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CLOCKWISE FROM BOTTOM *While the solid colour morphs (golden, cinnamon, grey and melanistic) of the Asiatic golden cat are found in low to mid-level elevations where they are active during the day, the patterned colour morphs (ocelot and tightly rosetted) prefer higher elevations (~3,000 m.) and are nocturnal.*

NOT 'ALL CATS ARE GREY IN THE DARK'

The fascinating tale of the multi-coloured golden cat of Arunachal's Dibang Valley

By Sahil Nijhawan

The local tales of mountain tigers drew me to Arunachal Pradesh's Dibang Valley in 2012. Little did I know that many other stories were also waiting to unfold. I teamed up with the local *Idu Mishmi* and started placing camera traps across their forests. Twenty months and more than 200 camera traps later, as images came in, we found ourselves staring in amazement at snapshots of medium-sized cats in a striking array of colours. Three sets of cat images confused us in particular: one with spots like those of a leopard, a darker one with jaguar-like rosette pattern, and, a third that was pitch black. These patterns resembled those of the leopard cat and clouded leopard, but the sizes didn't quite match. We scanned every photograph our cameras had captured of the cats, analysed their physical features and researched the natural history of all wild cat species reported from the Eastern Himalayas. Finally, we concluded that these 'different-looking' medium-sized cats in the images were, in fact, all from the same species: the Asiatic golden cat *Catopuma temminckii*.

Remember the black panther Bagheera, Mowgli's confidant and mentor, from Rudyard Kipling's *The Jungle Book*? Although black, he is a colour-variant of the common Indian leopard. This phenomenon, i.e., when different individuals of the same species have two or more colour variants, is known as polymorphism. While other wild cat species such as jaguars, jaguarundis and oncillas also show polymorphism, Asiatic golden cats are a whole new league. In Dibang Valley, the golden cat occurs in six different colour variations, or morphs: golden (the default orange type from which the cat gets its name), grey, black/melanistic, ocelot (spotted), cinnamon, and, the newly reported, tightly-rosetted (a darker morph with tightly-packed rosettes). Dibang Valley houses the largest number of different colour variants of any wild cat species in the world! Such is the intrigue of this 'multi-coloured' cat that the *Idu Mishmi* believe the darker variants to be carriers of great spiritual powers and observe a strict taboo on its hunting.

But what does the occurrence of these colours signify? We looked deeper into our data and found that different colour morphs preferred different altitudes. The patterned types (ocelot and tightly-rosetted) were more commonly seen above 3,000 m. than in lower elevations (below 1,700 m.) which were dominated by solid-coloured morphs (cinnamon, golden or melanistic). Curiously, the behaviour of the morphs also varied. The patterned and grey morphs were nocturnal, while the other morphs were active throughout the day.

Dibang Valley hosts a wide variety of habitats that change with altitude. Wet tropical forests in lower elevations transition into dense montane forests in mid-altitudes that eventually give way to alpine shrubbery at higher elevations. We believe that different colours and patterns allow the golden cat to adapt to these different habitats by providing the camouflage needed to hunt its prey successfully and avoid being detected by larger predators such as tigers and clouded leopards. Of all the wild cats in Dibang Valley, the golden cat (all six morphs) was the most frequently photographed, i.e., the most populous. It is likely that adaptability due to polymorphism has made the golden cat the most abundant wild cat in Dibang Valley.

However, many questions remain. Do golden cats exhibit this phenomenon wherever they exist or is it restricted to Dibang Valley? Could climatic factors like temperature or light conditions be determining the cat's range of coat colours? Further research and collaboration may shed light on such unique adaptations and the benefits they provide to species, especially in a rapidly-changing world where they must adapt quickly to survive.

Sahil has a Master's degree in Conservation Science and Policy, and a PhD in Anthropology. He has also conducted long-term field research in Botswana, South America and Northeast India.

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