

Building Conservation Capacity

Committed to the Kihansi Spray Toad

Jenny Pramuk, Bronx Zoo and R. Andrew Odum, Toledo Zoo

Populations of the Tanzanian Kihansi spray toad began dropping precipitously in 2000, following construction of a hydroelectric dam. While the dam provides much needed power, it also diverts 90% of the waterfall flow that once sustained the toads. With a native habitat of only ~2 hectares in the Kihansi River Gorge, this species had one of the smallest geographic distributions known for a vertebrate. Several pressures, including habitat destruction, pesticides, and, likely, amphibian chytrid fungus (*Batrachochytrium dendrobatidis*; *Bd*) have led to the toad's decline and presumed extinction in the wild.

In May 2007, representatives from the Toledo and Bronx Zoos, both of which house Kihansi spray toad populations, attended the Population Habitat Viability Assessment workshop in Bagamoyo, Tanzania. Workshop goals included developing a timeline for the return of the toad to its native country and identifying the steps necessary to reach this goal. One critical step is to build capacity within Tanzania by training people to maintain the toads in captivity and building a climate-controlled biosecure facility in Dar es Salaam to house the toads.

As part of the capacity building process, two herpetologists from Tanzania's University of Dar



Charles Msuya and a KST
© Julie Larsen Maher, Bronx Zoo

es Salaam, Charles Msuya and Wilirk Ngalason, visited the Bronx and Toledo zoos in April to learn how to maintain and breed the toads in captivity. They attended AZA's *Amphibian Biology*

and *Management (ABM)* course at the Toledo Zoo, where students are trained in amphibian husbandry, conservation, and natural history.

Tanzanians' and PHVA participants' goal is to return some toads to their native country within a year to breed them before reintroducing them to the wild. Screening for potential pathogens will be performed prior to any reintroductions.

AMPHIBIAN ABNORMALITY STUDY

Funded by U.S. Fish and Wildlife Service's Department of Environmental Quality, a new study links proximity to roads to skeletal abnormalities in Alaskan wood frogs:

www.ehponline.org/members/2008/10963/10963.pdf.

Learn more about the program for monitoring amphibian abnormalities in the National Wildlife Refuge System at:

www.fws.gov/contaminants/Issues/Amphibians.cfm

or contact Shelly Grow (sgrow@aza.org) for contact information for monitoring program coordinators in each FWS Region.



Amphibian Ark continues to receive fantastic support from the world conservation community and its notable leaders. Jean-Michel Cousteau has joined Amphibian Ark as a patron to assist us with fundraising appeals. He explains his passion for amphibian species protection on YouTube at www.youtube.com/watch?v=800UQibaZ7Y. Dr. Jane Goodall, the world famous primatologist and conservation advocate, has pledged her support to the Year of the Frog and will endeavor to promote amphibian conservation on her hectic speaking schedule across the globe. And Jeff Corwin has lent his name to help raise funds through the auctioning of naming rights to newly discovered amphibian species. The first of several auctions that will be held throughout the summer and fall is of a species from the genus *Osornophryne*, and is being conducted at: www.charitybuzz.com/area.do?id=773.

The public also lets us know what they are doing. Children are donating their birthday money and setting up lemonade stalls, while a college lecturer pledged 5 donations of \$50 for five of his 'Year of the Frog' graduating class. We thank the British Mycological Society who gave out Amphibian Ark leaflets at the Royal Horticultural Society Chelsea Flower Show, the most prestigious horticultural show in the world. A phenomenal 160,000 people attended the show over four days in late May.

Submitted by: Lesley Dickie, 2008 Year of the Frog Global Campaign Manager

From the Field

Puerto Rican crested toad update

Diane Barber, Fort Worth Zoo

Congratulations are in order! This year, the Toronto Zoo reproduced their northern Puerto Rican crested toads (*Peltophryne leumur*) and sent 2,600 tadpoles to Arecibo (El Tallonal) for release in April 2008.

Bradley Lawrence from Dallas Zoo and Diane Barber from the Fort Worth Zoo were in Puerto Rico April 19-26 to continue a dispersal study and found 2.2 adult *P. leumur* near the release ponds in El Tallonal, in Puerto Rico's northern karst. These toads are survivors from the first 4,000 tadpoles released at the site in 2006, as no toads lived on the property prior to the start of the release program and the tadpoles released in 2007 did not metamorph properly and survive.



© Matthew Vaughan, Fort Worth Zoo

Finding survivorship this year is incredible news; it was quite unexpected to see adults in the area so soon after beginning releases, since

it took 10 years to see any adults at the release site in Manglillo, in southern Puerto Rico. On April 28, partner organizations found at least one other adult male, in addition to seeing the other four again, for a total of five in the area.

More congratulations! The Sedgwick County and Detroit Zoos sent 2,600 southern PRCT tadpoles (600 from Sedgwick County and 2,000 from Detroit) to Gabia for release on May 16, 2008.

2008 | YEAR OF THE
FROG

FWS Publication Features Year of the Frog! The Spring 2008 issue of the U.S. Fish and Wildlife Service's *Endangered Species Bulletin* is dedicated to amphibians, celebrates Year of the Frog, and includes a number of articles from AZA members. Check it out and share the link widely. <http://www.fws.gov/endangered/bulletin.html>.

Visit www.aza.org/YearoftheFrog for a free Public Service Announcement developed by AZA commercial member Animal Instinct Advertising and to donate to the Amphibian Fund.

Monthly Report Submission Information

Send Monthly Report submissions to Shelly Grow (sgrow@aza.org, 301-562-0777 x263).

A CALL TO ACTION

Equipment Needed for PRCT Recovery

Diane Barber, Fort Worth Zoo

Monitoring amphibian populations is important for understanding population fluctuations and declines. Estimates of the Puerto Rican crested toad population historically fluctuated between 200-500 adults, although an unprecedented breeding event in 2005 resulted in over 2,000 toads emerging to reproduce. A reintroduction program is a large component of the PRCT recovery plan and every year, captive toads from AZA-accredited zoos and aquariums are bred and tadpoles are sent to Puerto Rico for release. More than 140,000 tadpoles were released at five sites between 1987 and 2007. However, minimal monitoring at release sites, limited to visual inspection of ponds when rain accumulates more than two inches, has impeded efforts to evaluate program success.

Dr. Ryan DeVoe from the North Carolina Zoo will go to Puerto Rico in July to train local biologists to implant transmitters in Puerto Rican crested toads. He will leave equipment with the biologists at each release site so they can begin marking and monitoring individual toads. Help is needed to purchase Biomark transponders (500 at \$8-10 each), readers (3 at \$560 each), and two GPS units (\$250 each). If you can help with this important effort, contact Diane Barber, PRCT SSP Coordinator, at dbarber@fortworthzoo.org.

Help Build Conservation Capacity in Brazil

Kevin Zippel, Amphibian Ark

Brazil is #1 in the world for total amphibian species, #1 for endemic amphibians, and #4 for threatened amphibians, but has almost no *ex situ* capacity for them. Amphibian Ark is looking for two scholarship packages, \$2,000-2,400 each including airfare, registration, food, and lodging, to bring two Brazilian students to AZA's *Amphibian Biology & Management* course in November 2008. Bringing these students to the course would set the stage for them to lead similar courses in Brazil in the future (as has been done in Mexico, Ecuador, and Colombia), tentatively starting in March 2009. Supporting these students would be a wonderful way for a zoo or aquarium (or even an individual) to be directly involved in critical capacity building in South America. For more information, contact Kevin Zippel at: KevinZ@AmphibianArk.org.