



## **Summary of Riverbanks Conservation Support Fund Activity Fiscal Year 2013-2014**

In 1996, the Riverbanks Zoological Society Board of Directors approved the establishment of the Riverbanks Conservation Support Fund (CSF) with the objective of providing assistance to carefully selected conservation initiatives originating both from within and outside of Riverbanks.

This is the nineteenth year of existence for the Riverbanks Conservation Support Fund. Availability of funding this year was announced on the Riverbanks website. Twice-annual grant submission deadlines were as follows: September 30, 2013 and June 1, 2014.

Grant awards, including Field Conservation Associates grants, are summarized below:

### **September 30, 2013 Deadline**

- 1) \$4,840 to Dr. Amy Dickman from the Wildlife Conservation Research Unit, Department of Zoology, University of Oxford UK for her project titled, "Using camera-traps to identify hotspots of carnivore presence and conflict around Tanzania's Ruaha National Park."

The specific conservation/management objectives of this project are to:

- Implement a systematic grid-based camera trapping protocol around the Ruaha village lands with the help of local warriors.
  - Use the resulting data to predict the distribution and densities of large carnivores within village lands.
  - Combine predicted carnivore distributions with maps of human settlements to highlight potential hotspots of conflict.
  - Propose management guidelines for human activities based on the characteristics of predicted conflict hotspots.
- 2) \$2,000 to Dr. Ian Singleton and S.Hut Indrianto of the Sumatran Orangutan Conservation Program for their project titled, "Investigating and confiscating illegal pet Sumatran Orangutans in Aceh, Indonesia."

The specific conservation/management objectives of this project are to:

- Ensure the monitoring activity of illegal pet orangutans and displaced orangutans runs smoothly and efficiently such that more orangutans can be confiscated and given an opportunity to return to the wild
  - Confiscate and/or rescue as many Sumatran orangutans as possible. Based on previous data, it is estimated that during this timeframe six orangutans will be confiscated and two displaced orangutans will be rescued
  - Ensure that at least 10 news items are published by the public media regarding orangutan confiscation, rescue and relocation
- 3) \$4,900 to Dr. Karen DeMatteo of the St. Louis Zoo Wild Care Institute for her project titled, “Carnivore conservation in Misiones, Argentina.”

The specific conservation/management objectives of this project are to:

- Expand surveys into the area between the previously studied habitat zones which will allow researchers to complete a conservation plan that identifies biological corridors that connect the two zones while minimizing human-wildlife conflict and maximizing species mobility.
  - Implement this conservation plan and make the identified corridor a reality.
- 4) \$4,750 to Lenin Riquelme of the Conservation, Nature and Life Foundation - CONAVI, James Bryson Voirin of the New College of Florida-Max Planck Smithsonian Tropical Research Institute and Diorene Smith Cabellos of the Zoological Society of London for their project titled, “Empowering Communities to Protect Declining Ecosystems: Shielding from extinction the Pigmy Three-toed Sloth of Escudo de Veraguas Island, Panama - Phase III.”

The specific conservation/management objectives of this project are to:

- Refurbish a run-down park ranger’s station in Escudo de Veraguas Island.
  - Place demarcation signage, reef mooring buoys and anchoring ropes/chains in 30 locations providing marked access and information on the island and coral reefs warning visitors of the island’s protected status and allowing harmless anchoring.
  - Support the local fishermen’s association in obtaining its legal by-laws so it can participate in government sponsored programs.
- 5) \$4,350 to Dr. Nola Parsons and Margaret Roestorf of the Southern African Foundation for the Conservation of Coastal Birds (SANCCOB) for their project titled, “African Penguin Chick Bolstering Project.”

The specific conservation/management objectives of this project are to:

- Address the loss of African penguins by supplementing existing wild colonies and new colonies, should they be established, with hand-reared chicks. To achieve this goal a chick-rearing facility was established at SANCCOB in 2011.
- Monitor the movements of fledglings until returning to colonies to breed, as well as monitoring their foraging behavior.
- Assess the viability of reintroduction of chicks reared from eggs from captive-bred African penguins and evaluate the genetic suitability of African penguins in captivity.

6) Seafood Watch Partnership with the Monterrey Bay Aquarium.

The specific conservation/management objective of this project is to:

- Distribute 2,500 Seafood Watch consumer guides.
- Promote the Seafood Watch app both on-site and in the community
- Maintain a Seafood Watch presence on the Riverbanks website through direct links to [seafoodwatch.org](http://seafoodwatch.org).
- Train staff to provide information and answer questions about sustainable seafood using the resources provided by Seafood Watch.
- Generate awareness about sustainable seafood via two or more outreach activities.

7) \$4,834 to Simon Hussan and Dr Suwido H. Limin of the Orangutan Tropical Peatland Project (OuTrop) from their project titled, "Protection and Restoration of Critical Wildlife Habitat in Borneo, Indonesia."

The specific conservation/management objectives of this project are to:

- Build dams on canals to slow swamp drainage and restore flooded conditions.
- Conduct community patrols to protect the Sabangau Forest against illegal activities and fires.

8) \$500 to the South Carolina Wildlife Federation Scholarship Program.

The specific conservation/management objective of this project is to:

- Distribute educational grants to full-time students pursuing environmental education at South Carolina schools of higher education. Undergraduate and graduate students are eligible, based on their performance in academia and in related community activities. Special attention is paid to a student's leadership and volunteer experience when determining winners of these scholarships.

- 9) \$4,997 to Dr. Kyle Barrett and Theresa Stratmann of Clemson University for their project titled, "Modeling the Haystack to Find the Needle: Developing Methods to Locate and Survey for Rare Species, A Case Study of Bog Turtles."

The specific conservation/management objective of this project is to:

- Conduct a population assessment of bog turtles (*Glypemys muhlenbergii*) in South Carolina.

- 10) \$4,800 to Dr. Tracey Tuberville of the University of Georgia Savannah River Ecology Lab, Dr. Betsie B. Rothermel of the Archbold Biological Station and Dr. Kelly R. Zamudio of Cornell University for their project titled, "Characterizing social interactions among gopher tortoises in a viable population: a pilot study with implications for translocation and long-term conservation."

The specific conservation/management objectives of this project are to:

- Characterize the social network at a site with extensive information about resident tortoises.
- Investigate the effects of individual characteristics (size, age) and relatedness on social interactions.
- Test the utility of this new technology to document behavioral interactions in tortoises.

- 11) \$5,000 to the Turtle Survival Alliance (TSA) for operating support of the Turtle Survival Center (TSC) in Cross, South Carolina.

The specific conservation/management objectives of this project are to:

- Establish captive assurance colonies for carefully selected species of critically endangered turtles.
- Provide emergency veterinary back-up for the Turtle Survival Center, as needed and as is practical.

- 12) \$3,091.23 for Colleen Lynch to attend the 8<sup>th</sup> International Penguin Conference in Bristol, England, where she presented a paper on the use of SSP generated life tables to inform studies of wild penguins. Colleen then visited the Chester Zoo, where she participated as a population manager and SSP stakeholder in the Global Species Management Plan (GSMP) meeting for the blue-crowned laughing thrush. Riverbanks is currently first on the list of additional North American zoos to acquire this species.

## June 1, 2014 Deadline

- 13) \$3,600 to Caroline Rees of the University of Bristol, UK, for her project titled, "Space use by re-introduced white rhinos in the Okavango Delta, Botswana."

The specific conservation/management objectives of this project are to:

- Investigate how the re-introduced rhinos use their new environment, using detailed movement data from the rhinos' satellite collars as well as GIS (Graphic Information Systems) imagery and ground-based vegetation and behavioral surveys to assess space-use by the rhinos, identify the principle determining factors and how these change with time post-release.
- Support the decision-making process for this exciting relocation project, with a further 100 rhinos pledged for relocation from South Africa to Botswana.

- 14) \$4,800 to Deborah Olson and Heidi Riddle of the International Elephant Foundation (IEF) for their project titled, "Forest Protection through Conservation Response Units (CRU)."

The specific conservation/management objectives of this project are to:

- Duplicate the successful CRU model that was developed by the IEF in Sumatra in Myanmar. IEF has signed a 3-year Memorandum of Understanding with the Myanmar Timber Enterprise (MTE), a department of the Ministry of Environmental Conservation and Forestry of the Republic of the Union of Myanmar.
- Ensure the long-term care and employment of 3,000 working elephants and their mahouts that will be affected by the government of Myanmar ban on the export of raw timber and greatly reduced logging quotas.
- Improve elephant camp facilities, as well as the housing for mahouts. Train the mahouts in conservation science and in actions such as collecting data about biodiversity, wildlife presence, human-wildlife conflicts, and various kinds of illegal activities, as well as recording the locations and providing this data to MTE and the Ministry of Environmental Conservation and Forestry.

- 15) \$4,975 to Greg Barord of the City University of New York and Brooklyn College and Dr. Peter D. Ward of the University of Washington for their project titled, "Population Assessment of a Newly Discovered Population of *Nautilus* off of the Coast of Thailand."

The specific conservation/management objectives of this project are to:

- Assess this newly discovered population of nautilus using similar methods that have been applied to other nautilus populations.
- Compare catch per unit effort data (CPUE) to historical records and current data from other locations and calculate population abundance using BRUVS, which can be compared to our most recent data collected.
- Conduct phylogenetic analyses to provide crucial information on the total number of species and relatedness of the species.

16) \$5,000 to Dr. Michael Dorcas and Dr. Leigh Anne Harden of Davidson College for their project titled, "South Carolina Herp Atlas."

The specific conservation/management objectives of this project are to:

- Manage and verify all data entered in the Carolina Herp Atlas (CHA), a highly successful, online, citizen-science-based herpetological atlas that documents the distribution of reptiles and amphibians in the Carolinas, and provide data as needed to researchers and managers.
- Update the interface and capabilities of the CHA so that it works effectively with all browsers and mobile devices.
- Develop publicity methods to encourage data entry and use of data provided by the CHA.

17) \$4,999 to Michael H Hyatt DVM of the Adventure Aquarium, Nathan Wiederhold, PharmD of the University of Texas Health Science Center and Dr. William Hope of the University of Liverpool UK for their project titled, "Pharmacokinetics of orally administered voriconazole in African penguins after single and multiple doses."

The specific conservation/management objectives of this project are to:

- Determine the pharmacokinetic parameters and safety of voriconazole administered orally in single and multiple doses in African penguins.
- Determine a safe and effective voriconazole dose in this species for treatment against Aspergillosis, and prevention of morbidity associated with voriconazole toxicity.

18) \$4,984 to Sara Heisel of the University of Georgia, Odum School of Ecology and Integrative Conservation for her project titled, "Interactive effects of genetic diversity and environmental pressure: implications for the conservation of the endangered Grevy's zebra."

The specific conservation/management objectives of this project are to:

- Understand if genetic and environmental factors are acting

synergistically to depress fitness and performance in these last populations of Grevy's zebra.

- Use this knowledge to target both environmental and genetic management of Grevy's zebra populations.

19) \$5,000 to Kate Franklin and Sarah Davies of Game Rangers International for her project titled, "Game Rangers International Muzovu Awareness Project."

The specific conservation/management objectives of this project are to:

- To work with 40 schools in Zambia, 30 surrounding KNP and 10 outside Lusaka, setting up and providing resources for conservation clubs. On average, each club to contain 30 children so reaching 1,200 children per school year; each club to be run by 2 leaders (club matron and patron), who benefit from environmental education training from the MAP Project Officer in the area.

20) \$1,024 to Dr. Whitfield Gibbons of the University of Georgia, Savannah River Ecology Lab for his project titled, "Testing Citizen Science Field Techniques to Assess Regional Herpetofaunal Biodiversity."

The specific conservation/management objectives of this project are to:

- Assess reptile and amphibian distribution and abundance patterns by using particular collecting techniques that are available to anyone (Citizen Science Techniques for Herpetofauna).
- Ascertain which techniques are the most cost effective for finding and inventorying species in prescribed habitats and present the findings on the website.
- Create a website manual of recommendations of specific field techniques that are available to anyone and that are most likely to reveal the presence of reptiles and amphibians.

21) \$912 for Riverbanks comPOOst program operational expenses.

22) \$16,571.54 for two teams of Riverbanks staff members to participate in the health assessment of leatherback and green sea turtles on Galibi Beach in Suriname. Two of these staff members (Karyn Wheatley and Melissa Reynolds) were funded via the Riverbanks Field Conservation Associates (FCA) Program.

23) \$2,868.94 for Riverbanks Field Conservation Associates (FCA) Program.

In July-August 2014 Maggie Wagoner traveled with professors Dr. Brian Arbogast of the University of North Carolina-Wilmington and Travis

Knowles of Francis Marion University to participate in the camera trapping studies of the mammalian biodiversity of Ecuador's Sumaco National Park (SNP). Professor Dr. Arbogast and Knowles' project was funded by the Riverbanks CSF in the 31 March 2103 cycle.

A total of \$95,927.77 in grants was distributed during fiscal year 2013-2014 (i.e., a combination of the September 30, 2013 and June 1, 2014 funding cycles). Note that, due to moving the former March 31 application deadline back to June 1, 2014, the grants awarded during the June 1 deadline were distributed during the first part of fiscal year 2014-2015, but have been included in this summary for the sake of consistency.

The July-August Field Conservation Associates Program trip by Maggie Wagoner, however, is not included in the above total and will be included in the 2014-2015 CSF summary. This brings the total support granted by the Riverbanks Conservation Support Fund to \$588,551 since its inception.

Select projects funded by the Riverbanks Conservation Support Fund are featured in the "Conservation Corner" column of *Riverbanks* magazine.