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THE CORINGA MANGROVES – REALM OF THE FISHING CAT

By Giridhar Malla and K. Sivakumar

As the sun sets upon the dense mangrove forests that fringe the Godavari River, India's most elusive and secretive small cat awakens.

It is just past six in the evening and we are on a motorboat heading up the Coringa creek. The mangroves are a tangle of trees, dominated by *Avicennia marina* and *Avicennia officinalis*. As we enter the Coringa Wildlife Sanctuary, our two field assistants lead us to the place where they had last glimpsed a fishing cat. We climb up the river bank, which is littered with the pneumatophores of *Avicennia* trees and spiny leaves of *Acanthus ilicifolius*. And there, at the very first spot, we find the spoor of a fishing cat! Delicate pugmarks in the porous ground and relatively fresh scat provide clear evidence of the presence of this small feline.

We return to our boat and decide to keep vigil through the night in the hope of spotting the animal. The mystical silence of the full moon night is abruptly broken by the roar of a motorboat with four fishermen. They work swiftly to place a kilometre long fishing net along the bank, to trap fish as the tide recedes. After placing their net, they enquire about our presence and then freely share their traditional knowledge on fishing cats. They speak of how it will sit in absolute silence for hours on the banks before starting to fish.

As the night deepens, the fishermen slowly drift off to sleep, leaving us alone with our thoughts.

THE CORINGA WILDLIFE SANCTUARY

The Godavari is the second largest river in India, and forms a mighty basin, which supports unique landscapes and biodiversity in both, the Western and Eastern Ghats. From its origin to its confluence at the Bay of Bengal, the river traverses a distance of 1,465 km. It ultimately empties into the sea in the form of two major distributaries, the Vasista-Godavari and Gowthami-Godavari. It is the confluence of the Gowthami-Godavari river with the Bay of Bengal that gives rise to an extensive river estuarine ecosystem known as the Godavari mangroves.

The total extent of these mangroves, according to the Forest Department, is 316 sq. km., of which 235.7 sq. km. is under the Coringa Wildlife Sanctuary. Because sea and freshwater meet and because periodic tides bring in rich nutrients, the sanctuary supports an impressive diversity of marine and avian fauna. It is home to as many as 35 species of mangroves, of which 16 are true mangroves, the rest being associated species.

It is here, in the heart of the eastern coast of India, that the fishing cat thrives. Listed as endangered by the IUCN Red List, little is known about this elusive felid. Eager to learn more about the ecology of this animal, we

chose to undertake a study as part of a Government of India-United Nations Development Programme (UNDP)-Global Environment Facility (GEF)-Ministry of Environment and Forests (MoEF)-APFD initiative.

We began our field visit by interacting with local fishermen from the village of Rammanapalem, 15 km. from the main town of Kakinada city. Rammanapalem is one of the 39 mangrove-abutting villages, mostly dependent on the sanctuary for fishing. Through our surveys we learnt that most fishermen were familiar with the cat, locally called '*bhavuru pilli*'. They were able to describe the cat in great detail telling us when it fed, how it hunted and where its dens were and more. Naturally, we decided to engage two fishermen from the same village as our field assistants.

SUCCESS!

Back on the boat, just as we too were about to drift off to sleep, a fishing cat emerged from behind the bushes of *Acanthus ilicifolius*. Its eyes shimmered in the moonlight that bathed the creek and despite our excitement we managed to remain absolutely silent.

FACING PAGE Surrounded by mangrove pneumatophores, a fishing cat surveys its domain waiting patiently for just the right time to go for the kill. Coringa is one of the last remaining strongholds of this nocturnal feline.

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moving our boat slowly towards the cat. We stopped a safe distance of about 200 m. and positioned our camera and tripod

Despite the undulating rhythm of the boat as it bobbed over the water, we managed to take some shots of the animal. To our surprise, the cat was not one bit concerned or scared. Pulling out our field books, we jotted down its description.

The cat was slender and covered with thick fur on its neck and under parts. There were two characteristic black stripes on either side of the cheeks and on the neck. There was one white spot on the back of each ear, similar to tigers, leopards and other cats. The entire body was covered with black spots similar to that of a leopard and the tail was small, only half the length of the body. Sex determination was difficult as it was pressed against the mud bank, waiting for fish to venture close."

Though it was just our first encounter with this diminutive cat, we were given a decent insight into its behaviour and habits. After an hour of

waiting for prey, the disappointed fishing cat walked along the bank and settled down at a different location. It closed its eyes, though its ears were perked and vigilant. Almost 20 minutes passed before we saw it suddenly awaken, fully alert. It cautiously approached the water in search of fish, but again without luck it returned to its original spot. The second time, the cat got distracted; to my dismay it was on account of my camera shutter! But just then it caught a movement in the water. The cat froze, eyes fixed on its prey. Then in a flash, it pounced swiftly into the water and in a fraction of a second it emerged with a catfish in its mouth. The fish was devoured within 10 minutes, after which the feline returned to the safety of the mangroves, leaving the remains of its meal on the bank.

To say we were impressed by its hunting prowess would be a gross understatement!

CHALLENGES TO SURVIVAL

Fishing cats are similar to large carnivores in their physical characteristics. Even their gait resembles that of tigers. In the course of our study we came across more fishing cats in the area, and could see that males have

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Listed as endangered by the IUCN Red List, fishing cats are strongly associated with wetlands and are strong swimmers. Fishing cats have a notably short tail and females are distinctly smaller than males. Their olive grey fur has black stripes and rows of black spots. Their hunting technique includes both diving after their prey as well as 'scooping' them off the water surface. This beautiful cat reaches maturity before it is one year old and has a life span of about 12 years. A one-year study of 'cat scats' in the Keoladeo National Park confirmed that the cats were aptly named because fish comprised 76 per cent of their diet followed by birds (27 per cent), insects (13 per cent) and small rodents (nine percent) (Haque and Vijayan, 1993).

Fishing cat populations reveal a declining trend and the species must be considered as fast vanishing across its range. Habitat degradation, dwindling fish stocks, accidental snaring and poaching for the skin trade all combine to take a toll of the species.



India's second largest mangrove ecosystem, the Coringa Wildlife Sanctuary lies in the deltaic branches of the Gouthami and Godavari rivers in Andhra Pradesh. Though remote, these mangrove forests face pressure from local communities that depend heavily on them for their daily needs. More worrying is the increasing industrialisation of the Godavari delta

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SRAVAN KUMAR

Apart from fishing cats, otters, crocodiles and jackals, Coringa also hosts as many as 120 species of birds.

broader heads, are more aggressive and decidedly stouter. Females on the other hand have slender heads and are slim in build. Our observations also suggest that fishing cats are mainly adapted to hunting during the low tide hours, when fish are probably easier to catch.

The pugmarks of fishing cats can be seen all over the interior parts of Coringa, though sightings are rare. Our study on the ecology of fishing cats in Coringa Wildlife Sanctuary is ongoing as a part of Giridhar's doctorate work and we have already obtained some interesting camera trap images. Clearly there are several challenges being faced by this elusive cat, including the anticipated impact of climate change and the disturbed river flows thanks to hydroelectric projects on the Godavari. Earlier, the sanctuary had a viable population of fishing cats but this population has been showing a downward trend. A recent census by the Forest Department in 2012 estimated just about 70 individuals. A contributing factor to this declining population is the fact that the diversity

and availability of their prey base, has dropped on account of unsustainable fishing practices and contamination by industrial and domestic effluents.

The mangroves of Coringa are also home to another fish-dependent mammal – the smooth-coated otter, which, like the fishing cat, faces a bleak future because of the proliferation of commercial aquaculture ponds bordering the sanctuary.

Mangroves require a high discharge of silt and clay for their survival, and the future of this unique ecosystem is decidedly under threat from the construction of the upstream Indira-Sagar Multipurpose or Polavaram dam across the Godavari river. Illegal mining in the Eastern Ghats (See *Sanctuary* Vol. XXXIII No.6, December 2013) only makes matters worse. When this mega dam is completed, we can expect drastic reductions in the discharge of silt in the downstream reaches of the river. This may lead to the destruction of not only the mangrove forests of the mighty Godavari river but might also cause the local extinction of

the already threatened fishing cat and smooth-coated otter. It is in this context, that this special project was launched, to highlight the value of the biodiversity of the Godavari estuarine area. Hopefully, this threatened small cat will give decision makers pause to think of the consequences of their plans, which would not only damage India's second largest swatch of mangroves, and cause huge losses to the fishing community, but also impair our ability to deal with the worst impacts of climate change. ↗

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Based on the authors' study until now, the Coringa Wildlife Sanctuary is home to almost 35 species of mangroves, 14 species of mammals, 188 species of avian fauna, more than 80 species of mangrove dependant fishes, 25 species of crabs and 14 species of mangrove associated molluscs.