Clouded leopard (*Neofelis nebulosa*)

French: Panthère Longibande, Panthère Nébuleuse

Spanish: Pantera Del Himalaya, Pantera Longibanda, Pantera Nebulosa

Kingdom Animalia

Phylum Chordata

Class Mammalia

Order Carnivora

Family Felidae

Genus *Neofelis* (1)

Size
- Head-body length: 61 – 106 cm (2)
- Tail length: 55 - 91 cm (2)

Weight
- 16 – 23 kg (2)

Top facts
- The clouded leopard is an almost monkey like climber and has been observed hanging from branches from its rear feet upside down!
- As if that wasn’t enough the clouded leopard is also a capable swimmer.
- The clouded leopard is so elusive that most of what is known about its biology comes from captive specimens.
- The clouded leopard has the longest upper canine teeth relative to skull size of any living carnivore.

**STATUS**

The clouded leopard is classified as Vulnerable (VU) on the IUCN Red List (1) and is listed on Appendix I of CITES (3).

**DESCRIPTION**

The clouded leopard (*Neofelis nebulosa*) is named after the distinctive ‘clouds’ on its coat - ellipses partially edged in black, with the insides a darker colour than the background colour of the pelt (4). Previously considered to be a single species, the clouded leopard has recently been split into two distinct species, the clouded leopard, *Neofelis nebulosa*, and Diard’s clouded leopard, *Neofelis diardi* (5) (6). Aside from genetic and anatomical differences (6), this more widely distributed clouded leopard species can be recognised by its lighter, tawny fur and larger cloud-like markings (5). The limbs and underbelly are marked with large black ovals, and the back of the neck is conspicuously marked with two black bars (7). The thickly-furred tail is exceptionally long, often equivalent to the body length, and is boldly marked with black rings (4). Well adapted to forest life, the clouded leopard has stout legs and broad paws which make it excellent at climbing trees and creeping through thick forest (2). Perhaps the most remarkable feature of clouded leopards is that, in proportion to their body size, they possess the largest canines of all the cats (8). Indeed, although they are considered to be of an unrelated evolutionary lineage, clouded leopards have independently evolved teeth and jaws that are remarkably similar to the primitive members of the extinct group of sabretoothed cats, such as the eight to ten million year-old, puma-sized *Paramachairodus* from Europe and Asia (9).
There are currently three recognised subspecies of the clouded leopard: *Neofelis nebulosa macrosceloides*, which is found in western mainland Asia as far west as Nepal; *Neofelis nebulosa nebulosa*, which occupies eastern mainland Asia; and *Neofelis nebulosa brachyuran*, which occurs on Taiwan, but is now likely to be extinct (6). Despite this wide distribution, the clouded leopard has a small population and is very thinly dispersed (8). The clouded leopard's total effective population size is estimated at below 10,000 mature individuals, and all subpopulations contain fewer than 1,000 mature breeding individuals (1).

**HABITAT**
This shy and elusive species is usually associated with tropical forests, but also makes use of other habitats. The clouded leopard has been seen in primary and secondary forest, as well as grassland, scrub and mangrove swamps (7).

**BIOLOGY**
The clouded leopard has amazing tree climbing abilities, and has been seen running head-first down tree trunks, climbing about on the underside of branches, and hanging upside down by its hind feet with the tail providing balance. The ability to climb trees allows it to forage for food in the canopy, although it mainly uses the tree branches for resting. This species also swims well and has been found on small islands off the mainland in the past (7). Hunting generally takes place at night, with peaks of activity at dusk and dawn (1). Prey is either stalked on the ground or ambushed from above (2). It was originally thought that the long canines were for preying on large ungulates (8), though recent studies show that this species feeds on a variety of terrestrial and arboreal prey including primates, birds, slow lorises, ground squirrels, pangolins, porcupines, and hog deer (1).

Clumped leopards are believed to be solitary, except when breeding or accompanied by cubs (10). However, little is known about their biology due to their elusiveness and so most information comes from captive individuals (2). The gestation period is between 86 and 93 days, and the female bears between one and five cubs, each weighing around 150 to 280 grams (4). Born with much darker side markings than the adults they are nursed for up to five months (2). It is not known how long the clouded leopard lives for in the wild, but captive individuals have lived for up to 17 years (4).

**THREATS**
Deforestation resulting from commercial logging and the growth of human settlements is thought to be the foremost threat to this species (2). Not only does deforestation remove the clouded leopard's own shelter and habitat, but it reduces the abundance of prey species (4). Another major threat is the hunting of this cat for its beautiful pelt and decorative teeth, as well as its bones, which are prized in the traditional Asian medicinal trade (4) (7). Clouded leopards have even featured on the menu of restaurants in Thailand and China which cater to wealthy Asian tourists (4).

**CONSERVATION**
The clouded leopard receives national protection through hunting regulation or bans in many of the countries that it occupies, as well as international protection through its listing on Appendix I of the Convention on International Trade in Endangered Species (CITES) (1) (3). This species also occurs in a number of protected areas, which should help to provide a refuge from the catastrophic deforestation occurring within its range (1).

In order to ensure the survival of the clouded leopard, significant efforts are being made to breed and maintain healthy captive populations. Through the Clouded Leopard Species Survival Plan (SSP), the American Zoo and Aquarium Association currently administers the collective management of all clouded leopards in North American zoos (11). Unfortunately, captive-breeding is proving problematic for this species, due to male aggression, decreased breeding activity and high cub mortality. Nevertheless, a partnership between the Smithsonian National Zoo, the Nashville Zoo, the Zoological Park Organization of Thailand, and the clouded leopard SSP is working to develop a clouded leopard breeding program in Thai zoos. It is hoped that this international collaboration will help to overcome captive-breeding difficulties and inspire further conservation efforts for this imperilled species (12).

**FIND OUT MORE**
Learn more about clouded leopard conservation:

- Smithsonian National Zoological Park - Clouded leopard conservation: [http://nationalzoo.si.edu/SCBI/ReproductiveScience/ConsEndangeredCats/CloudedLeopards/](http://nationalzoo.si.edu/SCBI/ReproductiveScience/ConsEndangeredCats/CloudedLeopards/)
- The Clouded Leopard Project: [www.cloudedleopard.org](http://www.cloudedleopard.org)

**AUTHENTICATION**
Authenticated (18/05/2009) by Dr Per Christiansen.

**GLOSSARY**
- Arboreal: an animal which lives or spends a large amount of time in trees.
- Gestation: the state of being pregnant; the period from conception to birth.
- Subspecies: a population usually restricted to a geographical area that differs from other populations of the same species, but not to the extent of being classified as a separate species.
- Ungulates: hoofed mammals.

**REFERENCES**
1. IUCN Red List (May, 2009)  
http://www.iucnredlist.org
3. CITES (October, 2003)  
http://www.cites.org
4. CAT SSC (October, 2003)  
http://www.catsg.org
10. The Clouded Leopard Project (May, 2009)  
http://www.cloudedleopard.org/default.aspx?link=about_main
11. The Clouded Leopard Project (May, 2009)  
http://www.cloudedleopard.org/default.aspx?link=about_survival
12. Smithsonian National Zoological Park (May, 2009)  
http://nationalzoo.si.edu/SCBI/ReproductiveScience/ConsEndangeredCats/CloudedLeopards/