



Research to protect, treat and cure animals.

Education protects endangered cheetahs

Mobilizing local farmers toward conservation

Namibian cheetahs require a large range area to hunt and mate. Because of habitat destruction, which endangers many animals throughout the world, cheetahs are forced into farmland areas. Even worse, local farmer view these endangered animals as pests and often shoot them.

Dr. Budhan Pukazhenthhi at the Smithsonian Institution's National Zoological Park is trying to alleviate the problem at its source. He has joined forces with the Cheetah Conservation Fund (CCF) in Namibia to educate local farmers on the importance of cheetah survival and develop a Genome Resource Bank.

Thanks to CCF's hard work, local farmers now call the organization when they trap a cheetah who is disturbing livestock. CCF travels to the farm, anesthetizes the cheetah, performs a general wellness exam and collects biological samples. Typically, a cheetah will hunt easy prey like livestock only when it is injured. If this is the case, CCF treats the injured animal and then relocates it. The system helps farmers to protect their livestock and provides scientists like Dr. Pukazhenthhi with the opportunity to collect and preserve genetic material from wild cheetahs into the Genome Resource Bank.

"Working with local farmers to trap these cheetahs provides us with valuable genetic material we wouldn't otherwise have access to," he explains.

Dr. Pukazhenthhi and his colleagues are also perfecting the art of cryopreserving (freezing) cheetah semen. This technology is a critical part of preserving this highly endangered species and ensuring the captive population's genetic diversity. Dr. Pukazhenthhi believes that these samples might even be used to reintroduce genes into the wild population through artificial insemination techniques.

In the field, where investigators might only be armed with a lab kit, collecting and preserving biological samples is much more difficult than in a controlled environment. Dr. Pukazhenthhi and his team are evaluating a more efficient

way to collect and preserve samples so more cells survive for testing or cryopreservation and insemination.

One of Dr. Pukazhenthithi's colleagues, Dr. Adrienne Crosier, manages the program in Africa, which makes it possible to run year-round. Training Namibian scientists is also critical to ensuring the project's future.

"We have trained one Namibian student and are in the process of training another in sample collection, evaluation, freezing and monitoring the frozen biomaterial collection," Dr. Pukazhenthithi says. "If there is ever a reason for us to leave Namibia, we want to maintain our commitment to conserving the cheetahs there."