



POLAR BEAR CHALLENGE

CINCINNATI ZOO
C.R.E.W.

The Challenge: Launching a One-of-a-Kind

research and education project addressing the effects of one of the most challenging environmental phenomena of our time – global climate change – on the survival, health, and well-being of one of our planet’s most spectacular species, the polar bear (*Ursus maritimus*).

The Need: Polar Bears on Ice

Among the most beloved animals on our planet, the polar bear has become an icon for global warming. Sea ice is an essential component of the polar bears’ ecosystem, and changes already taking place in its distribution and longevity may profoundly affect the species’ future.

Zoos, including the Cincinnati Zoo & Botanical Garden, nationally recognized as one of the top 3 Zoos in America, are strategically breeding the polar bear in hopes of developing a self-sustaining, captive population, while employing these charismatic ambassadors to educate visitors about global warming and wildlife conservation.

Given that zoo bears live at latitudes and climates far different from those of the Arctic, the study of these bears may teach us what we can expect with -- and how we might save -- the wild population as it struggles to adapt in a warmer polar environment. Unfortunately, poor reproductive success in captive bears threatens the genetic health and long-term survival capacity of this species in zoos.

Cincinnati Zoo’s CREW: Saving Species with Science® and Leading on Solutions

In 2007, researchers at our Lindner Center for Conservation and Research of Endangered Species (CREW), world renowned for innovations in propagating endangered species of plants and animals and one of only three on-site research facilities in a North American zoo, discovered a method for noninvasive monitoring of polar bear reproductive status. CREW scientists, led by Dr. Terri Roth, CREW Director and winner of a 2004 Chevron Texaco “Honoring Our Environmental Heroes” Award, invented a unique test for monitoring, tested it on polar bears at our zoo, and last year, partnered with 16 North American zoos to collect and analyze samples from their polar bears. As inventor of the method, CREW is the only facility in the world running these tests and is leading the continent’s reproductive research on polar bears. CREW now has a year’s data on which to build the next, critical phase of research. We are launching a three-year Polar Bear Conservation Project – beginning with captive bears and eventually testing wild bears – to advance the science that may help save this species.

Collaborating with CREW on this project is the nonprofit group Polar Bears International (PBI). PBI has a major educational outreach program, Project Polar Bear, focused on young people, ages 14-18, and concrete actions they can take in their communities to reduce carbon emissions. CREW will link with PBI on this educational initiative, as well as with their researchers, as part of CREW’s own hands-on, inquiry-based overnight program for high school students and their teachers, *Scientists for the Future*. The ultimate goal of these programs is to stimulate participants to take real action in their daily lives that will help conserve polar bears and other wildlife.

The Challenge: Resourcing the Polar Bear Conservation Project

We are very excited about the promise of this project to significantly advance the state of knowledge about polar bear reproduction and how it might be affected by global warming, provide practical technologies and methods for improving the management and



increasing the welfare of polar bears in captivity, and inspire new conservation action on behalf of this spectacular species. We are seeking corporate and foundation partners to help us meet the costs of the project, estimated at \$260,000 per year for three years. CREW recently received a 3-year challenge grant from The Shumaker Family Foundation of Lawrence, KS to help launch this program, and we are actively working to meet the challenge, and more importantly, secure the funding needed to support this critically needed research. We hope you will consider making a \$50 gift to help us reach our challenge of \$35,000. Right now, thanks to The Shumaker Family Foundation, your impact is doubled and can go twice as far to save the Polar Bear. To request more information or a formal proposal, please contact Nita Douglas, nita.douglas@cincinnati-zoo.org or 513-404-5204.