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Connect

A publication of the Association of Zoos & Aquariums

For the Good of Us All

Conservation Partnerships With the Military

BUSINESS OPERATIONS SUPPORTING CONSERVATION

RENOVATING HISTORY
Toledo Zoo's Reimagined Aquarium

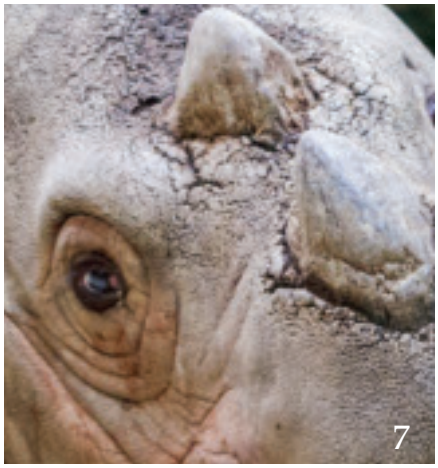
BY THE NUMBERS
AZA and Rhinoceros Conservation

CONTENTS

November 2015

Features

CONTENTS



Member View

Departments

About the cover

Black Rhinoceros

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Relocation

Last Sumatran Rhino in Western Hemisphere Leaving the Cincinnati Zoo

The Cincinnati Zoo & Botanical Garden in Cincinnati, Ohio, announced that 8-year-old male Sumatran rhino, Harapan, will be moved to Indonesia. His departure marks the end of an era for the Cincinnati Zoo's Sumatran rhino breeding program, the only captive breeding program in the United States to produce calves for this critically-endangered species.

During a press conference held to announce Harapan's departure, Dr. Terri Roth, director of the Zoo's Center for Conservation & Research of Endangered Wildlife (CREW) said, "Despite the great personal sadness so many of us feel both about Harapan leaving and Cincinnati Zoo's Sumatran rhino breeding program coming to an end, we need to focus on all we have accomplished, for there is much to celebrate. The Cincinnati Zoo has had a profound, historic impact on the effort to save this species."

Harapan, the third of three calves born at the Cincinnati Zoo, is the only Sumatran rhino living outside of Southeast Asia. He is sexually mature and his opportunity to breed and contribute to his species' survival exists only at the Sumatran Rhino Sanctuary (SRS), a breeding facility in the Way Kambas National Park of Indonesia. SRS is home to Harapan's brother Andalas, as well as the son that Andalas sired at the sanctuary in 2012 and three possible mates for Harapan.

Approximately 100 of Harapan's kind remain in the world, and only nine are cared for in captivity. The remaining wild Sumatran rhinos are scattered throughout fragmented rainforests in Southeast Asia, making it difficult for the animals to find each other and reproduce. In August 2015, scientists declared the species extinct in the wild in Malaysia, dealing another blow to a species already considered the most endangered rhino.

"Though the numbers are frighteningly low, Sumatran rhinos still exist in the forests of Sumatra; we believe there is still time to save them, and we are by no means giving up that fight now. Ultimately, the responsibility for saving this magnificent species now lies squarely on the shoulders of our Indonesian colleagues. Our hope is that they succeed beyond all of our wildest dreams," said Dr. Roth. "We will all rejoice when we hear news

of another birth—a son or daughter of either Andalas or Harapan," said Dr. Roth.

About the Sumatran Rhino Breeding Program at the Cincinnati Zoo

After years of research, CREW scientists at the Cincinnati Zoo, led by Dr. Roth, unraveled the mysteries of Sumatran rhino reproduction and, in 2001, produced Andalas, the first calf bred and born in captivity in 112 years. In 2004, his sister, Suci, was born, and in 2007, Harapan arrived. Between 2001 and 2012, the Cincinnati Zoo held the distinction as the only place successfully breeding this endangered species. The Zoo worked closely with Indonesian and Malaysian colleagues to transfer knowledge and techniques so that they, too, could succeed. In 2007, the Cincinnati and Los Angeles Zoos and Botanical Gardens in Los Angeles, Calif., agreed to send Andalas to the SRS. That sacrifice on the part of the Los Angeles Zoo, where Andalas was living at the time of his transfer, paid off in 2012 when a healthy son was born in Sumatra.

© Cincinnati Zoo

The Cincinnati Zoo works closely with the Indonesian Ministry of Forestry, the Indonesian Rhino Foundation, the International Union for Conservation of Nature (IUCN) Asian Rhino Specialist Group and the International Rhino Foundation to protect this species in the wild and also propagate Sumatran rhinos in human care.

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The new species of robber frog, *Oreobates sp. nov.*, discovered in the tropical montane savannas and gallery forests of the Apolo region of Bolivia.

Species Discovery

Biodiversity Expedition in Madidi National Park Discovers New Frog Species

The Wildlife Conservation Society (WCS) in Bronx, N.Y., reported that the groundbreaking Bolivian scientific expedition, Identidad Madidi, has discovered a new species of big-headed or robber frog (*Oreobates sp. nov.*) from the *Craugastoridae* family in Madidi National Park.

The frog was found during the first leg of an 18-month long expedition to chronicle the staggering wildlife living in what is believed to be the world's most biodiverse park.

James Aparicio and Mauricio Ocampo, two professional herpetologists from the Bolivian Faunal Collection and the National Natural History Museum, immediately suspected they had found something exceptional in the first week of the expedition in the tropical montane savannas and gallery forests of the Apolo region of Bolivia. Subsequent examination of available literature supports this discovery as a probable new species for science to be confirmed with forthcoming genetic studies.

James Aparicio said, "Robber frogs are small to medium-sized frogs distributed in the Andes and Amazon region and to date there are 23 known species. As soon as we saw these frogs' distinctive orange inner thighs, it aroused our suspicions about a possible new species, especially because this habitat has never really been studied in detail before Identidad Madidi."

Mauricio Ocampo added, "We have spent the last two months ruling out known species at the Bolivian Faunal Collection and also from published accounts, especially recently described species from southern Peru, but we are now confident that this will

indeed be confirmed as a new species for science once genetic analyses are completed."

Identidad Madidi is a multi-institutional effort to describe still unknown species and to showcase the wonders of Bolivia's extraordinary natural heritage at home and abroad. The expedition officially began on 5 June 2015 and will eventually visit 14 sites over 18 months as a team of Bolivian scientists works to expand existing knowledge on Madidi's birds, mammals, reptiles, amphibians and fish along an altitudinal pathway descending more than 5,000 meters (more than 16,000 feet) from the mountains of the high Andes into the tropical Amazonian forests and grasslands of northern Bolivia.

Participating institutions include the Ministry of the Environment and Water, the Bolivian National Park Service, the Vice Ministry of Science and Technology, Madidi National Park, the Bolivian Biodiversity Network, WCS, the Institute of Ecology, Bolivian National Herbarium, Bolivian Faunal Collection and Armonia with funding from the Gordon and Betty Moore Foundation and WCS.

Teresa Pérez , director of the Bolivian Biodiversity and Protected Areas Directorate expressed her satisfaction with the scientific results of the Identidad Madidi expedition. "The description of a new species of robber frog for science is important news for the country as it confirms the extraordinary biodiversity of Madidi National Park and demonstrates the importance of scientific research in protected areas," she said.

Across the first two study sites in June and July, the Identidad Madidi team registered 208 and 254 species of vertebrates respectively, including an impressive 60 species of vertebrates that are new records for the official park list: 15 fish, 5 amphibians, 11 reptiles, 4 birds and 25 mammals. Five of these additions – three catfish, a lizard and another frog – are candidate new species for science, and the team continues efforts to determine their identity. Notable new records for the park include the incredible tube-lipped nectar bat (*Anoura fistulata*) with a record breaking tongue and only a fourth continental distribution record since its discovery in 2005; the beautiful but deadly annellated coral snake (*Micrurus annellatus*); the bizarre Hagedorn's tube-snouted ghost knifefish (*Sternarchorhynchus hagedornae*); and the long-tailed rice rat (*Nephelomys keaysi*).

Dr. Robert Wallace of WCS stated, "This is just the beginning. We are incredibly proud of the team's efforts across the first two study sites and while we are expecting more new species for science, as important is the astounding number of additional species confirmed for Madidi further establishing it as the world´s most biologically diverse park."

The next leg of the expedition began on 20 August and will explore three study sites in the High Andes of Madidi, specifically within the Puina valley between 3,750 meters (12,303 feet) and 5,250 meters (17,224 feet) above sea level in Yungas paramo grasslands, Polylepis forests and high mountain puna vegetation.

Wallace added, "The success of the communication and social media campaign is also especially pleasing for the scientific team." You can follow the adventure online at *www.identidadmadidi.org, www.facebook.com/IdentidadMadidi, #IDMadidi.*

By the Numbers

AZA and Rhinoceros Conservation

$4.2 million Association of Zoos and Aquariums (AZA)-accredited facilities spent more than **$4.2 million** to protect and conserve rhinos between **2010** and **2014**, with more than half a million in additional funds spent on rhino research.

$1.5 million

While all **five** extant species of rhinoceros benefitted from member efforts, the critically endangered black rhinoceros and Sumatran rhinoceros were each aided by more than **$1.5 million** spent on field conservation and research efforts.

One commonly supported field conservation initiative was AZA Conservation Partner American Association of Zoo Keepers' (AAZK)

"Bowling for Rhinos,"

which raises funds for rhino conservation in east Africa and Indonesia.

Over the past **five** years, **78** AZA-accredited zoos and aquariums, along with **three** AZA Certified Related Facilities, reported supporting rhino conservation and research.

78