Marbled cat

*Pardofelis marmorata*

The marbled cat *Pardofelis marmorata* is about the size of a domestic cat, but it gives the impression of being more slender and elongated, mainly due to its extremely long and bushy tail, which is as long as the cat’s body, and is typically held parallel to the ground (Fig. 1). This cat superficially resembles a clouded leopard in coat colour and pattern, but is much smaller and less robust-looking, with smaller and less distinct fur markings. The background colour may vary from dark grey-brown through yellowish grey to red-brown. The flanks and back are strikingly marked with large irregular, dark-edged blotches. The legs and underparts are patterned with black dots, and the tail is marked with black spots proximally, and rings distally. There are spots on the forehead and crown, which merge into narrow longitudinal stripes on the neck and irregular stripes on the back. Melanistic individuals have been reported from Sumatra (Wibisono & McCarthy 2010). Like the clouded leopard’s, the marbled cat’s teeth, especially the canines, are more robust and longer than those of similar sized cats, for example the leopard cat (Sunquist & Sunquist 2002, L. Grassman, pers. comm.). There are two subspecies described in China: *P. m. charltonii* and *P. m. marmorata* (Smith & Xie 2008).

**Status and distribution**

The marbled cat occurs in Nepal, Bhutan and in northern India, where it seems to be restricted to the eastern Himalayan foothills between 1,500 and 3,000 m altitude (e.g. Arunachal Pradesh; Mishra et al. 2006, Nowell & Jackson 1996). Its range stretches from Yunnan in China through Myanmar (Shepherd & Nijman 2008), Thailand (Grassman & Tewes 2000), Laos, southern and central Vietnam, into Cambodia, where it has a relatively high encounter rate (Duckworth et al. 2005). It further occurs in Brunei Darussalam, the Malay Peninsula (e.g. Jerangau Forest Reserve; Azlan & Sharma 2006), and Indonesia (Sumatra and Borneo; Povey et al. 2009, IUCN 2010). Its presence in Bangladesh is not confirmed (IUCN 2010). The first photo from a camera trap was taken in 1994 in the Huay Kha Khaeng Wildlife Reserve in Thailand (Nowell & Jackson 1996). Since then, there have been camera trap photos recorded from Sumatra, Borneo, Thailand, Malaysia, Cambodia, Laos and Vietnam (Povey et al. 2009).

There is little information on the current status of the marbled cat and very few confirmed data, as it is rarely seen or photographed in the wild compared to other sympatric felids (IUCN 2010). This has often been attributed to the arboreal nature of the species, but could also be caused by a low abundance or its reclusiveness and occurrence in remote areas. Still the population is thought to be in decline and the species is believed to be rare and regionally endangered (IUCN 2010).

One specimen was collected in Yunnan in the 1970s (Nowell & Jackson 1996). In a more recent study in Yunnan from 2005 to 2006, the cat was identified by locals in the Nangunhe National Nature Reserve and in the Xishuangbanna region, but it is said to be rare (L. Feng pers. comm.). Reports of its presence in Guangxi were not confirmed (Nowell & Jackson 1996).

**Habitat**

The marbled cat is thought to be primarily associated with moist and mixed deciduous-evergreen tropical forest (Nowell & Jackson 1996). Collected specimens and skins have come from lowland tropical forest (e.g. Choudhury 1996, Mohd Azlan et al. 2007), but marbled cats also occur in hill forest (Grassman et al. 2005, J. McCarthy pers. comm.). There have also been anecdotal observations in secondary forest, in clearings and logged areas, and in swampy mangroves (Nowell & Jackson 1996). A pair of marbled cats was reported from a salt lick in Thailand’s Phu Khieiu National Park (Grassman & Tewes 2002).

Fig. 1. Camera trap picture taken in the Tabin Wildlife Reserve in Thailand in May 2009 (Photo J. Ross & A. Hearn).
Ecology and behaviour
Very little is known of the marbled cat’s behaviour, diet and ecological niche and nothing is known directly from China. It was believed to be primarily nocturnal as it was observed in Kalimantan, Borneo, between 8 and 10 pm (Yasuma & Alikodra 1990). The only radio-collared individual was a female tracked in Phu Khieo Wildlife Sanctuary in Thailand from May to June 2001. The animal was active at dusk and dawn and during the night (Grassman & Tewes 2000). However, recent camera trap photographs and sightings indicate that the species may also be active during the day (Azlan & Sharma 2006, J. McCarthy pers. comm.). The marbled cat is believed to be more arboreal than other sympatric felids (Sunquist & Sunquist 2002). The estimated home range of the radio-collared individual in Thailand was approximately 5.9 km², but this may be an underestimate due to the small amount of data collected (Grassman et al. 2005).

All the data about the marbled cat’s reproduction have been gathered from a few captive individuals. There are 1-4 kittens per litter (Nowell & Jackson 1996) and sexual maturity is attained at 21 to 22 months. In captivity, one cat lived to the age of 12 years and 3 months (Sunquist & Sunquist 2002).

Prey
Almost nothing is known about the diet of the marbled cat and there is no genuine information from China. The cat has been seen stalking birds (Guggisberg 1975), which possibly form an important part of its diet. The stomach of one individual contained a rat. A captive individual readily ate squirrels, birds and frogs, but refused carrion (Guggisberg 1975). Predation on poultry has also been recorded (Mishra et al. 2006).

In captivity
There are few marbled cats in captivity. Hardly any of these animals and no births are registered in the International Species Information System list (ISIS 2010).

Main threats
Across its range, including China, the marbled cat is primarily threatened by habitat destruction through forest use and logging (Povey et al. 2009, IUCN 2010). It is thought to be sensitive to even moderate human disturbance (Sunquist & Sunquist 2002). It is probably opportunistically hunted for its meat and bones, caught as bycatch in snares, and occasionally hunted for its fur (Nowell & Jackson 1996, Povey et al. 2009). However, specimens are not commonly seen on local markets (Shepherd & Nijman 2008). In some areas, the marbled cat is also killed because of predation on poultry (Mishra et al. 2006).

Current and future protection
The marbled cat is included in CITES Appendix I. Hunting of this species is prohibited in Bangladesh, Cambodia, India, Indonesia, Malaysia, Myanmar, Nepal and Thailand. Hunting regulations are in place in Laos and Singapore (IUCN 2010). In China, the marbled cat was recommended to be listed in the First or Second Category of the State Protected Wildlife List (Wang 1998). However, it is not protected and a hunting ban is only effective in Yunnan (IUCN 2010). There are no current studies on the marbled cat. Further research on ecology, distribution and status of the marbled cat is urgently needed (Povey et al. 2009).