Jungle cat

**Felis chaus**

Jungle cats *Felis chaus* are somewhat larger and lankier than domestic cats. Their body is relatively short while their legs are long. Adult males are significantly larger and heavier than females. There is also geographical variation in body size: cats in the east (e.g. India) are lighter than cats in the west (e.g. Israel; Mukherjee & Groves 2007). The jungle cat has a plain, almost unspotted coat, which varies from reddish or sandy brown to tawny or yellowish grey to olive (Fig. 1). The fine black tips on the guard hairs give the cat a speckled appearance. A broad dark band with an indistinct outline may be visible along the back. The throat is pale cream, and the belly is white or lighter coloured than the rest of the body. Jungle cats have spots or dark stripes on the upper fore and hind limbs and throat and two or three narrow black rings near the end of the tail (Sunquist & Sunquist 2002). The tail is black-tipped and measures only about 30-40% of the animal’s head and body length. The ears have a small but distinct tuft of black hairs (which may be absent in summer). Melanistic individuals have been occasionally reported (Nowell & Jackson 1996).

**Status and distribution**

The jungle cat has a wide geographic distribution, extending from Egypt along the Nile River delta, through Israel, Jordan, northern Saudi Arabia, Syria, Turkey, Iraq, and Iran to the north-western shores of the Caspian Sea and the Volga River delta, and east through Turkmenistan, Uzbekistan, Tajikistan, Kazakhstan, Afghanistan, Pakistan, Bangladesh, India, Sri Lanka, Myanmar, Laos, Thailand, Cambodia, Vietnam, and southwestern China (Sunquist & Sunquist 2002, Duckworth et al. 2005, IUCN 2010). The species is more commonly found in lowlands but has been recorded up to 2,400 m in the Himalayas (Nowell & Jackson 1996). The jungle cat is widespread and common in parts of its range and therefore classified as Least Concern according to the IUCN Red List (IUCN 2010). It is considered common in India and was known as the most widely distributed small cat species in Pakistan and Bangladesh. In other parts of its range, however (e.g. Thailand, Indochina), it is rare and populations are declining (Duckworth et al. 2005). China represents the edge of the distribution range (Fig. 2), where the jungle cat is uncommon or even rare (Nowell & Jackson 1996).

In China, the species is thought to occur in Yunnan in the Nangunhe National Nature Reserve and the Xishuangbanna region (L. Feng, pers. comm., Wang 1998), in the Giant Panda Reserves in the south of Sichuan (Seidensticker & Eisenberg 1984), on the Ordos Plateau in Inner Mongolia, in Shaanxi (Frisina et al. 2001) and in the Namcha Barwa region of south-eastern Tibet (Qi & Bleisch 1996). Jungle cats were also reported from the South China Protected Area System of Hainan. However, most of the data from China are outdated and the presence of the species is not confirmed by hard facts. There are no recent studies on status, density or population numbers of the jungle cat. Indeed, it may no longer be common or even occurring in the provinces suggested above.

**Ecology and behaviour**

Jungle cats are solitary and not strictly nocturnal. Anecdotal evidence suggests that they are good swimmers (Heptner & Sludskii 1992, Mendelssohn 1989). They mainly hunt on the ground and occasionally in agricultural land (Harrison & Bates 1991, Sunquist & Sunquist 2002). The jungle cat is known either to excavate its own burrows or to enlarge disused badger, fox, or porcupine dens. It is also known to use reeds, bushes or grass thickets, dense cover, canes, rock crevices, hollow tree cavities or the roots of trees or even abandoned houses as hiding, resting or breeding places (Sunquist & Sunquist 2002).

**Habitat**

The jungle cat is associated with water and dense vegetation cover, especially reed swamps, marsh, and littoral and riparian habitats (Nowell & Jackson 1996). It occurs in wetlands, near oases or along river beds, which can be found in a variety of habitats, ranging from desert to grassland, shrubby woodland and deciduous dipterocarp forest (Nowell & Jackson 1996, Duckworth et al. 2005). Despite their name, jungle cats are not primarily found in tropical rainforests, although they have been reported from this habitat in Yunnan (Nowell & Jackson 1996, L. Feng, pers. comm.). They have been observed in agricultural habitats and are also found around human settlements (Nowell & Jackson 1996, Duckworth et al. 2005). In Indochina, scrub and agricultural habitats were probably occupied by jungle cats in the past, but the species is now considered to be very rare, most likely due to high hunting pressure caused by easy access to these habitats (Duckworth et al. 2005).

[Fig. 1. One of the few photos of jungle cats in the wild, taken at the Sea of Galilee in Israel in 1993 (left, photo E. Bartov). More photos are taken in captivity as for example in the Assam State Zoo in India (right, photo K. Kakati).]
Mating and subsequent timing of births varies latitudinally across the range; the mating season is later in colder climates. Young are born between December and June (Sunquist & Sunquist 2002). Litter size is usually reported to be around 3, but ranges between 1 and 6 kittens (Heptner & Sludskii 1992). For females, the reported age of sexual maturity varies from 9-11 months to 18 or even 30 months. One male was recorded to reach sexual maturity at 22 months (Sunquist & Sunquist 2002). Jungle cats in captivity can live up to 14 years (Nowell & Jackson 1996). Weigl (2005) even reported a maximum lifespan of 20 years. Most of the above data comes from captivity and there are no records on reproduction from China.

Prey
The jungle cat’s diet varies across its range. Its primary prey are small rodents such as rats, mice, gerbils and ground squirrels. Secondary prey items are birds, lagomorphs, porcupines, reptiles, amphibians, and fish (Sunquist & Sunquist 2002, Mukherjee et al. 2004). It also feeds on bird eggs, on fruits such as the Russian olive, and rarely on carrion (Heptner & Sludskii 1992). Predation on poultry, ducks and geese is known to occur (Sunquist & Sunquist 2002).

In captivity
Jungle cats breed easily in captivity (Sunquist & Sunquist 2002), but there is no studbook and no species survival plan.

Main threats
The jungle cat seems to adapt better to cultivated landscapes than many other small felid species. However, destruction of wetlands and riparian vegetation has led to population declines (Uzbekistan, Nowell & Jackson 1996; former USSR, Belousova 1993; Jordan, Baker et al. 2003). Logging of forest habitats to favour agriculture and plantations also drives jungle cats into human-dominated landscapes, where conflicts increase (Sri Lanka, Sunquist & Sunquist 2002). In Jordan, jungle cats are threatened by retaliation killing for predation on poultry and fall victim to poisoned baits laid for wild boars and foxes (Baker et al. 2003). Non-selective snaring is believed to have caused population declines in Indochina, especially in secondary habitats easily accessible to poachers (Duckworth et al. 2005). In the past, there was a massive international trade in jungle cat skins mostly originating from India before export was banned in 1979 (McMahan 1986). Some illegal trade still continues, e.g. in Afghanistan (Habibi 2003), Myanmar (Shepherd & Nijman 2008) and also China (Wang 1998).

Current and future protection
In China, the jungle cat is listed as a Class II protected species and hunting is prohibited without a special licence (Lu et al. 2010, this issue). Hunting is also prohibited in Bangladesh, India, Israel, Myanmar, Afghanistan, Pakistan, Tajikistan, Thailand and Turkey (Nowell & Jackson 1996, IUCN 2010). The ecology of the jungle cat is poorly known and more surveys need to be undertaken to gain knowledge of current status and distribution (Baker et al. 2003, Duckworth et al. 2005). Conservation measures should include better protection for domestic fowl and halting of indiscriminate poisoning and trapping. The jungle cat would also benefit from improved protection of wetlands, particularly in the more arid parts of its range (IUCN 2010). Recommended conservation measures for China include surveys to determine the jungle cat’s status, raising awareness of local people and an uplisting of the species into Category I of the State Key Protected Wildlife List (Wang 1998).