

UNPRECEDENTED TECHNOLOGY IN RHINO BIRTH AT KANSAS CITY ZOO

The Kansas City Zoo is proud to announce the addition of a female Eastern black rhinoceros calf (*diceros bicornis michaeli*), born on 8 February. This is the second successful birth for the adult pair of black rhinos at the Zoo and fulfills the Species Survival Plan (SSP) recommended breeding for the pair. The 10-year-old father Rudy is on loan from Sedgwick County Zoo, while 10-year-old mother Luyisa arrived in 1997 from the Addo Elephant Park in South Africa.

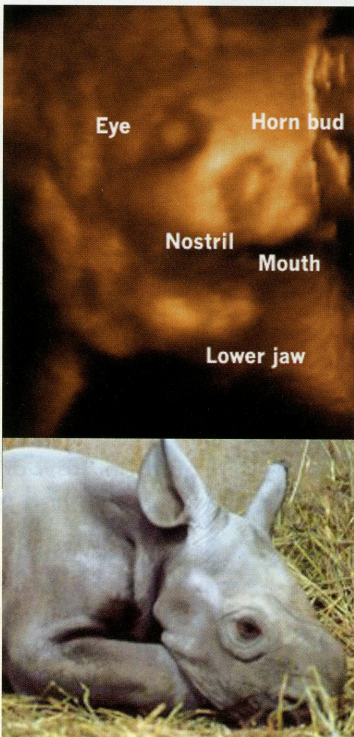
The 477-day gestation was monitored through serum hormone levels, behavioral characteristics and physical changes in the mother. Two-dimensional trans-abdominal ultrasound, a technique pioneered at the Kansas City Zoo, was utilized weekly to monitor fetal development and viability. Additionally, technicians from General Electric® kindly donated their time, equipment and expertise in performing the first three-dimensional ultrasounds of the fetus during mid-gestation.

“The details of the facial features are just incredible!” said Dr. Kirk Suedmeyer, Director of Animal Health at the Zoo. “We were able to observe the fetal eyes blinking, the mouth opening, the nares opening and closing, and with the 3-D imaging, we could easily see wrinkles in the lips.”

The advantage of 3-D ultrasound is to observe physical features of the fetus in greater detail, and therefore be able to detect any deformities or problems. The portable unit easily maneuvered into the same area where the 2-D ultrasound is performed. “This is an incredible cooperative effort with keepers, management, animal health

and SSP participants working together to achieve a common goal,” noted Suedmeyer. “It bodes well for future breeding and conservation of the black rhinoceros.”

The Eastern black rhinoceros is a federally-listed endangered species with an estimated wild population numbering only 500. There are 68 captive specimens in North America, and 175 in captivity worldwide.



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COLLABORATIVE EFFORT PREPARES RARE HAWAIIAN BIRD FOR RELEASE

On 8 December 2003, a team of scientists and conservationists released five palila on the north side of the Mauna Kea volcano. The palila, a critically endangered native Hawai’ian forest bird, represents the last living species of seed eating honeycreepers in the main Hawai’ian Islands.

A total of ten individuals were released, representing over a decade of collaborative captive-breeding and habitat restoration efforts by the U.S. Fish and Wildlife Service (USFWS), Hawai’i’s Division of Forestry and Wildlife (DOFAW), the U.S. Geological Survey–Biological Resources Division (USGS-BRD), the U.S. Department of Transportation, the U.S. Army and the San Diego Zoo. This group began working together in the early 1990s with the goal of improving this bright yellow bird’s chances of survival.

“The highest priority goal for recovery of this species is to reestablish additional populations of palila within its historic habitat,” said Gina Shultz, acting field supervisor for USFWS’s Pacific Islands office. “With almost all of the existing palila located in one small area, the species faces increased risks of extinction from catastrophic events such as fires or hurricanes.”

The palila is the largest of all the remaining species of honeycreepers found in the Hawai’ian Islands. In addition to the palila, the endangered Laysan finch and Nihoa finch in the northwestern Hawai’ian

islands represent the last remaining seed-eating honeycreepers. The brightly colored palila is native to the mamane forests of Hawai’i and is currently found primarily on the western side of Mauna Kea at elevations greater than 6,000 feet. Dr. Paul Banko, USGS-BRD, has studied the palila for over a decade to provide knowledge that will support recovery of this unique species. Almost exclusively an herbivore, the palila is dependent on the seeds, flowers and buds of the mamane tree as its primary food source. Currently, there is only one wild population of this species remaining on the west side of the volcano. This project seeks to create a second group in an area of forest on the north side of the volcano that is being restored through the efforts of DOFAW, USFWS and the U.S. Department of Transportation.

“DOFAW is committed to the reestablishment of palila in this area and the restoration of the mamane forest there. We are working with the USGS-BRD to restore additional mamane forest habitat near the present release site to expand the forested areas that will be available to the restored palila population as it grows in the future,” said Scott Fretz, endangered species biologist with the State DOFAW.

This represents the first time that captive palila have been reintroduced to native forests. “This is truly a moment we have worked hard for since we hatched the first palila in captivity in 1996,” said Alan Lieberman, project director for the San Diego Zoo’s Hawai’i Endangered Bird Conservation Program. “We will be monitoring these birds after they are released to confirm that they will thrive in their new wild habitat. If all goes well, we hope to see the released palila breeding in the wild.”

Preparations for the release began several months ago. In order to make the new location safe for the palila, USGS-BRD conducted research that was used to inform implementation of predator control. Representatives from the San Diego Zoo began building two aviaries at the release site in late October 2003. The aviaries were completed and release candidates were moved to the site from the Zoo’s Keauhou Bird Conservation Center in November.

(Conservation continued on page 41)