The Creatures of Kenya's Forgotten Loima Hills

Yvonne de Jong & Thomas Butynski

Yvonne de Jong is a National Geographic grantee working with team member Thomas Butynski to track down what may be Africa's least understood large animal, the Desert Warthog.

Turkana is Kenya's most remote district. Located west of Lake Turkana in the north-west corner of the country, Turkana District has been high on our list of 'warthog survey sites' for years. When you think 'desert', you think 'Turkana'...a logical place to search for desert warthog (scientific name *Phacochoerus aethiopicus*, Kiswahili name 'ngiri').

The literature and biodiversity surveys report the presence of warthog in Turkana. As a matter of fact, during a primate survey in southern Turkana in 2003, Yvonne encountered a warthog. Only recently have zoologists come to differentiate between the common warthog (*Phacochoerus africanus*) and the desert warthog. Is the warthog of Turkana the common warthog or the desert warthog?...or are both species present? Are warthogs still present in Turkana?...as other naturalists and travelers have failed to encounter this species in the region in recent years!

As pointed out in an earlier blog in this series: 'Quest for Kenya's Desert Warthog', the distribution of the desert warthog remains poorly known, as does its conservation status. The goal of our warthog surveys is to determine the geographic range of the desert warthog and to collect the information needed for assessing its conservation status.



Sunset over wooded plains south of the Turkwell River, west of Lake Turkana, north-western Kenya. Photograph by Yvonne de Jong and Tom Butynski.

This month (July 2013) we conducted a survey in Turkana, North-Pokot, and West-Pokot Districts in search of warthogs. After finding the common warthog and desert warthog occupying the same areas at several sites in Kenya, including Tsavo East National Park, Tsavo West National Park, Meru National Park and Samburu National Reserve, 'anything' seems possible.



Riverine vegetation along a tributory of the Turkwel River in South Turkana National Reserve, north-western Kenya. Photograph by Yvonne de Jong and Tom Butynski.

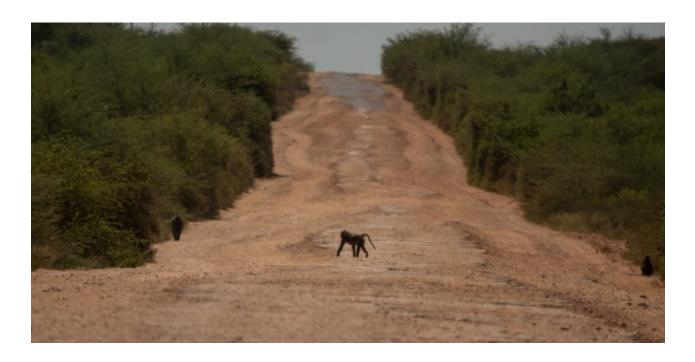
In December 2012, we surveyed Nasalot National Reserve in West Pokot District and South Turkana National Reserve in Turkana District. Although rarely visited by tourists or scientists, both Reserves are critical to the conservation of biodiversity in the region as they are the only protected areas in the vast region to the west and southwest of Lake Turkana. The tribes of these two districts, the (formerly nomadic) Pokot and Turkana, continue to be involved in conflicts centred on cattle rustling.

We were able to confirm that both Reserves continue to support low densities of common warthogs. No evidence of desert warthog was found in either Reserve. There appears to be much habitat that is suitable for warthogs in both Reserves, but the absence of drinking water during many, if not most, months of the year is likely a serious constraint to warthogs and many other species. During the dry months, all moisture required by the warthogs of these Reserves must come from the foods that they eat. We suspect that water is the primary limiting factor for warthogs (and many other species) in these Reserves, keeping their population densities naturally low.

Olive baboons (*Papio anubis*) crossing, in the heat of the day, the 'highway' that leads from Marich Pass to Lodwar, the administrative centre for Turkana District, north-western Kenya. Photograph by Yvonne de Jong and Tom Butynski.

We motor the washboard 'highway' towards Lodwar, Turkana's largest town. The vast plains and bushlands, once roamed by an abundance of wildlife, including warthogs, are now occupied by abundance of livestock (goats, sheep, cows, dromedaris, and donkeys)...or are simply empty. Not a single antilope, let alone a warthog, was encountered during the 12 days that we surveyed the region to the west and south-west of Lake Turkana.

Adult male Hilgert's vervet monkey (*Chlorocebus pygerythrus hilgerti*) in doum palm (*Hyphaene thebaica*) in the disturbed, tall, riverine forest along the Turkwell River at Lodwar, north-western Kenya. Photograph by Yvonne de Jong and Tom Butynski.





The Loima Hills (also referred to as 'Murua Ngithigerr'), which include the Puch Prasir Plateau, in western Turkana are difficult to reach. We traveled along deep sand tracks westwards from Lodwar across numerous luggas (Kiswahili for dry river bed) into the southern Loima Hills and up to the Uganda border. This is the only road in this vast region. The many Turkana that we spoke with in this region all confirmed that warthogs are present but that this 'nyama' ('meat' as the Turkana refer to wildlife) is hunted and, therefore, that this animal is rare, shy, and virtually impossible to observe. One old man stated that he had killed a 'ngiri' a few months ago. With these reports we were optimistic that at least a small numbers of warthogs survived in this remote region...But which species?

Despite the fact that the Turkana also hunt and eat primates, all of the people that we interviewed were adamant that olive baboons (*Papio anubis*), vervet monkeys (*Chlorocebus pygerythrus*), and 'elala' [Turkana name for patas monkey (*Erythrocebus patas*)] continued to occupy the Loima Hills. This was also good news, particular in the case of the patas monkey as this is one of Kenya's rarest primates (see our earlier

blog: Kenya's Elusive Patas Monkeys).

The Loima Hills lie to the north-east of Mount Moroto (Uganda) and border Uganda's Matheniko Game Reserve. The highest peak in the Loima Hills is 2,286 m above sea level. Mean annual rainfall here is between 400 and 600 mm. Being difficult to access, and with little time, our survey was limited to the south-western Loima Hills. The vegetation is mainly bushland with tall trees and dense undergrowth along the luggas. Trees include various species of acacia (*Acacia* spp.), commiphora (*Commiphora* spp.), combretum (*Combretum* spp.), and balanites (*Balanites* spp.), as well as desert rose (*Adenium obesum*).



Dawn breaking in the Loima Hills (NW Kenya) with Mount Moroto (NE Uganda) in the background. Photograph by Yvonne de Jong and Tom Butynski.

Dawn breaking in the Loima Hills, north-western Kenya). Mount Moroto, north-eastern Uganda is in the background. Photograph by Tom Butynski and Yvonne de Jong.

Collecting valuable biodiversity information from Turkana who are resident in the Loima Hills, north-western Kenya. Photograph by Yvonne de Jong and Tom Butynski.

During the 4 days that we spend in the area we hear the calls of at least three groups of olive baboons. During the day we hear vervet monkeys calling from riverine woodland and we manage to get a brief glimpse of this shy group after walking a wide, dry, river bed.

At night, common genets (*Genetta genetta*) appear to be fascinated by our presence as we see their eyes following us around wherever we go. Our camera traps confirm the presence of Guenther's dik-dik (*Madoqua guentheri*). The next morning we collect fresh dung pellets for use in a molecular study of this genus. In the early evening we observe at least four golden jackals (*Canis aureus*), all in the vicinity of a small human settlement.

Guenther's dik-dik (*Madoqua guentheri*) in the Loima Hills, north-western Turkana. This is probably the most common of the larger mammals in this region. Photograph by Yvonne de Jong and Tom Butynski.





Nights in the Loima Hills are surprisingly quiet. No hyrax, hyena, lion or leopard are heard. Trail clearing activities of a yet to be identify gerbil (Gerbillinae) are loud enough to wake us up early in the morning. Their extensive trail systems became apparent when we explored the area around our camp to set camera traps. These nocturnal rodents keep their trail systems, which lead to their well-hidden burrows, nice and tidy. Our camera traps confirm the presence of striped hyena (*Hyaena hyaena*), spotted hyena (*Crocuta crocuta*), and....indeed.... a warthog!

Our trap photo shows a common warthog inspecting the bait at a trap at 19:25 h. Other species 'caught' by



our camera traps include common duiker (*Sylvicapra grimmia*), porcupine (*Hystrix* sp.), bat-eared fox (*Otocyon megalotis*), common genet, buff-crested bustard (*Eupodotis gindiana*), helmeted guinea fowls (*Numida meleagris*), and francolins. Several of these species would have gone unreported if not for the camera traps. During our time in the Loima Hills we did not encounter any water sources accessible to wildlife.



Installing camera traps in Turkana and Pokot, north-western Kenya. Photograph by Tom



Common warthog (*Phacochoerus africanus*) captured by a camera trap in the Loima Hills, north-western Kenya. The shape of the head and the upright ear tips enable us to distinquish the common warthog in this photograph from a desert warthog (*Phacochoerus aethiopicus*). Photograph by Tom Butynski and Yvonne de Jong.

Striped hyena (*Hyaena hyaena*) captured by a camera trap in the Loima Hills, north-western Kenya. Otherwise, no striped hyena were heard or sighted by us during our 4 days in the Loima Hills. Photograph by Yvonne de Jong and Tom Butynski.

Motoring slowly southwards through the stunning Karasuk Hills of North Pokot, along the old road from Kitale to Lodwar, our eyes fall on the silhouettes of monkeys in a tall tree about 150 m away. We hit the brakes and grab our binoculars...patas monkeys. We view no fewer than four adult females and one juvenile patas monkey. We are surprised to find them in this dense woodland as patas prefer open woodland. We have several minutes to photograph and view this group from the top of the Land Cruiser. Patas has not been reported from the Karasuk Hills.

This sighting extents the known range of patas in North Pokot 50 km to the north. Residents indicate that patas are present over much of the Karasuk Hills and northwards into the Loima Hills. We found at least one natural water source in the vicinity of this patas group, although this source is heavily used by people (publications about the biogeography of patas monkeys in Kenya and Tanzania can be found on wildsolutions.nl).

Common genet (*Genetta genetta*) in the Karasuk Hills of North Pokot, north-western Kenya. This is one of the more common mammalian predators of the region. Photograph by Yvonne de Jong and Tom Butynski.







Two adult female eastern patas monkeys (*Erythrocebus patas pyrrhonotus*) on the southern end of the Karasuk Hills of North Pokot, northwestern Kenya, a few kilometers from the Uganda border. This represents the first patas monkey record for the Karasuk Hills and connects the Turkana and Pokot patas populations along the Kenya-Uganda border. Photograph by Yvonne de Jong and Tom Butynski.

Based on the information available from the literature, from our colleagues, and from our surveys, the desert warthog is naturally absent from Turkana, North Pokot and West Pokot Districts. It appears that the western limit of the desert warthog in northern Kenya is along the eastern edge of the Chalbi Desert (i.e., far to the east of Lake Turkana), and that to the south of Lake Turkana the western limit is the Eastern Rift Valley, with Baragoi (90 km south of Lake Turkana) representing the species' most western extent.

The vast region of Kenya that lies between Lake Turkana and the border with Uganda has lost most of its large mammal species. These include lion (Panthera leo), elephant (*Loxodonta africana*), black rhinoceros (*Diceros bicornis*), common zebra (*Equus burchelli*), giraffe (*Giraffa camelopardalis*), impala (*Aepyceros melampus*), Grant's gazelle (*Nanger granti*), beisa oryx (*Oryx beisa*), topi (*Damaliscus korrigum*), and buffalo (*Syncerus caffer*). There are no protected areas within this region. A few of these species, including common warthog, continue to occur well to the south-west of Lake Turkana in the South Turkana National Reserve and in the tiny Nasalot National Reserve, and to the east of Lake Turkana in the Sibiloi National Park.

All three protected areas are, however, under serious threat from poachers and livestock, and all have lost part of their large mammal fauna. The Kenya Wildlife Service should be commended for establishing these three protected areas...but encouraged to do all that it can to prevent the further loss of species. Several large mammal species within these three protected areas are now in extremely small populations and can be expected to be extirpated in the near future unless additional steps are taken to protect them.

Although all sites in Turkana and North Pokot with water are now probably occupied by people and their livestock, and are intensively hunted, there remain extensive areas of dry hilly and mountainous ground into

which there are no roads and where the human and livestock populations are likely very low. These areas need to be surveyed to determine which species of large mammals are still present. Some of these sites may still hold significant populations of leopard (*Panthera pardus*), wild dog (*Lycaon pictus*), patas monkey, common warthog, lesser kudu (*Strepsiceros imberbis*), and other species of large mammal. The priority sites to survey are the Loima Hills, Karasuk Hills, and Loriu Range.

NEXT: Kenya's Elusive Patas Monkeys

Read the entire blog series

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