Annual Report on Conservation and Science





2017 Annual Report on Conservation and Science

The Association of Zoos and Aquariums and its member facilities envision a world where, as a result of their work, all people respect, value and conserve wildlife and wild places.

The 2017 Annual Report on Conservation and Science (ARCS) celebrates the conservation efforts, education programs, green (sustainable) business practices, and research projects of AZA-accredited zoos and aquariums and certified related facilities.

Content in ARCS reflects submissions made to annual surveys conducted by AZA. Each survey topic has been carefully defined to maximize consistency of reporting throughout the AZA community. AZA's Field Conservation Committee and Research and Technology Committee review all of the relevant submissions by members to promote even greater consistency.

Field conservation focuses on efforts having a direct impact on animals and habitats in the wild. Education programming includes those with specific goals and delivery methods, defined content and a clear primary discipline and target audience. Mission-focused research projects involve application of the scientific method, are hypothesis (or question)-driven, involve systematic data collection and analysis of those data and draw conclusions from the research process. Green business practices focus on the annual documentation and usage of key resources: energy, fuel for transportation, waste and water – as well as identification of specific green practices being implemented.

AZA is grateful to each member that responded to these surveys. The response rate for each 2017 survey was as follows:

- » Field Conservation 90%
- » Education Programs 61%
- » Green Business Practices 57%
- » Mission-Focused Research 71%

While the 2017 ARCS focuses on individual activities undertaken that year, download the 2017 *Highlights* (available at *aza.org/annual-report-on-conservation-and-science*) to learn more about what the AZA community accomplished together.

This report was compiled by Arslan Ahmad (Program Assistant, Conservation and Science), Haley Gordon (Program Assistant, Conservation and Science), Hana Johnstone (Intern, Conservation, Management and Welfare Sciences), Raven Spencer (Intern, Conservation, Management and Welfare Sciences) and Shelly Grow (Vice President, Conservation and Science).

INTERNATIONAL

Argentina

FUNDACIÓN TEMAIKÈN

Green Practices

ENERGY Documented Amount Spent Documented Amount Used

Documented Square Footage of Conditioned Space

FOOD

Sourced Local Food or Grew It On-Site

FUEL

Documented Amount Spent Documented Amount Used

GREEN PRACTICES IMPLEMENTED

Alternative Transportation Benefits for Staff Community-Based Sustainability Projects Composting On-Site or Off-Site Greenhouse Gas (GHG) Inventory Local Food Procurement for Animals and/or Guests

GREENHOUSE GAS EMISSIONS

Documented Amount of Greenhouse Gas Emissions

PLANS, POLICIES AND BUDGETS

Dedicated Full-Time Equivalent (FTE) Staff to Coordinating Green Practices

Developed or Updated a Sustainability Plan (or Equivalent) Developed or Updated a Sustainability Policy

WASTE

Documented Amount Recycled

Documented Amount Sent to Landfill

Bahamas

ATLANTIS, PARADISE ISLAND

Education Programs

Atlantis Stingray Experience Caring for Atlantis' Marine Life Discovery Tour Dolphin Deep Water Swim Dolphin Shallow Water Swim Junior Ultimate Trainer for a Day School Aquarium Outreach Program Sea Lion Interaction Sea Squirts Snorkel the Ruins of Atlantis Ultimate Trainer for Day

Field Conservation

Bahamas Marine Mammal Research Organization (BMMRO) - Stranding Response to Support Marine Mammals in the Bahamas and Marine Mammal Research

Bahamian Coral Reefs: Taking Action to Protect Reefs Through Education and Action

Manatee Health Assessment

Providing the Scientific Basis for a Marine Protected Area Designation and Reef Rehabilitation in the Bahamas

Tour de Turtles

Bermuda

BERMUDA AQUARIUM, MUSEUM AND ZOO

Education Programs

Bermuda Natural History Course Environmental Youth Conference Junior Volunteer Program Kids on the Reef Nonsuch Natural History Camp Schools Program Science Club Spring Camp Summer Aqua Camps Teacher Workshops WILD Encounters

Field Conservation

Bermuda Amphibian Project

Bermuda Aquarium, Museum and Zoo (BAMZ) – Internship Programme

Bermuda Aquarium, Museum and Zoo (BAMZ) / Bermuda Zoological Society (BZS) – Research Grants and Support

Bermuda Reef Ecology Assessment and Mapping (BREAM)

Bermuda Turtle Project

ReefWatch

Sargassum Community Studies

Mission-Focused Research

Humpback Whale Project

Canada

ASSINIBOINE PARK ZOO

Field Conservation

Bird Strike Mitigation Chimney Swift Chimney Installation Grassland Skipper Conservation and Headstarting Program International Polar Bear Day Manitoba Burrowing Owl Recovery Program MonarchHealth – *Ophryocystis elektroscirrha* (OE) Testing Red Panda Network (RPN) Snow Leopard Trust (SLT) – Fundraising

Green Practices

ENERGY Documented Amount Spent Documented Amount Used Generated Renewable Energy On-Site

FOOD

Sourced Local Food or Grew It On-Site

FUEL

Documented Amount Spent

GREEN PRACTICES IMPLEMENTED

Building Energy Management Carbon Offset Purchase for On-Site Utility Use Commingled Recycling Community Solar Program Composting On-Site or Off-Site Construction Waste Diversion / Recycling Energy Submetering Green Building Policy / Commitment Green Purchasing Policy / Green Procurement Greenhouse Gas (GHG) Inventory Local Food Procurement for Animals and/or Guests Solar or Wind Energy Generation Water Submetering

PLANS, POLICIES AND BUDGETS

Dedicated Full-Time Equivalent (FTE) Staff to Coordinating Green Practices

Developed or Updated a Sustainability Plan (or Equivalent)

Developed or Updated a Sustainability Policy

WASTE

Documented Amount Recycled

Documented Amount Sent to Landfill

WATER

Documented Amount of Wastewater Generated

Documented Amount Spent

Documented Amount Used

Mission-Focused Research

- Abundance Estimates, Haul Out Patterns and Natural History of Harbour Seals (*Phoca vitulina*) in the Churchill River Estuary
- Abundance Estimates, Haul Out Patterns and Natural History of Ringed Seals Near Churchill
- Assessing Bear Spray Performance Under Cold Temperatures

Beluga Bits

- Exploring the Role of Nature-Based Tourism Experiences and Learning at an *In-Situ* and *Ex-Situ* Destination
- Fecal Glucocorticoid Metabolite Concentrations in Orphaned Polar Bear "Cubs of the Year" Brought Into Captivity From Northern Manitoba to Assiniboine Park Zoo Through the Leatherdale International Polar Bear Conservation Centre (LIPBCC)
- Implementation of an Environmental Enrichment Program to Reduce Over-Grooming and Pacing in Captive Red Pandas (*Ailurus fulgens*)
- Inbreeding and Relatedness Analysis of Burrowing Owls in Captive Rearing Programs in Canada Using PCR Multiplexing
- Learning and Hunting Success During Live Prey Training in Wild Burrowing Owls in the Manitoba Burrowing Owl Recovery Program
- Multiple Richardson's Ground Squirrels
- Novel Applications of Thermal Imaging Technology to Assess Ursus maritimus (Polar Bear) Social Play Behaviour

Other Ground Squirrel Projects

Polar Bear Behaviour During Transition

Polar Bear Hormone Monitoring

Recording of Animal Vocalizations

- Ringed Seal (*Pusa hispida*) Trends in Abundance Inferred From Genetics
- Testing Detectability Assumptions of Trail Cameras on Polar Bears

The Prusten Project

Water Usage of Polar Bears at Assiniboine Park Zoo (APZ)

Whiskerprints

CALGARY ZOO

Education Programs

Adult Nights

- **Birthday Parties**
- **Conservation Action Programming**

Corporate Teambuilders

Distance Learning

Family BBQ Shows and Christmas Shows

In the Heat of the Night - Valentine's Day Program

Land of Lemurs Interpretive Programming

Penguin Plunge Interpretive Programming

Penguin Walk

School Programs

Self-Guided Backpack Tour

Sleepovers

Summer Camps

Teacher Workshops

Year Round Value Added Interpretive Programming – Zoo-Wide

Zoo School

Field Conservation

Black-Tailed Prairie Dog and Black-Footed Ferret Conservation Research

Burrowing Owl Headstarting

Community-Based Conservation of Lemurs in Madagascar

Community-Based Conservation of Mountain Bongo in Kenya

Community-Based Conservation of Western Sitatunga and Hippos in Ghana

Greater Sage Grouse: Reintroduction Breeding and Research

IUCN/SSC Reintroduction Specialist - Group Training for **Effective Conservation Translocations**

Northern Leopard Frog Reintroduction Breeding and Research in Western Canada

Swift Fox Recovery

Vancouver Island Marmot Reintroduction Breeding Whooping Crane Reintroduction Breeding and Research

Green Practices

ENERGY

Documented Amount Spent Documented Amount Used Documented Square Footage of Conditioned Space

Generated Renewable Energy On-Site

EXTERNAL SUPPORT Received Support From External Sources for Green Projects

FOOD

Sourced Local Food or Grew It On-Site

FUEL

Documented Amount Spent Documented Amount Used

GREEN CERTIFICATIONS

Certified as a Wildlife Habitat

Certified by Leaders in Environmentally Accountable Foodservice (LEAF)

Certified by the Green Restaurant Association

- Documented Square Footage of Facility With Green Building Certification
- One or More Buildings LEED-Certified by the US Green **Building Council**

Partner Organization for Ocean Wise

GREEN PRACTICES IMPLEMENTED

Alternative Fuel Usage for On-Site Fleet Alternative Transportation Discounts for Guests **Building Energy Management** Commingled Recycling Community-Based Sustainability Projects

Denitrification Systems Energy Submetering Graywater Reuse and/or Rainwater Harvesting Green Purchasing Policy / Green Procurement Greenhouse Gas (GHG) Inventory Local Food Procurement for Animals and/or Guests Purchasing Green Power or Renewable Energy Credits (RECs) Smart Buildings Systems Solar or Wind Energy Generation Stormwater Management Program Wastewater Reduction Water Submetering Water-Wise Landscaping

PLANS, POLICIES AND BUDGETS

Composting On-Site or Off-Site

Construction Waste Diversion / Recycling

Dedicated a Line Item in the Budget for Green Practices Dedicated Full-Time Equivalent (FTE) Staff to Coordinating **Green Practices** Developed or Updated a Sustainability Plan (or Equivalent) Developed or Updated a Sustainability Policy WASTE

Documented Amount Composted Documented Amount Recycled Documented Amount Sent to Landfill Documented Amount Spent on Landfill Waste

WATER

Documented Amount of Wastewater Generated Documented Amount Spent Documented Amount Used

Mission-Focused Research

Advancing the Science of Conservation Translocations **Evaluating Community Conservation Success** Role of Sacred Sites in the Creation of Protected Areas Vancouver Island Marmot Anti-Predator Behaviour Research

RIPLEY'S AQUARIUM OF CANADA

Education Programs

Aquarist for a Day Aquatic Adventurers Behind the Scenes Tours **Discovery Dive** Dive Show - Rainbow Reef Dive Show - Ray Bay Ocean Explorers Club School Program: Amazing Algae and Other Aquatic Plants (Grade 3) School Program: Aquarium Careers (Grade 11/12) School Program: Creatures Undercover (Grade 2) School Program: Deep Sea Diver (Grade 5) School Program: Lake Invaders (Grade 6) School Program: My Own Aquarium (Grade 1) School Program: Pollution Solution (Grade 5 and7) School Program: Sensational Sharks (Kindergarten) School Program: Squid Dissection (Grade 10) School Program: Stream Science (Grade 9) School Program: Watery Web (Grade 4) School Program: What's in the Water (Grade 8) Sea Squirts Sleepover (Sleep With the Sharks) Stingray Experience Summer and March Break Camps Tank Talk

Field Conservation

Great Canadian Shoreline Clean Up SExual COral REproduction (SECORE)

Green Practices

ENERGY

Documented Amount Spent Documented Amount Used Documented Square Footage of Conditioned Space

GREEN CERTIFICATIONS

Certified "Silver" Under the BOMA BEST Building Environmental Standards

GREEN PRACTICES IMPLEMENTED

Alternative Transportation Benefits for Staff

Commingled Recycling

Community-Based Sustainability Projects

Composting On-Site or Off-Site

Graywater Reuse and/or Rainwater Harvesting

PLANS, POLICIES AND BUDGETS

Dedicated Full-Time Equivalent (FTE) Staff to Coordinating Green Practices

WASTE

Documented Amount Sent to Landfill

Documented Amount Spent on Landfill Waste

WATER

Documented Amount Spent

Documented Amount Used

Mission-Focused Research

Invasive Lionfish Eradication Research

Sand Tiger Behavioural Study With South-East Zoo Alliance for Reproduction and Conservation (SEZARC)

Sand Tiger Reproduction Study With South-East Zoo Alliance for Reproduction and Conservation (SEZARC)

TORONTO ZOO

Field Conservation

Amphibian Rescue Centre (ARC) – Husbandry and Reintroduction Program for the Oregon Spotted Frog

Amphibian Rescue Centre (ARC) – Husbandry and Reintroduction Program for the Wyoming Toad

Atlantic Salmon Reintroduction Program

AZA FrogWatch USA

- Bat Acoustic Monitoring
- Black-Footed Ferret Conservation Recovery Program
- Blanding's Turtle Headstart Project

Blue Schools Program

Eastern Loggerhead Shrike Captive Breeding Program

Freshwater Mussels Field Program

Great Lakes Program

Great Lakes: Redside Dace – Conservation and Community Involvement

Investigating the Diet Composition of a Threatened Ontario Songbird, the Barn Swallow

Loggerhead Shrike

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

Madagascar Freshwater Fishes

Madagascar Freshwater Fishes: In-Situ Partnership

Management, Outreach, Husbandry and Reintroduction Program for the Puerto Rican Crested Toad

Mudpuppy Conservation and Citizen Science: A Partnership Project Among Zoos and Aquariums in the Great Lakes Basin

Multi-Scale Patterns of Habitat Use, Spatial Ecology and Connectivity for Milksnakes Across a Fragmented Region

New Tools for Amphibian Monitoring: Establishing Environment DNA (eDNA) as a Means of Monitoring Amphibians in Ontario

Ontario Turtle Tally

Turtle Island Conservation

Vancouver Island Marmot Conservation Recovery Program

Wildlife Health Centre Husbandry and Reintroduction Program for the Mississippi Gopher Frog

Wood Turtle Headstarting

Working Together to Save the Eastern Massasauga Rattlesnake

Green Practices

ENERGY

Documented Amount Spent

Documented Amount Used

Generated Renewable Energy On-Site

Purchased Renewable Energy

EXTERNAL SUPPORT

Received Support From External Sources for Green Projects

FOOD

Sourced Local Food or Grew It On-Site

FUEL

Documented Amount Spent

Documented Amount Used

GREEN PRACTICES IMPLEMENTED

Building Energy Management

Commingled Recycling

Community-Based Sustainability Projects

Community-Supported Agriculture (CSA) Program for Staff

Composting On-Site or Off-Site

Construction Waste Diversion / Recycling

Energy Submetering

Graywater Reuse and/or Rainwater Harvesting

Green Information Technology (IT)

Green Purchasing Policy / Green Procurement

Local Food Procurement for Animals and/or Guests

Purchasing Green Power or Renewable Energy Credits (RECs)

Solar or Wind Energy Generation

Usage of an Environmental Management System

Usage of Enterprise (IT) Solutions To Track, Measure and Dashboard Sustainability Performance

Water Submetering

Water-Wise Landscaping

GREENHOUSE GAS EMISSIONS

Documented Amount of Greenhouse Gas Emissions

PLANS, POLICIES AND BUDGETS

Dedicated a Line Item in the Budget for Green Practices

Dedicated Full-Time Equivalent (FTE) Staff to Coordinating Green Practices

Developed or Updated a Sustainability Plan (or Equivalent)

Developed or Updated a Sustainability Policy

WASTE

Documented Amount Composted Documented Amount Recycled Documented Amount Sent to Landfill

WATER

Documented Amount Spent Documented Amount Used

Mission-Focused Research

Animal Behaviour

- Assisted Reproductive Technologies as a Method of Embryo Production in Wood Bison
- Behavioural Assessment of Giant Pandas
- Developing Assisted Reproductive Techniques for the Vancouver Island Marmot
- Do Orangutans Choose to Choose?
- Prevalence and Epidemiology of *Babesia odocoilei* in Wild and Captive Cervids and in the Tick Vector (*Ixodes scapularis*) in Southern Ontario
- Specimen Request All
- Specimen Request All Mammalian Species
- Specimen Request Cervids
- Specimen Request Elephant
- Specimen Request Elk, Large North American Mammals
- Specimen Request Eutherian Mammals
- Specimen Request Hyena
- Specimen Request Loggerhead Shrikes
- Specimen Request Native Ontario Turtle Species
- Specimen Request Nile Monitor (*Varanus niloticus*), Black Tree Monitor (*Varanus beccarii*), Komodo Dragon (*Varanus komodoensis*)
- Specimen Request Orangutans
- Specimen Request Spotted Hyena
- Studies on the Behaviour and Physiology of Polar Bears Under Human Care
- Validation of the Body Condition Assessment of Polar Bears With a High Body Condition Score

VANCOUVER AQUARIUM MARINE SCIENCE CENTRE

Field Conservation

Acoustic Beluga Research Project

Agarum Monitoring

Annapolis Biodiversity Index Survey

Assessing Glass Sponge Reef Dynamics and Habitat Complexity Using 3D Structure From Motion Assessing Growth Trends and Body Condition of Killer Whales to Infer Nutritional Status

Biodiversity Monitoring

British Columbia Cetacean Sightings Network

- British Columbia Northern Leopard Frog Recovery Project
- Cetacean Conservation Genetics
- Field Study of Demography, Population Status and Natural History of British Columbian and Alaskan Killer Whales
- Glass Sponge Recovery From Mechanical Damage
- Health and Disease of Killer Whales
- Humpback Whale Health Assessment Based on Photogrammetry and Blow Samples
- Kelp Bed and Rocky Reef Monitoring
- Marine Conservation Assessment Map
- Marine Habitat Protection Guide
- Marine Mammal Rescue Centre
- Monitor Glass Sponge Reefs
- Monitor Lingcod Spawn Demography
- North Coast Cetacean Research Project
- Oregon Spotted Frog Recovery Project
- Panamanian Golden Frogs
- Recovery of Rockfish in Rockfish Conservation Areas
- Rockfish Winter Hiding
- Sculpting Rockfish Habitat in Howe Sound
- St. Lawrence Beluga Research Project

Green Practices

ENERGY

Documented Amount Spent

Documented Amount Used

Documented Square Footage of Conditioned Space

EXTERNAL SUPPORT

Received Support From External Sources for Green Projects

FOOD

Sourced Local Food or Grew It On-Site

FUEL

Documented Amount Spent Documented Amount Used

GREEN CERTIFICATIONS

Certified Under ISO 14001

- Documented Square Footage of Facility With Green Building Certification
- One or More Buildings LEED-Certified by the US Green Building Council

GREEN PRACTICES IMPLEMENTED

Building Energy Management

- Commingled Recycling
- Community-Supported Agriculture (CSA) Program for Staff
- Composting On-Site or Off-Site
- Construction Waste Diversion / Recycling
- Graywater Reuse and/or Rainwater Harvesting
- Green Building Policy / Commitment
- Green Purchasing Policy / Green Procurement
- Greenhouse Gas (GHG) Inventory
- Local Food Procurement for Animals and/or Guests
- Smart Buildings Systems
- Usage of an Environmental Management System
- Wastewater Reduction
- Water-Wise Landscaping

GREENHOUSE GAS EMISSIONS

Documented Amount of Greenhouse Gas Emissions

PLANS, POLICIES AND BUDGETS

- Dedicated a Line Item in the Budget for Green Practices
- Dedicated Full-Time Equivalent (FTE) Staff to Coordinating Green Practices
- Developed or Updated a Sustainability Plan (or Equivalent) Developed or Updated a Sustainability Policy

WASTE

Documented Amount Composted Documented Amount Recycled Documented Amount Sent to Landfill

WATER

Documented Amount Spent Documented Amount Used

Mission-Focused Research

Cetacean Novel Clinical Techniques Fish Disease Case Reports Frog Conservation and Disease Harbour Seal Post-Release Monitoring Marine Mammal Health and Physiology Pinniped Anesthesia Sea Lion Darting and Disentanglement Project

ZOO DE GRANBY

Field Conservation

Amur Leopard and Tiger Alliance (ALTA) – Amur Leopard Conservation in Russia

- AZA Conservation Grants Fund (CGF)
- Bats Recovery Plan in Quebec
- Conservation and Enhancement of Habitats and Endangered Species in Boisés Miner, Granby, Quebec, Canada

Conservation of Red Pandas

- Fauna and Flora Characterisation and Enhancement at Saint-Quentin Island, Trois-Rivières
- International Elephant Foundation (IEF) African Elephant Conservation
- Protection of Biodiversity, Anti-Poaching and Conservation of Gorillas and Elephants in Campo-Ma'an National Park in Cameroon
- Protection of the Wood Turtle and Its Habitat Within Yamaska Watershed
- Sharks Conservation in the St. Laurence River and in the North of Quebec
- Snow Leopard Trust (SLT) Snow Leopard Conservation in Asia
- Spiny Softshelled Turtle Recovery in Québec

Mission-Focused Research

- Behavioural Impact of Human Presence on Mammal Mesopredators in Protected Areas of Québec
- Effect of Open Zoos and Visitors on Captive Wallabies
- Impact of Unsuspected Noise on the Behavior and Welfare of Zoo Captive Animals
- Implication of Fructose in Relation to Atherosclerosis in Psittacine birds
- Macaques Wounding Study

The Behavior of Macaques in Relation to Visitor Effect and Enclosure Design

The Importance of Social Structure and Environment on Breeding Success in Captive Flamingos (*Phoenicopterus ruber*)

Colombia

ZOOLÓGICO DE CALI

Green Practices

ENERGY

Documented Amount Spent Documented Amount Used Documented Square Footage of Conditioned Space Generated Renewable Energy On-Site

FOOD

Sourced Local Food or Grew It On-Site

FUEL

Documented Amount Spent Documented Amount Used

GREEN PRACTICES IMPLEMENTED

Composting On-Site or Off-Site

WASTE

Documented Amount Composted Documented Amount Recycled Documented Amount Sent to Landfill Documented Amount Spent on Landfill Waste

WATER

Documented Amount of Wastewater Generated Documented Amount Spent Documented Amount Used

Hong Kong

OCEAN PARK CORPORATION

Education Programs

Active Learning Solution Limited eQuiz Contest Animal Encounter Programme Animal Exhibition Panels Lending Service Animal Feeding Programme Animal Fun Talk Animal Keeper Programmes Bamboo Jam **Big Feet Small Feet Union** Blue Hero Mission Children's First Touch of Nature Chinese White Dolphin Boat Trip Corporate Training Programme Education University of Hong Kong Volunteer Scheme Educational Talks at the Leisure and Cultural Services Department (LCSD) Emperors of the Sky Graduation Bash Grand Aquarium Scuba Diving / Exploration Hong Kong Flower Show Hospital Visit In-Park Narration Institute of Vocational Education Volunteer Scheme International Coastal Cleanup Jockey Club Giant Panda Junior Volunteer Programme Jockey Club Learn-to-Swim Programme for Primary Students Juvenile Horseshoe Crab Rearing Programme **MingPao Smarties** Nature Lab Workshop Nighttime in the Ocean's Depths No Straw Campaign Ocean Park Academy Preview Visit Ocean Park Academy, Hong Kong (OPAHK) - Educational Posters

Ocean Park Project-Based Learning (Primary 4-6)

- Ocean Park Website Conservation Section
- Ocean Park x Chinachem Golden Age Volunteer Programme
- Ocean Wonders
- Octopus Education Programmes (Junior and Secondary)
- PCM Articles
- Plankton Education Programmes (Kindergarten)
- School Outreach Seminars
- Seasonal Camps
- Shell Education Programmes (Primary 1-3)
- SiChuan Week
- SmartFun Education Tours
- Teacher Day Camp
- Teachers' Workshop of "Whiskers and Friends" Kindergarten Education Kit
- The Ocean Park Conservation Day
- The University of Hong Kong Volunteer Scheme
- University Student Sponsorship Programme
- Upper Iowa University Volunteer Scheme
- Virtual Guided Tour
- Whale Education Programme
- Whiskers and Friends Kindergarten Education Kit
- Wonderkids
- Yan Oi Tong Volunteer Scheme
- Young Explorers Club Programme (Regular Programme)
- Young Explorers Club Programme (Weekend Discovery Fun Day)
- Youth Ambassador Scheme
- Youth Internship Programme at Wolong National Nature Reserve, Sichuan

Field Conservation

- A Pilot Management Standardisation Project at Niuweihe Provincial Nature Reserve, Shaanxi
- Activity Pattern and Habitat Utilisation of Yangtze Finless Porpoise in Zhenjiang Nature Reserve, Hubei
- Amphibian Conservation on the Roof of Indochina
- Assessing IUCN Red List Status of Hong Kong Ants
- Assessment of Characteristics and Distribution of Human-Induced Underwater Noise in Chinese White Dolphin Habitats, Pearl River Estuary
- Blue Coral Breeding and Conservation in Xisha, Hainan

- Building Capacity to Ensure Sustainable Management Frameworks and Practices that Conserve the Critically Endangered Bengal Florican, the Endangered Black-Faced Spoonbill, Greater Adjutant and More
- Catalysing Community-Led Marine Conservation in Sulawesi
- Cloud Platform Setup for Public Education on Aquatic Wildlife
- Combining Alternative Livelihood Training and Environmental Education to the Community in Motianling Nature Reserve
- Community Conservation Education on Horseshoe Crabs and Their Habitats in Beibu Bay, Guangxi
- Community-Based Conservation Management of the Banggai Cardinalfish in Indonesia
- Community-Led Seahorse Conservation in Southwest Cambodia
- Competition Stress From Exotic Sturgeon Species on Wild Population of Chinese Sturgeon in the Yangtze River Estuary
- Conservation and Ecology of Endangered Chinese Turtles
- Conservation Genomic Inquiry to Save the Critically Endangered Rufous-Fronted Laughingthrush From the Brink of Extinction
- Conservation of Endangered Freshwater Turtles in Hong Kong
- Conservation of the Endangered Hog Deer (*Axis porcinus*) in Northeast India
- Conserving Critical Orangutan Habitat in Indonesian Borneo
- Conserving the Critically Endangered Chinese Pangolin (*Manis pentadactyla*) in the Tea Plantations of Darjeeling Himalaya, India
- Developing a Rehabilitation Centre for Sunda Pangolin, *Manis javanica*, in North Sumatra
- Displacement of Kernel Habitat of Coastal Delphinids Upon Substantial Anthropogenic Coast Alternations
- Diurnal Pattern of Habitat Use vs. Anthropogenic Noise in Core Areas of Chinese White Dolphins (*Sousa chinensis*) and Finless Porpoises (*Neophocaena phocaenoides*) in Hong Kong Waters
- EcoGuardians Program: A Model for Mitigating Turtle Hunting in the Chittagong Hill Tracts, Bangladesh (Arakan Forest Turtle, Assam Roofed)
- Education and Community Involvement in the Conservation of Indigenous Bird Species, Including the Critically Endangered Bali Mynah in Bali, Indonesia
- Effectiveness Evaluation of Functional Area Management Based on Biodiversity in Changqing National Nature Reserve, Shaanxi

- Environmental Pollution in Pearl River Estuary and the Health of Chinese White Dolphin
- Estimating Genetic Diversity in Captive Populations of Critically Endangered Blue-Crowned Laughingthrush (*Garrulax courtoisi*)
- Field Identification Handbook of Large and Medium-Sized Wild Mammals and Pheasants in Southwestern China
- Forming a Scientific Foundation for Coral Reef Restoration and Resilience in Hong Kong
- Genetic Database Development and Population Management for Giant Pandas in Caopo and Xiaohegou Natural Reserves in Sichuan
- Identifying Ecological Relationships of *Cacatua sulphurea* to Aid Conservation in Its Native and Introduced Ranges
- Informed Landscape Conservation: A Multi-Species Study Evaluating the Impacts of Habitat Fragmentation and Quality on Ranging Patterns of Threatened Wildlife in the Lower Kinabatangan Wildlife Sanctuary
- Initiation Work for Conservation of Yellow-Breasted Bunting, Emberiza aureola
- Inspiring Support for Pematang Gadung Community Forest Through Communication, Education and Public Awareness Efforts
- Investigation of Big-Head Schizothoracin Resources and Habitat in Xinjiang Tarim River
- Investigation of Habitat Fragmentation Status for Yangtze Finless Porpoise in Yichang-Wuhan Section of Yangtze River
- Multidisciplinary Approach for Assessing Komodo Dragon Population Distribution and Trends on the Island of Flores, Indonesia
- Phase 2: Standardisation of Patrol and Monitoring in Nature Reserves in Gansu, China
- Phase 3: Standardisation of Patrol and Monitoring in Nature Reserves in Gansu, China
- Population Assessments of Wild Bornean Orangutans: Comparing Ground Nest Surveys to New Drone Technologies
- Population Distribution and Feeding Ecology of Finless Porpoise in Liaodong Bay and Northern Yellow Sea
- Population Survey of Chinese White Dolphin in Jiangmen Chinese White Dolphin Provincial Nature Reserve, Guangdong
- Potential Distribution Prediction and Conservation Strategy of Chinese and Mangrove Horseshoe Crabs Juveniles Using Ecological Niche Factor Analysis in Beibu Gulf, Guangxi

Preliminary Study on Blood Transfusion of Giant Panda

- Recovering Red-Crowned Roofed Turtle (*Batagur kachuga*) on the Chambal River, Northern India
- Reptile Conservation in Rural Tamil Nadu
- Research and Action to Advance Conservation of Taimen
- Research on Evaluation and Promotion of Conserving Chinese Sucker
- Research on Leishan Spiny Toad Habitat Selection for Reproduction
- Research on Mechanical Effects of Large-Scale Reclamation Projects on Habitat Use of Chinese White Dolphin
- Restoring a Wild Population of Chinese Alligators at Wuchang Lake, Anhui Province, China
- Right From the Start: Guiding the Philippines as It Works Towards Implementing CITES for Vulnerable Seahorses
- Safeguarding Endangered Turtle Populations in Hong Kong
- Saving the Last Northern River Terrapins (*Batagur baska*) in the Sundarbans of India and Bangladesh
- Sidelined Arks in Deep Waters: Conserving Freshwater Taxa in the Southern Western Ghats of India
- Some Like It Hot But How About Critically Endangered Gharials (*Gavialis gangeticus*)?: Assessing the Impact of Climate Change on Nesting and Reproduction of Gharials in Chitwan National Park, Nepal
- Status Survey and Conservation Action Plan for Eurasian Otter (*Lutra lutra*) in Hong Kong
- Strengthening Community Cooperation for Pangolin Conservation in Kavrepalanchowk District
- Strengthening Participatory Turtle Conservation Project Along Ghaghra-Sarju River System in Terai Arc Landscape, North India
- Study and Conservation of Migratory Chinese Crested Terns (*Thalasseus bernsteini*) in China and Indonesia
- Study of Potential Risk of Canine Distemper to Wild Giant Panda and Its Associated Wildlife in Shaanxi
- Study of Wintering Ground and Breeding Behavior of Blue-Crowned Laughingthrush in Wuyuan, Jiangxi Province
- Study on Wildlife Corridor for Giant Panda in Wolong National Nature Reserve, Sichuan
- Supporting Spatial Monitoring and Reporting Tool (SMART) Patrols in Project Harimau Selamanya to Improve Protection of the Malayan Tiger in the Kenyir-Taman Negara Core Area, Peninsular Malaysia
- Systematic Surveys for Annamite Endemic Mammals in Pu Mat National Park
- Training on Infrared Camera Monitoring and Data Application for Conservation Authorities in Shaanxi

Twelve Years Later: Outcomes, Enforcement Challenges and Novel Solutions Following the Cites Appendix II Listing of the Humphead (=Napoleon) Wrasse, *Cheilinus undulatus*

Wildlife Monitoring Project in Taibai Niuweihe Provincial Nature Reserve, Shaanxi

Green Practices

ENERGY

Documented Amount Spent

Documented Amount Used

Generated Renewable Energy On-Site

FUEL

- Documented Amount Spent
- Documented Amount Used

GREEN PRACTICES IMPLEMENTED

- Alternative Fuel Usage for On-Site Fleet
- Commingled Recycling
- Community-Based Sustainability Projects
- Energy Submetering
- Green Purchasing Policy / Green Procurement
- Greenhouse Gas (GHG) Inventory
- Local Food Procurement for Animals and/or Guests
- Wastewater Reduction
- Water Submetering

GREENHOUSE GAS EMISSIONS

Documented Amount of Greenhouse Gas Emissions

PLANS, POLICIES AND BUDGETS

Dedicated Full-Time Equivalent (FTE) Staff to Coordinating Green Practices Developed or Updated a Sustainability Plan (or Equivalent)

Developed or Updated a Sustainability Policy

WASTE

Documented Amount Recycled

Documented Amount Sent to Landfill

Documented Amount Spent on Landfill Waste

WATER

Documented Amount Spent

Documented Amount Used

Mission-Focused Research

- Biosonar Research: Understanding Dolphin Echo-Imaging Capability
- Development of Pregnancy Diagnosis Method and Characterization of Fetal Growth in Yangtze Finless Porpoises

Genetic Barcoding of Jellyfish

- Parentage Determination of Dabry's Sturgeon (*Acipenser dabryanus*) Based on Novel Microsatellite DNA Markets Using Next-Generation Sequencing
- Pathogen Diagnosis and Surveillance and Research in Ocean Park Animals
- Training Workshop in Quantitative Spatial Ecology, Movement and Habitat Utilization Analyses
- Yellow-Bibbed Lory Research Project

Mexico

AFRICAM SAFARI PARK

Education Programs

Amazing Environments: Desert, Forest and Jungle Animal Encounter Biodiversity: Natural Heritage of Everyone Ecosystems **Endangered** Animals Extinction: Animals and Plants Disappear From Day to Night in Nature Fur, Feathers, Scales and Leaves Life Cycle Mexico's Biodiversity Mobile Zoo Move for the Environment Our Impact in Biodiversity Our Mission: Saving Ecosystems! The Animals, in My House or in the Woods? The Weather Changes? Better I!

Warning! Danger of Extinction

Field Conservation

California Sea Lion Health Assessment Crested Toad Recovery Plan Golden Eagle Conservation Program Masked Bobwhite Quail Recovery Program Socorro Dove Reintroduction Program Taylor's Salamander Conservation Project

Green Practices

ENERGY

Documented Amount Spent Documented Amount Used Documented Square Footage of Conditioned Space Generated Renewable Energy On-Site

FOOD

Sourced Local Food or Grew It On-Site

FUEL

Documented Amount Spent Documented Amount Used

GREEN PRACTICES IMPLEMENTED

Smart Buildings Systems

Alternative Fuel Usage for On-Site Fleet Alternative Transportation Benefits for Staff Alternative Transportation Discounts for Guests Anaerobic Digester Energy Generation **Building Energy Management** Commingled Recycling Community-Based Sustainability Projects Community-Supported Agriculture (CSA) Program for Staff Composting On-Site or Off-Site **Denitrification Systems Energy Submetering** Graywater Reuse and/or Rainwater Harvesting Green Building Policy / Commitment Green Purchasing Policy / Green Procurement Greenhouse Gas (GHG) Inventory Local Food Procurement for Animals and/or Guests

Usage of Enterprise (IT) Solutions To Track, Measure and Dashboard Sustainability Performance Wastewater Reduction Water Submetering Water-Wise Landscaping GREENHOUSE GAS EMISSIONS Documented Amount of Greenhouse Gas Emissions PLANS, POLICIES AND BUDGETS Dedicated a Line Item in the Budget for Green Practices Dedicated Full-Time Equivalent (FTE) Staff to Coordinating **Green Practices** Developed or Updated a Sustainability Plan (or Equivalent) Developed or Updated a Sustainability Policy Specified a Portion of the Amount Saved for Next Year's **Green Practices** WASTE Documented Amount Composted Documented Amount Recycled Documented Amount Sent to Landfill Documented Amount Spent on Landfill Waste WATER Documented Amount of Wastewater Generated **Documented Amount Spent**

Solar or Wind Energy Generation

Stormwater Management Program

Documented Amount Used

UNITED STATES

Alabama

BIRMINGHAM ZOO

Field Conservation

- American Association of Zoo Keepers (AAZK) Bowling for Rhinos
- American Association of Zoo Keepers (AAZK) Marine Mammal Center
- Chipangali Large Carnivore Project: Zimbabwe
- ConservationFIT: A Conservation Partnership Between Captive and Wild Jaguars Through Their Footprints
- Dian Fossey Gorilla Fund International
- Giraffe Conservation Foundation (GCF)
- International Rhino Foundation (IRF)
- Jaguar Corridor Project: Southern Belize
- Local Bat Conservation
- Passion Into Conservation Action (PiCA) Grant Conserving Namibia's Desert Dwelling Giraffe
- Passion Into Conservation Action (PiCA) Grant Pallas's Cat Research and Conservation
- Passion Into Conservation Action (PiCA) Grant Red Panda and Asian Ecosystem Conservation
- Passion Into Conservation Action (PiCA) Grant Red-Cockaded Woodpecker Translocation
- Rainforest Rescue Save the Cassowary
- Research on Small African Felids (PiCA Grant)
- Vulture Conservation Programme (VulPro)

Green Practices

ENERGY

- Documented Amount Spent
- Documented Amount Used
- Generated Renewable Energy On-Site

FOOD

Sourced Local Food or Grew It On-Site

FUEL

Documented Amount Spent

Documented Amount Used

GREEN PRACTICES IMPLEMENTED

Alternative Fuel Usage for On-Site Fleet Building Energy Management Carbon Offset Purchase for On-Site Utility Use Carbon Offsets for Employee Travel Commingled Recycling Community-Based Sustainability Projects Composting On-Site or Off-Site Construction Waste Diversion / Recycling Energy Submetering Graywater Reuse and/or Rainwater Harvesting Green Building Policy / Commitment Local Food Procurement for Animals and/or Guests Solar or Wind Energy Generation Stormwater Management Program Water-Wise Landscaping

PLANS, POLICIES AND BUDGETS

Dedicated Full-Time Equivalent (FTE) Staff to Coordinating Green Practices

Developed or Updated a Sustainability Plan (or Equivalent)

WASTE

Documented Amount Recycled Documented Amount Sent to Landfill

WATER

Documented Amount Spent Documented Amount Used

Mission-Focused Research

Arthritic Lesions of Giant Anteater Feet

AZA Red Panda SSP - Fecal Survey

- Examining the Pharmacokinetic Properties of a Sustained-Release Meloxicam Formulation in American Flamingos (*Phoenicopterus ruber*)
- Male African Dominance and Reproduction Study and Hormone Monitoring of Multiple Birmingham Zoo (BZI) Species
- North American River Otter Latrine Survey (Passion Into Conservation Action (PiCA) Grant)

Obesity Study: Lemuriformes in Human Care

Population Study of Black Bears in Alabama

Sparrow Swap

Treatment Analysis of a Male Jaguar in Human Care

Alaska

ALASKA SEALIFE CENTER

Field Conservation

Changing Tides – Bivalve Bioassay and Analysis Component (R0107)

Community-Based Coastal Monitoring of Aleutian Islands

Ocean Alaska Science and Learning Center (OASLC) – Trends in Habitat Use and Productivity of Seabirds in the Resurrection Bay/Kenai Fjords Area

Green Practices

ENERGY

Documented Amount Spent Documented Amount Used Documented Square Footage of Conditioned Space Generated Renewable Energy On-Site Purchased Renewable Energy

EXTERNAL SUPPORT

Received Support From External Sources for Green Projects

FOOD

Sourced Local Food or Grew It On-Site

FUEL

Documented Amount Spent

Documented Amount Used

GREEN CERTIFICATIONS

Certified by the Green Star Program

GREEN PRACTICES IMPLEMENTED

Building Energy Management

Commingled Recycling

Green Building Policy / Commitment

Green Purchasing Policy / Green Procurement

Local Food Procurement for Animals and/or Guests

Smart Buildings Systems

Usage of Enterprise (IT) Solutions To Track, Measure and Dashboard Sustainability Performance

Water Submetering

GREENHOUSE GAS EMISSIONS

Documented Amount of Greenhouse Gas Emissions

PLANS, POLICIES AND BUDGETS

Developed or Updated a Sustainability Plan (or Equivalent) Developed or Updated a Sustainability Policy

WATER

Documented Amount Spent

Documented Amount Used

Mission-Focused Research

Developing a Habitat Use Model for Juvenile Steller Sea Lions in the Gulf of Alaska With Inclusion of Predation Risk

- Developing VitaLink[®]: Autonomous Remote Satellite Tag Data Recovery Stations
- Effects of Increased Salinity in Coastal Wetlands on Growth and Survival of Threatened Steller's Eiders (*Polysticta stelleri*) and Spectacled Eider (*Somateria fischeri*) Ducklings

Eider Flock Maintenance 2012-2017 (R5800)

Instrument Development for Biological Research (IDBR) Type B: Life-Long Vital Rate Telemetry in Marine Homeotherms

Lactation Bioenergetics, Immune Competence, Age Determination Models, Temperature Patterns and Fetal Development in Steller Sea Lion Females and Their Pups

Long-Term Monitoring of Trends in Steller Sea Lion Behavior, Ecology, Vital Rates and Demography Within the Endangered, Western Distinct Population Segment

Reproduction, Survival and Depredation in Harbor Seals – Phase 1: Validation

Sustainability of Critical Areas for Eiders and Subsistence Hunters in an Industrializing Nearshore Zone

The Physiological Effects of Dispersants and Dispersed Oil on a Sentinel Cold Water Species, the Bay Mussel

Arizona

ARIZONA-SONORA DESERT MUSEUM

Education Programs

Amigos del Desierto Arizona-Sonora Desert Museum Press Art Institute Bat Bridge Programs **Buffelgrass Busters** Coati Club Coati Pups Colors of Nature Camp **Community Events** Cool Summer Nights Desert Ark Programs Desert Discovery Programs (On-Site) **Docent Interpretive Program** Docent Tours Docent Training and Continuing Education Fur, Feathers and Fangs Junior Docent Program Library Outreach Programs Live and (Sort of) on the Loose Museum Explorers Camp **Pollination Hotspots Public Programs** Raptor Free Flight Senior Programs Sonorensis Special Events

Field Conservation

Arizona Monarch Partnership Assurance Population: Gila Topminnow Assurance Population: Quitobaquito Mud Turtles Assurance Population: Quitobaquito Pupfish Assurance Population: Sonora Chub Buffelgrass Busters Propagation: Mexican Gartersnake Propagation: Tarahumara Frog Salvage: Rio Sonoyta Longfin Dace Salvage: Tortoise Adoption Program

Mission-Focused Research

Argentine Cactus Moth Monitoring Ecological Forecasting for Invasive Species Phenology Research Pollinator Hotspots Sky Island Arthropod Diversity

PHOENIX ZOO

Education Programs Advanced Inquiry Program (AIP) Animal Discoveries Animal Tales Backstage Adventures and Premium Tours Breakfast With the Animals Camp Zoo Certified Interpretive Guide Training **Conservation Science Night** Creature Features Critter Keeper **Discovery Tours** Family Nature Club Family Nature Club Workshops Farm Tots Gifts for the Animals Girl Scout Fall Fest **Guided Tours** Littlest Critters Lunch With a Keeper Lunch With a Keeper - Adults Nature Play Pop-Up Events Night Camp Outreach Distance Learning Photography Walk Abouts

Special Needs Camps Teen Career Conference Trail Host Program Wild Science Academy Wild Workshops Zoo U ZOOMobile ZooToYou - Outreach ZooToYou Assemblies

Field Conservation

Andean Bear-Human Conflict Areas in the Chingaza Massif, Colombia: Hot Spots, Drivers and Potential Solutions

Arizona TrailCAM Project

- Black-Footed Ferret (*Mustela nigripes*) Propagation and Release Program
- Borderlands Connectivity Field Research
- Building Bridges for the Javan Slow Loris
- Calamian Deer Survey on Culion Island, Palawan, Philippines
- Cheetah Sustainability Program
- Chiricahua Leopard Frog (*Lithobates chiricahuensis*) Headstarting and Release Program
- Comprehensive Conservation Program for the Critically Endangered Harlequin Frog, *Atelopus varius*, in the Talamanca Mountains, Costa Rica
- Conserving Critical Food Resources for the Endangered Mexican Long-Nosed Bat Through Community Bat-Friendly Agave Management Programs
- Continuing to Resolve Conflict Through Communication: Using DVD Shows to Help Reduce Human-Carnivore Conflict Around Ruaha National Park, Tanzania
- Determining Survival and Home Range of Red-Crowned Roofed Turtle on Chambal River, India
- Distribution, Vulnerability and Conservation of Amphibians in the Sierra Nevada, Colombia
- Fighting Destruction of Orangutan Habitat With Healthcare Incentives for Rainforest Guardianship
- Giant Armadillo: A Flagship Species for Biodiversity Conservation
- Harlequin Frog (*Atelopus varius*) Research and Recovery Center

- Hippos as Ecosystem Engineers: Habitat Use, Ecology and Behavior of Hippos in an Important Water Body of Zululand, South Africa
- Immobilization and Health Evaluations of Chacoan Peccary in the Gran Chaco, Paraguay
- Jaguar Corridor: Connecting National Parks in the Zona Sur, Costa Rica
- Madagascan Flying Fox
- Mariana Avifauna Conservation (MAC) Project
- Mount Graham Red Squirrel Propagation and Release Program
- Multi-Species Conservation Support Facility, Breeding Facility and Conservation Research Lab
- Narrow-Headed Gartersnake (*Thamnophis rufipunctatus*) Field Conservation
- Narrow-Headed Gartersnake (*Thamnophis rufipunctatus*) Propagation for Release
- Panama Amphibian Rescue and Conservation (PARC) Gamboa Facility
- Peninsular Pronghorn Recovery Program
- Ploughshare Tortoise Extinction Crisis Response in Madagascar
- Project Rufus: *In-Situ* Conservation of the *Pteropus rufus* Fruit Bat in the Sainte Luce Littoral Forest
- Protecting Connectivity Through Citizen Science at Scottsdale's McDowell Sonoran Preserve
- Proyecto Tití Continued Education Efforts to Engage Students in Cotton-Top Tamarin Conservation in Northern Colombia

Saving Sumatran Tigers by Reducing Tiger-Human Conflict

Searching for a Lost Population of Philippine Crocodiles on Negros Island, Philippines

Springsnail Field Surveys

- Strengthening Field-Based Conservation Management for the Critically Endangered Tonkin Snub-Nosed Monkey at Na Hang Nature Reserve, Vietnam
- Toward a Better Understanding of Orangutan Adaptation to Human-Made Landscapes
- University of Arizona / Arizona Center for Nature Conservation (ACNC) – Native Species Conservation Graduate Fellowship
- Vaquita Conservation, Protection and Recovery (Vaquita CPR)
- Warriors Protecting Grevy's Zebra in Laisamis, Northern Kenya

- Wild Water Project: Evaluating the Impacts of Surface Water Decline on Arid Ecosystems and Wildlife
- YUS Junior Rangers: Building Youth Leadership and Environmental Stewardship on the Huon Peninsula of Papua New Guinea

Green Practices

ENERGY

Documented Amount Spent

Documented Amount Used

Documented Square Footage of Conditioned Space

Generated Renewable Energy On-Site

FOOD

Sourced Local Food or Grew It On-Site

FUEL

Documented Amount Spent

Documented Amount Used

GREEN CERTIFICATIONS

Certified as a Wildlife Habitat

- Documented Square Footage of Facility With Green Building Certification
- One or More Buildings LEED-Certified by the US Green Building Council

GREEN PRACTICES IMPLEMENTED

Alternative Fuel Usage for On-Site Fleet

- Alternative Transportation Benefits for Staff
- Building Energy Management
- Commingled Recycling
- Composting On-Site or Off-Site
- Construction Waste Diversion / Recycling
- Energy Submetering
- Graywater Reuse and/or Rainwater Harvesting
- Green Building Policy / Commitment
- Green Purchasing Policy / Green Procurement
- Solar or Wind Energy Generation
- Wastewater Reduction
- Water-Wise Landscaping

PLANS, POLICIES AND BUDGETS

Dedicated a Line Item in the Budget for Green Practices

Dedicated Full-Time Equivalent (FTE) Staff to Coordinating Green Practices

Developed or Updated a Sustainability Plan (or Equivalent)

WASTE

Documented Amount Composted

Documented Amount Recycled

Documented Amount Spent on Landfill Waste

WATER

Documented Amount of Wastewater Generated

Documented Amount Spent

Documented Amount Used

Mission-Focused Research

Assessing the Genetic Connectivity of Northern Mexican and Narrow-Headed Garter Snakes Within and Among Watersheds in the United States using Genome-Wide Independent Nuclear Markers (SNPs) Data

Chiricahua Leopard Frog Effect of Population Density on Development Rate

Community Ecology Research Equipment: Camera-Trapping

- Developing a Pilot Breeding Program for the Endangered Mt. Graham Red Squirrel Using Fecal Steroid Analysis and Behavior Monitoring
- Developing an *Ex-Situ* Propagation Strategy for the Narrow-Headed Garter Snake
- Effect of Habitat Type on the Reproductive Strategy of *Lilaeopsis schaffneriana var. recurva*; An Extended Study of "Habitat Conducive to Sexual Reproduction in *L. s. recurva*"
- Evaluating Wildlife Corridors in the Chiricahua Mountain Ranges and Neighboring "Sky Islands"
- McDowell Gooseneck Corridor
- Select Acute Phase Proteins in the Black-Footed Ferret (*Mustela nigripes*)
- Serving the Community, the Environment and Visitors: Exploring the Experiences of an Environmental Education Center's Volunteers
- Squamate Sex Determination, Genomics and Phylogenetics
- Tracking Reintroduced *Ex-Situ* Born Narrow-Headed Garter Snakes
- US-Mexico Borderlands Wildlife Movement and Migration

Wildlife Research Assistant Training Program

REID PARK ZOO

Education Programs Animal Encounter Behind the Scenes Tours Bio Bags Camps (Non-Summer, Private or Winter) **Education Program Animal Presentation** Flashlight Safari - Overnight Formal Animal On-Grounds Presentations Interpretive Station Cart Little Critters Nature Play Days at the Zoo Photo Safari Summer Camp Teacher Workshop Young Explorers Programs Zoo Adventure Program (On-Site School Programs) Zoo to You Outreach

Field Conservation

AZA SAFE - Vaquita AZA Tamandua SSP - *In-Situ* Education Global Conservation Force International Elephant Foundation (IEF) International Rhino Foundation (IRF) IUCN/SSC Tapir Specialist Group Pantanal Giant Armadillo Project / Giant Anteater Conservation and Monitoring Program Tanzania Conservation Resource Centre Tarangire Elephant Project (TEP) Tucson Wildlife Center

Zoo Conservation Outreach Group (ZCOG) – Anteaters and Highways

Green Practices

ENERGY

Generated Renewable Energy On-Site

FOOD

Sourced Local Food or Grew It On-Site

GREEN PRACTICES IMPLEMENTED Community Solar Program Composting On-Site or Off-Site Construction Waste Diversion / Recycling Graywater Reuse and/or Rainwater Harvesting Green Building Policy / Commitment Solar or Wind Energy Generation

SEA LIFE ARIZONA AQUARIUM

Education Programs Boy Scouts Daily Feeds Daily Talks **Displays Animal Care Development Education Development** Forces of the Ocean Girl Scouts - Brownies Girl Scouts - Cadets Girl Scouts - Daisies Girl Scouts - Juniors Homeschool August Homeschool February Homeschool Mav Homeschool November Marine Awareness and Conservation Society (MACS) Conservation Workshop Plastic Oceans Summer Camps Survival of the Fittest Turtle Trackers Young Environmentalists

Mission-Focused Research

Aquaculture *Tubastraea aurea* Arizona Salt River Apple Snail Survey

Arkansas

LITTLE ROCK ZOO

Field Conservation

African Wild Ass (Equus africanus) Arkansas Monarch Conservation Partnership Arkansas Natural Heritage Commission Asian Elephant Support (AES) AZA Ape TAG - Conservation Initiative - Sumatran Orangutan Conservation Programme (SOCP) AZA Jaguar SSP - Cockscomb Basin Wildlife Sanctuary (CBWS) AZA SAFE - Conservation Action Plan (CAP) AZA SAFE - Vaguita Marina Conservation Action Plan (CAP) Cheetah Conservation Fund (CCF) Dian Fossey Gorilla Fund International Got Scat? International Bear Association International Elephant Foundation (IEF) International Rhino Foundation (IRF) IUCN/SSC Conservation Planning Specialist Group (CPSG) Save the Lemurs Southern African Foundation for the Conservation of Coastal Birds (SANCCOB) The Clouded Leopard Project The Orianne Society Turtle Survival Alliance (TSA) Wildlife SOS

Green Practices

FOOD

ENERGY Documented Amount Used Documented Square Footage of Conditioned Space

Sourced Local Food or Grew It On-Site

GREEN PRACTICES IMPLEMENTED Alternative Fuel Usage for On-Site Fleet Commingled Recycling Composting On-Site or Off-Site Energy Submetering Graywater Reuse and/or Rainwater Harvesting Green Purchasing Policy / Green Procurement Local Food Procurement for Animals and/or Guests Stormwater Management Program Water Submetering Water-Wise Landscaping

PLANS, POLICIES AND BUDGETS

Dedicated a Line Item in the Budget for Green Practices Developed or Updated a Sustainability Plan (or Equivalent) Developed or Updated a Sustainability Policy

WASTE

Documented Amount Composted Documented Amount Sent to Landfill

WATER

Documented Amount of Wastewater Generated Documented Amount Spent Documented Amount Used

Mission-Focused Research

AZA SSP – Collection of Samples and Records for SSP-Endorsed Studies

Local Undergraduate Student Project Observations

California

AQUARIUM OF THE BAY

Education Programs Bay Lab Public Programs BayMobile Outreach Programs Behind the Scenes Tours Exhibit Trainings Exploration Tours Film and Lecture Series Events General Outreach Programs Hybrid Ferry Programs Public Programs - Feedings Public Programs - Non-Feedings San Francisco Bay Area Sustainable Seafood Alliance Trainings and Events Self-Guided Tours Shoreline Clean-Up Events Sleepovers Special Public Program Events Teacher Workshops Trout in the Classroom Collaboration

Field Conservation

Bay Restoration Coast and Ocean Protection Rivers and Estuaries

Green Practices

ENERGY

Documented Amount Spent Documented Amount Used

FUEL

Documented Amount Spent Documented Amount Used

GREEN CERTIFICATIONS

Certified as a San Francisco Green Business

Documented Square Footage of Facility With Green Building Certification

GREEN PRACTICES IMPLEMENTED

Alternative Transportation Benefits for Staff

Commingled Recycling

Community-Based Sustainability Projects

Composting On-Site or Off-Site

Construction Waste Diversion / Recycling

Green Building Policy / Commitment

Green Information Technology (IT)

Green Purchasing Policy / Green Procurement

Wastewater Reduction

PLANS, POLICIES AND BUDGETS

Dedicated a Line Item in the Budget for Green Practices

Dedicated Full-Time Equivalent (FTE) Staff to Coordinating Green Practices

WASTE

Documented Amount Composted

Documented Amount Recycled

Documented Amount Sent to Landfill

Documented Amount Spent on Landfill Waste

WATER

Documented Amount Spent

Documented Amount Used

AQUARIUM OF THE PACIFIC

Education Programs

Aquarium on Wheels Outreach

Night Dive

Overnight Program

Public Programs – Aquatots, Job Shadow, Saturday Family Fun and Junior Biologist, Behind the Scenes Tours and Animal Encounters

Public Shows

School Programs

Whale Watching and Whale Photo ID Internship

Winter and Summer Camps

Green Practices

ENERGY Documented Amount Used

FOOD

Sourced Local Food or Grew It On-Site

GREENHOUSE GAS EMISSIONS

Documented Amount of Greenhouse Gas Emissions

Reported Greenhouse Gas Emissions to a Climate Registry

PLANS, POLICIES AND BUDGETS

Dedicated Full-Time Equivalent (FTE) Staff to Coordinating Green Practices

WASTE

Documented Amount Recycled Documented Amount Sent to Landfill Documented Amount Spent on Landfill Waste

WATER

Documented Amount of Wastewater Generated Documented Amount Used

B. BRYAN PRESERVE

Field Conservation

Giraffe Conservation Foundation (GCF) Grevy's Zebra Trust

BIRCH AQUARIUM AT SCRIPPS INSTITUTION OF OCEANOGRAPHY

Field Conservation

- Capacity Building and Specialty Training Multiple Marine Conservation Projects
- Capacity Building and Training of Multiple Institutions
- Cetacean Stranding Response With the Southwest Fisheries Science Center (SWFSC)
- Community Coastal Awareness
- Coral Conservation
- Sea Turtle Education Conservation and Sanctuary
- SEACAMP Outreach Education Support
- Syngnathidae Conservation
- Veterinarian Support

Mission-Focused Research

Aurelia aurita Genetics Coral Research/Conservation Leafy Seadragon Genetic Assessment San Diego Zoo Sperm Atlas Scripps Institution of Oceanography – Pier Data Analysis

CABRILLO MARINE AQUARIUM

Field Conservation

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

Cabrillo Salt Marsh Survey

Garibaldi Aquaculture, Territorial Behavior and Conservation

Inner Cabrillo Beach Survey

Peninsula Shorewatch

Tidewater Goby Recovery

Weekly Bird Survey at Manmade Salt Marsh at Cabrillo Beach, Los Angeles County, California

White Abalone Husbandry and Conservation

Green Practices

FOOD

Sourced Local Food or Grew It On-Site

PLANS, POLICIES AND BUDGETS

Dedicated Full-Time Equivalent (FTE) Staff to Coordinating Green Practices

Mission-Focused Research

Copepod Aquaculture Grunion Aquaculture Pacific Seahorse Husbandry and Development

CALIFORNIA SCIENCE CENTER

Field Conservation

Survey of Southern Steelhead

Green Practices

FOOD

ENERGY Documented Amount Spent Documented Amount Used Documented Square Footage of Conditioned Space

Sourced Local Food or Grew It On-Site

FUEL Documented Amount Spent Documented Amount Used

GREEN PRACTICES IMPLEMENTED

- Alternative Transportation Benefits for Staff
- **Building Energy Management**
- Commingled Recycling
- Composting On-Site or Off-Site
- Denitrification Systems
- Energy Submetering
- Green Building Policy / Commitment
- Green Information Technology (IT)
- Green Purchasing Policy / Green Procurement
- Greenhouse Gas (GHG) Inventory
- Water Submetering

GREENHOUSE GAS EMISSIONS

Documented Amount of Greenhouse Gas Emissions Reported Greenhouse Gas Emissions to a Climate Registry

PLANS, POLICIES AND BUDGETS

- Dedicated Full-Time Equivalent (FTE) Staff to Coordinating Green Practices
- Developed or Updated a Sustainability Plan (or Equivalent)

WASTE

Documented Amount Recycled

Documented Amount Sent to Landfill

Documented Amount Spent on Landfill Waste

WATER

Documented Amount Spent Documented Amount Used

Mission-Focused Research

Diversity Initiative for the Southern California Ocean (DISCO)

- Optimizing Macrocystis Husbandry Methods in the Kelp Nursery: A Collaboration between the California Science Center and the University of Southern California (USC) Wrigley Institute
- Preserving Marine DNA With the Ocean Genome Legacy Biorepository

CURIODYSSEY

Field Conservation

AZA FrogWatch USA

- Bay Area Bobcat Study
- Coyote Point Beach Clean Up
- Home Ranges, Den Sites and Food Habits of Ringtails in the Sutter Buttes, California
- Marsh Habitat Restoration Project Removal of Invasive Limonium ramosissimum

Pacific Tree Frog (Pseudacris regilla) Garden Habitat Project

River Otter Ecology Project

Mission-Focused Research

Experimental Restoration at Coyote Point Marsh

- UC Berkeley Urban Bee Lab Pollinator Habitat Advisors
- Urban Wildlife Project: Bay Lands Gray Fox Project
- Western Pond Turtle (*Emys pallida*, formerly *Emys marmorata pallida*) Ecology and Conservation in Central California

FRESNO CHAFFEE ZOO

Education Programs

Adventure Camp Beach Cleanup Behind the Scenes - Hand to Trunk Behind the Scenes - Hoofstock (Hops and Galaps) Behind the Scenes - Reptile Behind the Scenes - Sea Lion Splash Cubby Camp Group Behind the Scenes Lab - Ecosystems Lab - Habitats Lab - Life Cycles Lab - Structure and Function Overnight Safari Shadow a Keeper Teacher Workshops Tot Time Young Naturalist

Zoo Academy Zoo Preview Zoo Tour

Field Conservation

American Kestrel Nestbox Monitoring AZA Ape TAG - Conservation Initiative AZA SAFE - Vaquita AZA Sloth Bear SSP AZA Tiger SSP - Malayan Tiger Project AZA Western Pond Turtle SSP - Genetic Testing for Species Identification Bay Area Puma Project California Condor Nest Guarding Program Cheetah Adaptations in Varied Land-Use Regions of Kenya Community-Based Grevy's Zebra Conservation in Northern Kenya Friends of the Island Fox Support for Channel Islands National Parks Hornbill Research Foundation (HRF) - Nest Adoptions in Thailand International Rhino Foundation (IRF) Kibale Fuel Wood Project

- Lowland Tapir Conservation Initiative Pantanal Tapir Program
- Oakland Wetlands Restoration Project
- Pantanal Giant Armadillo Project
- Reticulated Giraffe Project
- Ridge to Reef Vaquita Project
- Ruaha Carnivore Project (RCP)
- Sahara Conservation Fund (SCF)
- Tarangire Elephant Project (TEP)
- Turtle Survival Alliance (TSA)
- Western Pond Turtle (*Actinemys marmorata*) Body Composition Analysis

Mission-Focused Research

- Determination of Safe and Effective Dosing Regimens for Flunixin Meglumine (Bananine®) and Firocoxib in African and Asian Elephants
- Developing a High Resolution Genotyping Method for Tiger Fecal DNA

Genetic Testing of Western Pond Turtles Suidae and Tayassuidae Reproductive Health Study The Orangutan Conservation Genetics Project

HAPPY HOLLOW ZOO

Education Programs

Camps Coffee and Critters Field Trips Fun for the Whole Family Girl Scout Programs Junior Keepers Meet and Greets Outreaches Senior Safari Sleepovers Tales for Tots Wild Science Zooteen Shadow

LOS ANGELES ZOO AND BOTANICAL GARDENS

Education Programs

California Condor Rescue Zone Daily Animal Talks Duttenhaver Conservation Field Study Student Fellowship Elephant Training Demonstration Family Classes Family Overnights Los Angeles Zoo Camp North Hollywood High School - Biological and Zoological Magnet School Parent-Child Classes Scout Overnights World of Birds Show Zoo Explorers Zoo Pals

Field Conservation

Asian Vulture Conservation

- Assessment of Heptner's Markhor and Bukhara Urial Populations
- Bat Survey in Los Angeles Zoo / Griffith Park
- Black-Winged Starling Conservation in Indonesia
- Bushmaster Survey and Preliminary Needs Assessment
- Bushmeat Education at Limbe Wildlife Center
- California Condor Recovery Project Rear and Prepare for Release to the Wild
- Community Conservation to Protect Critical Orangutan Habitat in Sabangau, Central Kalimantan, Indonesia
- Comparing Monitoring Methods to Infer the Conservation Status of the Komodo Dragon Population
- Conservation of Armenian Vipers (*Montivipera raddei*) Inhabiting Anthropogenic Modified Landscapes
- Conservation of Egyptian Vultures
- Conserving the World's Largest Amphibian
- Drill Conservation on the Island of Bioko
- Drill Rehabilitation and Breeding Center (DRBC)
- Fauna Monitoring Program on Polillo Island
- Fiji Crested Iguana Conservation
- Finding and Providing Appropriate Conditions Under Which to Hold the Endangered Southern Mountain Yellow-Legged Frog
- Giant Otter (*Pteronura brasiliensis*) Coexistence With People in the Peruvian Amazon
- Gorilla Rehabilitation and Conservation Education (GRACE) Center
- Harpy Eagle Conservation and Research
- Human-Elephant Conflict in Cambodia
- Increasing the Blue-Throated Macaw Population in the El Beni State of Bolivia
- Indian Gharial Behavioral Ecology and Conservation
- IUCN/SSC Asian Wild Cattle Specialist Group Saola Working Group – Saola Conservation Project
- Javan Warty Pig Recovery Project
- Minimizing the Conflict Between Asian Elephants and Local Villagers
- Okapi Conservation Project
- Paso Pacífico Paso del Istmo Jaguar Conservation Project

Peninsular Pronghorn Recovery Program

- Philippine Threatened Hornbills Conservation Project (Panay Island)
- Proyecto Taguá / Chaco Center for Conservation and Research (CCCR)
- Remote Monitoring of Red Uakari Monkeys and Hunting on the Yavari River, Peru
- Saiga Conservation Alliance
- Sonoran Pronghorn Recovery Project
- Turtle Survival Alliance (TSA)

Green Practices

- PLANS, POLICIES AND BUDGETS
- Dedicated Full-Time Equivalent (FTE) Staff to Coordinating Green Practices
- Developed or Updated a Sustainability Plan (or Equivalent)

Mission-Focused Research

Changes in Conservation Caring With Different Experiences

Development of Rapid Facial Mimicry (RFM) in Chimpanzees

- Do Chimpanzees Spontaneously Engage in Empathetic Yawning?
- Effects of Carcass Feeding on the Activity and Body Condition of Snow Leopards, Tigers and Painted Dogs
- Effects of Providing Zoo-Housed Orangutans With Arboreal Furnishings
- Effects of Zoo and Nature Experiences on Stress Reduction
- Evaluation of Animals and Their Exhibits
- Gorilla Activity and Social Interactions
- Play in Chimpanzees
- Relationship Between Available Space and Elephant Activity

MONTEREY BAY AQUARIUM

Education Programs

Aquarium Adventure Sleepovers Aquarium Adventure Tours Aquarium Adventure Underwater Explorers Auditorium Programs Discovery Labs School Program Education Conferences Feeding Presentations Homeschool Days School Program Ocean Explorers School Program Self-Guided School Programs Splash Zone Discovery School Program Student Oceanography Club Teacher Institutes Teacher Workshops Teen Conservation Leaders (TCL) Theatrical Programs Watsonville Area Teens Conserving Habitats (WATCH) Young Women in Science

Field Conservation

Aquarium Conservation Partnership (ACP) Conservation and Science Program Administration Migratory Movements, Depth and Temperature Preferences of Dolphinfish (*Coryphaena hippurus*) Along the Western Baja California Coast of Mexico Natural History of Mobulid Rays in the Gulf of California Ocean Conservation Policy Ocean Sunfish Research Pacific Bluefin Tuna Sea Otter Program Seafood Watch Sevengill Shark Research Shorebird and Seabird Rehabilitation White Shark Research

Green Practices

ENERGY Documented Amount Spent Documented Amount Used Documented Square Footage of Conditioned Space Purchased Renewable Energy

FOOD Sourced Local Food or Grew It On-Site

GREEN PRACTICES IMPLEMENTED Alternative Transportation Benefits for Staff Anaerobic Digester Energy Generation

Building Energy Management Carbon Offset Purchase for On-Site Utility Use Commingled Recycling Community-Based Sustainability Projects Community-Supported Agriculture (CSA) Program for Staff Composting On-Site or Off-Site Construction Waste Diversion / Recycling **Denitrification Systems** Energy Submetering Green Building Policy / Commitment Green Information Technology (IT) Green Purchasing Policy / Green Procurement Greenhouse Gas (GHG) Inventory Local Food Procurement for Animals and/or Guests Smart Buildings Systems Stormwater Management Program Water Submetering Water-Wise Landscaping

GREENHOUSE GAS EMISSIONS Documented Amount of Greenhouse Gas Emissions

PLANS, POLICIES AND BUDGETS Dedicated a Line Item in the Budget for Green Practices Developed or Updated a Sustainability Plan (or Equivalent)

WASTE

Documented Amount Composted Documented Amount Recycled Documented Amount Sent to Landfill Documented Amount Spent on Landfill Waste

WATER Documented Amount Spent Documented Amount Used

Mission-Focused Research

Deep Sea Cephalopods

Marine Macroalgae – Ecosystem Indicators of Historic Conditions Pelagic Red Crab Gut Contents: Plastics Study Visitor Research Whole Genome Sequencing of the Sea Otter

OAKLAND ZOO

Education Programs

Animal Encounters Conservation Assembly / ZooMobile Creek and Garden Programs **Docent-Led Tours** Earth Day and Special Animal Awareness Days **Education Birthday Parties** Family Sundown Safari Feeding Talks Field Biology Classes and Workshops Habitat Restoration Programs Out of School, Full or Half-Day Programs Parent's Night / Day Off Pathway Encounters Presentation / Conservation Speaker Series Scout Programs - Workshops and Overnights Tabling / Presentation Events (e.g., Fairs, Neighborhood/ Community Events and Festivals, Career Days, Back to School Nights/Days, Science Fairs and Festivals) Teen Wild Guides (TWiGs) and Teen Programs Youth and Student Conservation/Research Trips Zoo Camps - Summer and School Breaks ZooKids Programs ZOOMobile **ZooSchool** Zoo-to-Community Initiative Zoovie Nights

Field Conservation

Africa Matters Amboseli Trust for Elephants Animals Asia Arroyo Viejo Creek On-Site Restoration Project Asociación de Rescate y Conservación de Vida Silvestre (ARCAS) AZA Jaguar SSP AZA Puerto Rican Crested Toad SSP Bay Area Puma Project - Felidae Conservation Fund **Big Life Foundation** Bornean Sun Bear Conservation Centre (BSBCC) Budongo Snare Removal Project California Condor Recovery Program California Wolf Center Centre ValBio at Stony Brook University Cheetah Conservation Fund (CCF) David Sheldrick Wildlife Trust Golden Gate Audubon Society Hornbill Research Foundation (HRF) - Nest Adoptions in Thailand linnii Initiative Kibale Bead Community Action Project Kibale Fuel Wood Project Lubee Bat Conservancy Marine Mammal Center Mountain Gorilla Veterinary Project Mountain Lion Foundation Mountain Yellow-Legged Frog Project Oakland Zoo Heron Initiative Oakland Zoo Mountain Lion Initiative People and Carnivores Project Golden Frog Proyecto Tití Reticulated Giraffe Project Save the Elephants SaveNature.Org - Rainforest Conservation Parking Meter Uganda Carnivore Program Ventana Wildlife Society Western Pond Turtle Headstart Program (On-Site) Wildlife Conservation Network (WCN) - Ewaso Lions Wildlife Conservation Society (WCS) - Tiger Project

Green Practices

ENERGY

Generated Renewable Energy On-Site

FOOD

Sourced Local Food or Grew It On-Site

GREEN CERTIFICATIONS

Certified as a Wildlife Habitat

One or More Buildings LEED-Certified by the US Green Building Council

GREEN PRACTICES IMPLEMENTED

Alternative Fuel Usage for On-Site Fleet

Building Energy Management

Commingled Recycling

Community Solar Program

Composting On-Site or Off-Site

Construction Waste Diversion / Recycling

Graywater Reuse and/or Rainwater Harvesting

Green Building Policy / Commitment

Green Information Technology (IT)

Green Purchasing Policy / Green Procurement

Solar or Wind Energy Generation

Wastewater Reduction

Water-Wise Landscaping

PLANS, POLICIES AND BUDGETS

Dedicated Full-Time Equivalent (FTE) Staff to Coordinating Green Practices

Developed or Updated a Sustainability Plan (or Equivalent)

Developed or Updated a Sustainability Policy

SACRAMENTO ZOO

Field Conservation

African Wildlife Foundation

American Association of Zoo Keepers (AAZK) – Bowling for Rhinos

Amphibian Ark

AZA Jaguar SSP – Cockscomb Basin Wildlife Sanctuary (CBWS)

AZA SAFE - Vaquita Program

AZA SAFE - Western Pond Turtle

Biodiversity Conservation Organization – Assessing the Current Population Status of the Vulnerable Abbott's Starlings (*Cinnyricinclus femoralis*) in Mt. Kenya Forest in Kenya Through Community Involvement

Biodiversity Conservation Organization – Back Tracking to Evaluate the Total Primates Population Around Tana River National Primate Reserve in Kenya and Involve the Local Communities

Biodiversity Conservation Organization – Conservation of Critically Endangered Roan Antelope (*Hippotragus equinus*) In Ruma National Park in Kenya

Biodiversity Conservation Organization – Securing the Current Population Status of the Least Known Yellow-Billed Stork (*Mycteria ibis*) in Lake Naivasha, Kenya, Through Community Empowerment and Mobilization

Centre for Indigenous Resources Management and Development (CIRMAD) – Improving Data Collection and Law Enforcement With Community Ecoguards in Ko-Wum Forest Habitat

Coral Restoration Foundation

Delta Region Sandhill Crane Conservation

Dhartee Development Society – Critically Endangered Gyps Vulture Conservation

East Bay Puma Project

Ecology and Conservation of the Grey Parrots (*Psittacus erithacus*) in Kakamega Forest in Western Kenya Through Local Communities' Participation

Felidae Conservation Fund / Bay Area Puma Project

Food Procurement for Rehabilitation Centers

Garter Snake Ecology Studies

Giant Garter Snake Behavioral Ecology

Giraffe Conservation Foundation (GCF)

Grevy's Zebra Trust

Hornbill Research Foundation (HRF) - Nest Adoptions in Thailand

Involving Local Communities in Conservation of Leopard Tortoise (*Stigmochelys pardalis*) and Its Habitats in Lake Bogoria National Reserve in Kenya

Landscape and Conservation Mentors Organization - Educational Eco Fieldtrips for Community Youth Surrounding the Park

Lemur Conservation Foundation

Mabula Ground Hornbill Project (MGHP)

Madagascar Fauna and Flora Group (MFG)

- Mountain Lion Foundation Citizen Science for Mountain Lions on the Cosumnes River Preserve
- Nature and People Conservancy Building the Local Communities' Capacity in Conservation of Endangered Golden-Rumped Elephant Shrews (*Rhynchocyon chrysopygus*) in Arabuko Sokoke Forest in Kenya
- New Nature Foundation (NNF) Sustainable Innovations With Wildlife-Neighboring Communities in Uganda
- Nido Adoptivo
- Orangutan Outreach
- Pantanal Giant Armadillo Project
- Primate Education Network (PEN)
- Red Panda Network (RPN)
- Resource and Habitat Use of Aye-Ayes (*Daubentonia madagascariensis*) in Torotorofotsy and Kianjavato, Madagascar
- River Otter Ecology Project Seasonal Food Habits of the North American River Otter (*Lontra canadensis*) in Tomales Bay and Drakes Bay, California
- Sahara Conservation Fund (SCF)
- Saiga Crisis Fund
- Seafood Watch
- Shared Conservation Biologist
- Small Wild Cat Conservation Foundation First Conservation Projects for Bay Cat, Flat-Headed Cat and Marbled Cat
- Snow Leopard Conservancy (SLC)
- Snow Leopard Trust (SLT)
- Sustainable Run for Development (SURUDEV) Conservation Education, Field Survey of Birds Species Disappearance, Ako-Mbembe Forest Reserve and Kilum-Ijim Forest of the Bamenda Highlands, North West Region of Cameroon
- Tangkoko Conservation Education Conservation Education Program for Local Communities in North Sulawesi, Indonesia
- The Prusten Project Determining Individualistic Vocal Patterns of *Panthera tigris* and Implications for Acoustic Monitoring of *In-Situ* Populations
- Tropical Research and Conservation Centre Community-Based Conservation of Endangered Sea Turtles Nesting Along the Akassa Coast, Bayelsa, Nigeria
- Union Island Gecko Conservation Program
- Vulture Conservation Programme (VulPro)

- WASIMA Stop Illegal Lion Hunting Around Protected Areas in Western Tanzania
- West African Primate Conservation Action Safeguarding the Future of Critically Endangered Primates Through Community-Led Conservation and Education
- Wild Nature Institute Masai Giraffe Conservation Demography
- WildAid Shark Savers
- Wildlife Care Association
- Wildlife Conservation Expo
- Zoo Conservation Outreach Group (ZCOG)
- Zoos and Aquariums Committing to Conservation (ZACC)

Green Practices

- ENERGY
- Documented Amount Spent
- Documented Amount Used
- Documented Square Footage of Conditioned Space
- Generated Renewable Energy On-Site
- Purchased Renewable Energy

FOOD

Sourced Local Food or Grew It On-Site

FUEL

Documented Amount Spent Documented Amount Used

GREEN PRACTICES IMPLEMENTED

- Alternative Fuel Usage for On-Site Fleet
- Carbon Offset Purchase for On-Site Utility Use
- Carbon Offsets for Employee Travel
- Commingled Recycling
- Composting On-Site or Off-Site
- Green Information Technology (IT)
- Local Food Procurement for Animals and/or Guests
- Purchasing Green Power or Renewable Energy Credits (RECs)
- Smart Buildings Systems
- Solar or Wind Energy Generation
- Wastewater Reduction
- Water-Wise Landscaping

PLANS, POLICIES AND BUDGETS

Dedicated a Line Item in the Budget for Green Practices Dedicated Full-Time Equivalent (FTE) Staff to Coordinating Green Practices Developed or Updated a Sustainability Plan (or Equivalent) Developed or Updated a Sustainability Policy

WASTE

Documented Amount Composted Documented Amount Recycled Documented Amount Sent to Landfill Documented Amount Spent on Landfill Waste

WATER

Documented Amount Spent Documented Amount Used

Mission-Focused Research

Amdovirus Investigation in Red Pandas Chimpanzee Anesthesia Risk Assessment Classification and Management Assessment of Canine Fractures in Captive Great Apes Clinical Medicine Research Publications Detection of Avian Bornavirus in Thick Billed Parrots Feline Stereotypic Behavior Gibbon Diet Survey North American River Otter Genetic Testing Obesity and Repetitive Behaviors in Captive Lemurs Snow Leopard Ocular Coloboma Congenital Eye Disease Sumatran Orangutan Birth Control Survey Sumatran Tiger Gastrointestinal Health Western Pond Turtle Shell Disease Study Group

SAFARI WEST WILDLIFE PRESERVE

Education Programs

Guided Safari Tour Husbandry Internship Off-Site Presentation Research Internship Safari Trek Field Trip

Green Practices

GREEN PRACTICES IMPLEMENTED Composting On-Site or Off-Site Graywater Reuse and/or Rainwater Harvesting Local Food Procurement for Animals and/or Guests Stormwater Management Program Wastewater Reduction Water-Wise Landscaping

SAN DIEGO ZOO GLOBAL

Education Programs

Advanced Inquiry Program (AIP) Institute Conservation Education Lab School Visits Price Family Watershed Heros Safari Park - Behind-the-Scenes Safari Safari Park - Caravan Safari Safari Park - Cheetah Safari Safari Park - Conservation Corp Safari Park - Conservation in Action Safari Park - Fur, Feathers and Scales Safari Park - Roar and Snore Safari Safari Park - Safari Express Safari Park - Save Our Aquatic Resources Safari Park - Self-Guided Field Trips Safari Park - Summer Camp Safari Park - Tram Safari Park - Ultimate Safari San Diego Zoo Kids Zoo - Animals in Action Zoo - Classic Summer Camp Zoo - Discovery Tours Zoo - Enviro School Zoo - Exclusive VIP Experience Zoo - Expeditionary Learning Program Zoo - Fall Educator Preview Zoo - Girls in Science Zoo - Guided Bus Tour

Zoo - Healing Animal Arts

- Zoo Inside Look Tours
- Zoo Inside Story Tour
- Zoo Internquest
- Zoo Kids Free Month
- Zoo KinderTots and Kindernights
- Zoo School in the Park
- Zoo Second Grade Adaptations Connections
- Zoo Self Guided School Field Trips
- Zoo Special Tours
- Zoo Sunrise Surprise Strolls
- Zoo Wild Heroes
- Zoo Wildlife Overnights
- Zoo Zoo Corps

Field Conservation

African Penguin Conservation

- An Adaptive Management Approach to Recovering Burrowing Owl Populations and Restoring a Grassland Ecosystem
- Anegada Iguana Recovery Program

Anoa Program

- AZA Andean Condor SSP Colombian Reintroduction Program
- AZA Grand Cayman Blue Iguana SSP Population Management and Recovery Program
- AZA Jamaican Iguana SSP Population Management and Recovery Program
- AZA Okapi SSP Consortium
- Behavior, Ecology and Conservation of Gelada Baboons
- Behavioral Ecology and Conservation of Andean Bears in Peru
- Behavioral Ecology and Reintroduction of the Tasmanian Devil
- Cactus Scrub Habitat Enhancement and Cactus Wren Monitoring
- California Condors and Endocrine Disruptors
- California Least Tern and Western Snowy Plover Conservation Program
- Captive Breeding and Reintroduction of the San Clemente Loggerhead Shrike
- Central Africa Program

- Cheetah Conservation
- Chinese Dhole Recovery
- Collaborative Conservation Research for Sloth Bears
- Combating the Illegal Trade in Asiatic Black Bears and Bear Parts in Southeast Asia
- Conservation and Captive Rearing of the Critically Endangered Mangrove Finch
- Conservation and Ecology of Wild Giant Panda Populations
- Conservation Breeding and Reintroduction of the Critically Endangered Pacific Pocket Mouse
- Conservation Breeding and Release of the Aga or Mariana Crow
- Conservation Breeding of the Giant Panda
- Conservation Ecology of the Sun Bear
- Conservation Management of Leopards in Northern Kenya's Rangelands: Integrating Ecology and Social Science Into Community-Based Conservation
- Conservation of the Quino Checkerspot Butterfly
- Conserving Endangered Vultures in Northern Kenya: Taking Action Against Key Threats
- Desert Tortoise Health
- Disease Modeling and Tasmanian Devils
- Effects of Roads on Space Use, Habitat Selection, Diet, Population Dynamics and Health of Ringtails in Rural San Diego County
- Effects of Wind Turbines on Golden Eagles and Condors in Northern Baja California, Mexico
- Enhancing California Condor Genetic Management
- Fiji Iguana Conservation
- Fiji Iguana Conservation and Comparative Genetics
- Galápagos Pink Land Iguana Recovery Program
- Gelada Ecology and Conservation
- Giant Panda Conservation Disease Surveillance and Risk Assessment in China
- Grevy's Zebra Trust
- Hawaii Endangered Bird Conservation Program
- Hornbill Research Foundation (HRF)
- Human Dimensions of Lion Conservation
- Human-Wildlife Coexistence With Jaguars in the Bolivian Amazon
- International Elephant Foundation (IEF)
- International Rhino Foundation (IRF)

- Investigating Ecological and Health Requirements for Long-Term Sustainability of Coastal Patch-Nosed Snake Populations
- Investigating the Role of Disease in Declining Thick-Billed Parrot Populations in Northern Mexico
- IUCN/SSC Asian Wild Cattle Specialist Group Saola Working Group
- IUCN/SSC Tapir Specialist Group
- Jaguar Costa Rica Corridor Research
- Koala Management, Education and Conservation Program
- Las Californias Linkages for Large Mammals: Peninsular Bighorn Sheep in Baja California, Mexico
- Light-Footed Clapper Rail Reintroduction Program
- Living With Elephants Conservation and Human Dimensions Efforts
- Living With Elephants Conservation, Communities, Rescues and Human Dimensions
- Lowland Paca Conservation Peru
- Madagascar Fauna and Flora Group (MFG)
- 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
- New Technologies in Support of Grevy's Zebra Conservation: Integrating Genomes, Microbiomes, Parasites, Diets and Demography
- Northern Rangelands Trust Black Rhino Translocation to Sera Community Conservancy
- Northern Rangelands Trust Ishaqbini Hirola Community Conservancy Project
- Northern Rangelands Trust West Gate Community Conservation
- Northern White Rhinoceros Initiative
- Okapi Conservation Project
- Peninsular Pronghorn Recovery Program
- Point Loma Nazarene University (PLNU) Project Jaguar and Other Predators of the Talamanca
- Polar Bear Conservation Research and Educational Outreach
- 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

- Prevalence of Haemosporidian in the Endangered African Penguin: Effects on Morbidity and Mortality in a Changing World
- Przewalski's Horse: Asian Wild Horse Conservation Project
- Recovery of the California Condor
- Red Panda Network (RPN)
- Red Uakari Monkey Conservation Peru
- Red-Necked Ostrich Recovery
- Reteti Elephant Orphanage
- Reticulated Giraffe Conservation With Pastoralists
- Ridge to Reef Community-Based Conservation of the Vaquita
- Rock Iguana Breeding Program
- Rodrigues Fruit Bat Conservation Support
- Sahara Conservation Fund (SCF)
- Saiga Conservation Alliance
- Saiga Conservation in Central Asia, Russia and Addressing Saiga Horn Consumption in Southeast Asia
- Saiga Conservation Project in Kalmykia, Russia and Ukraine
- Snow Leopard Trust (SLT)
- Southern Africa Elephant Conservation Program
- Southern Ground Hornbill Reintroduction
- Swaziland African Elephant Parks Support
- Tasmanian Devil Grant Support for the Zoological Association of America (ZAA)
- Tasmanian Devil Tools and Tech: Bridging the Gap Between the Lab Bench and Forest Floor
- The Genetic Diversity of Addax in Reintroduced and *Ex-Situ* Managed Populations
- The Peregrine Fund Conserving Endangered Vultures
- 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
- Understanding Interactions of Giraffe, People and Livestock to Develop Community-Based Conservation Projects
- Understanding Public Attitudes Towards the Use of Tiger Parts in Southeast Asia
- West Gate Community Conservancy, Northern Rangelands Trust, Kenya

Western Pond Turtle

Wildlife Conservation Network (WCN) – Ewaso Lions – Conservation of Kenya's Lions by Promoting Coexistence Between People and Wildlife

Wildlife Conservation Society (WCS) – Sumatran Tiger Project

Woolly Monkey Conservation Peru

Green Practices

ENERGY

Documented Amount Spent Documented Amount Used Documented Square Footage of Conditioned Space Generated Renewable Energy On-Site

FOOD

Sourced Local Food or Grew It On-Site

FUEL

Documented Amount Spent

GREEN CERTIFICATIONS

Documented Square Footage of Facility With Green Building Certification

One or More Buildings LEED-Certified by the US Green Building Council

GREEN PRACTICES IMPLEMENTED

Alternative Fuel Usage for On-Site Fleet Alternative Transportation Benefits for Staff Building Energy Management Commingled Recycling Community Solar Program Composting On-Site or Off-Site Construction Waste Diversion / Recycling Graywater Reuse and/or Rainwater Harvesting Green Building Policy / Commitment Green Information Technology (IT) Green Purchasing Policy / Green Procurement Local Food Procurement for Animals and/or Guests Smart Buildings Systems Solar or Wind Energy Generation Wastewater Reduction Water-Wise Landscaping

PLANS, POLICIES AND BUDGETS

Dedicated a Line Item in the Budget for Green Practices Dedicated Full-Time Equivalent (FTE) Staff to Coordinating Green Practices Developed or Updated a Sustainability Plan (or Equivalent) Developed or Updated a Sustainability Policy

WASTE

Documented Amount Composted Documented Amount Recycled Documented Amount Sent to Landfill Documented Amount Spent on Landfill Waste

WATER

Documented Amount Spent Documented Amount Used

Mission-Focused Research

Noninvasive Reproductive Technology

SAN FRANCISCO ZOOLOGICAL GARDENS

Education Programs Adult Volunteer Program Conservation Lecture Series Docent Program Early Childhood - Young Zoologist Series, Little Learners and Animal Adventures Earthwatch Field Programs Paid Tours Senior Stroll Wild Nights Wildlife Illustration Wildlife Theater Youth Volunteers - Junior Zoologist Youth Volunteers - Nature Trail Youth Volunteers - Talk on the Wild Side Youth Volunteers – Zoo Crew Youth Volunteers – Zoo Teaching Assistant Zoo Camp Zooforce ZOOMobile, Close Encounters and Biodiversity Basics

Field Conservation

Andean Cat Ape Action Africa AZA Chacoan Peccary SSP AZA FrogWatch USA AZA Komodo Dragon SSP AZA SAFE - Vaquita Project AZA SAFE - Western Pond Turtle Project AZA Tiger SSP - Tiger Conservation Campaign Cheetah Conservation Fund (CCF) Dian Fossey Gorilla Fund International Earthwatch Institute Fauna and Flora International (FFI) - François' Langur Gorongosa Lion Project International Rhino Foundation (IRF) IUCN/SSC Conservation Planning Specialist Group (CPSG) Lake Merced Restoration and Conservation Madagascar Fauna and Flora Group (MFG) Mountain Lake Restoration / Zoo Crew Mountain Yellow-Legged Frog Conservation Program National Network for Ocean Climate Change Interpretation (NNOCCI) - Climate Change Interpretation Trainings **PAMS** Foundation Polar Bears International (PBI) Red Panda Network (RPN) Reintroduction of Western Pond Turtle to Golden Gate National Recreation Area San Francisco Forktail Damselfly Project Snow Leopard Conservancy (SLC) Western Pond Turtle Sex Determination and Headstarting Studies Yosemite National Park Conservation Partnership Yosemite Toad Rearing

Green Practices

ENERGY

FUEL

Documented Amount Spent

Documented Amount Used

Documented Square Footage of Conditioned Space

EXTERNAL SUPPORT Received Support From External Sources for Green Projects

FOOD Sourced Local Food or Grew It On-Site

Documented Amount Spent Documented Amount Used

GREEN CERTIFICATIONS Certified as a Wildlife Habitat

GREEN PRACTICES IMPLEMENTED

Alternative Fuel Usage for On-Site Fleet Alternative Transportation Benefits for Staff Alternative Transportation Discounts for Guests Commingled Recycling Composting On-Site or Off-Site Construction Waste Diversion / Recycling Graywater Reuse and/or Rainwater Harvesting Green Information Technology (IT) Local Food Procurement for Animals and/or Guests Solar or Wind Energy Generation Water-Wise Landscaping

WASTE

Documented Amount Composted Documented Amount Recycled Documented Amount Sent to Landfill Documented Amount Spent on Landfill Waste

WATER Documented Amount Spent

Documented Amount Used
Mission-Focused Research

- Animal Enrichment Initiative: Polar Bear and Lowland Gorilla Projects
- Behavioral Assessment of Quality of Life in Aging Zoo Animals
- Behavioral Impacts of Time-Delayed Puzzle Feeders on Black Rhino
- Conservation Footprint Identification Technique (FIT): A Conservation Partnership Between Captive and Wild Snow Leopards Through Their Footprints
- Describing Anticipatory Behavior
- Reintroduction of the Western Pond Turtle to Mountain Lake
- Risk Assessment for Avian Malaria Transmission in Captive African (*Spheniscus demersus*) and Magellanic (*Spheniscus magellanicus*) Penguins
- Risk Assessment of Perianesthetic Mortality in Captive Managed Populations of Chimpanzees (*Pan troglodytes*)
- Sequoia Kings Canyon Yellow-Legged Frog Headstart Project
- Testing the Effectiveness of Headstarting as Part of a Conservation Toolbox to Restore the Sierra Nevada Yellow-Legged Frogs (*Rana sierrae*) to the Lake Tahoe Basin

The Giraffe Paradox

ZooMonitor

SANTA BARBARA ZOOLOGICAL GARDENS

Education Programs

Adult Volunteer Options

Barnyard Feeding

Behind the Scenes

Camp

Explorer Trips

Giraffe Feeding

Homeschool Science

Keeper Talks

Safaris

- School Groups
- School Science Night Outreach

Workshops

Zoo Teens

Field Conservation

Amazon Conservation Team

Amphibians of the Los Padres National Forest

Amur Leopard and Tiger Alliance (ALTA)

AZA SAFE - Vaquita

Bitter Creek National Wildlife Refuge

Black-Footed Ferret Reintroduction

California Condor Conservation Program

California Red-Legged Frog Translocation in Santa Monica Mountains

Channel Islands Fox Conservation Program

ECO-CELL

Hornbill Research Foundation (HRF)

Local Watershed and Ocean Cleanups

Marine Sampling

Naval Base Ventura County Southwest Pond Turtle Monitoring Program

Oiled Wildlife Care Network (OWCN)

Snow Leopard Trust (SLT)

Southern Sea Otters in the Santa Barbara Channel

The Xerces Society - Western Monarch Thanksgiving Count

Western Snowy Plover Rearing Project

Mission-Focused Research

- DNA Testing of Mob of Meerkats to Determine Relatedness and Parentage
- Effects of Diet Composition and Feeding Regime Changes on Santa Barbara Zoo Western Lowland Gorilla Behavior
- Oxytocin as a Measure of Social Bond and Welfare in Western Lowland Gorillas (*Gorilla gorilla gorilla*) in North American Zoos
- What Does the Fox Scat Say? Evolutionary Analyses of Diet, Population Size and Pathogens in the Island Fox (*Urocyon littoralis*)
- Zoo Drinking Water Quality Assessment

SEA LIFE CARLSBAD AQUARIUM AT LEGOLAND

Field Conservation

Beach Cleanups Georgia Sea Turtle Center - Donations

Green Practices

GREEN PRACTICES IMPLEMENTED

Alternative Transportation Benefits for Staff Community-Based Sustainability Projects Composting On-Site or Off-Site Construction Waste Diversion / Recycling Local Food Procurement for Animals and/or Guests Water-Wise Landscaping

SEAWORLD SAN DIEGO

Field Conservation

Alaska SeaLife Center – Response and Post-Release Monitoring of Stranded Marine Mammals in Alaska

- Animal Rescue, Rehabilitation and Release
- California Wolf Center Mexican Wolf Fund
- Hubbs-SeaWorld Research Institute
- Living Coast Discovery Center San Diego Bay Marine Debris and Habitat Restoration
- Polar Bears International (PBI) Distributional Shifts in Polar Bear (*Ursus maritimus*) Subpopulations in the Western Hudson Bay
- Project Wildlife
- **Rising Tide Conservation**
- San Diego Turtle and Tortoise Society: Turtle and Tortoise Rescue, Rehabilitation and Placement Program
- Vaquita Conservation, Protection and Recovery (Vaquita CPR)
- Wildlife in Need (WIN) Rescue Center Enhanced Care for Rescued and Confiscated Wildlife
- Zoological Society of San Diego: From the Ridge to the Reef

SEQUOIA PARK ZOO

Education Programs

Cub Club - Animal Tales Cub Club - Home Sweet Habitat Junior Zookeepers - Animedia Junior Zookeepers - Wildlife Heroes

Field Conservation

- Abundance and Distribution of Western Pond Turtles From North Fork Trinity River to Weitchpec, CA
- AZA Chacoan Peccary SSP
- Carnivore Tracking Project
- Center for Ecosystem Survival (SaveNature.org) Rainforest Conservation Parking Meter

Chimp Cents

Invasive Species Removal in Critical Butterfly Breeding Habitat

Monitoring Disease Threats for the Reintroduction of the Endangered Iberian Lynx in Extremadura

PAMS Foundation

Porcupine Habitat Selection Northern California Project

- Thermal Characteristics of Pacific Marten Habitat and Rest Structures
- Understanding the Influence of Masting Hardwoods on Tree Squirrel Occupancies and Fisher Habitat Use in N. California
- Vaquita Conservation, Protection and Recovery (Vaquita CPR)

Green Practices

ENERGY

Documented Amount Spent

Purchased Renewable Energy

EXTERNAL SUPPORT

Received Support From External Sources for Green Projects

FOOD

Sourced Local Food or Grew It On-Site

FUEL

Documented Amount Spent Documented Amount Used

GREEN CERTIFICATIONS

Certified as a Wildlife Habitat

GREEN PRACTICES IMPLEMENTED

Commingled Recycling Composting On-Site or Off-Site Graywater Reuse and/or Rainwater Harvesting Green Building Policy / Commitment Stormwater Management Program

WASTE

Documented Amount Composted

Mission-Focused Research

Assessing the Impact of a Native Landscape Conversion on the Local Bird Community at the Sequoia Park Zoo

STEINHART AQUARIUM

Education Programs

3D Theater

Careers in Science Interns

Citizen Science

Curiosity Grove

Distance Learning

Docent Engagements

Docent Trainings

Family Programs

Hohfeld Hall

Homeschool Days

Lectures

Morrison Planetarium

NightLife Programs

Online Education Resources

Portable Planetarium Dome

Public Floor Presentations

Self-Guided Student Fieldtrips

Teacher Professional Development

The Naturalist Center

The Rock Program Student Fieldtrips

Tidepool

Youth Programs

Field Conservation

Aquarium Conservation Partnership (ACP)

AZA Conservation Grants Fund (CGF)

AZA SAFE - African Penguins

Center for Research and Outreach on Amphibian Conservation (CROAC)

Coral Conservation: Florida

IUCN/SSC Conservation Planning Specialist Group (CPSG)

Reef Check California

SExual COral REproduction (SECORE)

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

Training Foreign Scientists on Animal Husbandry and Captive Breeding

Twilight Zone Exploration Dive Program

Green Practices

ENERGY

Documented Amount Spent Documented Amount Used Documented Square Footage of Conditioned Space Generated Renewable Energy On-Site Purchased Renewable Energy

EXTERNAL SUPPORT

Received Support From External Sources for Green Projects

FOOD Sourced Local Food or Grew It On-Site

FUEL Documented Amount Spent Documented Amount Used

GREEN CERTIFICATIONS

Certified by the Green Restaurant Association

One or More Buildings LEED-Certified by the US Green Building Council

GREEN PRACTICES IMPLEMENTED

- Alternative Transportation Benefits for Staff
- Alternative Transportation Discounts for Guests
- Building Energy Management
- Commingled Recycling
- Composting On-Site or Off-Site
- Graywater Reuse and/or Rainwater Harvesting
- Green Building Policy / Commitment
- Green Information Technology (IT)
- Green Purchasing Policy / Green Procurement
- Local Food Procurement for Animals and/or Guests
- Purchasing Green Power or Renewable Energy Credits (RECs)
- Smart Buildings Systems
- Solar or Wind Energy Generation
- Stormwater Management Program
- Wastewater Reduction
- Water-Wise Landscaping

PLANS, POLICIES AND BUDGETS

Dedicated Full-Time Equivalent (FTE) Staff to Coordinating Green Practices

Developed or Updated a Sustainability Plan (or Equivalent) Developed or Updated a Sustainability Policy

WASTE

Documented Amount Composted

Documented Amount Recycled

Documented Amount Sent to Landfill

WATER

Documented Amount Spent Documented Amount Used

Mission-Focused Research

- Characterization of the Holobiome of Bat Stars (*Asterina miniata*)
- Coral Spawning Lab
- Exploring the Least-Known Coral Reefs: Mesophotic Coral Ecosystem, the "Twilight Zone"
- Husbandry and Captive Breeding of Pygmy Seahorses

New Species From Mesophotic Coral Ecosystems

Oversight of Outside Research Requests by Aquarium Research Committee

Reproductive Biology of Leafy Seadragons

- The Benthic Ctenophore Lyrocteis imperatoris
- The SubCAS: A Portable, Submersible Decompression Chamber for Mesophotic Coral Reef Fishes

THE LIVING DESERT ZOO AND GARDENS

Education Programs

- Living Desert University
- Me and You at the Zoo
- National Association for Interpretation (NAI) Certification Programs
- Park After Dark
- School Field Trips
- Science, Technology, Engineering and Mathematics (STEM) Programs Scouts and Home School
- Starry Safari
- Teacher/Volunteer and Community Workshops
- Zoo Camp
- Zoo Teen Volunteer Program

Field Conservation

- AZA Jaguar SSP Cockscomb Basin Wildlife Sanctuary (CBWS)
- Black-Footed Cat Field Research in South Africa
- Celebrating Africa's Giants: Environmental Education for Conservation of Giraffes, Elephants and Rhinoceroses

Cheetah Conservation Fund (CCF)

- Conserve Namibia's Desert-Dwelling Giraffes
- Desert Pupfish Ex-Situ Refugia Management
- Desert Tortoise Adoption Program
- Desert Tortoise Conservation Education Program
- Grevy's Zebra Trust Core Support
- Mecca Aster Propagation and Habitat Restoration Project
- Mexican Wolf Recovery Program
- Mojave River Pond Turtle Conservation Assessment
- Monitoring the Endangered Least Bell's Vireo at The Living Desert

Native Plant Propagation Project for Restoration in California's Deserts

Operation Twiga

Peninsular Pronghorn Recovery Program

Rebuilding the Pride

Sahara Conservation Fund (SCF)

Save the Vaquita Porpoise

SnapShot Safari at Kenya's Olare Orok Conservancy

Southern Africa Rhino Conservation Program

The California Condor in the Greater Grand Canyon Ecoregion

The Living Desert's Wildlife Rehabilitation Program

Urban Bee Survey

Green Practices

ENERGY

Documented Amount Spent Documented Amount Used Documented Square Footage of Conditioned Space Generated Renewable Energy On-Site

FOOD

Sourced Local Food or Grew It On-Site

FUEL

Documented Amount Spent Documented Amount Used

GREEN PRACTICES IMPLEMENTED

Energy Submetering Solar or Wind Energy Generation Water Submetering

PLANS, POLICIES AND BUDGETS

Dedicated a Line Item in the Budget for Green Practices Developed or Updated a Sustainability Plan (or Equivalent) Developed or Updated a Sustainability Policy

WASTE

Documented Amount Composted Documented Amount Recycled Documented Amount Sent to Landfill

Documented Amount Spent on Landfill Waste

WATER

Documented Amount Spent

Documented Amount Used

Mission-Focused Research

A Global Survey of Current Housing, Husbandry Practices and the Presence of Abnormal, Unwanted or Stereotypic Behaviour in Zoo-Housed Fossa (*Cryptoprocta ferox*)

Chlamydia in Wild Raptors

Development of an Electroejaculation Protocol for Peccary Species

The Conservation Status of the Southern Western Pond Turtle in the Mojave River in the Mojave Desert

Winter Radio Tracking for Mojave River Western Pond Turtles

TURTLE CONSERVANCY

Field Conservation

Bolson Tortoise

Conservation of the Endemic Chelonians of Sulawesi: Forsten's Tortoise (*Indotestudo forstenii*) and Sulawesi Forest Turtle (*Leucocephalon yuwonoi*)

Geometric Tortoise Critical Habitat Preservation

Philippine Forest Turtle

Ploughshare Tortoise

Colorado

BUTTERFLY PAVILION

Field Conservation

Big Dry Creek Habitat Restoration

Colorado Butterfly Monitoring Network

Dragonfly Conservation Program

Effects of Bison on Invertebrate Communities in the Southern Great Plains

Senior Habitat Gardening

Urban Prairies Project

Green Practices

ENERGY Documented Amount Used

GREEN CERTIFICATIONS

Certified as a Wildlife Habitat

GREEN PRACTICES IMPLEMENTED

Alternative Transportation Benefits for Staff Community-Based Sustainability Projects Composting On-Site or Off-Site Green Purchasing Policy / Green Procurement Water-Wise Landscaping

PLANS, POLICIES AND BUDGETS

Dedicated Full-Time Equivalent (FTE) Staff to Coordinating Green Practices

Developed or Updated a Sustainability Plan (or Equivalent) Developed or Updated a Sustainability Policy

WASTE

Documented Amount Composted

Documented Amount Recycled

WATER

Documented Amount Used

Mission-Focused Research

Dragonfly Citizen Science

- *Grammostola rosea* Safety Web for Arthropod Reproduction and Management (SWARM)
- Impacts of Coastal Dune Restoration on Insect Communities

Invertebrate Survey of Mongolia's Ikh Nart Nature Reserve: An Assessment of Biodiversity

Tarantula Growth Study

CHEYENNE MOUNTAIN ZOO

Education Programs

Animal Care 101

Docent Program

Early Childhood Classes

School Break Zoo Camps

Summer Zoo Camp Teen Programs – Zoo Crew and Junior Zoo Keeper The Loft WildNights Zoo Explorations Tours ZOOMobile

Field Conservation

African Vulture Conservation

AZA SAFE

AZA SAFE - Vaquita Porpoise

Black-Footed Ferret Recovery Program

Borneo Orangutan Survival Foundation (BOS)

Giraffe Conservation Foundation (GCF)

HUTAN-Kinabatangan Orangutan Conservation Project

Kalaweit

Mountain Tapir Habitat Ecology in Ecuador

Okapi Conservation Project

Palm Oil Crisis and Orangutan Conservation

Panama Amphibian Rescue and Conservation (PARC)

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

Tsavo Trust: African Elephant and Black Rhino Conservation in Kenya

Wildlife Conservation Network (WCN) - Ewaso Lions

Wyoming Toad Recovery

Mission-Focused Research

Blood Gas and Lactate Monitoring During Field Immobilizations of Wild Rothschild's Giraffe

Comparing Giraffe Foot Shape and Health in Zoos and in the Wild

Giraffe Thermography: Assisted Lameness Management

Utilizing Banked Plasma to Reduce Giraffe Calf Mortality in United States Zoos

Wyoming Toad Vitamin A Level Monitoring With Different Vitamin Supplement

DENVER ZOO

Education Programs Advanced Inquiry Program (AIP) ASK Me's Assemblies Be a Zookeeper Zone Booths Bunks Camps and Mini-Camps Career Discovery Day Career Lab Community Leadership Programs and Service-Learning Programs Docent Volunteer Training Early Explorer Expedition Classes Explore the Shore **General Meetings** Giraffe Encounter Guest Assistance Ambassadors Guide Stations - Adult and Teen Led Guide Volunteer Training High School Internship-Training Keeper Experience Lorikeet Adventure Meet an Ambassador Animal Middle and High School Programs Mini-Classes Multi-Contact Outreach Programs New Volunteer Training Nurturing Scientists Through Nature Play Outreach Afterschool and Enrichment Scout Night Secret Science Days Senior Safaris Shows and Demos (Tier 1 and 2) Skill-Based / Continuing-Ed Trainings Tours **Up-Close Animal Encounters**

Urban Advantage Family Science Events Urban Advantage Field Trips Volunteer Scoop Electronic Newsletter Young Scientists Zoo Crew Newsletter Zoo Crew Volunteer Training Zoo Ed-Venture Treks Zoo Ed-Ventures

Field Conservation

Amphibian Conservation Education in Peru Amphibians of the Altiplano AZA Tiger SSP - Tiger Conservation Campaign Bolivian Amphibian Initiative Boreal Toad Breeding and Inventory Surveys and Habitat Restoration Botswana Lion Research and Conservation Botswana Prey Survey Botswana Raptor Project Botswana Vet Assistance Botswana Wild Dog Ecology Research Citizen Science: Pika Monitoring Program in Colorado's Front Range Conservation Education and Outreach in Botswana Denver Zoological Foundation Conservation Award Developing a Model for Local Management of Protected Areas in Mongolia Ecological Restoration of Arroyos and Head Cuts Ecology and Conservation of Mongolian Ungulates Ecology and Social Behavior of White-Tailed and Gunnison's Prairie Dogs Effects of Bison on Plant and Animal Communities in the Southern Great Plains **Fishing Cat Fund** Flat-Tailed Horned Lizard Biomonitoring Training General Botswana Conservation Project Support General Botswana Program Support General Conservation Program Support for the Rio Mora National Wildlife Refuge

General Mongolia Program Support

General Program Support for the Rocky Mountain/Great Plains Region

Graduate Student Fellowships

Great Lakes Piping Plover Recovery Effort – Northern Michigan

Ibex Ecology and Conservation

IdeaWild

- Ikh Nart Education and Outreach Program
- Ikh Nart Nature Reserve Vegetation Map
- International Elephant Foundation (IEF)
- International Rhino Foundation (IRF)

IUCN/SSC Asian Wild Cattle Specialist Group – Saola Working Group

Malagasy Fish Conservation

Mariana Avifauna Conservation (MAC) Project

- Mongolian Gazelle Conservation
- Mongolian Nomadic Conservation Trunk Program

Mongolian Raptors Project

- Mongolian Reptile Ecology Research
- Polar Bears International (PBI)
- Restoring the Mora River
- Rio Mora Conservation Outreach
- Rio Mora Vegetative Restoration
- Seafood Watch Conservation Outreach Partner
- Southern African Foundation for the Conservation of Coastal Birds (SANCCOB)
- Springbok of the Kalahari
- Tonkin Snub-Nosed Monkey Conservation Education
- Tonkin Snub-Nosed Monkey Conservation in Vietnam
- Untapped: Women in Conservation
- Veterinary Support for Field Conservation Projects in Mongolia
- Wildebeest Conservation in Botswana
- Witness for Wildlife Program in Colorado Wildlife Corridors Programs
- Zoos and Aquariums Committing to Conservation (ZACC) Support

Green Practices

ENERGY

Documented Amount Spent

Documented Amount Used

Documented Square Footage of Conditioned Space

FOOD

Sourced Local Food or Grew It On-Site

GREEN CERTIFICATIONS

Certified Under ISO 14002

- Documented Square Footage of Facility With Green Building Certification
- One or More Buildings LEED-Certified by the US Green Building Council

GREEN PRACTICES IMPLEMENTED

Alternative Fuel Usage for On-Site Fleet

Alternative Transportation Benefits for Staff

Alternative Transportation Discounts for Guests

Building Energy Management

Community-Supported Agriculture (CSA) Program for Staff

Green Information Technology (IT)

Green Purchasing Policy / Green Procurement

Local Food Procurement for Animals and/or Guests

Stormwater Management Program

Usage of Enterprise (IT) Solutions To Track, Measure and Dashboard Sustainability Performance

Water-Wise Landscaping

PLANS, POLICIES AND BUDGETS

Dedicated Full-Time Equivalent (FTE) Staff to Coordinating Green Practices

WATER

Documented Amount Spent Documented Amount Used

Mission-Focused Research

- Anti-Müllerian Hormone (AMH) as an Indicator of Ovarian Reserve in Gorillas (*Gorilla gorilla*) in Captivity
- Assessing the Efficacy of Improvest® in Female Giraffe
- AZA African Painted Dog SSP Genetic Study
- AZA Polar Bear SSP Necropsy Protocol
- AZA Western Lowland Gorilla SSP Oxytocin as a Measure of Social Bond and Welfare in Western Lowland Gorillas in North American Zoos
- Behavioral Assessment of Zoo-Housed Felids
- Comparing the Physiologic Effects of Two Ultra-Potent Opioid Anesthesia Protocols in Non-Domestic Equids
- Conservation Education Relevancy of African and Asian Elephants in Zoos
- Constraints of Biomass on Innate Immunity Across Terrestrial Mammals
- Crane Semen Cryopreservation Study
- Determination of Circulating Vitamin and Mineral Levels in Captive Saddle-Billed Storks (*Ephippiorhynchus senegalensis*) as It May Relate to Reproductive Success and Embryonic Development
- Developing New Tools for Integrating DNA Data Into AZA Breeding Programs
- Development of a Database of Fetal Ultrasound Measurements for the Creation of Orangutan-Specific (*Pongo* spp.) Growth Curves and Determination of Parturition Dates
- Development of a Genome Resource Bank and Transcervical Insemination for the Genetic Management of Tigers
- Genetic Analysis of the US Population of Baer's Pochard for Improved Captive Management
- Genetic and Endocrine Predictors of Reproductive Success in African Painted Dogs
- Improvement of the Diagnosis of Aspergillosis in Penguins
- Influence of Male Physiology and Environmental Factors on Breeding Success and Population Sustainability for Zoo Managed Snow Leopards (*Panthera uncia*)
- Longitudinal Assessment of Gorilla (*Gorilla gorilla gorilla*) Fecal Microbiome Populations
- Measurement and Comparison of Intraocular Pressure in Multiple Species of Amphibians
- Prevalence, Risk Factors and Survival of Zoo Animals With Cancer

- Retrospective Analysis of Mortality in Captive Bongo (*Tragelaphus eurycerus*), 1995 - 2015
- Stem Cell Therapy for Giraffe Orthopedic Disease

LANDRY'S DOWNTOWN AQUARIUM - DENVER

Education Programs

Behind the Scenes Public Tours Classroom Programs College Internship Program **Distance Learning Teleconference Classes** Homeschool Day **Outreach Classroom Programs** Public Animal Feedings Public Interpretation and Carts River Clean-Ups Scout Badge Workshops Sea Safari Summer Camp Self-Guided Tours Special Public Program Events Teacher Loaner Boxes Teacher Workshops Volunteer/Intern Training and Continuing Education Wild Dreams Overnights Youth Career Workshops

Field Conservation

Birds of Prey Foundation Fins Attached Owl's Nest Rescue and Rehabilitation Rocky Mountain Raptor Center Wildlife Alliance – Radio Collars

PUEBLO ZOO

Education Programs

African Food Chains Amazing Adaptations Amazing Arthropods Animal Encounters Animal Growth and Development Bats Beyond Belief Coats and Colors Colorado Food Chains Conservation Concepts Literacy to Life – Kindergarten Literacy to Life – Pre-Kindergarten 3 Year Olds Literacy to Life – Pre-Kindergarten 4 Year Olds Speaker Series Summer Camp Vertebrate Adaptations Zoo ALIVE Zoo Tour

Field Conservation

AZA SAFE - African Penguin Nest Box Project Painted Dog Conservation (PDC) Red Panda Network (RPN) Southern African Foundation for the Conservation of Coastal Birds (SANCCOB)

Mission-Focused Research

Oral Progestin Down-Regulation for Oviductal Artificial Insemination in Pallas's Cats

Connecticut

CONNECTICUT'S BEARDSLEY ZOO

Education Programs

Animal Encounters AZA FrogWatch USA Beardsley Zoo's Wild Adventure Show Birthday Party Animal Encounter Career Talk Conservation Discovery Corps Explorers Fairs and Festivals Family Resource Center (FRC) Tots Program Hay Ride Zoo Tours Media Special Trout in the Classroom Wild Assembly Zoo 4-H Club Zoo Crew Zoo Kids Biodiversity Zoo Mobile Zoo Patrol Zoo Tots Zoo Volunteers: Friends and Docents

Field Conservation

Amur Leopard and Tiger Alliance (ALTA) AZA Chacoan Peccary SSP - Chaco of Paraguay AZA Tiger SSP - Tiger Conservation Campaign - Anti-Poaching Activities Conservation Discovery Corps - Invasive Plant Removal Eastern Pearl Shell Mussel Population Monitoring Jacksonville Zoo Giant Armadillo Conservation Project Pequonnock River Fish Counts Piping Plover Monitoring Tapir Symposium Trout in the Classroom Turtle Survival Alliance (TSA)

Mission-Focused Research

- Behavior Study of Female Giant Anteater and Offspring to Identify and Mitigate Acoustic Stress in Relation to Neonatal Vocalizations
- Reduction of Aggression in a Captive Prairie Dog Colony Through Observation and Underground Burrow Mapping

Resident Population Canada Goose Banding

MARITIME AQUARIUM AT NORWALK

Education Programs Camp Programs Citizen Science Floor Education Programs Maritime Odyssey Preschool R/V Spirit of the Sound – Vessel Programs School Programs

Scout Programs

Sleepover Programs

Sound Resilience - Get On Board!

Special Event Days – Sensory Friendly Mornings, Earth Day, World Oceans Day and More

Teacher Professional Development

TeMPEST: Teen Maritime Program Emphasizing Science and Technology

Field Conservation

AZA FrogWatch USA Long Island Sound Biodiversity Project Osprey Nation Project Limulus Sand Tiger Shark Conservation Sea Turtle Conservation Trout in the Classroom

Green Practices

ENERGY

Documented Amount Spent Documented Amount Used Documented Square Footage of Conditioned Space Generated Renewable Energy On-Site

EXTERNAL SUPPORT Received Support From External Sources for Green Projects

FUEL

Documented Amount Spent Documented Amount Used

GREEN PRACTICES IMPLEMENTED Solar or Wind Energy Generation Wastewater Reduction

PLANS, POLICIES AND BUDGETS Developed or Updated a Sustainability Plan (or Equivalent) Developed or Updated a Sustainability Policy

WASTE

Documented Amount Sent to Landfill Documented Amount Spent on Landfill Waste

WATER

Documented Amount Spent Documented Amount Used

Mission-Focused Research

Effects of Climate Change Conditions on Animals: Freshwater Effects of Climate Change Conditions on Animals: Marine Invasive Species Monitoring MYSound Buoy Network Ocean Soundscapes Phytoplankton Monitoring Network Unified Water Study

MYSTIC AQUARIUM

Education Programs

Autism Night **Birthday Parties** Career and Science, Technology, Engineering and Mathematics (STEM) Days Citizen Science **Classroom Programs Coastal Field Studies** Conservation Club **Conservation Events Distance Learning** Internships and Seminars **Outreach Programs** Overnights School / Youth Group Exhibit Talks and Animal Interactions Science, Technology, Engineering and Mathematics (STEM) Mentoring Sea School Preschool Summer Camps Teacher E-Newsletter

Teacher Workshops / Events

Youth Organization Events

Field Conservation

Amphibian Monitoring

- Behavioral Ecology of Piscivores at Gray's Reef National Marine Sanctuary
- Behavioral Responses of Beluga Whales (*Delphinapterus leucas*) to Environmental Variation in an Arctic Estuary
- Coastal Marine Debris Removal Events
- Detection of Influenza A Viruses From Seals Stranded in the Northeastern United States
- Ecology of Submarine Canyons and Seamounts Off the Northeast United States
- Habitat Restoration of Dodge Paddock and Beal Preserve
- Health Assessment of Belugas in the Chukchi Sea and Bristol Bay
- Horseshoe Crab Monitoring
- Influence of Temperature, Salinity and Dissolved Oxygen on the Stress Response of Bull (*Carcharhinus leucas*) and Bonnethead (*Sphyrna tiburo*) Sharks After Capture and Handling
- Long Island Sound Coastal Field Studies
- Pathogenesis of an Emerging Snake Fungal Disease in Connecticut
- Rescue and Rehabilitation of Stranded Marine Mammals and Sea Turtles Along the Connecticut and Rhode Island Shorelines
- Southern African Foundation for the Conservation of Coastal Birds (SANCCOB) – Assisting With the African Penguin Chick Bolstering Project in South Africa
- The Physiological Stress Response, Postrelease Behavior and Mortality of Blacktip Sharks (*Carcharhinus limbatus*) Caught on Circle and J-Hooks in the Florida Recreational Fishery

Green Practices

ENERGY

Documented Amount Spent

Documented Amount Used

Documented Square Footage of Conditioned Space

FUEL

Documented Amount Spent

GREEN PRACTICES IMPLEMENTED

Alternative Transportation Benefits for Staff

Building Energy Management

Commingled Recycling

Community-Based Sustainability Projects

Green Information Technology (IT)

Water-Wise Landscaping

PLANS, POLICIES AND BUDGETS

Dedicated Full-Time Equivalent (FTE) Staff to Coordinating Green Practices

Developed or Updated a Sustainability Plan (or Equivalent)

Developed or Updated a Sustainability Policy

WATER

Documented Amount of Wastewater Generated

Documented Amount Spent

Documented Amount Used

Mission-Focused Research

A Framework for the Selection of Marine Aquarium Fishes to Target for Aquaculture and Sustainable Species Selection

- Determination of a Suitable Dilution Marker in Blow
- Discovering the U.S. Marine Aquarium Industry
- Etiological Study of Molt Abnormalities in the African Penguin (*Spheniscus demersus*)
- Evaluating the Use of Blow for Reproductive Hormone and Genetic Analysis in Belugas (*Delphinapterus leucas*)
- Evaluation of Non-Lethal Effects of Nitrogen Gas (N2) Bubbles on Marine Mammal Immune Function and Complement Activation
- Investigation of the Marine Mammal Immune System and Impacts of Stress on Health
- Investigation of the Molecular Response of Belugas to "Stressors" to Aid in Assessing the Impact of Environmental and Anthropogenic Challenges on Health
- Measurement of Cortisol in the Blood, Blow, Saliva and Feces of Beluga Whales
- Research and Development of Aquaculture Techniques for Marine Ornamental Fishes
- Sustainable Sourcing of Aquatic Species for Mystic Aquarium

Delaware

BRANDYWINE ZOO

Education Programs

Animal Shows and Informal Interpretation

Family Programs

Scout Programs

Special Events

Traveling Zoo

Zoo Camp

Zoo School

Green Practices

FUEL

Documented Amount Spent Documented Amount Used

GREEN CERTIFICATIONS

Certified as a Wildlife Habitat

GREEN PRACTICES IMPLEMENTED

Commingled Recycling Green Purchasing Policy / Green Procurement Water-Wise Landscaping

District of Columbia

SMITHSONIAN NATIONAL ZOOLOGICAL PARK

Education Programs

Adult Education Courses Animal Demonstrations Children's Classes Day Camps Education Days Homeschool Classes Overnights at the Zoo Residential Camp School Outreach

School Programs

Smithsonian Conservation Biology Institute (SCBI) Facility Tour Video Podcasts: The Secret World of Zoo Jobs Volunteer Interpreter Program Word Expeditions Zoo Tours

Field Conservation

Anti-Poaching Patrols in the Gambia Area

Black-Footed Ferret Reintroduction Population Survey

Cheetah Population Survey in Kenya

Conservation of Dholes in Thailand

Conservation of Ostrich in Niger, Africa for Reintroduction

Disease Survey in Free-Ranging Warthogs (*Phacochoerus africanus*)

Gabon Biodiversity Program

Improving Elephant Endotheliotropic Herpesviruses (EEHV) Diagnostic and Research Capacity in Southeast Asia With a Series of Training Workshops

Jaguar Workshop in Paraguay

North American Songbird Initiative

North American Songbird Working Group (NASWG)

Panama Amphibian Rescue and Conservation (PARC)

Paraguay *In-Situ* and *Ex-Situ* Conservation of the Atlantic Forest

Pilot Frog Release Study in Panama

Recovery of the Endangered Black-Footed Ferret

Relationship Between Genetics, Stress and Amyloid A (AA) Amyloidosis Prevalence in Cheetahs

Salamanders' Response to Soil Freezing

Save the Golden Lion Tamarin

Understanding the Biology and Ecology of Dholes in Thailand

ZooFari Direct Grant to Associação Mico Leão Dourado to Conserve Golden Lion Tamarin Habitat

Green Practices

ENERGY

Documented Amount Used

Generated Renewable Energy On-Site

FOOD

Sourced Local Food or Grew It On-Site

FUEL

Documented Amount Spent

Documented Amount Used

GREEN PRACTICES IMPLEMENTED

Building Energy Management

Commingled Recycling

Composting On-Site or Off-Site

Construction Waste Diversion / Recycling

Graywater Reuse and/or Rainwater Harvesting

Green Information Technology (IT)

- Smart Buildings Systems
- Solar or Wind Energy Generation

Stormwater Management Program

- Wastewater Reduction
- Water Submetering

Water-Wise Landscaping

GREENHOUSE GAS EMISSIONS

Documented Amount of Greenhouse Gas Emissions Reported Greenhouse Gas Emissions to a Climate Registry

PLANS, POLICIES AND BUDGETS

Developed or Updated a Sustainability Plan (or Equivalent)

WASTE

Documented Amount Recycled Documented Amount Sent to Landfill

WATER

Documented Amount Used

Mission-Focused Research

- A Behavioral Study of Kori Bustards at the Smithsonian National Zoological Park
- A Behavioral Study of the Greater Rhea at the Smithsonian National Zoological Park
- A Search for Chemical Signals in Orangutans (Pongo spp.)

Activity Budget, Weight Management and Light Cycles of Captive Ruby-Throated Hummingbirds

- Amphibian Component of the Loubomo-Mougagara Biodiversity Assessment
- An Interdisciplinary Approach (Endocrine and Behavioral) to Assess the Impact of Cub Separation and Adult Breeding Behavior in Andean Bears

Andean Bear Workshop in Peru

- Anesthesia Induction and Maintenance in Adult Arapaima (*Arapaima gigas*)
- Anesthesia Study Evaluating the Use of Etorphine and Azaperone Combination in Free-Ranging Warthogs (*Phacochoerus africanus*)

Asian Water Dragon Parthenogenesis

- Assessing Impact of Facility and Management Changes on Elephant Behavior
- Assessing the Function of Penile Spines in Felid Species
- Assessing the Relative Impacts of Anthropogenic Causes of Direct Bird Mortality
- Assessment and Monitoring of Marine Benthic Macrofauna in the Area of Influence of the Peru Liquefied Natural Gas (LNG) Marine Terminal
- Assessment and Monitoring of Marine Fish Communities and Plankton in the Area of Influence of the Peru Liquefied Natural Gas (LNG) Marine Terminal
- Assessment and Monitoring of Seabirds in the Area of Influence of the Peru Liquefied Natural Gas (LNG) Marine Terminal
- Assessment of Stereotypical Pacing and Welfare in an Adult Male Sloth Bear
- Behavioral Differences Between Songbirds Housed as Pairs Versus Those Housed in Mixed-Species Exhibits
- Biomaterial Collection and Archiving in Support of Other Research Projects

Biomedical Survey in Giant Pandas

Black Rhinoceros Health and Nutrition

- Blood Drained of Life: Convergent Evolution of Coagulopathic Animal and Bacterial Toxins
- Breeding Ecology and Population Status of the Island Scrub-Jay
- Calcinosis Circumscripta in a Cohort of Related African Lions (*Panthera leo*)
- Captive Orangutan Dentition Emergence
- Clinical Challenge: Diagnosis of Coenurosis (*Taenia brauni*) and Cecolith in a Malagasy Giant Jumping Rat (*Hypogeomys antimena*)

Cognition With Asian Elephants: Field and Captive

- Cognitive Bias in Apes: Comparisons Across and Within Species
- Comparison of Guaifenesin, Ketamine and Medetomidine Constant Rate Infusion With Isoflurane Gas for Anesthesia Maintenance in American Black Bears (*Ursus americanus*)
- Comparison of Trunk Secretions and Oral Swabs for Detection of Elephant Endotheliotropic Herpesvirus (EEHV) in African Elephants
- Confidence Judgments and Metacognition in Comparative and Developmental Perspective
- Connectivity for Conservation: Understanding the Complex Patterns of Altitudinal and Intratropical Migration
- Conservation of Dama Gazelle
- Conservation of Persian Onager
- Conservation of Przewalski's Horse
- Conservation of Scimitar-Horned Oryx
- Conservation Partnership for the Painted Bunting
- Conserving Coral Reefs
- Crocodile Monitoring Program in the Wider Gamba Area, Gabon
- Cuban Crocodile Social Behavior: Vocalizations
- Density Dependence During the Non-Breeding Season and the Regulation of Migratory Bird Populations
- Determining Genetic Relatedness and Genomic Factors Associated With Health, Welfare and Reproduction in Asian and African Elephants *Ex-Situ*
- Determining Genetic Variability, Kinship and Uniqueness in the North American Cheetah Population
- Developing Sperm Capacitation Procedure for Wild Canids
- Diagnosis and Treatment of *Batrachochytrium dendrobatidis* in Green Salamanders (*Aneides aeneus*) and Long-Tailed Salamanders (*Eurycea longicauda*)
- Disseminated *Ophidiomyces ophiodiicola* Infection in an Eastern Diamondback Rattlesnake (*Crotalus adamanteus*) Without the Presence of Skin Lesions
- Diversity of the Terrestrial Small Mammal Community in the Amarakaeri Communal Reserve
- DNA Testing of Mob of Meerkats to Determine Relatedness and Parentage
- Effects of a Recurring Late Night Event on the Behavior and Welfare of a Population of Zoo-Housed Gorillas
- Effects of Climate and Biotic Factors on Abundance, Demography and Behavior of Forest Birds
- Elucidating Spermatozoal Energy Metabolism and Metabolic Dysfunction in Felids and Teratospermic Species

- Endocrine Response Associated With Pair Bond Formation in Stanley Cranes
- Endocrinology of Reproduction and Stress in the Giant Panda
- Epidemiological Investigation of *Ophidiomyces ophiodiicola* Infection in Current and Historic Collections of Snakes at the National Zoological Park
- **Evaluating Hormones in Captive Crocodiles**
- Evaluating the Addition of Automatic Feeders on Asian Elephant (*Elephas maximus*) Behavior and Welfare
- Evaluating Weight During Pregnancy
- Examination of Ovarian Stimulation Protocol and Semen Deposition Location to Increase Artificial Insemination Success in Felids
- Experience the Migration of Brown Pelicans of the Disappearing Islands of the Chesapeake Bay
- Extending the Fertility of Aging Female Cheetahs to Improve Population Genetic Health
- Forest Elephant Monitoring in Gamba, Gabon
- Full Life Cycle Vulnerability Assessments for the Birds of the Upper Midwest Great Lakes Region
- Genomics of Endangered Ungulates
- Giant Panda Cub Development
- Giant Panda Estrus Watch and Pregnancy / Birth Watch
- Health Assessments of Zoo Asian and African Elephants in the US
- Husbandry, Nutrition and Veterinary Care of Song Sparrows
- Identifying Causes of Neonatal Mortality in African Painted Dogs
- Identifying Causes of Poor Reproduction in Whooping Crane Maintained *Ex-Situ*
- Identifying Migratory Connectivity of a Neotropical Migratory Bird Using New Technologies: Archival GPS Tags
- Identifying Migratory Connectivity of Brown Pelicans Along the United States Atlantic Coast Using Satellite Tags
- Impact of a Natural Gas Exploratory Well on Scarab Beetles and Ichneumon Wasps of the Amarakaeri Communal Reserve
- Impact of a Natural Gas Exploratory Well on the Amphibian Community of Amarakaeri Communal Reserve
- Impact of a Natural Gas Exploratory Well on the Avian Community of Amarakaeri Communal Reserve
- Impact of a Natural Gas Exploratory Well on the Large Mammal Community of the Amarakaeri Communal Reserve

Impacts of Dam Removal on Dippers and River Otters

- Influence of Gonadotropin Stimulation on Anti-Müllerian Hormone (AMH) Concentrations in Female Cheetahs
- Investigating Memory Processes in Great Apes: A Cross-Species Comparison
- Investigating Serum and Synovial Fluid Inflammatory Markers in Healthy and Arthritic Asian and African Elephants
- Investigating the Attribution of Perception in Orangutans and Gorillas
- Investigating the Effect of Population Density and Provisioning on Stress Physiology in the Black-Crowned Night Heron Across Two Urban Zoos
- Investigation Into a Novel Skin Disease in Black Rhinos in Kenya
- Investigation of Soft Tissue Mineralization in Prehensile-Tailed Porcupines (*Coendou prehensilis*)
- Investigation of Stress Hormones in *Apteryx mantelli*: Comparison of Ambassador Brown Kiwi With Those on and off Display
- Investigation of Wild Kori Bustard (*Ardeotis kori*) Health and Physiology in Kenya
- Life-Cycle Population Modeling for Select Species
- Local Adaptation in Channel Island Song Sparrows
- Longitudinal Changes in Milk Composition in Orangutans
- Long-Term Low Level Elephant Endotheliotropic Herpes Virus-1A Viremia in a Captive Asian Elephant Calf (*Elephas maximus*)
- Mad Island Migration
- Mammals in Shade Coffee Systems
- Managing Sociality of a Captive Female Bornean Orangutan From Breeding to Postpartum at the Smithsonian's National Zoo
- Measurement of Lactate Levels Three Ways During Anesthesia of American Black Bears (*Ursus americanus*)
- Measuring the Effect of Guest Interactions in a Stanley Crane Using Hormone Analysis and Behavior Monitoring
- Migration in Green Darner Dragonflies
- Migratory Connectivity and At-Sea Distribution of Bahamian Seabirds
- Migratory Connectivity in the Ocean
- Migratory Connectivity of the Birds of North America
- Multitrophic Consequences of Novel Plant Assemblages in Urban Ecosystem
- Natural Choice in Apes

Neighborhood Nestwatch

Nest Location Preferences in Zoo-Housed Orangutans

- Nesting Behavior, Licker Plugging and the Provision of Water Sounds in Zoo-Housed Orangutans
- Oxytocin as a Measure of Social Bond and Welfare in Western Lowland Gorillas (*Gorilla gorilla gorilla*) in North American Zoos
- **PREDICT** Myanmar
- Rabi Forest Monitoring Plot
- Radio-Collar Tracking of Indian Flying Fox in Myanmar
- Ranking Trees as Insect Producers for Wood Warblers
- Regurgitation and Reingestion in a California Sea Lion: Assessment and Intervention
- Relationship Between Skin Microbiomes and Disease Outcomes
- Retrospective Review of Anesthetic Protocols in Spectacled Bears, Sloth Bears and Giant Pandas at the National Zoological Park
- RNA Viral Evaluation From Non-Invasive Pooled Sampling of Bats in Myanmar
- Sagari, Peru Pipeline Canopy Bridge Project
- Sample Collection for Herpesvirus Prevalence in Elephants
- Sea Lion Swim Study
- Social Behavior and Innovation in a Mixed-Species Lemur Exhibit
- Social Learning in Giant Pandas
- Source-Sink Dynamics and Population Ecology of the Wood Thrush
- Temperature Monitoring in Brown Kiwi
- Terrestrial Connectivity of the Gamba Landscape
- The Effect of Music on the Welfare of a Green Winged Macaw
- The Effects of Carry-Over and Habitat on Gray Catbirds Across an Urbanization Gradient
- The Energetic Cost of Motherhood in Bornean Orangutans
- The Migratory Connectivity Project
- The Orangutan Conservation Genetics Project
- Tool Use in Giant Pandas
- Tracking the Migrations of the Endangered Kirtland's Warbler
- Treatment and Management of Chronic Recurrent Herpes Simplex 1 Infection in a White Faced Saki Monkey (*Pithecia pithecia*)

- Understanding Basic Reproductive Biology and Welfare of Captive Asian Elephants in Burma for Management and Conservation
- Understanding Basic Reproductive Biology and Welfare of Captive Asian Elephants in Thailand for Management and Conservation
- Understanding How Hormones Modulate Behavioral Phenotype and Social Network Structure
- Understanding Migratory Restlessness in a Captive Population of Songbirds
- Understanding Stereotypic Behavior in a Female Asian Short-Clawed Otter
- Understanding the Basic Reproductive Biology of Asian and African Elephants for Management and Conservation
- Understanding the Cause and Effect of Feather Plucking in a Blue Billed Curassow
- Understanding the Hormonal Onset of Puberty in Male and Female Cheetahs (*Acinonyx jubatus*)
- Understanding the Local and Landscape Predictors of Bird Diversity and Abundance in Agricultural Landscapes
- Understanding the Underlying Causes of Inflammatory Bowel Disease in Large Canids
- Using Captive Gray Seal Fecal Samples to Assess and Analyze Prey Consumption in Wild Male and Female Gray Seals
- Using Serum Inflammatory Markers to Investigate the Immune Response to Elephant Endotheliotropic Herpesvirus (EEHV)
- Welfare Assessment of Stanley Cranes at the Smithsonian's National Zoological Park Through Fecal Glucocorticoid Analysis With a Special Emphasis on Program Animal, "Alice"
- What Makes Ross's Gulls Pink?
- Xanthoma Formation in Black Pacu (*Colossoma macropomum*)

Florida

BREVARD ZOO

Field Conservation

Asociación de Rescate y Conservación de Vida Silvestre (ARCAS) – Wildlife Rescue and Conservation Association

AZA Jaguar SSP

AZA Komodo Dragon SSP

AZA SAFE - Sharks and Rays

Biodiversity Conservancy Nepal (BioCoN)

Biodiversity Education and Research (BEAR)

Bluefields Bay Fishermen's Friendly Society (BBFFS)

Brevard Zoo's Sea Turtle Healing Center

Bridges

Conservación, Naturaleza y Vida (CONAVI)

Conservation Fusion (CF)

CrocFest

Florida Scrub Jay Translocations and Monitoring

Florida Wildlife Hospital and Sanctuary

Foundation for Ecodevelopment and Conservation (FUNDAECO)

Friends of Nature (FON Nepal)

Giraffe Conservation Foundation (GCF)

Gorilla Rehabilitation and Conservation Education (GRACE) Center

Hutan: Asian Elephants

Indonesia Species Conservation Program (ISCP)

Monofilament Recovery and Recycling Program (MRRP)

National Museums of Kenya

Oyster Reef Restoration Project: Gardening

Perdido Key Beach Mouse Breeding Program

Restore Our Shores

Save the Frogs!

Save the Snakes

Sea Turtle Research: Inwater Research Group

Snow Leopard Trust (SLT)

Vaquita Conservation, Protection and Recovery (Vaquita CPR)

Viviendo con Felinos – Northern Jaguar Project Watamu Turtle Watch

Green Practices

ENERGY

Documented Amount Spent Documented Amount Used

EXTERNAL SUPPORT Received Support From External Sources for Green Projects

FOOD

Sourced Local Food or Grew It On-Site

FUEL Documented Amount Spent

GREEN PRACTICES IMPLEMENTED

Alternative Transportation Discounts for Guests

Building Energy Management

Commingled Recycling

Community-Based Sustainability Projects

Composting On-Site or Off-Site

Graywater Reuse and/or Rainwater Harvesting

Green Information Technology (IT)

Smart Buildings Systems

Solar or Wind Energy Generation

Stormwater Management Program

PLANS, POLICIES AND BUDGETS

Dedicated a Line Item in the Budget for Green Practices

Dedicated Full-Time Equivalent (FTE) Staff to Coordinating Green Practices

Developed or Updated a Sustainability Plan (or Equivalent)

WATER

Documented Amount of Wastewater Generated

Documented Amount Spent

Documented Amount Used

Mission-Focused Research

Behavioral Monitoring of Resident Animals at Brevard Zoo

Color Vision in Spider Monkeys (Ateles geoffroyi)

Computerized Cognitive Testing

Factors Influencing the Welfare of Ungulates

Numerosity in Spider Monkeys (Ateles geoffroyi)

Python Camera Project

Relation of Hierarchy and Weight Changes to Social Turmoil in Common Squirrel Monkeys (*Saimiri sciureus*)

BUSCH GARDENS TAMPA BAY

Field Conservation

Busch Gardens Tampa Bay – Animal Rescue and Rehabilitation Program

Canines for Conservation - Disrupting Wildlife Trafficking

- Cheetah Conservation Fund (CCF) Saving Cheetahs in the Illegal Pet Trade
- Conservation of the Rothschild's Giraffe in Murchison Falls Conservation Area, Uganda

Dian Fossey Gorilla Fund – Continued Protection of Grauer's Gorilla Populations in Eastern Congo From Bushmeat Hunting

Direct Protection to Endangered Wildlife and Its Cardamom Rainforest Habitat

Emerging Wildlife Conservation Leaders

Enhancing Frontline Protection of the Critically Endangered Ploughshare Tortoise

Farming Coffee to Conserve Chimpanzees and Forests in Uganda

Friends of Bonobos – A Flagship Species for Democratic Republic of the Congo's Biodiversity

Fundación Proyecto Tití - Effective Methods to Engage Youth in Cotton-Top Tamarin Conservation Efforts

Fundación Proyecto Tití - Promoting Forest Connectivity to Support Cotton-Top Tamarin Conservation in Northern Colombia

Gunung Palung Orangutan Conservation Program (GPOCP) – Creating a Network of Informants to Fight Wildlife Crime in West Kalimantan

Mabula Ground Hornbill Project (MGHP)

New Nature Foundation (NNF) – Community Empowerment and Conservation in Uganda

Okapi Conservation Project – Building Upon Increased Capacity of Wildlife Rangers in the Okapi Wildlife Reserve

Painted Dog Conservation (PDC): Bush Camp

Pantanal Giant Armadillo Project

Ruaha Carnivore Project (RCP) – Building Capacity to Monitor Carnivores and Reduce Conflict in the Ruaha Landscape of Tanzania

South African Wildlife College (SAWC) – A Four-Tiered Approach to Impact Rhino Poaching

Taking Flight

Tampa Bay Watch - Great Bay Scallop Search

Tampa Bay Watch - Marine Debris Solutions

Vina Wildlife Foundation – Rehabilitation of Elephant, Gorilla and Chimpanzee Poachers Into Alternative Professions

WeForest

Wild Earth Allies (Fauna and Flora) – Asian Elephant Conservation in Cambodia

Wilderness Foundation Africa – Forever Wild Conservation Programme

Wildlife Alliance - Kouprey Express Environmental Education and Outreach

CENTRAL FLORIDA ZOO AND BOTANICAL GARDENS

Education Programs

Animal Encounters

Bat House Building Workshop

Central Florida Zoo After Dark - Nighttime Safaris

Community Outreach

Cub Scout and Boy Scout Programs

Curriculum Programs

Florida Black Bear Awareness Program

Girl Scout Programs

Guided Tours

Homeschool Family Workshops

Homeschool ZOOventure Classes

Master Naturalist

Night Hike

Preschool Programs

Storytime

Summer Camps

Wild Art and Wine Wild Florida Adventure Zoo to You Programs

Field Conservation

Central Florida Zoo's Orianne Center for Indigo Conservation International Rhino Foundation (IRF) Zoo Conservation Outreach Group (ZCOG)

Green Practices

ENERGY

Documented Amount Spent Documented Amount Used Generated Renewable Energy On-Site

GREEN PRACTICES IMPLEMENTED

Commingled Recycling

Construction Waste Diversion / Recycling

Graywater Reuse and/or Rainwater Harvesting

Solar or Wind Energy Generation

PLANS, POLICIES AND BUDGETS

Dedicated Full-Time Equivalent (FTE) Staff to Coordinating Green Practices

WASTE

Documented Amount Recycled Documented Amount Sent to Landfill

WATER

Documented Amount Spent

Documented Amount Used

Mission-Focused Research

Ecological and Psychological Implications of Liminal Spaces: A Study in Soundscape Ecology and Conservation

Evaluating the Validity of Portable Biochemical Analyzers in Eastern Indigo Snakes (*Drymarchon couperi*)

Seasonal Effects on Blood Parameters in Eastern Indigo Snakes (*Drymarchon couperi*)

DISNEY'S ANIMAL KINGDOM

Education Programs

Backstage Safari

Backstage Tales

Behind the Seeds Tour

Caring for Giants

Community Hospital Program

Conservation Day Camp - Summer

Dine With an Animal Specialist

Earth Day at Disneyland Resort

Earth Day at Disney's Animal Kingdom

- Elephants and Bees: Reducing Human-Elephant Conflict in Kenya
- Epcot Flower and Garden Festival Themed Weekends
- Gorilla Rehabilitation and Conservation Education Center (GRACE)
- **Onstage Guest Activities**
- Proyecto Tití: Conservation of the Cotton-Top Tamarin in Colombia
- Purple Martin Palooza
- Sea Turtle Night Walks
- Sense of Africa
- Starlight Safari
- Tour de Turtles

Wanyama Safari

Weekly Sea Turtle Guest Presentation - Vero Beach

Wild Africa Trek and Savor the Savanna

Wilderness Explorers

Youth Education Series (YES) Programs

Field Conservation

Archie Carr National Wildlife Refuge - Education Program

Association of Zoological Horticulture (AZH) – Plant Conservation Grant Program

Audubon Canyon Ranch - Mountain Lion Project

- Audubon Florida Jay Watch Citizen Science Program
- AZA Conservation Grants Fund (CGF)
- AZA Guam Rail SSP Pre-Release Quarantine Program

AZA SAFE

AZA SAFE - Vaquita Birds of Prey Center - Event Support Black Lion Tamarin Conservation in a Fragmented Landscape Building Communities That Conserve Wetlands California Condor Nest Guarding Program Community Conservation for Spectacled Bears Community Education for Carnivore Conservation Community Field Conservation Training Initiative Community Forest Restoration and Conservation in the United States Community Support for Okapi Conservation Community-Based Conservation of River Turtles Connect to Protect - Reverse the Decline of Butterflies Connect to Protect - Reverse the Decline of Cranes Connect to Protect - Reverse the Decline of Elephants Connect to Protect - Reverse the Decline of Great Apes Connect to Protect - Reverse the Decline of Monkeys (Cotton-Top Tamarins) Connect to Protect - Reverse the Decline of Monkeys (Golden Lion Tamarins) Connect to Protect - Reverse the Decline of Rhinos Connect to Protect - Reverse the Decline of Tigers Conservation Hero - Ana Isabel Arroyo Conservation Hero - Cristian Ramirez Conservation Hero - Edwin Kynyanjui Conservation Hero - Ernest Bekarany Conservation Hero - Giyanto "Gigi" Conservation Hero - Hoang Van Tue Conservation Hero - Jose Vallejos Conservation Hero - Mary Pringle Conservation Hero - Michael Howard Conservation Hero - Msafiri Mgumba Conservation Hero - Ngeeti Lempate Conservation Hero - Parag Jyoti Deka Conservation Hero - Rocio Palacios Conservation Hero - Ruben Cueva

- Conservation Hero Saroj Shrestha
- Conservation Hero Victor Chibaya
- Conservation Hero Zama Ncube

- Conservation of Sumatran Elephants
- Conserving Breeding Shearwaters in Oahu
- Conserving India's Lion-Tailed Macaques
- Conserving Rhinos Through Community Engagement
- Conserving the Cao Vit Gibbon
- Dian Fossey Gorilla Fund International Support and Board Member
- Disney's Wildlife Monitoring Program
- Disneynature Born in China: Supporting Snow Leopards and Pandas in China
- Disney's Imperiled Species Conservation Program
- Drone Monitoring of Grevy's Zebra Habitat
- Eastern Caribbean Offshore Islands Network
- Emergency Funding to Address Wildfire in Spectacled Bear Habitat in Peru
- Emergency Vaccination of African Wild Dogs
- Expanding Critical Habitat Conservation: Vietnam
- Expanding Orangutan Habitat Conservation
- Gopher Tortoise Conservation Program
- Gorilla Rehabilitation and Conservation Education (GRACE) Center
- Grassroots Conservation of Rare Turtles in Metro-Boston
- Grauer's Gorilla Conservation Through Education
- Great Lakes Piping Plover Recovery Effort
- Guatemalan Endangered Reptile Awareness Program
- Harlequin Conservation in Costa Rica
- Indian Turtle Conservation Program
- International Emergency Relief Network and Response Fund
- International Iguana Foundation (IIF) Support and Board Member
- IUCN/SSC Conservation Planning Specialist Group (CPSG)
- Jane Goodall Institute Roots and Shoots
- Javan Loris Community Conservation Project
- Jersey Shore Terrapin Conservation Project
- Landscape Level Bird Habitat Conservation
- Long-Term Monitoring Program and Experimental Training for Students (LiMPETS) Program
- Lowland Tapir Conservation Initiative Pantanal Tapir Program
- Mabula Ground Hornbill Project (MGHP)

- Mariana Avifauna Conservation (MAC) Project
- Mitigating the Impact of Climate Change for Wildlife and People in the Mizque River Basin of Bolivia
- National Wildlife Federation (NWF) Kids and Families Outreach – Be Out There
- Northern Tanzania Big Cats Conservation Initiative
- Okapi Conservation Project
- Orangutan Research, Education and Conservation
- Pacific Island Avifauna Health Assessment
- Pantanal Giant Armadillo Project
- Protecting Habitat From Pine Beetle Outbreak
- Protecting Mongolia's Endangered Snow Leopard
- Purple Martin Migration and Nesting Research
- Rare Plant Restoration and Research
- Rehabilitation and Release for Disneyland Resort (DLR) Animals
- Restoring the Pygmy Hog
- Reverse the Decline African Apes
- Reverse the Decline Conservation and Recovery of At-Risk Butterflies
- Reverse the Decline Developing a Strategy to Reverse the Decline of the Critically Endangered Sumatran Rhinoceros
- Reverse the Decline Monkeys: Expanding Education and Outreach for Proyecto Tití
- Reverse the Decline Monkeys: Golden Lion Tamarin Integrated Conservation
- Reverse the Decline Recovery Program for Siberian Cranes
- Reverse the Decline Reversing the Decline of the Critically Endangered Sumatran Tiger
- Reverse the Decline Saving Africa's Elephants
- Rewilding Australia With Tasmanian Devils
- Sahara Conservation Fund (SCF)
- Save the Elephants Elephants and Bees
- Saving Maine's Migratory Seabirds
- Saving the Ploughshares From Extinction
- Species Survival Commission Support
- Thames European Eel Conservation Project
- Towards Black-Capped Petrel Conservation
- Transforming Indonesia's Forest Management Paradigm
- Turtle Survival Alliance (TSA)

Typhoon Lionrock Threatens Tiger Habitat Umbrellabird Conservation in the Chocó, Colombia Urban Oases for Migrating Songbirds Viviendo con Felinos – Northern Jaguar Project Wildlife Rehabilitation Center of Central Florida Support

Green Practices

ENERGY

Documented Amount Spent Documented Amount Used Generated Renewable Energy On-Site Purchased Renewable Energy

FOOD

Sourced Local Food or Grew It On-Site

FUEL

Documented Amount Spent Documented Amount Used

GREEN CERTIFICATIONS

Obtained Zero Waste Certification From the US Zero Waste Council

GREEN PRACTICES IMPLEMENTED

Alternative Fuel Usage for On-Site Fleet Alternative Transportation Benefits for Staff Anaerobic Digester Energy Generation **Building Energy Management** Carbon Offset Purchase for On-Site Utility Use Commingled Recycling Community-Based Sustainability Projects Composting On-Site or Off-Site Construction Waste Diversion / Recycling Energy Submetering Graywater Reuse and/or Rainwater Harvesting Green Purchasing Policy / Green Procurement Greenhouse Gas (GHG) Inventory Local Food Procurement for Animals and/or Guests Purchasing Green Power or Renewable Energy Credits (RECs)

Stormwater Management Program Usage of an Environmental Management System Usage of Enterprise (IT) Solutions To Track, Measure and Dashboard Sustainability Performance Water-Wise Landscaping GREENHOUSE GAS EMISSIONS Documented Amount of Greenhouse Gas Emissions Reported Greenhouse Gas Emissions to a Climate Registry PLANS, POLICIES AND BUDGETS Dedicated a Line Item in the Budget for Green Practices Dedicated Full-Time Equivalent (FTE) Staff to Coordinating Green Practices Developed or Updated a Sustainability Plan (or Equivalent) Developed or Updated a Sustainability Policy Specified a Portion of the Amount Saved for Next Year's Green Practices WASTE Documented Amount Composted Documented Amount Recycled Documented Amount Sent to Landfill WATER

Solar or Wind Energy Generation

Documented Amount of Wastewater Generated Documented Amount Spent

Documented Amount Used

Mission-Focused Research

Agonistic Behavior in an All-Male Group of Nile Crocodiles (Crocodylus niloticus)

- Assessing Animal Visibility as a Tool for Enhancing Guest Satisfaction at the Pangani, Tree of Life, Maharajah Trek, Safari Attractions
- Assessing Thermoregulation and Agonistic Behaviors in an All Male Colony of Malayan Flying Fox and Rodrigues Fruit Bats

Assessing Welfare of Northern Carmine Bee-Eaters (*Merops nubicus*) During the Transition From Disney's Animal Kingdom's Avian Research Center to Africa Aviary

Assessment of Dietary Vitamin E Supplementation in Black and White Rhinoceros

- Assessment of Dietary Vitamin E Supplementation in Elephants
- Elephants and Bees: Reducing Human-Elephant Conflict in Kenya
- Evaluation of a Single Intratesticular Injection of Zinc Gluconate Neutralized by Arginine (Zeuterin™) as a Chemical Sterilant in Male Impala
- Expansion and Animal Monitoring Initiative
- Giraffe Grazing Behavior and Fecal Parasite Loads After Supplementary Plantings
- Gopher Tortoise Management and Conservation
- Historical and Contemporary Genetic Diversity in a Captive Population Prior to Reintroduction
- Hybridization Within the North American Population of Wildebeest (*Connochaetes taurinus*)
- Investigating Decision-Making and Perception in Box Turtles
- Investigation of Parental Investment and Genetic Relatedness of Carmine Bee-Eaters
- Juvenile Gibbon Hormone Change in Relation to Color Phase Change
- Latitudinal Comparisons of Nesting and Migratory Ecology of a Long-Distance Migrant, the Purple Martin
- Management of Iron Overload in the Black Rhinoceros (*Diceros bicornis*) Using an Oral Iron Chelator
- Method and Assay Validation for Ambassador Animals Study
- Monitoring the Sensory Environments of the Walt Disney Company Collection Animals
- Ovarian Cycle and Pregnancy Monitoring of the Common Hippopotamus (*Hippopotamus amphibius*) Through Salivary Analyses and Trans-Abdominal Ultrasound
- Pilot Study: a Test of GonaCon™ Gonadotropin-Releasing Hormone (GnRH) Vaccine as an Effective Contraception Method in Zoo-Managed Hippopotamus
- Preliminary Feeding Trial of Atala Caterpillars (*Eumaeus atala*) on Standard Caterpillar Medium
- Prevalence and Methodology for Detection of *Rhabdias* spp. in Dart Frogs Including Risk Factors for Disease
- Proyecto Tití Conservation of the Cotton-Top Tamarin in Colombia
- Reintroduction of the Mandrill: Stress Hormone Study
- Serum Osmolality in Captive African Elephants (*Loxodonta africana*)
- Use of Radio-Frequency Identification (RFID) Technology to Study the Reproductive Biology of an *Ex-Situ* Colony of Northern Carmine Bee-Eaters (*Merops nubicus*)

Wildlife Monitoring Program: Monitoring the Status of Butterflies and Birds Found in the Wildlife Management and Conservation Area

JACKSONVILLE ZOO AND GARDENS

Education Programs

4D Theater

Adult Programs - Osher Lifelong Learning Institute (OLLI) AfterDark Adventures - Education Animal Encounters Day Camps - Fall, Winter, Spring and Summer Early Childhood Programming - Natures Newbies Early Childhood Programming - ZooTots Exhibit Guide Interpretation Stations Field Trips Garden Workshop Saturday Tour Homeschool Zoocademy Keeper for the Day Membership Event - After-Dark Program Membership Event - Movie Nights Nature Play Space(s) Northeast Florida Chapter FrogWatch USA Outreach Programming River Quest - A Scenic River Cruise Train WILD Program Young Birders Club

Field Conservation

Australian Rainforest Trust

AZA Komodo Dragon SSP

AZA SAFE

AZA SAFE - Vaquita

- Belize Foundation for Research and Environmental Education (BFREE)
- Bonobo and Congo Biodiversity Initiative (BCBI)

Carnivorous Plant Outplanting

- Chapman's Fringed Orchid
- Cheetah Conservation Botswana

Chytrid Fungus Study Dian Fossey Gorilla Fund International Fundación Biodiversa Colombia Giant Armadillo Project Giraffe Conservation Foundation (GCF) Gorilla Rehabilitation and Conservation Education (GRACE) Center Grevy's Zebra Trust Indonesia Initiative Institute for Regional Conservation International Elephant Foundation (IEF) International Rhino Foundation (IRF) IUCN/SSC Asian Wild Cattle Specialist Group - Saola Working Group Jane Goodall Institute - Mandrill Reintroduction Land Snakes Alive Longleaf Alliance Lost Orchids of South Florida Lowland Tapir Conservation Initiative Madagascar Fauna and Flora Group (MFG) MarAlliance Marine Mammal Rescue Program Okapi Conservation Project Pollinator Partnership Puerto Rican Crested Toad Field Conservation Project **Right Whale Project** Ruaha Carnivore Project (RCP) Rupununi Region Jaguar Project Sahara Conservation Fund (SCF) Southern African Foundation for the Conservation of Coastal Birds (SANCCOB) - African Penguin Rescue Campaign Striped Newt (Western Clade) Breeding and Reintroduction Program Three-Wattled Bellbird Research Turtle Survival Alliance (TSA) - Turtle Survival Center Wood Stork Conservation Project and Partnership Zoo Conservation Outreach Group (ZCOG) - Anteaters and Highways

Zoo Conservation Outreach Group (ZCOG) – Scholarship Program

Mission-Focused Research

Artificial Insemination for White Rhinoceros

LEMUR CONSERVATION FOUNDATION

Education Programs Ako Conservation Education Program Open House

Field Conservation

Field Training Programs for Malagasy Conservationists
Madagascar Fauna and Flora Group (MFG)
Park Protection and Basic Infrastructure for Anjanaharibe-Sud Special Reserve, Madagascar
Green Practices
ENERGY
Documented Amount Spent
Documented Amount Used

Documented Square Footage of Conditioned Space

FOOD

FUEL

Sourced Local Food or Grew It On-Site

Documented Amount Spent

Certified as a Wildlife Habitat

GREEN CERTIFICATIONS

GREEN PRACTICES IMPLEMENTED

Commingled Recycling

Composting On-Site or Off-Site

Local Food Procurement for Animals and/or Guests

PLANS, POLICIES AND BUDGETS

Dedicated Full-Time Equivalent (FTE) Staff to Coordinating Green Practices

WASTE

Documented Amount Spent on Landfill Waste

Mission-Focused Research

Eastern Kentucky University Field School Florida Gulf Coast University Field School

LION COUNTRY SAFARI

Education Programs An Animal Tale Animal Adaptations I Animal Adaptations II Animal Senses Animal Theater Shows Backyard Florida General Scout Program **Backyard Habitat** Bear: Critter Care Bear: Fur, Feathers and Ferns **Biofact Display** Boy Scout Bird Study Boy Scout Mammal Study Brownie - Bugs Brownie - Outdoor Adventurer Brownie - Pets Brownie - Senses Cadette - Animal Helpers Cadette - Naturalist-Trees Careers in Zoos Classification I Classification II Conservation Daisy - Between Earth and Sky Daisy - Three Cheers for Animals Dinosaurs Ecology Enrichment Exhibit Talks Fall Toddler Programs Food Chain Fur, Feathers and Scales Girl Scout General Program - Animals

Habitats I Habitats II Habitats III Junior - Animal Habitats Junior - Detectives LCSI Animal Mystery Off-Property Community Events **Outreach Presentations** Party for the Planet **Premium Guest Experiences** Preserve Tour Materials Rock On! Geology Safari Day Camp Safari Queen Boat Tour Senior - Voice for Animals Tigers: Tigers in the Wild Virtual Field Trips Webelos: Earth Rocks Webelos: Into the Wild Webelos: Into the Woods Wolf: Digging in the Past Wolf: Paws on the Path World Oceans Day

Field Conservation

Friends of MacArthur Park
Giraffe Conservation Foundation (GCF) - Giraffe Painting/ Experience
International Rhino Foundation (IRF)
IUCN/SSC Conservation Planning Specialist Group (CPSG)
Pan African Sanctuary Alliance (PASA)
Shirts for Species
Source Population Alliance (SPA)

Mission-Focused Research

AZA Common Waterbuck SSP – Waterbuck DNA Collection Blackbuck Goiter Review Blackbuck Microchip Loss Canine Fractures in Great Apes Chimpanzee Anesthesia Study Chimpanzee Swelling With Stress Chimpanzee WelfareTrak® Flamingo DNA Sampling Rhino Breeding Videos Zoo Animal Drinking Water Quality

LUBEE BAT CONSERVANCY

Education Programs

Annual Florida Bat Festival General Lubee Bat Conservancy Educational Programming

Field Conservation

Conservation of the New Georgia Monkey-Faced Bat and Its Occurrence in Proposed Community Protected Areas, Following Large Scale Deforestation in the Solomon Islands

Rodrigues Environmental Education Project

Green Practices

PLANS, POLICIES AND BUDGETS

Developed or Updated a Sustainability Plan (or Equivalent)

WASTE

Documented Amount Recycled

Mission-Focused Research

Filoviral Immunoreactivity

MOTE MARINE LABORATORY AND AQUARIUM

Education Programs

Behind the Scenes Experiences

Birthday Parties

Community Engagement

Field Trips

Florida Marine Science Educators Association / Florida Fish and Wildlife Conservation Commission (FMSEA/FWC) -Aquatic Series Collection Workshop

Florida Master Naturalist Program

Gills Club

High School Intern Program

Homeschool Programs Kayaking Mommy and Me at Mote Mote Camps Mote Mobile Exhibit Night of Fish, Fun and Fright Sci Café Scout Groups SeaTrek Digital Learning Teen Sci Café Youth Ocean Conservation Summit (YOCS)

Field Conservation

Coral Reef Restoration, Monitoring and Assessment Programs Fisheries Habitat Ecology Program Mote Animal Hospitals Sea Turtle Conservation and Research Program and Sea Turtle Patrol Sharks and Rays Conservation Research Program Stranding Investigations Program

Mission-Focused Research

Chemical and Physical Ecology Program Coral Health and Disease Program Ecotoxicology Program Environmental Laboratory for Forensics Fisheries Ecology and Enhancement Program Marine and Freshwater Aquaculture Research Program Marine Immunology Program Next-Generation Postdoctoral Research Fellow Projects Ocean Acidification Program Sensory Research With Two Resident Manatees

NAPLES ZOO

- **Education Programs**
- Camp WILD Field Trip Experiences Keeper Talks Safari Canyon Shows Safari Squad / Toddler Programs Wild Encounters Zoo Yoga ZooCon Distance Learning Programs ZooMobile Outreach Programs

Field Conservation

- African People and Wildlife Fund
- AZA Conservation Grants Fund (CGF)
- AZA SAFE African Penguin
- AZA SAFE Founders Circle
- AZA SAFE Vaquita Project
- AZA Tiger SSP Tiger Conservation Campaign
- Black Bear: Smarter Than the Average Bear Secure Trash Campaign
- Burmese Python Monitoring and Eradication Testing
- Exotic Pet Amnesty Day
- Florida Panther Habitat Recovery Monitoring
- Florida Panther Species Recovery Outcome-Oriented Education
- Florida Panther Species Recovery Rehabilitation Facility
- Florida Panther: Testing the Potential of Rarámuri Criollo Cattle to Protect US Herds and Endangered Panthers
- Giant Armadillo Project
- Giraffe Conservation Foundation (GCF)
- Madagascar Fauna and Flora Group (MFG)
- Panthera Leopards
- **Rocket Stoves**
- Ruaha Carnivore Project (RCP) Support Through African Wildlife Foundation
- Seafood Watch
- Tree Planting
- Zoo Conservation Outreach Group (ZCOG)
- Zoo Conservation Outreach Group (ZCOG) Anteaters and Highways

Mission-Focused Research

Florida Bonneted Bat Research

Habitat Utilization of Fossa in the Eastern Rainforests of Kianjavato: Implications for Their Subsistence in Madagascar's Degraded Landscape

The Prusten Project

NATURAL ENCOUNTERS, INC.

Field Conservation

AZA SAFE - Vaquita Rescue

Donated Bird Training Workshop Position to the International Association of Avian Trainers and Educators Conservation Ground Hornbill Project Moholoholo Rehab Centre The Peregrine Fund Vulture Conservation Programme (VulPro) World Parrot Trust (WPT)

PALM BEACH ZOO

Education Programs

"Wild Things" and "Wings Over Water" Shows
After-School Series
Conservation Leadership Lectures
Guided Tours
Keeper Talks
Night Owls Overnight Adventure
Science, Technology, Engineering and Mathematics (STEM) Teacher Open House
Scout Badge Workshops
Toddler Workshops
Zoo Camp
Zoo Classes
Zoo Interpreters Training
Zoo School

Field Conservation

Florida Wildlife Corridor Project

Perdido Key Captive Breeding and Reintroduction

Wildlife Conservation Society (WCS) – Greater Madidi Tambopata Landscape Project Wildlife Conservation Society (WCS) - Malaysia Field Project

Zoological Society of London (ZSL) – Evolutionarily Distinct and Globally Endangered (EDGE) Fellowship

Green Practices

ENERGY

Documented Amount Spent Documented Amount Used Documented Square Footage of Conditioned Space Generated Renewable Energy On-Site

EXTERNAL SUPPORT Received Support From External Sources for Green Projects

FOOD

Sourced Local Food or Grew It On-Site

FUEL

Documented Amount Spent

Documented Amount Used

GREEN CERTIFICATIONS

Documented Square Footage of Facility With Green Building Certification

One or More Buildings LEED-Certified by the US Green Building Council

GREEN PRACTICES IMPLEMENTED

Alternative Transportation Benefits for Staff Alternative Transportation Discounts for Guests Carbon Offset Purchase for On-Site Utility Use Carbon Offsets for Employee Travel Community Solar Program Community-Supported Agriculture (CSA) Program for Staff Composting On-Site or Off-Site Construction Waste Diversion / Recycling Energy Submetering Graywater Reuse and/or Rainwater Harvesting Green Purchasing Policy / Green Procurement Local Food Procurement for Animals and/or Guests Purchasing Green Power or Renewable Energy Credits (RECs) Smart Buildings Systems

Solar or Wind Energy Generation

Water Submetering

PLANS, POLICIES AND BUDGETS

Dedicated Full-Time Equivalent (FTE) Staff to Coordinating Green Practices

WASTE Documented Amount Composted Documented Amount Spent on Landfill Waste

WATER

Documented Amount Spent Documented Amount Used

Mission-Focused Research

Chordoma Prevalence in Perdido Key Beach Mice Determination of Pseudopregnancies in Malayan Tigers The Prusten Project

SANTA FE COLLEGE TEACHING ZOO

Education Programs Animal Encounters AZA FrogWatch USA

Birthday Party Boo at the Zoo College for Kids Community Outreach Program Education Carts Keeper Talks Party for the Planet Rotary Reading Safari Special Event Outreach Stop, Paws and Learn Training Demonstrations Tree Kangaroo Awareness Day VIP Tour Zoo Guided Tours Zookeeper Day

Zookeeper for a Day

Field Conservation

Ashton Biological Preserve

- AZA Ape TAG Conservation Initiative
- Conservation Through Poverty Alleviation, International (CPALI)
- Gopher Tortoise Rehabilitation and Release Program

Operation Migration

- Tree Kangaroo Conservation Program
- Turtle Survival Alliance (TSA)
- Vaquita Conservation, Protection and Recovery (Vaquita CPR)

SEA LIFE ORLANDO AQUARIUM

Field Conservation

Coastal Cleanups

Shingle Creek Canoe Cleanups

Storm Drain Labeling

Supporting National Public Lands

Mission-Focused Research

Investigating Stingray Reproductive Disease Systemic Iridovirus Infection in the Banggai Cardinalfish

SEAWORLD ORLANDO

Field Conservation

- Audubon Center for Birds of Prey Bald Eagle Rescue and Rehabilitation
- Back to Nature: Native Animal Rescue, Rehabilitation and Release
- Citizen Science: Individuals Making a Difference for our Coral Reefs
- Fundación Tamar Improvement of Conservation Efforts to Olive Ridley Turtle (*Lepidochelys olivacea*) on the Rio Real Mouth
- Guy Harvey Foundation Shark Conservation
- National Audubon Society Conservation of Maine Coast Alcids

National Fish and Wildlife Foundation – Killer Whale Research and Conservation Program

- National Fish and Wildlife Foundation Ocean Health Initiative
- Norwegian Orca Survey: Ecological variations in Norwegian Killer Whales

- Panamerican Conservation Association (APPC): Sloth and Anteater Rescue, Rehabilitation and Education Program in the Republic of Panama
- SeaWorld Orlando Animal Rescue and Rehabilitation Program
- Southern African Foundation for the Conservation of Coastal Birds (SANCCOB) – Conservation of Endangered African Penguins

ST. AUGUSTINE ALLIGATOR FARM

Field Conservation

Agumbe Rainforest Research Station (ARRS), Western Ghats

- American Bird Conservancy (ABC) Laney S. Rickman Memorial Fund for the Blue-Throated Macaw
- Audubon of Florida Everglades Science Center (ESC) at Tavernier
- AZA Conservation Grants Fund (CGF)
- Bird Endowment Nido Adoptivo
- Crocodile Research Coalition
- Cuban Crocodile Reintroduction and Monitoring Into Zapata Swamp
- Hawk Mountain's Hooded Vulture Survey Project
- Madagascar Fauna and Flora Group (MFG) Betampona Natural Reserve
- Nature Conservation Foundation India Hornbill Nest Adoption Program
- Proyecto Tití Conserving the Critically Endangered Cotton-Top Tamarin in Colombia

Sea Turtle Hospital at Whitney

- Siamese Crocodile Conservation in Lao, PDR
- Using Genomics to Evaluate Reintroduction as a Conservation Strategy for the Orinoco Crocodile in Venezuela

Green Practices

ENERGY

Documented Amount Spent

Documented Amount Used

WATER

Documented Amount Spent Documented Amount Used

Mission-Focused Research

Broad-Snouted Caiman Parental Care Komodo Dragon Antimicrobial Peptides Reducing Anesthetic Recovery Time in American Alligators

THE FLORIDA AQUARIUM

Education Programs

Adopt-a-School Partnerships Aqua-Tots Associated Marine Institutes (AMI) - AMIKids Tampa Partnership Behind the Scenes Tour Camps (School-Year) Camps (Summer) **Evening Tide Talks** Explorers Club Homeschool Classes Interactive Touch Experiences Junior Educators Lifelong Learning Program Live Animal Presentation Mission Tampa Bay Party With the Fishes (Birthday Parties) Regional Oceans Conference for Students (ROCS) School Group Classroom Programs Scout Badge Workshops (Both Boy Scouts and Girl Scouts) SEAS Summer Institute Sleep With the Fishes (Sleepover Program) **Teacher Planning Visits** Teacher Workshops Water Wheels (Outreach) Watershed Investigations What's in Your Watershed? Wild Dolphin Adventure Cruise

Field Conservation

Artificial Fertilization and Larval Rearing of Threatened Caribbean Coral Species for Reintroduction to Natural Reefs in the Florida Keys Cuba Coral Project Fantasy Island: A Cooperative Conservation and Education Project Reptile Conservation Projects Sea Turtle Rehabilitation Shark Reproduction and Restoration Swallow-Tailed Kite Conservation Project

THE SEAS

Education Programs

Abaco Reef Restoration and Environmental Education Aqua Tours Aulani Rainbow Reef Aulani Supplied Air Snorkeling Castaways Rays DiveQuest Dolphins in Depth Seas Onstage Guest Programs Seas Youth Education Series (YES) Programs World Oceans Day

Field Conservation

Angel Shark Conservation Programme AZA SAFE - Vaquita Community Engagement for Dolphin Conservation Connect to Protect - Reverse the Decline of Corals Connect to Protect - Reverse the Decline of Sea Turtles Connect to Protect - Reverse the Decline of Sharks and Rays Conservation Hero - Bemahafaly Randriamanantsoa Conservation Hero - Lliana Fonseca Conservation Hero - Velkiss Gadea Conserving Sea Turtles Through Community Participation and Stakeholder Stewardship Coral Reef Youth Education Program Developing Solar-Powered Illuminated Nets to Reduce Sea Turtle Bycatch in Gillnet Fisheries Establishing the Next Generation of Resilient Coral Species

Ex-Situ Conservation Feasibility Workshop - Vaquita

Life in a Biosphere Reserve

Ocean Stewardship and Conservation Awareness Through Moana in the Samoan Islands Recovery of Washback Sea Turtles Reverse the Decline – Coral Reefs Reverse the Decline – Reversing the Decline of Sharks and Rays Reverse the Decline – Sea Turtles Seagrass Surveys for Education and Conservation Southeast Regional Sea Turtle Network (SERSTM) Sustainable Fisheries Partnership Tour de Turtles – Sea Turtle Conservancy Urban Shark Conservation / Research Program

Manatee Rescue and Rehabilitation Partnership (MRP)

Green Practices

ENERGY

Documented Amount Spent Documented Amount Used Generated Renewable Energy On-Site Purchased Renewable Energy

FOOD

Sourced Local Food or Grew It On-Site

FUEL

Documented Amount Spent Documented Amount Used

GREEN PRACTICES IMPLEMENTED

Alternative Fuel Usage for On-Site Fleet Alternative Transportation Discounts for Guests Anaerobic Digester Energy Generation Building Energy Management Carbon Offset Purchase for On-Site Utility Use Commingled Recycling Community-Based Sustainability Projects Composting On-Site or Off-Site Construction Waste Diversion / Recycling Energy Submetering Graywater Reuse and/or Rainwater Harvesting Green Purchasing Policy / Green Procurement

Greenhouse Gas (GHG) Inventory

Local Food Procurement for Animals and/or Guests

Purchasing Green Power or Renewable Energy Credits (RECs)

Solar or Wind Energy Generation

Stormwater Management Program

Usage of an Environmental Management System

Usage of Enterprise (IT) Solutions To Track, Measure and Dashboard Sustainability Performance

Water-Wise Landscaping

GREENHOUSE GAS EMISSIONS

Documented Amount of Greenhouse Gas Emissions

Reported Greenhouse Gas Emissions to a Climate Registry

PLANS, POLICIES AND BUDGETS

Dedicated a Line Item in the Budget for Green Practices

Dedicated Full-Time Equivalent (FTE) Staff to Coordinating Green Practices

Developed or Updated a Sustainability Plan (or Equivalent)

Developed or Updated a Sustainability Policy

Specified a Portion of the Amount Saved for Next Year's Green Practices

WASTE

Documented Amount Composted Documented Amount Recycled Documented Amount Sent to Landfill

WATER

Documented Amount of Wastewater Generated Documented Amount Spent Documented Amount Used

Mission-Focused Research

A Multi-Faceted Health Assessment for a Sample of Nesting Loggerhead Sea Turtles

Abaco Reef Restoration and Environmental Education

Coelomic Fluid Analysis in Normal and Abnormal Elasmobranchs

Contraceptive Drug Trials at Disney's Animal Kingdom and The Seas

- Developmental Life Cycle of Marine Monogeneans (*Decacotyle* spp.) on Captive White-Spotted Eagle Rays and Possible Treatments
- Effects of Dietary Vitamin D Supplementation and UV Light Exposure on Nutritional Health Parameters Including Vitamin D in Sea Turtles
- Evaluation of Stress in Elasmobranchs
- Manatee Rehabilitation Partnership (MRP) Research
- Monitoring the Effects of Construction Noise on Resident Animals in Regards to Space Utilization
- Preliminary Assessment of Plasma Biochemical Analyses and Related Water Chemistry and Diet Analyses in Green Moray Eels (*Gymnothorax funebris*) Maintained in Aquaria
- Preventing Boat Collisions With Manatees (*Trichechus manatus*): A Possible Boater-Alert System Based on Acoustic Detection of Manatees
- Sex Determination of French Grunts (*Haemulon flavolineatum*) in The Seas' Recirculating Research System
- Space Utilization of Resident Sand Tiger Sharks
- Statewide Sea Turtle Nesting Surveys
- Studies of the Dolphin Mind: Echolocation, Communication and Social Life
- Studies on the Development of Head and Lateral Line (HLL) Disease
- To Determine the Plasma Concentrations of Oral Praziquantel in Plasma of Spotted Eagle Rays
- Training a Scent Detection Dog to Locate Sea Turtle Nests and Gopher Tortoises
- Understanding Causal Agents of Southern Stingray Reproductive Disease for Treatment Development
- Vaccination of French Grunts

WHITE OAK CONSERVATION CENTER

Education Programs

- Adult Education Workshop: Florida Master Naturalist Program
- Conservation Summer Camp
- K-12 Field Experiences (Off-Site)
- K-12 Field Experiences (On-Site)
- Monthly Public Special Event
- Off-Site Lectures and Presentations
- Staff-Guided Public and Private Wildlife Tours
- Topics in Conservation
- Undergraduate/Graduate Level Field Experience

Field Conservation

Antelope Restoration - Chad

Mission-Focused Research

- Detection of Feline Morbillivirus and *Cytauxzoon felis* in Large Captive Felids
- Determining the Impact of Infectious Diseases on Critically Endangered Florida Grasshopper Sparrows (*Ammodramus savannarum floridanus*)
- Genome Resource Banking of Genetically Valuable Male Indian Rhino
- Identification of Preimplantation Factor in Pregnant White Rhinoceros
- Identifying and Sequencing *Atoxoplasma* spp. Affecting *Ammodramus savannarum floridanus*
- Investigating Microbial Communities of the Southern White Rhino Gastrointestinal Tract
- Landscape Genomics of Kruger Park Rhinoceros Populations
- Monitoring of Florida Panther Genetic Introgression Through Reproductive Assessment and Banking of Genetic Material
- Opportunistic Semen Banking of Wild Felids by Zoo Veterinarians
- Prevalence, Risk Factors and Survival of Zoo Animals With Cancer
- Relatedness in Southern White Rhinoceros and Implications for Breeding Management
- Seasonal Changes in Reproductive Hormones, Glucocorticoids and Aggressive Behavior in Captive Blue-Billed Curassows
- Semen Collection and Cryopreservation in the Southern White Rhinoceros

ZOO MIAMI

Field Conservation

Audubon Christmas Bird Count

AZA FrogWatch USA

- AZA Tiger SSP Tiger Conservation Campaign
- Biological and Conservation Studies of the Miami Tiger Beetle (*Cicindela floridana*)
- Butterfly Surveys of Pine Rockland and Developed Grounds of Zoo Miami
- Cheetah Outreach
- Citizen Science: Invasive Fish Removal Derby
- Conservation and Research Manager Expenses

CrocFest Florida Bonneted Bat Rehabilitation Florida Fish and Wildlife Conservation Commission (FWC) – Florida Panther Capture Team Great Ocean Road Koala Habitat Rescue Iguana Fest

Conservation and Research Specialist

International Elephant Foundation (IEF)

- International Iguana Foundation (IIF)
- Invasive Species and Fire Management of the Zoo Miami Pine Rocklands
- Jamaican Herpetofauna Surveys
- National Park Service (NPS) Florida Panther Capture Team

Native Bat Roosting Mitigation and Enhancement

- Pine Rockland Public Restoration
- Puerto Rican Crested Toad Recovery Program
- Reversing Tropical Amphibian Declines
- Targeted Mist Netting Utilizing an Acoustic Lure for Florida Bonneted Bats
- The Ecology of Gopher Tortoises in the Pine Rocklands
- Tillandsia Recovery and Propagation Project
- Zoo Miami Butterfly Conservation Area

Green Practices

ENERGY

Documented Amount Spent Documented Amount Used Documented Square Footage of Conditioned Space Generated Renewable Energy On-Site

FOOD

Sourced Local Food or Grew It On-Site

FUEL

Documented Amount Spent Documented Amount Used

GREEN CERTIFICATIONS Certified as a Wildlife Habitat GREEN PRACTICES IMPLEMENTED Commingled Recycling Composting On-Site or Off-Site Construction Waste Diversion / Recycling Energy Submetering Green Information Technology (IT) Smart Buildings Systems Solar or Wind Energy Generation Water Submetering

PLANS, POLICIES AND BUDGETS Developed or Updated a Sustainability Policy

WASTE

Documented Amount Recycled

Documented Amount Spent on Landfill Waste

WATER

Documented Amount of Wastewater Generated

Documented Amount Spent

Documented Amount Used

Mission-Focused Research

Ecology of Invasive Burmese Pythons in Big Cypress National Preserve

Effect of Multi-Radiance Low-Level Laser Therapy and Topical Silver Sulfadiazine on Healing Characteristics of Dermal Wounds in Marine Toads (*Rhinella marina*)

Hormonal Manipulation of Male Burmese Python Pilot Study

In Vivo Physiological Analysis of Vascular Thermoregulatory Structures Using Noninvasive Infrared Thermography on Free-Ranging Birds

Invasive Neyraudia reynaudiana Herbicide Testing for Effective Primary Treatment Methods in Pine Rocklands

Life Cycle and Development of the Faithful Beauty Moth (*Composia fidelissima*)

Population Genetic Characterization of Highly Fragmented Florida Duskywing Relict Populations

Single Treatment Herbicide Application for the Control of Invasive Burmareed in the Pine Rocklands

The Natural History, Habitat Usage and Origins of Florida Flamingos

ZOOTAMPA AT LOWRY PARK

Education Programs Animal Interactive Experiences- Aldabra Encounter

Field Conservation

Conservation of Helmeted Hornbill

CrocFest

- Florida Fish and Wildlife Conservation Commission (FWC) Florida Black Bear Rescue, Rehab and Release Program
- Florida Panther Recovery Plan

Gyps Vulture Restoration Program

International Rhino Foundation (IRF)

Manatee Rescue, Rehabilitation and Release

- Marine Mammal Research Patrol
- Okapi Conservation Project
- Pan African Sanctuary Alliance (PASA) Primate Care Training
- Park Protection and Basic Infrastructure for Anjanaharibe-Sud Special Reserve, Madagascar

Green Practices

ENERGY

Documented Amount Spent

Documented Amount Used

Generated Renewable Energy On-Site

GREEN PRACTICES IMPLEMENTED

Building Energy Management

Commingled Recycling

Composting On-Site or Off-Site

Energy Submetering

Green Building Policy / Commitment

Local Food Procurement for Animals and/or Guests

Smart Buildings Systems

Solar or Wind Energy Generation

Stormwater Management Program

Wastewater Reduction

Water Submetering

WATER

Documented Amount Spent Documented Amount Used

Georgia

GEORGIA AQUARIUM

Field Conservation

Amazonian Manatee Rehabilitation Coral Restoration in the Florida Keys Georgia Dolphin Ecology Project Manta Ray Population Assessment Puerto Rico Manatee Assessment Southern African Foundation for the Conservation of Coastal Birds (SANCCOB) – African Penguin Conservation Whale Shark Cendrawasih Green Practices ENERGY Documented Amount Spent

Documented Amount Used

FUEL

Documented Amount Spent Documented Amount Used

WASTE

Documented Amount Sent to Landfill

WATER

Documented Amount of Wastewater Generated Documented Amount Spent Documented Amount Used

Mission-Focused Research

Flukebook

THE ZOO AT CHEHAW

Green Practices

ENERGY Documented Amount Spent

FOOD Sourced Local Food or Grew It On-Site

FUEL Documented Amount Spent Documented Amount Used

GREEN PRACTICES IMPLEMENTED

Composting On-Site or Off-Site Local Food Procurement for Animals and/or Guests

ZOO ATLANTA

Education Programs

Adventure Cubs Camp - School's Out Camp - Spring Camp - Summer Camp - Winter Docent Program Family Volunteer Program Field Trip Programs **Guided Tours** Homeschool Academy Intern Program Interpretive Program - Animal Tales Interpretive Program - Giraffe Feeding Interpretive Program - Groove Like an Animal Interpretive Program - Kori Bustard Program Interpretive Program - Wild Women Interpretive Program - Zoo's Clues Keeper for a Day NightCrawler - Groups NightCrawler Overnights - Family Scout Day

Self-Guided Field Trips Stroller Cubs Teacher Workshops Volunteen Program Volunteer Program Wild Encounters ZOOMobile - Outreach **Field Conservation** Amphibian Ark AZA Ape TAG Chytridiomycosis and Amphibian Conservation Community-Based Red Panda Conservation and Monitoring in Eastern Nepal Dian Fossey Gorilla Fund International Elephants for Africa Giant Panda Conservation Golden Lion Tamarin Conservation Program Headstarting Diamondback Terrapins Indigo Snake Restoration Project International Reptile Foundation International Rhino Foundation (IRF) Madagascar Fauna and Flora Group (MFG) Project Golden Frog Red Panda Network (RPN) Sahara Conservation Fund (SCF) Save the Golden Lion Tamarin Vulture Conservation Programme (VulPro) Wildlife Conservation Society (WCS) - 96 Elephants World Parrot Trust (WPT) Yayasan Orangutan Sumatera Lestari

Green Practices

Scout Workshop

EXTERNAL SUPPORT Received Support From External Sources for Green Projects

FUEL Documented Amount Spent Documented Amount Used

GREEN PRACTICES IMPLEMENTED

Commingled Recycling Composting On-Site or Off-Site Construction Waste Diversion / Recycling Green Information Technology (IT) Purchasing Green Power or Renewable Energy Credits (RECs) Smart Buildings Systems PLANS, POLICIES AND BUDGETS

Developed or Updated a Sustainability Plan (or Equivalent) Developed or Updated a Sustainability Policy

WASTE

Documented Amount Composted

Documented Amount Recycled

Documented Amount Sent to Landfill

Mission-Focused Research

- DNA Testing of Mob of Meerkats to Determine Relatedness and Parentage
- Ecology and Evolution of the Vertebrate Microbiome
- Ontogeny of Ambush Behavior in Sidewinders
- Problem-Solving and Behavior Changes Based on Association Learning in Lizards
- The Effect of an Introduction Event on Social Structure and Mate Choice in a Captive Flock of Chilean Flamingos (*Phoenicopterus chilensis*)
- Zoo Visitor Assessment of Novel Tool-Using Enrichment and Behavior in Naive Western Lowland Gorillas (*Gorilla gorilla gorilla*)

Idaho

IDAHO FALLS ZOO AT TAUTPHAUS PARK

Education Programs

Behind the Scenes Tours

Career Days

Exploration Stations

Junior Zoo Crew

Penguin Interaction Program

Quarters for Conservation

Science, Technology, Engineering and Mathematics (STEM) Day at the Zoo

Special Events

Spring Break Classes

Water Awareness Festival

Weeklong Summer Camp

Winter Break Classes

Zoo Tots Classes

Zoomobiles

Field Conservation

Gorongosa National Park

Snow Leopard Trust (SLT)

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

Vaquita Conservation, Protection and Recovery (Vaquita CPR)

ZOO BOISE

Field Conservation

American Association of Zoo Keepers (AAZK) – Bowling for Rhinos

AZA SAFE - Cheetah Conservation Action Plan (CAP)

Children's Conservation Education in Gorongosa National Park

EcoHealth Program in Gorongosa National Park

Gorongosa National Wildlife Park Restoration

IUCN/SSC Asian Wild Cattle Specialist Group – Saola Working Group
Monitoring the Elephant Population in Gorongosa National Park

Table Rock Fire Restoration

Green Practices

ENERGY

Documented Amount Spent Documented Amount Used

FUEL

Documented Amount Spent

Documented Amount Used

GREEN PRACTICES IMPLEMENTED

Building Energy Management

WATER

Documented Amount Spent

Documented Amount Used

Mission-Focused Research

Development of Reintroduction Protocol for Southern Idaho Ground Squirrel

Illinois

CHICAGO ZOOLOGICAL SOCIETY - BROOKFIELD ZOO

Education Programs

A Zoo for All: Access and Inclusion

Advanced Inquiry Program (AIP)

Backstage Adventures

Badges

Bridges

Certified Interpretive Guide Training

College Experiential Learning Opportunities

Common Foundations in Informal Science Learning for Zoo Staff and Volunteers

Crowdsharing Environmental Action

Dolphins in Action Presentations

Early Childhood Education Nature Assistant Certificate With Morton College, Cicero, IL Family Fun Saturdays Good Works Graduate Teacher Classes Hamill Family Play Zoo Hamill Family Play Zoo Keeper Chats and Ambassador Animal Program Inclusive Visits Institute of Science Teaching Excellence Interpretive Training King Conservation Science Scholars Lecture Series Nature Play Zero to Three Nature Play Zoo Adventure Passport (Nature Play ZAP!) NatureStart AZA Course NatureStart Networks Postdoctoral Fellowship in Veterinary Anesthesia and Analgesia Professional Learning in Informal Science Education: How Can We Do It? How Can We Sustain It? Project SEARCH **Roving Naturalists** Sarasota Dolphin Research Program Undergraduate Internship Program School Field Trips Science Fellows Program Sleepover Safari Supporting a Community's Informal Education Needs (SCIENCES) Project The World's Longest-Running Study of a Wild Dolphin Population - Lessons From Four Decades and Five Generations Volunteer Program Wild Encounters, Keeper Chats and Ambassador Animals Program Zoo Adventure Passport (ZAP!) Zoo Camp Zoo Chats Zoo Explorers Club Zoological and Aquatic Animal Residency Program - Illinois

Field Conservation

Center for the Science of Animal Care and Welfare

- Chicago Board of Trade (CBOT) Grant Crocodilian Ecology Project, India
- Chicago Board of Trade (CBOT) Grant Formal Species Recognition and *In-Situ* Conservation of a New Form of *Microcebus* (Mouse Lemur), Madagascar
- Chicago Board of Trade (CBOT) Grant Little Fireface Project, West Java
- Chicago Board of Trade (CBOT) Grant Lowland Tapir Health and Risk Management in Brazil
- Chicago Board of Trade (CBOT) Grant Saving the Giant Anteater in the Colombian Orinoco, Colombia
- Chicago Board of Trade (CBOT) Grant Study and Conservation of Persian Leopard, Russia
- Pangolin Conservation
- Post-Release Monitoring of Injured, Out-Of-Habitat or Stranded Cetaceans in the Southeastern United States
- Punta San Juan Marine Wildlife Conservation Program, Peru
- Sarasota Dolphin Research Program
- Sarasota Dolphin Research Program Behavioural Response of Sea Turtles to the FaunaGuard Turtle Module
- Sarasota Dolphin Research Program Bottlenose Dolphin Biopsy Darting Training
- Sarasota Dolphin Research Program Bottlenose Dolphin Health Assessments in Sarasota Bay, Florida
- Sarasota Dolphin Research Program Community Engagement for Dolphin Conservation
- Sarasota Dolphin Research Program Development of Population Consequences of Acoustic Disturbance (PCAD) Model
- Sarasota Dolphin Research Program Dolphin Communication Research With Digital Acoustic Recording Tags (DTAGs)
- Sarasota Dolphin Research Program Gulf of Mexico Dolphin Identification System (GoMDIS)
- Sarasota Dolphin Research Program Hearing Abilities of Dolphins in Sarasota Bay
- Sarasota Dolphin Research Program Investigation of Methods for Reproductive Failure in the Aftermath of the Deepwater Horizon Oil Spill to Understand Population Recovery Scenarios for Cetaceans
- Sarasota Dolphin Research Program Mississippi River Diversion Marine Mammal Data Gaps

- Sarasota Dolphin Research Program Monitoring of Dolphin Prey Populations in Sarasota Bay, Florida
- Sarasota Dolphin Research Program Naples/Marco Island Area Bottlenose Dolphin Population Assessment

Species Conservation Toolkit Initiative

Green Practices

ENERGY

Documented Amount Spent

Documented Amount Used

EXTERNAL SUPPORT

Received Support From External Sources for Green Projects

FOOD

Sourced Local Food or Grew It On-Site

FUEL

Documented Amount Spent

Documented Amount Used

GREEN CERTIFICATIONS

Documented Square Footage of Facility With Green Building Certification

One or More Buildings LEED-Certified by the US Green Building Council

GREEN PRACTICES IMPLEMENTED

Alternative Transportation Benefits for Staff

Building Energy Management

Commingled Recycling

Construction Waste Diversion / Recycling

Graywater Reuse and/or Rainwater Harvesting

Green Building Policy / Commitment

Green Information Technology (IT)

Green Purchasing Policy / Green Procurement

Local Food Procurement for Animals and/or Guests

Wastewater Reduction

WASTE

Documented Amount Recycled

Documented Amount Sent to Landfill

WATER

Documented Amount Spent

Documented Amount Used

Mission-Focused Research

- Chicago Board of Trade (CBOT) Grant Assessment of Status, Distribution and Threats to Threatened Large Carnivores, Tanzania
- Chicago Board of Trade (CBOT) Grant Escape From Deadly Disease: Can Environmental Refugia Save Tropical Montane Frogs From Extinction, Peru
- Chicago Board of Trade (CBOT) Grant Investigation of Genetic Diversity of *Callimico goeldii* and *Cebuella pygmaea* in Bolivia, Peru and Ecuador
- Chicago Board of Trade (CBOT) Grant Photo-Identification of Fin Whales in the Canal De Ballenas Area, Mexico
- Comparison of Fecal Adrenal Hormone Levels Between Wild and Professionally-Managed Bottlenose Dolphins
- First Steps in Saving a Species: Indicators of Successful Pregnancy in the African Tree Pangolin
- MetaModel Manager
- Relevancy of African and Asian Elephants in Zoological Facilities
- Relevancy of Zoo Experiences: Cognition, Affect, Conservation and Health
- Towards Understanding Welfare of Cetaceans in Zoos and Aquariums
- Validating WelfareTrak® as a Tool to Improve the Welfare of Individual Chimpanzees

Veterinary Research

COSLEY ZOO

Field Conservation

Asian Wild Horse AZA SAFE - Vaquita AZA SAFE - Whooping Crane Blanding's Turtle Headstart Project The Great Backyard Bird Count

Green Practices

ENERGY

Documented Amount Spent Documented Amount Used Documented Square Footage of Conditioned Space

FUEL

Documented Amount Spent

Documented Amount Used

GREEN CERTIFICATIONS

Certified as a Monarch Watch Waystation Certified as a Wildlife Habitat

GREEN PRACTICES IMPLEMENTED

Building Energy Management

Commingled Recycling

Composting On-Site or Off-Site

Graywater Reuse and/or Rainwater Harvesting

Stormwater Management Program

PLANS, POLICIES AND BUDGETS

Dedicated Full-Time Equivalent (FTE) Staff to Coordinating Green Practices

WASTE

Documented Amount Composted

Documented Amount Spent on Landfill Waste

WATER

Documented Amount of Wastewater Generated Documented Amount Spent Documented Amount Used

Mission-Focused Research

Drinking Water Quality and Water Husbandry at AZA Zoos

The Frequency of Natural Behaviors Displayed by Captive Red Fox (*Vulpes vulpes*) With Added Feeder Enrichment

JOHN G. SHEDD AQUARIUM

Education Programs Amphibian Educator Badging Assistantships Club Shedd Club Shedd – Middle School Fish Tales Educator E-News Freshwater Ecology

- Great Lakes Action Days
- Great Lakes Digital Badging
- High School Lake Ecology
- High School Marine Biology
- Interpretive Volunteers
- Learning Labs (6-12th Grades)
- Live From Behind the Scenes
- Marine and Island Ecology of The Bahamas
- National Oceanic and Atmospheric Administration (NOAA) How and Why We Explore the Deep Ocean Workshop
- Park Voyagers
- Professional Training Seminar
- Science Tech Treks
- Shedd Science Educator Conference
- Shedd Stewards
- Spring Break Camp
- Summer Road Trip
- Summer Worlds Tour
- Sustainable Seafood Culinary School Partner Training
- Sustainable Seafood Event Outreach
- Sustainable Seafood Restaurant Partner Training
- Teen Learning Lab
- Teen Work-Study
- Underwater Robotics Club and Competition
- Underwater Robotics Teacher Professional Development
- **Unmanned Aerial Vehicles**
- Wreath-Cycled

Field Conservation

Amphibian Response to Habitat Restoration

- AZA SAFE Vaquita Rescue Project
- Bahamian Iguana Research and Conservation
- Conch Population Assessment and Management in the Bahamas
- Dam Removal and Migratory Fish Recruitment in Great Lakes Tributaries
- Field Surveys of Threatened and Endangered Aquatic Species in Illinois
- Great Lakes Action Days

- SExual COral REproduction (SECORE) Coral Reef Conservation Partnership
- Spatial Dynamics of Nassau Grouper Spawning in the Bahamas
- Urban Ecology of Mudpuppies in the Chicago Area

Mission-Focused Research

- Age Assessment of Belugas Using DNA in Sputum, Skin and Blood
- Application of Nanopore MinION for Rapid Viral Pathogen Detection for Marine Mammals in Aquatic Environments
- Aquarium Microbiome Project
- Assessing Conservation Science
- Assessment of Proposed Marine Mammal Water Quality Indicator Organisms in a Recirculating Artificial Seawater System
- AZA Western Pond Turtle SSP The Role of the Microbiome in the Reintroduction of Species
- Body Growth and Rapid Hematological Development Support of Breath Hold of Baby Belugas (*Delphinapterus leucas*)
- Cetacean Perinatal Behavioral Assessment
- Corals as Optical Machines
- Metagenomic Investigation Into the Cause of Shell Disease in Western Pond Turtles (*Actinemys marmorata*)
- Mycobacteria Response to Disinfection
- Role of Water, Treatment, Nutrients and Physicochemical Factors in Regulating Viral and Microbial Composition in an Aquarium by Metagenomics Approaches

Sea Star Social Behavior

LINCOLN PARK ZOO

Education Programs

- Animal Encounters Animal Enrichment Workshops Artecito Campout at the Zoo Canvas for Conservation Chicago Environmental Stewards Spring Break Camp Community Gardens Program Community Pop-Up Events
- Conservation Ambassador Board

Conservation Camp (School Holidays)

Conservation Camp (Summer)

Cow Milking

DreamNight

Educator Open House

Free-Flight Feeding

Gorilla Cognition

Gorilla Operant Conditioning

Guest Engagement Chats

Guest Engagement Leadership Program

Guest Engagement Mobile Learning Stations

Learn Explore and Play (LEAP)

Morning Safari / Twilight Safari

Nature Boardwalk Tours

Partners in Fieldwork

Penguin Encounters

Play Days at the Farm

Pre-Service Teacher Education Partnership

Research Apprenticeship Program

Science for All Students

Seal Training and Feeding

Second Saturday Garden Tours

Sing Along With Mr. Singer

Snow Monkey Science

Teacher Workshops

Up Close With Polar Bears

WILD Marshall Square Sculpture Program

Wine and Wildlife

Young Researchers Collaborative

Zoo Crew Camp

Zoo Explorers

Zoo Intern Program

Field Conservation

Administrative Costs for Staff Managing Field Conservation Grants

AZA SAFE - Founders Circle

Bali Mynah Reintroduction Project

Building Evidence for Effective Conservation Interventions Around the Serengeti Ecosystem Developing Non-Invasive Methods to Assess Health in Bats Threatened by White-Nose Syndrome Developing Non-Invasive Methods to Monitor the Health of Urban Bats Evaluating Conservation and Development Impacts of Serengeti National Parks on Adjacent Communities Goualougo Triangle Ape Project (GTAP) Great Lakes Piping Plover Recovery Effort Investigating Denver's Vanishing Prairie Dogs Little Brown Bat Priority Species Long-Term Monitoring of an Eastern Massasauga Rattlesnake (EMR) Population in Southwest Michigan Miscellaneous Conservation Donations to Field Conservation Organizations Monitoring Bat Diversity in the Chicago Area and the Influence of Prey Availability Monitoring Infertility in Black-Footed Ferrets Monitoring the Health and Stress of Urban Wildlife and Implications on Human Health Painted Turtle Relocation and Monitoring at Nature Boardwalk Pilot Study: Evaluating the Use of Prostaglandin Metabolite Assay to Determine Pregnancy in the Black-Footed Ferret Population Management Advising for Species Recovery and **Conservation Assurance Populations** Population Viability Analysis (PVA) for Tanzanian Eastern Black Rhinoceros Populations Population Viability Analysis (PVA) of the Eastern Indigo Snake Population Viability Analysis (PVA) of Zoo and Wild Populations of Endangered Red Wolves (Canis rufus) Puerto Rican Parrot Population Management Regional Survey of Amphibian Chytrid (Batrachochytrium dendrobatidis) and Amphibian Stress Serengeti Health Initiative - Distemper and Rabies Vaccination Project

Tracking Fecal Metabolites to Determine Estrous Cycle and Cortisol Levels of Tamiasciurus *Hudsonicus grahamensis* in an *Ex-Situ* Setting

Trends in Long-Term Urban Bird Research

Understanding Stress Physiology of the Mountain Gorilla

Urban Wildlife Information Network (UWIN)

Using Camera Traps to Assess Mammalian Community Composition, Abundance and Diversity

Using Mate Choice to Improve Reproductive Success in the Black-Footed Ferret

Green Practices

ENERGY

Documented Square Footage of Conditioned Space

FUEL

Documented Amount Spent

Documented Amount Used

GREEN CERTIFICATIONS

Certified by the Green Restaurant Association

GREEN PRACTICES IMPLEMENTED

Alternative Transportation Benefits for Staff

Commingled Recycling

Composting On-Site or Off-Site

Construction Waste Diversion / Recycling

Green Information Technology (IT)

Water-Wise Landscaping

PLANS, POLICIES AND BUDGETS

Dedicated Full-Time Equivalent (FTE) Staff to Coordinating Green Practices

Mission-Focused Research

A Meta-Analysis of Shifts in Wildlife Health With Urbanization

A Preliminary Investigation of Non-Invasive Body Composition Estimation in Gorillas

- An Interdisciplinary Evaluation of the African Penguins' Behavior, Welfare and Educational Impact at Lincoln Park Zoo
- Ape Cognition Using Touchscreen Testing
- Avian Model for Clinical Use of Adequan®
- Behavioral and Physiological Effects of Construction Activity and Noise on the Baringo Giraffe Housed at Lincoln Park Zoo
- Behavioral Monitoring of Chimpanzees and Gorillas

Behavioral, Physiological and Spatial Patterns of Light Pollution in Chicago, IL

- Can Chimpanzees Learn to Use Tool-Sets in an Artificial Termite Mount?
- Carotenoids in Uropygial Gland of Rhino and Giant Hornbills (*Buceros* spp.)

Case Series Evaluation of Smooth Green Snake Oral Squamous Cell Carcinoma

Chimp Haven

ChimpCARE

Chronic Recurrent Multifocal Osteomyelitis (CRMO) in Gibbons

Cognitive Bias in Japanese Macaques, Chimpanzees and Gorillas

Combining Site-Based Initiatives and Collaborative Partnerships to Strengthen Great Ape Health

- COMPADRE: COMADRE Plant and Animal Matrix Database
- Comparing the Stress of Urban and Rural Red-Winged Blackbirds
- Contribution of Zoos and Aquariums to Endangered Species Recovery in the United States
- Cross-Facility Survey of Chimpanzee Welfare Measures

Cross-Validation of Androgen Metabolite Enzyme Immunoassay (EIA) Results Using Alternative Substrates

Determining the Predominant Glucocorticoid in Sea Otters Using an Adrenocorticotropic Hormone (ACTH) Challenge

Determining the Relationship Among Baculum Size and Shape, Genetic Relatedness and Breeding Success in the Endangered Black-Footed Ferret

Developing a Dynamic Interaction Based Occupancy Model

Developing a Meta-Population Model for Heterogeneous Environments

Developing New Methods to Monitor Stress Physiology in Fish

Effects of Contraceptive Implants on Macaque Cycling / Fertility

Effects of Urbanization on Long-Term Stress in Mammalian Communities in the Chicagoland Area

Electrocardiogram (EKG) Monitoring of Chimpanzees With Behavioral Overlay

Enalapril Hepatotoxicity in Gorillas

Evaluation of Animal Ambassador Experiences

Evaluation of Great Ape Stillbirth Rates

Exploring the Biodiversity of Snakes Surrounding the Lincoln Park Zoo's Nature Boardwalk

- Facilitation of External Research
- Flexible Problem-Solving in Great Apes
- Gathering Hormonal Measures of a Gorilla Bachelor Group
- Goods, Equipment or Supplies Donated to Research Projects Outside of the Institution
- Goualougo Triangle Ape Project (GTAP) Video Analysis Lab
- House Sparrow Microbial Ecology and Endocrinology
- Investigating Diversity, Stress and Health of Small Mammal Communities Across an Urban to Exurban Gradient
- Investigating Ovulation Failure in the Endangered Black-Footed Ferret
- Investigating Post-Hatch and Post-Transfer Survival in the Blue-Grey Tanager Species Survival Plan Program
- Investigating the Influence of an Ape's Social Group on Their Individual Decision-Making
- Investigation of Hormone Metabolites in Mountain Gorilla Fecal Samples Using High-Performance Liquid Chromatography (HPLC)
- Japanese Macaque Behavioral Monitoring
- Japanese Macaque Personality Assessment: Development of a Novel Scale for Use in Zoo Setting
- Local Drivers of Bushmeat Hunting in the Greater Serengeti Ecosystem, and Its Impact on Migratory Wildlife Populations
- Message Framing Effects on Animal Welfare Donation Appeals
- Microbiome Comparisons Among Great Apes and Humans
- PMCTrack Analyses of Historic Breeding and Transfer Recommendations in AZA's SSPs
- Population Viability Analyses (PVAs) of AZA SSPs
- Predictors of Wounding in Japanese Macaques
- Prosocial Behavior in Japanese Macaques: A Touchscreen Study
- Prospective Assessment of the Incidence of Mammary Neoplasia in Chimpanzees (*Pan troglodytes*): Pathology, Genetic Markers and Clinical Application
- Retrospective Mortality Review in Chimpanzees
- Retrospective Risk Assessment of Perianesthetic Mortality in Captive Managed Populations of Chimpanzees (*Pan troglodytes*)
- Sandy Potatoes: Setting the Stage for Behavioral Transmission in Japanese Macaques
- Small Mites, Big City: Using Large-Scale Wildlife Camera

- Monitoring to Examine the Spatio-Temporal Dynamics of Sarcoptic Mange in Chicago's Urban Coyotes
- Social Spacing of Chimpanzees and Gorillas
- Teen Audience Research Study
- Testing Primate Food Preferences Using Touchscreen
- Testing the Use of Surrogate Demographic Data for Species Recovery
- Testing Whether Social Information Aids Memory of Events by Chimpanzees and Gorillas
- The Great Ape Heart Project
- Training and Administration of Citizen Science Projects
- Understanding and Analyzing Patterns in Life Expectancy for Zoo Animal Populations
- Using Fourier Series to Partition Variability Between Temporally Periodic and Stochastic Events
- ZooMonitor

MILLER PARK ZOO

Field Conservation

- AZA FrogWatch USA
- AZA Tiger SSP Tiger Conservation Campaign Sumatran Tiger and Prey Research
- Snow Leopard Trust (SLT)
- Vaquita Conservation

Mission-Focused Research

Quantitative Cognition in Harbor Seal

PEORIA ZOO

Field Conservation

Alligator Snapping Turtle (*Macrochelys temminckii*) in Southern Illinois

Alligator Snapping Turtle Recovery Plan

American Association of Zoo Keepers (AAZK) – Bowling for Rhinos

AZA FrogWatch USA

AZA Tiger SSP - Tiger Conservation Campaign

Mission-Focused Research

- Patterns of Diversity in the Indigenous Microbiota of Marine and Terrestrial Mammals: *Rhynchocyon petersi, Tupaia belangeri*
- Retrospective Characterization of Reproductive Tract Lesions in Relation to Parity, Age and Contraception in Captive Suidae and Tayassuidae

SCOVILL ZOO

Field Conservation

Cheetah Conservation Fund (CCF) Conservation Centers for Species Survival (C2S2) Red Panda Network (RPN) SaveNature.Org

Indiana

FORT WAYNE CHILDREN'S ZOO

Education Programs Amazing Animals Animal Tales Care-a-Van **Career Presentations** Community Events **Creature Features Discovery Boxes Education Interpreters** Job Shadow Kids4Nature Mini-Classes Sea Lion Feeding Demonstration Storytime Summer Safari Day Camp Teacher Workshops Wild Nights Zoo School Zoo Scientific Inquiry (ZSI) ZOOMobile Z-Team Volunteer Program

Field Conservation

Acres Land Trust Amur Leopard and Tiger Alliance (ALTA) AZA Conservation Grants Fund (CGF) AZA SAFE AZA SAFE - General Administrative AZA SAFE - Sharks and Rays AZA SAFE - Vaquita AZA Tiger SSP - Tiger Conservation Campaign - Sumatran Tiger Coffee and Primate Conservation in Central Java Colobus Conservation, Ltd. Giraffe Conservation Foundation (GCF) Hellbender Headstarting Project Hornbill Research Foundation (HRF) Indiana University - Purdue University Fort Wayne (IPFW) Turtle Fund IUCN/SSC Conservation Planning Specialist Group (CPSG) Leatherback Trust Little River Wetland Project Living With Lions Trust - Lion Guardians Project Madagascar Biodiversity Partnership (MBP) Mariana Avifauna Conservation (MAC) Project Mitchell's Satyr Butterfly Conservation OCEARCH Orangutan Conservancy (OC) Pacific Marine Mammal Rescue Center Pan African Sanctuary Alliance (PASA) Red Panda Network (RPN) Sahara Conservation Fund (SCF) - Adopt-an-Ostrich Program Save the Tasmanian Devil Program Southern African Foundation for the Conservation of Coastal Birds (SANCCOB) Sumatran Orangutan Conservation Programme (SOCP) Wildlife Conservation Society (WCS) - Sharks and Rays Conservation World Parrot Trust (WPT)

Green Practices

ENERGY Documented Amount Spent Documented Amount Used

EXTERNAL SUPPORT Received Support From External Sources for Green Projects

FOOD Sourced Local Food or Grew It On-Site

Documented Amount Spent Documented Amount Used

GREEN PRACTICES IMPLEMENTED

Composting On-Site or Off-Site

WASTE

FUEL

Documented Amount Composted Documented Amount Recycled Documented Amount Spent on Landfill Waste

WATER

Documented Amount Spent

Mission-Focused Research

Characterization of Reproductive Endocrinology in Female Servals (*Leptailurus serval*) for Improved Population Management

INDIANAPOLIS ZOOLOGICAL SOCIETY, INC.

Education Programs

Adult Education Programs Animal Art Adventure Animal Chats Behind the Scenes Tours Boy Scout Programs Bunk for a Badge Career Tours Conservation Educator Academy Daisy Scout Programs

Dolphin In-Water Adventure **Dolphin Presentation** Dolphin Trainer Explorer Camp Education Kits **Educator E-News** Educator Open House Educator Professional Development Family Nature Center Family Overnight Girls in Science JobSpark Nocturnal Adventures **Preschool Programs** Saturday Science Programs School Career Tours Science Investigator Series Skype Chats Summer Safari Overnight Summer Zoo Camps Volunteer Naturalist Interpretation Training Zoo Educator Advisory Council Zoo Explorer Camps Zoo Teen Program

Field Conservation

Alaska SeaLife Center - Round Up for Conservation Amur Tiger Conservation Project AZA SAFE - Vaquita Rescue Project AZA SAFE - Visionary Funder Centre ValBio at Stony Brook University Champions for our Planet Cheetah Conservation in Namibia Dian Fossey Gorilla Fund International Generation Conservation Goualougo Triangle Ape Project (GTAP) Indiana Stonefly Assessment for the Indiana Natural Heritage Data Center Indiana Wildlife Federation - Monarch State Conservation Plan Indianapolis Prize

Indianapolis Zoo Conservation Program Administration

International Elephant Foundation (IEF)

Kutai National Park

Kutai National Park Reforestation

Massasauga Rattlesnake Conservation

Moose Calf Health

Nature Conservancy - Kankakee Sands Prairie Restoration

Sumatran Orangutan Conservation Programme (SOCP)

Tarangire Elephant Project (TEP) – Development of Corridors Outside of Tarangire National Park

Wildlife Conservation Network (WCN) - The Ara Project

World Parrot Trust (WPT)

Mission-Focused Research

A Climate Change Vulnerability Assessment of Borneo Tree Species

Orangutan Mental Complexity and Its Relationship to Survival in the Tropical Forest

MESKER PARK ZOO AND BOTANIC GARDEN

Education Programs

Adventure Amazonia Animal Certification Classes Animal Play **Birthday Parties** Boo at the Zoo **Community Outreach Speakers** Destination - Discovery! **Docent Meetings Exhibit Interpretation** Expedition - Zoo/ Dr. Zoo Garden Club Botanic Tour Goat Contact Yard Keeper Talks Kinderfun Mission Green Possible New Docent Training New ZooTeen Intake and Training Party Animals! / ZooTopia Party for the Planet - Education Tables Roaming With Animal Ambassadors Scavenger Hunts Spaceship Earth / Planet Rangers Special Donor Tours Tram Tour Zoo Brew Zoo Master / The Zookeeper's Apprentice Zoo Play Zoo Scientists / Expedition Zoo ZooTeen Conferences (Spring and Fall)

Field Conservation

Action for Cheetahs in Kenya

American Association of Zoo Keepers (AAZK) – Bowling for Rhinos

AZA Jaguar SSP – Cockscomb Basin Wildlife Sanctuary (CBWS)

AZA SAFE - Vaquita Project

Eastern Hellbender Captive Headstarting Program

Kudzu Eradication Project

Mexican Wolf Recovery Program

Ovate-Leaved Catchfly Conservation in Indiana

Purdue University Hellbender Program

Wildlife Conservation Society (WCS) - 96 Elephants

Green Practices

ENERGY
Documented Amount Spent
Documented Amount Used
Documented Square Footage of Conditioned Space
FOOD
Sourced Local Food or Grew It On-Site
FUEL
Documented Amount Spent

Documented Amount Used

GREEN PRACTICES IMPLEMENTED

Building Energy Management Commingled Recycling Composting On-Site or Off-Site Graywater Reuse and/or Rainwater Harvesting Smart Buildings Systems Stormwater Management Program Water-Wise Landscaping

WASTE

Documented Amount Composted Documented Amount Spent on Landfill Waste

WATER

Documented Amount Spent Documented Amount Used

Mission-Focused Research Cuora mccordi Parentage DNA Testing

POTAWATOMI ZOO

Field Conservation

Highways

Amur Leopard and Tiger Alliance (ALTA) AZA SAFE - Vaquita Rescue Project International Crane Foundation (ICF) Okapi Conservation Project Painted Dog Research Trust Sloth Conservation Foundation (SLOCO) Snow Leopard Trust (SLT) Zoo Conservation Outreach Group (ZCOG) Zoo Conservation Outreach Group (ZCOG) - Anteaters and

Iowa

BLANK PARK ZOO

Field Conservation

AZA SAFE - African Penguin and Vaquita AZA Tiger SSP - Tiger Conservation Campaign Chimpanzee Sanctuary and Wildlife Conservation Trust Conservation Fusion (CF) Giraffe Conservation Foundation (GCF) Health in Harmony Hornbill Research Foundation (HRF) - Nest Adoptions in Thailand International Rhino Foundation (IRF) Iowa Hunters: Leading the Way National Wildlife Federation (NWF) Plant.Grow.Fly. Prairies for Agriculture Snow Leopard Trust (SLT) Travel Scholarships for Zoos and Aquariums Committed to Conservation (ZACC) Conference **Trumpeter Swan Restoration Project** Ziwa Rhino Sanctuary

Green Practices

ENERGY Documented Amount Spent Documented Amount Used Documented Square Footage of Conditioned Space

FOOD

Sourced Local Food or Grew It On-Site

GREEN PRACTICES IMPLEMENTED

Alternative Fuel Usage for On-Site Fleet Building Energy Management Commingled Recycling Community-Based Sustainability Projects Composting On-Site or Off-Site Graywater Reuse and/or Rainwater Harvesting Green Building Policy / Commitment Green Information Technology (IT)

Green Purchasing Policy / Green Procurement

Local Food Procurement for Animals and/or Guests

Stormwater Management Program

Wastewater Reduction

Water-Wise Landscaping

PLANS, POLICIES AND BUDGETS

Dedicated Full-Time Equivalent (FTE) Staff to Coordinating Green Practices

Developed or Updated a Sustainability Plan (or Equivalent)

Mission-Focused Research

- A Preliminary Magnetic Resonance Imaging (MRI) and Diffusion Tensor Imaging (DTI) Brain Atlas of the Siberian Tiger (*Panthera tigris altaica*)
- Single Nucleotide Polymorphisms and Microsatellites in the Canine Glutathione S-Transferase Pi 1 (GSTP) Gene
- The Prusten Project: Determining Individualistic Vocal Patterns of *Panthera tigris* and Implications for Acoustic Monitoring of *In-Situ* Populations
- Use of Oral Fluoxetine for the Treatment of Abnormal Aggression in Two Red-Necked Wallabies (*Macropus rufogriseus*)

Visual Cognitive Abilities of Gibbons

Wallaby Research Proposal

NATIONAL MISSISSIPPI RIVER MUSEUM AND AQUARIUM

Field Conservation

AZA Wyoming Toad SSP Freshwater Mussel *In-Situ* Conservation

Green Practices

FUEL

ENERGY Documented Amount Spent Documented Square Footage of Conditioned Space

Documented Amount Spent

PLANS, POLICIES AND BUDGETS

Dedicated Full-Time Equivalent (FTE) Staff to Coordinating Green Practices

WASTE

Documented Amount Spent on Landfill Waste

WATER

Documented Amount Spent

Mission-Focused Research

Freshwater Mussel Propagation Research

Kansas

HUTCHINSON ZOO

Education Programs

A Book and a Beast Awareness Day Programs Birthday Party Programs Camps Events Guided Tours Outreach Programs School Classes

Field Conservation

Attwater's Prairie Chicken Breeding Facility

Dusky Gopher Frog Initiative

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

Vaquita Porpoise

Wildlife Rehabilitation

Green Practices

ENERGY

Documented Amount Spent

FUEL

Documented Amount Spent

GREEN PRACTICES IMPLEMENTED

Commingled Recycling

WASTE Documented Amount Spent on Landfill Waste

LEE RICHARDSON ZOO

Education Programs

Adult and Senior Education Center Programs Adult and Senior ZooMobiles Adult Distance Learning **Birthday Parties** Booths at Events **Discover** Cart **Discovery Boxes** Education Center Programs for Non-School Groups Education Center Programs for School Groups Events General Zoomobiles Homeschool Programming Keeper Talks School Distance Learning School Zoomobiles Senior Programs Story Time Volunteer Training Walking Tours

Field Conservation

Zoo Edventures

Addax Conservation

Amphibian Ark

AZA Jaguar SSP – Cockscomb Basin Wildlife Sanctuary (CBWS)

Butterfly Conservation

- International Elephant Foundation (IEF) Protecting Elephants Through the Conservation Detection Dog Network
- IUCN/SSC Conservation Planning Specialist Group (CPSG)

Lemur Conservation in Betampona Natural Reserve

Vaquita Rescue Project

Green Practices

ENERGY Documented Amount Spent Documented Amount Used

FOOD

Sourced Local Food or Grew It On-Site

FUEL Documented Amount Spent Documented Amount Used

GREEN PRACTICES IMPLEMENTED

Building Energy Management Composting On-Site or Off-Site Construction Waste Diversion / Recycling Local Food Procurement for Animals and/or Guests Water-Wise Landscaping

PLANS, POLICIES AND BUDGETS

Dedicated Full-Time Equivalent (FTE) Staff to Coordinating Green Practices Developed or Updated a Sustainability Plan (or Equivalent) Developed or Updated a Sustainability Policy

WASTE

Documented Amount Composted Documented Amount Recycled

WATER

Documented Amount Used

Mission-Focused Research

Assessing the Health of a Waterway by Assessing Presence of Macroinvertebrates

Assessment of Recovery of Testicular Function in Male Pallas's Cats After Eight Years of Deslorelin Treatment

Reproductive Health Surveillance Program

ROLLING HILLS ZOO

Education Programs

Animal Encounters in the Zoo Animal Fact Sheets Animal Meet and Greet Animals Around the World Beastly Safari **Community Fair** Community Outreach Culture Crawl Dig In **Discovery Class** Down on the Farm Jungle Halloween Junior Zoo Keeper Keeper Talks **Overnight Expeditions** Parents as Teachers Romp n' Chomp Safari Ed-Venture Day Story Safari StoryTime at the Library Taste of Adventure Teacher Safari Toddler Tuesday Touchcarts Tram Script Wild Birthdays Wild Wonders Winter and Summer Camps ZamQuest Treasure Hunt Zoo Careers Zoo to You

Field Conservation

Association of Zoological Horticulture (AZH) – Conservation Grants AZA SAFE – Vaquita Rescue

AZA Tiger SSP - Tiger Conservation Campaign

Black-Footed Ferret (*Mustela nigripes*) Reintroduction Project in Kansas Borneo Orangutan Survival Foundation (BOS) Giraffe Conservation Foundation (GCF) International Rhino Foundation (IRF) IUCN/SSC Conservation Planning Specialist Group (CPSG) Jane Goodall Institute Monarch Watch Orangutan Outreach Painted Dog Research Trust Sahara Conservation Fund (SCF) Smoky Hills Audubon Society Snow Leopard Trust (SLT) Turtle Survival Alliance (TSA)

Green Practices

ENERGY

FOOD

Documented Amount Spent

Documented Amount Used

Documented Square Footage of Conditioned Space

Sourced Local Food or Grew It On-Site

FUEL Documented Amount Spent Documented Amount Used

GREEN PRACTICES IMPLEMENTED

Composting On-Site or Off-Site

Local Food Procurement for Animals and/or Guests

PLANS, POLICIES AND BUDGETS

Dedicated Full-Time Equivalent (FTE) Staff to Coordinating Green Practices

WASTE Documented Amount Sent to Landfill

WATER Documented Amount Spent Documented Amount Used

Mission-Focused Research

Greater Prairie Chicken (*Tympanuchus cupido*) Disease Surveillance

Monarch Watch: Tagging Program

SEDGWICK COUNTY ZOO

Education Programs

Adventure Pack

Animal Tales Preschool

Behind the Scenes - Tours

Birthday Parties

Bushmeat Crisis Interactive

Coffee Connections

Community-Based Instruction Program

Early Childhood Classes

Educational Events

Get Into Nature

Homeschool Expedition

Investigation Stations

Outdoor Wildlife Learning Site

Overnights

- Science, Technology, Engineering and Mathematics (STEM) Safari
- Senior Wednesday

Social Hours

Summer Classes

Teacher Workshops

Wonders of Wildlife

Zoo Lab Carts

Zoo Trunk

Zookeeper Apprentice Program

ZooReach

Field Conservation

Amphibian Ark AZA Chacoan Peccary SSP AZA Eastern Massasauga Rattlesnake SSP

AZA SAFE - Founders Circle

AZA SAFE – Vaquita

AZA Tiger SSP - Tiger Conservation Campaign

Black-Footed Ferret Kansas Reintroduction Program

Center for American Burying Beetle Conservation

Gorilla Rehabilitation and Conservation Education (GRACE) Center

International Iguana Foundation (IIF)

IUCN/SSC Conservation Planning Specialist Group (CPSG)

Mariana Avifauna Conservation (MAC) Project

Monarch Waystation Project

Okapi Conservation Project

Painted Dog Conservation (PDC)

Save the Cassowary From Extinction in Australia / Rainforest Rescue / Project Rainforest

Turtle Survival Alliance (TSA) - Turtle Survival Center

Wildlife Conservation Society (WCS) Cuba Program – Cuban Crocodile

Mission-Focused Research

A Comprehensive Approach to Improve Management of an Endangered Wild Canid

- Application of Software Tools for the Identification of Individual Giant Anteaters
- AZA Tree Kangaroo SSP Reproductive Assessment

Behavioral and Biological Reasons for Unsuccessful Breeding in Black Rhinos: Olfactory Stimulation as a Method for Improvement

Biological Validation of Urinary Oxytocin in Western Lowland Gorillas

Constraints of Biomass on Innate Immunity Across Terrestrial Mammals

Developing Genomic Tools for Elephant Conservation

Developing Genomic Tools for North American River Otter (*Lontra canadensis*) Population Management

Endocrine Trajectories of Orangutan Male Secondary Sexual Development

Genetic and Phenotypic Characterization of Cystic Fibrosis Airway Disease in Non-Human Primates

Great Ape Heart Project

Great Ape Neuroscience Project

Imported Elephant Welfare Initiative

Integration of Multi-Institutional Tumor Data in Exotic and Zoological Species for Characterization of Novel Cancer Models

- Investigating the Genetic Basis for Inflammatory Bowel Disease in the Maned Wolf
- Male Western Lowland Gorilla (*Gorilla gorilla gorilla*) Hormonal Variation During Social Group Dissolution and Formation
- Monitoring Body Condition, Reproductive and Metabolic Hormones in African Elephants: Using Science to Aid Management Decisions to Optimize Health and Welfare of Zoo Elephants
- Oxytocin as a Measure of Social Bond and Welfare in Western Lowland Gorillas (*Gorilla gorilla gorilla*) in North American Zoos
- Paternity and Genetic Diversity of Imported African Elephant Founders
- Prevalence of Normal Gammaherpesvirus Flora in Eastern Black-And-White Colobus Monkeys (*Colobus guereza*)
- Retrospective Classification and Management Assessment of Canine Fractures in Captive Managed Populations of Great Apes
- Retrospective Risk Assessment of Perianesthetic Mortality in Captive Managed Populations of Chimpanzees (*Pan troglodytes*)

SUNSET ZOOLOGICAL PARK

Field Conservation

- AZA Conservation Grants Fund (CGF)
- AZA FrogWatch USA
- Black-Footed Ferret Introduction in Logan County, Kansas
- Black-Footed Ferret Vaccination Program
- Butterfly Conservation Project
- Friends of Sunset Zoo Conservation Scholar Program 2017
- Herpetofaunal Count on Fort Riley
- Honey Bee Conservation Project
- Puerto Rican Crested Toad Breeding Facility
- Wildlife SOS Conservation Education Project
- Zoo Conservation Outreach Group (ZCOG) Wildlife Conservation and Education

Green Practices

ENERGY

Documented Amount Used Documented Square Footage of Conditioned Space Generated Renewable Energy On-Site

GREEN PRACTICES IMPLEMENTED

Alternative Fuel Usage for On-Site Fleet Commingled Recycling Green Building Policy / Commitment Solar or Wind Energy Generation Stormwater Management Program Wastewater Reduction

WATER

Documented Amount Used

THE DAVID TRAYLOR ZOO OF EMPORIA

Field Conservation

AZA Conservation Grants Fund (CGF) AZA SAFE - Vaquita Donation IUCN/SSC Conservation Planning Specialist Group (CPSG) Monarch Waystations and Tagging Reintroduction of Black-Footed Ferrets in Kansas

Green Practices

ENERGY Documented Amount Used

EXTERNAL SUPPORT Received Support From External Sources for Green Projects

FOOD

Sourced Local Food or Grew It On-Site

FUEL Documented Amount Spent Documented Amount Used

GREEN CERTIFICATIONS Certified as a Wildlife Habitat

GREEN PRACTICES IMPLEMENTED

Commingled Recycling Composting On-Site or Off-Site Construction Waste Diversion / Recycling Graywater Reuse and/or Rainwater Harvesting Stormwater Management Program Water-Wise Landscaping

PLANS, POLICIES AND BUDGETS Developed or Updated a Sustainability Plan (or Equivalent)

WASTE Documented Amount Sent to Landfill

Documented Amount Spent Documented Amount Used

Mission-Focused Research

Black-Footed Ferret Survey

TOPEKA ZOO

WATER

Education Programs

Animal Adaptations Animal Babies Animal Classifications Birds and Their Homes Bugs Bugs Bugs Career Talk **Conservation Connection Discovery Home School** Eco-Club Ecosystems and Habitats Food Chains and Food Webs Library Programs Monarch Citizen Science Preschool Class Scout Programs Sensory Safari Spring Break Camp Summer Camp Teacher Development Workshop The Untouchables

The Wetlands

Threatened and Endangered Winter Camp

Field Conservation

AZA SAFE

AZA Tiger SSP - Tiger Conservation Campaign
Black-Footed Ferret Reintroduction Project of Western Kansas
Dian Fossey Gorilla Fund International
Elephants Helping Elephants in Sumatra
IUCN/SSC Conservation Planning Specialist Group (CPSG)
Planting of Milkweed in Native Habitat
Prairie Wildlife Fund
Prusten Project
Trumpeter Swan Reintroduction Program
Zoo Conservation Outreach Group (ZCOG)

Mission-Focused Research

Designing an Online Hand-Rearing Resource Center Development of a Genome Resource Bank and Transcervical Insemination for the Genetic Management of Tigers Morbidity and Mortality of Captive Peafowls North American River Otter Survey Orangutan Respiratory Disease Survey

Kentucky

LOUISVILLE ZOOLOGICAL GARDEN

Education Programs Backyard Action Hero Biology at the Zoo Camp Programs Early Childhood Workshops Night Safaris School at the Zoo School Field Trips Teacher Professional Development Teen Tuesdays Zoo to You

Field Conservation

AZA SAFE - Vaquita Rescue Project Black-Footed Ferret Conservation Center CrocFest - Winter 2017 Dian Fossey Gorilla Fund International Flutterfest International Elephant Foundation (IEF) Monarch Watch Monarch Watch - Monarch Waystation Program Orangutan Foundation International Pan African Sanctuary Alliance (PASA) Polar Bears International (PBI) Snow Leopard Trust (SLT)

Mission-Focused Research

Assessing the Status and Distribution of *Eunectes beniensis* Utilizing a Molecular Comparative Approach

Behavioral and Glucocorticoid Correlates of Social Management of Captive Western Lowland Gorillas

Behavioral Stereotypies in Captive Elephants: A Follow-Up Study

Bongo Mortality Pathology Study

Clinical Investigation of Sumatran Tiger Gastrointestinal Disease

Risk Factors for Obesity in Captive Lemurs

NEWPORT AQUARIUM

Education Programs

Camp WAVE

Career Exploration Initiative: Job Shadow Programs Community Development Contribution Living Curriculum Initiative Overnight Adventure Program The Finstitute WAVE on Wheels Outreach Program

Field Conservation

Aquarium Conservation Partnership (ACP) AZA SAFE - African Penguin - Global Penguin Conservation Initiatives Banklick Watershed Council Crocodilian Conservation Projects Global Sea Turtle Conservation - North Carolina River Sweep Seafood Watch Vaquita Conservation, Protection and Recovery (Vaquita CPR)

Green Practices

PLANS, POLICIES AND BUDGETS

Developed or Updated a Sustainability Plan (or Equivalent) Developed or Updated a Sustainability Policy

WATER

Documented Amount of Wastewater Generated Documented Amount Spent Documented Amount Used

Mission-Focused Research

Living Curriculum Initiative Shark Ray Breeding Program Shark Research

Louisiana

ALEXANDRIA ZOOLOGICAL PARK

Education Programs

Alexandria Zoo Animal Programs Alexandria Zoo Class Programs Alexandria Zoo Non-Animal Programs Alexandria Zoo Outreach Program Alexandria Zoo Special Events

Field Conservation

Andean Condor Program: Chile AZA Tiger SSP – Tiger Conservation Campaign Maned Wolf: Argentina Project Jaguar: Brazil Vaquita Project Zoo Conservation Outreach Group (ZCOG) – Anteaters and Highways

Green Practices

FOOD

ENERGY Documented Amount Used

Sourced Local Food or Grew It On-Site

FUEL Documented Amount Spent Documented Amount Used

GREEN CERTIFICATIONS Certified as a Wildlife Habitat

GREEN PRACTICES IMPLEMENTED

Commingled Recycling Community-Based Sustainability Projects Composting On-Site or Off-Site Construction Waste Diversion / Recycling Local Food Procurement for Animals and/or Guests Stormwater Management Program

PLANS, POLICIES AND BUDGETS Developed or Updated a Sustainability Plan (or Equivalent) Developed or Updated a Sustainability Policy

WASTE

Documented Amount Recycled Documented Amount Sent to Landfill

WATER Documented Amount Used

Mission-Focused Research

Contraception Effects Fecal Consistency Skin Survey

AUDUBON AQUARIUM OF THE AMERICAS

Field Conservation

Catch and Release Fishing Tournament With Louisiana Department of Wildlife and Fisheries Coastal Wildlife Network (CWN)

Gulf United for Lasting Fisheries (GULF)

Mission-Focused Research

Cownose Ray Species Identification

Field Testing Artificial Insemination (AI) Cryogenic Transport Dewars Hypoxia Studies Using Native Killifish

Sawfish Historical Genetic Diversity

AUDUBON ZOO

Education Programs

EarthFest Junior Keepers

Field Conservation

AZA Jaguar SSP AZA Komodo Dragon SSP Black Bear Conservation Coalition International Iguana Foundation (IIF) Malaysian Ape Conservation National Audubon Society - Prothonotary Warbler Conservation Program Ruaha Conservation Turtle Survival Alliance (TSA) Zoo Conservation Outreach Group (ZCOG)

Green Practices

ENERGY Documented Amount Spent Documented Amount Used

FOOD Sourced Local Food or Grew It On-Site

FUEL Documented Amount Spent Documented Amount Used

GREEN CERTIFICATIONS

Certified as a Wildlife Habitat Certified by the Green Restaurant Association

GREEN PRACTICES IMPLEMENTED

Alternative Fuel Usage for On-Site Fleet Anaerobic Digester Energy Generation **Building Energy Management** Commingled Recycling Community-Based Sustainability Projects Composting On-Site or Off-Site Construction Waste Diversion / Recycling **Denitrification Systems Energy Submetering** Graywater Reuse and/or Rainwater Harvesting Green Building Policy / Commitment Green Information Technology (IT) Green Purchasing Policy / Green Procurement Greenhouse Gas (GHG) Inventory Local Food Procurement for Animals and/or Guests Smart Buildings Systems Solar or Wind Energy Generation Stormwater Management Program Usage of an Environmental Management System

- Usage of Enterprise (IT) Solutions To Track, Measure and Dashboard Sustainability Performance
- Wastewater Reduction
- Water Submetering
- Water-Wise Landscaping

GREENHOUSE GAS EMISSIONS

Documented Amount of Greenhouse Gas Emissions

PLANS, POLICIES AND BUDGETS Developed or Updated a Sustainability Plan (or Equivalent) Developed or Updated a Sustainability Policy

WASTE

Documented Amount Composted Documented Amount Recycled Documented Amount Sent to Landfill Documented Amount Spent on Landfill Waste

WATER Documented Amount Spent

BREC'S BATON ROUGE ZOO

Education Programs Animal Encounters Biofact Carts Breakfast With the Animals Ed-ZOO-cation Classroom Program Safari Night Seasonal Camps Summer Camp Twilight Tours Wildlife Safari Theatre Zoo and Me Zoo Mobile (Group) Zoo Mobile (School)

Field Conservation

Action for Cheetahs in Kenya AZA Conservation Grants Fund (CGF) AZA SAFE - African Penguin Projects AZA SAFE - Vaquita Conservation Project AZA Tiger SSP - Tiger Conservation Campaign Cheetah Conservation Fund (CCF) El Valle Amphibian Conservation Center (EVACC) International Elephant Foundation (IEF) International Rhino Foundation (IEF) Lion Tamarins of Brazil Fund Projeto Arara Azul Save the Tiger Fund Thailand Hornbill Project Turtle Survival Alliance (TSA) United States Friends of David Sheldrick Wildlife Trust

Green Practices

FUEL Documented Amount Used

GREEN PRACTICES IMPLEMENTED

Commingled Recycling Construction Waste Diversion / Recycling Denitrification Systems Local Food Procurement for Animals and/or Guests Stormwater Management Program

PLANS, POLICIES AND BUDGETS

Developed or Updated a Sustainability Plan (or Equivalent) Developed or Updated a Sustainability Policy Specified a Portion of the Amount Saved for Next Year's Green Practices

Mission-Focused Research

AZA FrogWatch USA

Inventory of Speckled Kingsnake on Baton Rouge Zoo Grounds

FREEPORT-MCMORAN AUDUBON SPECIES SURVIVAL CENTER

Field Conservation

Mississippi Sandhill Crane Propagation and Recovery Program

Proyecto Taguá / Chaco Center for Conservation and Research (CCCR)

Whooping Crane Recovery Program

Maryland

NATIONAL AQUARIUM

Education Programs

Aqua-Partners Schools

Aquarium on Wheels Youth Program

Audio Tour

Citizen Science Initiatives

Diver Communication Talks

Educational Events

Free School Group Admission Program Gallery Carts Gills Club Henry Hall Summer Camps Informal Interpretation With Props Internship Programs Living Seashore - Touchpool Making Connections Keeper / Educator Talks Middle School After School Program - All About Water **On-Site Classroom Programs Outreach Programs** Summer Student Volunteers **Teacher Orientation** Teacher Training Workshops Tots and Tales Visualizing Change Talks Volunteer Diver Program Volunteer Exhibit Guides What Lives in the Harbor? Youth Ocean Conservation Summit (YOCS) - Baltimore

Field Conservation

Atlantic White Cedar Restoration in Nassawango Creek Preserve, Maryland Citizen Science: BioBlitz Delaware Shorebird Project Fort McHenry Tidal Wetland Restoration Project Habitat Restoration Marine Debris Prevention and Removal Maryland Diamondback Terrapin Working Group Model Urban Waterfront National Oceanic and Atmospheric Administration (NOAA) - Apex Predator Program (APP) - Shark Tagging / Semen Collection for South-East Zoo Alliance for Reproduction and Conservation (SEZARC) Project Puffin SaveNature.Org - Marine Conservation Meter SaveNature.Org - Rainforest Conservation Parking Meter

SExual COral REproduction (SECORE)

Shoreline Restoration and Community Engagement at Masonville Cove
Terrapins in the Classroom
Urban Conservation and Community Engagement
Urban Conservation and Education Internship
Wetland Nursery Program
Wildlife Habitat Gardening

Green Practices

ENERGY

Documented Amount Spent Documented Amount Used Documented Square Footage of Conditioned Space Purchased Renewable Energy

FOOD

Sourced Local Food or Grew It On-Site

FUEL

Documented Amount Spent Documented Amount Used

GREEN CERTIFICATIONS

Certified as a Wildlife Habitat Certified by Maryland Green Travel Recognized as a Maryland Green Business Climate Champion

GREEN PRACTICES IMPLEMENTED

Alternative Transportation Benefits for Staff

Building Energy Management

Commingled Recycling

Community-Based Sustainability Projects

Community-Supported Agriculture (CSA) Program for Staff

Composting On-Site or Off-Site

Construction Waste Diversion / Recycling

Denitrification Systems

Graywater Reuse and/or Rainwater Harvesting

Green Information Technology (IT)

Local Food Procurement for Animals and/or Guests

Purchasing Green Power or Renewable Energy Credits (RECs)

Stormwater Management Program Wastewater Reduction Water-Wise Landscaping

PLANS, POLICIES AND BUDGETS

Dedicated a Line Item in the Budget for Green Practices

Dedicated Full-Time Equivalent (FTE) Staff to Coordinating Green Practices

WASTE

Documented Amount Composted

Documented Amount Recycled Documented Amount Sent to Landfill

Documented Amount Spent on Landfill Waste

WATER

Documented Amount of Wastewater Generated Documented Amount Spent Documented Amount Used

Mission-Focused Research

Establishing Methods for Measuring Steroid Hormones in Dolphin Blow

Hematological and Biochemical Parameters in Wild and Captive Spotted Eagle Rays

- In Search of Dolphin Language
- Insight Into the Mating System of Southern Stingrays (*Dasyatis americana*) in a Captive Environment
- Scaling With Growth of Swimming Musculature in Selected Jellyfish
- Using Environmental DNA (eDNA) to Detect and Identify an Introduced Cubozoan in the National Aquarium Seawater System

Wild Dolphin Microbiota Research Project: Phase II

SALISBURY ZOOLOGICAL PARK

Field Conservation

Andean Bear Conservation Partnership

AZA SAFE - Vaquita

Frosted Elfin Research and Conservation

THE MARYLAND ZOO IN BALTIMORE

Education Programs

Animal Ambassador Encounters Animal Craft Safari Art Class Outreach Climate Change Partnership Community Event Programs **Conservation Conversation** Exhibit Design Partnership **Exploration Stations** Field Talks Field Trips (Self-Guided) Guided Tours Homeschool **Keeper Chats On-Site Interpretation** Osher Class: The Modern Zoo Partner Package Penguin Feeding Talks Pop-Up Labs Puppet Shows Sip and Stroll Special Interest Workshop Storytime With the Zoo Stroller Safari Summer Camp Superkids **Teacher Trainings** Traveling Trunk Zoo Introduction Zoo Snooze Overnight Zoolabs ZOOMobile

Field Conservation

Adkins Arboretum AZA Conservation Grants Fund (CGF) AZA SAFE - African Penguin Disaster Response AZA SAFE - African Penguin Marine Movement Assessment AZA SAFE - African Penguin SSP Sustainability Project AZA SAFE - Nest Box Project Brown Pelican Banding and Health Survey Cheetah Conservation Fund (CCF) Crocodilian Conservation Center of Florida Elephants for Africa Goualougo Triangle Ape Project (GTAP) Health and Ecology Survey of Maryland Black Bear Sows and Cubs (Ursus americanus) International Crane Foundation International Elephant Foundation (IEF) International Rhino Foundation (IRF) Mabula Ground Hornbill Project (MGHP) Madagascar Fauna and Flora Group (MFG) Mountain Gorilla Veterinary Project **Orianne Society** Patterson Park Audubon Center Polar Bears International (PBI) Project Golden Frog Project SNOWstorm Proyecto Borochi - Maned Wolf Ecology and Health Study Bolivia Sahara Conservation Fund (SCF) Southern African Foundation for the Conservation of Coastal Birds (SANCCOB) Susquehannock Wildlife Society Tri State Bird Rescue and Research. Inc. Turtle Survival Alliance (TSA) **Mission-Focused Research** Artificial Insemination of Female Polar Bears Assessment for Avian Malaria Transmission in Captive African Penguins Behavioral Changes in Lion-Tail Macagues Following Introduction of a Singly Housed Male to an Established

Male-Female Pair Body Composition and Inflammation and Its Association With Ovarian Function and Metabolic Health in Zoo-

Maintained African Elephants (Loxodonta africana)

- Determination of Circulating Vitamin and Mineral Levels in Captive Saddle-Billed Storks (*Ephippiorhynchus senegalensis*) as It May Relate to Reproductive Success and Embryonic Development
- Determination of Safe and Effective Dosing Regimens for Flunixin Meglumine (Bananine®) and Firocoxib in African and Asian Elephants
- Determining Genetic Variability, Kinship and Uniqueness in the North American Cheetah Population
- Developing New Tools for Integrating DNA Data Into AZA Breeding Programs
- Ecology and Health Study of Free-Ranging Eastern Box Turtles Within the Grounds of The Maryland Zoo in Baltimore
- Exogenous Hormone Induction of Oviposition in Gravid Panamanian Golden Frogs (*Atelopus zeteki*)
- Factors Affecting Abnormal Molting in Captive African Penguins
- Genotype Sequencing in a Group of Previously Exposed Captive Eastern Box Turtles
- Health Surveillance of Free-Ranging Raccoons (*Procyon lotor*) and Red Foxes (*Vulpes vulpes*) on the Grounds of The Maryland Zoo in Baltimore
- Heritability of Cancer in Captive Sloth Bears
- Homeward Bound: Identifying Factors to Advance Reintroduction Plans for Golden Frogs
- Improvement of the Diagnosis of Aspergillosis in Penguins
- Malaria Pathogen Amplification and Gene Sequencing
- Mortality Trends Over Time in Snow Leopard Populations
- Nutrition and Crystalluria in Small Canids
- Okapi Relationships Between Individuals and Conspecifics
- Pharmacokinetics of Antimalarial Primaquine in African Penguins
- Pharmacokinetics of the Antifungal Itraconazole in Panamanian Golden Frogs
- Spinal Disease in African Penguins
- Use of Herbal Supplements to Decrease Anxiety in an Adult Female Chimpanzee (*Pan troglodytes*)
- Using Strepsirrhines to Model Euprimate and Fruit Structural Co-Evolution and Seed Dispersal

Massachusetts

BUTTONWOOD PARK ZOO

Education Programs

Animal Ambassador Encounters AZA FrogWatch USA - Training Bear Cub Club Boo at the Zoo **Creature Creations Education Volunteers** Elephant Appreciation Day Endangered Species Day Keeper Chats Little Learners **Overnight Programs** Party for the Planet **Puddle Jumpers** Roots and Shoots School Programs Science on a Sphere Vulture Day Wildlife Education Series World Oceans Day ZooCrew

Field Conservation

Belize Audubon Society Birds Caribbean Buttonwood Park Zoo Wildlife Rehabilitation Program East Asian-Australasian Flyway Partnership Grow Trees for Golden Lion Tamarins Milkweed for Monarchs Proyecto Tití The Center for Research and Conservation of Sea Turtles (CICTMAR) The Muriqui Project of Caratinga Vaquita Project

Mission-Focused Research

- A Review of Asian and African Elephant Gastrointestinal Anatomy, Physiology and Pharmacology
- Clinical Management of a Complete Gastrointestinal Obstruction and Ileus in a Geriatric Female Asian Elephant (*Elephas maximus*)
- Elephant Anti-Müllerian Study: Influence of Age and Gender on Secretion of Anti-Müllerian Hormone in Asian (*Elephas maximus*) and African (*Loxodonta africana*) Elephants
- Elephant Bopriva® Gonadotropin Releasing Hormone (GnRH) Vaccination Study
- Elephant Gastrointestinal Anatomy, Physiology, Feeding Ecology and Pharmacology Review
- Hematologic and Biochemical Reference Ranges in Spotted Eagle Rays (*Aetobatus narinari*) at the Georgia Aquarium
- Impact of Aging on Endocrine Function in Asian Elephants: Do Elephants Experience Menopause?

FRANKLIN PARK ZOO

Field Conservation

AZA Ape TAG - Conservation Initiative

- AZA SAFE Vaquita Marina
- Botswana Predator Conservation Trust (BPCT)

Cheetah Conservation Fund (CCF)

Chelonian Conservation Fund

Grassroots Wildlife Conservation

International Giraffe Day

Jane Goodall Institute - Wild-Born Mandrill Release Program

Panama Amphibian Rescue and Conservation (PARC)

Panthera

Red Panda Network (RPN)

Wildlife Conservation Society (WCS) – 96 Elephants – Massachusetts Elephant Ivory / Rhino Horn Legislation

Mission-Focused Research

Cougar Network

MUSEUM OF SCIENCE

Education Programs Animal Habitats Butterfly Garden Experience Charles River Field Station

Life Cycles

Live Animal Center Junior Internship

Live Animal Presentations

Meet the Curator

Overnight Field Trips

Field Conservation

Northern Red-Bellied Cooter (*Pseudemys rubriventris*) Headstart Program

Green Practices

ENERGY

Documented Amount Spent

Documented Amount Used

Generated Renewable Energy On-Site

GREEN PRACTICES IMPLEMENTED

Building Energy Management Composting On-Site or Off-Site Construction Waste Diversion / Recycling

Solar or Wind Energy Generation

PLANS, POLICIES AND BUDGETS

Developed or Updated a Sustainability Plan (or Equivalent) Developed or Updated a Sustainability Policy

WASTE

Documented Amount Composted Documented Amount Recycled Documented Amount Sent to Landfill

WATER

Documented Amount Spent Documented Amount Used

Mission-Focused Research

Designing for Productive Struggle

NEW ENGLAND AQUARIUM

Education Programs

Aquarium Teen Internship Program Behind the Scenes Tours Harbor Discoveries Summer Camp Interpretation Live Blue™ Ambassadors Live Blue™ Service Initiative National Network for Ocean and Climate Change Interpretation Public Programs Student Programs Teacher Services Visualizing Change

Field Conservation

Conservation Medicine Program Consortium for Wildlife Bycatch Reduction Marine Conservation Action Fund Marine Spatial Planning Phoenix Islands Protected Area Right Whale Research Project Sea Turtle Conservation and Research Sustainable Aquaculture Sustainable Ornamental Fish Initiative Sustainable Seafood Programs

Green Practices

ENERGY

Documented Amount Spent Documented Amount Used Documented Square Footage of Conditioned Space Purchased Renewable Energy

EXTERNAL SUPPORT Received Support From External Sources for Green Projects

FUEL

Documented Amount Spent

GREEN CERTIFICATIONS Certified by the Green Restaurant Association **GREEN PRACTICES IMPLEMENTED** Alternative Transportation Benefits for Staff Alternative Transportation Discounts for Guests **Building Energy Management** Commingled Recycling Community-Supported Agriculture (CSA) Program for Staff Composting On-Site or Off-Site Construction Waste Diversion / Recycling Green Information Technology (IT) Green Purchasing Policy / Green Procurement Greenhouse Gas (GHG) Inventory Purchasing Green Power or Renewable Energy Credits (RECs) Solar or Wind Energy Generation GREENHOUSE GAS EMISSIONS Documented Amount of Greenhouse Gas Emissions Reported Greenhouse Gas Emissions to a Climate Registry PLANS, POLICIES AND BUDGETS Dedicated a Line Item in the Budget for Green Practices Dedicated Full-Time Equivalent (FTE) Staff to Coordinating Green Practices Developed or Updated a Sustainability Policy WASTE Documented Amount Composted Documented Amount Recycled Documented Amount Sent to Landfill Documented Amount Spent on Landfill Waste WATER

Documented Amount Spent Documented Amount Used

Mission-Focused Research

Elasmobranch Mortality and Stress Physiology

Marine Stress Research

National Network for Ocean and Climate Change Interpretation (NNOCCI) – Research and Evaluation

WALTER D. STONE MEMORIAL ZOO

Field Conservation

Botswana Predator Conservation Trust (BPCT) Bush Dog Project Cheetah Conservation Fund (CCF) Chelonian Conservation Fund Grassroots Wildlife Conservation International Crane Foundation (ICF) – Whooping Crane Jaguar Cockscomb Wildlife Sanctuary Jane Goodall Institute – Wild Born Mandrill Release Program Panthera Red Panda Network (RPN) Snow Leopard Trust (SLT)

Mission-Focused Research

Cougar Network

Michigan

BINDER PARK ZOO

Field Conservation

Action for Cheetahs in Kenya

Adopt-a-Beach

American Association of Zoo Keepers (AAZK) – Bowling for Rhinos

Butterfly Monitoring

Piping Plover Patrol and Recovery Program

Green Practices

ENERGY Documented Amount Spent Documented Amount Used

FOOD

Sourced Local Food or Grew It On-Site

FUEL

Documented Amount Spent

Documented Amount Used

GREEN PRACTICES IMPLEMENTED Commingled Recycling Composting On-Site or Off-Site

WASTE

Documented Amount Sent to Landfill Documented Amount Spent on Landfill Waste

Mission-Focused Research

Drinking Water Quality and Water Husbandry at AZA Zoos

Genetic and Endocrine Predictors of Reproductive Success in African Painted Dogs

DETROIT ZOO

Education Programs

Africa Adventure Stories Day at the Zoo Family Fun Fridays Humane Education Horticulture Program Learning Labs Volunteen Activities Zoo Tots

Field Conservation

African Elephant Conservation Trust African Vulture Conservation American Association of Zoo Keepers (AAZK) – Bowling for Rhinos American Beaver Project American Marten Management Project Amphibians in Peru Armenian Brown Bear-Human Conflict Mitigation Armenian Viper Project AZA Ape TAG – Conservation Initiative AZA Aruba Island Rattlesnake SSP IUCN/SSC Penguin Specialist Group AZA Avian Scientific Advisory Group (ASAG) Jane Goodall Institute AZA Conservation Grants Fund (CGF) Jane Goodall Institute - Nepal AZA Dusky Gopher Frog SSP - Reintroduction Project Kirtland's Warbler Initiative AZA Eastern Massasauga Rattlesnake SSP Lion Conservation, West Africa AZA FrogWatch USA Mad Dog Initiative (MDI) AZA Komodo Dragon SSP Michigan Bird Conservation Initiative AZA Panamanian Golden Frog SSP National Trust for Nature Conservation, Nepal AZA Puerto Rican Crested Toad SSP Ngogo Chimpanzee Project AZA SAFE Ol Pejeta AZA Wyoming Toad SSP Osprey Management in Southeast Michigan Bat Conservation International (BCI) Pandrillus Foundation Bird Strike Prevention at the Detroit Zoo Partula Field Program Consortium Blanding's Turtle Headstart Project Paso Pacífico Chipangali Wildlife Orphanage and Research Centre Penguin Sentinels Common Tern Nesting Habitat Restoration in the Detroit Peregrine Monitoring River and Lake St. Clair Peru Adopt-A-School Conservación de la Naturaleza Amazónica del Perú Polar Bear and Grizzly Resource Overlap in Kaktovik, Alaska (CONAPAC) Polar Oceans Research Group Conservation International - Amphibian Survival Alliance Pollinator Conservation Craig Packer Lion Conservation Project Rainforest Trust Cryptobranchid Interest Group Red Panda Network (RPN) Ethiopian Wolf Project Science and Conservation Centre Falkland Island Conservation Siamese Crocodile Reintroduction Giraffe Conservation Foundation (GCF) Snares to Wares, Lion Conservation Gorilla Doctors Snow Leopard Conservation in Nepal and China Gorilla Rehabilitation and Conservation Education (GRACE) Snow Leopard Trust (SLT) Center Striped Newt Conservation Great Lakes Colonial Waterbird Monitoring The Ocean Project Great Lakes Piping Plover Salvage Captive Rearing The Peregrine Fund Grevy's Zebra Trust The Think Tank for Kangaroos (THINKK) of the University Hanzaki Institute - Japanese Giant Salamander Conservation of Technology Sydney Center for Compassionate HawkWatch International Conservation Hondurus Amphibian Rescue and Conservation Center Tree Kangaroo Conservation Program (HARCC) Turtle Survival Alliance (TSA) Isle Royale Wolf Study Urban Bird Treaty IUCN Red List of Threatened Species Urban Ecology of Bats IUCN/SSC Conservation Planning Specialist Group (CPSG) Wild Camel Protection Foundation (WCPF) IUCN/SSC Flamingo Specialist Group Wildlife Conservation Network (WCN) - Ewaso Lions

Wildlife Conservation Society (WCS) – Shark Campaign Wildlife SOS World Conservation Monitoring Center (WCMC)

Green Practices

ENERGY

Documented Amount Spent Documented Amount Used Purchased Renewable Energy

Received Support From External Sources for Green Projects

FOOD

Sourced Local Food or Grew It On-Site

GREEN CERTIFICATIONS

EXTERNAL SUPPORT

Certified as a Wildlife Habitat Certified by the Green Restaurant Association

GREEN PRACTICES IMPLEMENTED

Alternative Fuel Usage for On-Site Fleet

Building Energy Management

Carbon Offset Purchase for On-Site Utility Use

Commingled Recycling

Community-Based Sustainability Projects

Composting On-Site or Off-Site

Energy Submetering

Graywater Reuse and/or Rainwater Harvesting

Green Building Policy / Commitment

Green Information Technology (IT)

- Green Purchasing Policy / Green Procurement
- Local Food Procurement for Animals and/or Guests
- Purchasing Green Power or Renewable Energy Credits (RECs)
- Stormwater Management Program

Usage of Enterprise (IT) Solutions To Track, Measure and Dashboard Sustainability Performance

Wastewater Reduction

Water Submetering

Water-Wise Landscaping

PLANS, POLICIES AND BUDGETS

Dedicated a Line Item in the Budget for Green Practices

Dedicated Full-Time Equivalent (FTE) Staff to Coordinating Green Practices

Developed or Updated a Sustainability Plan (or Equivalent)

Developed or Updated a Sustainability Policy

WATER

Documented Amount Spent

Documented Amount Used

Mission-Focused Research

Aardvark Nocturnal Activity and Space Use

Aesthetics, Emotions and Choice in Western Lowland Gorillas

Affective Bias Tests in Gorillas

AZA Gorilla SSP - Oxytocin as a Measure of Social Bond and Welfare in Western Lowland Gorillas (*Gorilla gorilla gorilla*) in North American Zoos

Behavioral Impacts of Cataract Surgery for Crested Penguins

Black-Crowned Night Heron Monitoring

- Cause of Mortality in a Captive Assurance Population of Wyoming Toads Over a 16 Year Period
- Dominance, Individual Welfare and Spatial Compression in a Captive Bachelor Gorilla Group
- Evaluating the Impacts of Habitat Expansion on the Welfare of Three Male Grizzly Bears at the Detroit Zoo

Evaluating the Welfare Impacts of a Major Habitat Change for Japanese Giant Salamanders (*Andrias japonicus*)

Evaluation of Behavioral Opportunities for Aardvarks

Exploring Measures of Positive Welfare in Giraffes Using Changes in Social Group Composition

Great Ape Heart Project

- Impact of Human Visitors on Pigs' Use of Space and Enrichment
- Impacts of Night Housing Conditions on Indicators of Welfare in Gorillas and Drill Monkeys

Mudpuppy Surveys

North American River Otter Use of Space and Social Dynamics

Personality in Blanding's Turtles

Pharmacokinetic Efficacy of Transdermal Delivery of Fentanyl in the Rockhopper Penguin (*Eudyptes chrysocome*): A Pilot Study

- Quality of Sleep as a Method to Assess Welfare in Nocturnal Zoo Animals
- Survey of Ocular Health and Pathology in Two Populations of Captive Panamanian Golden Frogs (*Atelopus zeteki*)
- The Effects of a New, More Complex Habitat on Indicators of Welfare in Penguins at the Detroit Zoo
- The Efficacy of Three Enrichment Items for Eliciting Foraging and Feeding Behaviors in Seals Living in the Care of Humans
- The Evaluation of Bathing, Foraging and Olfactory Enrichment in Eliciting Species-Specific Behaviors in Giant Anteaters (*Myrmecophaga tridactyla*)
- The Impact of Behavioral Opportunities on the Behavior and Space Use of a Bald Eagle
- The Impact of Browse Availability on the Behavior and Hormones of Captive Gorillas
- The Impact of Visitor and Keeper Presence on the Welfare of Captive Southern White Rhinoceros at the Detroit Zoo
- Underwater Behavior of Gentoo (Pygoscelis papua) Penguins
- Use of Implantable Loop Recorders (ILRs) to Identify and Manage Heart Disease in Chimpanzees (*Pan troglodytes*)
- Validating Infrared Thermography as a Tool to Assess the Impact of Human-Animal Interactions
- Welfare Assessment of Five Juvenile Madagascar Giant Hognose Snakes (*Leioheterodon madagascariensis*) During a Habitat Modification

JOHN BALL ZOO

Education Programs

AZA FrogWatch USA Behind the Scenes Tours Daily Animal Programs Interactive Animal Exhibits Keeper for a Half Day and Job Shadows Kids' Night Out Overnight Adventures Science, Technology, Engineering and Mathematics (STEM) Classes Scout Programs Silver Explorers Sprouts Teen Volunteer Program Traveling Zoo Twilight Tours Wild Encounters Zoo Camp Zoo Explorers Zoo Lab

Field Conservation

AZA FrogWatch USA

AZA SAFE

AZA SAFE - Vaquita Rescue Project

AZA Tiger SSP - Tiger Conservation Campaign

- Centro Chaqueño Para la Conservación e Investigación (CCCI)
- Dhartee Development Society Vulture Safe Zone (VSZ) Project

Eastern Massasauga Rattlesnake Longitudinal and DNA Study

Great Lakes Piping Plover Recovery Effort

Inspiring Community for Wildlife Conservation

John Ball Zoo Turtle Population Monitoring Project

Kirtland's Warbler Annual Census Project

Limbe Wildlife Centre

Monarch Butterfly Raise and Release Program

Red Panda Network (RPN)

Snow Leopard Conservancy (SLC) - India Trust

Wood Turtle Headstarting Project

Green Practices

ENERGY

Documented Amount Spent Documented Amount Used Documented Square Footage of Conditioned Space

FOOD

Sourced Local Food or Grew It On-Site

FUEL Documented Amount Spent

GREEN PRACTICES IMPLEMENTED

Building Energy Management

Commingled Recycling Composting On-Site or Off-Site Construction Waste Diversion / Recycling Energy Submetering Water Submetering

PLANS, POLICIES AND BUDGETS

Dedicated Full-Time Equivalent (FTE) Staff to Coordinating Green Practices

WASTE

Documented Amount Spent on Landfill Waste

WATER

Documented Amount Spent Documented Amount Used

POTTER PARK ZOOLOGICAL GARDENS

Green Practices

GREEN PRACTICES IMPLEMENTED

Commingled Recycling Green Information Technology (IT) Smart Buildings Systems Water-Wise Landscaping

PLANS, POLICIES AND BUDGETS

Developed or Updated a Sustainability Plan (or Equivalent) Developed or Updated a Sustainability Policy

SAGINAW CHILDREN'S ZOO

Education Programs

Behind the Scenes Tours Endangered Species Day E-Newsletter Exhibit Interpretation Family Nature Club Hatchlings Living Learning Lab Lunch and Learn Outreach Party for the Planet Rainforest Brochure Samaritas After-School Program Scout Programs – Boy and Girl Scouts Teacher Appreciation Day World Oceans Day

Zoo Camp

Field Conservation

Adopt-a-Highway

American Association of Zoo Keepers (AAZK) – Bowling for Rhinos – Potawatomi Chapter AZA Conservation Grants Fund (CGF) – Silent Auction AZA Cotton-Top Tamarin SSP AZA SAFE Citizen Bat League Kirtland's Warbler Alliance Michigan Frog and Toad Survey Proyecto Tití Saginaw River Clean-up Sandhill Crane Population Survey SaveNature.Org Southern African Foundation for the Conservation of Coastal Birds (SANCCOB)

SEA LIFE MICHIGAN AQUARIUM

Field Conservation

Project Sturgeon

Mission-Focused Research

Investigating Stingray Reproductive Disease

Two Case Studies: Giant Pacific Octopus Health and Welfare

Minnesota

COMO PARK ZOO AND CONSERVATORY

Education Programs Animal Ambassadors Animal Demo/Training AuSM (Autism Society of MN) **Birthday Parties** Camp Como **Discovery Series** Early Childhood Programs Family Class Free Educational Events Gardener Talks Group Tours Homeschool Interpretive Interactive Keeper Talk Library Programs **Residency Program**

Field Conservation

AZA Wyoming Toad SSP - Master Plan Meeting and Fieldwork

- Balule Conservation Project in Greater Kruger National Park
- Borneo Orangutan Survival Foundation (BOS) Year of Freedom
- Ecology of Giraffe Namibia Research
- Gorilla Doctors
- Mississippi Gopher Frog Breeding Project
- North American Freshwater Turtle Research Group
- Polar Bears International (PBI)
- Seafood Watch
- Southern African Foundation for the Conservation of Coastal Birds (SANCCOB)

Green Practices

ENERGY

Documented Amount Spent

Documented Amount Used

Documented Square Footage of Conditioned Space Generated Renewable Energy On-Site

FUEL

Documented Amount Used

GREEN PRACTICES IMPLEMENTED

Building Energy Management

- Carbon Offset Purchase for On-Site Utility Use
- Commingled Recycling
- Community-Based Sustainability Projects
- Community-Supported Agriculture (CSA) Program for Staff
- Composting On-Site or Off-Site
- Energy Submetering
- Graywater Reuse and/or Rainwater Harvesting
- Green Information Technology (IT)
- Green Purchasing Policy / Green Procurement
- Local Food Procurement for Animals and/or Guests
- Smart Buildings Systems
- Solar or Wind Energy Generation
- Stormwater Management Program
- Water Submetering
- Water-Wise Landscaping

PLANS, POLICIES AND BUDGETS

Dedicated Full-Time Equivalent (FTE) Staff to Coordinating Green Practices Developed or Updated a Sustainability Plan (or Equivalent)

LAKE SUPERIOR ZOO

Education Programs

Behind the Scenes Tours Birthday Party Animal Encounters Docent Animal Encounters Family Programs Homeschool Classes Interpretive Carts Job Shadowing Programs Keeper Talks Outreach Programs Overnight Programs Preschool Classes School Group Programs School Kits Summer Day Camps Toddler Classes Volunteer Continuing Education Winter Camps Zoo Crew Summer Teen Program

Field Conservation

AZA Felid TAG AZA Tiger SSP - Tiger Conservation Campaign Bat Conservation International (BCI) Big Island Resource Conservation and Development Council Gorongosa Restoration Project Madagascar Fauna and Flora Group (MFG) Proyecto Tití Snow Leopard Trust (SLT) The Peregrine Fund World Parrot Trust (WPT)

Green Practices

ENERGY Documented Amount Spent Documented Amount Used Generated Renewable Energy On-Site

FOOD Sourced Local Food or Grew It On-Site

GREEN PRACTICES IMPLEMENTED Building Energy Management Commingled Recycling Composting On-Site or Off-Site Local Food Procurement for Animals and/or Guests Solar or Wind Energy Generation

MINNESOTA ZOOLOGICAL GARDEN

Education Programs Adult Programs Adult Travel Programs Animal Habitat Day Backstage Pass Programs Boy Scout Day Career Day College Travel Program **Distance** Learning Family Overnights Family Zoo Adventures Girl Scout Day Guided/Behind-the-Scenes Tours Homeschool Day Math Day Nature Play Programs **Preschool Programs** School Field Trips School Overnights School's Out Camps Scout and Youth Group Overnights Summer Zoo Camp Teacher Workshops Toddler Time Wild Wonders Preschool World Language Days Youth Travel Program Zoo Classes Zoo Crew Jr. Zoo Safari and Zoo Explorers Zoomobile ZooMS Design Challenge

Field Conservation

Amphibian Disease Research Amur Leopard and Tiger Alliance (ALTA) AZA SAFE AZA Tiger SSP - Tiger Conservation Campaign

- Bird Window Collision Conservation Research
- Bison Recovery Minnesota
- Black Rhino Conservation Namibia
- Bluebird Recovery Program
- Brown Bear Conservation
- Dhole Field Conservation
- Freshwater Mussel Conservation
- Hartmann's Mountain Zebra Conservation
- Hawaiian Monk Seal Conservation
- Invest in the Nest African Penguin Conservation
- IUCN/SSC Conservation Planning Specialist Group (CPSG)
- Macaw Conservation
- Minnesota Turtle Conservation
- Moose Conservation Research: Minnesota
- Prairie Butterfly Conservation: Minnesota
- Przewalski's Horse Conservation in China and Mongolia
- **Recycle for Rainforests**
- Save the Wild Chinchillas
- Sea Otter Conservation
- Southern African Foundation for the Conservation of Coastal Birds (SANCCOB) – African Penguin Conservation
- Ulysses S. Seal Conservation Grant Program
- Vaquita Conservation, Protection and Recovery (Vaquita CPR)

Mission-Focused Research

- Asian Wild Horse Anesthesia Study
- AZA Japanese Macaque SSP Wounding Study
- Development of a Genome Resource Bank and Transcervical Insemination for the Genetic Management of Tigers
- Epidemiology of *Trueperella pyogenes* Infection in Pronghorn Antelope
- Evaluating the Effects of Enrichment Treatments on Behavior of Animals at the Minnesota Zoo
- Feeding Behavior and Feeding Performance of the Hawaiian Monk Seal
- IUCN Red Listing for Butterflies

Tiger Mortality Study

Missouri

DICKERSON PARK ZOO

Field Conservation

- Action for Cheetahs in Kenya
- American Association of Zoo Keepers (AAZK) Bowling for Rhinos
- American Association of Zoo Keepers (AAZK) Trees for You and Me
- AZA Conservation Grants Fund (CGF)
- AZA Tiger SSP Tiger Conservation Campaign
- Cheetah Conservation Fund (CCF)
- Dian Fossey Gorilla Fund International
- Dong Phayayen-Khao Yai Carnivore Conservation Project
- Eden Wildlife Trust Mountain Bongo Surveillance Project Kenya
- Elephant-Human Coexistence: How Elephants Persist in Traditional Agricultural Systems of South Asia
- Giraffe Conservation Foundation (GCF)
- International Crane Foundation (ICF)
- IUCN/SSC Conservation Planning Specialist Group (CPSG)
- Madagascar Fauna and Flora Group (MFG)
- Niassa Carnivore Project
- Proyecto Taguá / Chaco Center for Conservation and Research (CCCR)
- Proyecto Tití Conserving the Critically Endangered Cotton-Top Tamarin in Colombia
- Raptor Rehabilitation
- Sahara Conservation Fund (SCF) Adopt-an-Ostrich Program
- Save the Golden Lion Tamarin
- SaveNature.Org
- The Spatial Ecology and Microhabitat Selection of the Pygmy Rattlesnake (*Sistrurus miliarius*) in Southwestern Missouri
- Turtle Survival Alliance (TSA)
- Wildlife Conservation Society (WCS) Grizzly Bear Conservation in the United States / 96 Elephants
- Zoo Conservation Outreach Group (ZCOG)

Mission-Focused Research

- A Survey of Elephants Having Had Human Assisted Lifts and Their Relevant Health Issues and Survivability
- Analysis of Female Asian Elephant Prolactin Levels
- Endocrine Analysis and Assisted Reproductive Techniques in the Malayan Tiger (*Panthera tigris jacksoni*)
- Evaluation of Progesterone and Luteinizing Hormone (LH) Concentrations in Female Asian Elephants
- Herd Dynamics in Captive Elephants of North America
- National Elephant Endotheliotropic Herpesvirus (EEHV) Lab
- Prevalence of Babesia in Feral Raccoon (*Procyon lotor*) Populations Around Zoological Institutions That Hold Maned Wolves (*Chrysocyon brachyurus*) in the United States

The Pharmacokinetics of Tramadol in African (*Loxodonta africana*) and Asian (*Elephas maximus*) Elephants

ENDANGERED WOLF CENTER

Education Programs

Adults-Only Evening Programs Birthday Parties and Other Private Events Camp Family Friendly Evening Programs Field Trips Outreach Programs PredaTour Private Tour

Scout Programs

Field Conservation

- Arkansas State University Partnership to Benefit Red Wolf Conservation
- AZA Mexican Wolf SSP Meeting
- Habitat Suitability Analysis With Evaluation of Education Program Effectiveness Across the Historic Range of the Red Wolf
- Mexican Wolf Artificial Insemination
- Mexican Wolf Recovery Program
- Red Wolf Recovery

KANSAS CITY ZOO

Education Programs After-School Program Animal Encounters Assembly Program Awareness Days **Birthday Parties** Boy Scout Workshop Corporate Walk-N-Talk Critter Club Day Camps Docents Education Shows and Chats Girl Scouts - Workshop Goodnight Zoo Homeschool Job Shadow Junior Zoologist Keeper for a Dav Overnights Safari Day Camp Scout Day Spring Break Camp: Pathfinder - On the Defense Teacher Appreciation Day Teen Volunteer Program Volunteers Winter Break Camp: Polar Quest- Life on Ice ZOOED ZOOMobile Zootastik Learning Fest

Field Conservation

Amphibian Ark AZA Ape TAG - Conservation Initiative AZA SAFE - Vaquita Conservation Project AZA Tiger SSP - Tiger Conservation Campaign Black Mamba Anti-Poaching Initiative Bolivian Amphibian Initiative - Lake Titicaca Water Frog Brown Hyena Project Cheetah Conservation Fund (CCF) Conservation Lower Zambezi Eastern Spotted Skunk Health and Disease Assessment ECO-CELL Freshwater Mussel Propagation and Reintroduction Humboldt Penguin Consortium IUCN/SSC Conservation Planning Specialist Group (CPSG) Kansas City Zoo African Elephant Reproductive Conservation Initiative Monarch Butterfly Waystation Panamanian Golden Frog Breeding Program Parrots International Project Polar Bear Roundtable on Sustainable Palm Oil (RSPO) The CREATE Project Trumpeter Swan Wildlife Conservation Society (WCS) - 96 Elephants Wyoming Toad Breeding, Reintroduction and Field Survey Program Zoo Conservation Outreach Group (ZCOG) Zoo Conservation Outreach Group (ZCOG) - Chilean Flamingo Conservation Monitoring Program **Green Practices** ENERGY **Documented Amount Spent**

Documented Amount Used Generated Renewable Energy On-Site

FOOD Sourced Local Food or Grew It On-Site

Documented Amount Spent Documented Amount Used

FUEL

GREEN PRACTICES IMPLEMENTED Alternative Transportation Benefits for Staff Building Energy Management Commingled Recycling Community-Based Sustainability Projects Composting On-Site or Off-Site Graywater Reuse and/or Rainwater Harvesting Green Building Policy / Commitment Green Information Technology (IT) Green Purchasing Policy / Green Procurement Local Food Procurement for Animals and/or Guests Solar or Wind Energy Generation Wastewater Reduction Water-Wise Landscaping

PLANS, POLICIES AND BUDGETS Developed or Updated a Sustainability Plan (or Equivalent) Developed or Updated a Sustainability Policy

SAINT LOUIS ZOO

Education Programs

Adult Programs Animal Awareness Days AZA FrogWatch USA Behind the Scenes Tours **Birthday Parties** Boo at the Zoo - Spooky Saturday Camp KangaZoo and Teen Camp Day With the Rays Docent Carts and Seasonal Interpreter Program Earth Day - Party for the Planet Enrichment Eggstravaganza Family Programs Inspired by Nature - The Wildlife Art of Robert Bateman Internal Training - Education Department, Docents and Interpreters Jungle Boogie Just Like You at the Zoo Lecture Series Programs Library and Teacher Resource Center - Scavenger Hunts Library and Teacher Resource Center - ZooCases Make Tracks for the Zoo Monsanto Education Gallery
Outreach and Distance Learning Programs

Overnight Programs

Public Officials Family Day

Raja's Birthday Celebration

School Programs

School Tours

Shark Week

Stingrays at Caribbean Cove - Traveling Exhibit

Trivia Gone Wild

Wild Lights

Youth Programs

Zoo ALIVE Teen Volunteer Program

Zoo Friends Day

Zoo Parents Picnic

Zootoberfest

Field Conservation

Addax Conservation in the Termit and Tin Toumma National Nature Reserve

Amphibian Ark

- Andean Bear Conservation Alliance
- Animal Migration and Health Study

Arboviruses in Brazil

Bee Diversity and Their Associated Floral Resources in Amboseli National Park, Kenya

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

Camel Health at the Livestock-Wild Animal-Human Interface

Celebrating 10 Years of Zebra Conservation Through Film

Center for American Burying Beetle Conservation

Center for Avian Conservation in the Pacific Islands

Center for Avian Health in the Galápagos Islands

Center for Conservation in Forest Park

Center for Conservation in Punta San Juan, Peru

Center for Conservation in Western Asia

Center for Conservation of Large Carnivores in Africa

Center for Native Pollinator Conservation

Collaborative Community-Based Giraffe Conservation in Northern Kenya

Community Involvement for Dama Gazelle Conservation in Termit Massif, Niger

Conservation Action in the Termit and Tin Toumma Region of Niger

Conserving Mountain Nyala in a Human Dominated Landscape: Arsi Mountain, Ethiopia

Core Operating Support for the Sahara Conservation Fund (SCF)

Dama Gazelle Conservation Project Support Through the Sahara Conservation Fund (SCF)

Ecosystem Health in Punta San Juan Peru

Ecuadorian Amphibian Collaboration

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

From Bat to Bird: Investigating a Potential Case of Sympatric Speciation via Pollinator Shifts in the Andes

Giraffe Conservation in Niger: Saving West Africa's Last Giraffe

Goualougo Triangle Ape Project (GTAP)

Great Grevy's Zebra (and Reticulated Giraffe) Rally 2018

Great Grevy's Rally

Grevy's Zebra Scout Program in Northern Kenya

Grevy's Zebra Trust

Grevy's Zebra Warrior Program

Hatchers and Other Equipment to Support Chick Production in the Sahara Conservation Fund's (SCF) North African Red-Necked Ostrich Recovery Project, Niger

International Elephant Foundation (IEF)

Ishaqbini Hirola Sanctuary Disease Mitigation Strategy: Vaccination of Community Livestock

Ishaqbini Wildlife Release Bomas

IUCN/SSC Bumblebee Specialist Group

Kinabatangan Orangutan Conservation Project

Madagascar Fauna and Flora Group (MFG) - Capacity Building

Madagascar Fauna and Flora Group (MFG) - Core Support

Madagascar Fauna and Flora Group (MFG) – Research Program

Materials to Prepare Pilot Release Site for the Niger Ostrich Recovery Project

Mitigating the Threat of County and National Development Initiatives on the Endangered Grevy's Zebra in Northern Kenya

- Native Bee Awareness for the Omaha Tribe
- North African Ostrich Breeding and Recovery Project, Niger
- Northern Rangelands Trust
- Okapi Conservation Project
- Partula Snail Conservation Program, French Polynesia
- Professional Development and Team Building at Grevy's Zebra Trust
- Proposal for a Wildlife Vet to Serve Northern Kenya
- Ron Goellner Center for Hellbender Conservation
- Ruaha Carnivore Project (RCP)
- Space Use and Activity Budgets of Ethiopian Wolves in a Disturbed Population: Implications for Their Conservation
- Staffing and Training for Two New Nigerien Partners in the Recovery Effort for North African Ostriches in Niger
- Support for Addax Anti-Poaching Efforts in the Termit and Tin Toumma National Nature Reserve, Niger
- Support of Several Conservation Non-Governmental Organizations (NGOs)
- Support to Investigate Reintroduction Options for Addax
- Turtle Survival Alliance (TSA)
- Understanding the Status and Ecology of Nubian/ Rothschild's Giraffe in Uganda's Kidepo Valley National Park
- Uniforms and Field Kit Bags for the Grevy's Zebra Trust Team
- University of Missouri St. Louis Graduate Student Support
- Water Quality and Mississippi River Health
- Zoo Staff Labor for Field Conservation

Mission-Focused Research

- Animal Awareness Days Evaluation
- Animal Welfare Perceptions Focus Groups
- Biomarker Discovery for African Painted Dog Pyometra
- Bird House Enrichment Survey
- Cheetah Olfactory Mate Choice
- Comparison of Propofol Constant Rate Infusion and Isoflurane for Maintenance of Anesthesia in Speke's Gazelle (*Gazella spekei*)
- Developing Genomic Tools for Elephant Conservation
- Developing Testicular Tissue Banking Techniques for Canids
- Distribution of Lizards in Big Desert Habitat Before, During and After Installation of Dimmable Lights

- Fecal Glucocorticoid Monitoring of Carnivores, Birds and Primates During Quarantine and Introduction to a New Habitat at the Saint Louis Zoo
- Fecal Glucocorticoid Monitoring of Guinea Pigs Serving as Ambassador Animals in the Saint Louis Zoo's Children's Zoo
- Fecal Hormone Monitoring of Ovulatory Cycles and Glucocorticoid Production in Banteng
- Formative Evaluation of Grizzly Ridge Interpretives
- Gorilla Social Behaviors in a Bachelor Herd Over Indoor and Outdoor Periods With High and Low Guest Count
- Hormone Monitoring of Free-Ranging Channel Island Foxes
- Improving the Impact of Zoo and Aquarium Conservation Education Experiences: A Values Orientation Approach
- Island Fox Courtship and Aggressive Behavior
- Lifetime Reproductive Planning in Asian Small-Clawed Otters
- Lifetime Reproductive Planning in Fennec Foxes, Red River Hogs and Mexican Wolves
- Member Perceptions of the One Health Initiative at a Zoological Institution
- Mother-Infant Antelope Study
- Novel Assessments of Body Composition and Relation to Metabolic Status and Fat Stores in Asian Elephants
- Observing Flighted and Flightless Waterfowls' Behavioral Diversities on Bodies of Water
- Polar and Grizzly Bear Use of Space and Activity Level in New Zoo Habitats
- Public Attitudes on Ownership and Use of Wild Felids
- Randomized Controlled Trial Comparing the Effects of Alfaxalone and Ketamine Hydrochloride in the Haitian Giant Galliwasp (*Celestus warreni*)
- Serum Concentration Comparisons of Fatty Acids, Amino Acids, Vitamins, Minerals and Cholesterol, Between Free-Ranging and Zoo Polar Bears (*Ursus maritimus*)
- Serum Nutrient Comparisons Between Free-Ranging and Zoo Painted Dogs (*Lycaon pictus*)
- Serum Nutritional Profile in Great Apes
- Tasmanian Devil Activity Level and Use of Space in New Exhibit
- The Effect of Educational Programs on the Behavior and Physiology of Fennec Foxes (*Vulpes zerda*)
- The Effects of Virtual Reality in a Zoological Setting on Visitors' Empathy and Pro-Environmental Behavior
- The Relevancy of African/Asian Elephants in the Zoological Facilities

Validating Noldus EthoVision as a Tool for Tracking Movement
Wolf Semen Post-Thaw Study
Zoo Veterinarian Attitudes on Management Euthanasia
Zoo Visitor Study

SEA LIFE KANSAS CITY AQUARIUM

Education Programs

Animal Adaptations Bay of Rays Talk Home Sweet Home Marine Science Careers Ocean Discovery Talk Octopus Talk Seahorse Talk Shark Talk Slip and Slime (Birthday Party) Touch Pool Experience Turtle Conservation Chat Weedy Seadragon Talk What's for Lunch

Field Conservation

Heartland Tree Alliance - Bridging the Gap Project Aware River and Wetlands Clean Up Teaching Rivers in an Urban Environment (T.R.U.E Blue) -Blue River Watershed Association

Green Practices

ENERGY Documented Amount Spent Documented Amount Used Documented Square Footage of Conditioned Space

FUEL

Documented Amount Spent Documented Amount Used

WATER

Documented Amount Used

THE BUTTERFLY HOUSE

Education Programs Adventures in a Butterfly Garden A-MAZE-ing Cockroaches **Brownie Bugs** Bug Hunt **Firefly Festival** Insect Photography Junior Gardener Keeper for a Day Ladybugs Little Bugs Living the Butterfly Life Spring Fling Story of a Butterfly The World According to Insects Webelos: Into the Wild Wings of Wonder

Field Conservation

El Bosque Nuevo

Montana

GRIZZLY AND WOLF DISCOVERY CENTER

Education Programs Bear Pepper Spray Demonstration Birds of Prey Outreach Birds of Prey Program Keeper Crew Keeper Crew Kids n' Snow Family Weekends Nakiska: Dog With a Job National Park Service Ranger Presentations Whose Scat is That? Wildlife Watching Wolf Pack Feeding and Enrichment Program

Field Conservation

Bear-Resistant Container Testing West Yellowstone Christmas Bird Count

Green Practices

ENERGY

Documented Amount Spent Documented Amount Used

FUEL

Documented Amount Spent Documented Amount Used

GREEN PRACTICES IMPLEMENTED

Building Energy Management Commingled Recycling Construction Waste Diversion / Recycling Green Purchasing Policy / Green Procurement Wastewater Reduction

WASTE

Documented Amount Recycled Documented Amount Spent on Landfill Waste

WATER

Documented Amount Spent Documented Amount Used

Nebraska

LEE G. SIMMONS CONSERVATION PARK AND WILDLIFE SAFARI

Education Programs Animal Ambassadors Animal Demos Campouts Family Classes Hands-On Corral Scout Programs Special Events Student Workshop Teacher Workshops

Field Conservation

Cheetah Conservation Fund (CCF) Citizen Science Nature Conservancy Whooping Crane Trust

Green Practices

ENERGY

Documented Amount Spent Documented Amount Used Documented Square Footage of Conditioned Space

FOOD Sourced Local Food or Grew It On-Site

FUEL

Documented Amount Spent Documented Amount Used

GREEN PRACTICES IMPLEMENTED Commingled Recycling Composting On-Site or Off-Site Graywater Reuse and/or Rainwater Harvesting Local Food Procurement for Animals and/or Guests Wastewater Reduction Water-Wise Landscaping

WASTE

Documented Amount Composted Documented Amount Recycled Documented Amount Sent to Landfill Documented Amount Spent on Landfill Waste

LINCOLN CHILDREN'S ZOO

Education Programs Adventure Travel Camps Behind the Scenes Tours Distance Learning Education Outreach Overnight Program Tots and Turtles / Preschool Penguins Zoo Crew Zoo Summer Camps

Field Conservation

Salt Creek Tiger Beetle Propagation and Reintroduction Project

Mission-Focused Research

Directional Freezing as a Method of Sperm Cryopreservation for Field Conservation Projects

OMAHA'S HENRY DOORLY ZOO AND AQUARIUM

Education Programs

African Goat Kraal After-School Program Animal Ambassador Program Animal Encounters Backstage Experiences Campouts Children's Adventure Trails Day Camps Eco Adventure Family Programs Free Flight Bird Show Giraffe Encounter Keeper Talks Lemur Walkway LION Classes Little Lions Preschool Long Distance Learning **Outreach Programs** School Group Walkabout Tours Scout Classes Stingray Beach Student Workshops The Wildlife Show

Touch Tank World Biomes Program Youth Volunteer Program

Field Conservation

American Bird Conservancy (ABC) - Bird Strike Amphibian Conservation Area Amphibian Enhancement in Urban Areas Amur Leopard and Tiger Alliance (ALTA) Andasibe Reintroduction and Translocation Project (ART Project) Andasibe Reintroduction and Translocation Project (ART Project) - Lemur Research Initiative Aquarium Conservation Partnership (ACP) AZA Puerto Rican Crested Toad SSP - Reintroduction AZA SAFE AZA SAFE - Vaquita AZA Tiger SSP - Tiger Conservation Campaign Bat Conservation International (BCI) Bermuda Fern Project Black-Footed Cat Project Botswana Predator Conservation Trust (BPCT) Cheetah Conservation Fund (CCF) Citizen Science: Butterfly, Amphibian Colobus Conservation, Ltd. Conservation Centers for Species Survival (C2S2) Conservation of Madagascar's Endemic Orchids Dian Fossey Gorilla Fund International Giant Armadillo: The Pantanal Project Giraffe Conservation Foundation (GCF) Gladys Porter Zoo - American Crocodile Conservation Honduras Amphibian Rescue and Conservation Center (HARCC) International Crane Foundation (ICF) - Whooping Crane International Elephant Foundation (IEF) International Rhino Foundation (IRF) IUCN/SSC Conservation Planning Specialist Group (CPSG) IUCN/SSC Conservation Planning Specialist Group (CPSG) -Amphibian Ark

Kianjavato Project

Lavavolo Project Little Fireface Project - Protection of the Slow Loris Mabula Ground Hornbill Project (MGHP) Madagascar Biodiversity and Biogeography Project Monarch Joint Venture Montagne des Français Project Northern Tuli Predator Project - Botswana Okapi Conservation Project Polar Bears International (PBI) Rare and Endangered Plant Program Red Panda Network (RPN) Salt Creek Tiger Beetle Save Our Seabirds SExual COral REproduction (SECORE) Southern African Foundation for the Conservation of Coastal Birds (SANCCOB) Swaziland Rhinoceros Protection and Conservation Torotorofotsy Project Turtle Survival Alliance (TSA) - Turtle Survival Center Wildlife Conservation Society (WCS) - 96 Elephants Wildlife SOS - India

Green Practices

ENERGY

Documented Amount Spent Documented Amount Used Documented Square Footage of Conditioned Space Generated Renewable Energy On-Site

EXTERNAL SUPPORT

Received Support From External Sources for Green Projects

FOOD Sourced Local Food or Grew It On-Site

FUEL

Documented Amount Spent Documented Amount Used

GREEN PRACTICES IMPLEMENTED

Alternative Fuel Usage for On-Site Fleet

Commingled Recycling Composting On-Site or Off-Site Denitrification Systems Graywater Reuse and/or Rainwater Harvesting Local Food Procurement for Animals and/or Guests Solar or Wind Energy Generation Water-Wise Landscaping

PLANS, POLICIES AND BUDGETS

Dedicated a Line Item in the Budget for Green Practices Developed or Updated a Sustainability Plan (or Equivalent)

WASTE

Documented Amount Composted Documented Amount Recycled Documented Amount Sent to Landfill Documented Amount Spent on Landfill Waste

WATER

Documented Amount Spent Documented Amount Used

Mission-Focused Research

African Elephant Project

Browse Nutrition Initiative

Conservation, Propagation, Genetics and Reintroduction of the Yellow Lady's Slipper Orchid in Nebraska

Development of a Genome Resource Bank for Tigers

Development of Methods for Voluntary Semen Collection in the Philippine Crocodile

Development of Transcervical Artificial Insemination in Tigers

- Dietary Influence on Measures of Oxidative Stress and Its Influence on Various Phenotypes
- Factors Affecting Breeding Success in Zoo Managed Male Snow Leopards (*Panthera uncia*)
- Influence of Zoo-Housing on Behavior in African Elephants (*Loxodonta africana*)
- Investigating the Interactions Between Obesity, Stress and Reproductive Cyclicity in Elephants
- Kianjavato Project: Data Analysis
- Lavavolo Project: Data Analysis

Madagascar Biodiversity and Biogeography Project: Laboratory Genetic Work

Montagne des Français Project: Research

Nutrition Research Program

- Prevalence of Irritable Bowel Disease, Infanticide, Bloat and Cystinuria in Managed Maned Wolves and Factors Contributing to Occurrences
- Study on Morbidity and Mortality in North American Managed Amur Leopards

Torotorofotsy Project: Data Analysis

RIVERSIDE DISCOVERY CENTER

Education Programs

Animal Encounters Breakfast With the Bears Career Shadow **Discovery Chat** Eclipse at the Zoo Field Trips Global Tiger Day Guided Zoo Tours Li'l Explorer Camp Party for the Planet Scout Programs Sensory Safari West Spooktacular Sustainable Seafood Watch Cards Teddy Bear Clinic Wild Kratts Wild Lights Zoo Camps Zoofari

SHARK REEF AQUARIUM AT MANDALAY BAY

Field Conservation

Captive Breeding and Management of Hybrid Pupfish (Cyprinodon diabolis x Cyprinodon mionectes)

Komodo Conservation

Reef Check

The Ocean Project

Mission-Focused Research

Biological Cycling Project Horseshoe Crab Molting

New Hampshire

SQUAM LAKES NATURAL SCIENCE CENTER

Field Conservation Project OspreyTrack

New Jersey

ADVENTURE AQUARIUM

Education Programs

21st Century Community Learning Centers – Science Enrichment

Behind the Scenes Tours

Classroom and Auditorium Programs

Community and Urban Science Enrichment (CAUSE) Summer Camp

Community and Urban Science Enrichment (CAUSE)
Program

Deep Sleep

Embedded School Programming

Field Trip Planner

Fins for the Future

High School Student Shadow Program

Hippo Awareness Weekend

Marine Advanced Technology Education (MATE) – Remotely-Operated Vehicle (ROV) Program

Meet Us in the Wild - Field Programs

Outreach - Traveling Programs

Penguin Awareness Day

Philadelphia Science Festival

Philadelphia-Camden Informal Education Collaborative (PISEC)

River Days

Sea Turtle Awareness Weekend

Shark Awareness Weekend Summer Seafari Camp Teacher E-Newsletter Teacher Professional Development Teen Marine Institute That's A-Moray: Love Below Sea Level (Valentine's Event)

Field Conservation

AZA FrogWatch USA AZA SAFE - African Penguin Artificial Nest Box Program Bald Eagle Nest Monitoring Feathers for Native Americans Horseshoe Crab Rearing OCEARCH RiverSweep Sea Turtle Conservancy South-East Zoo Alliance for Reproduction and Conservation (SEZARC) Southern African Foundation for the Conservation of Coastal Birds (SANCCOB) Turgwe Hippo Trust

United States Fish and Wildlife Service (USFWS) – Canine Handler Program

Green Practices

ENERGY

Documented Amount Spent

Documented Amount Used

Documented Square Footage of Conditioned Space

Purchased Renewable Energy

GREEN PRACTICES IMPLEMENTED

Building Energy Management

Commingled Recycling

Denitrification Systems

Green Information Technology (IT)

Wastewater Reduction

PLANS, POLICIES AND BUDGETS

Dedicated Full-Time Equivalent (FTE) Staff to Coordinating Green Practices

WASTE

Documented Amount Recycled Documented Amount Sent to Landfill

WATER

Documented Amount of Wastewater Generated Documented Amount Spent Documented Amount Used

Mission-Focused Research

Assessing the Health of Atlantic Shark Populations via Hematology, Plasma Biochemistry, Protein Electrophoresis, Cholesterol Electrophoresis and Acute Phase Proteins

Mortality Event in Mixed-Species Indo-Pacific Tropical Fish From the Myxozoan *Enteromyxum leei*

Physiological Effects of Capture Stress in the White Shark

Semen Analysis of White Sharks

Semen Collection, Analysis and Storage in Bamboo Sharks

BERGEN COUNTY ZOOLOGICAL PARK

Education Programs 96 Elephants Amazing Adaptation Amphibian Day Amphitheater Show – Mammals Amphitheater Show – Pets! Amphitheater Show – Reptiles Amphitheater Show – Story Time

Amphitheater Show - Wild New Jersey

Animal Enrichment

Animal Families

Animal Habitats

Animal Wrappers

Autism Awareness Day

Bear Aware Day

Bison Day

Brownie Bugs

Colors and Shapes

Duck Day

Endangered Species Day

Fur, Feathers and Ferns Hawks Over the Hudson In My Backyard Night Owls Nocturnal Gators Party for the Planet Playtime at the Zoo **Recycled Art** Save the Eagles Day Science 101 Scout Day Sheep Shearing Spineless Wonders Super Science Days and Career Days Theme Day Story Times Toddler Tales Wetlands Day Wild and Crafty Animal Tales Wild Pets World Farm Animals Day World Tapir Day Zoo Babies Zoo Camp Zoo Careers Zoo Kids

CAPE MAY COUNTY PARK ZOO

Field Conservation

Vaquita Conservation, Protection and Recovery (Vaquita CPR)

JENKINSON'S AQUARIUM

Field Conservation

American Littoral Society AZA Conservation Grants Fund (CGF) AZA SAFE - Vaquita Rescue Project Channel Islands Marine and Wildlife Institute Clean Ocean Action Delaware Bay Horseshoe Crab Spawning Survey Ocean Conservancy Polar Bears International (PBI) Project Terrapin Save Barnegat Bay SaveNature.Org Sawfish Conservation Society (SCS) Sea Turtle Recovery (STR) Seabird Ecological Assessment Network (SEANET) Southern African Foundation for the Conservation of Coastal Birds (SANCCOB) The Ocean Project Turtle Survival Alliance (TSA) Wildlife Center Friends

Green Practices

ENERGY Documented Amount Used

FOOD Sourced Local Food or Grew It On-Site

Mission-Focused Research

Beach Sweeps (Bi-Annual Coastal Cleanup) Horseshoe Crab Surveys National Captive Elasmobranch Census Operation Oyster Seabird Ecological Assessment Network (SEANET)

TURTLE BACK ZOO

Field Conservation

American Association of Zoo Keepers (AAZK) - Bowling for Rhinos Bat Houses Bird Nest Boxes Chicago Zoological Society - Pangolin Conservation Consortium Honey Bee Conservation Horseshoe Crab Tagging Sea Turtle Recovery (STR)

New Mexico

ALBUQUERQUE BIOLOGICAL PARK

Education Programs

Animal Encounters at the Aquarium Aquarium Overnights BioVan and Rio Rangers Monthly Lecture Series Preschool Program Spring Break Camps Summer Camps Summer Evening Tours World Animal Encounters Show Zoo to You

Field Conservation

Abidjan Zoo Project: Côte d'Ivoire Amur Leopard and Tiger Alliance (ALTA)

Aquatic Conservation Facility (ACF)

- Asian Elephant Support (AES)
- AZA Ape TAG Conservation Group
- AZA Crocodilian Advisory Group (CAG)
- AZA Crocodilian Advisory Group (CAG) Toledo Zoo Department of Herpetology
- AZA Guam Kingfisher SSP Philadelphia Zoo
- AZA Jaguar SSP Wildlife Conservation Society (WCS) Cockscomb Ranger Project
- Bahamas National Trust (BNT)
- Botanic Gardens Conservation International (BGCI) at Chicago Botanic Garden
- Center for Plant Conservation
- Cheetah Conservation Fund (CCF)
- **Coral Propagation**
- Dian Fossey Gorilla Fund International
- Fauna and Flora International (FFI)
- Giraffe Conservation Foundation (GCF)
- Hornbill Research Foundation (HRF) Nest Adoptions in Thailand
- International Animal Rescue (IAR)

International Iguana Foundation (IIF) International Rhino Foundation (IRF) International Vulture Programme IUCN/SSC Asian Wild Cattle Specialist Group - Saola Working Group Jane Goodall Institute Lion Tamarins of Brazil Fund Narrow-Headed Garter Snake Field Research and Captive Propagation Native Species Program - Herpetology New Nature Foundation (NNF) Ocean Conservancy Painted Dog Research Trust Pan African Sanctuary Alliance (PASA) Polar Bears International (PBI) Pollinators Project Oso Red Apes - Orangutan Conservation Reef Environmental Education Foundation (REEF) -Donation Snow Leopard Trust (SLT) Socorro Dove Conservation Tasmanian Devil Research Fund The Ocean Project The Peregrine Fund The University of Minnesota Raptor Rehabilitation The Xerces Society Tree Kangaroo Conservation Program Turtle Survival Alliance (TSA) World Parrot Trust (WPT) Zoo Conservation Outreach Group (ZCOG)

Mission-Focused Research

Chimpanzee Anesthesia Study

- Chronic Respiratory Disease in Orangutans: Signs, Symptoms and the Search for the Cause
- Developing Genomic Tools for North American River Otter (*Lontra canadensis*) Population Management
- Elephant Endotheliotropic Herpesvirus (EEHV) Research
- Gorilla Angiotensin-Converting Enzyme (ACE) Inhibitor Study

Health Survey Including Selected Blood Parameters in the African Slender Snouted Crocodile (*Mecistops cataphractus*) at the Abidjan Zoo, Côte d'Ivoire

The Giraffe Plasma Bank and the Butterfly Effect

Thermoregulation in Polar Bears

LIVING DESERT ZOO AND GARDENS STATE PARK

Field Conservation

Bolson Tortoise Program

Green Practices

ENERGY Generated Renewable Energy On-Site

FUEL Documented Amount Spent

Documented Amount Used

New York

BUFFALO ZOO

Education Programs

Birthday Parties Buffalo Zoo Preschool Cub Club Preschool Program Day Camps - Spring, Summer and Winter **Distance Learning Programs** Educator's Guide Gnus - Docent Newsletter **Guided Tours** Homeschool Programs Junior Zoo Teen Naturalist Program Living Treehouse **On-Site School Programs Outreach Programs** Scout Badge Programs Sidewalk Safari Carts Strolling Around the World Stroller Program Wild Weekend Workshops

Zoo Snooze Overnight Program Zoo Teen Naturalist Program **Field Conservation** Asian Elephant Support (AES) AZA Amphibian TAG AZA Conservation Grants Fund (CGF) AZA Eastern Massasauga Rattlesnake SSP - Population Monitoring AZA Puerto Rican Crested Toad SSP - Caribbean Wildlife Alliance via Fort Worth Zoo AZA SAFE - Vaquita Project Buffalo Niagara RIVERKEEPER CONSERVET Friends of Laguna Atascosa Refuge Fundación Albergue de Animales de Nosara Gorilla Rehabilitation and Conservation Education (GRACE) Center International Rhino Keepers Association (IRKA) Panthera Polar Bears International (PBI) Sahara Conservation Fund (SCF) Snow Leopard Trust (SLT) Turtle Survival Alliance (TSA) Wildlife Conservation Network (WCN) - The Ara Project Wildlife Conservation Society (WCS) - 96 Elephants

Green Practices

Zoo Quests

FOOD Sourced Local Food or Grew It On-Site

GREEN PRACTICES IMPLEMENTED Commingled Recycling Community-Based Sustainability Projects Composting On-Site or Off-Site Graywater Reuse and/or Rainwater Harvesting Water-Wise Landscaping

PLANS, POLICIES AND BUDGETS Dedicated a Line Item in the Budget for Green Practices

- Dedicated Full-Time Equivalent (FTE) Staff to Coordinating Green Practices
- Developed or Updated a Sustainability Plan (or Equivalent)

WASTE

Documented Amount Composted Documented Amount Sent to Landfill

ROSAMOND GIFFORD ZOO AT BURNET PARK

Field Conservation

American Association of Zoo Keepers (AAZK) – Bowling for Rhinos

Amphibian Ark

AZA SAFE

Belize Zoo and Tropical Education Center

Eastern Massasauga Recovery Program (MACHAC)

International Elephant Foundation (IEF)

IUCN/SSC Conservation Planning Specialist Group (CPSG)

Laguna Atascosa National Wildlife Refuge

Lion Guardians

Red Panda Network (RPN)

Mission-Focused Research

Evaluation of 25-Hydroxyvitamin D in Asian Elephants (*Elephas maximus*) Using Dried Blood Spots Analyzed by Liquid Chromatography Tandem Mass Spectrometry

SENECA PARK ZOO

Field Conservation

American Association of Zoo Keepers (AAZK) – Bowling for Rhinos

Amur Leopard and Tiger Alliance (ALTA)

Butterfly Beltway

Chittenango Ovate Amber Snail Annual Count

Conservation Meters Dedicated to Coral Reef Conservation in Palau and Rainforest Conservation in the Pantanal

Conservation Through Poverty Alleviation, International (CPALI)

Eastern Massasauga Rattlesnake Mark and Recapture

Gibbon Field Work in Gunung Palung National Park

Grow Native

Health in Harmony

International Animal Rescue (IAR)

International Elephant Foundation (IEF)

International Rhino Foundation (IRF)

Lake Sturgeon Restoration in the Genesee River at Seneca Park

Lemur Conservation Foundation

Madagascar Fauna and Flora Group (MFG)

Orangutan Outreach - Missing Orangutan Mothers (MOM)

Polar Bears International (PBI)

Snow Leopard Trust (SLT)

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

Stony Brook Foundation / Institute for the Conservation of Tropical Environments (ICTE)

Turtle Survival Alliance (TSA)

Green Practices

ENERGY

Documented Amount Spent Documented Amount Used

Purchased Renewable Energy

FUEL

Documented Amount Spent

Documented Amount Used

GREEN CERTIFICATIONS

One or More Buildings LEED-Certified by the US Green Building Council

GREEN PRACTICES IMPLEMENTED

Commingled Recycling

Composting On-Site or Off-Site

WASTE

Documented Amount Recycled

Documented Amount Sent to Landfill

WATER

Documented Amount of Wastewater Generated Documented Amount Spent Documented Amount Used

STATEN ISLAND ZOO

Education Programs

Animal Training Demonstrations Animals and Storytelling Autism Awareness Day Breakfast and Lunch With Santa Breakfast With the Beasts Breakfast With the Bunny Cheetah Conservation Fund Education Program Climate Change Educator Evening Conservation Celebration Cultural After School Adventure Program (CASA) **Dinosaurs and Fossils Docent Presentations** Docent Program - Training **Education Animal Presentations** Endangered Species Day **Extreme Raptors** Girl Scout Dav Gyotaku I Heart the Zoo In-Zoo Education Programs Kid Fun Days Penguin Day Public Education/Outreach School Partnership Programs Science, Technology, Engineering and Mathematics (STEM) Wildlife Camp Serpent Day Sharing is Caring Shear Madness / Farm Day Special Needs Adult Programming Spooktacular Spring Zoofari Teacher Professional Development Traveling Zoo Education Programs Urban Advantage - Student Programming Urban Advantage - Teacher Training

World Turtle Day Zoofari Summer Counselor-in-Training (CIT) Program Zoofari Summer Programming

Field Conservation

AZA FrogWatch USA – Volunteers Belize Tapir Project Blue Heron BioBlitz Mabula Ground Hornbill Project (MGHP)

Mission-Focused Research

Comparing Two Anti-Parasitic Medications in Dendrobates tinctorius Consortium for the Barcode of Life

TREVOR ZOO **Education Programs Birthday Party Presentations** Climate Change Exhibit Media College Volunteer and Fieldwork Program **Conservation Handouts** Group Animal Presentations On-Site Keeper Talks Millbrook School Community Service Science Presentation Off-Site Science Research Program Staff Guided Tours Staff Presentations - Animal Behavior, Adaptations, Nutrition, Zoo's Roles and Conservation Summer Counselor Program Summer Volunteer Program Trevor Zoo Teacher's Guide Veterinary Technician Program **Field Conservation** AZA SAFE - Support

Bog Turtle Population Analysis and Habitat Restoration Invasive Species Control: Pale Swallowwort Madagascar Fauna and Flora Group (MFG) – Conservation Efforts Red Panda Network (RPN) Wood Turtle Population Survey and Habitat Analysis

Green Practices

ENERGY

Documented Amount Spent Documented Amount Used Generated Renewable Energy On-Site

FOOD

Sourced Local Food or Grew It On-Site

FUEL Documented Amount Used

GREEN CERTIFICATIONS

One or More Buildings LEED-Certified by the US Green Building Council

GREEN PRACTICES IMPLEMENTED

Commingled Recycling Community Solar Program Composting On-Site or Off-Site Green Building Policy / Commitment Green Purchasing Policy / Green Procurement Greenhouse Gas (GHG) Inventory Solar or Wind Energy Generation Water-Wise Landscaping

PLANS, POLICIES AND BUDGETS

Dedicated a Line Item in the Budget for Green Practices Dedicated Full-Time Equivalent (FTE) Staff to Coordinating Green Practices Developed or Updated a Sustainability Plan (or Equivalent) Developed or Updated a Sustainability Policy

Mission-Focused Research

Arkansas Center for Biodiversity Collections

Elimination of an Inherited Form of Blindness in the Endangered American Red Wolf (*Canis rufus*)

Red Panda Fecal Survey

Understanding the Link Between Gut Microbiomes and Inflammatory Bowel Disease in the Red Wolf

WILDLIFE CONSERVATION SOCIETY

Education Programs

Adult Overnight Adult Programs Adult Volunteer Interpretation Advanced Inquiry Program (AIP) After-School Programs **Birthday Parties** Brooklyn Cultural Adventures Program Community Outreach Program / Special Events **Discovery Guides** Family Overnight Adventures Guided Tours Informal Programs - Adult Programs Informal Programs - Children and Families Informal Programs - Scouts Nature Club **Professional Development Courses** Project TRUE (Teens Researching Urban Ecology) Scavenger Hunts Urban Advantage WCS-U Wildlife Conservation Corps Wildlife Inquiries Nature Club Wildlife Theater Youth Advisory Council (YAC) Youth Employee Advisory Council (YEAC) Youth JIVE (Job, Internship and Volunteering Expo) Youth Ocean Conservation Summit Zoo and Aquarium Summer Camp Zoo Play Classes 700 Quests

Field Conservation

AZA Komodo Dragon SSP - Conservation Fund AZA SAFE

- Curatorial Conservation Project Cuban Crocodile Breeding Facility Support and Reintroduction Effort
- Curatorial Conservation Project Extinct-in-the-Wild Fishes of Madagascar
- Curatorial Conservation Project Extinct-in-the-Wild Lake Victoria Cichlids
- Curatorial Conservation Project Gharial Ecology Project
- Curatorial Conservation Project Headstart Program for Eastern Hellbender
- Curatorial Conservation Project Monitoring of Flamingo Taxa in the Altiplano Region of Bolivia
- Curatorial Conservation Project Neotropical Bat Survey, Trinidad
- Curatorial Conservation Project New York Seascape
- Curatorial Conservation Project Phylogeography of Rockhopper Penguins
- Curatorial Conservation Project Propagation of the Extinctin-the-Wild Kihansi Spray Toad
- Curatorial Conservation Project Puerto Rican Crested Toad Propagation
- Curatorial Conservation Project Resident Bat Species in the Bronx, New York
- Curatorial Conservation Project Support of the Madras Crocodile Bank Trust, King Cobra Ecology Project
- Curatorial Conservation Project Translocated Howler Monkey Survey
- Education and Curatorial Conservation Project Billion Oyster Project
- Education and Research Project Monitoring of Shorebird Migration Through the New York Bight Using Nano-Tag Technology
- Education Project Hosting Harbor School Dive Program
- Global Conservation Projects Africa
- Global Conservation Projects Asia
- Global Conservation Projects Challenges and Central Initiatives
- Global Conservation Projects Conservation Science and Solutions
- Global Conservation Projects Latin America and the Caribbean
- Global Conservation Projects Marine-Seascape Conservation
- Global Conservation Projects North America

International Iguana Foundation (IIF)

International Rhino Foundation (IRF)

IUCN/SSC Conservation Planning Specialist Group (CPSG)

- New England Cottontail Rabbit Conservation Project
- Turtle Survival Alliance (TSA)
- Veterinarian and Pathological Project Philippine Forest Turtles Confiscation Event
- Veterinarian Project Health Assessment and Disease Surveillance of Burmese Star Tortoises
- Veterinarian Project Health Assessment and Disease Surveillance of Confiscated Yellow Tortoises
- Veterinarian Project Health Assessment and Disease Surveillance of Grand Cayman Iguanas
- Veterinarian Project Health Assessment of Common Loons in the Adirondacks
- Veterinarian Project Health Assessments of Bog Turtles in the Northeastern United States
- Veterinarian Project Heath Assessment, Reproductive Research and Telemetry Studies of Atlantic Ocean Sharks
- Veterinarian Project Myanmar Big-Headed Turtles Confiscation (Clinical and Pathology)
- Veterinarian Project Population Survey and Health Assessments of Turtles in the Bronx River
- Wildlife Conservation Society (WCS) 96 Elephants
- Wildlife Health Program Assessing White-Nose Syndrome in the West
- Wildlife Health Program Central New York
- Wildlife Health Program Democratic Republic of Congo
- Wildlife Health Program Glovers Reef Sea Turtle Health Assessments
- Wildlife Health Program Identification of Regulated and Endangered Shark Species in the Illegal Wildlife Trade in Indonesia
- Wildlife Health Program Laos and Cambodia One Health Network (LACANET)
- Wildlife Health Program Latin America
- Wildlife Health Program Medical and Husbandry Management of Confiscated African Grey Parrots in the Congo-Brazzaville
- Wildlife Health Program Predict
- Zoo Health Program Assessing Arctic Migratory Bird Health in the Context of Climate Change
- Zoo Health Program Developing and Deploying a Rapid Field-Friendly Genetic Test for the Detection of Canine Distemper Virus (CDV) in Wildlife

- Zoo Health Program Genetic Testing On-The-Go: Developing a Field-Friendly Method of Environmental DNA (eDNA) Detection of Turtle Species Using a Handheld Quantitative PCR Machine and DNA Field Extra
- Zoo Health Program Health Assessment, Pre-Release Health Screening and Disease Surveillance of Southern River Terrapin in Cambodia

Mission-Focused Research

- Curatorial Research Project Behavioral Modification in a Polar Bear
- Curatorial Research Project Cryotherapy to Improve Animal Welfare
- Curatorial Research Project Genetic Analysis of the Inca Tern Colony at the Wildlife Conservation Society (WCS)/ Bronx Zoo
- Curatorial Research Project Population Monitoring of Canada Geese in the Bronx Zoo
- Curatorial Research Project Proximate Mechanisms for Physiological Adaptations of the Gelada (*Theropithecus gelada*) to High Altitude Biomes of the Simien Mountains, Ethiopia
- Curatorial Research Project Use of Artificial Lek in the Propagation of the Andean Cock-of-the-Rock
- Veterinarian Project Investigation Into Diagnostic and Therapeutic Options for Sarcocystosis in Captive Thick-Billed Parrots
- Veterinarian Project Acute Phase Protein and Protein Electrophoresis Values for Captive Bongo (*Tragelaphus eurycerus*)
- Veterinarian Project Assessing Efficacy of an Aspergillus fumigatus Vaccine in Inca Terns and Eider Ducks
- Veterinarian Project Husbandry, Morbidity and Mortality of Cloud Rats
- Veterinarian Project Investigating Cardiac Disease in Gelada
- Veterinarian Project Investigation Into the Distribution and Speciation of Entamoeba Infection and Species Within the Reptile Collection at the Bronx Zoo
- Veterinarian Project Investigations Into the Causes and Treatment of Ulcerative Dermatitis in Captive Waldrapp Ibises
- Veterinarian Project Parasitology of Callitrichids in the Bronx Zoo Collection
- Veterinarian Project Pharmacokinetics of Ponazuril in Indian Peafowl
- Veterinarian Project Retrospective Analysis of Mortality in Captive Bongo (*Tragelaphus eurycerus*)

- Veterinarian Project Retrospective Morbidity and Mortality Review of Capercaillie in the Wildlife Conservation Society (WCS) Collections
- Veterinarian Project Retrospective Mortality Review of Tentacled Snakes in the Wildlife Conservation Society (WCS) Collections
- Veterinarian Project Speciation of Malaria (*Plasmodium*) Parasites in Species of Captive Penguin, Tern and Eider at the Wildlife Conservation Society
- Veterinarian Project The Use of Awake CT-scan for the Evaluation of Penguin Air Sac and Lung Volumes and Identification of Pulmonary Lesions

North Carolina

GREENSBORO SCIENCE CENTER

Field Conservation

- AZA Conservation Grants Fund (CGF)
- Centre ValBio at Stony Brook University
- Monarch Butterfly Conservation Fund
- North Carolina Coastal Land Trust
- Oceana
- Piedmont Land Conservancy
- Project Seahorse
- Southern African Foundation for the Conservation of Coastal Birds (SANCCOB)
- The Fishing Cat Conservancy
- Vaquita Conservation, Protection and Recovery (Vaquita CPR)

Green Practices

ENERGY

Documented Amount Spent

Generated Renewable Energy On-Site

FOOD

Sourced Local Food or Grew It On-Site

GREEN CERTIFICATIONS

One or More Buildings LEED-Certified by the US Green Building Council

GREEN PRACTICES IMPLEMENTED

Commingled Recycling Community-Based Sustainability Projects Composting On-Site or Off-Site Graywater Reuse and/or Rainwater Harvesting Stormwater Management Program Water-Wise Landscaping

PLANS, POLICIES AND BUDGETS Dedicated a Line Item in the Budget for Green Practices

Mission-Focused Research

Bat Species Utilization of Forest Canopy Box Turtle Connection Project Candid Critters Carolina Calling Amphibian Program

MUSEUM OF LIFE AND SCIENCE

Education Programs

Girl Scout Programs Homeschool Programs Keeper Talks School Programs Summer Camp The Lab

NORTH CAROLINA AQUARIUM AT FORT FISHER

Education Programs
Alligator Egg Hunt – Easter Program
Animal Encounters
Animal Programs
Auditorium Program
AZA FrogWatch USA
Behind the Scenes Tours
Birthday Parties
Camps – Summer Camps and Year-Round Day Camps
Cape Fear Shoals Dive Presentation
Distance Learning
Feeding Presentations

General Outreach Homeschool Programs Indoor Programs Outdoor Exploration Programs Outreach Events Scout Programs Sea Scholars Sea Turtle Teacher Workshop Self-Guided Tours for School Groups Sleepovers Summer Teen Volunteer Program Teen Ocean Stewards

Field Conservation

Aquarium Conservation Partnership (ACP) Carolina Gopher Frog Reintroduction Conservation Coordination Elasmobranch Characterization in the Cape Fear River Elasmobranch Reproductive Studies Habitat Utilization of Mature Female Sand Tiger Sharks (*Carcharias taurus*) in North Carolina Coastal Waters (Using Acoustic Telemetry Techniques) Lionfish Management Marine Mammal Stranding Response Sand Tiger Shark Identification Sea Turtle Stranding Response Team The Ocean Project Theodore Roosevelt Nature Inventory Vaquita Conservation

Green Practices

ENERGY Documented Amount Spent Documented Amount Used

Documented Square Footage of Conditioned Space

FUEL Documented Amount Spent Documented Amount Used

PLANS, POLICIES AND BUDGETS

Dedicated Full-Time Equivalent (FTE) Staff to Coordinating Green Practices

Developed or Updated a Sustainability Policy

WATER

Documented Amount of Wastewater Generated Documented Amount Spent Documented Amount Used

Mission-Focused Research

Fish Propagation Programs in North Carolina Aquariums Herpesvirus in Green and Loggerhead Sea Turtles Investigation of the Metabolome Following Different Capture Techniques of the Bonnethead Shark (*Sphyrna tiburo*)

NORTH CAROLINA AQUARIUM AT PINE KNOLL SHORES

Education Programs

Animal Encounters Behind the Scenes Tours **Camp Programs Digital Puppetry Program Distance** Learning **Dive Presentations** Early Childhood Education Programs **Feeding Presentations Fishing Programs** Kids' Parties and Sleepovers Large Group Outreach Programs Live Animal Programs **Outdoor Recreation Programs** Outreach Programs - Festivals and Community Events Paddling Programs School Group - Lab Programs School Group Auditorium Programs Small Group Outreach Programs Sustainable Seafood Programs Teacher Workshops Teen Programs Themed Daily Programs

Field Conservation

Aquarium Conservation Partnership (ACP) Conservation Coordination Elasmobranch Characterization in the Cape Fear River Elasmobranch Reproductive Studies Habitat Use of Sand Tiger Sharks Lionfish Management Marine Mammal Stranding Response Sand Tiger Shark Identification Sea Turtle Stranding Network The Ocean Project Theodore Roosevelt Nature Inventory Vaquita Conservation

Green Practices

ENERGY Documented Amount Spent Documented Amount Used Documented Square Footage of Conditioned Space

EXTERNAL SUPPORT Received Support From External Sources for Green Projects

FOOD Sourced Local Food or Grew It On-Site

FUEL Documented Amount Spent Documented Amount Used

GREEN CERTIFICATIONS Certified as a North Carolina GreenTravel Organization Certified as an Ocean Friendly Establishment

GREEN PRACTICES IMPLEMENTED Building Energy Management Commingled Recycling Composting On-Site or Off-Site Construction Waste Diversion / Recycling Graywater Reuse and/or Rainwater Harvesting Green Information Technology (IT)

Local Food Procurement for Animals and/or Guests Purchasing Green Power or Renewable Energy Credits (RECs) Solar or Wind Energy Generation Stormwater Management Program Wastewater Reduction Water-Wise Landscaping

PLANS, POLICIES AND BUDGETS

Dedicated a Line Item in the Budget for Green Practices Developed or Updated a Sustainability Plan (or Equivalent) Developed or Updated a Sustainability Policy

WATER

Documented Amount Spent Documented Amount Used

Mission-Focused Research

Fish Propagation Programs in North Carolina Aquariums Herpesvirus in Green and Loggerhead Sea Turtles Investigation of the Metabolome Following Different Capture Techniques of the Bonnethead Shark (*Sphyrna tiburo*) Painted Bunting Observation and Monitoring Project

NORTH CAROLINA AQUARIUM ON ROANOKE

Education Programs Adult Craft All About Sharks Alligator Encounter Alligator Feeding Aquarist for the Day Aqua-Tots Beach Exploration Behind the Scenes Tours Believe It or Not Big Sweep Birthday Parties Breakfast With the Rays Build a Better World

Career Fairs Catch a Crab **Celestial Navigation** Certified Interpretive Guide Workshop Certified Interpretive Host Workshops Cold Blooded Critters Tour Creating Change **Creature Features** Day Camps Dialogue With the Diver Disaster Zone Distance Learning Earth Day **Educational Videos** Endangered Species Day Ends of the Earth Explorations in Your Schoolyard **Fish Feeding Flying Reptiles** Freaks By Nature Freshwater Turtles Getting to Know: Owls Great White Fishmas Guide to the Solar System: SOS Program Half-Day Camps Happy Otter Hour Impromptus Jellies Lights Out! Lobby Feed Marine Invertebrate Lab Marine Mammals Nature of the Outer Banks Nautical Wreaths Noxious Nature Ocean Jeopardy Ocean Rescue Training Oceans 101

Octopus Otter Enrichment Otter Quarters Tours Paddling Around Roanoke Island PM Live Animal and Tour Quarantine Tours Rescue Men Saltwater Badge Program Sea Turtle Assistance and Rehabilitation Center (STAR) Tour and Program Sea Turtle Egg Hunt Sea Turtle Encounter Sea2Sound Walking Field Trip Seafood Series Shark Bites Shark Dissection Shark Feeding Program Shark Tank Tour Sleeping With the Sharks Snake Encounter Squid Dissection Standup Paddleboarding Stingray Feeding Summer Camp Tail Spin **Terrific Turtles Touch Tank Animals** Trick or Treat Under the Sea Wandering Nomads: Turtles Weather or Not Wetland Walks What's the Catch

Field Conservation

Aquarium Conservation Partnership (ACP) Conservation Coordination Elasmobranch Characterization in the Cape Fear River Habitat Use of Sand Tiger Sharks Lionfish Management Marine Mammal Stranding Response Outer Banks Marine Mammal Stranding Network Sand Tiger Shark Conservation and Management Sand Tiger Shark Identification Sea Turtle Rehabilitation The Ocean Project Theodore Roosevelt Nature Inventory Vaquita Conservation

Green Practices

GREEN PRACTICES IMPLEMENTEDBuilding Energy ManagementCommingled RecyclingComposting On-Site or Off-SiteConstruction Waste Diversion / RecyclingGraywater Reuse and/or Rainwater HarvestingGreen Building Policy / CommitmentGreen Purchasing Policy / Green ProcurementLocal Food Procurement for Animals and/or GuestsSolar or Wind Energy GenerationStormwater Management ProgramWastewater Reduction

PLANS, POLICIES AND BUDGETS

Dedicated Full-Time Equivalent (FTE) Staff to Coordinating Green Practices Developed or Updated a Sustainability Plan (or Equivalent)

Developed or Updated a Sustainability Policy

Mission-Focused Research

Fish Propagation Programs in North Carolina Aquariums Herpesvirus in Green and Loggerhead Sea Turtles Investigation of the Metabolome Following Different Capture

Techniques of the Bonnethead Shark (Sphyrna tiburo)

NORTH CAROLINA ZOO

Field Conservation

AZA Conservation Grants Fund (CGF) Big Cat and Other Wildlife Conservation in Southern Africa Carolina Gopher Frog Headstarting Conservation Medicine

Conservation of Avifauna on the Mariana Islands

Conservation of Elephants and Other Wildlife in Nigeria's Yankari Game Reserve

Conservation of Vultures in Tanzania

Cross River Gorilla Monitoring in Nigeria and Cameroon

Hellbender Surveys in Western North Carolina

Local Land Purchase and Management

Monarch Watch - Monarch Waystation Program

Namibia Rhino Conservation

Polar Bears International (PBI)

Puerto Rican Crested Toad Conservation

Red Wolf Breeding and Reintroduction

Snare Removal Patrols in Kibale National Park, Uganda

Spatial Monitoring and Reporting Tool (SMART) Conservation Monitoring Software Development

- Survey of Amphibians and Reptiles at the North Carolina Zoological Park
- The Elephants of Cameroon

UNITE for the Environment Conservation Education Project – Uganda's Kibale National Park

Virgin Islands Boa Recovery

Green Practices

ENERGY

Documented Amount Spent

Documented Amount Used

Documented Square Footage of Conditioned Space

Generated Renewable Energy On-Site

Purchased Renewable Energy

EXTERNAL SUPPORT

Received Support From External Sources for Green Projects

FOOD

Sourced Local Food or Grew It On-Site

FUEL

Documented Amount Spent Documented Amount Used

GREEN CERTIFICATIONS

Certified as a North Carolina GreenTravel Organization

Certified Under ISO 14003

Recognized as a "Steward" Under the North Carolina Environmental Stewardship Initiative

GREEN PRACTICES IMPLEMENTED

Alternative Fuel Usage for On-Site Fleet

Building Energy Management

Commingled Recycling

Community-Based Sustainability Projects

Composting On-Site or Off-Site

Energy Submetering

Graywater Reuse and/or Rainwater Harvesting

Green Building Policy / Commitment

Green Information Technology (IT)

Green Purchasing Policy / Green Procurement

Local Food Procurement for Animals and/or Guests

Smart Buildings Systems

Solar or Wind Energy Generation

Stormwater Management Program

Usage of an Environmental Management System

Usage of Enterprise (IT) Solutions To Track, Measure and Dashboard Sustainability Performance

Wastewater Reduction

Water Submetering

Water-Wise Landscaping

PLANS, POLICIES AND BUDGETS

Dedicated Full-Time Equivalent (FTE) Staff to Coordinating Green Practices

Developed or Updated a Sustainability Plan (or Equivalent) Developed or Updated a Sustainability Policy

WASTE

Documented Amount Composted Documented Amount Recycled Documented Amount Sent to Landfill Documented Amount Spent on Landfill Waste

WATER

Documented Amount of Wastewater Generated

Documented Amount Spent

Documented Amount Used

Mission-Focused Research

African Vulture Research

Analysis of Fatty Acid Profile in Eastern Box (*Terrapene carolina carolina*) and Common Snapping (*Chelydra serpentina*) Turtles for Wild and In-Human Care Environments

Ape Movement

Baboon Healing Study

Chimp Cognition Study

Chimpanzee Behavior Study

Cross River Gorilla Disease Transmission Study

Education Evaluation of *In-Situ* Conservation Education Work

Effect of Multi-Radiance Low-Level Laser Therapy and Topical Silver Sulfadiazine on Healing Characteristics of Dermal Wounds in Marine Toads (*Rhinella marina*)

Elephant Behavioral Study at the North Carolina Zoological Park

Elephant Body Condition

Elephant Enrichment

Elephant Nutrition Study

Gorilla Enrichment

Pine Barrens Treefrog Habitat Use and Conservation

Polar Bear Behavior

Sand Cat Behavior

Snake Mark-Recapture Study

Study of Visitor Perception on Zoofari Versus at Plains Exhibit

Visitor Studies

SEA LIFE CHARLOTTE-CONCORD AQUARIUM

Field Conservation

Rocky River Stream Cleanup

Green Practices

ENERGY

Documented Amount Spent

Documented Amount Used

GREEN PRACTICES IMPLEMENTED

Community-Based Sustainability Projects

PLANS, POLICIES AND BUDGETS

Dedicated Full-Time Equivalent (FTE) Staff to Coordinating Green Practices

WATER

Documented Amount of Wastewater Generated Documented Amount Spent

WESTERN NORTH CAROLINA NATURE CENTER

Education Programs Cataloochee Valley Elk Family Camp Out

Field Conservation

American Chestnut Tree Recovery Program

Appalachian Wildlife Refuge - Host Site

Asheville Mushroom Club - Host Site

AZA FrogWatch USA

Bat and Bird Box Installation and Monitoring

Eastern Hellbender Rehabilitation Program

E-Bird Monitoring

Ecology Project International

Elk Ecology Family Camping Workshop

Great Smoky Mountains All-Taxa Biodiversity Inventory Project (ATBI)

National Oceanic and Atmospheric Administration (NOAA) – Community Collaborative Rain, Hail and Snow Network (CoCoRaHS) Collaborative Monitoring Site

Trout in the Classroom - Trout Headstart Program

Wildlife Rehabilitation Training – Western North Carolina Region

Green Practices

FOOD

Sourced Local Food or Grew It On-Site

GREEN CERTIFICATIONS

Certified as a Wildlife Habitat

GREEN PRACTICES IMPLEMENTED

Alternative Fuel Usage for On-Site Fleet Commingled Recycling Green Information Technology (IT) Local Food Procurement for Animals and/or Guests Water-Wise Landscaping

North Dakota

DAKOTA ZOO

Field Conservation

Are There Black-Footed Ferrets in Theodore Roosevelt National Park?

AZA FrogWatch USA

- AZA SAFE Vaquita Conservation Initiative
- AZA Tiger SSP Tiger Conservation Campaign
- Bison Collaring Project Theodore Roosevelt National Park
- Black-Footed Ferret Population Monitoring in the Conata Basin, South Dakota
- Golden Eagle and Prairie Falcon Nest Surveys in Theodore Roosevelt National Park
- Helping Communities Protect Snow Leopards
- Mongolian Wild Horse Sustainability in Wild Project

Raptor Rehabilitation

Snow Leopard Trust (SLT) – Long-Term Ecological Study of Snow Leopards in Mongolia's South Gobi Province

Support for Prairie Wildlife Research, Inc.

US Fish and Wildlife Service (USFWS) Prairie Dog Burrow Dusting, Meteetsee, Wyoming

RED RIVER ZOO

Field Conservation

AZA FrogWatch USA

AZA SAFE - Vaquita Conservation

Conservation Research Center: The Baviary

Mission-Focused Research

North Dakota State University (NDSU) Potential Multi-Species Pregnancy Test

ROOSEVELT PARK ZOO

Education Programs AZA FrogWatch USA Canvas, Corks and Conservation Family and Friends Snore-n-Roar On-Site Outreach Snore-n-Roar Summer Zoo Camp Winter Zoo Camp Zoo to You Outreach Zoo Tots

Field Conservation

AZA Conservation Grants Fund (CGF) AZA FrogWatch USA Black-Footed Ferret Spotlighting Care for Karamoja Snow Leopard Trust (SLT)

Green Practices

ENERGY Documented Amount Spent Documented Amount Used Documented Square Footage of Conditioned Space Purchased Renewable Energy

FUEL Documented Amount Spent

GREEN PRACTICES IMPLEMENTED

Smart Buildings Systems

PLANS, POLICIES AND BUDGETS

Dedicated a Line Item in the Budget for Green Practices

WASTE

Documented Amount Spent on Landfill Waste

WATER

Documented Amount Spent

Mission-Focused Research

Nutrient Analysis of Frozen Browse

Ohio

AKRON ZOOLOGICAL PARK

Education Programs

AZA FrogWatch USA

Career Programs

Early Childhood Programs

Grizzly Bear Training Wall Talk

Homeschool Programs

Learning Lab

On-Grounds Programs and Tours

Snooze at the Zoo

Wild World Animal Show

ZooCamp

Zoomobile

Field Conservation

American Association of Zoo Keepers (AAZK) - Bowling for Rhinos American Association of Zoo Keepers (AAZK) - Cans for Corridors AZA FrogWatch USA AZA Tiger SSP - Tiger Conservation Campaign Chengeta Wildlife Endangered Wolf Center Greater Akron Audubon - Akron Zoo Christmas Bird Count Humboldt Penguin Project: Punta San Juan, Peru Instituto de Pesquisas Ecológicas (IPÊ) IUCN/SSC Conservation Planning Specialist Group (CPSG) Madagascar Fauna and Flora Group (MFG) Medina Raptor Center Rebuilding the Pride - African Lion Conservation Red Panda Network (RPN)

Red Wolf Coalition

Sexual Reproduction of Acroporid Corals in the Florida Keys to Create Genetically Diverse "Seed" Stock for Future Reef Restoration Efforts

Snow Leopard Trust (SLT)

Turtle Survival Alliance (TSA)

Vaquita Conservation, Protection and Recovery (Vaquita CPR)

White-Winged Duck: Conservation Status and Site-Specific Threats to It in and Around Dehing Patkai Wildlife Sanctuary

Wildlife SOS

Green Practices

ENERGY

Documented Amount Spent

Documented Amount Used

Documented Square Footage of Conditioned Space

Generated Renewable Energy On-Site

Purchased Renewable Energy

EXTERNAL SUPPORT

Received Support From External Sources for Green Projects

FOOD

Sourced Local Food or Grew It On-Site

FUEL

Documented Amount Used

GREEN CERTIFICATIONS

Certified as a Wildlife Habitat

Certified as Kulture City Sensory Friendly

Certified by the Green Restaurant Association

Documented Square Footage of Facility With Green Building Certification

One or More Buildings LEED-Certified by the US Green Building Council

GREEN PRACTICES IMPLEMENTED

Alternative Fuel Usage for On-Site Fleet Alternative Transportation Benefits for Staff Building Energy Management Carbon Offset Purchase for On-Site Utility Use

Carbon Offsets for Employee Travel

Commingled Recycling

- Composting On-Site or Off-Site
- Construction Waste Diversion / Recycling
- **Energy Submetering**
- Graywater Reuse and/or Rainwater Harvesting

Green Building Policy / Commitment

- Green Information Technology (IT)
- Green Purchasing Policy / Green Procurement
- Greenhouse Gas (GHG) Inventory
- Local Food Procurement for Animals and/or Guests
- Purchasing Green Power or Renewable Energy Credits (RECs)
- Smart Buildings Systems
- Solar or Wind Energy Generation
- Stormwater Management Program
- Wastewater Reduction
- Water Submetering
- Water-Wise Landscaping

GREENHOUSE GAS EMISSIONS

Reported Greenhouse Gas Emissions to a Climate Registry

PLANS, POLICIES AND BUDGETS

Dedicated a Line Item in the Budget for Green Practices Dedicated Full-Time Equivalent (FTE) Staff to Coordinating Green Practices Developed or Updated a Sustainability Plan (or Equivalent) Developed or Updated a Sustainability Policy Specified a Portion of the Amount Saved for Next Year's Green Practices WASTE Documented Amount Composted Documented Amount Spent on Landfill Waste

WATER

Documented Amount of Wastewater Generated Documented Amount Spent Documented Amount Used

Mission-Focused Research

Education Programs

Akron Zoo - Hiram College Partnership

CINCINNATI ZOO AND BOTANICAL GARDEN

Adult Programs Advanced Inquiry Program (AIP) America Recycles Day Barrows Conservation Lecture Series Behind the Scenes Experiences

Cat Ambassador Outreach Program

Center for Conservation and Research of Endangered Wildlife (CREW) Tours

- Cheetah Encounter Show
- Corporate Community Service Program
- Earth Expeditions
- Family Community Service Program
- Family Programs
- Go Bananas Cell Phone Recycling Challenge
- Greater Cincinnati Environmental Educators (GCEE) Ultimate Educator Expo
- Green Programs
- Internships
- Keeper Chats
- Nocturnal Adventure Overnights
- School Close Encounters
- Seasonal Highlights
- Self-Guided Activities and Tours for Schools
- Teen TRIBE (Teen Recruits Inspiring by Example)
- University of Cincinnati "At the Zoo" Courses
- VolunTeens Camp Counselor Assistants
- Wild Animal Encounters
- Wildlife Discovery Zones
- Wings of Wonder Bird Show
- Wings of Wonder Outreach Program
- Zoo Camp
- Zoo on the Move Community
- Zoo on the Move Schools
- Zoo Troop

Field Conservation

- African Wildlife Conservation Fund Conserving Africa's Endangered Wild Dogs in Zimbabwean Lowveld
- American Burying Beetle (ABB) Reintroduction Program
- Angel Fund Cheetah Outreach
- Angel Fund Ruaha Carnivore Project
- Asian Elephant Support (AES)
- Autumn Buttercup (Ranunculus aestivalis) Reintroduction
- Black-Footed Cat Working Group
- Botswana Predator Conservation Trust (BPCT)
- EcOhio Wetlands
- Enhancement of Gorilla Related *In-Situ* Conservation Education in Northern Democratic Republic of Congo
- International Elephant Foundation (IEF) Elephant Conservation Units in Sumatra
- International Rhino Foundation (IRF) Sumatran Rhino Conservation
- IUCN/SSC Conservation Planning Specialist Group (CPSG)
- Kea Conservation in New Zealand
- Lion Center at the University of Minnesota
- Manatee Conservation Center of Puerto Rico
- Manatee Rescue and Rehabilitation Partnership (MRP)
- Northern Wild Monkshood (Aconitum noveboracense)
- Ocelot Conservation in Texas
- Okapi Conservation Project
- Painted Dog Research Trust
- Pallas's Cat Conservation
- Polar Bears International (PBI)
- Pollen Nation
- Propagation of Rugel's Pawpaw for Restoration
- Propagation of Trifolium stoloniferum for Restoration
- Raptor, Inc. Local Raptor Rehabilitation
- **Red Panda Paintings**
- Reintroduction of Pygmy and Slow Lorises
- Scarlet Macaw Conservation in the Mayan Biosphere Reserve, Peten, Guatemala
- Southern African Foundation for the Conservation of Coastal Birds (SANCCOB)

The Sloth Institute Costa Rica

Wild Camel Protection Foundation (WCPF)

Wild Nature Institute

Zoos Victoria Fighting Extinction

Green Practices

ENERGY

Documented Amount Spent Documented Amount Used

Generated Renewable Energy On-Site

EXTERNAL SUPPORT

Received Support From External Sources for Green Projects

FOOD

Sourced Local Food or Grew It On-Site

FUEL

Documented Amount Spent

Documented Amount Used

GREEN CERTIFICATIONS

Certified by the Green Restaurant Association

- Documented Square Footage of Facility With Green Building Certification
- One or More Buildings LEED-Certified by the US Green Building Council

Participant in the Living Building Challenge

GREEN PRACTICES IMPLEMENTED

Alternative Fuel Usage for On-Site Fleet Building Energy Management Carbon Offset Purchase for On-Site Utility Use Commingled Recycling Community-Based Sustainability Projects Construction Waste Diversion / Recycling Energy Submetering Graywater Reuse and/or Rainwater Harvesting Green Building Policy / Commitment Green Purchasing Policy / Green Procurement

Greenhouse Gas (GHG) Inventory

Local Food Procurement for Animals and/or Guests

Purchasing Green Power or Renewable Energy Credits (RECs)

Smart Buildings Systems

Solar or Wind Energy Generation

Stormwater Management Program

Usage of Enterprise (IT) Solutions To Track, Measure and Dashboard Sustainability Performance

Wastewater Reduction

Water Submetering

Water-Wise Landscaping

WASTE

Documented Amount Recycled

Documented Amount Sent to Landfill

WATER

Documented Amount Spent

Documented Amount Used

Mission-Focused Research

A Kid's-Eye View of the Zoo

- African Painted Dog Reproduction Study
- Amdoparvovirus Infection in Red Pandas (Ailurus fulgens)

Assessment of Fecal Hormone Metabolites for Monitoring Reproductive Activity in a Captive Female Aye-Aye (*Daubentonia madagascariensis*)

Association of Fecal Corticoid Concentrations With Clinical Avian Bornavirus in Kea

Behavioral Effects of Exposure to Red and Blue Light Wavelengths in Multiple Nocturnal Species Housed at the Cincinnati Zoo and Botanical Garden

- Bonobo Fecal Sample Testing for Field Method Validation
- Brazilian Jaguar Semen Banking and Artificial Insemination
- Characterization of Milk Composition in Gorillas Throughout Lactation

Development of a Rhino Ferritin Specific Assay for Monitoring the Progression of Iron Overload Disorder in Browsing Rhinos

- Ecological Studies of Neotropical Primates
- Exceptional Plant Signature Conservation Project
- Fecal Corticoid Evaluation in Polar Bears

Genetic and Genomic Diversity of the Asian Elephant (*Elephas maximus*)

Genomic Sequencing of the Sumatran Rhinoceros

Great Ape Heart Project

- Great Ape Heart Project (GAHP): Bonobo Blood Pressure Study
- Identification of Differentially Expressed, Circulating microRNAs as Biomarkers for Diagnosing and Monitoring Iron Overload Disorder in Rhinos

Investigating the Reproductive Biology of the Caracal

Investigation of the Genetic Diversity and *Ex-Situ* Collection of Federally Threatened Lakeside Daisy

Mating Behavior and Chemical Communication of Necturus Salamanders

Novel Assessments of Body Composition and Relation to Metabolic Status and Fat Stores in Asian Elephants

Otter Reproduction Program

- Ovarian Cycle and Pregnancy Monitoring of the Common Hippopotamus (*Hippopotamus amphibius*) Through Salivary Analyses and Trans-Abdominal Ultrasound
- Patterns of Diversity in the Indigenous Microbiota of Captive Mammals

Polar Bear Signature Conservation Project

- Red Panda Reproductive Characterization
- Rhino Signature Conservation Project
- Small Cat Signature Conservation Project
- Study of Red-Legged Seriema Behavior in Relation to Its Claws
- The Orangutan Conservation Genetics Project
- Understanding Bumblefoot Through Behavioral Manipulations: Radio-Frequency ID Tags for Measuring Swimming Behavior in Little Blue Penguins (*Eudyptula minor*)
- Use of Multiple Play Signals in Captive Immature Western Lowland Gorillas
- Why Are Some Lemuriformes so Prone to Obesity in Captivity?

CLEVELAND METROPARKS ZOO

Education Programs

Advanced Inquiry Program (AIP)

Advocacy for Gorillas

Ballarat Theater Live Animal Show

Bead the Change for Elephants

Break Camps

- Brown Bag Education Lunch Talks
- Canines for Conservation

Career Day

Certified Interpretive Guide Training

Collaborative Inquiry Project

Connections to Africa

Create a Bear

Distance Learning

Docent Training

Educator Open House

Emerald Necklace Camp

First Aid/CPR Training

Future for Wildlife Training

Get Close On Grounds

Giraffe Café

Giraffe Feeding Program

Homeschool

Inside Tracks

Keeper for a Day

National Network for Ocean and Climate Change Interpretation (NNOCCI) Trainings

Nature Play Camp

Nurture the Wonder

On-Grounds Interpretation

Online Resource Library

Preschool Safari

Professor Wylde's Traveling School Show

Professor Wylde's Traveling Show - Events

Rising Waters Adult Overnight Program

Rising Waters Overnight Program

Savanna Theater Live Animal Show

Seals and Sea Lions

Seasonal Interpreter Training

Summer Day Camp

Summer Day Camp Staff Training

Tale of Coffee and Andean Bears

Teacher Workshops

Tickled to Extinction

Tiger Tracks

Veterinarian Bag Exploration for Schools

Veterinary Activity Bags – Public World Gorilla Day World Turtle Day Would This Animal Make a Good Pet? Zoo Crew – Summer Zoo Crew Interpretive Training Zoo Crew Year Round Zoo Nature Club Zoo Science and Management Course Zoo Tram Narration Zoo Volunteer Services

Field Conservation

Africa and Asia Seed Grants Amphibian Ark Andean Bear Conservation Alliance Asian Turtle Conservation Program AZA Ape TAG - Conservation Initiative AZA Conservation Grants Fund (CGF) AZA Puerto Rican Crested Toad SSP - Recovery Program AZA Tiger SSP - Tiger Conservation Campaign Bee Keeping for Human-Elephant Conflict Mitigation and **Rural Income Enhancement Bwindi Apes Conservation Education Partnership** Cheetah Conservation Fund (CCF) - Cheetah Conservation and Human Impact in Kenya Combating Illegal Hunting and Wildlife Trafficking in Sabah Conservación de la Naturaleza Amazónica del Perú (CONAPAC) Eastern Gorilla Conservation - Capacity-Building, Gorilla Monitoring and Core Support Eastern Gorilla Conservation - Technology Support Eastern Plains Gartersnake Conservation Project Education for Nature - Vietnam Giraffe Conservation Foundation (GCF) Human-Wildlife Conflict Collaboration / Center for **Conservation Peacebuilding** International Rhino Foundation (IRF) IUCN/SSC Conservation Planning Specialist Group (CPSG)

Keeping Bees to Fight Poaching

- Kinabatangan Orangutan Conservation Project
- Little Fireface Project Slow Loris Conservation
- Madagascar Fauna and Flora Group (MFG)
- Mbeli Bai Study (MBS) Club Ebobo
- Monitoring Wildlife Trade in the Wildlife Markets of Java and Bali
- Quarters for Conservation
- Red Panda Network (RPN)
- Ruaha Carnivore Project (RCP)
- Savé Valley Rhino Conservancy
- Scott Neotropical Fund Grants
- Sea Turtle Research and Conservation in the Paria Peninsula, Sucre State, Venezuela
- Sniffing Out Poachers: Employing Conservation Dogs to Help Fight Wildlife Trafficking in Africa
- Snow Leopard Trust (SLT) Natural Partnerships Program
- The Amazon Center for Environmental Education and Research (ACEER) Foundation
- TRAFFIC: The Wildlife Trade Monitoring Network
- Tree Kangaroo Conservation Program
- Turtle Survival Alliance (TSA)
- University of Rwanda Memoirs Program

WildAid

Wildlife Conservation Society (WCS) – 96 Elephants – Anti-Poaching and Law Enforcement

Mission-Focused Research

- Assessing Welfare in Zoo-Housed Cheetahs Under Different Management Strategies
- Barriers to Representing Globally Threatened Small Mammals in Zoos
- Bear Behavior Monitoring
- Behavioral Assessment of Zoo-Housed Felids
- Characterization of Malagasy Bloodfed Mosquitoes
- Collection Stewardship of Imperiled Small Cats
- Constraints of Biomass on Innate Immunity Across Terrestrial Mammals
- Determination of a Safe and Effective Dose of Nonsteroidal Anti-Inflammatories in Asian and African Elephants
- Developing Assisted Reproductive Technologies in Freshwater Turtles

- Developing Techniques for Studying Effects of a Novel Skin Disease on Locomotion in *Giraffa camelopardalis*
- Development of a Genome Resource Bank and Transcervical Insemination for the Genetic Management of Tigers
- Dietary Factors Associated With Fecal Consistency and Other Indicators of Gastrointestinal Health in the Captive Tiger (*Panthera tigris*)
- Disease Surveillance of Cleveland Metroparks Deer Herds
- Effect of Meal Frequency on Biological Indicators of Inflammation and Glucose Metabolism, Fecal Microbiome and Behavior in Cheetahs Housed at Cleveland Metroparks Zoo
- Effects of a Low Starch, High Fiber Diet on Health and Behavior of Orangutans at Cleveland Metroparks Zoo
- Ensuring Optimal Welfare for Ambassador Animals
- Evaluating the Effects of Elevated Feeding Devices on African Elephant Behavior / Ongoing Elephant Monitoring
- Evaluation of Body Condition and Glucose Metabolism as Part of the Health Assessment of Nubian Giraffe (*Giraffa camelopardalis camelopardalis*) During Conservation Translocation
- Examining Adrenal Activity and Relationship to Reproductive Hormones and Behavior in a Female Matschie's Tree Kangaroo
- Gorilla Behavior and Health Monitoring
- Identifying Biological Correlates of Captive Breeding Success
- Infant Development and Parenting Behavior in the Pied Tamarin
- In-House Monitoring of Steroid Hormone Metabolites in Urine Informs Breeding Management of a Giant Anteater
- Investigating Giraffe Behavior and Space Use in Relation to a Guest Feeding
- Learning and Behavior Outcomes Associated With Conservation Education Teacher Training in Communities Adjacent to Kibale National Park (UNITE) and Bwindi Impenetrable National Park (BACEP)
- Locomotor Gait Characteristics of Zoo-Housed Gorillas: Does Space Matter?
- Monitoring Behavioral and Physiological Indicators of Welfare in Several Species Moved to a Novel Zoo Environment
- Monitoring Effects of Anxiolytic Medication on Allen's Swamp Monkey
- Oxytocin as a Measure of Social Bond and Welfare in Western Lowland Gorillas in North American Zoos

Primate Touchscreen Cognition Program

- Regionally Restricted Activation of Smooth Muscle Cells and Proteoglycan Distribution Underlie Rapid Closure of the Umbilical Artery at Birth
- Retrospective Classification and Management Assessment of Canine Fractures in Captive Managed Populations of Great Apes
- Retrospective Review of Morbidity and Mortality in the United States Sloth Bear Population
- Salivary Sample Request for Validation of Oxytocin Assay for Black Rhinoceros
- The Impact of Diet on Sloth Bear Physiology, Health and Behavior
- The Orangutan Conservation Genetics Project
- Urine Sample Request for Validation of Assays Leptin, Adiponectin and C-Peptide for Gorillas
- Which Methods of Quantifying Pacing Behavior Are Most Effective?
- Why Are Some Lemuriform Species so Prone to Obesity in Captivity?

COLUMBUS ZOO AND AQUARIUM

Education Programs

Animal Encounters Village

Animals on Safari

Camp-Ins

Canvases for Conservation

Classroom Safari

College Tours

Homeschool Adventure Tours

Interpretive Contacts

Keeper Talks

Library Requests

Little Explorers' Base Camp

Outreach

School's Out Camps

Summer Experience Day Camp

Sunrise on the Savanna

Teacher Workshops

Teen Eco Summit

Twilight / Wildlights Tours

University Courses

VIP Tours

Wild Encounters Tours

Zoo School

ZooKids

ZooKids Seedlings

Zoombezi Bay Science Day

Field Conservation

Action for Cheetahs in Kenya – Cheetah Conservation and Human Impact in Kenya

African Otter Network

Akagera National Park

Amphibian Ark

- Asociación de Rescate y Conservación de Vida Silvestre (ARCAS)
- AZA Eastern Massasauga Rattlesnake SSP
- AZA Roti Island Snake-Necked Turtle SSP Genetic Identity Project for Management Purposes

AZA SAFE - Vaquita

Blakiston's Fish Owls of the Western Sikhote, Alin Mountains: Conservation Lessons From the Iman River Basin

Captina Conservancy - Hellbender Research and Assessment

Cheetah Conservation Fund (CCF) – Cheetah Conservation Education and Community Outreach

Colobus Conservation, Ltd. - Colobridges

Columbus Zoo Conservation

Commitment to Conservation Award

- Community-Based Conservation of Endangered Sea Turtles Nesting Along the Akasa Coast, Bayelsa Nigeria
- Comparative Health Assessment of Urban and Non-Urban Mule Deer in the East Kootenay Region, British Columbia, Canada

Danau Girang Field Centre - Bearded Pig

Dian Fossey Gorilla Fund International

Distribution of the Pancake Tortoise in Mwingi National Game Reserve, Kenya

Eastern Plains Garter Snake State Recovery Program

EcoSwell – Green Lobitos: A Sanctuary for the Peruvian Plantcutter

Efforts to Combat Illegal Trade on the Frontlines in Ho Chi Minh City

- Establishing Effective Protected Area Management in the Democratic Republic of the Congo's New Iyondji Community Bonobo Reserve
- Freshwater Mussel Conservation and Research Center

Giant Armadillo Project

- Hirola Conservation Programme
- Human-Elephant Conflict and Conservation of the Critically Endangered Sumatran Elephant in Aceh, Sumatra
- Improving Ranger Efficiency in Detecting and Preventing Poaching in the Greater Serengeti Ecosystem
- International Elephant Foundation (IEF)
- International Gorilla Conservation Program
- International Iguana Foundation (IIF)
- International Rhino Foundation (IRF)
- International Rhino Foundation (IRF) Black Rhino Conservation in Zimbabwe
- IUCN/SSC Conservation Planning Specialist Group (CPSG)
- IUCN/SSC Otter Specialist Group
- Lake Erie Water Snake (Nerodia sipedon insularum) Census
- Lola Ya Bonobo Integrated Bonobo Conservation in the Democratic Republic of Congo
- Lowland Tapir Conservation Initiative
- Manatee Rescue and Rehabilitation Partnership (MRP) / Manatee Species Recovery Plan
- Marine Mammal Center Advancing Ocean Conservation Through Marine Mammal Rescue, Rehabilitation, Scientific Research and Education
- Mbeli Bai Study (MBS)
- Measuring Conservation Success: The Effect of Translocation on the Allostatic Load of Wild Sifaka Lemurs
- Migration in *Leptonycteris yerbabuenae*: Its Influence Over the Immune Condition of Bats and Conservation Implications
- Monitoring Disease Threats for the Reintroduction of the Endangered Iberian Lynx in Extremadura
- Mountain Gorilla Veterinary Project
- New Nature Foundation (NNF) Kibale Fuel Wood Project
- Ngamba Island Chimpanzee Sanctuary Creating Awareness on Chimpanzee Conservation Through Local Radio Drama Shows in Western Districts of Uganda
- Nubian Giraffe Health Assessment During Relocation

Ohio Wildlife Center

Okapi Conservation Project

Pan African Sanctuary Alliance (PASA)

- People and Carnivores Carnivore and Rangeland Conservation on the Rocky Mountain Front
- Project WILDCAT
- Projet Conservation de la Foret de Nyungwe (PCFN)
- Reintroduction of Scimitar-Horned Oryx to Chad
- Rescue and Rehabilitation of the Endangered African Penguin
- Rothschild's Giraffe Project
- Save the Tasmanian Devil Program
- Saving Endangered Grey Crowned Cranes in Rwanda
- Sea Turtle Conservation and Outreach Program in Bangladesh
- Sea Turtle Friendly Launch in Philippines
- SExual COral REproduction (SECORE)
- Siberian Tiger Project: Research, Training and Conflict Mitigation
- Snow Leopard Trust (SLT)
- Snow Leopard Trust (SLT) Long-Term Ecological Study of Snow Leopards in Mongolia's South Gobi Province
- Status and Conservation of the West African Manatee
- Strengthening Przewalski's Horse Populations in Hustai Nuruu National Park, Mongolia
- Strong Roots
- Supporting Cisco Restoration in Northeast Lake Michigan
- Supporting the Anti-Snaring Activities of the South Luangwa Conservation Society
- The Impact of Traditional Asian Medicines on African Wildlife: The Role of East Asian Immigrants
- The Wilds Education Outreach
- Tool Use in Bonobos
- Turtle Conservancy
- Turtle Conservation Project: Capacity Development Program in Sri Lanka
- Turtle Survival Alliance (TSA)
- Turtle Survival Alliance (TSA) Central American River Turtle (Project Hicatee)
- Vulture Conservation Programme (VulPro) Cape Vulture Rehabilitation and Release
- Wetland Conservation in the Gilchin River Watershed for Cranes and People

Wider Caribbean Sea Turtle Conservation Network (WIDECAST)

Wider Caribbean Sea Turtle Conservation Network (WIDECAST) – Latin America Program

Wild Nature Institute – Scientific Management for Community Conservation of African Ungulates

Wildlife Conservation Research Unit (WildCRU)

Zoos and Aquariums Committing to Conservation (ZACC)

Green Practices

ENERGY

Documented Amount Spent

Documented Amount Used

Documented Square Footage of Conditioned Space

FOOD

Sourced Local Food or Grew It On-Site

FUEL

Documented Amount Spent

GREEN CERTIFICATIONS

Certified by the Green Restaurant Association

Documented Square Footage of Facility With Green Building Certification

One or More Buildings LEED-Certified by the US Green Building Council

GREEN PRACTICES IMPLEMENTED

Alternative Fuel Usage for On-Site Fleet Alternative Transportation Benefits for Staff Building Energy Management Commingled Recycling Community-Based Sustainability Projects Composting On-Site or Off-Site Construction Waste Diversion / Recycling Denitrification Systems Energy Submetering Graywater Reuse and/or Rainwater Harvesting Green Building Policy / Commitment Green Information Technology (IT) Local Food Procurement for Animals and/or Guests Purchasing Green Power or Renewable Energy Credits (RECs) Smart Buildings Systems Stormwater Management Program Water Submetering Water-Wise Landscaping

PLANS, POLICIES AND BUDGETS

Dedicated a Line Item in the Budget for Green Practices

Dedicated Full-Time Equivalent (FTE) Staff to Coordinating Green Practices

Developed or Updated a Sustainability Policy

WASTE

Documented Amount Composted

Documented Amount Recycled

Documented Amount Sent to Landfill

WATER

Documented Amount of Wastewater Generated Documented Amount Spent

Documented Amount Used

Mission-Focused Research

Adaptive Value of Reciprocal Socio-Communicative Behavior in Great Apes

Asian Elephant Body Composition

Assessing Long-Term Stress in Great Apes: Allostatic Load in Bonobos

Assessing Long-Term Stress in Great Apes: Allostatic Load in Western Lowland Gorillas

AZA Mexican Wolf SSP - Blood Banking

AZA Red Panda SSP - C SSP Endorsed Fecal Survey

AZA Roti Island Snake-Necked Turtle (*Chelodina mccordi*) SSP – Genetic Identity Project for SSP Management Purposes

Baseline Ophthalmic Parameters in Helmeted Guineafowl (*Numida meleagris*)

Binturong Genetic Sequencing

Captive Clouded Leopard's Pathology: Retrospective Study

- Cardiac Disease in Western Lowland Gorillas (*Gorilla gorilla gorilla*): Comparative Assessment of B-Type Natriuretic Peptides From Urine and Serum
- Comparison of Circulating Vitamin D (250HD) in Captive North American and Free-Ranging South African Black Rhinoceros
- Constraints of Biomass on Innate Immunity Across Terrestrial Mammals
- Determination of Circulating Vitamin and Mineral Levels in Captive Saddle-Billed Storks (*Ephippiorhynchus senegalensis*) as It May Relate to Reproductive Success and Embryonic Development
- Developing Genomic Tools for North American River Otter (*Lontra canadensis*) Population Management
- Development of a Genome Resource Bank and Transcervical Insemination for the Genetic Management of Tigers
- Ensuring Optimal Welfare for Ambassador Animals
- Evaluation and Validation of Measures of Chronic Stress in Ring-Tailed Lemurs
- Flamingo Sex Allocation
- Gene Expression in the Colobine Gastrointestinal (GI) System
- Gut Microbiome Composition in Captive and Wild Apes
- Hi-C Genomic Zoo
- Identification of Differentially Expressed, Circulating microRNAs as Biomarkers for Diagnosing and Monitoring Iron Overload Disorder in Rhinos
- Identification of Polar Bears Through Track DNA Analysis
- Influence of Gonadotropin Stimulation on Anti-Müllerian Hormone (AMH) Concentrations in Female Cheetahs
- Investigating Elephant Endotheliotropic Herpesviruses (EEHV) and Elephant Gammaherpesviruses (EGHV) Infection in Asian and African Elephants
- Investigation of the Relationship Between Oxalate-Fermenting Bacteria and Urolithiasis in Asian Small-Clawed Otters in Human Care
- Measuring Alpha-Klotho Levels: A New Approach to Assess Biological Aging and Development in Bonobos
- Microstructural and Chemical Characterization of Medullary Bone Across the Bird Phylogeny
- Opportunistic Semen Banking of Wild Felids by Zoo Veterinarians
- Oxytocin as a Measure of Social Bond and Welfare in Western Lowland Gorillas (*Gorilla gorilla gorilla*) in North American Zoos
- Pregnancy Detection in Polar Bears

- Profiling of Gut Microbiota and Antibiotic Resistance Gene in Zoo Animals
- Prosimian Biomedical Research Project
- Purification of Proteins in the Venom of Beaded Lizards and Investigating the Influence These Proteins Have on Apoptotic Events in Cancer Cells
- Radiographic Standardization of Cardiac Size in Healthy Humboldt Penguins (*Spheniscus humboldti*)
- Relationship of Gut Microbiota and Cardiovascular Disease in Bonobos (*Pan paniscus*) and Gorillas (*Gorilla gorilla gorilla*) in Human Care
- Relevancy of African and Asian Elephants in Zoological Facilities
- Retrospective Characterization of Reproductive Tract Lesions in Relation to Parity, Age and Contraception in Captive Suidae and Tayassuidae

Seasonal Impacts on Giraffe Welfare

- Serum Biochemical Values, Leptin, Insulin and Insulin-Like Growth Factor 1 (IGF-1) and Body Condition in Captive Giraffe (*Giraffa camelopardalis*), in Relation to a Change to a High Forage Diet
- Study on Bearcat Morphology

Tool Use in Pan

- Using Serum Inflammatory Markers to Investigate the Immune Response to Elephant Endotheliotropic Herpesvirus (EEHV)
- Validation of a Rhino-Specific Ferritin Enzyme Immunoassay for Rhinos and the Impact of Individual and Environmental Factors on Serum Ferritin Concentrations
- Validation of Pregnancy-Specific Protein B (PSPB) Pregnancy Test in Giraffe (*Giraffa camelopardalis*)

THE BOONSHOFT MUSEUM OF DISCOVERY

Education Programs

Animals Alive Biomes and Biodiversity Boonshoft Biologist Conservation Corner Environmental Science: Oil Spill Recovery Global Climate Change Habitats and Homes Honeybees a Buzzin' Meet the Animals Pond Study River Study Tide Pool Urban Ecology Webs of Life

Field Conservation

AZA Conservation Grants Fund (CGF) Peregrine Falcon Cam and Banding Prairie Restoration Project FeederWatch

THE WILDS

Education Programs

DayVentures Discovery Nature Center Family Overnights Homeschool Programs Overnights

Field Conservation

WildeCamp

Assessing the Vegetation Community of Reclaimed Grasslands at The Wilds

Augmenting Barn Owl Nesting Opportunities

Bat Acoustic Surveys

Building Conservation Capacity for Future Restoration Ecologists

Cavity Nester Usage of Nest Boxes and Reproduction on a Reclaimed Surface Coal Mine

Conservation Genetics and Population Structure of Two Garter Snake Species in Western Montana

Control of Invasive Species Across the Landscape

Determination of Eastern Hellbender Presence in Ohio Utilizing Environmental DNA (eDNA)

Determination of Eastern Hellbender Presence in West Virginia and Maryland Utilizing Environmental DNA (eDNA)

Evaluating the Behavioral and Physiological Effects of Tail Attachment for GPS Trackers on Przewalski's Horse (*Equus ferus przewalskii*) Evaluation of Miller Valley Wetland Five Years Following Restoration

Habitat Modeling of Loggerhead Shrike

Habitat Variables Associated With Anuran Distribution and Abundance on a Reclaimed Surface Mine

Habitat Variables Associated With Meso-Predator Distribution and Abundance on a Reclaimed Surface Mine Using Camera Traps

Habitat Variables Associated With Salamander Distribution and Abundance on a Reclaimed Surface Mine

Headstarting Operations for Eastern Hellbenders

Improving Hardwood Forests Through Invasive Species Control

Investigating Forest Bird Presence on Mined and Unmined Forest Patches

Investigating the Effect of Invasive Shrubs on Grassland Bird Presence and Abundance

Long-Term Lepidopteran Surveys and Pollinator Habitat Enhancement

Miller Valley Stream Restoration

Monarch Rearing and Release

Muskrat Die-Off in Ohio

Native Bee Diversity and Abundance on Reclaimed Surface Mine Land

Native Taxon Inventories

Natives in Reclamation

Prairie Creation, Restoration and Management of Native Plant Communities

Przewalski Horse and Onager Reproduction

Reforestation of Reclaimed Grasslands

Reintroduction of American Burying Beetles to Ohio

Scat Surveys for Genetic Identification and Diet Analysis of Carnivores on a Reclaimed Surface Coal Mine

Snake Fungal Disease

Surveying for Wintering Raptor Presence and Abundance Across Multiple Habitat Types at Reclaimed Coal Mines

Testing a Detection Dog Survey for the Black-Headed Bushmaster in Costa Rica

Testing Prairie for Biomass and Carbon Sequestration on Reclaimed Mine Land

Utilizing Fire Management to Maintain Prairie Ecosystems

Evaluation of Beaver Community at The Wilds

Mission-Focused Research

Banteng Reproduction

TOLEDO ZOOLOGICAL GARDENS

Education Programs Animal Contact Yard Animal Demonstrations Behind the Scenes Tours Birthday Party Animal Demonstrations **Bug Festival** Camps Distance Learning **Dive Show Interpretation** Elephant Exhibit Inquiry Kiosks Fisher-Price Amphitheater Show Homeschool Programs iEvolve With STEM Junior Zookeeper Nature's Neighborhood Nature's Neighborhood Free Play Workshop Ocean Lab **On-Grounds School Programs Outreach Programs Overnight Programs** Party for the Planet Play Naturally Toledo Pop-Up / Backyard Activities Preschool Preschool Programs Project PRAIRIE Safari Train Ride Interpretive Narrative School Assembly Program Scout Badge Programs Seasonal Activity Carts Teacher Professional Development

Field Conservation

Aruba Island Rattlesnake Field Research AZA SAFE – Vaquita Conservation of the Kihansi Spray Toad Ecology of the Cuban Boa on the United States Naval Base, Guantanamo Bay, Cuba Great Lakes Piping Plover Recovery Effort - Salvage Rearing International Elephant Foundation (IEF) - African Elephant Conservation Kirtland's Snake Monitoring and Assessment Large Vertebrate Biodiversity Survey Maumee River Lake Sturgeon Rearing Facility Mitchell's Satyr Reintroduction Program Monarch Butterfly Rearing and Release Native Orchid Conservation Ohio Hellbender Headstart and Reintroduction Ohio Turtle Survey and Monitoring **On-Grounds Biodiversity Monitoring** Orangutan Conservation Support Pacific Bird Conservation / Marianas Avifauna Conservation (MAC)Polar Bear Conservation Initiatives Reintroduction of the Karner Blue Butterfly to the Oak Openings of Northwestern Ohio Rewilding of Urban Brownfields With Prairie Installations Santa Cruz Ground Dove Conservation Save the Tasmanian Devil Program Wyoming Toad Field Surveys

Oklahoma

OKLAHOMA CITY ZOOLOGICAL PARK

Education Programs Day Camps / Summer Camps Nature Explorers Preschool Overnight Programming Schools/On-Grounds Schools/On-Grounds Grants Scout Badge Programs Tuition/Family Classes Zoomobiles – Outreach Zoomobiles – Outreach Grants

Field Conservation

- A Multi-Pronged Approach to Understanding Low Reproductive Success in the Eastern Migratory Population of Endangered Whooping Cranes
- American Association of Zoo Keepers (AAZK) Bowling for Rhinos
- AZA Conservation Grants Fund (CGF)
- AZA Jaguar SSP Cockscomb Basin Wildlife Sanctuary (CBWS)
- AZA Komodo Dragon SSP
- AZA Tiger SSP Wildlife Conservation Society (WCS) Sumatran Tiger Conservation Project
- Connecting Wildlife Through Zambia's Transboundary Wildlife Movement Corridors in the Kavango Zambezi Tranfrontier Conservation Area (KAZA TFCA)
- Conservation Ambronia
- Conservation and Ecology of the Philippine Crocodile

CrocFest

- Dian Fossey Gorilla Fund International
- Giraffe Conservation Foundation (GCF)
- Honduras Amphibian Rescue and Conservation Center (HARCC)

Jatun Sacha Foundation

- Madagascar Fauna and Flora Group (MFG)
- Mitigating the Conservation of Sunda Pangolin, *Manis javanica*, in North Sumatra
- Monarch Butterfly

Monarch Watch

- Nature Conservancy Oklahoma Chapter
- Northern Rangelands Trust Conservancies Support
- Ocelot Conservation: Laguna Atascosa National Wildlife Refuge
- Oklahoma Department of Wildlife Conservation

Orang Utan Republik Foundation

Painted Dog Research Trust

Project Mecistops

Rainforest Trust

Rakhine Yoma Elephant Range

Red Panda Network (RPN)

Snow Leopard Trust (SLT)

- Snow Leopard Trust (SLT) Long-Term Ecological Study of Snow Leopards in Mongolia's South Gobi Province
- Texas Horned Lizard Behavioral Ecology and Reintroduction
- The Status and Behavioral Ecology of Leopards (*Panthera pardus*) in a Human Impacted Miombo Woodland

Tsavo Cheetah Project

Turtle Survival Alliance (TSA)

Vaquita Emergency Rescue Project

Vulture Poison Response Action

Warriors Protecting Grevy's Zebra in Laisamis, Northern Kenya

Green Practices

ENERGY

Documented Amount Spent

Documented Amount Used

Documented Square Footage of Conditioned Space

FUEL

Documented Amount Spent

GREEN CERTIFICATIONS

Certified as a Wildlife Habitat

GREEN PRACTICES IMPLEMENTED

Alternative Fuel Usage for On-Site Fleet Building Energy Management Commingled Recycling Composting On-Site or Off-Site Energy Submetering Graywater Reuse and/or Rainwater Harvesting

Water-Wise Landscaping

PLANS, POLICIES AND BUDGETS

Dedicated Full-Time Equivalent (FTE) Staff to Coordinating Green Practices

WATER

Documented Amount of Wastewater Generated
Mission-Focused Research

A Study of Dominance Hierarchies in African Painted Dog

Asian Elephant Relative Quantity Judgment

Environmental Enrichment of Translocated Texas Horned Lizards

Mitigating Snake Depredation in the Oklahoma City Zoo (OKC) Trails Aviary

Viper Prefrontal Morphology Project

TULSA ZOO

Education Programs

Dreamnight Activities

Hallowzooeen - Not So Creepy Crawlies

Learning From Ultimate Nocturnal Adventures (LUNA)

Nature Exchange

Nature's Buddies

Nature's Grand Adventures

Nature's Night Owls

SENSEsational Science Teacher Workshop

Snooz-a-pa-ZOO-za Family Overnights

Stationing

Tulsa Zoo Camps (Winter, Spring and Summer)

Zoo Insider

Zoo Teens

Zoo2U - Schools

Field Conservation

American Burying Beetle Project

AZA SAFE - Vaquita Initiative

AZA Tiger SSP – Tiger Conservation Campaign – Endau-Rompin Landscape of Peninsular Malaysia

- Berdiri Foundation Elephant Response Unit Way Kambas
- International Elephant Foundation (IEF)

International Rhino Foundation (IRF) – Operation: Stop Poaching Now

Mabula Ground Hornbill Project (MGHP)

Monarch Butterfly Watch Program and Waystation Program

Monarch Initiative of Tulsa

Reintroduction of the Alligator Snapping Turtles to the Caney River in Northeastern Oklahoma

Save the Wild Chinchillas

Seafood Watch - Conservation Partner

Snow Leopard Trust (SLT) - Natural Partnerships Program

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

The Scarlet Macaw Population Recovery Program

West African Primate Conservation Action – Creation and Management of a Community-Protected Forest on the Border of Ghana and Côte d'Ivoire to Promote Conservation of Endemic Wildlife and Habitat

Wild Nature Institute

Green Practices

ENERGY

Documented Amount Spent

Documented Amount Used

Documented Square Footage of Conditioned Space

EXTERNAL SUPPORT

Received Support From External Sources for Green Projects

FOOD

Sourced Local Food or Grew It On-Site

FUEL Documented Amount Spent Documented Amount Used

GREEN PRACTICES IMPLEMENTED

Anaerobic Digester Energy Generation Carbon Offset Purchase for On-Site Utility Use Commingled Recycling Community-Based Sustainability Projects Composting On-Site or Off-Site Construction Waste Diversion / Recycling Green Information Technology (IT) Local Food Procurement for Animals and/or Guests Stormwater Management Program Usage of Enterprise (IT) Solutions To Track, Measure and

Usage of Enterprise (11) Solutions To Track, Measure and Dashboard Sustainability Performance

Water-Wise Landscaping

GREENHOUSE GAS EMISSIONS

Documented Amount of Greenhouse Gas Emissions

PLANS, POLICIES AND BUDGETS

Dedicated a Line Item in the Budget for Green Practices

Dedicated Full-Time Equivalent (FTE) Staff to Coordinating Green Practices

Developed or Updated a Sustainability Plan (or Equivalent)

Developed or Updated a Sustainability Policy

Specified a Portion of the Amount Saved for Next Year's Green Practices

WASTE

Documented Amount Composted Documented Amount Recycled

WATER

Documented Amount Spent

Documented Amount Used

Mission-Focused Research

- A Comprehensive Approach to Improve Management of an Endangered Wild Canid
- Asian Elephant Gonadotropin Releasing Hormone (GnRH) Vaccine Trial
- *Batrachochytrium dendrobatidis* and Ranavirus Current Status in Some of Northeast Oklahoma's Amphibian Populations
- Blood Coagulation Assessment of Captive Asian Elephants
- Comparing Cortisol Levels to Behavior in Female Grizzly Bear in Captivity
- Osteohistological Research to Build an Osteohistology Thin Section Database
- Pharmacokinetics of Rectally and Orally Administered Levofloxacin in Asian Elephants (*Elephas maximus*)
- Red Panda Fecal Survey
- The National Elephant Herpesvirus Laboratory (NEHL)

Understanding the Neurological Evolution of Bird Flight

Oregon

OREGON COAST AQUARIUM

Education Programs

Adult Volunteer Interpreters Animal Encounters Aqua-Tots Behind the Scenes Tour **Biofact Carts** Coastal Learning Symposium Day Events **Dive Interpretation Presentations Guest Displays** Job Shadows Magic Moments Ocean Literacy Initiative Oceanscape Network Oregon Coast Education Partnership Outreach Passages Discovery Zone Plankton Station **Public Animal Feedings** Sleepovers Virtual Explorations Volunteer Guided Walks Volunteer Interpreter Training Waterlines Youth Volunteer Interpreters **Field Conservation**

Oregon Marine Reserves

Wildlife Rehabilitation

Green Practices

ENERGY

Documented Amount Spent Documented Amount Used Documented Square Footage of Conditioned Space Purchased Renewable Energy

FUEL	Field Conservation
Documented Amount Spent	Action for Cheetahs in Kenya
GREEN CERTIFICATIONS	American Association of Zoo Keepers (AAZK) – Bowling for Rhinos
Certified as a Wildlife Habitat	AZA FrogWatch USA
GREEN PRACTICES IMPLEMENTED	AZA Tiger SSP - Tiger Conservation Campaign
Commingled Recycling	California Condor Breeding Program
Composting On-Site or Off-Site	Cascades Pika Watch
Energy Submetering	Forest Elephant Conservation in Borneo
Water-Wise Landscaping	Future for Wildlife Field Conservation Grant Program
	HUTAN-Kinabatangan Orangutan Conservation Project
WATER	International Rhino Foundation (IRF)
Documented Amount Spent	IUCN/SSC Conservation Planning Specialist Group (CPSG)
Documented Amount Used	Kasese Wildlife Conservation Awareness Organization
Mission-Focused Research	Long-Term Reproductive Hormone Monitoring of Asian Elephants
Northwest Coast Reef Surveys	Oregon Silverspot Butterfly (<i>Speyeria zerene hippolyta</i>) Cascade Head Population Supplementation
OREGON ZOO	Oregon Spotted Frog
Education Programs	Oregon Zoo Conservation Crew
Behind the Scenes Tours	Orphan Cougar Placement
Camp Programs	Painted Dog Conservation (PDC)
Education Center Partner Programs	Panthera
Headstart ZooMobile	Polar Bear Metabolic, Nutrition and Accelerometer Behavior
Insect Zoo	Studies in Support of Field Conservation Efforts
Senior ZooMobile	Polar Bears International (PBI)
Teacher Partnerships	Pygmy Rabbit (<i>Brachylagus idahoensis</i>) Captive Care and Breeding
Teacher Professional Development	SaveNature.Org
Urban Nature Overnights (UNO)	Taylor's Checkerspot Captive Rearing and Release Program, Oregon
Wildlife Live Show	
Zoo Ambassadors	Taylor's Checkerspot Captive Rearing and Release Program, Washington State Vulture Conservation Programme (VulPro)
Zoo Animal Presenters (ZAP) - First Year	
Zoo Animal Presenters (ZAP) – Third Year	Western Pond Turtle Headstarting
Zoo Guides	-
Zoo School / Zoo To You	Wildlife and Lead Outreach Program
Zoo Teens	Zoo Animal Presenters (ZAP) Conservation Work
ZooSnooze – Overnights Program	Zoo-Quatama Partnership
Zoo Teens - Conservation Corps	

Green Practices

ENERGY

FOOD

Documented Amount Spent Documented Amount Used Documented Square Footage of Conditioned Space Generated Renewable Energy On-Site Purchased Renewable Energy

EXTERNAL SUPPORT Received Support From External Sources for Green Projects

Sourced Local Food or Grew It On-Site

FUEL Documented Amount Used

GREEN CERTIFICATIONS

Documented Square Footage of Facility With Green Building Certification

One or More Buildings LEED-Certified by the US Green Building Council

GREEN PRACTICES IMPLEMENTED

Alternative Transportation Benefits for Staff

Alternative Transportation Discounts for Guests

Commingled Recycling

Composting On-Site or Off-Site

Graywater Reuse and/or Rainwater Harvesting

- Green Building Policy / Commitment
- Green Purchasing Policy / Green Procurement
- Local Food Procurement for Animals and/or Guests
- Stormwater Management Program
- Usage of Enterprise (IT) Solutions To Track, Measure and Dashboard Sustainability Performance

Wastewater Reduction

Water Submetering

Water-Wise Landscaping

PLANS, POLICIES AND BUDGETS

Developed or Updated a Sustainability Plan (or Equivalent) Developed or Updated a Sustainability Policy

WASTE

Documented Amount Composted Documented Amount Recycled Documented Amount Sent to Landfill Documented Amount Spent on Landfill Waste

WATER

Documented Amount of Wastewater Generated Documented Amount Spent Documented Amount Used

Mission-Focused Research

Animal Behavior Audit Program Elephant Exhibit Post-Occupancy Study Pharmacokinetics of Convenia® in African Lions Pilot Pharmacokinetic Study to Investigate the Potential Use of Terbinafine in Western Pond Turtles WelfareTrak® – Survey Development and Use

WILDLIFE SAFARI

Field Conservation

AZA Tiger SSP – Tiger Conservation Campaign Cheetah Conservation Fund (CCF) International Elephant Foundation (IEF) Wildlife Conservation Network (WCN)

Green Practices

ENERGY Documented Amount Spent Documented Amount Used

FUEL

Documented Amount Spent Documented Amount Used

GREEN PRACTICES IMPLEMENTED

Commingled Recycling Composting On-Site or Off-Site Construction Waste Diversion / Recycling Graywater Reuse and/or Rainwater Harvesting Green Information Technology (IT)

WASTE

Documented Amount Composted

WATER

Documented Amount Spent Documented Amount Used

Pennsylvania

CLYDE PEELING'S REPTILAND

Field Conservation

AZA Crocodilian Advisory Group (CAG) – Conservation Fund AZA Komodo Dragon SSP – Conservation Fund Glacier Pools Preserve, Picture Rocks, PA – Interpretive Graphics Turtle Survival Alliance (TSA)

Mission-Focused Research

Bucknell Environmental Science Class DNA Study of Taxonomy of Captive Smokey Jungle Frogs Skin Products of Non-Avian Reptiles Study of Accidental Domestication in Captive *Uroplatus* Gecko Colonies

ELMWOOD PARK ZOO

Field Conservation

American Bird Conservancy (ABC) Centro Chaqueño Para la Conservación e Investigación (CCCI) Proyecto Tití - Tití Conservation Alliance Red Panda Network (RPN)

ERIE ZOO

Education Programs

Adult Programs Animal Meet and Greets Behind the Scenes Tours Birthday Parties Day Camps Family ProgramsHomeschooler ZooSchool ClubJob ShadowsJunior ZookeeperOn-Site Classroom ProgramsOutreachParents Night OutPreZooSchoolPurely Art With Zooey Zest (PAWZZ)Scout ProgramsTouch TablesVolunteer ProgramZoo TotsZooSchool Classes

LEHIGH VALLEY ZOO

Education Programs

Animal Encounters Conservation Exploration Program Explore and Snore Scout Programs Zoo Camps ZooReach

Field Conservation

AZA SAFE - Vaquita AZA SAFE - Western Pond Turtle Giraffe Conservation Foundation (GCF)

NATIONAL AVIARY

Education Programs

Avian Hospital Programming Aviary Takes Wing Outreach Encounters Experiences Guided Tours Helen M. Schmidt FliteZone™ Theater Shows Interactive Feedings One Northside for Every Student School Programs Summer Camps Teaching Hospital Volunteer Program

Green Practices

ENERGY

Documented Amount Spent Documented Amount Used Documented Square Footage of Conditioned Space

FUEL

Documented Amount Spent

GREEN PRACTICES IMPLEMENTED

Commingled Recycling Community-Based Sustainability Projects Construction Waste Diversion / Recycling Purchasing Green Power or Renewable Energy Credits (RECs)

PLANS, POLICIES AND BUDGETS

Dedicated a Line Item in the Budget for Green Practices Developed or Updated a Sustainability Plan (or Equivalent) Developed or Updated a Sustainability Policy

WASTE

Documented Amount Spent on Landfill Waste

WATER

Documented Amount Spent Documented Amount Used

PHILADELPHIA ZOO

Education Programs

Animal Training Demos Barnyard Behind the Scenes Tours Community Access Programs (CAPs) Daytime Seasonal Events

Docent Tours Docent Training Course Frog Conservation Project Insect Barn Interpretation Carts Interpreters KidZooU Climbing Structure Little Zoo on Wheels McNeil Avian Center Rainforest Member Morning Strolls New Volunteer Orientation Overnights Reptile Exercise Yard **Teacher Pass Unless Contest** Wildlife Discovery Tours Wings of Asia You Belong in the Zoo Zoo on Wheels Zoo on Wheels Booth ZooCREW

Field Conservation

Amphibian Ark Associação Amigos do Peixe-Boi (AMPA) – Giant Otter Project AZA FrogWatch USA Finding Lost Frogs of Ecuador Golden Lion Tamarin Conservation Program Haitian Frog Rescue Zoo Amaru – Amphibian Conservation Center

Green Practices

ENERGY Documented Amount Spent Documented Amount Used Documented Square Footage of Conditioned Space Generated Renewable Energy On-Site Purchased Renewable Energy

EXTERNAL SUPPORT

FOOD

Received Support From External Sources for Green Projects

Sourced Local Food or Grew It On-Site

FUEL Documented Amount Spent

Documented Amount Used

GREEN CERTIFICATIONS

Certified as a Wildlife Habitat

- Documented Square Footage of Facility With Green Building Certification
- One or More Buildings LEED-Certified by the US Green Building Council

GREEN PRACTICES IMPLEMENTED

Building Energy Management

Commingled Recycling

- Community-Based Sustainability Projects
- Composting On-Site or Off-Site
- Construction Waste Diversion / Recycling
- **Energy Submetering**
- Graywater Reuse and/or Rainwater Harvesting
- Green Building Policy / Commitment
- Green Information Technology (IT)
- Green Purchasing Policy / Green Procurement
- Greenhouse Gas (GHG) Inventory
- Local Food Procurement for Animals and/or Guests
- Purchasing Green Power or Renewable Energy Credits (RECs)
- Smart Buildings Systems
- Stormwater Management Program
- Usage of Enterprise (IT) Solutions To Track, Measure and Dashboard Sustainability Performance
- Water Submetering
- Water-Wise Landscaping

GREENHOUSE GAS EMISSIONS

Documented Amount of Greenhouse Gas Emissions

PLANS, POLICIES AND BUDGETS

Dedicated a Line Item in the Budget for Green Practices

Dedicated Full-Time Equivalent (FTE) Staff to Coordinating Green Practices

Developed or Updated a Sustainability Plan (or Equivalent)

Developed or Updated a Sustainability Policy

Specified a Portion of the Amount Saved for Next Year's Green Practices

WASTE

Documented Amount Composted

Documented Amount Recycled

Documented Amount Sent to Landfill

WATER Documented Amount Spent

Documented Amount Used

ZOOAMERICA NORTH AMERICAN WILDLIFE PARK

Field Conservation AZA Black-Footed Ferret SSP Barn Owl Nest Box Regal Fritillary Conservation

Rhode Island

ROGER WILLIAMS PARK ZOO

Education Programs Adventures ZooCamp After-School Programs AZA FrogWatch USA Bronx Zoo Trip Brown University SPARK Central Falls High School Program Collette Travel Information Sessions Community Zoomobiles Conservation Heroes ZooCamp Contact Yard Counselor Trainings and Team Building Cranston Summer Program **Docent Training Class Docent Zoomobiles** Education Animal Meet and Greets Giraffe and Seal Feedings Homeschool Nature Swap New London Our Big Backyard Areas and Beyond the Fence Party for the Planet Pets and Vets Providence After School Alliance (PASA) Summer Scholars Rock and Roar Concerts Roots and Shoots School Zoomobiles On and Off Grounds Scout Safari Day Snore and Roar Overnights Spooky Zoo Tadpole Academy ZooCamp Teacher Institute Wild Bunch Show Woonsocket Summer Program Zoo Career Workshop

Field Conservation

- American Burying Beetle (*Nicrophorus americanus*) Captive Propagation and Reintroduction Program
- AZA Conservation Grants Fund (CGF)
- AZA FrogWatch USA
- AZA Komodo Dragon SSP
- Can Isotopes in Feces Track the Mobility of Difficult to Observe Mammals?
- Conservation of the Critically Endangered Alligator Lizard (*Abronia campbelli*) in Eastern Guatemala Through Habitat Restoration and Community Forest Management: Phase II
- Determining Life History and Population Size of Juvenile and Adult Diamondback Terrapin (*Malaclemys terrapin*) in Rhode Island

Ecological Community Response to the Abatement of Oil and Gas Development: Implications for Restoration Planning

Environment Council of Rhode Island Evaluation of the Prey Base and Feeding Relationships of the American Burying Beetle (Nicrophorus americanus) Foundation for the Conservation of Salamanders International Elephant Foundation (IEF) IUCN/SSC Conservation Planning Specialist Group (CPSG) Karner Blue Butterfly Recovery / Butterfly Conservation Initiative - Partnerships for Recovery Kibale Fuel Wood Project Lowland Tapir Health for Conservation New England Cottontail Rabbit Recovery Program North American Freshwater Turtle Research Group Ocean Foundation Preserving the Endangered African Manatee Population From Human Activites in Lake Ossa Wildlife Reserve Raising Awareness of Endangered Abronia Species in Guatemala Through Education and the PEFCA Center Rhode Island Natural History Survey BioBlitz Snow Leopard Trust (SLT) Tarangire Elephant Project (TEP) The Effect of Visual. Tactile and Auditory Deterrents and Hive Protections on Honey Badger Depredation of Beehive Fences Timber Rattlesnake Recovery Program Tree Kangaroo Conservation Program - Papua New Guinea Wood Turtle (Glyptemys insculpta) Nesting Ecology, Mating Behaviour and Genetic Diversity in Disturbed and Undisturbed Nesting Sites **Green Practices** ENERGY **Documented Amount Spent** Documented Amount Used Documented Square Footage of Conditioned Space

EXTERNAL SUPPORT

Received Support From External Sources for Green Projects

FUEL

Documented Amount Spent Documented Amount Used

GREEN PRACTICES IMPLEMENTED

Alternative Fuel Usage for On-Site Fleet Building Energy Management Commingled Recycling Composting On-Site or Off-Site Green Purchasing Policy / Green Procurement Solar or Wind Energy Generation Stormwater Management Program Water Submetering Water-Wise Landscaping

PLANS, POLICIES AND BUDGETS

Dedicated a Line Item in the Budget for Green Practices

Dedicated Full-Time Equivalent (FTE) Staff to Coordinating Green Practices

Developed or Updated a Sustainability Plan (or Equivalent)

Developed or Updated a Sustainability Policy

WASTE

Documented Amount Composted Documented Amount Recycled Documented Amount Sent to Landfill Documented Amount Spent on Landfill Waste

Mission-Focused Research

Are We Expecting? Developing a Test for Early Pregnancy Detection in Captive Snow Leopards (*Panthera uncia*)

Genome Resource Banking of the Red Wolf

South Carolina

BROOKGREEN GARDENS

Field Conservation

Backyard Habitat Restoration

- Grow and Propagate Sea Beach Amaranth (*Amaranthus pumilus*)
- Habitat Restoration Through Prescribed Burning of Longleaf Pine Forest for Red-Cockaded Woodpeckers

Restoration and Monitoring of Wood Duck Houses Along Brookgreen Gardens Waterways Restoring and Repairing Bluebird Houses to Encourage Breeding Sea Turtle Nest Monitoring at Huntington Beach State Park

Green Practices

ENERGY

Documented Amount Spent Documented Amount Used

FOOD Sourced Local Food or Grew It On-Site

FUEL

Documented Amount Spent

Documented Amount Used

GREEN CERTIFICATIONS Certified as a Wildlife Habitat

GREEN PRACTICES IMPLEMENTED

Building Energy Management Commingled Recycling Composting On-Site or Off-Site Local Food Procurement for Animals and/or Guests Stormwater Management Program Water-Wise Landscaping

WASTE

Documented Amount Recycled Documented Amount Spent Documented Amount Used

Mission-Focused Research

The Effects of Salinity, pH, Temperature and Dissolved Oxygen on Sensitivity of Polymerase Chain Reaction (PCR) Identification of T4 Bacteriophage

GREENVILLE ZOO

Education Programs

AZA FrogWatch USA - FrogWatch Researchers of Greenville Zoo (FROGZ) Behind the Scenes - Backstage Expeditions Career Day **City Appreciation Night** Distance Learning Programs at the Zoo **Endangered Species Day** Enrichment Day Family Programs - Saturday Safari Family Programs for Zoo Tots Get Out and Play Day Greenville Zoo Overnights Homeschool Programming Learning Safari Thursdays Missing Orangutan Mothers (MOMS) Day Nature Play Greenville Zoo Party for the Planet School Programs Tell Me About It Tuesdays Wild for Reading Wednesdays World Oceans Day Zoo Camp 700Mobile

Field Conservation

Advancing Effective Lemur Conservation in the Face of Global Change

Amur Leopard and Tiger Alliance (ALTA)

Angolan Colobus Conservation Project

Assessing the Impacts of Climate Change and Habitat Quality on the Ecology of a Valuable Rattlesnake Predator in a Developed Environment

- AZA FrogWatch USA
- AZA SAFE

Conservation of the Critically Endangered Alligator Lizard (*Abronia campbelli*) in Eastern Guatemala Through Habitat Restoration and Community Forest Management

Dry Season Monitoring of Wild Giant Otters at Karanambu

Engaging Local Communities in Reforestation Efforts for the Alligator Lizard

Fiji Island Iguana Conservation Fund

Florida Panther Conservation - Captive Management Group

Green Salamander Distribution, Movement and Water Loss

Madagascar Fauna and Flora Group (MFG)

Okapi Conservation Project

Reptile and Amphibian Monitoring Ecolab

Stopping Illegal Lion Killings Around Protected Areas in Western Tanzania

Sumatran Orangutan Conservation Programme (SOCP)

- The Status of Critically Important and Endangered Reef Sharks in the Maldives
- Understanding Social Behaviour to Improve the Conservation of Wild Giraffes and to Improve the Welfare of Giraffes in Captive *Ex-Situ* Populations

Upper Saluda Watershed Interactive Mapping Project

Zoo Conservation Outreach Group (ZCOG)

Zoo Conservation Outreach Group (ZCOG) - Chilean Flamingo Conservation Monitoring Program

Green Practices

ENERGY

Documented Amount Used

FOOD

Sourced Local Food or Grew It On-Site

FUEL

Documented Amount Spent Documented Amount Used

GREEN PRACTICES IMPLEMENTED

Commingled Recycling

PLANS, POLICIES AND BUDGETS

Developed or Updated a Sustainability Policy

WATER

Documented Amount Used

Mission-Focused Research

Monitoring Black Rat Snakes on the Greenville Zoo Campus Turtle Trapping Project

RIPLEY'S AQUARIUM IN MYRTLE BEACH

Field Conservation

Beach Sweep

Mission-Focused Research

Macrobacterial Infections in Seadragons Mycobacterial Infections in Seadragons Plasma Chemistry Database for Elasmobranchs Reproduction Cycle and Gestation of the Spotted Eagle Ray Reproduction of the Sand Tiger Shark in Captivity Reproduction Patterns of Cownose Rays Reproductive Cycle and Gestation of the Spotted Eagle Ray *(Aetobatus narinari)* Reproductive Patterns of Cownose Rays *(Rhinoptera bonasus)* Sea Turtle Reproductive Physiology Seasonal Movement Patterns of Sand Tiger Sharks Surgical Techniques in Cownose Rays and Southern Rays

RIVERBANKS ZOO AND GARDEN

Education Programs

Adult Garden Workshop Adventure Tours/Backstage Tours Backyard Buds Camp – Single Day Camp – Spring Break Zoo Camp Camp – Summer Zoo Camp: Wild Weeks Camp – Winter Camp Daily Family Garden Programs Discovery Days Event Days – Party for the Planet, World Oceans, Enrichment Days and Endangered Species Day Family Events Family on Safari Garden Outreach Garden Tours Guest Engagement Homeschool Junior Master Gardeners Outreach Overnights School Programs Scouts – Evening Expeditions Scouts – Workshops Zoo Teens ZooBots

Field Conservation

Black-Footed Ferret (Mustela nigripes) Recovery Program

Blue-Crowned Laughingthrush (*Dryonastes courtoisi*) Global Species Management Plan (GSMP)

Cameroon Conservation Education Program

- Conservation of the Endemic Chelonians of Sulawesi: Forsten's Tortoise (*Indotestudo forstenii*) and Sulawesi Forest Turtle (*Leucocephalon yuwonoi*)
- Disease Implications of Using Waifs to Create Viable Populations of Gopher Tortoises
- Evaluating Grassroots Conservation Efforts in Northern Madagascar
- Fall and Winter Roosting Ecology of Southeastern and Rafinesque's Big-Eared Bats in Cache River National Wildlife Refuge
- Mbeli Bai Study (MBS) Long-Term Research and Conservation of Western Lowland Gorillas and African Elephants in the Ndoki Forest
- Mitigating Human-Crocodile Conflicts: A Bottom-Up Approach in the Obuasi Municipality, Ghana
- Monitoring Breeding Activities of Endangered and Critically Endangered Vultures
- Nzou' Environmental Education Project Lower Zambezi, Zambia
- **Riverbanks Field Conservation Associates Program**
- South Carolina Wildlife Federation Scholarship Fund
- Turtle Survival Alliance (TSA) Turtle Survival Center
- Using African Forest Elephant Behavioral Ecology to Inform Anti-Poaching Strategies

Why, When and How Giant Anteaters Cross Roads? Understanding Impacts and Effects of Roads on Giant Anteater Populations

Wood Turtle Nesting Ecology, Mating Behavior, Genetic Diversity in Disturbed and Undisturbed Nesting Sites

Green Practices

ENERGY

Generated Renewable Energy On-Site

FOOD

Sourced Local Food or Grew It On-Site

GREEN CERTIFICATIONS

Certified by the Green Restaurant Association

GREEN PRACTICES IMPLEMENTED

Building Energy Management

Commingled Recycling

Composting On-Site or Off-Site

Green Information Technology (IT)

- Local Food Procurement for Animals and/or Guests
- Solar or Wind Energy Generation
- Usage of Enterprise (IT) Solutions To Track, Measure and Dashboard Sustainability Performance

WASTE

Documented Amount Composted

Mission-Focused Research

- Assessing Reproductive and Metabolic Health of the Recently Imported African Elephants: Understanding Elephant Biology to Optimize Welfare and Sustainability of the Population of African Elephants
- Examining the Pathology and Severity of Giraffe Skin Disease in Uganda and Tanzania

SOUTH CAROLINA AQUARIUM

Education Programs

Adult Learning Series

Aquarium AquaTeen Program

Aquarium Rovers

Behind the Scenes Tours

Daily Interpretive Program **Discovery Cart Program Discovery Lab Distance** Learning Good Catch (Sustainable Fisheries) Newsletters and Chef Binder Good Catch (Sustainable Fisheries) Special Events Good Catch Seafood Initiative - Educational Publications/ Materials Good Catch Sustainable Seafood Initiative Dinner Series High School Intern Program Homeschool Programs Member Educational Programs Ollie's Trading Post Roving Interpretation Scavenger Hunts Sea Turtle Hospital Tours Shadow Day South Carolina Aquarium Curriculum South Carolina Aquarium Species Sheets Structured School Program Teacher Workshops Tributaries Member Magazine Volunteer Training

Breaking Down Plastics Summit

Field Conservation

Answering Management Questions Surrounding the Atlantic Horseshoe Crab: Impacts of Biomedical Bleeding in South Carolina

Cape Island Turtle Project

Loggerhead Turtle Passive Integrated Transponder (PIT) Tag Study

Robust Redhorse Conservation Committee

Sea Turtle Stranding Pathology – Formalized Data Collection and Disease Surveillance

South Carolina Aquarium Sea Turtle Care Center

- South Carolina Department of Natural Resources (SCDNR) Marine Resources Division – In-Water Sea Turtle Study
- South Carolina Oyster Restoration and Enhancement Program

South Carolina Phytoplankton Monitoring Network

Turtle Survival Center Veterinary Care Program

Mission-Focused Research

- Assessing the Impact of Invasive Red Lionfish (*Pterois volitans*) on the Diversity and Abundance of Fishes Associated With Artificial Reef Marine Protected Areas (MPAs)
- Field-Based Bottlenose Dolphin Habitat Usage and Distribution Surveys
- Gray Triggerfish (*Balistes capriscus*) Life History in the South Atlantic Bight: The Extensive Collection and Analysis of New Data for Age, Growth and Reproduction and Comparison With Data From 1992
- Nesting Population Assessment of the Atlantic Horseshoe Crab (*Limulus polyphemus*) in Charleston Harbor
- Population Genetics of the Lined Seahorse (*Hippocampus erectus*) in the North Western Atlantic

South Dakota

BRAMBLE PARK ZOO

Field Conservation

American Kestrel Partnership Migratory Bird Rehabilitation Upper Big Sioux River Watershed Project

Green Practices

EXTERNAL SUPPORT

Received Support From External Sources for Green Projects

FOOD

Sourced Local Food or Grew It On-Site

GREEN PRACTICES IMPLEMENTED

Local Food Procurement for Animals and/or Guests

WATER Documented Amount Spent

Mission-Focused Research

Lead Testing of Rehab Birds of Prey

Seasonal Fluctuations in Adult Mosquito Populations in Eastern South Dakota

GREAT PLAINS ZOO AND DELBRIDGE MUSEUM OF NATURAL HISTORY

Education Programs Amazing Animal Quests Animal Encounters Bookworms **Creature Feature** Guided Tours Junior Zookeepers Nature Play Club Osher Lifelong Learning Institute (OLLI) Programs Sanford Children's Hospital Visits Saturday Science Club Science Safari Day Scout Badge Programs Title I Outreach ZooCamp ZooCub Class ZooExpress Event Booth ZooMobile Event Booth ZooMobile Programs 7007n007e

Field Conservation

AZA SAFE AZA SAFE - Vaquita AZA Tiger SSP - Tiger Conservation Campaign Giraffe Conservation Foundation (GCF) International Rhino Foundation (IRF) Koala Education and Conservation Program (Australia Fund) Native Raptor Rehabilitation Painted Dog Research Trust Snow Leopard Trust (SLT) Wildlife Conservation Network (WCN) - Ewaso Lions

Green Practices

ENERGY Documented Amount Spent Documented Amount Used Documented Square Footage of Conditioned Space

FUEL

Documented Amount Spent Documented Amount Used

GREEN PRACTICES IMPLEMENTED

Commingled Recycling

WASTE

Documented Amount Sent to Landfill Documented Amount Spent on Landfill Waste

WATER

Documented Amount Spent Documented Amount Used

Tennessee

CHATTANOOGA ZOO AT WARNER PARK

Education Programs Kits and Cubs

Field Conservation

AZA SAFE - Vaquita Conservation Cheetah Conservation Fund (CCF) Hellbender Conservation Pantanal Giant Armadillo Project Proyecto Tití Snow Leopard Trust (SLT)

Green Practices

ENERGY

Documented Amount Used Documented Square Footage of Conditioned Space

FOOD Sourced Local Food or Grew It On-Site

FUEL Documented Amount Spent

GREEN CERTIFICATIONS Certified by GreenLight GREEN PRACTICES IMPLEMENTED

Alternative Fuel Usage for On-Site Fleet Building Energy Management Commingled Recycling Energy Submetering Green Building Policy / Commitment Green Purchasing Policy / Green Procurement Local Food Procurement for Animals and/or Guests Wastewater Reduction Water Submetering Water-Wise Landscaping

PLANS, POLICIES AND BUDGETS Developed or Updated a Sustainability Plan (or Equivalent)

WASTE Documented Amount Spent on Landfill Waste

WATER Documented Amount Spent Documented Amount Used

Mission-Focused Research

Great Ape Heart Project Using Internet Technology to Connect Chimpanzees

ELEPHANT SANCTUARY IN TENNESSEE

Field Conservation Elephant Voices - African Elephant Gestures Database

Green Practices

ENERGY Generated Renewable Energy On-Site

GREEN PRACTICES IMPLEMENTED Graywater Reuse and/or Rainwater Harvesting

PLANS, POLICIES AND BUDGETS Developed or Updated a Sustainability Plan (or Equivalent) Developed or Updated a Sustainability Policy

Mission-Focused Research

- Clinical Response to Allergen Specific Therapy in an Asian Elephant
- Forward Thinking in Elephant Husbandry for the Aging Elephant
- Mushara Elephant Project, Namibia
- Serum Immunoglobulin E Measurements and Clinical Response to Allergen Specific Immunotherapy in Asian Elephants
- Stellenbosch University Animal Tuberculosis (TB) Research Group
- University of Georgia Research Project for Oral Drug Delivery System
- Urinalysis and Urine Bacterial Culture in African Elephants

MEMPHIS ZOO

Education Programs

Conservation Camp - Going, Going, Saved! Earth Day Explorers Academy Homeschool Academy Homeschool Days International Polar Bear Day Zoo Camp Zoo Classes Zoo Snooze

Field Conservation

Boreal Toad Conservation Program

- Conservation of the Araguaia Corridor in Brazil: Addressing Human Predator Conflict
- Conserving Amphibian Biodiversity in Panama
- Development of Assisted Reproductive Technologies for Endangered North American Amphibians
- Giant Panda Conservation
- Pangolin Consortium
- Striped Newt Reintroduction Project
- Urban Snake Ecology

NASHVILLE ZOO, INC.

Education Programs

Animal Oddities Avian Awareness Day Fall Break Camp - Eco-Explorers Girl Scout Camp Out Program - Bugs, Biomes, and Badges Great Backyard Bird Count Homeschool Days - A Day in the Life Homeschool Days - All in the Family (Animal Offspring) Homeschool Days - First Impressions (Animal Myths and Misconceptions) Homeschool Days - Getting to Know You (Animal Behavior) Homeschool Days - No Place Like Home Homeschool Days - The Rainforest Homeschool Days - All About Africa Native Navigators Night Owl Program - American Heritage Girls Zoology Night Owls - Cub Scouts - Bears Fur, Feathers and Ferns Night Owls - Cub Scouts - Tiger My Tiger Jungle Night Owls - Cub Scouts - Weblos - Into the Wild Night Owls - Cub Scouts - Wolf Digging in the Past Night Owls - Girl Scouts - Brownie Bugs Badge Night Owls - Girl Scouts - Cadette Animal Helpers Night Owls - Girl Scouts - Daisy 3 Cheers for Animals Night Owls - Girl Scouts - Juniors Animal Habitat Night Owls - Girl Scouts - Senses Badge Party for the Planet Project Globe Saturday Scouts - American Heritage Girls Zoology Saturday Scouts - Cub Scout - Bears Fur, Feathers and Ferns Saturday Scouts - Cub Scout - Tiger my Tiger Saturday Scouts - Cub Scout - Webelos - Into the Wild Saturday Scouts - Digging in the Past Saturday Scouts - Girl Scouts - Brownie Bugs Badge Saturday Scouts - Girl Scouts - Brownie Senses Badge Saturday Scouts - Girl Scouts - Daisy 3 Cheers for Animals Saturday Scouts - Girl Scouts - Juniors Animal Habitat Storybook Tails (1/2 Day Camp)

Storybook Tails (Full Day Camp) Summer Camp – Camp Zoovivor 2.0 The Great Zoo Detective (Spring Break) Veterinary Camp World Rhino Day Zoo Tots – Animal Sense Spring Series Zoo Tots – Animals of Sorts Fall Series Zooperheroes Camp Animal Sense

Field Conservation

- American Association of Zoo Keepers (AAZK) Bowling for Rhinos
- American Association of Zoo Keepers (AAZK) Bowling for Rhinos Matching Funds
- Andean Bear Conservation Alliance
- Association for the Conservation of Amazonian Biodiversity - Dallas World Aquarium Zoo (ACOBA-DWAZOO)
- AZA SAFE Vaquita Project
- AZA Tiger SSP Tiger Conservation Campaign
- Bat Conservation International (BCI)
- Clouded Leopard Project
- Duke Lemur Center Projects in the Sambava-Andapa-Vohemar-Antalaha (SAVA) Region of Madagascar
- Giant Anteater Pilot Program in the Brazilian Pantanal
- Giraffe Conservation Foundation (GCF)
- Gorilla Rehabilitation and Conservation Education (GRACE) Center
- Hornbill Conservation: Borneo
- Instituto de Pesquisas Ecológicas (IPÊ)
- Lewa Wildlife Conservancy
- Niassa Carnivore Project
- Okapi Conservation Project
- Proyecto Tití
- Rainforest Awareness Education Center Amazonian Manatee
- **Rainforest Trust**
- Red Panda Network (RPN)
- Save Vietnam's Wildlife Centre
- Sia Eagle Center

The Sustainable Management of the Critically Endangered Goliath Grouper (*Epinephelus itajara*) and Smalltooth Sawfish (*Pristis pectinata*) in Belize

Turtle Survival Alliance (TSA)

Wildlife Conservation Network (WCN)

Green Practices

GREEN CERTIFICATIONS

- Documented Square Footage of Facility With Green Building Certification
- One or More Buildings LEED-Certified by the US Green Building Council

GREEN PRACTICES IMPLEMENTED

Commingled Recycling

Composting On-Site or Off-Site

Construction Waste Diversion / Recycling

Local Food Procurement for Animals and/or Guests

PLANS, POLICIES AND BUDGETS

Dedicated a Line Item in the Budget for Green Practices

Developed or Updated a Sustainability Plan (or Equivalent)

Developed or Updated a Sustainability Policy

WASTE Documented Amount Sent to Landfill

Documented Amount Used

RIPLEY'S AQUARIUM OF THE SMOKIES

Field Conservation

WATER

Apex Predator Tagging Study

Green Practices

ENERGY Documented Amount Spent Documented Amount Used Documented Square Footage of Conditioned Space Generated Renewable Energy On-Site

GREEN CERTIFICATIONS

Certified by Tennessee Green Hospitality Documented Square Footage of Facility With Green Building Certification

GREEN PRACTICES IMPLEMENTED

Building Energy Management Composting On-Site or Off-Site Construction Waste Diversion / Recycling Smart Buildings Systems Solar or Wind Energy Generation Water-Wise Landscaping

PLANS, POLICIES AND BUDGETS

Dedicated Full-Time Equivalent (FTE) Staff to Coordinating Green Practices Developed or Updated a Sustainability Plan (or Equivalent)

WASTE

Documented Amount Spent on Landfill Waste

WATER

Documented Amount Spent Documented Amount Used

Mission-Focused Research

Mycobacterial Infections in Seadragons Plasma Chemistry Database for Elasmobranchs Reproduction Cycle and Gestation of the Spotted Eagle Ray Reproduction of the Sand Tiger Shark in Captivity Reproduction Patterns of Cownose Rays Sea Turtle Reproductive Physiology Seasonal Movement Patterns of Sand Tiger Sharks Surgical Techniques in Cownose Rays and Southern Rays

TENNESSEE AQUARIUM

Field Conservation

Alligator Snapping Turtle Monitoring

Constructing a Freshwater Conservation Institute and Field Station

Cumberland Darter Conservation Genetics

Endangered Fishes of the Upper Mobile Basin

Freshwater Information Network Monitoring and Recovery of the Laurel Dace Rearing Barrens Topminnows (*Fundulus julisia*) for Conservation Purposes Restoring Southern Appalachian Brook Trout Ridges to Rivers Serve and Protect - Supporting Sustainable SeaFood South Chickamauga Creek Assessment Southeastern Fishes Council Annual Meeting Southeastern Freshwater Biodiversity Conservation Plan Tennessee and Cumberland River Darter Conservation Tennessee Lake Sturgeon Reintroduction Program

Mission-Focused Research

Headwater Stream Community Ecology Morphology and Hybridization in River Sturgeons River Turtle Morphology Southeastern Cave Biology

ZOO KNOXVILLE

Education Programs

Animal/Biofact Chats Animals in Action Show Bedtime With the Beasts Camp Wild Exhibit Chats Field Science Programs Homeschool Days Night Safaris School Ambassador Animal Encounters School Classroom Programs School Tours Scout Workshops Student Researchers Teacher In-Service / Workshops ZooCamp ZOOMobile Outreach Classroom Programs ZOOMobile Outreach Community Programs ZOOMobile Outreach Display Program

Field Conservation

AZA Tiger SSP - Tiger Conservation Campaign

- Center for Ecosystem Survival (SaveNature.org) Rainforest Conservation Parking Meter
- Game Rangers International Elephant Orphanage Project and Kafue Conservation Project

Organization for Bat Conservation

Red Panda Network (RPN)

Toucan Rescue Ranch

World Parrot Trust (WPT)

Green Practices

ENERGY

Documented Amount Spent Documented Amount Used Generated Renewable Energy On-Site

GREEN PRACTICES IMPLEMENTED

Commingled Recycling Graywater Reuse and/or Rainwater Harvesting Green Information Technology (IT) Solar or Wind Energy Generation Wastewater Reduction

PLANS, POLICIES AND BUDGETS

Dedicated a Line Item in the Budget for Green Practices

Dedicated Full-Time Equivalent (FTE) Staff to Coordinating Green Practices

WATER

Documented Amount Spent Documented Amount Used

Mission-Focused Research

Student Research Project Support University Level Research Studies

Texas

ABILENE ZOOLOGICAL GARDENS

Education Programs Behind the Scenes Birthday Parties Camp Programs Dreamnight Homeschool Classes Junior Keeper Kids' Night Out Night Hike Party for the Planet Preschool Classes School Group Classes World Giraffe Day Zoo to You

Field Conservation

African People and Wildlife Fund Amphibian Ark AZA Avian Scientific Advisory Group (ASAG) AZA Conservation Grants Fund (CGF) AZA Crocodilian Advisory Group (CAG) AZA Tiger SSP - Tiger Conservation Campaign Chaco Jaguar Project Chipembere Rhino Foundation Colobus Conservation, Ltd. Friends of the Attwater's Prairie Chicken National Wildlife Refuge Friends of the Laguna Atascosa National Wildlife Refuge Giraffe Conservation Foundation (GCF) International Crane Foundation (ICF) International Rhino Foundation (IRF) IUCN/SSC Conservation Planning Specialist Group (CPSG) Proyecto Tití Rainforest Alliance Red Wolf Coalition

Tambopata Macaw Project Texas Parks and Wildlife - Texas Children in Nature The Cougar Fund Turtle Survival Alliance (TSA) Vaquita Conservation, Protection and Recovery (Vaquita CPR) Wild Animal Health Fund Wild Neighbors Database Wildtracks Zoo Conservation Outreach Group (ZCOG)

Green Practices

ENERGY

Documented Amount Spent Documented Amount Used

FUEL

Documented Amount Spent Documented Amount Used

GREEN PRACTICES IMPLEMENTED

Commingled Recycling

PLANS, POLICIES AND BUDGETS

Dedicated Full-Time Equivalent (FTE) Staff to Coordinating Green Practices

WASTE

Documented Amount Sent to Landfill

WATER

Documented Amount Used

CALDWELL ZOO

Field Conservation

Animal Painting Sales

Attwater's Prairie Chicken Recovery Program

International Elephant Foundation (IEF) – Elephant Painting Sales

International Rhino Foundation (IRF) - Animal Painting Sales

Green Practices

ENERGY

Documented Amount Spent Documented Amount Used

FUEL

Documented Amount Spent Documented Amount Used

WATER

Documented Amount Spent

Documented Amount Used

Mission-Focused Research

AZA Texas Horned Lizard SSP – Texas Horned Lizard (*Phrynosoma cornutum*) Genotyping of SSP Management Purposes

AZA Waldrapp Ibis SSP – Sample Collection for DNA Kinship Study

Cheetah Immobilization Questionnaire

Compilation and Review of Archival Elephant Postmortem Data

Determining Genetic Variability, Kinship and Uniqueness in the North American Cheetah Population

Elephant Pharmacokinetic Trials

Reticuloendotheliosis Virus (REV) Genome Sequencing in Attwater's Prairie Chickens

CAMERON PARK ZOO

Education Programs

Animal Presentation Educational Days Outreach Storytime Summer Camp Zoo Mobile Zoo Snooze

Field Conservation

Borneo Orangutan Survival Foundation (BOS) – Baby Houses Borneo Orangutan Survival Foundation (BOS) – Milk Drive IUCN/SSC Conservation Planning Specialist Group (CPSG) Lake Waco Eagle Nest Status of Conservation of Crocodile Species in Cuba Zoo Conservation Outreach Group (ZCOG)

Green Practices

ENERGY

Documented Amount Spent Documented Amount Used Generated Renewable Energy On-Site Purchased Renewable Energy

EXTERNAL SUPPORT Received Support From External Sources for Green Projects

FOOD Sourced Local Food or Grew It On-Site

GREEN PRACTICES IMPLEMENTED Building Energy Management Commingled Recycling Community-Based Sustainability Projects Purchasing Green Power or Renewable Energy Credits (RECs) Solar or Wind Energy Generation Stormwater Management Program Wastewater Reduction Water-Wise Landscaping WATER

Documented Amount Spent Documented Amount Used

Mission-Focused Research

AZA Orangutan SSP - Sanctioned Tooth Emergence Project

DALLAS ZOO

Education Programs Animal Adventures Outreach Backstage Safari **Cheetah Encounter Discovery House** Exploring Family Campout Family Conservation Club Family Pop-Up Family Zoo Adventures Frog Club Homeschool Day Junior Rancher Adventure Keeper Talks Life on the Ranch Lights Out Overnight Nature Exchange Nature Plav Nature Play Outreach **On-Site School Programs** Preschool Safari Science Day Sensory Friendly Day Sleeping With the Fishes Overnight Stroller Buddies Summer Science Institute Teacher Workshops Teen Science Cafe Trivia and Trails Twilight Safari Night Hike Wild About Art Wild Adventures Camps Wild Earth Action Team Wild Earth Weekends Wild F.U.N. (Families United in Nature) Wildlife Show

Wilds Of Africa Adventure Safari

Youth Volunteer Programs Zoo Corps

Field Conservation

American Association of Zoo Keepers (AAZK) - Bowling for Rhinos Amphibian Ark Áreas Costeras y Recursos Marinos (ACOREMA) AZA Ape TAG - Conservation Initiative AZA Komodo Dragon SSP - Conservation Fund AZA SAFE - African Penguin AZA SAFE - Founders Circle AZA SAFE - Vaquita AZA SAFE - Vultures Black-Footed Ferret Recovery Cheetah Conservation Fund (CCF) Cheetah Sustainability and Accessibility Program Dian Fossey Gorilla Fund International Dusky Gopher Frog Recovery Plan Earthwatch Institute Gorilla Rehabilitation and Conservation Education (GRACE) Center Hellbender Headstart Program Horned Lizard Management Project Houston Toad Recovery Plan Humboldt Penguin Monitoring Status in Peru International Elephant Foundation (IEF) International Rhino Foundation (IRF) IUCN/SSC Conservation Planning Specialist Group (CPSG) Jane Goodall Institute - Roots and Shoots Wishing Well Donations Koala Management, Education and Conservation Program Ngwenya Rhino Fund **Okapi Conservation Project Rattlesnake Preservation Trust** Restoring Wildlife Habitat Across Texas: Forest Habitat Restoration Restoring Wildlife Habitat Across Texas: Prairie Habitat Restoration

Restoring Wildlife Habitat Across Texas: Waterways Habitat Restoration Ruaha Carnivore Project (RCP) Sahara Conservation Fund (SCF) Sea Turtle, Inc. Southern African Foundation for the Conservation of Coastal Birds (SANCCOB) – Penguin and Sea Bird Conservation Tarangire Elephant Project (TEP) Turtle Survival Alliance (TSA) Whooping Crane Recovery Program Wild Earth Wristbands Project World Parrot Trust (WPT)

Green Practices

FUFL

ENERGY Documented Amount Spent Documented Amount Used Documented Square Footage of Conditioned Space

Documented Amount Spent Documented Amount Used

GREEN CERTIFICATIONS Certified Under ISO 14004

GREEN PRACTICES IMPLEMENTED

Alternative Fuel Usage for On-Site Fleet Alternative Transportation Benefits for Staff Alternative Transportation Discounts for Guests Commingled Recycling Composting On-Site or Off-Site Energy Submetering Graywater Reuse and/or Rainwater Harvesting Greenhouse Gas (GHG) Inventory Stormwater Management Program Usage of an Environmental Management System Wastewater Reduction Water Submetering Water-Wise Landscaping

PLANS, POLICIES AND BUDGETS

Dedicated a Line Item in the Budget for Green Practices Developed or Updated a Sustainability Plan (or Equivalent) Developed or Updated a Sustainability Policy

WASTE

Documented Amount Composted Documented Amount Recycled Documented Amount Sent to Landfill Documented Amount Spent on Landfill Waste

WATER

Documented Amount Spent Documented Amount Used

Mission-Focused Research

- AZA African Penguin SSP SAFE: Improvement of the Diagnosis of Aspergillosis in Penguins
- AZA Elephant Welfare Initiative Animal Wellness Assessment, Research and Education (AWARE) Institute
- AZA Great Apes SSPs Great Ape Cardiac Project: Brain Natriuretic Peptide (BNP) in Great Apes
- AZA Tiger SSP Development of a Genome Resource Bank and Transcervical Insemination of the Genetic Management of Tigers
- AZA Tiger SSP The Prusten Project Heard but Not Seen: Acoustic Monitoring of Wild Tiger Populations
- AZA Waldrapp Ibis SSP Genetic Sampling
- Cats: Is Symmetric Dimethylarginine (SDMA) Testing a Valid Indicator of Kidney Function in Sumatran Tigers, Indochinese Tigers or Cheetahs?
- Comparative Morphological and Molecular Studies of Mammal Brains
- Elephant Endotheliotropic Herpesvirus (EEHV) Consortium EEHV Surveillance: Serum
- Elephant Endotheliotropic Herpesvirus (EEHV) Consortium EEHV Surveillance: Trunk Wash and Blood Samples
- Great Ape Neuroscience Project
- Lemurs: Comparative Genomics and Phylogenetics of Indriidae
- Monitoring Body Condition, Reproductive and Metabolic Hormones in African Elephants: Using Science to Aid Management Decisions to Optimize Health and Welfare of Zoo Elephants

- Paternity and Genetic Diversity of Imported African Elephant Founders
- Population Dynamics of Urban Texas Rat Snakes (*Elaphe* obsoleta lindheimeri) at the Dallas Zoo
- Reproductive Health Surveillance Program
- Scent Gland Lipids of the Mangshan Pit Viper
- Understanding the Basic Reproductive Biology of Lions for Management and Conservation

EL PASO ZOO

Education Programs

Animal Encounters
Animal Presentations
Behind the Scenes Tours
Bird Show
Birthday Party Animal Encounter
Classroom Programs
Exhibit Host
Meet the Keeper
Produce Hunt
Public Programs - Enrichment
Public Programs - Trainings
Scout Badge Program
Sleepovers

Field Conservation

African Penguin Conservation

American Association of Zoo Keepers (AAZK) – Rainforest Conservation Parking Meter

Amphibian Ark

AZA Conservation Grants Fund (CGF)

AZA Jaguar SSP

Black-Footed Ferret Monitoring

Burrowing Owl Conservation

- Chihuahuan Desert Education Coalition Certified Habitat Program
- Indonesia Species Conservation Program (ISCP)

Lion Guardians - Kenyan Maasailand

- Mexican Wolf Conservation
- National Wildlife Health Center (NWHC)

Proyecto Tití Raptor Rehabilitation Save the Vaquita Saving Asian Wild Horses Second Chance Wildlife Rescue World Wildlife Fund (WWF) – Flying Squad Project

Green Practices

ENERGY Generated Renewable Energy On-Site

EXTERNAL SUPPORT Received Support From External Sources for Green Projects

FUEL

Documented Amount Spent Documented Amount Used

GREEN CERTIFICATIONS Certified as a Wildlife Habitat

GREEN PRACTICES IMPLEMENTED

Alternative Transportation Benefits for Staff Commingled Recycling Composting On-Site or Off-Site Graywater Reuse and/or Rainwater Harvesting Local Food Procurement for Animals and/or Guests Solar or Wind Energy Generation Wastewater Reduction

ELLEN TROUT ZOO

Field Conservation

AZA Conservation Grants Fund (CGF) AZA Louisiana Pine Snake SSP - Conservation Initiative Black Bear Task Force Croc School Scholarship CrocFest Zoo Conservation Outreach Group (ZCOG)

FORT WORTH ZOO

Field Conservation

Arthur A. Seeligson Jr. Conservation Fund AZA Louisiana Pine Snake SSP - Reintroduction AZA Puerto Rican Crested Toad SSP Bonobo and Congo Biodiversity Initiative (BCBI) Caribbean Wildlife Conservation Chiricahua Leopard Frog Rescue and Reintroduction Conservation of the Critically Endangered Anegada Iguana Cryptobranchid Interest Group Houston Toad Rescue and Reintroduction International Elephant Foundation (IEF) International Iguana Foundation (IIF) - Iguana Conservation International Rhino Foundation (IRF) - Rhino Conservation Jamaican Iguana Conservation and Reintroduction Project Jamaican Iguana Recovery Program Monarch Watch Mountain Bongo Project **Okapi Conservation Project** Panamanian Golden Frog Conservation and Education Outreach Pecos Pupfish Rescue Pollinator Habitat Restoration Puerto Rican Harlequin Butterfly Monitoring Roatan Iguana Conservation Program Spot-Tailed Earless Lizard Assurance Population and Research Texas Freshwater Mussel Propagation and Research Texas Horned Lizard Reintroduction Turtle Survival Alliance (TSA) - Turtle and Tortoise Conservation Virgin Islands Tree Boa Reintroduction and Research **Green Practices** ENERGY

Documented Amount Used

FUEL

Documented Amount Spent Documented Amount Used

GREEN PRACTICES IMPLEMENTED

Commingled Recycling Composting On-Site or Off-Site

Construction Waste Diversion / Recycling

PLANS, POLICIES AND BUDGETS

Dedicated Full-Time Equivalent (FTE) Staff to Coordinating Green Practices

WASTE

Documented Amount Recycled Documented Amount Sent to Landfill Documented Amount Spent on Landfill Waste

WATER

Documented Amount of Wastewater Generated Documented Amount Spent Documented Amount Used

Mission-Focused Research

Activity Budget for an Adult Female Asian Elephant

Behavioral Monitoring of a Fort Worth Zoo Gorilla Troop

- Behavioral Monitoring of a Male Mandrill at the Fort Worth Zoo
- Bonobo Maternal Behavior and Infant Developmental Behavior
- Comparison of Fresh and Frozen Fecal Samples in Two Transport Medias for the Detection of Enteric Bacteria in Rock Iguanas
- **Elephant Nutrition Project**
- Exposure of Two Organic Chemicals on Hellbender Larvae

Iguana Enrichment Study

- Linking *In-Situ* and *Ex-Situ* Populations of Threatened Amphibians: Using the Puerto Rican Crested Toad and Chiricahua Leopard Frog as a Model
- Pharmacokinetics of Itraconazole in African Penguins

Pharmacokinetics of Itraconazole in Lesser Flamingos

Scales on Trails

FOSSIL RIM WILDLIFE CENTER

Field Conservation

Addax Antelope Assurance Population Attwater's Prairie Chicken Database AZA Conservation Grants Fund (CGF) AZA SAFE - Vaquita Program Dama Gazelle Conservation Assurance Population Dama Gazelle Genetic Study International Elephant Foundation (IEF) - Salary Administration International Rhino Foundation (IRF) IUCN/SSC Asian Wild Cattle Specialist Group - Saola Working Group Masked Bobwhite Quail Recovery Team Participation Mexican Wolf Assurance Population Okapi Conservation Project Red Wolf Assurance Population Scimitar-Horned Oryx Conservation Assurance Population Source Population Alliance (SPA) Southern Black Rhinoceros Conservation Assurance Population

Zoological Association of America's (ZAA) Legislative Fund

Green Practices

ENERGY

Documented Amount Used

EXTERNAL SUPPORT

Received Support From External Sources for Green Projects

FOOD

Sourced Local Food or Grew It On-Site

FUEL

Documented Amount Spent

GREEN CERTIFICATIONS Certified as a Monarch Watch Waystation

GREEN PRACTICES IMPLEMENTED

Commingled Recycling

Community-Based Sustainability Projects Composting On-Site or Off-Site Construction Waste Diversion / Recycling Graywater Reuse and/or Rainwater Harvesting Green Building Policy / Commitment Green Information Technology (IT) Local Food Procurement for Animals and/or Guests Stormwater Management Program Water-Wise Landscaping

PLANS, POLICIES AND BUDGETS

Dedicated a Line Item in the Budget for Green Practices Dedicated Full-Time Equivalent (FTE) Staff to Coordinating Green Practices Developed or Updated a Sustainability Plan (or Equivalent) Developed or Updated a Sustainability Policy

WASTE

Documented Amount Spent on Landfill Waste

WATER

Documented Amount of Wastewater Generated Documented Amount Used

Mission-Focused Research

Attwater's Prairie Chicken Fenbendazole Toxicity Study

Comparison of Butorphanol-Azaperone-Medetomidine (BAM) and Thiafentanil in Addax Antelope

Determining Sexual Maturity in Male Addax (*Addax nasomaculatus*) via Electroejaculation

Morbidity and Mortality in Maned Wolves

Vitamin D in Black Rhinoceros

GLADYS PORTER ZOO

Education Programs

Birthday Safari Off-Site Presentations On-Site Presentations Outreach Program Starlight Safari Students Teaching Students Summer Safari Teacher Workshops Tours

Field Conservation

CrocFest

Health Screening of Ocelots

International Iguana Foundation (IIF)

International Rhino Foundation (IRF)

- Kemp's Ridley Sea Turtle Recovery Program: Mexico / United States
- North American Philippine Crocodile Cooperative Breeding and Conservation Program

Pangolin Consortium

Sea Turtle, Inc.

HOUSTON AQUARIUM, INC.

Education Programs

Animal Encounter Aquarium Adventure Exhibit Tours Behind the Scenes Tour Career Day Classroom / Lab Programs Community Outreach Educator Open House Homeschool Day Hospital Outreaches Marine Biologist / Zoologist for a Day Programs **Outreach Programs** Private Interactive Diver Show **Public Tank Feedings** Scout Programs Sea Safari Camp Self-Guided Tours Shark Weekend Stingray Reef **Tiger Chat** Tiger Weekend Wild Dreams Overnight

Working on the Wild Side

Field Conservation

American Association of Zoo Keepers (AAZK) – Bowling for Rhinos

Fins Attached

OCEARCH

Wildlife Alliance

World Parrot Trust (WPT)

HOUSTON ZOO, INC.

Education Programs

Adult Camp Zoofari Adult Volunteer: Animal Conservation Team Adventure Classes Alternative Teen Break Animal Encounters Assembly Programs Camp Zoofari - Summer Only College-Aged Zoo Internship Collegiate Conservation Program (CCP) Educator Day Educator Workshops Educators Night Out Educators Open House Family Nature Club Family Travel Program - Yellowstone National Park Homeschool Programs Interpretive Programs Pop-Up Play Events on Zoo Grounds School Break Camp Zoofari School Partnerships Scout Badge Days Storytelling Workshop - Andy Goodman Teen Career Conference Wild Together - Zoo Tour for Early Onset Alzheimer's Wild Wheels Zoo Crew - October - May Teen Program Zoo Crew - Teen Summer Only Program Zoo Overnights

Zoo Sprouts!

Zoo Yoga

ZooMobile

Field Conservation

Attwater's Prairie Chicken Recovery Program

AZA SAFE

AZA SAFE - Vaquita

Blue-Billed Curassow: Acoustic Monitoring and Camera Traps to Determine Landscape Connectivity

Bornean Small Carnivore Program

Coastal Prairie Partnership

- Conservation and Ecology of the Giant Armadillo in the Brazilian Pantanal
- Conservation Centers for Species Survival (C2S2) Cheetah

Conservation Heritage Turambe Rwanda

Conservation of the Painted Terrapin in Indonesia

East Texas Black Bear Task Force

Eastern Ghats Wildlife Society

Gorilla Rehabilitation and Conservation Education (GRACE) Center

Grevy's Zebra Trust

Groupe d'Étude et de Recherche sur les Primates de Madagascar (GERP)

Herpetofauna Survey of the Tillari Bioregion, Northern Western Ghats, India

Hirola Antelope

Houston Toad Headstart and Recovery Program

Human-Wildlife Conflict Collaboration

International Crane Foundation (ICF)

International Elephant Foundation (IEF)

International Rhino Foundation (IRF)

IUCN/SSC Asian Wild Cattle Specialist Group – Saola Working Group – Saola Conservation Project

IUCN/SSC Conservation Planning Specialist Group (CPSG)

IUCN/SSC Primate Specialist Group – Lemur Conservation Strategy and Action Plan

Jane Goodall Institute

Kinabatangan Orangutan Conservation Project

Landscape Ecology and Behavioral Responses of the Sunda Pangolin (*Manis javanica*) to Habitat Fragmentation and Degradation in Sabah, Malaysia Laos Elephant Conservation Center

Lion Guardians

Lion Landscapes

Lowland Tapirs as Landscape Detectives for the Atlantic Forest: A New Conservation Approach

MarAlliance

- Mariana Avifauna Conservation (MAC) Project
- Mountain Gorilla Veterinary Project
- Niassa Carnivore Project
- Niassa Carnivore Project Elephant-Beehive Fence
- Okapi Conservation Project
- Painted Dog Conservation (PDC)
- Panama Amphibian Rescue and Conservation (PARC)
- Pride Lion Conservation Alliance
- Proyecto Tití
- Ruaha Carnivore Project (RCP)
- Satellite Tracking and Social Behaviour of the Bornean Elephant in the Lower Kinabatangan Wildlife Sanctuary: Sabah, Malaysia
- Saving Endangered Grey Crowned Cranes in Rwanda
- Saving Vietnam's Wildlife: Veterinary Services Training and Capacity Building
- Sea Turtle Rescue and Rehabilitation in the Gulf of Mexico
- Sea Turtles: Argentina
- Tiger Conservation in the Endau-Rompin Landscape of Peninsular Malaysia
- Toward Building a Conservation Constituency on Galápagos Through Science and Environmental Education
- Wildlife Conservation Network (WCN) Ewaso Lions
- Zoo Conservation Outreach Group (ZCOG) Anteaters and Highways

Green Practices

ENERGY

Documented Amount Used

Documented Square Footage of Conditioned Space

Generated Renewable Energy On-Site

EXTERNAL SUPPORT

Received Support From External Sources for Green Projects

FOOD

Sourced Local Food or Grew It On-Site

FUEL

Documented Amount Spent Documented Amount Used

GREEN PRACTICES IMPLEMENTED

Alternative Transportation Benefits for Staff Alternative Transportation Discounts for Guests Commingled Recycling Community-Based Sustainability Projects Composting On-Site or Off-Site Graywater Reuse and/or Rainwater Harvesting Green Building Policy / Commitment Local Food Procurement for Animals and/or Guests Solar or Wind Energy Generation Water-Wise Landscaping

PLANS, POLICIES AND BUDGETS

Dedicated a Line Item in the Budget for Green Practices

- Dedicated Full-Time Equivalent (FTE) Staff to Coordinating Green Practices
- Developed or Updated a Sustainability Plan (or Equivalent)

Developed or Updated a Sustainability Policy

WASTE

Documented Amount Composted

Documented Amount Recycled

- Documented Amount Sent to Landfill
- Documented Amount Spent on Landfill Waste

WATER

Documented Amount Used

Mission-Focused Research

- Collaborative Research Project Investigating Elephant Endotheliotropic Herpesvirus (EEHV)
- Comparison of Alfaxalone, Tiletamine/Zolazepam, and Dexmedetomidine Injectable Pre-Anesthetics and Immersion in Tricaine Methanesulfonate (MS-222) for Surgical Level Anesthesia in the Houston Toad

Establishment of Complete Blood Count Parameters in Healthy Individuals of the Adult Houston Toad Captive Assurance Population at the Houston Zoo

Intramuscular Oxytetracycline Injection Duration in Attwater's Prairie Chickens (*Tympanuchus cupido attwateri*)

Sound Level Data Collection During Seasonal Special Events and Sound Level Impact on Zoo Collection

RAINFOREST AND AQUARIUM AT MOODY GARDENS, INC.

Green Practices

ENERGY

Documented Amount Spent Documented Amount Used

Documented Square Footage of Conditioned Space

FUEL

Documented Amount Spent Documented Amount Used

GREEN PRACTICES IMPLEMENTED

Building Energy Management Commingled Recycling Composting On-Site or Off-Site Construction Waste Diversion / Recycling Graywater Reuse and/or Rainwater Harvesting Wastewater Reduction

PLANS, POLICIES AND BUDGETS

Dedicated a Line Item in the Budget for Green Practices Dedicated Full-Time Equivalent (FTE) Staff to Coordinating Green Practices Developed or Updated a Sustainability Plan (or Equivalent) Developed or Updated a Sustainability Policy

WASTE

Documented Amount Composted Documented Amount Recycled Documented Amount Sent to Landfill

Documented Amount Spent on Landfill Waste

WATER

Documented Amount Spent Documented Amount Used

SAN ANTONIO ZOOLOGICAL SOCIETY

Education Programs

Community-Based Programs Docent Station Encounters **Guest Encounters Butterflies** Guest Encounters Lory Landing Guest Encounters Giraffes Intern / Service Volunteer Training and Hours Served Interpretation and Fieldwork (Teen) Outreaches **Playleader Encounters** Real.Wild.Classrooms. School Group Visits Sleepovers Staff Interpretation Summer Camp Volunteer Training (Adult) Volunteer Training (Teen)

Zoo School

Field Conservation

AZA Crocodilian Advisory Group (CAG)

AZA FrogWatch USA

AZA Komodo Dragon SSP

AZA Puerto Rican Crested Toad SSP – Captive Reproduction and Reintroduction of the Puerto Rican Crested Toad (*Peltophryne lemur*) Tadpoles

Bolson Tortoise Recovery Project

Cave Fauna Biodiversity

Chilean Amphibian Conservation Center

Chinese Cave Fish Working Group

- Colobus Conservation, Ltd.
- Conservation of the Georgia Blind Salamander and the Dougherty Plain Cave Crayfish
- Conservation of the Reticulated Flatwoods Salamander (Ambystoma bishopi)

Ducks Unlimited, Inc. Habitat Restoration Around Bracken Bat Cave International Rhino Foundation (IRF) IUCN/SSC Conservation Planning Specialist Group (CPSG) Kemp's Ridley Sea Turtle Project Lone Star Rattlesnake Days

Madagascar Fauna and Flora Group (MFG)

Deep-Pelagic Nekton Dynamics (DEEPEND)

- Mexican Blindcat Program
- Monarch Butterfly Marking Project
- Monarch Larval Monitoring Survey
- Monarch Watch Monarch Waystation Program
- Nagaland Zoo, India Burmese Black Tortoise Conservation
- Okapi Conservation Project Wildlife Conservation Global
- Population Ecology of the Grotto Salamander (*Eurycea spelaea*)
- Project Selva (Peruvian Cooperative)
- Rough Footed Mud Turtle Project
- San Antonio Zoo Center for Conservation and Research
- Snow Leopard Trust (SLT)
- Texas Horned Lizard Reintroduction Project
- The Ocean Project
- Universidad Autónoma de Nuevo León Captive Rattlesnake Husbandry
- Wild Cats of Tamaulipas
- Zoo Conservation Outreach Group (ZCOG)

Green Practices

ENERGY

Documented Amount Spent Documented Square Footage of Conditioned Space Generated Renewable Energy On-Site

FOOD

Sourced Local Food or Grew It On-Site

FUEL

Documented Amount Spent

GREEN PRACTICES IMPLEMENTED

Alternative Fuel Usage for On-Site Fleet Alternative Transportation Benefits for Staff Commingled Recycling Composting On-Site or Off-Site Construction Waste Diversion / Recycling Energy Submetering Graywater Reuse and/or Rainwater Harvesting Green Purchasing Policy / Green Procurement Solar or Wind Energy Generation Water-Wise Landscaping

PLANS, POLICIES AND BUDGETS

Dedicated a Line Item in the Budget for Green Practices

Dedicated Full-Time Equivalent (FTE) Staff to Coordinating Green Practices

Developed or Updated a Sustainability Plan (or Equivalent) Developed or Updated a Sustainability Policy

WASTE

Documented Amount Spent on Landfill Waste

WATER

Documented Amount Spent

Mission-Focused Research

Tamaulipan Rock Rattlesnake Telemetry Study in Nuevo León Mexico

SEA LIFE GRAPEVINE AQUARIUM

Education Programs

Amazing Cephalopods Backstage Tour Clown Fish Presentation Crustaceans Presentation Meet the Creatures Ocean and Sea Turtle Presentation Octopus Presentation Quiz Trail Rainforest Adventure Presentation Sea Turtle Presentation

Seahorse Presentation

Senses of the Sea

Shark School

Squid Dissection

Stingray/Shark Presentation

Turtle Time

Young Environmentalist Program

Field Conservation

Lake Grapevine Beach Cleanup

Green Practices

ENERGY

Documented Amount Spent

Documented Amount Used

Documented Square Footage of Conditioned Space

GREEN CERTIFICATIONS

Documented Square Footage of Facility With Green Building Certification

One or More Buildings LEED-Certified by the US Green Building Council

GREEN PRACTICES IMPLEMENTED

Building Energy Management

Commingled Recycling

Denitrification Systems

Green Information Technology (IT)

PLANS, POLICIES AND BUDGETS

Developed or Updated a Sustainability Plan (or Equivalent) Developed or Updated a Sustainability Policy

WASTE

Documented Amount Recycled Documented Amount Sent to Landfill

WATER

Documented Amount Spent Documented Amount Used

SEAWORLD SAN ANTONIO

Field Conservation

Critical Care of Stranded, Endangered Cook Inlet Beluga Whale

Galveston Bay Foundation's Marine Debris Events and Abandoned Crab Trap Removal

Impacts of Hurricane Harvey on Galveston Bay Dolphins

Living Lands and Waters - Aquatic Debris Removal From America's Rivers

Living Lands and Waters – Big River Education and Leadership Initiatives

SeaWorld San Antonio - Animal Rescue and Rehabilitation Program

Texas Adopt-A-Beach Program

Texas Marine Mammal Stranding Network

Texas Marine Mammal Stranding Network – Photographic Identification Mark-Recapture Abundance Proposal for Bottlenose Dolphins (*Tursiops truncatus*) in the Galveston Bay System

Vancouver Aquarium Marine Science Centre – Mom, Can You Hear Me? Impacts of Underwater Noise on Mother-Calf Communication in Endangered Beluga Whales

TEXAS STATE AQUARIUM

Education Programs

Animal Presentations/Encounters Aquarium Biofact Carts Aquarium Discovery Programs Aquavision Distance Learning Camp-Ins Conservation Theme Days Exclusive Encounters Exhibit Interpretation/Interactions Homeschool Mini Camps Outreach Party for the Planet Play to Learn SeaCamp Seafood Wars

Teacher Professional Development

Wildlife Theater Shows World Oceans Day

Field Conservation

Adopt-a-Beach

- Aquarium Conservation Partnership (ACP)
- AZA Conservation Grants Fund (CGF)
- AZA SAFE Founders Circle
- AZA SAFE Vaquita Conservation, Protection and Recovery (Vaquita CPR)
- Rattlesnake Preservation Trust Lone Star Rattlesnake Days Sponsorship
- SExual COral REproduction (SECORE)
- University of Texas Marine Science Institute (UTMSI) Animal Rehabilitation Keep
- Wildlife Rehabilitation Program

Mission-Focused Research

Wildlife Care, Conservation and Research Fund – Genetic Composition of Immature Kemp's Ridley Turtles in the Gulf of Mexico

THE DALLAS WORLD AQUARIUM

Education Programs Earth Day Celebration Exhibit Ambassadors Exhibit Touchscreens Field Guide General Education Program International Sawfish Day Keeper Talks Member Newsletter Migratory Bird Day Online and Off-Site Lectures Vaquita Awareness Day World Oceans Day Celebration

Field Conservation

Amazon Rescue Center Caribbean Manatee Conservation Costa Rican Sloth Conservation Cuban Crocodile Conservation Harpy Eagle Conservation Horned Guan Conservation IUCN/SSC Conservation Planning Specialist Group (CPSG) Jabiru Stork *Ex-Situ* Conservation Lone Star Rattlesnake Days Mexican Crocodilian Conservation Orinoco Crocodile Conservation Project Red Uakari Monkey Conservation Resplendent Quetzal Conservation

Utah

TRACY AVIARY

Education Programs

Book and Boots Field Trip Tours Kids Camps (Spring, Summer and Fall) Little Chicks Nature in the City Riparian Education – Summer School Outreach Scout Workshops Site Interpretation Volunteer Training Wetlands Tour

Field Conservation

Alta Baseline Bird Monitoring Alta Nest Box Monitoring Study Assessing the Bird Community at Mill Creek Confluence Before and After Restoration Baseline Bird Inventory in Liberty Park Baseline Inventory - Regional Athletic Conference and Jordan River Golfcourse Bird Monitoring at Herman Franks Park

Bird Monitoring at Salt Lake City's Water Reclamation Facility

- Bird Monitoring Before and After Daylighting and Restoration of the Three Creeks Confluence
- Bird Monitoring in Galena Soo'nkhanni
- Bird Monitoring in the Big Bend Restoration Area
- Bringing Lucy's Warblers Home: Discovering Nesting Needs and Preferences to Increase Nesting Opportunities
- Citizen Science: Monitoring of Short-Eared Owls
- City Creek Citizen Science Project
- Dark Skies Program
- Great Green Macaw Conservation and Education
- Great Salt Lake Partnership for Education and Longitudinal Investigation of American White Pelicans (PELI) Project
- Monitoring Migratory Snowy Plovers (*Charadrius nivosus*) and Overwintering Shorebirds in Mexico
- Movement of American White Pelicans in Northern Utah: Management Implications on Nesting and Foraging Grounds
- Participation of Tracy Aviary Staff in Field Conservation Projects
- Population Connectivity of Snowy Plovers (*Charadrius nivosus nivosus*) on the Southern Great Plains of Texas, New Mexico and Oklahoma
- Project Broadtail
- Staff Field Conservation Grant The California Condor Restoration Project
- Staff Field Conservation Grant Trapping and Banding of American White Pelicans in Northern Utah
- Vegetation Structure and Insect Prey Availability in Sage-Grouse Brood-Rearing Habitat
- Wildlife Rehabilitation Center of Northern Utah (WRCNU)

Green Practices

ENERGY

Documented Amount Used Documented Square Footage of Conditioned Space Generated Renewable Energy On-Site Purchased Renewable Energy

FUEL

Documented Amount Used

GREEN PRACTICES IMPLEMENTED

- Alternative Transportation Benefits for Staff
- Commingled Recycling
- Composting On-Site or Off-Site
- Construction Waste Diversion / Recycling
- Graywater Reuse and/or Rainwater Harvesting
- Green Building Policy / Commitment
- Purchasing Green Power or Renewable Energy Credits (RECs)
- Smart Buildings Systems
- Solar or Wind Energy Generation
- Stormwater Management Program
- Wastewater Reduction
- Water Submetering
- Water-Wise Landscaping

PLANS, POLICIES AND BUDGETS

- Dedicated Full-Time Equivalent (FTE) Staff to Coordinating Green Practices
- Developed or Updated a Sustainability Plan (or Equivalent)
- Developed or Updated a Sustainability Policy

UTAH'S HOGLE ZOO

Education Programs

Animal Encounters AZA FrogWatch USA Biofact Cart / Exhibit Interpretation Book Club Boy Scout Merit Badge Classes Cats and Cocoa Certified Interpretive Guide Training Conservation Partner Presentation Cub Scouts Talk Discovery Theater Distance Learning Programs Early Childhood Outreach Eco Explorer Stations Endangered Species Day

Environmental Film Series

Girl Scouts Classes	AZA FrogWatch USA
iSEE Outreach	AZA SAFE – Black-Footed Ferret
Keeper Camp	AZA SAFE - Vaquita
Keeper Programs for College Classes	Boreal Toad Conservation Program
Lunch With a Keeper	Giraffe Conservation Foundation (GCF)
Monroe After School Nature Play	Gorilla Rehabilitation and Conservation Education (GRACE)
Narrated Training Demonstrations	Center
Nature Club	HawkWatch International
Party for the Planet	International Elephant Foundation (IEF)
Polar Bear Whiteout	International Rhino Foundation (IRF)
Preschool Class	IUCN/SSC Conservation Planning Specialist Group (CPSG)
Primary Children's Hospital	Kinabatangan Orangutan Conservation Project
Project WILD	Lewa Wildlife Conservancy
Ronald McDonald House Outreach	Marine Mammal Center
Safari Magazine	Niassa Carnivore Project
Utah Master Naturalist Program	Olfactory Capabilities of the Polar Bear
Volunteer Animal Handling Training	Pan African Sanctuary Alliance (PASA) – Conservation Education, Community Engagement and Capacity Building
Volunteer Interpretive Training	Polar Bears International (PBI)
Walk-n-Talks	Proyecto Tití
Wild Aware Utah	Radiated Tortoise Conservation Program
Wild Aware Utah Day	Snow Leopard Trust (SLT)
World Elephant Day	Turtle Survival Alliance (TSA) - Radiated Tortoise Conservation Program
World Giraffe Day	
World of Flight Bird Show	Wild Aware Utah
Zoo Brew	Wildlife SOS
Zoo Camp	Yellowstone Forever
Zoo Discovery School	Course Development
Zoo Explorer Encounters	Green Practices
Zoo Just for You	ENERGY
ZooSnooz	Documented Amount Spent
	Documented Amount Used

Documented Square Footage of Conditioned Space

Generated Renewable Energy On-Site

Sourced Local Food or Grew It On-Site

Purchased Renewable Energy

FOOD

Field Conservation

Action for Cheetahs in Kenya

- Advanced Detection and Deterrence of Polar Bears (*Ursus maritimus*)
- American Association of Zoo Keepers (AAZK) Bowling for Rhinos

American Kestrel Partnership

AZA Conservation Grants Fund (CGF)

FUEL

Documented Amount Spent

Documented Amount Used

GREEN CERTIFICATIONS

Certified by the Green Restaurant Association

- Documented Square Footage of Facility With Green Building Certification
- One or More Buildings LEED-Certified by the US Green Building Council

GREEN PRACTICES IMPLEMENTED

Alternative Fuel Usage for On-Site Fleet

Alternative Transportation Benefits for Staff

Carbon Offsets for Employee Travel

Commingled Recycling

Composting On-Site or Off-Site

Construction Waste Diversion / Recycling

Energy Submetering

Green Information Technology (IT)

Purchasing Green Power or Renewable Energy Credits (RECs)

Stormwater Management Program

Water-Wise Landscaping

GREENHOUSE GAS EMISSIONS

Documented Amount of Greenhouse Gas Emissions

PLANS, POLICIES AND BUDGETS

Dedicated a Line Item in the Budget for Green Practices

Dedicated Full-Time Equivalent (FTE) Staff to Coordinating Green Practices

Developed or Updated a Sustainability Plan (or Equivalent)

WASTE

Documented Amount Composted

Documented Amount Recycled

Documented Amount Sent to Landfill

WATER

Documented Amount Spent

Documented Amount Used

Mission-Focused Research

- Application of 2D and 3D Photographic Technology to Estimate Body Size and Condition of Polar Bears
- Are We Expecting? Developing a Test for Early Pregnancy Detection in Captive Snow Leopards (*Panthera uncia*)
- AZA Elephant SSPs and TAG Compilation and Review of Archival Elephant Postmortem Data
- Evaluating Reproductive Success in Wild and Captive Polar Bears (*Ursus maritimus*)
- Evaluation of Efficacy of Improvest® in Female Giraffe to Cease Reproductive Cycling
- Felidae Barcoding Project, Dr Niamh Redmond, Smithsonian Institute and Consortium of Barcode for Life

Gastrointestinal Disease in Amur Tigers

- Genetic Diversity Found in Captive Population of *Chilabothrus inornatus*
- Investigating Stable Isotope Patterns Associated With Weaning in African Elephant Tail Hair Samples
- Monitoring Sexual Maturation of Polar Bears via Non-Invasive Fecal Analyses
- Noninvasive Molecular Genetic Surveys of Primates
- Optimizing Reproductive Success With Natural Breeding and Artificial Insemination in Pallas's Cats

Orangutan Low Starch Biscuit Study

Oxytocin as a Measure of Social Bond and Welfare in Western Lowland Gorillas (*Gorilla gorilla gorilla*) in North American Zoos

Polar Bear Reproduction and Skin Survey

- Retrospective Classification and Management Assessment of Canine Fractures in Captive Managed Populations of Great Apes
- Retrospective Study of Odontogenic Tumors in Zoo/Wildlife Species
- Successful Treatment of a Midstromal Corneal Ulceration and Descemetocele Using Equine Amniotic Membrane Grafts in a Snow Leopard (*Panthera uncia*): A Case Report

The Orangutan Conservation Genetics Project

Virginia

VIRGINIA AQUARIUM AND MARINE SCIENCE CENTER

Education Programs

Access Aquarium Birthday Parties for Children Gallery Programs School Programs - On-Site Scouts - Day Programs Scouts - Overnights Stranding Response Presentations Stranding Response Team Outreach Visits Stranding Response Team Trainings for Staff and Volunteers

Field Conservation

Aquarium Conservation Partnership (ACP)

AZA Conservation Grants Fund (CGF)

AZA FrogWatch USA

- AZA Komodo Dragon SSP
- AZA SAFE
- AZA SAFE Vaquita
- Coordinating Expert Response, Rehabilitation and Data Collection for Stranded Marine Mammals in Virginia
- Development of Materials to Update Virginia Marine Mammal Conservation Plan
- Development of Mid-Atlantic Humpback Whale Catalog (MAHWC)
- Equipment for the Stranding Response and Disentanglement of Marine Mammals and Sea Turtles in Virginia
- Gladys Porter Zoo Support for Crocodile Conservation
- IUCN/SSC Crocodile Specialist Group Tomistoma Task Force
- Kemp's Ridley Sea Turtle Population Recovery Project
- National Marine Mammal Foundation
- Pilot Study: Tagging Hauled-Out Juvenile Seals in Virginia
- Responding to Hooked Sea Turtles in Virginia
- Sea Turtle Nest Monitoring in Virginia Beach, Virginia
- Sea Turtle Tagging and Tracking in Chesapeake Bay and Coastal Ocean Waters of Virginia

SExual COral REproduction (SECORE)

Support for Delaware Shorebird Project

- Support for Post-Mortem Examination of Stranded Large Whales in Virginia
- The Center for Conservation Biology Osprey Banding and Tracking Project

Tracking Loggerhead Sea Turtle Yearlings

- Turtle Survival Alliance (TSA)
- Virginia Coastal Zone Management Program Grant Virginia Sea Turtle and Marine Mammal Stranding Network

Green Practices

ENERGY

Documented Amount Spent

Documented Amount Used

Documented Square Footage of Conditioned Space

EXTERNAL SUPPORT

Received Support From External Sources for Green Projects

FOOD

Sourced Local Food or Grew It On-Site

FUEL

Documented Amount Spent Documented Amount Used

GREEN CERTIFICATIONS

Certified by Virginia Green

GREEN PRACTICES IMPLEMENTED

Alternative Transportation Benefits for Staff

Building Energy Management

Commingled Recycling

Community-Based Sustainability Projects

Composting On-Site or Off-Site

Energy Submetering

Graywater Reuse and/or Rainwater Harvesting

Green Building Policy / Commitment

Green Information Technology (IT)

Green Purchasing Policy / Green Procurement

Local Food Procurement for Animals and/or Guests

Smart Buildings Systems Stormwater Management Program Wastewater Reduction Water Submetering

Water-Wise Landscaping

PLANS, POLICIES AND BUDGETS

Dedicated Full-Time Equivalent (FTE) Staff to Coordinating Green Practices

Developed or Updated a Sustainability Plan (or Equivalent) Developed or Updated a Sustainability Policy

WASTE

Documented Amount Composted

WATER

Documented Amount of Wastewater Generated Documented Amount Spent Documented Amount Used

Mission-Focused Research

Aerial Survey Baseline Monitoring of Virginia Capes (VACAPES) Range Aerial Surveys for Patuxent River Naval Training Area Monitoring Marine Debris in Virginia's Coastal Zone

VIRGINIA LIVING MUSEUM

Field Conservation

AZA FrogWatch USA AZA Lined Seahorse SSP AZA Red Wolf SSP Bird Feeder Watch Coastal Cleanup - Clean Virginia Waterways James River Water Quality Testing Monofilament Recycling and Fishing Gear Recovery North American Butterfly Association (NABA) - Annual Field Survey: Butterfly Count Oyster Restoration Project Clean Stream Roanoke Logperch Recovery Plan Sea Turtle Headstart Program Seagrass Restoration (Seed Collection) Turtle Census Virginia Amphibian Monitoring Project (VAMP)

Mission-Focused Research

Butterfly Count Invasive Turtle Species Census

Nutrient Uptake in Degraded and Restored Sections of Urban Streams in Newport News, Virginia

VIRGINIA ZOOLOGICAL PARK

Education Programs

Adventure Duos Behind the Scenes Tours **Birthday Parties** Conservation Youth Team **Discovery Carts** Early Childhood Story Times Programs Early Explorers Education Event Days (Zoo-Wide) Guided Tours Kids' Night Out Outreach to Schools Program Animal Pop-ups Safari Camps Snoozes Trail Hosting Twilight Programs Zoo Live Stage Zoo Tykes **Field Conservation**

Action for Cheetahs in Kenya Amazon Rescue Center AZA Ape TAG – Conservation Initiative AZA Conservation Grants Fund (CGF) AZA FrogWatch USA AZA SAFE – Founders Circle

AZA Tiger SSP - Tiger Conservation Campaign - Malayan Tiger
Cheetah Conservation Fund (CCF) Community-Based Crocodile Resource Management Program International Bongo Fund International Elephant Foundation (IEF) International Rhino Foundation (IRF) IUCN/SSC Tapir Specialist Group Lowland Tapir Conservation Initiative Mabula Ground Hornbill Project (MGHP) Philippine Hornbill Conservation Program Philippine Wildlife Management and Husbandry Care Workshops Polillo Islands Biodiversity Monitoring and Protection Program Red Panda Network (RPN) Sloth Institute of Costa Rica Thailand Hornbill Project Turtle Survival Alliance (TSA) - Turtle Survival Center Union Island Gecko Conservation Program

Green Practices

ENERGY

Documented Amount Spent Documented Amount Used Documented Square Footage of Conditioned Space

FUEL

Documented Amount Spent Documented Amount Used

GREEN PRACTICES IMPLEMENTED

Alternative Transportation Benefits for Staff Building Energy Management Community-Based Sustainability Projects Construction Waste Diversion / Recycling Energy Submetering Green Building Policy / Commitment Green Information Technology (IT) Stormwater Management Program Wastewater Reduction Water Submetering

Water-Wise Landscaping

PLANS, POLICIES AND BUDGETS

Dedicated Full-Time Equivalent (FTE) Staff to Coordinating Green Practices

WASTE Documented Amount Recycled Documented Amount Sent to Landfill

Documented Amount of Wastewater Generated Documented Amount Spent Documented Amount Used

Mission-Focused Research

WATER

Genetic Bank on All Rhino Species Rhino Sperm Rescue and Banking

Washington

NORTHWEST TREK WILDLIFE PARK

Education Programs Adventure Treks Amphibian Workshops CAP Cart Cheney Center **Conservation Programs** Core Area Contacts Elk Bugling Tour Family Camp Free Roaming Keeper Tour Habitat Monitoring Live Animal Presentations Photo Tours Scout Days Skype in the Classroom Special Events Tram Tours

Field Conservation

Fisher Rehabilitation and Release Project Pierce County Habitat Monitoring Training and Use of Scat-Sniffing Dogs for Field Population Studies

Trumpeter Swan Reintroduction Project

Green Practices

ENERGY Documented Amount Used

FOOD Sourced Local Food or Grew It On-Site

FUEL Documented Amount Used

GREEN CERTIFICATIONS Given a 5-Star Rating by EnviroStar

GREEN PRACTICES IMPLEMENTED

Alternative Fuel Usage for On-Site Fleet Commingled Recycling Composting On-Site or Off-Site Green Information Technology (IT) Stormwater Management Program

Water-Wise Landscaping

PLANS, POLICIES AND BUDGETS

Dedicated Full-Time Equivalent (FTE) Staff to Coordinating Green Practices

WATER

Documented Amount Used

POINT DEFIANCE ZOO AND AQUARIUM

Education Programs

Camp Adventures Career Day Career Discovery Programs Citizen Science Explore the Shore Beach Walks Internship Junior Guides Keeper Talks and Close Encounters Programs for Young Children Rent an Educator Science and Math Institute Instruction Senior Guides Snooze Overnights Special Events Summer Camp Assistants Visitor Interpretive Programs Wild Wonders Outdoor Theater Zoo Guides Zoo to School Zoo to You - Community Fee-Based Zoo to You - Gratis

Field Conservation

- A Habitat Suitability Analysis With Exploration of Education Program Effectiveness at Mitigating Human Perception of Red Wolves Across Its Historic Range
- Assessing the Carnivore Community of Pu Mat National Park: Systematic Surveys in One of Vietnam's Most Unexplored Forests
- Assessing the Corridors, Barriers to Movement, Threats and Conservation Needs of the Flat-Headed Cat in a Human Dominated Landscape

Assessing Walrus Benthic Prey Base in Bristol Bay, Alaska

- AZA SAFE Vaquita
- Conservation of the Clouded Leopards in the Chittagong Hill Tracts, Bangladesh

Developing Conservation Response Units in Sumatra

Fisher Recovery in Washington State

Foraging Ecology of Northern Sea Otters in Washington State

Khao Kheow Zoo - Clouded Leopard Breeding

Large Mammal Distributions Relative to Human Settlements Around an Important Protected Area in Borneo

Malayan Tapir Ecology and Conservation

Monitoring Movements of Translocated Clouded Leopards in Peninsular Malaysia to Assess the Efficacy of a Management Option People Need Forests, Forests Need Wildlife: Multi-Site, Multi-Partner Outreach to Conserve Wild Anoa and Babirusa in Sulawesi, Indonesia

Project Seahorse

- Red Wolf Zoo-Based Breeding and Recovery
- Regional Analysis of Long-Term Survey Data of Clouded Leopard (*Neofelis Nebulosa*) and Other Felids in Eastern Thailand
- Round Island Walrus Monitoring Program
- Shark Tagging in the Revillagigedo Islands
- The Effects of Anthropogenic Activities on Carnivores in Malaysian Borneo
- Tiger Conservation in the Greater Leuser Landscape and the Greater Bukit Baresan Selatan Landscape of Sumatra
- Using Ear Tag GPS Satellite-Linked Radios to Understand the On-Ice Distribution and Movement of Male Polar Bears in Hudson Bay
- Washington National Park Fund North Cascades Bear Trailer

Green Practices

ENERGY

Documented Amount Used

EXTERNAL SUPPORT

Received Support From External Sources for Green Projects

FOOD

Sourced Local Food or Grew It On-Site

FUEL

Documented Amount Used

GREEN PRACTICES IMPLEMENTED

Commingled Recycling

Community-Based Sustainability Projects

Composting On-Site or Off-Site

Energy Submetering

Green Purchasing Policy / Green Procurement

Greenhouse Gas (GHG) Inventory

Local Food Procurement for Animals and/or Guests

Purchasing Green Power or Renewable Energy Credits (RECs)

Water Submetering

Water-Wise Landscaping

GREENHOUSE GAS EMISSIONS

Documented Amount of Greenhouse Gas Emissions

PLANS, POLICIES AND BUDGETS

Dedicated a Line Item in the Budget for Green Practices

Dedicated Full-Time Equivalent (FTE) Staff to Coordinating Green Practices

Developed or Updated a Sustainability Plan (or Equivalent)

WASTE

Documented Amount Recycled

Documented Amount Sent to Landfill

WATER

Documented Amount Used

Mission-Focused Research

- Development of Non-Surgical Artificial Insemination for the Genetic Management of Tigers
- Non-Invasive Endocrinology to Enhance Animal Management at Point Defiance Zoo and Aquarium (PDZA)
- Role of Diet in the Severity of Inflammatory Bowel Lesions in Red Wolves
- Understanding the Link Between Gut Microbiomes and Inflammatory Bowel Disease in the Red Wolf

SEATTLE AQUARIUM

Field Conservation

Beach Naturalist Program

Cedar River Naturalist Program

Coastal Ecosystem Responses to Influences From Land and Sea

Hawaii Reef Study

Mussel Watch

National Oceanic and Atmospheric Administration (NOAA) – Ocean Acidification Report

Neah Bay Reef Video Survey

Northern Sea Otter Activity Budgets of Foraging Data

Olympic Sculpture Park Intertidal Monitoring

Puget Sound: Sixgill Shark Research and Conservation Project
Sea Otter Conservation Conference
Sea Otter Population Genetics
Sea Otter Pup Rehabilitation
Sea Turtle Rehabilitation
Sixgill Shark (*Hexanchus griseus*) Diver Sighting Database
Washington Sea Otter (*Enhydra lutris*) Annual Census

Green Practices

ENERGY

Documented Amount Spent Documented Amount Used Documented Square Footage of Conditioned Space Generated Renewable Energy On-Site

FOOD

Sourced Local Food or Grew It On-Site

FUEL

Documented Amount Spent Documented Amount Used

GREEN PRACTICES IMPLEMENTED

Alternative Transportation Benefits for Staff Building Energy Management Commingled Recycling Community Solar Program Composting On-Site or Off-Site Graywater Reuse and/or Rainwater Harvesting Green Building Policy / Commitment Green Information Technology (IT) Green Purchasing Policy / Green Procurement Greenhouse Gas (GHG) Inventory Local Food Procurement for Animals and/or Guests Smart Buildings Systems Solar or Wind Energy Generation

Wastewater Reduction

PLANS, POLICIES AND BUDGETS

Dedicated Full-Time Equivalent (FTE) Staff to Coordinating Green Practices

WASTE

Documented Amount Composted Documented Amount Recycled Documented Amount Sent to Landfill Documented Amount Spent on Landfill Waste

WATER

Documented Amount Spent Documented Amount Used

Mission-Focused Research

Alcid Feather Endocrinology Cow Shark Conservation Genetics Grey and Blue Whale Fecal Hormones Microplastic Monitoring Noninvasive Techniques to Monitor Reproductive Hormones of Captive Pacific Harbor Seals (*Phoca vitulina richardii*) Northern River Otter Toxicology Sea Otter Conservation Endocrinology Sea Otter Toxicology Sizgill Abundance

WOODLAND PARK ZOO

Education Programs Ambassador Animal Outreach Animal Stage Programs Docent Program - Raptor Cruising/Thematic Talks Docent Program - Toolboxes and Rambles Docent Program - Toolboxes and Rambles Docent Program - Animal Encounters Docent Program - Conservation Connections Family Nature Club Interpretive Engagements Public Programs - Wildlights Seattle Youth Climate Action Network Senior Programs

Woodland Park Zoo Educator Professional Development Programs Woodland Park Zoo School Programs Zoo Adventures (Overnight Program) Zoo Camps Zoo Crew Zoomazium – Visitation/Interactive Play Zoomazium Programs

Field Conservation

Amphibian Monitoring

Asian Elephant Support (AES)

AZA Conservation Grants Fund (CGF)

AZA SAFE - Vaquita Rescue Project

Blue-Crowned Laughingthrush Annual Population Census

Evergreen Carbon Capture Program

Green Seattle

Hornbill Research Foundation (HRF) - Nest Adoptions in Thailand

HUTAN-Kinabatangan Orangutan Conservation Project – Elephant Conservation

Licton Springs Conservation and Restoration Project

Mbeli Bai Study (MBS)

Muraviovka Park for Sustainable Land Use

Northwest Amphibian Recovery Project

Orangutan Habitat Protection and Patrolling in Gunung Palung National Park

Panthera - Malayan Tiger Project

Partula Snail Recovery and Reintroduction Project

Partulid Global Species Management Programme

Proyecto Taguá

Raptor Ecology of the Shrub-Steppe

River Otters of Western Washington: Sentinels of Ecological Health

Ruaha Carnivore Project (RCP)

Saving the Asian Oryx

Silverspot Butterfly Conservation Project

Small Grants - Jaguar Conservation Fund

Snow Leopard Trust (SLT)

Tarangire Ecosystem Project - Tarangire National Park

Tree Kangaroo Conservation Program Washington Department of Fish and Wildlife – Duck Research Washington National Park Fund – Grizzly Recovery Washington Urban-Wildland Carnivore Project Western Pond Turtle Recovery Project Western Wildlife Outreach Wild Wise: Coexisting With Carnivores Woodland Park Zoo Conservation Advocacy and Action Campaigns Woodland Park Zoo's Northwest Carnivore Project

Green Practices

ENERGY

Documented Amount Spent Documented Amount Used Documented Square Footage of Conditioned Space

Generated Renewable Energy On-Site

FOOD

Sourced Local Food or Grew It On-Site

FUEL

Documented Amount Spent

Documented Amount Used

GREEN CERTIFICATIONS

Certified as a Wildlife Habitat

Documented Square Footage of Facility With Green Building Certification

One or More Buildings LEED-Certified by the US Green Building Council

Rated by EnviroStar

GREEN PRACTICES IMPLEMENTED

Alternative Fuel Usage for On-Site Fleet Alternative Transportation Benefits for Staff Alternative Transportation Discounts for Guests Building Energy Management Carbon Offset Purchase for On-Site Utility Use Carbon Offsets for Employee Travel Commingled Recycling

Community Solar Program

- Community-Based Sustainability Projects
- Community-Supported Agriculture (CSA) Program for Staff
- Composting On-Site or Off-Site
- Construction Waste Diversion / Recycling
- Energy Submetering
- Graywater Reuse and/or Rainwater Harvesting
- Green Building Policy / Commitment
- Green Information Technology (IT)
- Green Purchasing Policy / Green Procurement
- Greenhouse Gas (GHG) Inventory
- Local Food Procurement for Animals and/or Guests
- Smart Buildings Systems
- Solar or Wind Energy Generation
- Stormwater Management Program
- Usage of Enterprise (IT) Solutions To Track, Measure and Dashboard Sustainability Performance
- Wastewater Reduction
- Water Submetering
- Water-Wise Landscaping

GREENHOUSE GAS EMISSIONS

Documented Amount of Greenhouse Gas Emissions

Reported Greenhouse Gas Emissions to a Climate Registry

PLANS, POLICIES AND BUDGETS

- Dedicated Full-Time Equivalent (FTE) Staff to Coordinating Green Practices
- Developed or Updated a Sustainability Plan (or Equivalent)

WASTE

- Documented Amount Composted
 Documented Amount Recycled
- Documented Amount Sent to Landfill
- Documented Amount Spent on Landfill Waste

WATER

Documented Amount of Wastewater Generated Documented Amount Spent Documented Amount Used

Mission-Focused Research

- Analysis of Serum Calcium, Parathyroid Hormone and 25-Hydroxyvitamin D in Select Captive African Primates
- AZA Western Pond Turtle SSP Species Identification of Western Pond Turtle SSP Program Animals Through Genetic Evaluation
- Captive Orangutan Dentition Emergence Compilation Project
- Characterizing the Development of Rictal Bristles in the Tawny Frogmouth
- Comparative Rearing Techniques for Western Pond Turtles (*Actinemys marmorata*) and Their Effect on Host Shell Microbiome
- Comparison and Annotation of a Structural Polymorphism in the Latherin (LATH) Gene of Equine and Related Species
- Correlations of Behavior Between Matschie's Tree Kangaroo in Papua New Guinea and Captive Tree Kangaroos in Woodland Park Zoo
- Environmental DNA for Inventory and Monitoring Aquatic Species
- Foot Coloration and Age in Humboldt Penguins
- Great Ape Neuroscience Project
- Metagenomic Sequencing of Animal and Insect Viral Discovery
- Movements and Spatial Use of Forest by Matschie's Tree Kangaroo in Papua New Guinea: Testing a New GPS Collar for Field Work at Woodland Park Zoo
- Ovarian Function in Captive Female Orangutans
- Post-Hatching Development of the Flamingo's Bill
- Prevalence, Risk Factors and Survival of Zoo Animals With Cancer
- Retrospective Study of Odontogenic Tumors in Zoo/Wildlife Species

Tree Kangaroo Reproductive Tissue Study

West Virginia

OGLEBAY'S GOOD ZOO

Field Conservation

AZA FrogWatch USA

Captive-Rearing of Eastern Hellbenders Destined for Reintroduction

Eastern Hellbender Endangered Species Act Candidate

Monarch Watch

Proyecto TitÍ - Donation

Raptor Rehabilitation

Status Assessment of the Eastern Hellbender in West Virginia Surveillance for White-Nose Syndrome in West Virginia

Wisconsin

HENRY VILAS ZOO

Education Programs

Biofact Carts and Interactive Kits Program (Discovery Docents) Conservation Education Awareness Days Meet and Greet Preschool Pride Sleepover Zoo Camp (Summer Camp) Zoo-To-You Program

Field Conservation

AZA African Penguin SSP - Sea Research Foundation AZA Orangutan SSP - Field Conservation Program AZA Orangutan SSP - Field Conservation Support AZA Tiger SSP - Tiger Conservation Campaign Catching Hope: Repurposed Poaching Snare Project Deputy Director Sea Turtle Nest Monitoring in Florida International Rhino Foundation (IRF) Monarch Watch Orangutan Conservation Genetics Project Polar Bears International (PBI) Red Panda Network (RPN)

Ruaha Carnivore Project (RCP)

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

Mission-Focused Research

Assessing the Timing and Rate of Fur Growth in Captive Polar Bears

AZA Orangutan SSP - Genetics Project

AZA Tiger SSP – 2017 SSP Tiger Gamete Rescue Post Mortem

Evolution of the Primate Gut Microbiota: A Comparative Analysis of the Hind Gut Microbiome in Captive and Free-Living Primates Using High Throughput 16S rDNA Sequencing

Red Panda Fecal Survey

Serum Concentration Comparisons of Fatty Acids, Amino Acids, Vitamins, Minerals and Cholesterol, Between Free-Ranging and Zoo Polar Bears (*Ursus maritimus*)

The Carl H. Lindner Jr. Family Center for Conservation and Research of Endangered Wildlife (CREW) – Artificial Insemination (AI) of Polar Bears

INTERNATIONAL CRANE FOUNDATION

Field Conservation

African Crane Trade Project Black-Necked Crane China Project Eastern Migratory Whooping Crane Reintroduction Mozambique Zambezi Delta Project North America Sandhill Program Red-Crowned Crane: China Flyway Project Red-Crowned Crane: Russia Amur Lowlands Project (Muraviovka Project) **Rwanda** Project Sarus Crane: Cambodia Project Sarus Crane: Myanmar Project Sarus Crane: Vietnam Project SarusScape: Australia SarusScape: South Asia Siberian Crane: China Staging - Stopover Area Project Siberian Crane: Russia Breeding Area Project Siberian Crane: Wintering Area Project - Poyang Lake Project

- South African Drakensberg Project
- South African Highveld Project
- South African Western Cape Project
- South Central Uganda Project
- South Korea Crane Project
- South West Uganda Project
- Western Kenya Project
- White-Naped Crane: Western Flyway Project in Mongolia
- Whooping Crane Central Flyway Project: Aransas Wood Buffalo Population Breeding and Migratory Stopover Areas
- Whooping Crane: Texas Wintering Area Project
- Zambia Bangweulu System Project
- Zambia Kafue Flats Project
- Zambia Liuwa Plains Project
- Zambia South Luanga Project

Green Practices

ENERGY

Documented Amount Used Documented Square Footage of Conditioned Space Generated Renewable Energy On-Site

GREEN PRACTICES IMPLEMENTED

Alternative Fuel Usage for On-Site Fleet

- Commingled Recycling
- Community-Supported Agriculture (CSA) Program for Staff
- Composting On-Site or Off-Site
- Construction Waste Diversion / Recycling
- Graywater Reuse and/or Rainwater Harvesting
- Green Building Policy / Commitment
- Green Information Technology (IT)
- Solar or Wind Energy Generation
- Stormwater Management Program

PLANS, POLICIES AND BUDGETS

Developed or Updated a Sustainability Plan (or Equivalent)

WATER

Documented Amount of Wastewater Generated Documented Amount Used

Mission-Focused Research

- Are There Emerging Health Concerns for Eastern Migratory Whooping Cranes?
- Assessment of the Impact to Cranes From a Newly Constructed Transmission Line
- Attitudes, Knowledge and Beliefs About Whooping Cranes
- Biomonitoring of Whooping Cranes in the Central Flyway
- Climate Change Vulnerability Assessment for Three Important Wetlands in the Mekong River Delta
- Collaborative Telemetry Egg Incubation Parameter Study
- Comparison of Sandhill and Whooping Crane Breeding Success in Wisconsin
- Conservation of Black-Necked Cranes on the Western Plateau in China
- Crane Semen Cryopreservation Study
- Determining Diet Composition and Ingestion Rate of Cranes Through Field Measurement
- Environmental, Genetic and Behavioral Influences on Reproductive Success in Reintroduced Whooping Cranes (*Grus americana*)
- Fecal Corticosterone and Potential Chronic Stress in Captive Whooping Cranes
- Glitchin River Watershed Project
- Human Use of Wetlands and Its Impacts: Developing Meaningful Conservation Strategies for South Asian Wetlands
- Hunting Pressure on Waterbirds Using Non-Protected Wetlands in South Asia
- Improving Nutrition and Outcomes of Displaced Rwandan Grey Crowned Cranes
- Increasing Crane Sperm Cryosurvival by Altering Liquid Composition of the Plasma Membrane
- Levels and Non-Lethal Impacts of Mercury Accumulation in Sarus Cranes Using an Intensively-Farmed Agricultural Landscape
- Long-Term Monitoring of Large Waterbirds in South Asian Agricultural Sarus-Scapes
- Muraviovka Park Bird Project
- Non-Invasive Biomonitoring of Contaminants in the Endangered White-Naped Crane
- Osteoarthritis in the Pelvic Limb of Captive Cranes (Family Gruidae)

Predator Response Behaviors in Wild and Captive Cranes

Sandhill Crane Long-Term Research

- Sarus Crane Population Monitoring in Cambodia and Vietnam
- Sarus Crane Population Monitoring in Myanmar
- The Effect of Hand Rearing on the Gut Microbial Communities and Host Physiology of Whooping Cranes
- Tissue Effects of Leg-Mounted Telemetry Devices in Whooping Cranes
- Waters for Wildlife: Monitoring the Use of Freshwater Ponds by Wintering Whooping Cranes on Private Lands
- Whooping Crane Eastern Partnership: Reintroduction
- Wintering Population Monitoring and Conservation of Siberian Cranes at Poyang Lake

MILWAUKEE COUNTY ZOOLOGICAL GARDENS

Education Programs

Adult Lecture

Alive Magazine

- Animal Ambassador Programs
- Animal Connections Continuum
- Animal Encounter
- Animals in Action Talks
- Behind the Scenes Weekend
- Big Brothers Big Sisters of America (BBBS) Classes
- Big Cat Conservation Day
- Bonobo and Congo Biodiversity Initiative (BCBI) Adult Literacy Classes
- Bonobo and Congo Biodiversity Initiative (BCBI) Field Day
- Bonobo and Congo Biodiversity Initiative (BCBI) Primary School Support
- Camps for Disadvantaged Youth
- Cow Milking Demonstration
- Early Childhood Teacher Workshops
- Endangered Species / SAFE Day
- Family Farm Weekend
- **Giraffe Feedings**
- Kids Conservation Club
- Kohl's Wild Theater On-Grounds
- Kohl's Wild Theater Outreach
- Kohl's Wild Theater Coloring Sheets
- Milwaukee Public Schools (MPS) Extended Learning

Mother's Day - Project MOM (Missing Orangutan Mothers) Nature Play Oceans of Fun Seal and Sea Lion Show Party for the Planet **Public Feedings** School Programs Scout Programming Summer Camps Wild Things Newsletter World Bird Sanctuary Birds of Prey Show World Elephant Day World Giraffe Day World Penguin Day Zoo Classes Zoo Pride - Behind the Scenes Tours Zoo Pride - Continuing Education Trainings Zoo Pride - Sensory Safari Zoo Pride - Speakers' Bureau Zoo Pride - Walk on the Wild Side Tours ZOOMobile Tour

Field Conservation

American Association of Zoo Veterinarians (AAZV) - Wild Animal Health Fund AZA Avian Scientific Advisory Group (ASAG) AZA Jaguar SSP **AZA Penguin TAG** AZA SAFE AZA SAFE - Vaquita Rescue Project AZA Tiger SSP - Tiger Conservation Campaign - Amur Tiger Project Bat Conservation International (BCI) Berggorilla and Regenwald Direkthilfe Gorilla Project Bia-Amazonia Conservation International - Project Piaba Bonobo and Congo Biodiversity Initiative (BCBI) Cheetah Conservation Botswana Costa Humboldt Elephants for Africa Giraffe Conservation Foundation (GCF)

Global Conservation Force Grand Cayman Blue Iguana Recovery Program Great Apes Survival Partnership (GRASP) - Funding Grenada Frog Study International Crane Foundation (ICF) International Elephant Foundation (IEF) International Rhino Foundation (IRF) International Rhino Keepers Association (IRKA) IUCN/SSC (Species Survival Commission) IUCN/SSC Conservation Planning Specialist Group (CPSG) IUCN/SSC Tapir Specialist Group - Wildlife Conservation Network (WCN) Jamaican Iguana Conservation Project Kibale Fuel Wood Project Lola Ya Bonobo Mabula Ground Hornbill Project (MGHP) Madagascar Fauna and Flora Group (MFG) Migratory and Resident Avifauna Study Orangutan Outreach Polar Bears International (PBI) Provecto Tití Red-Necked Ostrich Conservation Support Salonga National Park Bonobo Project Snow Leopard Trust (SLT) Tree Kangaroo Conservation Program Turtle Survival Alliance (TSA) Wild Camel Protection Foundation (WCPF) Wisconsin Bureau of Endangered Resources Herp Fund

Green Practices

ENERGY

Documented Amount Spent

Documented Amount Used

Documented Square Footage of Conditioned Space

Generated Renewable Energy On-Site

EXTERNAL SUPPORT Received Support From External Sources for Green Projects

FOOD Sourced Local Food or Grew It On-Site

FUEL Documented Amount Spent Documented Amount Used

GREEN CERTIFICATIONS Certified by Travel Green Wisconsin

GREEN PRACTICES IMPLEMENTED

Alternative Fuel Usage for On-Site Fleet Alternative Transportation Benefits for Staff **Building Energy Management** Commingled Recycling Community-Based Sustainability Projects Composting On-Site or Off-Site Construction Waste Diversion / Recycling Energy Submetering Graywater Reuse and/or Rainwater Harvesting Green Information Technology (IT) Green Purchasing Policy / Green Procurement Local Food Procurement for Animals and/or Guests Smart Buildings Systems Solar or Wind Energy Generation Stormwater Management Program Wastewater Reduction

Water-Wise Landscaping

PLANS, POLICIES AND BUDGETS

Developed or Updated a Sustainability Plan (or Equivalent) Developed or Updated a Sustainability Policy

WASTE

Documented Amount Composted Documented Amount Recycled Documented Amount Sent to Landfill Documented Amount Spent on Landfill Waste

WATER

Documented Amount of Wastewater Generated Documented Amount Spent Documented Amount Used

Mission-Focused Research

- AZA Elephant TAG Elephant Morbidity and Mortality Database
- AZA Matschie's Tree Kangaroo SSP Fecal Sample Cortisol Testing for Matschie's Tree Kangaroo
- Behavioral Assessment of Zoo-Housed Felids
- Bonobo Cardiovascular Database
- Bonobo Finger Blood Pressure Project
- Characterization of Bonobo Sperm Using Transmission Electron Microscopy
- Comparison of Circulating Vitamin D (250HD) in Captive North American and Free-Ranging South African Black Rhinoceros
- Drinking Water Quality and Water Husbandry at AZA Zoos
- Gastrointestinal Health Indicators in the Captive Tiger Population
- Great Ape Heart Project
- Relevancy of African and Asian Elephants in Zoological Facilities

NORTHEASTERN WISCONSIN (NEW) ZOO AND ADVENTURE PARK

Field Conservation

- AZA Black-Footed Ferret SSP Black-Footed Ferret Recovery Program With the United States Fish and Wildlife Service (USFWS)
- AZA FrogWatch USA
- AZA Red Wolf SSP
- AZA SAFE African Penguin
- AZA SAFE Black Rhinoceros
- AZA SAFE Gorilla
- AZA SAFE Projects Benefiting From Stonyfield Farm Inc. Support
- AZA SAFE Sea Turtle Program
- AZA SAFE Sharks and Rays
- AZA SAFE Vaquita Program
- AZA SAFE Whooping Crane
- Giraffe Conservation Foundation (GCF)
- Iowa Trumpeter Swan Restoration Program
- Jane Goodall Institute Roots and Shoots
- Sturgeon Guard Wisconsin Department of Natural Resources (DNR) Program

Green Practices

GREEN CERTIFICATIONS

Certified by Travel Green Wisconsin

GREEN PRACTICES IMPLEMENTED

Building Energy Management Commingled Recycling Community-Based Sustainability Projects Composting On-Site or Off-Site Construction Waste Diversion / Recycling Energy Submetering Green Purchasing Policy / Green Procurement Water-Wise Landscaping

RACINE ZOOLOGICAL GARDENS

Education Programs

AZA FrogWatch USA Behind the Scenes Birthday Parties Conservation Awareness Days Conservation Education Programs Keeper Chats Li'l Explorers Preschool at the Zoo Member Mondays Slumber Safari Summer Camp Volunteen Program Wildlife Explorers Wildlife Theater

Field Conservation

American Association of Zoo Keepers (AAZK) – Milwaukee Chapter AZA SAFE – African Penguin Individual Identification Project AZA SAFE – Vaquita Rescue International Tiger Day IUCN/SSC Conservation Planning Specialist Group (CPSG) Orangutan Awareness Day Sea Turtle Conservation Planning Specialist Group (CPSG) Orangutan Awareness Day Sea Turtle Conservation Planning Specialist Group (CPSG) Southern African Foundation for the Conservation of Coastal Birds (SANCCOB) – African Penguin Day Spectacled Bear Conservation Society – Peru Torhorst Wildlife Conservation Fund World Giraffe Day

World Rhino Day

Green Practices

ENERGY

Documented Amount Spent Documented Amount Used Documented Square Footage of Conditioned Space

EXTERNAL SUPPORT

Received Support From External Sources for Green Projects

FOOD Sourced Local Food or Grew It On-Site

FUEL Documented Amount Spent Documented Amount Used

GREEN PRACTICES IMPLEMENTED

Commingled Recycling Community-Based Sustainability Projects Green Purchasing Policy / Green Procurement Local Food Procurement for Animals and/or Guests Wastewater Reduction Water-Wise Landscaping

PLANS, POLICIES AND BUDGETS

Dedicated Full-Time Equivalent (FTE) Staff to Coordinating Green Practices Developed or Updated a Sustainability Plan (or Equivalent) Developed or Updated a Sustainability Policy

WASTE

Documented Amount Sent to Landfill Documented Amount Spent on Landfill Waste

WATER

Documented Amount of Wastewater Generated Documented Amount Spent Documented Amount Used



8403 Colesville Road, Suite 710 | Silver Spring, MD 20910-3314 | www.aza.org