshop on water resources in the northern region of Mexico.

FWS: \$25,000 Leveraged Funds: \$33,250