

# American Institute of Rhinoceros Science (AIRS) A model for saving species with science *ex situ*

CREW is partnering with The Wilds, Disney's Animals, Science and Environment, George Mason University, the South-East Zoo Alliance for Reproduction & Conservation, and Stellenbosch University, South Africa, on a new, big initiative, taking rhino science and collaboration to a new level while helping to save rhinos from extinction.

## AIRS in a Nutshell

AIRS is led by a coalition of expert rhino scientists and is founded on the partnership between CREW (with its renowned *Rhino Signature Project*), and The Wilds (one of the most successful rhino breeding and management facilities). This large coalition will employ a multidisciplinary, integrative strategy to overcome the four greatest scientific challenges to sustaining rhino populations within our nation's zoos. The team recognizes that the scientific challenges are inter-related, and studying one of them in isolation will fall short of what could be achieved by tackling all of them together. In short, **the whole is greater than the sum of its parts**. AIRS will consist of a diverse, inclusive team of scientists in all stages of their training/careers. The project will produce science-based, affordable and feasible management recommendations for monitoring and controlling physical condition, iron overload, and reproduction, while ensuring optimal rhino wellbeing. This program will set a precedent for saving species with science in zoos, a model with value for all species at risk in the wild. (AIRS is supported by a grant from the Institute of Museum and Library Services #MG-249011-OMS-21.)

## The AIRS Team

### Director

Terri Roth, PhD  
Cincinnati Zoo/CREW

### Co-PIs/Team Leaders:

Elizabeth Freeman, PhD  
George Mason University

Lara Metrione, PhD  
South-East Zoo Alliance for  
Reproduction & Conservation

Michele Miller, DVM, PhD  
Stellenbosch University

Parker Pennington, PhD  
Cincinnati Zoo/CREW

Jan Ramer, DVM  
The Wilds

Mandi Schook, PhD  
Disney's Animals, Science  
and Environment

### Team Members:

Dan Beetem  
The Wilds

Stacie Bickley, PhD  
George Mason University

Elizabeth Donelan, MS  
Cincinnati Zoo/CREW

Gina Ferrie, PhD  
Disney's Animals, Science  
and Environment

Priscilla Joyner, BVMS  
The Wilds

Shana Lavin, PhD  
Disney's Animals, Science  
and Environment

Louisa Rispoli, PhD  
Cincinnati Zoo/CREW

Jessye Wojtusik, PhD  
Cincinnati Zoo/CREW

### Consultants:

Dalen Agnew, DVM, PhD  
Michigan State University

Kari Morfeld, PhD  
For Elephants, Inc.

## AIRS Partners

AZA Rhinoceros Taxon Advisory Group  
AZA Eastern Black Rhino Species Survival Plan  
AZA Greater One-Horned Rhino Species Survival Plan  
AZA White Rhino Species Survival Plan  
Birmingham Zoo  
Brookfield Zoo  
Buffalo Zoo  
Cleveland Metroparks Zoo  
Columbus Zoo & Aquarium  
Detroit Zoological Society  
Fossil Rim Wildlife Center  
Indianapolis Zoo  
International Rhino Foundation  
Jacksonville Zoo and Gardens  
Lincoln Park Zoo  
Lion Country Safari  
Lowry Park Zoo  
Maryland Zoo  
Milwaukee County Zoo  
Museum of Osteology  
North Carolina Zoo  
Sedgewick County Zoo  
Skulls Unlimited International, Inc.  
White Oak Conservation



### Dr. Mandi Schook

"I am so excited that AIRS gives us the foundation to look at how physical fitness relates to health, wellbeing, and reproductive success in a holistic way across rhino populations."



### Dr. Michele Miller

"AIRS offers the rare opportunity to apply new techniques for tackling key rhino health issues while comparing wild and human-managed rhinos."



### Dr. Terri Roth

"Rhino iron overload disorder has stumped scientists for decades, but with so much expertise and diverse experience within AIRS, already novel approaches have evolved for studying this phenomenon."

PHYSICAL  
FITNESS

IRON  
STORAGE

The whole  
is greater than  
the sum of  
its parts

REPRODUCTION

WELLBEING



### Dr. Parker Pennington

"The AIRS partnerships provide a unique opportunity to learn from The Wild's historical success and develop new and innovative ways to support rhino reproduction into the future."



### Dr. Elizabeth Freeman

"By demonstrating the importance of integrative research and the strength of women in STEM, AIRS is a model for training the next generation of conservation scientists."

### Dr. Lara Metrione

"Promoting the wellbeing of rhinos in our care is at the heart of what we do. The interdisciplinary approach of AIRS is the best way for us to comprehensively understand how to help our rhinos thrive."



### Dr. Jan Ramer

"The Wilds is honored and excited to be a part of this program. Our successful rhino breeding herds and talented, experienced animal management staff make The Wilds an invaluable resource for this important work."

