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# First evidence of fishing cat in the Ranthambhore Tiger Reserve, Rajasthan, India

The fishing cat *Prionailurus viverrinus* is a medium-sized felid found in south Asia. A large degree of habitat destruction and anthropogenic intervention has caused a severe decline in the fishing cat population including local extinctions of the species in its historical range. A recent camera-trapping survey in Ranthambhore Tiger Reserve RTR revealed the presence of a fishing cat in a dry deciduous forest area. This is the first photographic record of a fishing cat in RTR.

The fishing cat is one of the least known felids found in India. It is a medium-sized felid characterized by a stocky, powerful build with short legs (because of which the species got its name *viverrinus*, i.e., civet-like) partially webbed paws, and a very short tail (Macdonald & Loveridge 2010). Its olive brown pelt is patterned with rows of parallel solid black spots which often form a line along the spine as well as in the neck portion. Although the animal inhabits wetlands its body is not much modified for catching fish (Nowell & Jackson 1996).

At present the fishing cat is included in Schedule I of the Indian Wildlife (Protection) Act and is listed as Endangered in the IUCN Red List (Mukherjee et al. 2010), and in Appendix 2 in CITES (Cutter 2009). Although fishing cats are widespread through-

out their range their occurrence is patchy and not well documented (Macdonald & Loveridge 2010); there are very few studies on the distribution and status of this elusive species in its present range (Pocock 1939, Nowell & Jackson 1996, Kumara & Singh 2004, Kolipaka 2006, Mukherjee et al. 2012). In India the fishing cat has been recorded in Bharatpur in Rajasthan, along the Himalayan foothills, and through eastern India into Andhra Pradesh (Pocock 1939, Nowell & Jackson 1996, Kolipaka 2006).

Ranthambhore Tiger Reserve RTR is situated in the eastern part of Rajasthan in western India. The forests of the reserve are basically of edaphic climax and belong to the subgroup 5B/C2 (Northern Tropical Dry Deciduous Forest) and subgroup 6B/DS1 (Zizyphus Scrub), and the degradation

stages found here are DS1 (Dry Deciduous Scrub) and 5/DS4 (Dry Grasslands) (Champion & Seth, 1968). The reserve consists of shallow perennial lakes, steep hills, gentle slopes, plateaus, narrow valleys, etc. Under the Phase IV monitoring of tigers and their prey in RTR, on 24 November 2012 at 05:50 we recorded photographic evidence of a fishing cat in a digital camera trap (camera trap id C18, latitude: 26°01'31.3" N, longitude: 76°30'58.0" E) deployed near Berda Chata in the Lahpur Valley of RTR (Forest range: Khandar, Forest division: Ranthambhore National Park). The nearest body of water (Gilai Sagar) is about 5 km away and the nearest semi-perennial rivers (Banas and Chambal) are about 15 km distant from the camera trap site. In terms of habitat it is quite an unlikely place for a species like the fishing cat, where there are hardly any perennial bodies of water and not many fish. In the photograph (Fig. 1), stripes in the anterior (shoulder) portion of the body, the stout build, and a short tail confirmed the identification of the species.

Past studies and historic records have shown that the distribution of the fishing cat in western India is restricted to Bharatpur alone, so this is the first ever evidence of the presence of a fishing cat not only inside the tiger reserve but also in the dry deciduous forests of western India. The record is of particular importance since fishing cats are wetland specialists, and their distribution is confined to swamps and marshy areas, oxbow lakes, reed beds, tidal creeks and mangrove areas (Nowell & Jackson 1996); they are rarely recorded from dry deciduous forests (Rabinowitz & Walker 1991). Over the past decade the fishing cat population has gone through a severe decline mostly because of the destruction and conversion of their prime habitats (Macdonald & Loveridge 2010), and this photographic record confirms the existence of the species in western India apart from Bharatpur (Mukherjee et al. 2012). This new sighting record indicates need for intensive, systematic surveys in Ranthambhore Tiger Reserve, Banas River and Chambal River to assess the status of the rare and elusive fishing cat as a preparation for initiating conservation initiatives.

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**Fig. 1.** Camera-trap photograph of a fishing cat in Ranthambhore Tiger Reserve. The camera was placed beside a dirt road near a small dry stream. The photograph contains date, time and camera id at the bottom.

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## Albinism in fishing cats from the Haor Basin of Bangladesh

**The fishing cat *Prionailurus viverrinus* is a small to medium-sized felid that ranges across southern Asia from Pakistan east to Vietnam and south to the island of Java. To date very little is known about the ecology and natural history of this species. Here we document an adult albino fishing cat believed to have been captured in the Hail Haor region of Sylhet Division, Bangladesh and propose that albinism may be well established among fishing cats in the Haor Basin. We are unaware of any other aberrant pelage patterns that have been documented in fishing cats.**

The fishing cat is a robust, small to medium-sized felid inhabiting wetland and riparian areas across southern and southeast Asia. Typical pelage for the species consists of brownish-grey to olive-grey fur marked with nearly parallel lines of black, broken elongated spots on the back and sides (Sterndale 1884). Spots vary in shape from rounded to elongate (Francis 2008); the tail is banded or ringed, and white fur is present around the mouth and muzzle. The ears are black and have a conspicuous central white spot on the dorsal surface like its congeneric, the leopard cat *Prionailurus bengalensis* (Roberts 2005). Currently, the fishing cat's ecology and distribution largely remain unknown.

In December 2009 while conducting surveys for fishing cats in northeastern Bangladesh,

we documented the occurrence of an albino male fishing cat (Fig. 1) in a captive wildlife collection in the town of Srimangal. The cat, a male held in captivity for approximately 10 years (captured in August 2001), was captured as an adult at Hail Haor (24°22'N/91°40'E), a large wetland that is currently the focus of our research. The second author examined and photographed the same individual in 2001 a few weeks after its capture.

Khan (2005) reported four albino fishing cats (3 kittens, 1 adult) caught on three occasions within an 18-month period from this same region (2000–2001) suggesting that albinism may be somewhat established in this population. The fate of the three other kittens that Khan (2005) referred to is unclear, as no further information is available. During

our visit, staff managing this captive wildlife collection claimed that other individuals had been observed more recently from the same general region, which suggests anecdotally at least that this trait is still represented in the gene pool.

Considering its time in captivity and its adult status at the time of capture, this albino male was at least 12 years old at the time we observed it. To our knowledge, the Haor region of Sylhet is the only region from which albino fishing cats have been documented. Albinism has been documented in several other felid species (Robinson 1970a, 1976; Nowell & Jackson 1996), particularly in captivity. However, it appears to occur infrequently in wild felid populations. Other somewhat familiar pelage variants in felids include both leucism (Robinson 1969, McBride & Giordano 2010) and melanism (Robinson 1970b, Wibisono & McCarthy 2010, Bashir et al. 2011, Giordano et al. 2012), of which the latter variant has recently been the subject of increasing genetic and field research (Eizirik et al. 2003, Haag et al. 2010, Kawanishi et al. 2010). Although we are not aware of the existence of other fishing cat pelage variants, melanism does occur in leopard cats from the Sundarbans (Kumar Das et al. 2012). As a final thought, it would be of notable scientific interest if albinism does indeed persist in any wild population of felids. Al-