

CREW Progress Report

Lindner Center for Conservation and Research of Endangered Wildlife • Cincinnati Zoo & Botanical Garden



www.cincinnati-zoo.org

“Using Science to Learn,

Applying Knowledge to Save,

A Future for Wildlife”

Sumatran Rhino “Andalas” Returns to his Namesake

Cincinnati’s first-born Sumatran rhino, Andalas, arrived in his ancestral country of Indonesia in February 2007. He was sent there on a very important mission, to serve as a catalyst for the breeding effort at the Sumatran Rhino Sanctuary (SRS). Andalas, who was named after the original name of the island of Sumatra, was a little tired after his 60-hour air, sea and land journey from the LA Zoo to the SRS. However, he was awake enough to enjoy his first encounter with a Sumatran mud wallow! Being captive born and spending his entire existence in American zoos, Andalas has never been exposed to some of the diseases he may encounter and will need to build protective immunity to the parasites found in Sumatra while he is in quarantine. Once he fully adapts to his new environment, Andalas will be incorporated into the SRS breeding program where two young, female rhinos look forward to meeting (or should we say, breeding) with him in the near future.



Andalas arrives at the SRS accompanied by veterinary and keeper staff from the SRS, LA Zoo and IRF.

Conserving Sumatran rhinos requires protecting them in the wild, and ensuring their global captive breeding program continues to succeed. The work of CREW scientists at the Cincinnati Zoo & Botanical Garden has already demonstrated that to succeed in breeding this highly endangered species, intensive reproductive monitoring must be integrated into the daily management of the rhinos. To-date, the Cincinnati Zoo remains the only successful breeding center for Sumatran rhinos, but the SRS is currently poised to parallel Cincinnati’s success.

Among others welcoming Andalas to the SRS were CREW scientists Dr. Monica Stoops and Chris DeChant, M.S. who were on a 10-week sabbatical to Sumatra supported by the International Rhino Foundation and the Cincinnati Zoo. The team was working with SRS veterinarians and keepers, to fully incorporate ultrasound monitoring into their breeding program and to ensure that the SRS has the tools necessary to succeed in their effort to breed the most endangered rhino species. Dr. Stoops was able to procure the permanent donation to the SRS of a portable ultrasound unit through the generosity of the Sonosite Sound Caring Donation Program. Over the 10 week sabbatical, the team collected Doppler ultrasound data on reproductive cycles of the resident SRS female rhinos.



Dr. Stoops works with Indonesian colleague, Dr. Andri to monitor the reproductive cycles of the SRS rhinos using the donated Sonosite machine.

Most importantly, SRS veterinarians were able to use the information gained from the ultrasound exams to appropriately time breeding on three occasions. In addition, they were able to collect semen samples following breeding to confirm that the older male rhino, Tergamba, is producing viable sperm. This information was very enlightening considering this male was previously presumed infertile. Ultrasound analysis of the youngest female indicated she is just entering puberty. She developed her first mature follicle right before Monica and Chris departed back to the States, so it seems Andalas’s arrival has been timed perfectly!



Andalas enjoying his first dip in a Sumatran mud wallow.



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Found (after a three year search) - a wild fishing cat in Thailand

The fishing cat (*Prionailurus viverrinus*) has an historic distribution in wetlands and mangrove swamps throughout Southeast Asia, including in Thailand. The widespread loss of Asian wetlands due to shrimp farming and rice cultivation has raised concerns about the status of this species in the wild, but little research has been conducted to assess their continued survival.

Beginning in 2004, CREW and the Cincinnati Zoo have been helping to support a Thai field biologist, Namfon Cutter, who has been coordinating a series of camera trapping surveys in several protected areas in southern Thailand. Her previous surveys found evidence of numerous wildlife species in the reserve areas, but no fishing cats were seen – until early in 2007. In the Thale Noi Non-Hunting Area, a large wetland in the southern portion of the Thai peninsula, Namfon finally obtained that first elusive camera-trap



photo of a wild fishing cat. Near the border of the reserve area, the camera-trap recorded the passage of an adult male triggering the camera's shutter by breaking an infrared light beam. Although the photos showed only a single individual, it provides the first direct evidence of fishing cat survival in the reserve and suggests that a viable fishing cat population could still exist in this region.

CREW restores endangered plant under “a salt”

Endangered plants cloned at CREW got a new home last summer in the Gorge Metro Park near Akron, Ohio. The rare Northern wild monkshood (*Aconitum noveboracense*) were planted in two new locations along the Cuyahoga River between Akron and Cuyahoga Falls. The population in the park has rebounded from only 13 plants in 2000 to 190 plants last summer thanks to the diversion of salt runoff from Route 8 lying above the gorge. The success of the salt diversion last year has prompted ODOT to construct an improved salt diversion trench which was recently completed in February of 2007. The clonally propagated plants, produced through tissue culture at CREW, will help establish a satellite population within the park as a reinforcement to the threatened population. Michael Johnson, Chief of Natural Resource Management for Metro Parks, selected sites for the outplanting that were protected and best suited to the monkshood habitat. The plants were monitored weekly through the fall of 2006 and were reported to be doing well. It will still be a while before it can be determined whether they survived the winter. Due to cooler temperatures, the plants will not begin to emerge until early May. The park district recently received grant money to expand their efforts to restore the monkshood. These efforts include planting more CREW-propagated monkshood in the Spring and Fall of 2007. CREW will also conduct genetic analysis of the existing plants in the gorge to determine the degree of genetic diversity among the population. Procedures for propagating the Northern wild monkshood were developed in earlier work at CREW funded by the Institute of Museum and Library Services, in collaboration with the Center for Plant Conservation and Holden Arboretum.



Mike Johnson planting CREW-propagated monkshood plants at Gorge Metro Parks in August, 2006



CREW-propagated plants in soil at Gorge Metro Parks in Akron, OH.

Saving Species with Science Conservation & Research Project List

The Cincinnati Zoo & Botanical Garden manages all its conservation and research activities through the Lindner Center for Conservation and Research of Endangered Wildlife (CREW). With your generous financial support, our on-going efforts are greatly assisting the following species, regions and organizations:

Africa

African Violet
Black-Footed Cat
Bushmeat Crisis Task Force
Cheetah
Guenons
Lowland Gorilla
Mangabeys
Okapi
Sahelo-Saharan Antelope
Spotted-necked Otter

Asia

Asian Small Clawed Otter
Elephant
Fishing Cat
Indian Rhino
Japanese Giant Salamander
Pallas' Cat
Red-Crowned Crane
Rhinoceros Hornbill
Sand Cat
Sumatran Rhino

North and South America

Alaskan Seabirds
Andean Condor
Autumn Buttercup
Blue and Gold Macaw
Brazilian Ocelot
Chilean Penguin
Cumberland Sandwort
Florida Rare Plants
Giant Otter
Local Flora
Manatee
Masked Bobwhite Quail
Mill Creek Restoration
Northern Wild Monkshood
River Otter
Scarlet Macaw

Thank you for being an integral part of CREW's efforts to save the world's endangered plants and animals. To learn more about our critical scientific work, visit our website at www.cincinnati-zoo.org.

