

In Situ Conservation

Conserving clouded leopards will require more than successful captive breeding. It is essential to preserve sufficient numbers of clouded leopards in the wild to

maintain healthy populations. More information will be essential to managing wild populations to permit long-term survival of this species. Another important component of this project is, therefore, the development of an *in situ* conservation field program. Numerous field studies and sites in Thailand are being considered. Initial research will focus on using GIS (Geographic Information System) and satellite imagery tools to identify critical remaining clouded leopard habitats within Thailand. Once important sites are identified, an integrated research approach will be implemented to use GIS/remote sensing with traditional field survey techniques including scat and track surveys and on-ground motion cameras to provide detailed data necessary to developing a comprehensive *in situ* conservation strategy.



For Further Information:

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Clouded Leopard Breeding Consortium

Conserving the Endangered Clouded Leopard
in Thailand

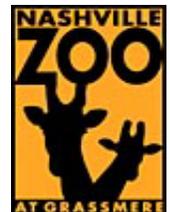


The Zoological Park Organization
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AZA Species Survival Plan®



**Khao Kheow
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The Clouded Leopard: A Cat in Crisis

Clouded leopards (*Neofelis nebulosa*) are among the most charismatic and least understood of Thailand's many beautiful cat species. Sadly, populations are declining due to loss of habitat, trapping for the pet trade and poaching for their decorative pelt.

Unfortunately, information critical to the conservation of this beautiful animal is lacking. *In situ*, clouded leopards are primarily nocturnal and extremely elusive, preventing researchers from conducting accurate surveys of animals in the wild. At the same time, *ex situ* populations are in a crisis. Breeding clouded leopards in captivity has been a challenge the world over, primarily due to male aggression, decreased breeding activity between paired animals and high cub mortality.



Clouded Leopard Consortium Breeding Program

Clouded leopards in Thailand zoos represent a key genetic resource to the survival of the clouded leopard. To address the challenges facing this important population, a consortium was formed between the Zoological Park Organization of Thailand, Khao Kheow Open Zoo, Asian Wildlife Consultancy, Nashville Zoo, Smithsonian National Zoological Park and Clouded Leopard Species Survival Plan to develop an improved clouded leopard breeding program at the Khao Kheow Open Zoo in Chonburi, Thailand. Currently, there are more than 25 valuable clouded leopards that are being managed by the consortium.

Challenges Facing the Clouded Leopard

Ex Situ

- Imbalanced diet results in low fertility, poor health and high cub mortality
- Stress from small enclosures and close proximity to large carnivores (tigers, leopards, bears, humans) further degrades reproductive success
- Extreme male aggression towards females severely limits pairing and natural breeding success

In Situ

- Rapid habitat fragmentation and loss throughout the historic range
- Lack of knowledge about normal behavior and population parameters
- Poaching for pelt and teeth
- Trapping for pet market



Solutions:

- Move valuable clouded leopards to renovated enclosures providing isolated breeding areas and nest-boxes
- Provide an on-site animal manager with extensive experience in clouded leopard breeding, nutrition and management
- Provide a nutritionally balanced diet
- Monitor fertility, reproductive potential and stress in male and female clouded leopards using innovative techniques including fecal hormones monitoring and semen collection
- Cryopreserve sperm for assisted reproduction and storage of valuable genetic material in the Clouded Leopard Genome Resource Bank

