

ISSN 1027-2992

CAT

N° 58 | SPRING 2013

news



SPECIES SURVIVAL COMMISSION



CAT SPECIALIST GROUP

Wildlife Warden, Rajasthan, and the Director and Dean of the Wildlife Institute of India (WII) for providing the necessary facilities for granting field permissions and providing logistical support. We are extremely thankful to Dr. Y. V. Jhala, Mr. Qamar Qureshi of WII and Sri. Y.K. Sahu, the DCF Ranthambhore, for their cordial support and crucial suggestions throughout the study. We would like to thank Ram Prasad, Mujahid, Javed and Mujib for assistance in field data collection and for their relentless efforts.

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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-



Fig. 1. Albino fishing cat captured in the vicinity of Hail Haor region of Sylhet, Bangladesh (Photo Ali Reza & Anthony J. Giordano).

binism likely has selective disadvantages for predator and prey of numerous taxa, such as causing individuals to be highly conspicuous, and/or being associated with additional phenotypic anomalies. Such characteristics have the potential to lead to or further be associated with overall reduced fitness (DeWoody 2005) and may be more likely to occur in small inbred populations (Bensch et al. 2000). However, few studies have sought to assess these characteristics in the field. It is possible that should albinism persist even infrequently in the Hail Haor fishing cat population, selective agents against the trait do not operate strongly. Fishing cats in the region appear to prey largely on fish and other aquatic prey at night, an ecological context where the importance of pelage coloration might be minimized. Furthermore, fishing cats are currently the largest felid in the region and might not have other natural predators. Finally, it is possible that the population has suffered from some level of inbreeding and is effectively isolated from other nearby fishing cat populations. Though admittedly the above is only speculation at this point, our current and future field work in the region may shed more light on this situation.

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