

Grant to Aid in Snow Leopards' Survival

Researchers will determine a draft of the snow leopard genome to improve breeding, diversity of the endangered species.

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Snow leopards are native to the mountains of Central Asia, and there are 600-700 in captivity worldwide. A team from Western University of Health Sciences' College of Veterinary Medicine recently received a grant of \$100,000 to improve the breeding programs of captive endangered species - specifically, the snow leopard.

The team will develop a strategy for using genetic analysis to maximize the breeding of snow leopards to enhance species' diversity and robustness. Results from the research are expected to be applicable to other endangered species as well.

The team includes Margaret Barr, DVM; Kristopher Irizarry; and Janis Joslin, DVM. The grant was administered by the Institute of Museum and Library Services.

The researchers chose snow leopards because they are endangered and are susceptible to a number of infectious diseases. The Snow Leopard Trust estimates the wild population at 3,500-7,000, with 600-700 in zoos worldwide.

Snow leopards in captivity have been managed by an international studbook since 1976. The studbook is used to maximize genetic diversity of the population. The project aims to give zoos another tool to identify the best breeding pairs to sustain the captive breeding populations.

The research team will collect DNA samples of snow leopards and determine a draft of the snow leopard genome to identify specific genes associated with immune function.

Project partners include Todd Mockler from Oregon State University and Jay Tetzloff from Great Plains Zoo & Delbridge Museum of Natural History. Mockler will be responsible for sequencing the snow leopard genome. Tetzloff, who is also the propagation manager for the Snow Leopard Species Survival Plan, will assist with the studbook analysis and identifying individual snow leopards for genetic analysis.