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Laila Bahaa-el-din (working in Gabon) and David Mills (working in Uganda) are both funded through Panthera Kaplan Graduate Awards (www.panthera.org) and are doing their PhDs with the University of KwaZulu-Natal (UKZN) in South Africa. Laila is additionally supported by Oxford University's Wildlife Conservation Research Unit (WildCRU) and David is



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PHOTO BY LAILA BAHAA-EL-DIN / PANTHERA

THE PHANTOM FELINE REVISITED

Ten years ago, Gordon Boy introduced the African golden cat (*Profelis aurata*) to SWARA readers as the “Phantom Feline”. Information was thin on the ground at the time and Boy had to gather bits of the jigsaw from scattered sources. Fleeting sightings and a few skins made up the bulk of knowledge and we were left to fill the gaps through guesswork.

Our unfamiliarity with the golden cat is not surprising – it lives in forested habitat, a difficult environment in which to see wildlife, and seems adept

at avoiding human encounters. These traits may previously have benefited golden cats, keeping them out of the way of harmful human attention. Nevertheless, our ignorance of the species may now bear a cost: during our current time of booming human population and associated deforestation and bushmeat hunting, we have little idea of how the forest-dependent African golden cat is coping.

Remotely triggered camera traps were slowly coming into use in Africa's forests when Boy wrote his article,

yet few images of the golden cat had been obtained. The cat's reputation as rare and elusive was perpetuated as a result and this led people to consider it almost impossible to study. However, while setting camera traps to study leopards in Gabon's tropical forests, Philipp Henschel from the Non Governmental Organisation (NGO) Panthera photographed golden cats on several occasions. He was adamant that a more golden cat-focused camera trap study would yield enough data to assess golden cat populations. So it was that



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in 2010, with the continued support of Panthera, we took up the challenge of studying this elusive cat in Gabon and Uganda.

The golden cat looks similar to its closest relative, the caracal. It is generally stockier than the caracal and has round tuftless ears, unlike the caracal's distinctive pointed and tufted ears. While other features have been regularly cited as diagnostic for the golden cat, many of them cannot be used with reliability, particularly when sightings are as fleeting as they generally are. Tail length is a classic example of a so-called diagnostic feature, but both the golden cat and caracal have varying tail lengths, both species tending towards relatively short tails.

The golden cat is more variable in appearance than other African cats. It is sometimes grey, sometimes red (or golden) and occasionally black (melanistic). It can be boldly spotted over its whole body, lightly spotted, or just have markings restricted to its underbelly and inner sides of limbs. We do notice a general trend from our studies in Gabon and Uganda. While the proportion of grey and red/golden individuals seems to be pretty even in both areas, there is a tendency towards heavier spotting in Gabon (though barely spotted individuals also occur). On the other hand, towards the east in Uganda, golden cats tend to have fewer markings restricted to the lower abdomen area. These observations fit with the trends found from skins recovered from various parts of their range, with more westerly skins generally being more spotted.

Appearance is just one of the many traits of the golden cat that our camera traps are revealing. Boy's research in 2002 led him to declare that "the golden cat is primarily nocturnal, frequently crepuscular". However, a large number of our camera trap images were taken during the day. Activity patterns seem irregular and no strict affinity is apparent for night-time. There do seem to be peaks in activity at dawn and dusk at some sites, but similar peaks were found during the day and night, leading

TOP: The golden cat has rounded, black-backed, tuftless ears which distinguish it from other medium-sized cats in Africa.

MIDDLE: Though golden cat tail length is variable, it typically reaches the hocks and curves away from the body.

BOTTOM & NEXT PAGE: Cable snares are a major threat to golden cats as both they and their prey are regular victims of these indiscriminate devices. Though golden cats sometimes escape, they are left permanently maimed.

PHOTO BY: DAVID MILLS/PANTHERA/WCS



A golden cat walks past a camera trap in Kibale National Park, Uganda

us to describe the golden cat as cathemeral “irregularly active at any time of night and day”.

Boy suggested that with the increasing use of camera trap technology, we may find that golden cats are not as rare as we may think. Our early findings indicate that he may have been right, with relatively high densities of golden cats found in our study sites. In logging concessions and national parks in Gabon, at least 6–10 different individuals were photographed within areas of 20km².

Likewise in Uganda, in a roughly 10 km² area of Kibale directly adjacent to dense human population (estimated at 300 people/km² in 2000), we identified

at least five individuals. It seems that when their ecological requirements are met, golden cats can do quite well and the infrequency of sightings is more an indication of the species’ secretive nature than its rarity. Between us, we now have a combined six years of studying the golden cat, and while our cameras have been successful at photographing them on numerous occasions, we have only had one fleeting sighting of the animal in Gabon that lasted just 5 seconds.

That being said, the golden cat is unique among African cats in being dependent on tropical forests, a trait that may now be a significant weakness. Human pressure on these forests is accelerating, with forests logged for timber, and worse, razed to the ground for plantations and development. And in the forests left standing, hunting wild animals for bushmeat is emptying forests of wildlife at alarming rates. One of the main culprits of this syndrome is the use of cable snares. Hunters set them in their thousands and they kill

animals indiscriminately. Golden cats have been found to be particularly prone to snares as they regularly use the same trails as the “game” species targeted by hunters. On the occasions when they escape the snares with their lives, they are left badly wounded and maimed – not ideal for a solitary predator. Included here are some sobering camera trap pictures from our sites in both Gabon and Uganda that illustrate this problem.

Our studies are not only aimed at shedding light on the ecology of the species, but more importantly, to establish how golden cats are affected by this deforestation and bushmeat hunting. In Gabon, surveys are being carried out in a variety of land-use areas to compare their abundance in pristine, logged and hunted areas. In Uganda, we will be moving our cameras outside Kibale National Park into small forest patches and along the thinly forested banks of papyrus swamps to assess the golden cat’s ability to use these features to move between larger forest blocks.

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SPOTLIGHT



PHOTO BY VIVIANET MIHINDOU

The Gabon team: Laila and Wilfred M'bombe check on a camera trap (above) and Arthur Dibambo and Wilfred M'bombe set up a camera trap (top right).



David and Sam Isoke setting camera traps in Kibale National Park, Uganda.

While golden cats are increasingly well documented in Uganda, the animal's occurrence in other parts of East Africa is poorly understood. Reported sightings from Kenya are widespread, yet two skins from the Mau forest remain the only confirmed evidence of the species occurring in Kenya and there is still no evidence of the presence of golden cats east of the Gregory Rift. Golden cats have not yet been photo-captured during camera trap surveys in the region, though it is unclear whether appropriate habitat has been targeted. They have likewise not shown up as roadkill, or been caught in snares, that we know of. While our camera trap studies in Gabon and Uganda have indicated that golden cats, though rarely seen, are probably less rare than previously thought, the same cannot be said for the evidence from Kenya.

Many reports of golden cats in Kenya have used tail length as evidence of their rare finding, dismissing the possibility of a caracal because the cat they saw had a long tail. As we have shown, this feature is not diagnostic. We need to remove any doubt from these sightings and confirm the presence of the species

using a dedicated camera trapping effort in areas most likely to host golden cats. Felid scats in these areas can also be collected to identify the species through genetic testing.

A large number of reports of the species have come from the highland forests, particularly the Aberdares and Mount Kenya and these would be good areas to start in to confirm the species' presence. Other Kenyan sites of interest were described by Butynksi et al. in a 2012 publication entitled "Identification, Distribution and Conservation Status of the African Golden Cat in Kenya" and include Olorgesailie, Shompole Swamp, Pelewa Hills, Tsavo West National Park, Tsavo East National Park, Maunga Hills and Arabuko-Sokoke Forest. These sites are intriguing as they represent new habitat types for the species as well as possible range extension all the way to the east coast of the continent. Gallery forests in Omo National Park in Ethiopia, where two golden cat sightings were reported, are also worth investigating.

Were someone to take on the task of determining if there are indeed golden cats in Kenya, based on our experience in Gabon and Uganda, then it would be

best to set the camera traps in forested areas along game trails and old roads if not frequently used by people. The cameras would need to be quite low (e.g. 25cm off the ground) and left without interference for a few weeks in case golden cats are particularly sensitive to human presence in these areas. We also recommend that white-flash cameras be used as these will deliver insight into colour patterns and produce clearer images to identify individuals. This will be crucial if attempts are to be made at density estimation. We very much hope the search will prove successful.

We have presented here some of our early findings on the African golden cat, but both of our studies are now approaching the analysis stage and many aspects of golden cat ecology neglected in this article will be assessed, including their diet, habitat use, competition with other predators and various other aspects that may be important if we are to conserve these enigmatic cats as their prey base and forest shrink around them. ●