



Conservation and Research
Report 2014

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Director's Update:



"The Future is Bright"

Messages in Annual Reports are normally a condensed version of the past year's activities. I would like to depart from that standard slightly by acknowledging some of the highlights from this year, but more to signal how this year is also a building block for future efforts.

We are one of more than 100 zoological institutions around the country partnering with the Wildlife Conservation Society on the 96 Elephants Campaign. Telling the story that 96 African elephants are killed EVERY DAY for their ivory is not a pleasant thing, but it is a necessary story to tell. By partnering legislatively at a local, national and an international level, I hope we can make a difference in stopping this practice, that, if not successful, may spell the end for wild elephants. A big thank you to Commissioner Dennis Moss for his leadership on this vital issue.

Our Conservation & Research Department was granted our first AZA/Disney Conservation Fund award in conjunction with the University of Florida to plant host species for native butterflies along the zoo's back lake by one of the old bunkers left over from World War II. Clearing out invasive species and planting these specific host plants should allow dangerously low populations of native butterflies to thrive in this area.

The zoo had some exciting news this year when, through the generosity of a donor, Ron Magill was able to increase the size and scope of the Ron Magill Conservation Fund to allow awards to conservation projects around the world to continue far into the future.

I am continually amazed at the amount of work and passion our chapter of the American Association of Zookeepers displays in their efforts to bring attention to the needs of wild animals. I am particularly pleased to work with them as often as possible, from getting a pie in the face, to walking through a classic car show. Please join them in their efforts and you will have a lot of fun doing so.

These are just a few examples of why I think the future is bright and how I know we will continue to shine a bright light going forward.

- Eric Stephens, Zoo Director

Florida Flamingos

Caribbean flamingos are one of the most iconic symbols of Florida. Yet, they are actually considered a non-native species because they have not been documented reproducing in the wild in Florida in more than 100 years. In the early 1900's there were reports of flocks upwards to 1000 birds at a time seen at the southern tip of the state. Now reports are rare and birders will race to possibly catch a glimpse of them when just a handful of them are sighted.

There are four main breeding locations of Caribbean flamingoes ; the Yucatan Peninsula of Mexico, the northern Caribbean (Cuba and a couple islands in the Bahamas), the Galapagos Islands, and the southern Caribbean (northern coastline of South America). Caribbean flamingos are considered to be non-migratory and are not to believe to stray far from their breeding sights except to venture to new feeding grounds.



So, where do Florida flamingos come from? It seems like a simple question but it has never been answered. There are still the remnant groups coming to Florida every year and those large historic flocks had to of come from one of the breeding locations. It has been assumed that they would be coming from the Bahamas or Cuba since those populations are the closest. But, the only two banded flamingos ever recorded in Florida were banded as juveniles in the Yucatan of Mexico.

Zoo Miami, the [National Park Service](#), and the [Tropical Audubon Society](#) have teamed up to try and answer some of these questions. With a generous donation from Harold Hudson, the National Park Service and ongoing support from the Tropical Audubon Society, we were able to purchase a few solar powered small GPS transmitters that are attached to leg bands. If we are able to attach these small leg bands to some flamingos visiting Florida, we would be able to trace their movements for years. National Park Service scientists are interested in finding out how these birds use our coastal areas and the larger Everglades system. Zoo Miami wants to find the origin of the population with the assumption that if we could possibly aid the breeding population in their country of origin, that we may be able to help the historic flock numbers recover in Florida.

This past year our team was fortunate enough to test out our techniques on a flock of around 147 flamingos spotted in the area. That is a flock size that hasn't been documented in generations.



Endangered Butterfly Recovery



Bartram's Hairstreak

In 2014, The Bartram's hairstreak and the Florida leafwing butterflies both became officially listed as federally endangered species. The Bartram's can only be found in a handful of pine rockland fragments in south Florida, one of which is in the pine rockland surrounding Zoo Miami. The Florida leafwing was present around the zoo many years ago but now only exists in the [Everglades National Park](#). But, the pine rockland around the zoo was declared critical habitat for both species meaning that it is deemed necessary for survivability and the recovery plans for both species.

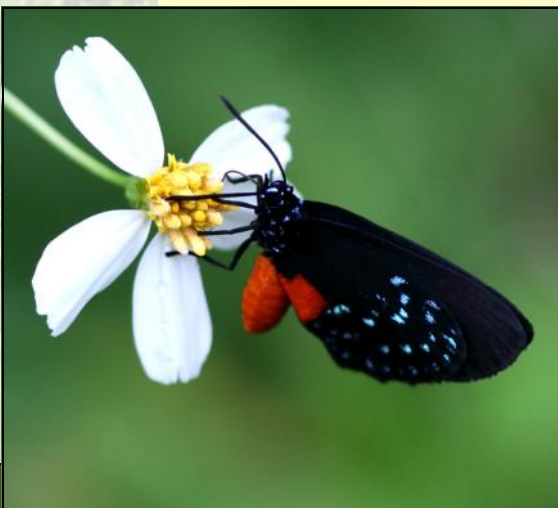
Zoo Miami, [HandsOn Miami](#), the [University of Florida](#) (UF) and [BIOTECH at Richmond Heights](#) have all teamed up to help in the recovery of these species and other imperiled butterflies. An old 1940's military bunker nestled in the pine rocklands and taken over by invasive plant species has become the focus for these efforts. Zoo Miami staff and HandsOn Miami volunteers have been chipping away at removing the invasive plants to make way for planting clusters of native butterfly larval host plants. BIOTECH students, UF and HandOn Miami volunteers with ZSF and Zoo Miami staff have all contributed to plant over 200 pineland croton, locustberry and coontie, so far. Pineland croton is the host plant for both the Bartram's hairstreak and the Florida leafwing and can only be found in pine rockland habitat. Locustberry is the host plant for the imperiled Florida duskywing, another pine



Florida Duskywing

rockland endemic plant. The coontie is the host plant for the atala hairstreak which nearly went extinct several decades ago.

We hope that this area will become a natural recruitment site for the Bartram's, Florida duskywing, and atala since they naturally occur on our property. The site will also serve as a potential release site for captive bred butterflies in the future when funding is secured to begin the next phase of the program.



Atala Hairstreak

Endangered Butterfly Recovery

BEFORE



AFTER

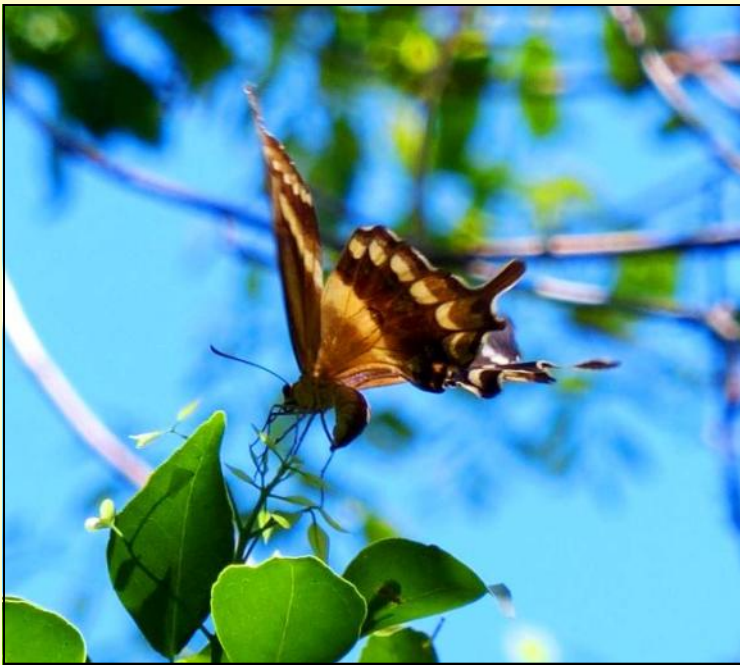


Schaus Swallowtail Monitoring

In the mosquito laden hammocks of northern Key Largo this summer where the endangered Key Largo woodrat occurs, surveys were conducted for the elusive Schaus Swallowtail butterfly. Zoo Miami, [US Fish and Wildlife Service](#), [University of Florida](#), and [Florida State Parks](#)' staff with community volunteers from the [Miami Blue Chapter](#) of the [North American Butterfly Association](#) and Zoo Miami Conservation and Research interns from [Florida International University](#) searched everywhere.



The majestic Schaus has been on the brink of extinction and had a shrinking range for the last couple of decades. In 2012, only a few were found through surveys on Elliot Key, their last stronghold. The [University of Florida McGuire Center for Lepidoptera and Biodiversity](#) has led the efforts in their monitoring and recovery. Through captive breeding and releases, their numbers have slightly increased and sightings on Elliot Key were frequent this last season.



The Schaus occurred in hammocks and coastal areas on the mainland and Key Largo but has not been seen for many years. 2014 marked the return of the Schaus to north Key Largo with our cooperative group discovering three adults through our survey efforts.

Much work still needs to be done to help ensure that this beautiful species is still around for future generations to enjoy and help pollinate the flora of south Florida. But, a glimmer of hope through the sightings this year has scientists hoping for the best and working hard to try and make a difference.

Pine Rockland Restoration

On April 9th, 2014, Zoo Miami's pine rockland habitat got a little bit healthier. With generous support from [FIU's Office of University Sustainability](#), [Tropical Audubon Society](#), [Miami-Dade County Natural Areas Management](#) and [Environmentally Endangered Lands](#), volunteers from [Bank of America](#) and [West Miami Eco-Tech Academy](#) planted around 400 native pine rockland plants at our restoration site.

The restoration area was highly disturbed in the past which had allowed invasive plants to thrive, displace the native species, and begin to encroach into the healthy surrounding pine rocklands. The invasive plants have



been removed for a three years now and this is the next step in the restoration process, by placing a diverse variety of natives back at the site.

After our first restoration planting at the site, an endangered Bartram's hairstreak butterfly was witnessed nectaring on one of the recently placed plants just two weeks after its completion. Instant results!



Hicatee Conservation Initiative



In March, Dustin Smith from Zoo Miami visited Belize to conduct follow-up research on our ongoing program with the Central American river turtle (*Dermatemys mawii*), known locally as the hicatee. This is a collaboration with the [Lamanai Field Research Center](#) and the [University of Florida](#), to learn more about this critically endangered turtle.

At the beginning of this trip, Dustin presented the preliminary findings at the Natural Resource Management meeting at the [University of Belize](#). Following the meeting, we met with [Turtle Survival Alliance](#) (TSA) staff and volunteers, as well as staff from the [Belize Foundation for Research and Environmental Education](#) (BFREE) to assist with their captive assurance colony. During the visit, we received information

from [Belize Fisheries](#) of a large confiscation of turtles from a poacher. These turtles were rescued and transferred to BFREE to assist with the foundation of a captive assurance colony for this critically endangered species in Belize.

After assisting TSA and BFREE, we visited our research site in northern Belize to continue our ongoing efforts. We visited multiple sites along the New River to survey for turtles and conduct radio telemetry surveys. Our surveys have yielded data from over 45 turtles and we have utilized radio telemetry to track 5 turtles. The data is being compiled and will be shared with Belize Fisheries and the National Hicatee Conservation and Monitoring Network (NHCMN) to continue to expand on the countrywide management plan.



Also, in 2013, legislation was passed to expand the protection of the hicatee turtle throughout its range in Belize. It has had protection throughout its range in Mexico, Guatemala, and Belize, but populations continue to decline. New legislation bans the use of turtle nets in most of the rivers and expands the number of protected rivers within the country. Continued efforts of the NHCMN will hopefully continue to increase the efforts and protection of this critically endangered turtle.



Florida Bonneted Bat

2014 has been a big year for our little endangered neighbor, the Florida bonneted bat. After officially being listed as a federally endangered species in late 2013, research efforts have been discovering more about its secrets and media coverage has helped increase awareness.

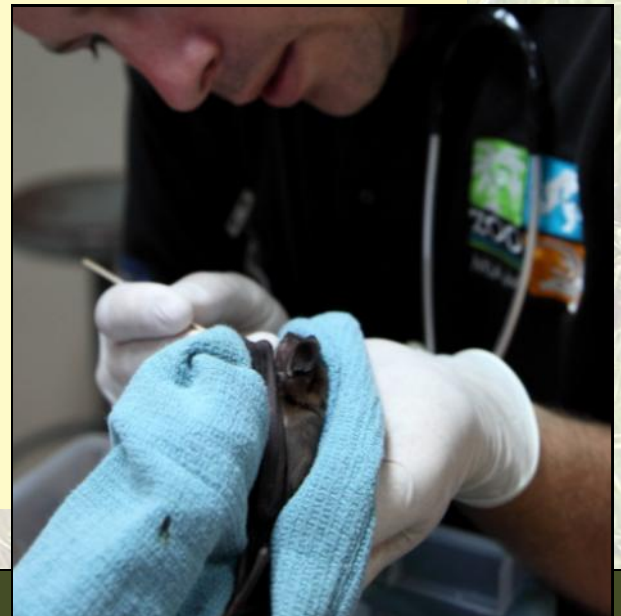
With a total population estimated in the hundreds spread across six south Florida counties, it proves to be very elusive and difficult to study. It also defies some techniques that biologists use on other bat species to discover more about behavior and roosting habits, which makes studying

them even more challenging. Luckily, they do produce very low frequency vocalizations at night that makes their calls distinctive and even audible to some human ears.

Over the past year, scientists have discovered new roosts that will allow for a better understanding of their social behavior, how often they give birth, preference for where they make their homes, and collection of bat guano that will allow us to discover more about what they eat.

Zoo Miami completed a multi-year acoustic study of Zoo Miami grounds, Larry and Penny Thompson Memorial Park, and Martinez Pineland Preserve to search for the possibility of Florida bonneted bats occurring on the properties. It turns out that they not only occur here but are likely residents on the properties and that there are two very important foraging areas for them at the zoo. Further studies will hopefully be able to determine how many of these bats are utilizing the grounds. This will hopefully allow us to gain funding to continue to work on the species and help the scientific community figure out how we may be able to protect the remaining population and move it towards recovery.

In February of 2014, veterinary and conservation staff at Zoo Miami was even fortunate enough to spend some time with one of these endangered bats. A family in the Little Havana section of Miami discovered a Florida Bonneted Bat on the front steps of their home. It was injured and stayed in the same location for three days. The conscientious family reported it to officials, not knowing its rarity, and USFWS directed it to Zoo Miami for care and rehabilitation. After two weeks of care and getting its strength back, it was successfully released back into the wild. To see a video clip of it taking its first meal by hand click [here](#).



Internships

By Carolina Segarra:

As an intern in the Conservation and Research Department of Zoo Miami I have been able to not only understand the zoo field better but have truly fallen in love with the field of conservation biology. Once I graduated, I was accepted as an intern in Zoo Miami's Conservation and Research Department. Not only was I able to learn about the ongoing zoo projects and initiatives but I was able to propose my own studies under the guidance of Dr. Ridgley and Mr. Smith. The first study was surveying the three artificial lakes on zoo grounds for aquatic turtles. Essentially trying to understand what species thrive here, in what quantities, and if their presence affects the ecology of the lakes. These three lakes were constructed in the late 1970's as part of the original design for the then Miami Metro-zoo and over time have become a home for several species of fish, invertebrates, reptiles, and amphibians and have provided habitat to many different species of birds. By better understanding what species we have today, we can better assess populations and understand what is needed to enhance the lakes to make them more environmentally appropriate. Along with the survey, platforms built by the Troop 10 Boy Scouts will provide basking areas for the turtles and will help the overall project of enhancing the lakes into wetland refuges.



The second study was the introduction of native tree frogs such as the Green Tree Frog (*Hyla cinerea*) and Squirrel Tree Frog (*Hyla squirella*) to small areas of the zoo while simultaneously removing any invasive specimens such as the Cuban Tree Frog (*Osteopilus septentrionalis*) and Marine Toad (*Rhinella marina*). South Florida has been known to have invasive species displace native species and essentially take over their habitat. This project aims to remove as many invasive amphibians as possible, while breeding native amphibians in a controlled setting, and later allowing the adults and their offspring to disperse into the monitored areas. All the founding frogs are quarantined and tested for any possible pathogens that may be present. We've been tracking these species for the past year and use methods similar to FrogWatch USA.

We aim to one day use the citizen science program to get the community involved with this project. Once the native frogs have been reintroduced to the selected areas, they will be closely monitored. Depending on how well they do, the hope is that they will once again be present in the protected areas of the zoo. This project will also serve as a model and training for possibly applying the techniques to imperiled species in the future. Overall, this internship has helped me establish a strong foundation and has better prepared me for a successful future in the field.



Internships

When Zoo Miami and ZSF entered into an agreement last year with [Florida International University](#) (FIU), it helped open up opportunities for students to come to the zoo to learn about and assist in the Conservation and Research Department projects. They have all become important assets to the existing programs and have even begun some of their own.



Lydia Cuni came to us with a strong interest in native plants and butterflies. She has been helping us propagate some of the rare and endangered pine rockland plants that we will incorporate into our restoration activities. She has also been performing standardized butterfly surveys on grounds to help document what species occur here and look for trends in the populations. Lydia even identified a plant, sand flax (*Linum arenicola*), that had never been documented on zoo grounds before and is a candidate for federal endangered status.

Denise Conrado, Alexis Arenal, and Crystal Amand all expressed an interest in bats. They have been monitoring the occupancy and behavior of Brazilian free-tailed (*Tadarida brasiliensis*) and evening (*Nycticeius humeralis*) bats that occupy the 21 bat houses around zoo grounds. This information will be used by biologists to better understand how bats use these artificial roosts in parks and natural areas.

Chris Zavala was interested in our animal browse programs. He helped us prepare and plant a garden of Grains of Paradise (*Aframomum melegueta*) which is a special plant used by African great apes in their diets and nesting behaviors. Scientists believe that this plant may have some beneficial anti-inflammatory properties to help prevent heart disease when consumed by apes in the wild. Chris has also been helping design some mixed species browse gardens that will be used by other species at the zoo.



Boa Constrictors at The Deering Estate



Invasive species are a growing problem in south Florida, especially reptiles and amphibians. Of the more than 50 species of non-native reptiles and amphibians roaming around this region, four of them are snakes. Most of the attention paid to non-native snakes is focused on the Burmese and Northern African rock pythons, but there is one other constrictor that has called Miami-Dade home for more than 30 years, the Boa constrictor.

Boa constrictors are captured throughout the year in Miami-Dade county, but are primarily released or escaped pets. However, there has been a reproducing population at the [Charles Deering Estate at](#)

[Cutler](#) since at least the 1990's, or even as early as the 1970's. Boa constrictors are a large species, which can reach a maximum size of 18 feet long. They have a large native range, originally from Central and South America. Boa constrictors have been in the pet trade for many decades, which is probably the source for the introduction.

Zoo Miami is collaborating with [Miami-Dade County Natural Areas Management](#) and staff from the Deering Estate to conduct a variety of research programs associated with this species. Since starting this collaboration in October 2012, there have been 25 boas removed on or adjacent to the Deering Estate. They have ranged in size from about 15 inches to over 8 ½ feet in length. The largest specimen weighed over 30 lbs and had consumed a large Virginia Opossum.



We are going to continue to study this population to determine habitat preferences, as they are very difficult to locate due to the types of habitats found at the Deering Estate. This is being done primarily through the use of radio-telemetry tracking. Results from our study will be used by land managers and policymakers to determine the best methods for removal. We are also conducting a diet study, to determine their preferred prey items and how this is impacting native species found at the Deering Estate.

Invasive Species Monitoring

Florida has the largest population of non-native reptiles and amphibians in the world. In an effort to understand the spread of non-native reptiles and amphibians, the [Everglades Invasive Reptile and Amphibian Monitoring Program](#) was created.

The EIRAMP is designed to survey areas in and around the Everglades and adjacent lands, for native and non-native reptiles and amphibians. Standardized surveys are done by visual and vocal surveys along roads, levees, and canals within natural and disturbed areas. Locations of all native and non-native reptiles and amphibians are documented, and if possible, non-native species are removed.



Native Red Rat Snake



Invasive Cuban Tree Frog

This is a collaborative effort, managed by the University of Florida, with assistance from the [Florida Fish and Wildlife Conservation Commission](#), [South Florida Water Management District](#), and Zoo Miami. Staff from Zoo Miami have been conducting EIRAMP surveys in Everglades National Park since 2010.



Native Southern Chorus Frog



Invasive Burmese Python

Cheetah Outreach Livestock Guarding Dog Project

Zoo Miami has been an important partner and supporter to the [Cheetah Outreach Livestock Guarding Dog Project](#) in South Africa. Funding provided by Zoo Miami has enabled Cheetah Outreach to place livestock guarding dogs within the natural cheetah range in South Africa in “hotspot” areas where human/cheetah conflict is a serious threat to the survival of these cheetahs on farmland areas.



The recent funding provided through Zoo Miami sponsored several Anatolian Livestock Guarding Dogs and has strengthened Cheetah Outreach’s presence in that specific area while proving to the farmers and their neighbours that the use of Anatolian Livestock Guarding Dogs is a viable solution to traditional lethal control methods previously used in the past. All these farmers are now more than happy to have cheetahs range over their properties as predation has stopped completely since the placement of the Anatolian Livestock Guarding Dogs.

Cheetah Outreach has placed more than 150 livestock guarding dogs within cheetah range in South Africa and has secured valuable cheetah friendly habitat by doing this and by reducing human/cheetah conflict.

Cantao Amazonian Camera Monitoring Program



Zoo Miami is a founding sponsor, along with the [Frankfurt Zoological Society](#) and the [Instituto Araguaia](#), towards funding the acquisition of cameras, transmitting equipment, batteries and solar panels to install a pilot system in the Cantao Reserve in the Brazilian Amazon. This will be a pioneering initiative in tropical forest conservation and research.

Once in place, the system will enable Cantão to transmit live 24/7 habitat camera images in full HD to Zoo Miami covering different habitat types in Cantão. Images will be able to be seen in real time over the Internet or at large display screens next to the Amazon exhibits.

This project is a breakthrough in habitat protection and endangered species research in the Amazon, made possible by new low-cost technologies in solar power, digital cameras, and long-range wireless communications that were unavailable as recently as last year. It will generate immediate conservation benefits in the form of improved monitoring of the access point to thousands of hectares of protected wilderness. At the same time, it will give zoo visitors a real-time experience of the wild habitat of the animals they are seeing on exhibit, heightening their awareness of the need to protect that habitat.

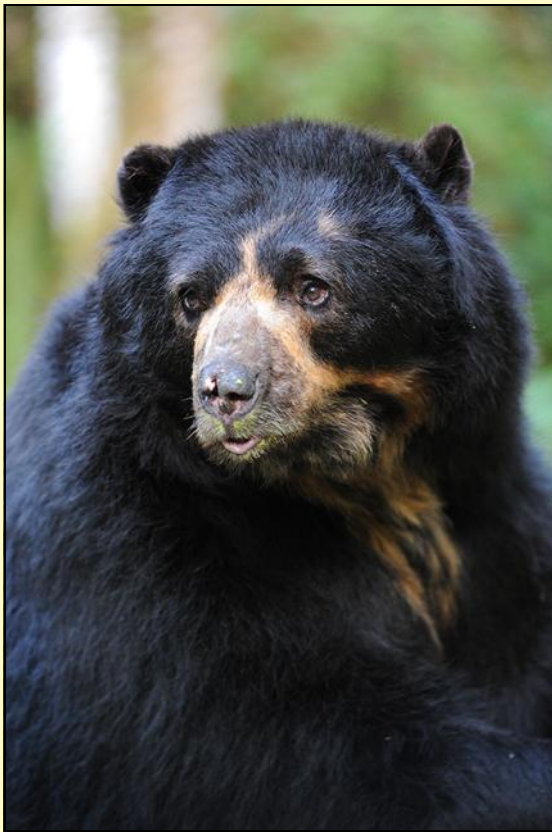


Harpy Eagle/Spectacled Bear

Harpy Eagle Project / Panama

Zoo Miami continues to be a key sponsor of the Harpy Eagle Project in Panama. This grassroots project is responsible for a continuing national campaign in Panama to educate Panamanians about its natural heritage by using the harpy eagle as its flagship animal. Funding has been provided to support field research, classroom education, and the maintenance of the Harpy Eagle Center outside of Panama City that was designed and developed by Zoo Miami staff.

This past year, Zoo Miami sent its first captive hatched harpy eagle, a female named "Panama," along with support staff, to the center where it is hoped that she will be paired with a male in the near future and eventually become a contributor to an international captive breeding program.



Inkaterra Machu Picchu Spectacled Bear Project

During an expedition to Peru as part of a documentary project recognizing a student "[Eco-Hero](#)," Zoo Miami officials were introduced to the Inkaterra Machu Picchu Spectacled Bear Project. This project is managed by the [Inkaterra Association](#) and the Protected Natural Areas National Service of Peru and is designed to rehabilitate bears that have been negatively affected by human impact and reintroduce them into their natural habitat.

Once common throughout the Andes, the spectacled bear, the only bear species in South America, is now critically endangered. Zoo Miami is proud to provide support to this admirable effort to protect and conserve this tropical American treasure.

Websites and Media



The zoo has received a new virtual facelift. Zoomiami.org launched this past year to bring many new features and information to the online community. The company that designed the main website, [Productive Machine](http://ProductiveMachine.com), also graciously donated and designed a companion microsite Zoomiamiconservation.com to showcase all of the great research and conservation activities that our staff is involved with locally and around the world. Please visit these sites and explore all of the great new features.

Ron Magill is a busy guy. He travels the world as our ambassador and supports conservation efforts wher-

ever he travels. But you can catch Ron Tuesdays at 5pm on the nationally syndicated Dan Le Batard Show on ESPN Radio or listen live here. Ron can also be regularly heard mornings on the Paul and Young Ron Morning Show on BIG 105.9 and can be seen frequently on Univision's "Sabado Gigante" and "Despierta America", Telemundo's "Un Nueva Dia", and a frequent commentator about wildlife issues on CNN en Español, CNN, and MSNBC.

Dr. Ridgley has become a regular contributor to the World Conservation Society's Wild View blog. Check out some of his stories from the field and great pictures by Dustin Smith from the zoo's Conservation and Research Department.

Zoo Miami's conservation and public awareness efforts have been gaining some exposure in the media. To read some of these stories click below:

NBC Nightly News

[-Making a Difference](#)

CBS

[-Florida Bonneted Bat Rehabilitation](#)

[-Flamingoes](#)

[-State of the Species: Florida Panthers](#)

Miami Herald

[-Florida Bonneted Bats in Coral Gables](#)

[-Pine Rockland](#)

[-Florida Bonneted Bat Roost Discovered](#)

Palm Beach Post

[-Amnesty Day](#)



South Florida Chapter of the American Association of Zookeepers (SFAAZK)

[The South Florida Chapter of the American Association of Zookeepers \(SFAAZK\)](#) not only help raise awareness for some of the conservation issues that are affecting the animals that they so diligently care for but they also hold fundraisers to support programs around the world and send members of their organization to conferences. Some of the programs they supported and events they held this past year are:



In Support of Rhinos: ([Bowling for Rhinos](#)):

- [International Rhino Foundation](#)
- [Lewa Rhino Conservancy](#)

In Support of [Tree Kangaroos](#):

- [Tenkile Conservation Alliance](#)
- [Tree Kangaroo Conservation Program](#)
- [Tree Kangaroo Rescue & Conservation Center](#)



In Support of Tigers: ([Pies for Panthera](#))

- [The Tiger Conservation Campaign](#)

In Support of Giraffes: ([World Giraffe Day](#))

- [Giraffe Conservation Foundation](#)

In Support of Cheetah:

- [Action for Cheetahs in Kenya](#)

In Support of Reptiles and Amphibians:

[Herp Awareness Day](#)



In Support of Okapi: (Okapitoberfest)

- [Okapi Conservation Project](#)

In Support of Elephants: ([Trunks4Trunks](#)/Elephants Awareness Week)

- [International Elephant Foundation](#)



Conservation Teen Scientists and BIOTECH at Richmond Heights



Conservation Teen Scientist:

The [Conservation Teen Scientist](#) volunteers have worked diligently this past year. The teens logged in a total of 18,465 hours from October 2013- September 2014 and educated a total of 314, 953 zoo visitors on natural history and wildlife conservation.

The teens participated in Party for the Planet and World Oceans Day awareness events. They also were directly involved with numerous animal awareness events including tigers, frogs, otters, harpy eagles, rhinos, elephants, and orangutans. They engaged the visitors through hands on activities and fun games.

The Conservation Teen Scientists have connected with the visitors by inspiring awareness and asking them to make a pledge and support Zoo Miami's conservation efforts on the palm oil crisis, conserving water, and recycling. The teens have started handing out conservation magnets in the last few months to those zoo visitors who make a pledge.

BioTECH:

Zoo Miami's Education Department has begun its first [BioTECH](#) freshman class from Richmond Heights High School. BioTECH is a new magnet high school that partnered with Zoo Miami and Fairchild Tropical Botanical Garden. The curriculum is hands-on and STEM-focused. Currently, all students take zoology, research, an experimental science class, and biology or chemistry. Once the research station at Zoo Miami is built, these science classes will be onsite at Zoo Miami.

So far this semester, the students have helped plant locustberry, a host for the endangered Florida duskywing butterfly, monitored other local butterfly species on zoo grounds. They were also trained to use GPS units, which will be used in future research projects, including Florida Bonneted Bats, aquatic ecology testing, and invasive species removal.



Fishing Derby:

The Conservation Teen Scientists have participated in three Fishing Derbies this past year. They have assisted Zoo Miami in removing several invasive species in our lakes. They have also been involved with identifying, measuring, and cataloging the different fish species.

Professional Contributions

Association of Zoos and Aquariums Programs:

Taxon Advisory Groups (TAG) – Steering Committee Members, Species Survival Plans, and Studbooks:

Steve Conners – Chelonian TAG, Crocodylian TAG, Cuban Crocodile Studbook Keeper

Terry Webb – Antelope & Giraffe TAG, Marine Mammal TAG, Prosimian TAG, Lion SSP, Stuhlman's Blue Monkey Studbook Keeper

Dustin Smith – Amphibian TAG, Puerto Rican Crested Toad SSP Co-Chair, Puerto Rican Crested Toad Studbook Keeper, Central American River Turtle Studbook Keeper

Jim Dunster – Blue Crane SSP Coordinator, Blue Crane Studbook Keeper, Turaco & Cuckoo TAG, Columbiformes TAG, Gruiformes TAG, Ciconiiformes TAG, Galliformes TAG

Rachél Watkins Rogers – Biomaterials Banking Advisory Group, Institutional Data Management Advisory Group, Advisor to the Government Ownership Working Group, AZA Government Affairs Committee Member

Isabel Sanchez – Giant River Otter SSP Education Advisor



Presentations and Publications

Publications:

Cuban Crocodile Regional Studbook

[PETERS ANOMALY IN A RED KANGAROO \(*MACROPUS RUFUS*\)](#). Wm. Kirk Suedmeyer, Jacqueline Pearce, **Meredith Persky**, and Marlys L. Houck (2014) *Journal of Zoo and Wildlife Medicine*: September 2014, Vol. 45, No. 3, pp. 715-718.

Presentations:

Natural Resource Management Meeting – University of Belize – “*Developing a Collaborative Research and Education Program for the Hicatee Turtle (*Dermatemys mawii*) in Northern Belize*”

Everglades Invasive Species Summit – “*Boa constrictor* at the Charles Deering Estate at Cutler”

University of Central Florida – “Animal Behavior Research Programs at Zoo Miami”

World Association of Zoos and Aquariums 68th WAZA Annual conference/Technical Congress –

Poster Session “Program Recommendations in a One World Cooperative Breeding Program”

AZA annual conference – AZA Research and Technology Committee Session - “BBAG Steering

Committee Annual Report on Activities and reorganization of the BBAG”

Colloquium in collaboration with the 12th International Otter Congress on 10 August in Rio de Janeiro, Brazil - “A Case Report: Zoo Miami Recording of Stewardship and Government Status in the North America Region”

Kendall Homeowners Association – “Pine Rocklands”

Zoo Miami – “Florida Panther Recovery Program”

Invasive Species Task Force, Department of Interior – “Invasive/Non-native Species Control Programs”

Pine Rockland Conference – “Zoo Miami’s Imperiled Habitat Recovery and Enhancement Project”

EAMCP/AAZV 2014 Annual Conference - “Getting Involved in Conservation Medicine and Research”



Zoo FIU Lecture Series

The Zoo FIU lecture series united the research expertise of Florida International University, and the quality zoological care and research programs of Zoo Miami. Hosted by FIU's School of Environment, Arts and Society (SEAS) and the Zoological Society of Florida (ZSF), the series features both FIU researchers and Zoo staff discussing the conservation and zoological care stories of species that call Zoo Miami home.

The Cost of Stealth: Mechanics of Walking in Dogs and Cats

Dr. Kristin Bishop

Zoo Miami and the De Wildt Cheetah and Wildlife Center in South Africa

Ron Magill

Amazon and Beyond: Swimming with the Fishes

Dr. Elizabeth Anderson

Amazonian Fish and Their Importance in the Ecosystem

Anthony Turkaly

The World Through Predators' Eyes

Dr. Mike Heithaus

Zoo Miami's Animal Tracking Programs

Dr. Frank Ridgley

Amphibian Conservation in the New World

Dr. Maureen Donnelly

Zoo Miami Amphibian Conservation Programs

Dustin Smith

Whose Nose Knows Best: Canine Sensory Skills for Conservation and Security

Dr. Kenneth G. Furton

Trained Detection Dogs for Conservation in South Florida

Dr. Frank Ridgley

The Secret Lives of Bats

Dr. Kirsten Bohn

Zoo Miami Bat Monitoring Programs

Dr. Frank Ridgley

Desert Antelopes: Conservation and Natural History

Dr. Mike Maunder

Zoo Care and Husbandry of Desert Antelope

Dr. Frank Ridgley



Whose Nose Knows Best: Canine sensory skills for conservation and security

Zoo FIU Series

The New Guinea Singing Dog is a distinctive wild population of canine found off the northeast coast of Australia on the island of New Guinea. Housed in the Zoo Miami Australia exhibit, the New Guinea singing dog has the ability to produce some very unique howls with a huge range of pitches and signals.

Dr. Furton's research focuses on another of the canine's senses, its sense of smell. His research program has focused on studying the chemical basis of detector dog alerts to forensic specimens including accelerants, biotoxins, currency, drugs, explosives and human scent. He has testified numerous times as an expert witness in cases including the use of canines as chemical detectors. Dr. Furton will discuss the extraordinary sensory skills of these canines, and how that might be harnessed for conservation and security.



Featuring
Kenneth G. Furton, Ph.D.
Dean, College of Arts & Sciences
Professor, Department of
Chemistry and Biochemistry

Friday, Oct. 18, 2013

7:00 p.m.

Zoo Miami
12400 SW 152nd St.
Miami, FL 33177

\$15 general admission
\$10 FIU students, staff, and Zoo members

School of Environment, Arts and Society
305-919-6000 | seas.fiu.edu

Zoological Society of Florida
305-255-5551 | zoomiami.org



Significant Births/Hatches/Acquisitions

New Acquisitions

African Wild Dog
North American Black Bear
Arabian Oryx
Aldabra Tortoise
Grevy's Zebra
Grant's Gazelle
Jaguar
Central American Indigo Snake
Ibiza Wall Lizard
Painted Terrapin
Yellow Anaconda
Bali Myna
Mauritis Pink Pigeon
Livingston's Turaco
Pygmy Goose
Impeyan Pheasant



Births/Hatches

Eastern Black Rhino – Critically Endangered
Addra Gazelle – Critically Endangered
Somali Wild Ass – Critically Endangered
Blue Billed Curassow – Critically Endangered
Jamaican Iguanas—Critically Endangered
Panamanian Golden Frogs—Critically Endangered
Puerto Rican Crested Toads—Critically Endangered
Emerald Alligator Lizards – Endangered
Golden Poison Arrow Frog – Endangered
Gulfodulcean Poison Arrow Frog - Endangered
Black Handed Spider Monkey—Endangered
Giant River Otter—Endangered
African Lions—Vulnerable
Clouded Leopard - Vulnerable
Palawan Peacock Pheasant - Vulnerable
Eastern Box Turtle—Vulnerable
Harpy Eagle – Near Threatened



