2011 Annual Report

conservation science
AZA-accredited zoos and aquariums serve as conservation centers that are concerned about ecosystem health, take responsibility for species survival, contribute to research, conservation, and education, and provide society the opportunity to develop personal connections with the animals in their care. Whether breeding and reintroducing endangered species; rescuing, rehabilitating, and releasing sick and injured animals; maintaining far-reaching educational and outreach programs; or supporting and conducting *in situ* and *ex situ* research and field conservation projects, accredited zoos and aquariums play a vital role in maintaining our planet's diverse wildlife and natural habitats while engaging the public to appreciate and participate in conservation.

The 2011 Annual Report on Conservation Science (ARCS) focuses exclusively on those conservation projects that have a direct impact on animals in the wild. Data were submitted by 184 of AZA's 241 accredited institutions and certified-related facilities who collectively spent approximately $160 million via direct participation in or financial support of over 2,670 projects in over 100 countries. This report lists the names of these projects by institution.

This report was compiled by Shelly Grow (AZA Senior Conservation Biologist) and Tammy Cloutier (AZA Conservation and Science Intern), with significant data collection and analysis support from AZA's Field Conservation Committee, Felicia Spector (AZA Conservation and Science Intern), and Kevin Schofield (Woodland Park Zoo Volunteer). This report, along with those from previous years, is available on the AZA Website at: [http://www.aza.org/annual-report-on-conservation-and-science/](http://www.aza.org/annual-report-on-conservation-and-science/).

Cover photo: African elephant. Julie Larsen Maher © WCS.
Global demands for palm oil, wood, paper and pulp, combined with increasing human populations and a large global market for illegal ivory threaten wild elephants. AZA institutions continue to play a role in the battle for the survival of elephants by supporting conservation legislation such as the African and Asian Conservation Acts in Congress and by educating and inspiring our visitors to take action and actively support elephant conservation. AZA institutions also are actively engaged in on-the-ground conservation either through their own field programs or by providing critical funding support to ongoing projects.

The depth and diversity of elephant conservation projects supported by AZA members ranges from basic research such as epidemiological studies of elephant herpes in the wild, a disease known to cause high mortality, to more applied issues such as supporting anti-poaching patrols of local wildlife departments or reducing human-elephant conflict (HEC) over habitat. We have selected just a few projects to give you a glimpse of how AZA institutions are contributing to elephant conservation.

Asia: Developing Adaptive Management to Reduce Human-Elephant Conflict. Human-elephant conflict resulting from rapid expansion of human development is the leading cause of the demise of Asian elephants. Depending on ecological and economic factors, HEC experiences of individual researchers/managers vary widely, making it difficult to reach agreement about best strategies for managing HEC. This complexity results from variations in elephant behavior, socio-economic causes, and the wide range of traditional or contemporary mitigation techniques used. Comparative work on HEC across Asia is urgently needed to advance HEC management. To address these issues an AZA CEF funded project was initiated by a group of elephant experts with well-established conservation projects in Sri Lanka, Thailand, Nepal, Malaysia, India, Cambodia, and Indonesia (12 experts, eight projects). The group is developing and field-testing standardized monitoring techniques to assess HEC intensity and is planning to disseminate results and build technical capacity in the region via electronic tools, meetings, and workshops. Such professional networks are essential to disseminate critical knowledge for advancing wild elephant management and conservation in Asia.
Tanzania: Anti-poaching and Wildlife Monitoring at Tarangire National Park

The Tarangire National Park (TNP) has the largest elephant population in northern Tanzania and its continuing to expand at ~six percent a year. The savanna short-grass plains and surrounding areas of TNP provide critical wildlife habitat but ~20 percent of the land is unprotected and used for agriculture. In this unprotected area, habitat loss and poaching are having a negative impact on wildlife and elephants. To combat illegal activity, three wildlife monitoring/anti-poaching teams employing 14 game scouts were created. The teams deter poachers and, if they observe illegal activities, the teams’ game scouts call in the official anti-poaching units from TNP to arrest the perpetrators.

Sumatra: Conservation Response Units

Long-term conservation of Sumatra’s elephant requires that people and elephants coexist with minimal conflict, otherwise demands for the removal of elephants will be politically difficult to ignore, resulting ultimately in the extinction of elephant populations on the island. Conservation Response Units (CRU) were developed to reduce conflict and to educate people about the need to coexist with elephants and other wildlife. CRUs utilize once neglected captive elephants and their mahouts for direct field-based conflict interventions. They are used to prevent elephants from entering fields for crop raiding and to carefully push them away from agricultural areas into safer habitats. CRU interventions are not only positive for wild elephants by reducing demands for their removal, but also they combat illegal activity and raise awareness of conservation and habitat protection among the local people who learn to care about elephants and come to see them as an important resource, doing positive deeds. As a result local communities and decision-makers recognize their contribution and focus greater attention on protecting Sumatran elephants.

Kenya: Anti-Poaching Team

Kenya’s wildlife outside protected areas continues to decline and if this trend continues will soon be either extinct or limited to fragmented, isolated remnant populations in only a handful of protected national parks and reserves. African elephants are especially threatened by habitat loss and ivory poaching and conserving this species in Kenya will require the support of local communities that often share their land with elephants. In 2004 the Northern Rangelands Trust (NRT) was established by local stakeholders as an umbrella organization that promotes the integration of community-based biodiversity conservation and environmental management with improving and diversifying livelihoods in local communities. NRT’s role is to develop the capacity and self-sufficiency of its constituent community organizations in these areas. Already, NRT’s activities have resulted in more land devoted to biodiversity conservation, benefitting many species, especially migrants such as elephants, and a significant reduction in poaching. However, political instability continues to threaten conservation efforts in the region and poaching remains a threat due to a large number of illegal firearms and the proximity to unstable neighboring countries. A Joint Conservancy Anti-Poaching Team has been established by NRT to improve wildlife protection and monitoring in the region, first and foremost, by deterring incidents of poaching from occurring and, when unfortunate incidents of poaching do arise, by providing a dedicated team of skilled anti-poaching officers immediately available to respond to and resolve these issues.

Malaysia: Assessing the Effectiveness of Elephant Translocations for Conflict Mitigation

The relocation of animals is frequently used to reduce human-wildlife conflicts, but requires post-release monitoring of translocated animals to determine success or failure. In Malaysia, agricultural damage caused by crop-raiding elephants in oil palm plantations costs millions of dollars annually. The Malaysian Department of Wildlife and National Parks (DWNP) started a program in 1974 to translocate conflicitive individuals from plantations to patches of large continuous forest. More than 500 elephants, roughly one-third of the estimated wild elephant population in Peninsular Malaysia, have been translocated since the onset of the program but little monitoring of the effectiveness of the operations has taken place. The goal of this project, initiated in February 2011, is to assess how well elephant translocations work by satellite-tracking the released elephants. Early results indicate a wide range of behavioral responses ranging from successful homing, where the translocated elephant returns to the conflict location, to establishment of new home ranges. Outcomes from this research will inform future elephant management plans by the Wildlife Department.

There is More

There are many more projects. AZA institutions either directly support field conservation through their own projects, or through partnerships with organizations on the ground, or indirectly by providing critical conservation funding via AZA’s Conservation Endowment Fund and the International Elephant Foundation. As conflict over land, ivory and elephants are heating up, increased future funding support from zoos for on-the-ground conservation will be critical to save the elephants. Perhaps even more important is that by supporting these projects, AZA institutions are linking their visitors with ongoing elephant conservation, inspiring them to care and become good stewards of our planet.

Debbie Olson, IEF and Dr. Peter Leimgruber, Smithsonian National Zoo are AZA Elephant TAG/SSP Field Conservation Advisors

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ARGENTINA

**Temaiken Foundation**
Maned Wolf (*Chrysocyon brachyurus*) Conservation Project
Conservation of Osununu Natural Reserve Project
Lowland Tapir (*Tapirus terrestris*) Conservation Project
Native Butterfly and Orchids Conservation Project
Parana Pine (*Araucaria angustifolia*) Ecosystem Conservation Project
Tapir (*Tapirus terrestris*) Conservation Project
Threatened Species Recovery Program

BERMUDA

**Bermuda Aquarium, Museum and Zoo**
Bermuda Reef Ecology Assessment and Mapping (BREAM)
BAMZ/BZS Research Grants and Support
Bermuda Amphibian Project
Bermuda Endemic Land Snail Survey
Bermuda Killifish Project
Bermuda Marine Moorings Initiative
Bermuda Turtle Project
Diamondback Terrapin Project
Madagascar Learning Centre
Internship Programme
Marine Wildlife Rescue and Rehabilitation
Red-eared Slider Project

Vancouver Island Marmot Captive Breeding Program
Wechiau Community Hippo Sanctuary
Whooping Crane Breeding Research and Breeding Program

**Toronto Zoo**
Adopt-a-Pond Wetland Conservation
African Penguins
Aqua-Links
Asian Turtle Crisis Range Country Conservation
Atlantic Salmon Reintroduction Program
Black-footed Ferret Recovery Program
Blanchard’s Cricket Frog - Genetic Assessment and Field Monitoring
Blanding’s Turtle
Butterfly Conservation Initiative
Conservation of Urban Amphibians and Reptiles
COTERC
Distribution and Population Monitoring of Malayan Tapir
Establishment and Characterization of Cell Cultures from Freshwater Fishes

**Canadian Conservation Projects**
- **The Calgary Zoo, Botanical Garden & Prehistoric Park**
  - AZA Ape TAG Conservation Program
  - Bongo Surveillance Project-Habitat and Population Surveillance and Anti-poaching Program
  - Burrowing Owl Release
  - Northern Leopard Frog Research
  - Role of Sacred Sites in the Creation of Protected Areas
  - Sustainable Agriculture Development Society - Liberia
  - The Ecology of Black-tailed Prairie Dogs in Grassland National Park, Canada
  - The Reintroduction of Black-footed Ferrets to Grasslands National Park, Canada
| Establishment of Artificial Fertilization Techniques for Puerto Rican Crested Toad | Mexican Axolotl Conservation |
| First Nations Way of Knowing | Milk Snake Population Monitoring in Rouge Park |
| FROGWATCH Ontario | Multi-cultural Conservation Programme |
| Gamete Rescue for Genetic Management | NA Save the Rhino Campaign |
| Giant Panda Nutritional Analysis of Bamboo; Bamboo Restoration and Research In Situ | Nouabale-Ndoki Project |
| Golden Lion Tamarin | Odonate Survey |
| Great Lakes Program | Ontario Turtle Tally |
| Grevy’s Zebra Trust | Ontarion Crayfish Program |
| Healthy Waters - Healthy Wildlife Lake Stewardship | Oregon Spotted Frog |
| International Elephant Foundation - Waterways & Dura Recovery Project | Panama Frog Rescue Program (Invert Production) |
| Karner Blue Recovery Group | Polar Bear Biodiversity Studies |
| Komodo Dragon SSP Field Conservation | Prevalence of Avian Bornavirus Infection in Wild Waterfowl in Southern Ontario and Susceptibility of Domestic Poultry to Experimental Infection with Avian Bornavirus |
| Lewa Veterinary Conservancy and Vet Program | Project 400 |
| Loggerhead Shrike | Project Punde Kundo (Red Panda) |
| Madagascar Field Study | Project Seahorse |
| Malayan Tapir | Przewalski’s Horse |
| Massasauga Rattlesnake | Puerto Rican Crested Toad |
| Mbeli Bai Gorilla Study | Pygmy Hippo and Manatee Conservation in Ivory Coast |
| | Recovery of Canadian/Other Amphibians and Reptiles |
| | Response to Global Amphibian Decline |
| | Snow Leopard In Situ Conservation |
| | Species at Risk Nest Protection |
| | Species at Risk Road Injury Recovery and Rehabilitation |
| | Spider Tortoise |
| | Sulawesi Wildlife Crime Unit - Babirusa |
| | Turtle Mitigation |
| | Trumpeter Swan |
| | Turtle Island Conservation |
| | Turtle Species at Risk |
| | Urban Turtle Initiative |
| | Urinary Reproductive Hormone Levels in Female Chinchillas |
| | Vancouver Island Marmot Recovery Program |
| | Wild Clouded Leopard Conservation in Thailand |
| | Wood Bison Research |
| | Wyoming Toad SSP Disease Screening/Population Monitoring |
**Vancouver Aquarium**
**Marine Science Centre**
BC Cetacean Sightings Network
British Columbia Northern Leopard Frog Recovery Project
Dolphin Echolocation and Net Avoidance
Field Study of Demography, Population Status and Natural History of British Columbian and Alaskan Killer Whales
Fur Seal and Sea Lion Projects
Monitor Glass Sponge Reefs
Monitor Lingcod Spawn Demography
Monitor Spot Prawn Nurseries
Oregon Spotted Frog Recovery Project
Pacific Ocean Shelf Tracking
Recovery of Rockfish in Rockfish Conservation Areas
Rockfish Winter Hiding

**Zoo de Granby**
Amur Leopard Conservation
Conservation and rehabilitation of Puerto Rican Crested Toads (*Peltophryne lemur*)

**HONG KONG**

**Ocean Park Corporation**
2011 Hunchun Amur Tiger Festival
An Ecological Study of Horseshoe Crab Spawning and Nursery Beach Habitat

Conservation of African Elephants
Conservation of Southern Flying Squirrel (*Glaucomys volans*) in Quebec
Enhancing the Conservation of the Geoffroy’s Pied Colobus Monkey (*Colobus vellerosus*) in Brong-Ahafo Region, Ghana
Follow-up on Egg Laying and the Use of Pike River by the Spiny Softshell Turtle (*Apalone spinifera*)
Inventory and enhancement of the natural habitat on Saint-Quentin Island (Trois-Rivières, Quebec)
Program Carbone boréal de l’Université du Québec à Chicoutimi, (Québec)
Snow Leopard Enterprise Expansion

A Future for Wild Chinese Giant Salamanders: Piloting Recommendations from the International Conservation Workshop for the Chinese Giant Salamander (ICWCGS)
An Investigation of the Ecological and Behavioural Constraints on the Recovery of the World’s Rarest Ape, the Hainan Gibbon (*Nomascus hainanus*): A Conservation Case Study
Assessing the Abundance, Movement Patterns and Fishery Interactions of Indo-Pacific Humpback Dolphins in the Coastal Waters of Bangladesh
Assessment of the Irrawaddy Dolphin Population and Its Habitat in Western Negros and Documentation of Other Occurrences in the Visayas and Mindanao
Bamboo and Vegetation Recovery of Giant Panda Habitat after Wenchuan Earthquake
Baseline Survey of Red Panda Distribution, Abundance, and Population Status in the Eastern Himalaya of India
Building Capacity to Save Asia’s Threatened Wildlife and Habitats
Cambodian Crocodile Conservation Programme: Ensuring the Future of the Critically Endangered Siamese Crocodile in the Wild

Capacity Building to Save Asian Horseshoe Crabs: An International Workshop on the Science and Conservation of Asian Horseshoe Crabs

Changes in Population Size, Social Organization and Residence Patterns of Sousa chinensis in Zhanjiang Waters

Characterizing Organochlorine Pesticides Exposure to the Critically Endangered Eastern Taiwan Strait Indo-Pacific Humpback Dolphins (Sousa chinensis)

Coastal Marine Mammals along the Eastern Gulf of Thailand

Communities, Students and Conservationists; Protecting Crocodiles Together

Community Education Sponsorship Programme

Conservation Capacity Training and Evaluation for Educators in China

Conservation of Blue-crowned Laughing Thrush Garrulax courtoisi in Wuyuan, Jiangxi Province

Conservation of Endangered Primates in Lao PDR

Conservation of the Yellow-crested Cockatoo

Conserving the Largest Salmon in the World: Convening Species Experts and Raising Awareness of Current and Future Threats to Sichuan Taimen (Hucho Bleekeri) and Related Species

Conserving the World's Largest Amphibian: Reintroduction of the Chinese Giant Salamander into the Wild

Developing Release Protocols for Trade-Confiscated Sunda Pangolins (Manis Javanica) through a Monitored Release in Cat Tien National Park, Vietnam

Discovering Amphibian Diversity and Building Conservation Capacity in Vietnam

Distribution, Ecology and Conservation of Cetaceans around the Langkawi Archipelago, with a Special Reference to Indo-Pacific Humpback Dolphins, Sousa chinensis

DNA Bank for Sousa chinensis in Asian Waters: a Preliminary Approach of Specimen Banking

East Kalimantan Cetacean Conservation Project 2011-2012. Conservation and Diversity of Cetaceans within a New Potential MPA

EDGE Coral Reefs: Building Local Capacity for Coral Reef Conservation

Effects of Forest Loss and Degradation on Lowland Amphibians of Hong Kong, Singapore, and Thailand

Empowering Local Community to Conserve the Critically Endangered Chinese Crested Tern in Zhejiang Province, China

Estimating Group Density of Nepalese Assamese Macaque (Macaca assamensis)'Nepal Population' using Multiple Covariate Distance Sampling (MCDS) in Lower Kanchenjungha Area (LKA), Eastern Nepal

Factors of Establishing Ecological Corridor for Giant Panda

Feeding Ecology and Habitat Choice of Sichuan Snub-nosed Monkey (Rhinopithecus roxellana) in Tangjiahe Nature Reserve, China and Corresponding Implications for Conservation

Female Mate Choice in Giant Panda (Ailuropoda melanoleuca)

Giant Panda Adaptability to Natural Secondary Forest and Coniferous Forest

Guangdong Reef Check Workshop
How to Reintroduce a Crocodile? Assessing the Effectiveness of Different Release Strategies for the Philippine Crocodile

Human Orangutan Conflict Response Unit (HOCRU)

Identifying Priority Areas for Conservation of Saola (Pseudoryx nghetinhensis) using Local Ecological Knowledge

Impact of Sea-Level Rise on Protection and Management of Coastal Mangrove Wetland

Increasing the Sustainability of Freshwater Protected Areas for the Critically Endangered Irrawaddy Dolphin in the Mahakam River, East Kalimantan, Indonesia

Information and Investigative Service for Illegally Traded Wildlife in Guangzhou

Initiatives for Establishing a Stranding Network for the Endangered Yangtze Finless Porpoise

Investigating the Conservation Status of the Indo-Pacific Humpback Dolphin and Orcaella sp. in Papua New Guinea – Potentially Depleted Populations of Unknown Taxonomic Status

Marine Dolphins Conservation through Community Education and Capacity Building

Marine Mammal Stranding Response in Hong Kong

Monkey Contraception Programme in Hong Kong

Population Dynamics Study of Chinese White Dolphin in the Pearl River Estuary: Data Collection


Population Survey of Komodo Dragons and Sustainable Development on the Island of Flores, Southeast Indonesia

Recovery of Coral Reef Habitats in Community-Managed Reserves

Rehabilitation, Reintroduction and Conservation Planning of Confiscated Javan Slow Loris

Reintroduction Experiment of Captive-bred Red-necked Pond Turtle (Mauremys nigricans), a Highly Threatened Freshwater Turtle Species Endemic to South China

Seahorse Survey and Reef Check in Hong Kong

South-East Asian Training Workshop in Marine Mammal Research Techniques: Comprehensive Approach to Capture-Recapture Models using 'Mark' and Other Software for Datasets of Individually Identifiable Animals

Survey on Porpoise Bycatch by Fisheries in Poyang Lake, China

Tackling Illegal Wildlife Trade in Guangdong, China through Community

The Investigation on the Current Status of the Wild Population and the Conservation of the Habitats of Cuora aurocapitata

The Population Ecology and Genetic Diversity of the Endangered Tarim River System Endemic Fish Schizo

Training the Next Generation: Tortoise and Freshwater Field Skill Training Course and Student Research Projects in Vietnam

University Student Sponsorship Programme (USSP)

Unraveling the Blue: Determining the Relationship between Blue Whales and Oceanic Processes off Southern Sri Lanka
Whale Shark and Marine Mammals in the Northern Bohol Sea, Philippines: Status Assessment and Conservation

MEXICO

Patronato del Parque Zoologico de Leon
The Zoque Jungle of Mexico

UNITED STATES

ALASKA

Alaska Sealife Center
Alaska Region Stranding Network Annual Meetings and Training

Alaska SeaLife Center
Cetacean Research Program

Alaska SeaLife Center
Marine Mammal Research Program 2009-2013

Basic Operations and Medical Care of Rehabilitation Patients

Captive Study of Radio Transmitter Effects on Wintering Long-Tailed Ducks

Comparative Study of the Metabolic Effects of Radio-transmitter Attachment Methods on Wintering Steller’s Eiders

COSEE Alaska: People in a Changing Climate

Decision Support Model for Steller’s Eider Reintroduction

Development of a Cetacean Tagging Best Practices Guidelines Document

Evaluating Injury to Harlequin Ducks (Histrionicus histrionicus) Caused by Hydrocarbon Exposure in Prince William Sound Using Species-specific Cell Lines

Improving Attachments of Remotely-Deployed Dorsal Fin-Mounted Tags: Tissue Structure, Hydrodynamics, In Situ Performance, and Tagged-animal Follow-up

Marine Invasive Species Program

Marine Invasive Species Consistent Messaging

Marine Debris Investigation and Outreach

Marine Mammal De-Oiling & Husbandry Workshop

Marine Wildlife Capture & Rehabilitation Services

Seabirds and Invasive Rats Exhibit

Monitoring for Marine Invasive Species

Ocean Alaska Science and Learning Center

Pacific Walrus Haulout Attendance and Disturbance

Pharmacokinetic Studies of Orally Administered Cefpodoxime Proxetil in Alcids

Remote Release Device for Marine Mammal Electronic Tags

Response and Post-Release Monitoring of Stranded Marine Mammals in Alaska 2010

Resurrection Bay Salmon Restoration, Enhancement and Research

Stranded Marine Mammals as Indicators of Ocean Health 2008

Studying Diets in Threatened Eiders Using Stable Carbon Isotopes of Specific Fatty Acids: Validation of a New Technique with Controlled Feeding Experiments

Eider Research and Conservation Program


Thermoregulation in Free-Living Antarctic Seals: The Missing Link in Effective Ecological Modeling
<table>
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<th>State</th>
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<td>ALABAMA</td>
<td>Birmingham Zoo&lt;br&gt;Dian Fossey Gorilla Fund International&lt;br&gt;The Orangutan Conservancy&lt;br&gt;USFWS Great Lakes Piping Plover Project</td>
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Continuing to Resolve Conflict through Communication: Using DVD Shows to Help Reduce Human-carnivore Conflict around Ruaha National Park, Tanzania

Determining Biological Factors that Influence Mate Choice in the Endangered Black-footed Ferret

Eco-Ethological Observations of Wild Habituated Orang-Utans that are found at the KOCP Intensive Study Area, Lot 2 of the Lower Kinabatangan Wildlife Sanctuary

Hornbill Nest Adoption

Hornbill Research and Conservation: Nest Adoption Project and Budo Hornbill Conservation & Education Center Hornbill Population Survey Equipment and Education Program

Improving the Conservation Status of the Endangered African Wild Dog in the Zimbabwean Part of the Greater Limpopo Transfrontier Conservation Area

In Situ Conservation of the Greater Bamboo Lemur (Prolemur simus) Using Non-Invasive Genetic Techniques

Jordan Phoenix Zoo METI Project for Preservation of the Arabian Oryx

Komodo Dragon Conservation SSP

Las Cienega Watershed Partnership

Marianas Aviculture Conservation Project

Masked Bobwhite Quail Species Recovery Plan

Mexican Wolf Recovery in US and Mexico/Regional Collaboration

Mount Graham Red Squirrel Propagation and Release Program

Narrow-headed Garter Snake (Thamnopsis rufipunctatus) Propagation for Release

National Park System Project

Native Fish Species Reintroduction-Desert Pupfish

Native Fish Species Reintroduction-Gila Topminnow

Native Invertebrates Species Husbandry & Release Program

Northern Jaguar project

Philippine Biodiversity Conservation Programme

Population survey of cotton-top tamarins

Project Title Arizona Game and Fish Wildlife Corridors and Connectivity, County by County (4) to Date

Providing an Alternative to Bushmeat in the eastern DRC: Development and Implementation of a Rabbit Husbandry Workshop for a Rabbit Cooperative Managed by Women in the Local Community

Santa Rita & Chiricahua Mountain Land Management Project

Saving the Orangutan of Indonesian Borneo: Building New Relationships between Local Populations and the Forest at the Policy Level, on the Ground, and in the Hearts and Minds of the Bornean People

Sonoran Pronghorn Recovery Team
Support of Ongoing Training for Local Staff in Sumatran Elephant Conservation

Turtle Survival Alliance

Western Governors Association Climate and Wildlife Corridor and Connectivity Projects

**Reid Park Zoo**
Fin Foundation

Polar Bears International

Rain Forest Parking Meter

Ruby Star Center for Biological Diversity

IUCN/SSC Tapir Specialist Group

Tarangire Elephant Project

Trees for You and Me

**ARKANSAS**

**Little Rock Zoo**
Appalachian Bear Center

Arkansas Natural Heritage Commission

AZA’s Conservation Endowment Fund (CEF)

Bowling for Rhinos

Cheetah Conservation Fund (CCF)

Dian Fossey Gorilla Fund International

Goualougo Triangle Ape Project: Securing the Future of Gorillas and Chimpanzees in a Changing Climate

International Bear Association

International Elephant Foundation

IUCN/SSC Conservation Breeding Specialist Group (CBSG)

Kibale Community Fuel Wood Project

Madagascar Fauna Group

Partners in Conservation

Rainforest Alliance

South African Foundation for the Conservation of Coastal Birds (SANCOBB)

The Clouded Leopard Project

Zoo Conservation Outreach Group (ZCOG)

**CALIFORNIA**

**Aquarium of the Bay**

*Undaria* Removal at Fisherman’s Wharf in San Francisco, CA

The Bay Institute of San Francisco

**Aquarium of the Pacific**

Abalone Surveys with California Department of Fish and Game

Evaluation of RNA Extraction Methods and its Applicability for Wildlife Species

Kelp Forest Monitoring with Santa Monica Baykeepers

Kelp Restoration Project

Monitoring Sea Turtle Presence and Activity within Alamitos Bay Channel and the San Gabriel River

Pink and Green Abalone Translocation Studies

White Abalone Recruitment Study

**Birch Aquarium at Scripps Inst. of Oceanography**

Capacity Building and Specialty Training - Multiple Marine Conservation Projects

**Cabrillo Marine Aquarium**

Biannual Survey of Intertidal Marine Life at Point Fermin Marine Life Refuge, Los Angeles County, CA

Cabrillo Salt Marsh Survey

California Spiny Lobster Captive Rearing

Chrysaora Sea Jelly Farming

Copepod Aquaculture
Decompression of Collected Cowcod
Grunion Gamete Cryopreservation
Grunion Aquaculture
Grunion Greeters
Garibaldi Aquaculture, Territorial Behavior, and Conservation
Inner Cabrillo Beach Survey
Moon Jelly Genetics and Early Nervous System Evolution
Pacific Sea Horse Husbandry and Development
Peninsula Shorewatch
Red Abalone Larval Settlement
Red Rock Shrimp Aquaculture
Rock Crab Development
Rotifer Aquaculture Sea Jelly Movement Mechanics
Weekly Bird Survey at Manmade Salt Marsh at Cabrillo Beach, Los Angeles County, CA
White Abalone Husbandry and Conservation

CuriOdyssey
Coyote Point Beach Clean Up
Pacific Tree Frog (Hyla regilla) Garden Habitat Project

Fresno Chaffee Zoo
Bolivian Amphibian Initiative
Community-Based Grevy’s Zebra Conservation in Northern Kenya
Conserving Roatan’s Spiny Tailed Iguanas through Research, Outreach and Education
Genetic Analysis to Inform Captive Breeding Recommendations (Jamaican Iguana)
Shielding from Extinction the World’s Most Endangered Xenarthran: The Pygmy Sloth of Escudo de Veraguas Island
The Search for Sex Linked Genes in Cryptobranchid Salamanders Genome-Wild Gene Discovery and Marker Development
When Endangered Species Collide: Impact of jaguars, Land Use Patterns & Habitat-Competition Interactions on the Distribution and Abundance of the Tagua

Happy Hollow Zoo
Advance Force via Wildlife Direct
Heart of the Congo
Jaguar Conservation

Return the Call of the Wild Cell Phone Recycle Program
SaveNature.org - Conservation Meter

Have Trunk Will Travel, Inc.
International Elephant Foundation

Living Desert
Desert Pupfish Ex Situ Refugia Management
Desert Tortoise Conservation Education Program
Endangered Southwestern Gray Wolf Distinct Population Segment Recovery Planning
Grevy’s Zebra Trust
Mecca Aster Propagation and Habitat Restoration Project
Peninsular Pronghorn Recovery Project
Sahara Conservation Fund Termit Carnivore Project
Urban Bee Survey
Yucatan Jaguar Project

Los Angeles Zoo and Botanical Gardens
Abundance, Population Density and Genetic Diversity of the Red Uakari (Cacajao calvus) in the Peruvian Amazon
Asian Rhino Conservation
Asian Vulture Conservation
A Trade Study of the Serow in Southeast Asia
Black-winged Starling Conservation in Indonesia
Bush Meat Education at Limbe Wildlife Center
California Condor Recovery Project: Rear and Prepare for Release to the Wild
Caribbean Flamingo Conservation
Comparing Monitoring Methods to Infer the Conservation Status of the Komodo Dragon Population
Conserving the World's Largest Amphibian
Drill Conservation on the Island of Bioko
Drill Rehabilitation and Breeding Center
Finding and Providing Appropriate Conditions Under which to Hold the Endangered Mountain Yellow-legged Frog
Genetic Analysis of Orangutan DNA to Determine Subspecific Diversity
Harpy Eagle Conservation and Research
Human Elephant Conflict in Cambodia
Javan Warty Pig Recovery Project
Madagascar Fauna Group
Minimizing the Conflict between Asian Elephants and Local Villagers
Okapi Conservation Project
Pacarana Conservation Project
Peninsular Pronghorn Recovery Project
Proyecto Tagua-Chacoan Peccary Conservation Project
Sahara Conservation Fund
Scotia Endangered Mammal Recovery Project
Sonoran Pronghorn Recovery Project
Steller's Sea Eagle Population Research
Turtle Alliance
Yellow-footed Rock Wallaby Reintroduction
Monterey Bay Aquarium
Atlantic Bluefin Tuna
Movements, Distribution and Husbandry Requirements of Large Elasmobranch Fishes of Kaneohe Bay, Hawaii
Natural History of Mobulid Rays in the Gulf of California
Ocean Sunfish Research
Pacific Bluefin Tuna
Policy Work
Sea Otter Research and Conservation
Sevengill Shark Research
Shorebird and Seabird Rehabilitation
Sustainable Seafood Initiative
Validation of Thermography to Assess Body Temperature and Waterproofing of Captive and Rehabilitated Seabirds
White Shark Research
Oakland Zoo
Africa Matters
Amboseli Elephant Research
American Bird Conservancy
Animals Asia
ARCAS
Arroyo Viejo Creek Restoration Project (On Site)
Bay Area Puma Project - Felidae Conservation Fund
Bornean Sun Bear Conservation Center
Budongo Snare Removal Project
Bushmeat Crisis Taskforce
Butterfly Conservation Initiative
Cheetah Conservation Fund
Giraffe Conservation Foundation and Rothchild’s Giraffe Project
Hornbill Nest Project
Keystone Conservation
Kibale Community Fuel Wood Project
Lubee Bat Conservancy
Mountain Gorilla Vet Project
Mountain Lion Foundation
Namibian Elephant Research (Utopia Scientific)
Pan African Sanctuary Alliance (PASA)
Project Golden Frog
Project Tamarin
Save the Elephants
Savenature.Org (Parking Meter Collection)
Saving Wild Tigers
The Aras Project (Formerly Amigos de Las Aves)
The Elephants of Tarangire
Togal Bat Hospital
Uganda Predator Project
Ventana Wildlife Society Western Pond Turtle Headstart Program (On Site)
Women’s Earth Alliance
Sacramento Zoo
Amphibian Ark
Ape TAG Conservation Initiative
Assessment of Status of Great Hornbill in Chitwan National Park Nepal
Cassowary Extinction Emergency
Conservation of Bat species in South East Asia
Hornbill Research Foundation
International Bird Rescue
IUCN/SSC Conservation Breeding Specialist Group (CBSG)
Mabula Ground Hornbill Conservation Project
Madagascar Fauna Group
Riparian Brush Rabbit Recovery Program
Sahara Conservation Fund
Snow Leopard Trust
Tana River Primate Conservation
Volta Water Project Impact Study
Zoo Conservation Outreach Group (ZCOG)
Safari West
Grevy Zebra Trust
Mabula Ground Hornbill Project
Project Survival
Save the Elephants
San Diego Zoo
Amphibian Veterinary Outreach Program
An Adaptive Management Approach to Recovering Burrowing Owl Populations and Restoring a Grassland Ecosystem
Andean Bear Conservation Research, Building Capacity in Perú
Andean Condor Recovery in Columbia, South America
Anegada Iguana Project
Aruba Island Rattlesnake Conservation Efforts
Ape TAG Conservation initiative
Barcoding for Species Conservation
Behavior, Ecology and Conservation of Asian Leaf-eating Monkeys
Behavioral Associations in Old World Monkeys: An Aid to Captive Management

Bonobo Congo Biodiversity Initiative

Cactus Scrub Habitat Enhancement and Cactus Wren Monitoring

California Condor West Nile Virus Vaccination Study

California Least Tern and Western Snowy Plover Conservation Program

Captive Breeding and Reintroduction of the San Clemente Loggerhead Shrike

Cassowary Recovery Efforts

Central Africa Program

Chacoan Peccary Project – Paraguay

Chinese Dhole Recovery

Coastal Sage Scrub Biodiversity Monitoring at the Safari Park

Conservation Breeding of the Giant Panda

IUCN/SSC Conservation Breeding Specialist Group (CBSG)

Conservation and Ecology of Wild Giant Panda Populations

Conservation Partnerships: Bicultural Conservation in S. California

Cuc Phong Delacour’s Langur Release

Desert Tortoise Conservation Center

Development of Techniques for Reproductive Assessment of Captive and Wild Brown Kiwi

Effects of Wind Turbines on Golden Eagles and Condors in Northern Baja California, Mexico

Endangered Primate Rescue Center, Cuc Phuong National Park, Vietnam

Enhancing California Condor Genetic Management

Feeding Ecology of Douc Langurs at Son Tra Nature Reserve, Vietnam

Gelada Ecology and Conservation

Gharial Conservation Fund

Grevy’s Zebra Trust

Hawaii Endangered Bird Conservation Program

Hornbill Research Foundation - Hornbill Adopt A Nest Program, Thailand

IndoChinese Langur Conservation

International Elephant Foundation

International Rhino Foundation

Investigating the Role of Disease in Declining Thick-Billed Parrot Populations in Northern Mexico

Jaguar Costa Rica Corridor Research

Komodo Conservation Fund

Laparoscopic Vasectomy and Anesthesia in Free-Ranging African Elephants

Light-Footed Clapper Rail Reintroduction Program

Madagascar Fauna Group

Management of the Cocha Cashu Biological Station in Manu, Peru

Molecular Conservation Genetics: Development and Application to Management of Captive and Wild Populations

Mountain Yellow-legged Frog Recovery Program

Okapi Epulu Project

Okapi SSP Consortium

Pandrillus Drill Rehabilitation and Breeding Center, Nigeria
Pandrillus Foundation
Peninsular Pronghorn Recovery Program
Polar Bear Conservation: Research and Educational Outreach
Population Management for Caribbean Rock Iguana SSP Recovery Programs
Population Health and Genetics of Black-footed Cats and Infectious Disease Prevalence in Sympatric Carnivores
Preserving the Endangered Drill In Situ: Utilizing Genetic Tools for Ecological and Conservation Assessments
Purple-faced Langur Conservation
Recovery of the California Condor
Red-necked Ostrich Recovery
Red Panda Network
Rock Iguana Breeding Program
Sahara Conservation Fund
Saiga Conservation Fund
San Diego Zoo - Palm Conservation initiative
Seeds of Success
Southern Africa Elephant Conservation Program
Steller's Sea Eagle Field Project
Swaziland African Elephant Parks Support
The Regional Dynamics of Insect-transmitted Diseases
Translocation Biology of Endangered Heteromyids in Southern California
Tree Kangaroo Conservation Program
Turks and Caicos Boa Project
Turks and Caicos Iguana Project
Turtle Survival Alliance
Using Genomic Analyses to Ensure Sustainability of Global Elephant Populations
West Gate Community Conservancy, Northern Rangelands Trust, Kenya
White-bellied Heron Reintroduction
Wildlands Network
Wood Bison Reintroduction in Alaska
ZSSD Koala Management, Education and Conservation Program
San Francisco Zoological Gardens
Conservation Genetics and Evolution of the Snow Leopard
Conservation Strategy Fund
Dian Fossey Gorilla Fund International
Earthwatch Institute
IUCN/SSC
Lake Merced Restoration and Conservation
Lakipia Predator Project
Madagascar Fauna Group
Mountain Yellow Legged Frog
Sahara Conservation Fund
San Francisco Garter Snake Project
Snow Leopard Conservancy
Western Pond Turtle Sex Determination and Headstarting Studies
Wildlife Health Network
World Parrot Trust
Santa Ana Zoo
Veterinary Support to the La Marina Wildlife Rescue Center, Costa Rica
Western Pond Turtle Genetic Structure & Diversity in Southern California
Santa Barbara Zoological Gardens
Amazon Conservation Team
Amphibians of the Los Padres National Forest

California Condor Conservation Program

Channel Island Fox Conservation Program

Coal Oil Point Habitat Restoration

International Elephant Foundation

Santa Barbara Zoo Wetland Margin Enhancement Project

Zoo Conservation Outreach Group (ZCOG)

SeaWorld San Diego
2011 Community-based Conservation Education to Improve Gray Whale Watching Practices in Magdalena Bay, Baja California Sur, Mexico

Associations between Avian Malaria, MHC Genes Diversity and Population Structure in Humboldt Penguin (Spheniscus humboldti) and Magellanic Penguin (S. magellanicus)

Cetacean Response for Investigation

Continuing Development of a Philippine Marine Mammal Stranding Network

Defying Philippine Eagle extinction: What are the Spatial Requirements of the Critically Endangered Philippine Eagle?

Derelict Fishing Net Removal in Puget Sound

Eastern Pacific Gray Whales and Climate Change

Hubbs-SeaWorld Research Institute Investigations in Pathology of Marine Mammals and Birds

Light-footed Clapper Rail Marine Mammal Clinical Pathology

Marine Mammal Viral Investigation

Mexican Wolf Fund

Pacific Walrus Haulout Attendance and Disturbance

Pinniped Cognition

Pinniped Rescue and Rehabilitation

Polar Bears International

SANCCOB African Penguin and Seabird Rehabilitation

Sea Turtle Rescue and Rehabilitation

The Beaver Solution

Wildlife Rehabilitation & Conservation

Sequoia Park Zoo
Center for Ecosystem Survival's Rainforest Parking Meter

Chimp Cents

Steinhart Aquarium
Amphibian Rescue and Conservation in Panama

California Academy of Sciences Philippines Biodiversity Expedition

Coral and Mangrove Conservation: Florida

Deformed Beak Syndrome, Alaskan Wildlife

SECORE (SExual COral REproduction)

Southern African Foundation for the Conservation of Coastal Birds (SANCCOB)

COLORADO

Cheyenne Mountain Zoo
Amur Leopard/Tiger Field Support

African Elephant Field Support

African Penguin Conservation

Andean Bear Conservation in Ecuador

Black-footed Ferret Recovery

Endangered Colorado Butterflies

Endangered Snow Leopards in Central Asia

Great Ape TAG Goualougo Triangle Ape Project
Palm Oil Crisis and Orangutan Conservation
Panama Amphibian Rescue and Conservation
Silky Sifakas in Peril
The Epulu Okapi Project
Wild African Vulture Conservation
Wyoming Toad Recovery

**Denver Zoological Gardens**
Amphibian Ark
Assessing Jaguar Abundance in Sonora, Mexico
Breeding Success of Cinereous Vultures in Ikh Nart, Mongolia
Brown Hyaena Conservation in the Makgadikgadi, Botswana
Central Kalahari Lion Conservation Project in Botswana
Cheetah Conservation Fund
Cheetahs of the Kalahari in the Central Kalahari Game Reserve
Citizen Science Pika Monitoring Program in Colorado’s Front Range
Clouded Leopard Conservation in Borneo

Comparative Ecology of African Wild Dogs in the Okavango Delta and the Central Kalahari
Conservation Assurance Population of the Andean Condor, Panama Golden Frog and Boreal Toad
Conservation Education and Outreach in Botswana
Conservation Genetics of Grevy’s Zebra in Kenya
Conservation of the Greater-One Horned Rhino in Nepal
Conservation of the Lesser Flamingo in the Great Rift Valley Lakes, Kenya
Determinants of Grassland Dynamics in Tibetan Highlands in the Qinghai Alpine Grasslands of China
Developing a Model for Local Management of Protected Areas in Mongolia: Ikh Nart Nature Reserve as a Case Study
Dian Fossey Gorilla Fund International
Ecology and Conservation of Argali Sheep
Ecology and Conservation of Wild Bactrian Camels in Mongolia

Ecology and Social Behavior of White-Tailed Prairie Dogs
Effects of Bison on Plant and Animal Communities in the Southern Great Plains
Elephant Surveys and Training in Taman Negara National Park, Malaysia
Genetic Testing of Bison on Wind River Ranch
Great Lakes Piping Plover Project in Northern Michigan
Grevy’s Zebra Conservation Education in Kenya
Grevy’s Zebra Population Dynamics in Kenya
Hirola Antelope Conservation in Kenya
IdeaWild
Ikh Nart is our Future Women’s Cooperative in Mongolia
Influence of Prey Distribution on Lion Movements in Kenya
International Elephant Foundation
International Rhino Foundation
Lake Titicaca Frog Conservation
Lappet-faced Vulture Feasibility Assessment Study in Botswana
Lesser Kestrel Breeding Ecology in Mongolia
Living with Lions – Kilimanjaro Lion Project
Malagasy Fish Conservation
Mandrill Enhancement in Gabon
Marmots as Keystone Species Study in Mongolia
Mongolian Nomadic Conservation Trunk Program
Movements of Grevy Zebras in Kenya
Pallas Coluber Snake Ecology in Ikh Nart Nature Reserve
Providing Enrichment to Orangutans in Rehabilitation Centers in Borneo
Raising Elephant Awareness among the Local Communities in and around Vinh Cuu Nature Reserve, Vietnam
Rothschild’s Giraffe Ecology and Conservation in Kenya
Surgical Contraception as an Alternative to Culling in Free-ranging African Elephants
The Ecology and Conservation of Small Carnivores in the Semi-Desert Steppes of Mongolia
The Luby-Jenkins School Pairing Program
Undergraduate Kenyan Conservation Scholarship
Witness for Wildlife at Herman Gulch Wildlife Corridor in Colorado through Patagonia’s Freedom to Roam Campaign

**CONNECTICUT**

**Connecticut’s Beardsley Zoo**
Connecticut Amphibian Monitoring Program
Tapir Symposium
Trout in the Classroom
ZCOG Turtle Project

**Mystic Aquarium & Institute for Exploration**
Amphibian Monitoring
Coastal Marine Debris Removal Events

Health Assessment of Belugas in the Chukchi Sea and Bristol Bay
Horseshoe Crab Monitoring
Investigation of the Physiological, Behavioral and Vocal Responses of Beluga Whales to Stress and Implications for Impacts of Climate Change and Oil and Gas Exploration on Health

Long Island Sound Coastal Field Studies
Rescue and Rehabilitation of Stranded Marine Mammals and Sea Turtles along the Connecticut and Rhode Island Shorelines

**DELAWARE**

**Brandywine Zoo**
Andean Condor Conservation Program
Zoo Conservation Outreach Group (ZCOG)
Pollinator Partnership
PAAZAB
IUCN/SSC Conservation Breeding Specialist Group (CBSG)
Smithsonian Conservation Biology Institute Clouded Leopard Facility
The Lion Tamarins of Brazil Fund
IMPLEMENTATION OF A NEW MONITORING PROGRAM FOR THE PUERTO RICAN CRESTED TOAD

By Diane Barber

Although a successful reintroduction program has been managed by the Association of Zoos and Aquarium’s (AZA) Puerto Rican Crested Toad Species Survival Plan® (PRCT SSP), the United States Fish and Wildlife Service (USFWS) and the Puerto Rican Department of Natural and Environmental Resources (PRDNER) for the Puerto Rican crested toad (Peltophryne lemur) for over 25 years, and has resulted in the establishment of three new populations on the island, little systematic monitoring has occurred due to a shortage of resources and personnel, the reclusive behavior of the toad and challenges posed by the cavernous karst habitat in which it lives.

In 2008, recovery group partners began to intensify island-wide monitoring efforts with the support of AZA zoos and the AZA’s Conservation Endowment Fund (CEF). These funds were specifically used to develop stronger in-situ monitoring techniques and standardized monitoring plans at all three of our reintroduction sites and the last known wild population site in southern Puerto Rico. This included the purchase of monitoring equipment such as Passive Integrated Transponder (PIT) tags and readers, standard programmable recording devices and field trials of a new “real-time” audio recording system with alert features. CEF funds were also used to employ field technicians at two ponds to determine the presence or absence of P. lemur at the northern population’s last known location.

Goal #1: Develop an in-situ monitoring team through personnel training and equipment purchase and determine distribution patterns of P. lemur across four study sites: Tamarindo (location of last remaining wild population) and three reintroduction sites: Arecibo, Manglillo and Gabia.

Team members in Puerto Rico were trained to properly handle toads, insert Passive Integrated Transponder (PIT) tags and collect pertinent data at all sites. Programmable PIT tag equipment (Nanotec®) was distributed to partners to individually mark and track toads. This technology is much smaller than the standard microchips commonly used in zoos (Photo 1) and is injected in crested toads as little as 5cm for identification. Documentation of dispersal patterns is accomplished through the accumulation of mark and recapture data, GPS/GIS mapping, tracking using fluorescent powder (Photo 2), audio recordings, systematic searches and standardized data collection forms. A central database is being developed to store and share these data.

Goal #2: Determine presence/absence at historical sites and document P. lemur calling characteristics such as timing relevant to weather events and temporal patterning that are critical to determining population status and dynamics.

Through the use of programmable recording devices (Wildlife Acoustic’s Song Meters®) (Photo 3), the presence of P. lemur was confirmed in Barinas (Cienagas Pond), spring 2010. This is the first time toads have been documented in this southern area since drastic land alteration occurred in 1985. This population is now being monitored and plans are underway to manage the site while options to restore habitat are considered. Local biologist from Liga Ecologica Quebradillana, Inc., were contracted to collect data for a 25 week period in Quebradillas at two ponds where the toads were last observed in the north. A P. lemur male was recorded in the distance near one of the ponds in October 2011. This is promising, as the toads have not been seen or heard in this region since 1992. Searches for a viable population in this region continue. Archived weather data is being correlated with reproduction event data to extrapolate optimal conditions when crested toads may be gathering to reproduce, estimate average population numbers and gage “normal” fluctuations in size.

Goal #3: Continue health assessments of Puerto Rican amphibian populations.

Screening for amphibian chytrid fungus, Batrachochytrium dendrobatidis (Bd), began in 2006 to assess overall health of P. lemur populations and mitigate threats introduced via disease from other amphibians. Bd was has been confirmed in three samples. One was from an Eleutherodactylus antillensis collected from a site in Rio Encantado, a second was collected from an E. coqui at a current rein-
A third has been collected from an E. antillensis in Quebradillas. The susceptibility of P. lemur to Bd is unknown. Studies are currently underway at North Carolina State University using captive P. lemur to determine exposure tolerance to Bd. These findings will have bearing on management decisions for populations in Puerto Rico.

Goal #4: Field-test a state-of-the-art automated data recording system that can be utilized for multiple taxa in Puerto Rico.

In 2009, we started the development of a fully automated recording system that would allow biologists to respond immediately to a site when toads were calling. However our initial prototypes failed. Fortunately, a similar automated recording device was being refined by a division of the biology department (Automated Remote Biodiversity Monitoring Network, ARBIMON) at UPR-Rio Piedras. We were able use CEF funds as leverage to negotiate a contract to test ARBIMON’s fully automated recording system at our release site in El Tallonal (Photo 4). As a result of this collaboration, ARBIMON has joined the PRCT recovery team which will eventually enable us to install their systems at all current toad sites. In addition, this new technology permits us to store, analyze and share countless data with PRCT biologists and those from different disciplines. ARBIMON is interested in expanding their biodiversity monitoring network which can be deployed remotely all over the world. We are confident that other AZA institutions and researchers will find ARBIMON a useful resource to study other species of amphibians, birds, insects and mammals in the future.

Now that the framework is established, coordinated monitoring efforts for the crested toad will continue to expand well into the future. CEF funds along with support and donations from multiple AZA institutions (Audubon Zoo, Buffalo Zoo, Cleveland Metroparks Zoo, Columbus Zoo, Dallas Zoo, Denver Zoo, Detroit Zoo, Disney’s Animal Kingdom, El Paso Zoo, Fort Worth Zoo, Jacksonville Zoo, National Aquarium in Baltimore, North Carolina Zoo, Milwaukee Zoo, Omaha’s Henry Doorly Zoo, Sedgwick County Zoo, Toledo Zoo, Toronto Zoo and Zoo Miami) played a pivotal role in the development of an island-wide monitoring plan that is essential to the recovery efforts of the Puerto Rican crested toad. Furthermore, exciting new technologies deployed during this project, such as the ARBIMON system, will be used to study other species that cohabitate with the toad and can be utilized by researchers for multiple applications.

Diane Barber is the PRCT SSP Coordinator and the Curator of Ectotherms at the Fort Worth Zoo

dbarber@fortworthzoo.org

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Smithsonian National Zoological Park

Appalachian Salamander Conservation

Asian Black Bear Conservation

Assessing and Restoring Giant Panda Habitat in the Qinling Mountains

Assessing Hormones in Cheetahs Living in the Kalahari Ecosystem

Assessment of the Population and Reproductive Biology of Baird’s Tapirs in Panama

Biodiversity Monitoring and Assessment Program for the PERU LNG project

Breeding Ecology and Population Status of the Island Scrub-jay

Conservation Genetics of Hawaiian Petrels

Conservation of Dhole in Thailand

Conservation of Przewalski’s Horse

Decline of the Rusty Blackbird

Defining Optimal Habitat Attributes to Facilitate Recovery and Conservation of Endangered Island Foxes

Developing Adaptive Management for Human Elephant Conflict (HEC) across Asia

Ecology and Conservation of Asiatic Wild Dog in Thailand

Effects of Climate and Biotic Factors on Abundance, Demography, and Behavior of Forest Birds

Eld’s Deer Reintroduction Thailand

Eld’s Deer Conservation

Endocrinology of Reproduction and Stress in the Giant Panda

Global Tiger Initiative - Phase II

Grassland Restoration

Host Specialization of Avian Malaria and Shifts from Wild to Zoo Birds

Investigation of Wild Kori Bustard (Ardeotis kori) Health and Physiology in Kenya

Large Mammal Use of Forest Corridors between Giant Panda Reserves in Chingling Mountains

Male Giant Panda Reproduction: Helping to Breed through Artificial Insemination with Frozen Sperm

Mapping the Distribution of Ponds and Large Mammals in Eastern Cambodia

Modeling Effects of Climate Change on Giant Panda Habitat


Peruvian Amazon Biodiversity Monitoring, Assessment, and Conservation Program

Peruvian Andes and Marine Biodiversity Monitoring and Assessment Program

Phylogeography and Population Genetics of Seabirds

Recovery of the Endangered Black-footed Ferret

Reintroduction of Przewalski’s Horse in Xinjiang, China

Reproduction and Reintroduction of Arid Lands Antelope in Sub-Saharan Africa

Restoring Przewalski’s Horses to Kalameili Nature Reserve

Salt Marsh Sparrow Ecology and Conservation
Satellite-Tracking Asian Elephant Movements Inside and Outside a Fenced Protected Area

Southern Africa Development Community-Focused Conservation Capacity Building Program

Takin Ecology and Conservation

The Gabon Biodiversity Program

The Importance of Kinship and Sociality for Conservation Management in Asian Elephants

The Influence of Policy, Socio-Economics, and Ecology for Landscape Level Conservation: A Case Study on Asian Elephants

The Ostrich Recovery Program in Niger

The Role of Fire in Maintaining Critical Elephant Habitat in Sri Lanka

Understanding the Basic Reproductive Biology of Lions for Management and Conservation

Using Geographic Information Systems and Remote Sensing for Training Wildlife Managers

**FLORIDA**

**Brevard Zoo**
Bomassa Community Library, Republic of Congo
Butterfly Conservation Initiative (BFCI)
Butterfly Monitoring
IUCN/SSC Crocodile Specialist Group (CSG)
International Rhino Foundation
Mangrove Restoration in the Indian River Lagoon
Oyster Reef Restoration Project
Captive Propagation of the Imperiled Atala (*Eumaeus atala*) Butterfly
Club Pan Environmental Teaching Suitcase
Sea Turtle Research
Monofilament Recovery and Recycling Program (MRRP)
Cheetah Conservation Fund (CCF)
Right Whale Monitoring Program
Saving the Hornbill - Hornbill Nest Adoption
Pan African Sanctuary Alliance (PASA)
Ruaha Carnivore Project

**Busch Gardens Tampa Bay**
Blue Crane Conservation in the Karoo, South Africa
Building Community Commitment for Wildlife Conservation in the Mara
Campaign against Illegal Bush Meat Hunting for Trade: Mbam and Djerem National Park, Adamaoua Region, Cameroon
Cheetah Outreach Education Programme
Children’s Environmental Education Bush Camp (Iganyana)

Helping Australia’s Cassowary
Watamu Turtle Watch
Hutan - Hornbill Monitoring
Monitoring the Orang-utan Population in Malaw Forest Reserve
Coral Restoration Foundation
Dolphin Biology Research Institute
Perdido Key Beach Mouse Breeding Program
Securing the Future of Chimpanzees and Gorillas in a Changing Landscape
Translocation of Florida Scrub-jay Family
Conserving Chimpanzees by Integrating Cultural Values and Conservation Practices in the Albertine Rift

Continued Veterinary Interventions to Save Zimbabwe’s Black Rhinos

Ecology and Conservation of the Endangered Rothschild’s Giraffe

Education for Bonobo Conservation and Protection

Employing Indigenous Knowledge and Cultural Values to Engage Li Ethnic Groups in Conserving the Hainan Gibbon

Enhancing the Breeding of Grevy’s Zebra Population on Ol Pejeta Conservancy, Kenya

Establishing an Education Program through Langur Lectures and Conservation Clubs on Cat Ba Island, Vietnam

Feasibility Study to Recover the Hippo Pools in Queen Elizabeth Conservation Area

FOC Education Program & Rhino Watch / Rhino Walk

Human Orangutan Conflict Response Unit (HOCRU)

Improving the Conservation of the Sunda Pangolin (*Manis javanica*) in Vietnam

Improving the Conservation Status of the Endangered African Wild Dog in the Zimbabwean Part of the Greater Limpopo Transfrontier Conservation Area

Improving the Conservation of Endangered Yellow Cheeked Gibbon (*Nomascus gabriellae*) and Endangered Asiatic Elephant (*Elephas maximus*) in Vinh Cuu Nature Reserve, Vietnam

Increasing Survival and Protection of Grevy’s Zebra in Laisamis, Northern Kenya

International Elephant Foundation

Kibale Fuel Wood Project

Luangwa Valley Lion and Wild Dog Conservation Research Project

Mbeli Bai Study

Mokolodi Education Centre

N/aään ku se’s Carnivore Conservation

Namunyak Wildlife Conservation Trust

Painted Dog Anti-Poaching Units

PASA 2011 Veterinary Workshop

PASA Chimpanzee Reintroduction Project - Sierra Leone

Protecting Great Apes/Antelope Populations around Mt. Cameroon

Protection of Sumatran Tiger in Kerinci Seblat National Park, Sumatra, Indonesia

Proyecto Titi: Expanding our Educational Impact to Foster Cotton-top Tamarin Conservation in Colombia (Phase Two)

Rainforest Experience Field Trip: *In Situ* Conservation Education in Cameroon

Reintroduction of South African Cheetah

Rescue and Rehabilitation Support for Snared Wildlife in South Luangwa, Zambia

Rescue and Rehabilitation of Endangered Primates in Cameroon

Risk Factors Associated with *Mycobacterium tuberculosis* Complex Infection in Captive Elephants and Mahouts in Southern India
Ruaha Carnivore Project: Researching the Abundance and Distribution of Threatened Large Carnivores in Tanzania’s Ruaha Landscape

Save the Elephants Mobile Education and Monitoring Unit

Saving the Orangutans of Indonesian Borneo: Building New Relationships between Local Populations and the Forest at the Policy Level, on the Ground, and in the Hearts and Minds of the Bornean People

Strengthening Community Captivity to Manage Grevy’s Zebra Conservation in Kenya

Strengthening Conservation Capacity and Developing Community Based Reserves at Lingomo and Nkokolombo, Equateur Province, Democratic Republic of Congo

Sub-Saharan Lion Conservation Project

Sustainable Forest Management Planning to Promote Biodiversity Conservation, Peace-Building, Knowledge Sharing, in Protected Areas in Sierra Leone and Border with Guinea

The Ecology and Conservation of Lions: Studying the Factors Affecting the Population Dynamics within the Samburu/Buffalo Springs/Shaba Ecosystem and the Surrounding Community Areas, Northern Kenya

The Maasai Steppe Conservation Education Program: Launching the WILD Weeks Environmental Summer Camp Initiative

Central Florida Zoological Park
Carnivore Conservation Project

Center for Ecosystem Survival

Coqui Conservation Initiative

Disease Surveillance in Selected SGCN’s - Bats and Amphibians

Gopher Tortoise Council

Hornbill Research Foundation

Proyecto Coqui

Proyecto Titi

Disney’s Animal Kingdom
Aiding Sea Turtle Conservation II

Amur Tiger Conservation in Russia

Antiguan Racer Habitat Conservation Project

Archie Carr Refuge Education Program

Audubon EagleWatch

A Whale’s Journey

AZA’s Conservation Endowment Fund (CEF)

Bay Area Puma Project

Black Lion Tamarin Conservation through Research and Community Involvement

Black Rhino Conservation - Zimbabwe

Botanical Conservation Grants Program

Building Capacity of Conservation Leaders in the Democratic Republic of Congo

Cheetah Conservation and Human Impact in Kenya

Cheetah Conservation in the Kalahari

Chimpanzee Conservation Goes to School

Community-based Conservation of Snow Leopards near Mt. Everest

Community Conservation of Rothschild’s Giraffe

Conservation Education Program at North Luangwa
Community Engagement and Andean Bear Conservation in Sangay National Park, Ecuador

Community Forest Conservation in Indonesia

Community Youth Engagement for Sea Turtle Conservation

Conservation of Shorebirds including Semipalmated Sandpipers

Conservation of Siberian Cranes, Other Waterbirds and Wetland Habitats at Poyang Lake, China

Conservation of the Critically Endangered Saiga Antelope

Conservation of the West African Manatee

Conserving Critically Endangered Oceanic Sharks

Conserving the Vietnamese Pond Turtle

Conserving Zimbabwe’s Endangered Wild Dogs

Construction of a New Breeding Habitat for Guam Rails at the Sante Fe Teaching Zoo

Creating Pollinator Habitat in Agricultural Landscapes

Defending Reefs from Invasive Lionfish

Determination of Site Fidelity of Relocated Gopher Tortoises

Digger Bee Pollinator Ecology and Conservation

Disney’s Wildlife Monitoring Program

Ecology of the Mangrove Cuckoo

Emergency Protection of Black/White Rhinoceroses

Empowering Costa Rica’s Conservation Leaders

Feeding 23 Black Bear Cubs

Endangered Butterfly Habitat Conservation and Education Project

Ensuring the Future of Critically Endangered Siamese Crocodiles

Establishment of New RCW Population

Florida Scrub Jay Trail Hospital Improvements

GRACE Gorrilla Rehabilitation & Conservation Education

Great Seeds Restoration Program

Grouper Moon: Spawning Research in Cayman Islands

Guatemalan Endangered Reptile Awareness Program

Harpy Eagle Conservation in Panama

Individual Dolphins as Conservation Tools

International Elephant Foundation

Jamaican Iguana Recovery Programme

Jersey Shore Terrapin Conservation Project

Key Largo Woodrat Field Work

Key Largo Woodrat: Development of an Integrated Captive Propagation

Kibale Fuel Wood Project

LiMPETS Program

Local Ocean Trust - Watamu Turtle Watch Program

Louisiana Estuary Restoration Project

Lowland Tapir Conservation Initiative: Pantanal Tapir Program

Maasailand Lion Conservation Program

Maine Seabird Conservation and Community Volunteers

Mbeli Bai Study Club Ebobo Conservation Education

Mexico: Migratory Bats and Biologists
Migration, Ecology and Management of the Orinoco Goose in Manu National Park

Monitoring Scarlet Macaw Chicks in the Maya Biosphere Reserve

Next Generation of Reef Stewards

Nkomo School: Helping Wildlife by Helping Communities

Northern Jaguar Feline Photo Project

Northern Right Whale Monitoring Program

Nutritional Status of Nyala and Kudu

Okapi Conservation Project

Ostrich Recovery Program in Niger

Pacific Island Avifauna Health Assessment

Panama Amphibian Rescue

Parrot Conservation on Bonaire

PASA Cameroon Reintroduction Project

Pelecans Jeoparded By Fishing Line

Philippine Eagle Conservation Project

Piping Plover Project

Population Evaluation of the Critically Endangered Tuamotu Kingfisher

Producer to Plate: Sustainable Seafood & Aquaculture

Project Limulus: A Community Research Program

Promoting Human-Lion Coexistence in Niassa

Protecting Crops: Elephants and Bees Project

Protecting India's Endangered Snow Leopards

Protecting Orangutans through Education, Mapping and Monitoring

Protecting Tigers in Thailand

Proyecto Titi: Conservation of the Cotton-top Tamarin in Colombia

Reefs, Rays and Community Science

Rehabilitation of Endangered Cambodian Waterbirds

Reintroduction Program for the Ploughshare Tortoise

Release of Wild Born Mandrills

Repairs to the Research Station on Kinkazan Island, Japan

Rescue of Illegally Caught Amazon Parrots

Restoring Caribbean Coral Reefs

Restoring Grevy’s Zebra Habitat, Kenya

Restoring Habitat - Hawaiian Native Birds

Rockhopper Penguin Project

Saving Sage-Grouse through Community Adopt-A-Lek

Saving the World’s Rarest Cockatoos

Sea Turtle Index Nest Monitoring Program

Shorebird Conservation in the Bahamas

Southcentral Florida Bear Conservation

Sudan Chimpanzee Rescue

Sumatran Elephants Working for Conservation, Way Kambas, South Sumatra

Sumatran Rhino Conservation Patrols

Surviving Together - Thailand: Elephant Protection

Tchimpounga Measles Vaccination

Tour de Turtles (Sea Turtle Conservancy)
Towards Black-capped Petrel Conservation

Tracking Magellanic Penguins and Addressing Human Impacts

Trees for Pittas and People

Turtle Survival Alliance

Umbrellabird Conservation in the Chocó

Urban Oases for Migrating Songbirds

Waterways Project, Murchison Falls, Uganda

Whooping Crane Conservation Program

Whooping Crane Reintroduction Team Support

Wildlife Rehabilitation Center of Central Florida

Wood Stork Items for Disney Wilderness Preserve

**Florida Aquarium**
Caribbean Coral Propagation Facility (The Coral Farm)

Coral Restoration in the Florida Keys Using Colonies Derived from Aquacultured Fragments

Effects of Species, Capture Technique, and Environment on Acidosis among Carcharinid Sharks

Fantasy Island: A Cooperative Conservation and Education Project

Marine Mammal Stranding Network

River Otter Rescue and Rehabilitation

Sea Turtle Rehabilitation

Use of Aquacultured Acropora cervicornis Fragments for Restoration Activities

**Jacksonville Zoo and Gardens**
Air Potato (*Dioscorea bulbifera*) Round-Up

Baird’s Tapir Project

IUCN/SSC Conservation Breeding Specialist Group (CBSG)

Cross River Gorilla Conservation

Crystal River Manatee Health Assessments

Epulu Okapi Fund

Giraffe Conservation Foundation

Honey Bee Health Research

International Elephant Foundation

International Rhino Foundation

Key Largo Wood Rat Project

Lukuru Wildlife Research Project

Madagascar Fauna Group – Lemur Project

Marine Mammal Rescue Program

Migratory Whooping Crane Temporary Winter Holding Refurbishment

Puerto Rican Crested Toad Field Conservation Project

Puerto Rican Parrot Recovery Project

Range of the Jaguar and Guyana Conservation Partnership Links

Reticulated Flatwoods Salamander Project

The Bonobo and Congo Biodiversity Initiative: Preserving the Bonobo (*Pan paniscus*) in the Salonga National Park through Holistic Conservation

Tooro Botanical Gardens in Uganda

Volunteering at Suncoast Seabird Sanctuary

Wildlands Network

Wildlife Conservation Vulture Program

Yangtze Giant Softshell Turtle Breeding Program

ZCOG Giant Armadillo Project in Brazil
Lemur Conservation Foundation
Protected Area of Tampolo - Capacity Building

Lion Country Safari
International Rhino Foundation
Pelican Rehabilitation and Release
Rehabilitation of Indigenous Wildlife
Removal of Invasive Plants on Lion Country Safari Property
Study of the Accidental Introduction of the African Honey Bee

Lubee Bat Conservancy
Florida Bat Monitoring
Fruit Bat Action Plan
Rodrigues Environmental Educator Project
University of Florida Bathouse Refurbishment

Naples Zoo
AZA's Conservation Endowment Fund (CEF)
Butterfly Conservation Initiative
Florida Panther Habitat Recovery Monitoring
Mabuwaya Foundation
Madagascar Fauna Group
Plush Predators for Lions
Plush Predators for Tigers
Plush Primates for Lemurs
Rocket Stoves
Tree Planting
World Wildlife Fund

Palm Beach Zoo at Dreher Park
Carnivore Conservation in Argentina
Conservation Education and Capacity Building in Misiones Argentina
Conservation of Pygmy Hippo in Sierra Leone
Effects of Acid-Base, Electrolyte, Energy, and Cardio-Respiratory Imbalances during Capture and Confinement on Boma Adaptation in White Rhinoceros (Ceratotherium simum)
Effects of Lateral and Sternal Posture on Anesthesia and Post-Capture Health in Black Rhinoceros Hawksbill Sea Turtle Research

SeaWorld Orlando
Aquatic Bird Rescue, Rehabilitation, and Research
Ashtown Wetland Meadows. The Children's Nature Reserve
Cetacean Rescue and Rehabilitation
Conserving Franciscana Dolphins in Argentina
Florida Manatee Rescue and Rehabilitation
Macaws of the Peruvian Amazon

Research and Conservation of Endangered Sea Turtles in Venezuela
Turtle Survival Alliance
Validation and Application of Blood-based Field Test for Evaluating Tuberculosis in Lions

Santa Fe Community College Teaching Zoo
Avian Conservation Center and Center for Birds of Prey
BFREE Harpy Eagle Project
Perdido Key Beach Mouse Conservation Project
Tree Kangaroo Conservation Program
Turtle Survival Alliance

Conservation of Pygmy Hippo in Sierra Leone
Effects of Acid-Base, Electrolyte, Energy, and Cardio-Respiratory Imbalances during Capture and Confinement on Boma Adaptation in White Rhinoceros (Ceratotherium simum)
Effects of Lateral and Sternal Posture on Anesthesia and Post-Capture Health in Black Rhinoceros Hawksbill Sea Turtle Research

IUCN/SSC Conservation Breeding Specialist Group (CBSG)
Peninsular Pronghorn Recovery Program
Perdido Key Captive Breeding and Reintroduction
Magellanic Penguin Project: Tracking Winter Migration

Marine Ornamental Fish Aquaculture

Mombasa Marine Park Conservation Alliance Project

Monitoring of Endangered Right Whales in Coastal Waters of NE Florida by a Volunteer-Based Citizens Network: Science and Stewardship

Oyster Restoration in the Mosquito Lagoon

Protection and Restoration of Atlantic Puffins at Seal Island National Wildlife

Raptor Rescue & Rehabilitation for Bald Eagles

Research and Conservation of Flamingos in Priority Wetland Sites of Argentina

Restoring Native Pollinator Habitat on Florida’s Farms

Short Course in Wildlife Medicine

Spectacled Bear Altitudinal Migration and Climate Change Adaptation in the Eastern Andes of Peru

The Use of the Amazonian Manatee as a Flagship Species for the Conservation of the Lower Rio Negro Region, Brazilian Amazon

St. Augustine Alligator Farm
IUCN/SSC Crocodile Specialist Group (CSG)

Hornbill Research Foundation

Mabuwaya Foundation

WCS John T. Crocodilian Conservation

Steve Martin’s Natural Encounters, Inc.
Donated Bird Training Workshop Position to International Association of Avian Trainers and Educators Conservation Fundraising Efforts

Elephants for Africa

Ground Hornbill Project

International Rhino Foundation

Javan Rhino

Moholoholo Rehab Centre

Rare & Endangered Species Trust

Tarangire Elephant Project

The Peregrine Fund

Turtle Survival Alliance

US for Belize Foundation for Research and Environmental Education

Vulture Program

World Parrot Trust

Yellow Naped Amazon Parrots in El Salvador

Tampa’s Lowry Park Zoo
Amphibian Ark

Ecology and Conservation of the Shoebill and Cranes in the Malagarasi-Moyowosi Flood Plain Ecosystem, Tanzania

Florida Panther Recovery Plan

Hillsborough River Watershed Alliance - Frog Listening Network

Key Largo Woodrat Project

Manatee Rescue, Rehabilitation and Release

Marine Mammal Research Patrol

Okapi Conservation Project

Philippine Crocodile Relief Fund

SaveNature.Org

The Kingdom of Swaziland’s Big Game Parks

Turtle Survival Alliance

Whooping Crane
The Seas
Florida Manatee Monitoring with Sea to Shore Alliance

Health Assessments of Florida sharks

Manatee Rehabilitation Partnership (MRP)

Reducing Boat Related Manatee Deaths in Belize

Restoration through Coral Fragment Restocking and Reestablishment of Long-Spined Sea Urchin, *Diadema antillarum*, on Small Patch Reefs near Castaway Cay

Tagging of Post-Rehabilitated Juvenile Green Sea Turtles Utilizing a Prototype Satellite Telemetry Device

White Oak Conservation Center
Conservation Centers for Species Survival

Development of a Safe Field Anesthesia Protocol for the Nile Hippopotamus

Grevy’s Zebra Trust - Student Bursary Program

International Rhino Foundation

Okapi Conservation Project

Zoo Miami
112th Audubon Christmas Bird Count

Atala Reintroduction

Bat Acoustical Survey of Zoo Miami Grounds

Butterfly Survey of Pine Rockland Fragment Zoo Miami

Florida Statewide Amphibian Disease Monitoring

FrogWatch USA

Native Bat Roosting Mitigation and Enhancement

Pine Rockland Public Restoration Day

Survey and Environmental Impact of Non-native Oustalet’s Chameleon (*Furcifer oustaleti*) in South Florida

*Tillandsia* Recovery and Propagation Project

GEORGIA

**Chehaw Wild Animal Park**
AfriCat Namibia

Gopher Tortoise Survey

International Rhino Foundation

Longleaf and Wiregrass Restoration Ecology

Project Heloderma

Study of Arboreal and Ground Amphibian Species

**Georgia Aquarium**
Bottlenose Dolphin Health Assessment in Sarasota Bay, Florida

Cayman Island Sting Ray Health Assessment

Conservation of South Appalachian Freshwater Fishes

Coral Restoration in the Florida Keys

Health Survey of Endangered African Penguins

HERA - Indian River Lagoon Dolphin Health Assessment

Manta Ray Natural History Assessment

Sand Tiger Shark Health Assessment

Support for Manatee Rehabilitation, Brazil

Surveying and Monitoring of Loggerhead Sea Turtle Index Nesting Beaches

Sustainable Funding of Reef Restoration

Whale Shark Genome Project

Whale Shark Metabolomics Project

Whale Shark Population Study, Cancun, Mexico

Zoo Atlanta
Ape TAG Conservation Initiative
Chytridiomycosis and Amphibian Conservation
Flamingo Banding Project for Conservation of Three Species of Flamingos in Andes Mountains
Dian Fossey Gorilla Fund International
Giant Panda Conservation
Headstart/Relocation Program for Gopher Frogs in Georgia
Headstarting Diamondback Terrapins
Indigo Snake Restoration Project
Infectious Disease Control and Bioresource Banking for Amphibians
Lemurs Rebuilding Madagascar’s Forest
Ostrich Conservation, Niger
Project Abronia
Project Heloderma
Rediscovering the Atlantic Forest - Training Brazilian Teachers to Develop School/Community Actions to Assure Conservation of Golden Lion Tamarins in Perpetuity
Restoring Allen Cay for Shearwaters and Iguanas

Securing the Highly Threatened Tiger Habitat Connectivity in the Leuser-Ulu Masen Mega Landscape
Testimony on Behalf of the Great Ape Conservation Fund
The Bornean Wild Cat Veternary Project
Turtle Survival Alliance

HAWAII

Honolulu Zoo
Mariana Avifauna Conservation (MAC)

IDAHO

Tautphaus Park Zoo
IUCN/SSC Conservation Breeding Specialist Group (CBSG)
AZA’s Conservation Endowment Fund (CEF)
New Guinea Singing Dog Conservation Society
Snow Leopard Trust

Zoo Boise
Bowling for Rhinos
Building a Scientific Research Center in Gorongosa National Park
AZA’s Conservation Endowment Fund (CEF)
Cheetah Conservation in the Sahara

Evaluating Techniques to Reduce Conflict between Cheetah and Farmers
Giant Panda Habitat Conservation
Habitat Protection for Rheas in Argentina
Helping Orangutans Return to the Wild: A Holistic Environmental Enrichment Program
Idaho Panhandle Wolverine Study
Indigenous People Protecting the Philippine Tarsier and its Habitat
Oregon Silverspot Butterfly Reintroductions in Washington
Protecting Habitat in the Pantanal
Protecting Polar Bear Habitat
Protection of Sloth Bear Habitat and Helping Law Enforcement Agencies with Illegal Sloth Bear Trade
Red Panda Day for the Red Panda Network
Reducing Human-Bear Conflicts
Reintroduction of Southern Idaho Ground Squirrels
Tiger Conservation Work in Myanmar with Panthera
Tree Planting in Madagascar to Expand Lemur Habitat

Understanding Impact of Oil Spills on Dolphins

**ILLINOIS**

**Chicago Zoological Society - Brookfield Zoo**

A Health Assessment of the Southern Fur Seal Population (*Arctocephalus australis*) at Punta San Juan, Peru

African Elephant Veterinary Training

Balsa de los Sapos and PUCE Conservation Needs Assessment Workshop

Baudó Guan Conservation

Blanding’s Turtle Project

Brookfield, IL Community Prairie Planting Project

California Sea Lion La Paz Mexico

Conservation Action for the Critically Endangered Anegada Iguana

Dolphin Research

Ecology and Conservation of the Rothschild’s Giraffe *Giraffa camelopardalis rothschildi* in Kenya

Elephants for Africa

Emergency Funds to Fight the Black Rhino Poaching and Bushmeat Crisis in Zimbabwe

Encouraging Community Involvement in the Conservation of White-shouldered Ibis in Lomphat Wildlife Sanctuary

First Amphibian Conservation Rescue Center in Venezuela: Building Capacity in Conservation, Education and Husbandry Science

Franciscana Dolphin and Marine Turtle Conservation through Citizen Participation in Coastal Buenos Aires

George Rabb award

Guigna-wild Cat

Health Assessment Humboldt Penguins Punta San Juan

Latin American Conservation Biology and Wildlife Management Training Course

Investigation of a Potentially New Giant Sengi (*Rhynchocyon*) and its Conservation in Northern Mozambique

Latin American Zoos Capacity Training

Long-term Sustainability of Threatened Species Conservation: Participatory Biodiversity Monitoring of Yellow-shouldered Parrots in Venezuela

Massasauga Recovery Project

Mountain Bongo Conservation

Nature Play in Punta San Juan

Pilot Exercise of Collaborative Biodiversity Mapping in Cape Town’s Illicitly Harvested Habitats Future Conservation Reference

Polar Bear Conservation Awareness Video Game

Polar Bears International

Promoting Stewardship with Youth Volunteers by Planting Trees for Polar Bears

Proposal for the Cracid Symposium in Conjunction with the IX Neotropical Ornithology Congress, Cuzco, Peru, 11/8-14/11

Punta San Juan Penguin Research

Punta San Juan, Peru Humboldt Penguin Health Assessment

Survey of Wild Javan Slow Lorises

The Role of Cellular Immunity in Asian Elephant Susceptibility to *Mycobacterium* spp.

Training Field Veterinarians on Veterinary Care and Safety of Wild Animal Transport
Usage of Traditional Knowledge to Minimize Human-Crocodile Conflict and Conserve Crocodiles in Sri Lanka

Vortex-Biodiversity

Walia Ibex

YVC Habitat Restoration in Chicago Forest Preserve

**Cosley Zoo**
Blanding’s Turtle Recovery Project

**John G. Shedd Aquarium**
Aquatic Invasive Species Monitoring and Research Program

Guyana Biodiversity Study

Nassau Grouper Survey

Project Seahorse

Bahamian Iguana Research Program

**Lincoln Park Zoo**
Avian Reintroduction and Translocation Database (ARTD)

Black-footed Ferret Mate Choice Project

Demographic Modeling of Eastern Massasauga Rattlesnake Population Dynamics to Assess Conservation Status

Eastern Massasauga Rattlesnake Recovery Team (Illinois)

Effects of the European Buckthorn Secondary Metabolite, Emodin, on the Embryonic Development of a Midwestern Amphibian, the Western chorus Frog

Fecal Hormone Analysis of the Smooth Green Snake (Opheodrys vernalis) – Phase II of Captive Husbandry of Smooth Green Snakes (Opheodrys vernalis) Project

Gombe Ecosystem Health Project

Hormonal Patterns of Female Mountain Gorillas: Insights into Maturation, Reproductive Strategies, and Stress – A Collaborative Study between the Dian Fossey Gorilla Fund International and Lincoln Park Zoo

Influence of Nutrition on Fitness and Reproduction in Male Black-footed Ferrets

Integrated Dynamic Modeling of Ecosystem Services -- Incentive-Based Policies, Land-Use Decisions and Ecological Outcomes

Long-Term Monitoring of an Eastern Massasauga Rattlesnake (EMR) Population in Southwest Michigan

Movements, Habitat Use, and Survival of Translocated Woodchucks

Painted Turtle Relocation and Monitoring at Nature Boardwalk

Pilot Study to Validate the Use of Progestin, Androgen, and Corticosteroid Field Kits and Camera Traps for Non-Invasively Monitoring the Endocrine Status and Movement of Black Rhino (Diceros bicornis bicornis) in Addo Elephant National Park

Pilot Study— Using Camera Traps to Assess Mammalian Community Composition, Abundance, and Diversity across a Landscape Gradient in the Greater Chicagoland Area

Pilot study: Evaluating the Use of Prostaglandin Metabolite Assay to Determine Pregnancy in the Black-footed Ferret

Post-reintroduction Monitoring of Flatwoods Amphibians and Feasibility Assessment for Fowler’s Toad Reintroduction in Lake County, IL

Puerto Rican Parrot Population Management

Selective Logging and Ape Infection Dynamics

Serengeti Health Initiative: Distemper and Rabies Vaccination Project
The Recovery of Meadow Jumping Mice and Assessment of the Conservation Status of Least Weasels within Lake County Forest Preserves (Concept Proposal)

Validating the Use of Reproductive Endocrinology as a Management Tool for Eastern Massasauga Rattlesnakes

**Miller Park Zoo**
Snow Leopard Trust

**Niabi Zoo**
Headstarting Ornate Box Turtles to Establish a Viable Population on the Lost Mond Unit of the Upper Mississippi River National Wildlife Refuge

Zoo Conservation Outreach Group (ZCOG)

**Peoria Zoo**
Alligator Snapping Turtle Recovery Plan

**Scovill Zoo**
Endangered Wildlife Trust

SaveNature.Org

**INDIANA**

**Fort Wayne Children’s Zoo**
Acres Land Trust

Ape TAG Conservation Initiative

AZA’s Conservation Endowment Fund (CEF)

Butterfly Conservation Initiative (BFCI)

Dingo Discovery Center

Giraffe Conservation Foundation

Indiana University-Purdue University Fort Wayne Turtle Fund

IUCN/SSC Conservation Breeding Specialist Group (CBSG)

Javan Gibbon Center

Little River Wetland Project

Orangutan Conservation

Pacific Marine Mammal Rescue Center

South African Foundation for the Conservation of Costal Birds

The Peregrine Fund

Wildlife Indonesia Foundation

**Indianapolis Zoological Society, Inc.**

Amur Tiger Conservation Project

Census of Ricord’s (Cyclura ricordi) and Rhinoceros (Cyclura cornuta) Iguanas on Isla Cabritos, Dominican Republic

Cheetah Conservation in Namibia

Dian Fossey Gorilla Fund International

International Elephant Foundation

International Iguana Foundation

International Rhino Foundation

Madagascar Fauna Group

Protecting Livestock from Lion Predation through Boma Fortification

Regional Field Manager for Mountain Gorilla Veterinary Project

Tarangire Elephant Project Development of Corridors Outside of Tarangire National park

**Mesker Park Zoo & Botanic Garden**

Action for Cheetahs

Association of Zoological Horticulture Plant Conservation Fund

Bat Captive Management Workshop

Chimney Swift Habitat Restoration Initiative

City of Evansville Rain Barrel Program

EarthShare of Missouri

Harlequin Duck Population Recovery Following the Exxon Valdez Oil Spill

Health Assessment and Serosurvey of the American Marten in Manistee National Forest, Michigan
International Year of the Bat

Mexican Gray Wolf Recovery

Migration and Habitat Use by Threatened Spectacled Eiders in the Eastern Chukchi Near and Offshore Environment

Sepilok Orang Utan Sanctuary

USI Vertebrate Species Inventory

Virginia Big-eared Bat (Corynorhinus townsendii virginianus) Plan for Controlled Holding, Propagation, and Reintroduction

Wesselman Woods Nature Preserve

Potawatomi Zoo

Amur Leopard Conservation

APCRO, Inc.

Butterfly Conservation-Florida Biodiversity Foundation, Inc

Condors

AZA’s Conservation Endowment Fund (CEF)

Hornbill Research

River Otter Alliance

Zoo Conservation Outreach Group (ZCOG)

Iowa

Blank Park Zoo

Gishwati Forest of Hope

Giraffe Conservation Foundation

Iowa DNR Prairie Chicken Project

Georgia Sea Turtle Center

Art of Conservation

International Snow Leopard Trust

International Wolf Center

Health in Harmony

Chimpanzee Sanctuary and Wildlife Conservation Trust

National Mississippi River Museum & Aquarium

Fish Diversity and Ecology in the Mbaracayu Forest Reserve

Wyoming Toad SSP

AZA’s Conservation Endowment Fund (CEF)

Friends of the Florida Panther

Lemur Conservation Foundation

Reintroduction of Black-footed Ferrets in Kansas

Hutchinson Zoo

Mississippi Kite

Reintroduction and Monitoring of Black-footed Ferrets in Logan County, Kansas

Wildlife Rehabilitation

Lee Richardson Zoo

African Elephants/Zambian Wildlife Authority - Park Protection and Training Program in Kafue National Park, Zambia

IUCN/SSC Conservation Breeding Specialist Group (CBSG)

Field Monitoring Support for Kansas Black-footed Ferret Reintroduction

Management of LRZ Field Conservation Grant Program

SaveNature.Org

Zambian Carnivore Programme

Rolling Hills Wildlife Adventure

Ape TAG Conservation Initiative
Micronesian Avifauna Conservation Program
Pan African Sanctuary Alliance (PASA)
Polar Population Project

**LOUISIANA**

**Audubon Aquarium of the Americas**
Redfish Tournament Recycling Program
Conservation Team Steering Committee
Captive Breeding of the Lined Seahorse
Louisiana Marine Mammal & Sea Turtle Rescue Program

**Audubon Zoo**
Amur Leopard and Tiger Alliance
Ape TAG Conservation Initiative
Hornbill Research Foundation Nest Adoption
International Elephant Foundation
International Iguana Foundation
International Rhino Foundation
Louisiana Pine Snake Release
Marianas Avifauna Conservation Program

Sahara Conservation Fund
Turtle Survival Alliance
Zoo Conservation Outreach Group (ZCOG)

**BREC’s Baton Rouge Zoo**
AZA’s Conservation Endowment Fund (CEF)
Cheetah Conservation Fund
El Valle Amphibian Conservation Center (EVACC)
International Elephant Foundation
Fifth International Tapir Symposium
Lion Tamarins of Brazil
Save the Tiger Fund

**MARYLAND**

**National Aquarium in Baltimore**
Assessing Chronic Natural Resource Damage from the BP Oil Spill
Atlantic White Cedar Restoration: Nassawango Creek Preserve, Maryland
Bahamas Coral Reef Conservation Initiative
Baltimore Harbor Contaminant Study
Farring-Baybrook Park Restoration
Floating Wetlands in Baltimore’s Inner Harbor

Fort McHenry Tidal Wetland Restoration Project
Habitat Restoration at Cove Point (Lusby, MD)
Hematology and Plasma Chemistry Values for the Spotted Eagle Ray
Invasive Lionfish Survey
Lion Tamarins of Brazil Fund
Marine Animal Rescue Program (MARP)
Maryland Diamondback Terrapin Working Group
Marine Exotic Species Removal Program
Maryland Snapping Turtle Working Group
Measuring Mercury Concentrations in Wild and Captive Bottlenose Dolphins
Minority Student Conservation Internship
Project Golden Frog/Proyecto Rana Dorada
Project Puffin
Riparian Buffer Restoration: Indian Head, Maryland
Sand Dune Restoration: Virginia
SaveNature.Org
Shoreline Restoration at Masonville Cove

Spotted Eagle Ray Research in the Eastern Gulf of Mexico

Tidal Marsh Restoration at Eastern Neck National Wildlife Refuge

Tidal Marsh Restoration at Poplar Island

Tidal Marsh Restoration at the Westport Waterfront

**Salisbury Zoological Park**
- Andean Cat Alliance
- Giant Armadillo Project
- Lower Shore Land Trust
- Nature Conservancy: Ecuador
- Nature Conservancy: Lower Eastern Shore
- Panama Amphibian Rescue and Conservation Project
- Proyecto Titi
- Red Wolf Coalition
- Turtle Survival Alliance
- Zoo Conservation Outreach Group (ZCOG)

**The Maryland Zoo in Baltimore**
- Examination of Heavy Metal Contaminants in Delmarva Fox Squirrels (*Sciurus niger cinereus*) in Maryland

**Exposure of Free-Ranging American Black Bear** (*Ursus americanus*) **in Maryland, USA, to Select Pathogens**

**Health and Ecology Survey of Maryland Black Bear Sows and Cubs** (*Ursus americanus*)

**Panamanian Golden Frog Support**

**Proyecto Borochi/Maned Wolf Ecology and Health Study Bolivia**

**MASSACHUSETTS**

**Buttonwood Park Zoo**
- Behavior and Communication of Translocated Elephants in South Africa
- Cape Cod Stranding Network
- Plymouth Redbelly Cooter Headstart Program
- Wild Lupine Propagation

**Capron Park Zoo**
- African Predator Conservation
- Indian Wildlife

**Franklin Park Zoo**
- 2010 Jonathan Gilmour Scholarship Awards
- AZA’s Conservation Endowment Fund (CEF)
- Beetle Ranching

**New England Zoo and Aquarium Conservation Collaborative**

**Panama Amphibian Rescue & Conservation - PARC**

**Plymouth Red-bellied Turtle Headstart Program**

**Sahara Conservation Fund**

**Snow Leopard Trust**

**Museum of Science**
- Karner Blue Butterfly Restoration Project

**New England Aquarium**
- Biological Effects of Offshore LNG Port Areas
- Consortium for Wildlife Bycatch Reduction
- Marine Conservation Action Fund
- Marine Spatial Planning
- Ocean Health Index
- Phoenix Islands Protected Area

**Right Whale Conservation Medicine Program**

**Right Whale Research Project**

**Sea Turtle Conservation and Research**

**Sustainable Aquaculture**
Sustainable Ornamental Fish Initiative
Sustainable Seafood Programs

**Walter D. Stone Memorial Zoo**
AZA’s Conservation Endowment Fund (CEF)
Blanding’s Turtle Project
Plymouth Red-bellied Cooter Head-start Program

**MICHIGAN**

**African Safari Wildlife Park**
AZA’s Conservation Endowment Fund (CEF)
International Elephant Fund
Wild Aid

**Binder Park Zoo**
Blanchard’s Cricket Frog Project
Michigan Box Turtle Research
Action for Cheetah
Karner Blue Butterfly Monitoring
Adopt a Beach
Kirtland’s Warbler Monitoring
Piping Plover Patrol/Recovery Program
Prairie Habitat Restoration Project

**Children’s Zoo at Celebration Square**
Blanding’s Turtle Headstart Project
Savenature.org
SANCCOB

**Detroit Zoological Park**
African Elephant Conservation Trust
Amphibians in Peru
Blanding’s Turtle Head Start
Butterfly Conservation Initiative
Common Tern Nesting Habitat Restoration at Belle Isle on the Detroit River
Conservation International/Amphibian Survival Alliance
Eastern Massasauga Rattlesnake Field Survey
Eastern Massasauga Rattlesnake SSP
FrogWatch USA
Golden Frog SSP
Great Lake Piping Plover Salvage Captive Rearing
Michigan Bird Conservation Initiative
Mudpuppy Surveys
Osprey Reintroduction in SE Michigan

**Puerto Rican Crested Toad SSP**
SE Michigan Karner Blue Butterfly Reintroduction
Turtle Survival Alliance
Utilizing Radio Telemetry to Facilitate Research on the Barro Colorado Island Spider Monkeys
Wyoming Toad SSP
Wyoming Toad Survey

**International Animal Exchange, Inc.**
AZA’s Conservation Endowment Fund (CEF)
Hoedspruit Endangered Species Center
International Rhino Foundation
Jane Goodall Institute
WAZA
William Holden Wildlife Foundation
World Wildlife Fund
Zoo Outreach Association

**John Ball Zoological Garden**
Annual Kirtland’s Warbler Census Project
Captive Care & Rehabilitation of Red-Capped Mangabeys to Enhance Protection of the Species in the Wild
Community Capacity Development for Wildlife Conflict Mitigation and Conservation

Eastern Massasauga Rattlesnake Longitudinal and DNA Study

Eco-tourism and Conservation: Face to Face with Wild Animal Rehabilitation

Great Lakes Piping Plover Recovery Project

Managing Human-Elephant Conflict with Young People in Northern Uganda

Salmon in the Schools Program

Saving Zimbabwe’s Endangered Wild Dogs through Education

Wood Turtle Head-starting Project

Zoo Conservation Outreach Group (ZCOG)

**MINNESOTA**

**Como Zoo & Conservatory Society**

African Predator Conservation Research Organization

Amphibian Ark

Blanding’s Turtle Field Work

Como Lake Turtle Survey

Mississippi Gopher Frogs

Orangutan Conservation

Polar Bears International

Seafood Watch

Wyoming Toad SSP Master Plan Meeting and Fieldwork

**Minnesota Zoological Garden**

Amur Leopard and Amur Tiger Conservation

Black Rhino Conservation, Namibia (in partnership with The Nature Conservancy and Save the Rhino Trust)

IUCN/SSC Conservation Breeding Specialist Group (CBSG)

Brown Bear Conservation

Hartmann’s Mountain Zebra Conservation Research

Macaw Conservation

Moose Conservation Research, Minnesota

Sea Otter Conservation

Prairie Butterfly Conservation, Minnesota

Recycle for Rainforests

South China Tiger Recovery Program

Tiger Conservation Campaign

Ulysses S. Seal Conservation Grant Program

**MISSISSIPPI**

**Jackson Zoological Park**

Annual Contraception Survey

Avian Blood Parasite Study

Avian Interest Group Survey

Gibbon Proposal

Gulf Coast Oil Spill Clean-up Assistance

Pyometra in Big Cats

Raptor Rehab

Recycling Program

Red Panda Day

Red Wolf Recovery Program

**MISSOURI**

**Butterfly House**

Butterfly Conservation Initiative (BFCI)

El Bosque Nuevo *Megasoma elephas*: A Collaborative Captive Breeding Program of a Potential Flagship Species for Conservation at El Bosque Nuevo, Costa Rica

**Dickerson Park Zoo**

Arbor Day Foundation

AZA’s Conservation Endowment Fund (CEF)
Center for Ecosystem Survival-Maya Biosphere Reserve (Conservation Parking Meters)

Cheetah Conservation Fund

IUCN/SSC Conservation Breeding Specialist Group (CBSG)

Conservation Federation of Missouri

Dong Phayayen-Khao Yai Carnivore Conservation Project

Ecological Impacts of Wind and Energy: Where Wind and Wings Collide

El Valle Amphibian Conservation Center (EVACC)

Elephant-Human Coexistence - How Elephants Persist in Traditional Agricultural Systems of South Asia

International Crane Foundation

Lewa Wildlife Conservancy

Madagascar Fauna Group

Maned Wolf Research Project in Brazil

Pan African Sanctuary Alliance (PASA)

Raptor Rehabilitation Program at Dickerson Park Zoo

Survey of Ozark Bats for White-Nose Syndrome

The Mariana Avifauna Conservation Program

Turtle Survival Alliance

Zoo Conservation Outreach Group (ZCOG)

Saint Louis Zoo

A Community's Race to Save the Hirola, A Critically Endangered Antelope on the Brink of Extinction

Amphibian Ark

Bale Beauty Nature Club: An Emerging Conservation Organization in Ethiopia

Center for Avian Health in the Galapagos Islands

Box Turtle Ecology and Health: Comparison between an Urban and a Rural Site

Center for Conservation of Cheetahs in Africa

Center for Conservation of the Horned Guan in El Triunfo Biosphere Reserve, Chiapas, Mexico

Center for Conservation of the Humboldt Penguin in Punta San Juan, Peru

Consequences of Landscape Change and Potential Solutions for Improvement of Hirola and Lesser Kudu Range in Eastern Kenya

Center for Native Pollinator Conservation

Cheetah Conservation and Human Impact in Kenya

Cheetah for Conservation of Cheetahs in Africa

Conservation NGO Support

Conservation of Armenian Vipers, Montivipera raddei Inhabiting Anthropogenic Modified Landscapes

Developing Effective and Reliable Protocols for the Vegetative Propagation of Species of Diospyros and Dalbergia

Enhancing Water Availability for Grevy's Zebra in Northern Kenya

Environmental Education for the Conservation of Mountain Nyala and Its Habitat at the Bale Mountains National Park, Ethiopia

Equipment to Support Ostrich Rearing and Recovery in Niger

Establishment of Sahara Conservation Fund (SCF)

Field Research and Conservation Grants

Grevy's Zebra Scout Program

Grevy's Zebra Trust

Health Monitoring of Wild Lemurs

Hellbender Conservation

Implementing an Early Detection Plan for the Amphibian Chytrid Fungus

Improving Chicken Health to Promote Public Health

International Meeting for the Conservation of Prolemur simus

IUCN/SSC Bumblebee Specialist Group

Locating and Habituating High Altitude Prolemur simus at Tsinjoarivo, Eastern Madagascar

Mariana Avifauna Conservation Program, Northern Mariana Islands

Monitoring Captive-born Ruffed Lemurs and their Offspring with Radio Collars in Betampona Natural Reserve

Monitoring Temporal Change in Rainforest Composition of Betampona Natural Reserve Using Very High Resolution Remote Sensing Data

Movement Patterns Habitat Preferences and Natural History of the Armenian Viper, Montivipera raddei, in Armenia

North American Bumble Bee Species Conservation Strategy Workshop

Northern Rangelands Trust

Novus International Habitat for Wildlife Program

Nutritional Support for the Ostrich Recovery Program in Niger

Okapi Project in the Democratic Republic of Congo

Polar Bear Conservation

Population Status and Habitat Suitability Map of Mountain Nyala (Tragelaphus buxtoni) of Fragmentation in the Arussi Massif, Ethiopia

Saharan Red-necked Ostrich (Struthio camelus camelus) Recovery Program in Niger

Saint Louis Zoo's Ecuadorian Amphibian Collaboration

Saint Louis Zoo's WildCare Institute's Center for Conservation in Madagascar

Scimitar-horned Oryx Reintroduction Workshop

Support for Conservation Action in the Termit/TinToumma Region of Niger

International Elephant Foundation

**MONTANA**

**Grizzly & Wolf Discovery Center**

Bear-Resistant Products Testing Program

West Yellowstone Christmas Bird Count

Management of Bison with Contraception for the Preservation of a Fragile Ecosystem

Preservation of Fragile Habitats through the Immuornocontraceptive Management of Wild Horses

**NEBRASKA**

**Lincoln Children's Zoo**

Salt Creek Tiger Beetle Propagation Program

**Omaha's Henry Doorly Zoo**

Amphibian Conservation Area

Amphibian Conservation Education

Ape TAG Conservation Initiative

Black Footed Cat Project

Butterfly Conservation Education
CBSG Amphibian Ark
AZA’s Conservation Endowment Fund (CEF)
Conservation of Madagascar’s Endemic Orchids
International Elephant Foundation
International Rhino Foundation
Okapi Conservation Project
Panama’s Cerro Gaital Plants Survey
Philippine Crocodile Conservation
Propagation of Madagascar Threatened Orchid Species
Reintroduction of Diplazium laffanianum
Salamander Project
SANCCOB
SECORE (SEXual CORal REproduction)
Snow Leopard Trust
IUCN/SSC Tapir Specialist Group
Uniting Conservation Genetics and Conservation Education in Madagascar, Madagascar Biodiversity and Biogeography Project

NEVADA

Shark Reef at Mandalay Bay
Caribbean Conservation Corp/Sea Turtle Conservancy
Komodo Conservation
Ocean Project
Reef Check

NEW JERSEY

Adventure Aquarium
IUCN/SSC Hippo Specialist SubGroup
Marine Mammal Stranding Center
Horseshoe Crab Rearing
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Crow Behavioral Study
Hellbender Reintroduction Program

Buffalo Zoological Gardens
Amphibian Ark
Puerto Rican Crested Toad SSP
Grizzly and Wolf Discovery Center
El Valle Amphibian Conservation Center (EVACC)
International Association for Bear Research and Management
International Rhino Foundation
Eastern Massasauga Rattlesnake SSP
Lion Tamarin of Brazil Fund
Sahara Conservation Fund
Snow Leopard Trust
Turtle Survival Alliance

AZA Ape Conservation Initiative
Association of Zoological Horticulturalists
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IUCN/SSC Conservation Breeding Specialist Group (CBSG)

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SAVING THE WORLD’S LARGEST BIRD
The Ostrich Recovery Project in Niger

By Sara Hallager, Bill Houston, Michael Mace and Scott Tidmus

The biggest bird on the planet is on the verge of going under in the silent tide of extinction that has been rolling across the Sahara. Once quite common across the Sahelo-Saharan zone, the Saharan race of the red-necked ostrich (Struthio camelus camelus), largest representative of its species, has been extirpated across 95 percent of its range. Niger is an optimal location for breeding and reintroducing ostriches. There remain vast areas of excellent ostrich habitat in many parts of the country. The long-term goal of the Ostrich Recovery Project in Niger is to reintroduce one or more secure, self-sustaining populations of Saharan ostrich back into the wild. The expected conservation benefits of the Niger Ostrich Recovery Project are many and include: the recovery and reintroduction of a highly-adapted desert race of ostrich; a model participatory, multi-partner conservation initiative; local skills and capacity development; establishment of a national ostrich breeding facility; improved environmental and conservation education and awareness; and catalytic support for other endangered species and environmental issues. Phases I (emergency support) and II (consolidation, feasibility) of the project have resulted in a number of positive and tangible outcomes: provision of advice on animal husbandry and veterinary care, developing a diet for adults and chicks, purchase of foodstuffs/vitamin supplements and purchase of an incubator, construction/maintenance of infrastructure, genetic/health analysis of ostriches, feasibility studies for ostrich reintroduction and a nationwide inventory of managed ostrich.

Fortunately, there are still roughly 100 pure (non-hybrid) S. c. camelus in small privately-held flocks scattered across Niger. Niger is an exceptionally poor country, but with some modest assistance the Nigeriens caring for ostrich can substantially improve the chances of these birds breeding successfully and rearing young. Given how productive ostrich can be, there is every reason to believe that with the technical support, improved management techniques, and proper equipment, Niger can produce desert ostrich and return them to the wild in relatively short order.
The AZA Ratite Taxon Advisory Group has been championing the recovery of the Saharan race of the red-necked ostrich in Niger since 2007 in partnership with Sahara Conservation Fund (SCF). Through SCF, we are part of a public-private partnership with the Republic of Niger and a consortium of private local breeders (CERNK) that was launched in an effort to breed these birds with an eye towards producing chicks for eventual reintroduction. An AZA Conservation Endowment Fund (CEF) grant in 2007 allowed a team to travel to Niger to conduct genetic testing. Significant improvements to the ostrich breeding pens in Kellé, Niger, were completed in 2010. We are now focusing on substantially improving the diet and promoting natural incubation until such time as we can develop the capacity in Niger to manage artificial incubation and chick-rearing operations.

Zoos are uniquely positioned to assist with resolving the crisis facing the world’s largest bird. Let your Zoo’s ostrich become an ambassador. This is a great opportunity for all of us to make a connection between our zoo ostrich and the conservation of this incredible bird. The AZA Ratite Taxon Advisory Group (TAG) has developed its Adopt-an-Ostrich Program to support the acquisition, care and feeding of Saharan ostrich in Niger; help maintain the ostrich facilities; and improve capacity for ostrich management. With your help, we can get Saharan ostrich back on the road to recovery in Niger. $500 covers the care of one ostrich in Niger for a year. Our goal is 100 percent participation by all zoos holding ostrich, at whatever level each can contribute. We can provide each contributing Zoo with photos and background information to help them promote their ostrich conservation efforts to the public.

With generous support from the following zoos, we have been able to improve the care for 18 birds but further help is needed. Our immediate goal is raise support for up to 30 birds in Niger and be able to continue that support on an annual basis.

Contributing zoos to date include: Audubon Zoo, Disney’s Animal Kingdom, Dallas Zoo, Fort Wayne Children’s Zoo, Franklin Park Zoo, Fresno Chaffee Zoo, North Carolina Zoological Park, Omaha’s Henry Doorly Zoo, Phoenix Zoo, Sacramento Zoo, Safari West, Saint Louis Zoo, San Diego Zoo Safari Park, San Francisco Zoological Gardens, Smithsonian National Zoological Park and Woodland Park Zoo. School children have even taken up the cause and Windermere Elementary school in Windermere, Fla., donated a substantial amount.

Please consider making a pledge today and add your Zoo’s voice to the growing chorus speaking for the conservation of the Sahara’s Wildlife. Thanks in advance for your support.

If you are interested in learning more about this project and to obtain a pledge form please contact Sara Hallager, AZA Ratite TAG Chair at hallagers@si.edu.

Sara Hallager is a Biologist at the Smithsonian National Zoo
Bill Houston is the Assistant General Curator at the Saint Louis Zoo
Mike Mace is Curator of Birds at San Diego Zoo Safari Park
Scott Tidmus is the Zoological Manager at Disney’s Animal Kingdom

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ZOOAMERICA North American Wildlife Park
AZA’s Conservation Endowment Fund (CEF)
Black-footed Ferret SSP
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Regal Fritillary Conservation

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NW Amphibian Recovery Project

Orangutan Habitat Protection and Patrolling in Gunung Palung National Park

Partnerships for the World: International Field Training Programs in Conservation Biology

Partula Snail Recovery & Reintroduction Project

Partulid Global Species Management Programme

Raptor Ecology of the Shrub-Steppe (formerly Ferruginous Hawk Satellite Tracking Study)

Silverspot Butterfly Conservation Project

Small Grants – Jaguar Conservation Fund

Tarangire National Park Elephant Project

Tree Kangaroo Conservation Program

Washington Wolf Awareness

Washington Wolf Recovery & Management

Western Pond Turtle Recovery Project

Wildlife and People in Kenya: Waterholes Project

Install and Monitor Eastern Bluebird Nestboxes

Monarch Watch

Participate in West Virginia Winter Bird Count

Raptor Rehabilitation

Status Assessment of the Eastern Hellbender in West Virginia

Surveillance for White-Nose Syndrome in West Virginia

WISCONSIN

Henry Vilas Zoo
Costa Rican Amphibian Research Center

Henry Vilas Zoo UW Madison Vet School Field Scholarship

Red Panda Network

SANCCOB

Saving Orangutans - Field Project - Graham L. Banes

Wisconsin Dept of Natural Resources (DNR) Ornate Box Turtle Headstart Program

Wisconsin Dept of Natural Resources (DNR) Wood Turtle Headstart Program

International Crane Foundation
African Crane Trade Project
Aransas-Wood Buffalo Whooping Crane Conservation

Crane Conservation in the DMZ/Han River Basin of Korean Peninsula

Cranes and Agricultural Landscapes in Africa

Cranes and Their Key Wetlands in the Amur/Heilong River Basin

Cranes, Wetlands, and Communities in Africa

Eastern Sarus Cranes and Their Key Wetlands in the Lower Mekong River Basin

Poyang Lake Conservation in the Yangtze River Basin

Whooping Crane Eastern Partnership

Zambezi River Basin Wetlands Conservation and Environmental Flows Partnership

**Milwaukee County Zoological Gardens**
AZA Ape TAG

Berggorilla and Regenwald Direkthilfe Gorilla Project

Bonobo & Congo Biodiversity Initiative (BCBI)

Butler’s Garter Snake Conservation

Chilean Penguin Education Program

Declining Wildlife Conference

Fennec Fox Conservation

Great Apes Survival Partnership

Grenada Bank Tree Boa Study

Grenada Frog Study

Grenada Reef Monitoring

Humboldt Penguin Artificial Burrows

Humboldt Penguin Census - Chile

Humboldt Penguin Guano Harvest Monitoring

Humboldt Penguin SSP

International Elephant Foundation

International Rhino Foundation

IUCN/SSC Conservation Breeding Specialist Group (CBSG)

Lola ya Bonobo

Madagascar Fauna Group

Migratory and Resident Avifauna Study

Orangutan Conservancy

Orangutan Outreach

Ornate Box Turtle Headstart Program

Penguin TAG

Phoenix Fund Amur Tiger Project

Piping Plover Recovery

Polar Bears International

Puerto Rico Crested Toad Recovery Program

Red-necked Ostrich Conservation

Rock Iguana Conservation

Salango National Park Bonobo Project

Snow Leopard Trust

Tarangire Elephant Project

Tree Kangaroo Conservation

Turtle Survival Alliance

Whooping Crane Recovery Project

Wisconsin Bureau of Endangered Resources Herp Fund

**Northeastern Wisconsin (NEW) Zoo**
AZA’s Conservation Endowment Fund

Conservation Grant Programs

Creation of Safe Haven for Great Apes through Sustainable Cocoa Cultivation

Ecology and Conservation of the Endangered Rothschild’s Giraffe in Kenya
Identifying Routes of Pathogen Transmission among Wild and Domestic Ungulates in Central Kenya

Iowa Trumpeter Swan Restoration Program

Jane Goodall Foundation

Survey of Otters in Parsa Wildlife Reserve

**Racine Zoological Gardens**
Andean Bear Program

Andean Condor Conservation Program

Butler’s Garter Snake Demographic Study

Chilean Flamingo Conservation Monitoring Program

Ornate Box Turtle Headstart Program

SSP Mark/Recapture Study on a Michigan Population of Eastern Massasauga Rattlesnakes

The Effects of Invasive Species and Interspecific Competition on the Endemic Grenada Frog and Possibilities for Captive Propagation

Tree Boa Demographic Study

Zoo Conservation Outreach Group (ZCOG)