



CREW Celebrates 30 Years of Saving Species With Science®



One of the longest standing zoo research programs, the Lindner Center for Conservation and Research of Endangered Wildlife (CREW), celebrated its 30th anniversary in October 2011. CREW was first established in 1981 as the Cincinnati Wildlife Research Federation. A decade later, the state-of-the-art Lindner Center for Reproduction of Endangered Wildlife opened on the grounds of the Cincinnati Zoo & Botanical Garden as the first facility of its kind dedicated to both animal and plant conservation research. As it evolved, CREW's emphasis broadened from strictly reproduction to more diverse biological sciences. To reflect this growth, its name was changed in 2001 to the Center for Conservation and Research of Endangered Wildlife.

Initially, CREW focused on proving assisted reproduction could be applied successfully to wildlife species, especially through interspecies embryo transfer, in hopes of bolstering endangered populations. Some of these early efforts paid off. For example, a bongo calf was produced by an eland cow and a gorilla was born following IVF and embryo transfer, but greater efficiency was necessary for applied use. More basic research was required to better understand the complex reproductive biology of nondomestic animals before assisted reproduction would become routinely successful. Similarly, botanical gardens were finding that some plants, like trillium, could not easily be propagated by traditional methods, and plant tissue culture and cryopreservation research conducted by CREW would become essential in efforts to conserve several North American endangered plants.

By the late 1990s, CREW had expanded its research to facilitate natural breeding efforts, selectively using those technologies deemed most effective in light of the reproductive obstacles faced by targeted species. The birth of three Sumatran rhino calves by natural breeding was a direct result of CREW's basic research and the integration of ultrasound and endocrine technologies with animal management strategies. However, the emphasis on assisted reproduction and genome resource banking remained integral to CREW's goal of genetically managing endangered populations globally while linking in-situ and ex-situ populations. Recent progress within CREW's small cat program after years of basic research combined with international partnerships is a testament to this strategy.

The challenges of conserving endangered plants and animals seem endless, but on its 30th anniversary, CREW can reflect on the considerable progress achieved within its three Signature Conservation Projects (Rhinos, Small cats, Endangered plants). Its first Sumatran rhino calf, transported to Sumatra in 2007, is now producing the first pregnancies in the history of Indonesia's captive breeding program. The successful birth of multiple ocelots, sand cats and Pallas' cats following artificial insemination, in vitro fertilization and/or embryo transfer at zoos in several countries is living proof that such technologies can facilitate global genetic management and long-term sustainability of small populations. Finally, several endangered plants originating from CREW's plant tissue culture efforts are now repopulating wild habitats in Ohio, Kentucky, Florida and Utah. This progress over the past 30 years, conducted in collaboration with numerous zoos, botanical gardens and other conservation organizations, helps validate the importance of science for conserving endangered species.

