

CAPTIVE-BREEDING OF ARABIAN LEOPARD *PANTHERA PARDUS NIMR* IN THE KINGDOM OF SAUDI ARABIA

Ahmed Boug, M. Zafar-ul Islam* and Abdulla Shehri

National Wildlife Research Center, P.O. Box 1086, Taif, Kingdom of Saudi Arabia

*Email: mzafarul.islam@gmail.com

The Arabian leopard (*Panthera pardus nimr*) occurs in all the mountain ranges from northern Arabia to the Asir mountains in southwestern Saudi Arabia and Yemen, into southern Oman, throughout the Hajar mountains and up into the Musandam peninsula. It is a nocturnal and secretive animal that is rarely seen, except by the mountain farmers, who hunt them when they eat their goats. The status of all cats inhabiting the peninsula was assessed in recent years, but the main focus has always been the Arabian leopard, listed as Critically Endangered in the IUCN Red List (IUCN 2009).

The population of leopard is not known, but a number of field surveys carried out by the National Wildlife Research Center (NWRC) and King Saud University found that leopards had disappeared from 153 sites in their former range in the Madina Mountains in northern Saudi Arabia. The species still survives in reasonable numbers in Hijaz and Sarawat Mountains (Judas et al. 2007). In spite of their rugged and arid locations, many sites were found to have shrubs, trees and waterholes. These sites provide habitat for the leopard's prey, such as hyrax, ibex and others. The leopard was seen from 65 sites between 1997 and 2002 (Al-Johany 2007). In 1992 one leopard was found dead in Al Fiqra 80 km west of Al Madina and two carcasses of leopard were found in Asir mountain in 2007 and a workshop was organized in Asir mountain by the NWRC/NCWCD where decision makers and general public participated in discussions to conserve and protect the leopard. NWRC has appointed a full time ranger to monitor leopards in the Asir region. It is believed that less than 100 individuals are left in the wild.

NWRC has started a captive-breeding programme to secure the Arabian leopard and provide animals for future restocking or reintroduction. The establishment of a captive breeding programme is an important step in preventing the extinction of the Arabian leopard, even though not all leopards held in captivity on the Arabian Peninsula have yet been integrated into the breeding programme. In the meantime, most remnant populations will probably continue to decline. We do not know how much time we have left to save the Arabian leopard from extinction in the wild.

Captive breeding and reintroduction

On 25th June 2007 a board meeting was held at the NCWCD to discuss the National strategy for Arabian Leopard conservation. The NWRC was identified as the most suitable place to conduct this project, because the research center already had facilities to house animals. At present, 5 individuals (3 males and 2 females) are kept in the Center and 3 (1:2) have been loaned for breeding to the Breeding Center for Endangered Arabian Wildlife (BCEAW) of Sharjah, UAE.



Fig 1. Arabian leopard cub (© O. Coupe/NWRC).

In order to develop the captive breeding unit in Taif new facilities with large enclosed area will be constructed. The Arabian leopards held in NWRC are in good health. The medical status of the leopards has been assessed paying attention to dentition condition, hematology, biochemistry and serology (FIV/ FeLV). All individuals are vaccinated and microchipped while blood and hair samples have been taken for genetics.

Breeding success

In 2008, a 10-16 month old female, Aicha, gave birth to a male cub, but after four days, the cub was killed and partially eaten by its mother. Cannibalism in felids is unusual. Lina, a captive bred female on loan from BCEAW gave birth to a female cub in 2008. Unfortunately, this cub died, possibly because it was abandoned by the mother.

In 2009 Lina and Aicha each gave birth to twins. We used CCTV to monitor the cubs, who were also regularly weighed to check the body development and growth. After 17 days Aicha started ignoring her cubs and it was necessary to remove them and hand rear them. These cubs are now almost four months old and are in good health. Lina kept her cubs, but one male died from pneumonia caused by *Aspergillus*.

Future plans

We aim to continue the captive-breeding programme until sufficient animals have been produced so that reintroduction can be initiated. New captive facilities will also be developed to house more individuals. Field studies will be carried out to assess the wild population in Saudi Arabia and identify potential habitat where reintroduction might be initiated.

A project proposal submitted in 2008 to fund the Arabian Leopard conservation programme has been approved. This project will focus on captive-breeding as well as initiating field studies of wild leopards.

Information generated from this project will be used to formulate effective conservation strategies for Arabian leopard. Education materials related to leopard conservation will be distributed in English and Arabic. A 15 minute film entitled 'Conservation of Big Predators a Nation's Challenge' has been made and DVDs are available for education work.

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References available on the version posted on the wmenews website.