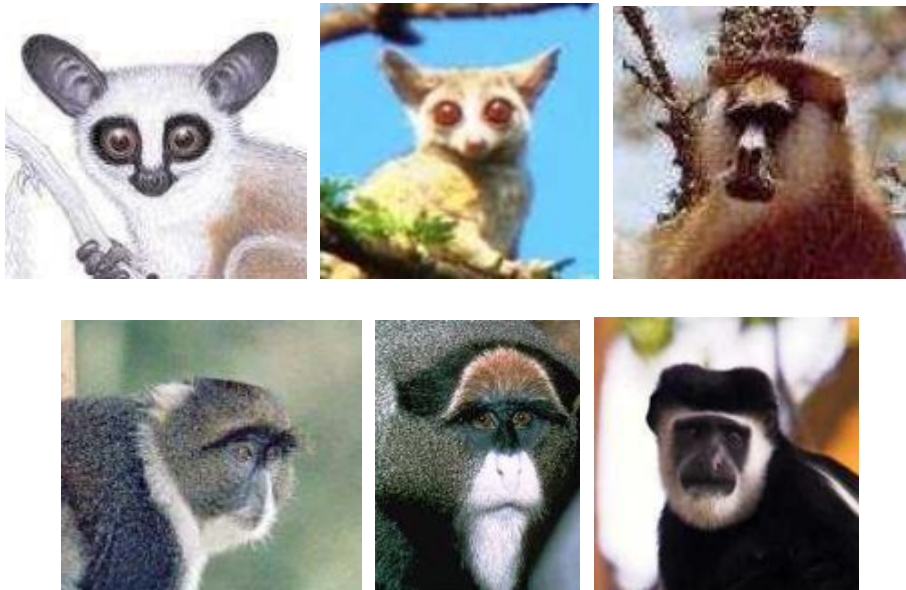




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The distribution of the Endangered Mt Uarges guereza, the de Brazza's, the Patas, and the Sykes' monkey, the Somali and Senegal lesser galagos in Samburu, northern Kenya



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ABSTRACT

This primates' survey was carried out in Samburu district of northern Kenya with semi-arid lowland and forested highland mountains. The aim was to study the distribution of the following rare primates' species; the de Brazza's, the Sykes and the Patas monkeys, the Somali and the Senegal lesser galagos and the Mt Uarges guereza. The six have received marginal attention and their status in the area is poorly known.

De Brazza's monkey

During the survey that started in April 2007, six more groups of de Brazza's monkey were recorded on the northern Mathews range, an addition to the 24 groups recorded in the year 2006 pioneering survey of de Brazza's monkey. Additionally, Milgis Trust game scouts also reported new groups of in southern parts of Ndoto forest.

Patas monkey

In the district, only one Patas monkey was officially reported. Dr Iain Douglas-Hamilton of Save the Elephants reported seeing one Patas monkey on the western parts of Samburu National Reserve. Given the mobile of nature male Patas and the proximity of the reserve to the Laikipia population, this sighting could not be construed to mean that there is a new resident group in the district yet.

Sykes' monkey

A very small population Sykes' monkey is believed to be present on the northern fringes of Leroghi forest although tangible evidence has been had to come by. However, effort to get hold of such evidence has been had to come by.

Mt Uarges Guereza

The Endangered Mt Uarges guereza is found in substantial number distributed over central and southern parts of Mathews range forest. The population in the neighbouring Kirisia hills and Leroghi forest was last seen by Forest Guards in 2006 and is now believed to have sought refuge in the dense inaccessible part of the forest following two decades of persistent poaching by local people who highly value its skin.

Lesser Galagos

The Senegal lesser galago was found to be widespread in the district. Eight live specimens were collected at South Horr and Mathew range. However, the Somali lesser galago was not seen though it is there were reports that it is present especially in the southern drier parts of the district.



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1.0 Introduction

1.1 Background

After studying the de Brazza's monkey in western Kenya for 3 years, I embarked on a study of a newly discovered population in Mathews range, northern Kenya in 2006. Previously, the De Brazza's monkey (*Cercopithecus neglectus*) was known to be restricted to western part of the country, and never to cross over to the east of the Great Rift Valley. It was after conducting the first ever field assessment of the status of this population that it became evident to me that there were other primates' species whose presence and distribution in the wider Samburu needed to be verified. This led the expansion of the survey in 2007 to cover the entire district incorporating five additional primates' species i.e. Patas and Sykes' monkey, Mt Uarges guereza and Somali and Senegal lesser galagos.



Figure 1: a young de Brazza's monkey. A new population was recently discovered in Mathews range

Samburu district is found on the predominantly semi-arid the northern part of Kenya. However, apart from the extensive savannah plains, there are four tropical forests on the higher elevation namely Mathews range, Leroghi, Ndoto and Mt Nyiro which are rich in biodiversity and receive a substantial amount of rain. These forests have however received marginal attention and the knowledge of their biodiversity is poor. This is even worse for "the lesser species" given that more attention is given to the Big Five- the elephant, lion leopard, buffalo and the rhino and other charismatic species like the cheetah, giraffe among others. Rare and sometimes more seriously endangered species like the Mt Uarges guereza have been overshadowed.

The Mt Uarges guereza (*Colobus guereza percivali*) endemic to Samburu is currently the only subspecies of guereza colobus listed as Endangered in the IUCN Red List. Though classified Endangered on account of its limited Extent of Occurrence, no comprehensive on-the-ground field assessment of the species has been done to determine its distribution and present status, hence its inclusion in this survey.

On-the-other-hand, though Sykes' monkey (*Cercopithecus mitis albogularis*) is not known to occur north of Mt Kenya, there were anecdotal reports of sightings in Leroghi and I thought it was worth incorporating the species in this survey. This forest habitat was also under investigation for other primates species like de Brazza's monkey and the guereza colobus and there was no in harm in adding this species to our survey list.



On the plains there were anecdotal reports that Patas monkey *Erythrocebus Patas* inhabits some part of the northern Samburu (whose vegetation offers an ideal habitat for patas) in the expansive district giving a good reason to incorporate it in the survey as well.

The distribution and status of the Senegal and Somali lesser galagos (now recognized as separate species) in Samburu has never been formally documented (though anecdotal sighting may have been reported). The two prosimians were believed to be widespread in the semi-arid district whose savannah woodland, thorn bush and scrubland offers the suitable habitat they need.

The survey of the six primates' species including the de Brazza's monkey (surveyed in Mathews in 2006 expanded to neighbouring forests) was integrated into one extensive survey with those species occurring in the same habitats e.g. forest species like guereza colobus and sykes, being surveyed together, while others like Patas monkey that occur exclusively in the plains were surveyed separately.

1.2 Objectives

1. To assess the status and distribution the de Brazza's Patas, and Sykes' monkey, Mt Uarges guereza, and lesser galagos in Samburu to help guide future conservation actions.
2. To identify local threats and opportunities for conservation of de Brazza's Patas, and Sykes' monkey, Mt Uarges guereza, and lesser galagos in Samburu.
3. Build the capacity of 16 local scouts and 4 local research assistants in general primate's ecology and data collection methodologies to ensure continuity of surveillance and monitoring of primates in the region.



Figure 2: Leroghi Forest which was considered a suitable habitat for the Sykes', colobus and de Brazza's monkey

1.3 The six primates' species

1.3.1 De Brazza's monkey

The De Brazza's monkey is one of the most unusual species in the group of old world monkeys commonly known as guenons (Nowak 1991; MacDonald 1993). They live in forests along the banks of streams and rivers, at the mid or lower canopy layers of the forest. De Brazza's are arboreal, spending 70% of their time in the understory and 20% on the ground (Gautier-Hion, 1988). They are diurnal, spending the majority of their time at the lower canopy or on the forest floor feeding. They are omnivores, primarily feeding on fruits and seeds, leaves, arthropods, flowers and mushrooms (Staden, 1996).





Figure 3: Photo of a de Brazza's monkey

The de Brazza's Monkey, is fairly common in its core range within riverine and swamp forests in the Congo Basin from SE Cameroon, Equatorial Guinea, Angola, it very rare and found in isolated pockets in some parts of in extreme East and West Uganda, Western Kenya S.W Ethiopia (Brennan, 1984; Decker, 1985). While large populations of De Brazza's monkey exist in central Africa (Gautier-Hion & Gautier 1978), the population in Kenya is small and under immense anthropogenic pressure (Brennan 1985; Brennan & Else 1984; Decker 1985).

In Kenya, the knowledge on the de Brazza's distribution has expanded every day as more wildlife biologists developed interest in the species. Prior to reports by Booth (1962), the species was believed to be restricted to the western slopes of Mt Elgon. Booth increased the eastward species range by 60 km to Cherangani Hills. The range of the species was extended northwards to S.W. Ethiopia by Brown and Urban in 1969 (Wahome, 1993). Brennan (1984) added more groups in the western range of the species between Mt Elgon and Cherangani, while Wahome (1989) extended the species southern range to Kisere forest, north of Kakamega forest. Mwenja (2004) added more new sightings the region increasing the national estimate by 350 per cent. Douglas-Dufrense (2005) reported a new population of the species in the Mathews range, the first ever population reported to the east of the Rift Valley. Before then, the species was known to be restricted to western Kenya (Brennan 1985; Decker 1985; Karere, 1995).



Figure 4: The map of distribution of De Brazza's monkey in Africa showing newly discovered population in Mathews Range Forest Reserve, the first record of the species east of the Great Rift Valley.



In western Kenya, the majority of the remaining population is straddled in very thin, increasingly fragmented strips of riparian forest on privately owned farms, usually in small, isolated groups. These pockets maintain populations comprising of a few monkeys, which may not be genetically viable (Brennan, 1984; Mwenja 2004). However, the situation in Mathews range forest reserve is different given that there is very little anthropogenic pressure being exerted on this habitat (Bronner, 1990; Blackett, 1994) as compared to the Western Kenya.

During the study of the satellite population in Mathews Range Forest Reserve it emerged that there are more isolated interesting groups in the neighbouring Leroghi and Ndoto forests which this study set out to investigate.

1.3.2 Patas monkey

The Patas Monkey *Erythrocebus Patas*, ranges from West Africa north of the equatorial forests and south of the Sahara (western Senegal) to East Africa (de Jong, 2004; Isbell, 2007). They are easily recognized by their brick red upper parts and heads. Their long limbs are completely and distinctively white, especially in males. The East African Patas Monkey (of western Ethiopia to northern Uganda and southern Kenya) has a blackish face with a white nose and a white moustache, unlike the Patas monkeys found in West Africa and northern Tanzania, which have an all black face (de Jong, 2004).

Patas are terrestrial, preferring savannah-woodland habitats, especially those dominated by Acacia shrubs and trees (de Yong, 2004). Their highly distinct long limbs an adaptation for fast movement (Kingdon, 1997). They are able to reach speeds of 55 km/h, making them the fastest on the ground of all primates. During the day, Patas spend roughly 60 % of their time on the ground, and 40 % in trees. They feed mainly on the ground. When disturbed, Patas usually flee on the ground, even where they are encountered in trees. Patas eat gum, leaves, and arthropods (principally ants), as well as flowers, fruits, small mammals, reptiles, and birds' eggs (de Yong, 2004).

For 10 years, Lynne Isbell carried out a Patas monkey study in Laikipia, Kenya. She found that Patas there are highly dependent on Whistling Thorn (*Acacia drepanolobium*) for both food and sleeping sites. Isbell also found that Patas drink daily, preferring to drink water from holes, ponds, and tanks in open areas, rather than from streams with their dense riparian vegetation (de Jong, 2004).



Figure 5: Patas monkey are highly dependent on Whistling Thorn (*Acacia drepanolobium*) for both food and sleeping sites

Recent studies by de Jong (2004) indicate that Patas are found in Laikipia plateau, Baringo, West Pokot, Turkana, Busia and Chyulu. They have never been reported to occur between north of Uaso Ng'iro River and to the east of the L. Turkana and particularly in the Samburu district, our study area. By their own nature Patas Monkeys are shy and silent – traits that, combining with their speed and cryptic pelage, make them difficult to find, let alone observe and study.



1.3.3 The Lesser Galagos

Lesser bush babies are small nocturnal primates that are well-adapted to living in drier areas. They generally occupy the savannah woodlands south of the Sahara and are excluded only from the southern tip of Africa. The average mass of a lesser galago is 150 grams to 200 grams. The tarsus of galagos is greatly elongated to 1/3 the length of the shinbone, which allows these animals to adopt the hopping gait of a kangaroo. Galagos also have a greatly increased muscle mass in the hind legs, which also enable them to perform large leaps.

Galago gallarum was subsumed to be one of the subspecies of the Senegal Galago for many years but Olson (1979, 1986) elevated the sub-species to full species status (Kingdon, 1997; Butynski and de Jong, 2004). Groves (2001) revision of primate taxonomy recognizes *G. gallarum* as a distinct species, primarily based on ear, hind foot and tail lengths to *G. Senegalensis* (Butynski & de Jong, 2004).

1.3.4 Somali Galago

The Somali Galago is endemic to the semi arid thorn scrub and thorn scrub/woodland of Eastern Kenya, southern Ethiopian and Somalia, where in most cases, it is the only Galago present (Butynski & de Jong, 2004). Its preferred habitat is *Acacia*, *Commiphora* and *Combretum* deciduous bush land and thickets. The diet of *G. gallarum* remains unknown. Kingdon, 1997 states that the diet is "presumed to be mainly gum and invertebrates" (Kingdon, 1997). Butynski and de Jong (2004) found *G. gallarum* to be sympatric with *G. senegalensis* in Meru NP.

G. gallarum is a medium sized galago with a whitish face and throat, and contrasting dark brown ears-rings, and black tail. Males and females look alike but males are slightly larger than females (Butynski & de Jong, 2004).

1.3.5 Senegal Lesser Galago

The Senegal lesser galago (*Galago senegalensis*) is found throughout the forests between Senegal and E. Africa. Kingdon (1997) categorizes the species the *Galago senegalensis* into 3 races - *G. s. senegalensis*, *G. s. braccatus* (E. Africa race) and *G. s. durni*. The preferred habitat is the woodland savannah dominated by acacia and montane forest margin elsewhere (Kingdon 1997).

The Senegal lesser galago primarily eats gum, but also eats insects for the protein. This species has not been observed drinking water in the wild, possibly suggesting that it obtains its water from the food it eats. The lesser galago sleeps in either a flat leaf-nest, a tree hollow, or a branch fork in a thorn tree; males sleep alone and females either sleep alone or in groups (Bearder and Martin, 1979). If there is a threat from a predator, the mother will move the infants to a different location, and will transport the infants in their mouth.

Galago senegalensis has thick, woolly, rather long and wavy fur which is silvery grey to brown dorsally and slightly lighter underneath. Ears are large, with four transverse ridges that can be independently or simultaneously bent back and wrinkled downward from the tips toward the base. The ends of the fingers and toes have flat disks of thickened skin, which aid in grasping tree limbs and slippery surfaces.

The basic social group is composed of an adult male and female with offspring. Males' ranges do not overlap. The lesser galago has a polygynous mating system although females may attract more than one male (Bearder and Martin, 1979). There is a matriarchy amongst the females of the group (Bearder and Martin, 1979). In the lesser galago the males disperse and the females are philopatric.



Distinguishing the two



Figure 6: Adult Somali lesser galago. Note the distinctive contrast between the dark and light coloured body parts a pattern that distinguishes it with *G. senegalensis*. Drawing by Stephen Nash, Photo: Mwenja

The pelage of *G. senegalensis* is long, thick and woolly and the dorsum is grey or brownish-grey. Ears are brown or grey on the back and pinkish or flesh-coloured on the front. There is a sharp delineation between the lemon yellow of the outer hind limbs and the grey of the upper thigh and dorsum. The tail is grey brown. *G. Senegalensis* is generally in more moist habitats than *G. gallarum*. On striking difference in the field between the two is that *gallarum* is much more 'confident', less 'shy' species. Upon being located with light of a spotlight, *gallarum* typically remains in place for a few minutes and then moves towards the observer, frequently to within 5 m and sometimes to within 1m. The impression is that this species almost immediately begins to take advantage of the light from the spotlight to locate vertebrates. In contrast, *G senegalensis* usually immediately moves away from the observer (Butynski and de Jong, 2004).

1.3.6 Sykes' monkeys

Sykes' or White-throated guenon (*Cercopithecus (n.) mitis albogularis*) is one of the subspecies of the Gentle monkey *Cercopithecus (nictitans)* super species (Kingdon, 1997). This super species is characterized by large, long-tailed arboreal monkeys (Swara, 2004; Kingdon 19970). Back and thigh are grizzled while the forearms, feet and terminal half of the tail are black. The Sykes' are identified by their grizzled back and cap and the extensively and sharply contrasted white throated (Dorst, & Dandelot, 1972; Kingdon, 1997).



Figure 7: Photo of a Sykes monkey from the Kenyan coast



Kingdon (1997) prefers to divide the species *mitis* into four 'clusters' each embracing more than one sub-species, arguing that the splitting based on geographic divisions obscures a more complex pattern of distribution among various sub-groups. The White-throated guenons are the easternmost "cluster" of the gentle or diademed 'super specific' complex. He gives the "white throated cluster" eleven sub-species with distribution ranging from Cape Province to Somalia and inland as far as E Zaire basin. The other cluster are, *mitis* monkey (central Africa), silver monkey (Albertine Rift) and blue monkey (East a central Africa) clusters. In East Africa, they are found to the east of the Rift Valley while the Blue monkeys occur to the west (Swara, 2004).

As a group the white-throated guenons are undoubtedly among east Africa's most adaptable, versatile and successful monkeys whose mixed diet of invertebrates, birds eggs and leaves and fruits and its supreme dexterity, enable the troops to live even in degraded forest environments (Swara, 2004).

1.3.7 Mt Uarges Guereza

The guereza colobus is a large black monkey with a white mantle and a tail tuft (Napier 1985). The body is mostly black, with the white mantle extending from the shoulder to the hip, connecting around the lower torso. The tail has a white tuft at its end which is variable in its extent along the length of the tail (Groves 2001). Subspecies are distinguished from one another by colour variations in these features (Napier 1985). The face is surrounded by white hair, with bushy cheek hairs. There is a white stripe on the thigh (Groves 2001). In rare instances, almost entirely white individuals are reported from the west side of Mt. Kenya, with the colour not being due to albinism (Hull 1978).

Groves (2005) lists 7 subspecies; *C. g. caudatus*, *C. g. dodingae*, *C. g. guereza*, *C. g. kikuyuensis*, *C. g. matschiei*, *C. g. occidentalis*, *C. g. percivali*. The Mt Uarges guereza *C. g. percivali* has a very long creamy yellow mantle and very long hair, extending longer than 40 cm (15.7 in) on the lower abdomen. The tail is as long as the head and body combined, with the white tuft extending over about two-thirds of its length (Groves 2001).



Figure 8: Photo of one of the guereza colobus sub-species in Kenya. *Photo by Paula K.*

Guerezas are tied to habitats that have trees and are present in both deciduous and evergreen forests (Oates 1977b; Oates et al. 1994; Lwanga 2006). They are found in forests and savannah woodlands within and to the north of the moist forests of central Africa, often extending into highland or montane forests (Oates et al. 1994).

Leaves and fruit are the main foods of the guereza but the diet is quite variable as would be expected in a species with such a wide distribution and range of habitat types (Oates 1994; Fashing 2001b). While the



species has historically been believed to be exclusively leaf-eaters, they are not obligate folivores (Oates 1994; Fashing 2001b).

The Mt Uarges guereza, *Colobus guereza percivali* endemic to Samburu is currently the only subspecies of guereza colobus listed as Endangered in the IUCN Red List (Butynski, 2008). It was named Mt. Uarges guereza, because it was thought to be endemic to this small mountain but the highest range of the Mathews range found on the southern tip.

It's extremely small remaining range (less than 500 sq. Km.) and anthropogenic degradation of its habitat is the primary threats contributing to its endangerment (Butynski, 2008). The species distribution is not clearly known not only outside Mt Uarges but even on Mt Uarges where it thought to be confined.



3.0 Findings

The surveys were conducted in five field expeditions that come after a reconnaissance survey in parts of the study area that I had not visited before. And from January 2008, a ground team comprising of scouts from Milgis Trust and local people has been surveying the Ndotos and the Parsaloi-Baragoi plains. The last field expedition in Leroghi and Baragoi that ended mid-May 2008 was led by local assistants and scouts whom I had trained and worked with for two years. Each of these expeditions covered more than one habitat type and therefore targeted more than two of the six species.

The findings below are presented separately for each of the six species based on the data collected and collated from the five expeditions and the ongoing data collection by the Milgis Trust team.

3.1 De Brazza's monkey

In 2006 de Brazza's survey in Mathews range, 24 groups were found and mapped. During this survey, additional groups were found in Ngare Narok within the same area we had recorded group in 2006, after intensively patrolling that river for two weeks. From here we went for a three day ground truthing mission to Mathews point (via Sumare and Kangulata) to verify reports that there are de Brazza's and colobus there. The altitude here is above 2,000 m a.s.l. and there was no evidence of the two species in these areas. De Brazza's seem quite unlikely to inhabit such high elevations though their presence can't be ruled out, especially going by previous survey's findings in Mathews range.

We also went to the northern limit of the ranges and interviewed villagers in Kibartare, Lodosoit and Serolipi. At Lodosoit and Kibartare, knowledgeable 'Dorobos' here confirmed that there are groups in northern reaches of Sitin, lower parts of Miwaa range, Serelberi and at Dume the furthest range to the north western of Mathews range. However, we could not visit these areas to record the GPS coordinates of these groups for the two days that we were there.

Back to Wamba, we went to the nearby Gogoltim village that lies below the towering Tipito range that borders Mt Uarges to the north. Our interviews with the locals here did not yield much indication as to whether de Brazza's indeed occur in the forest higher up the Tipito hills though they were sure of other primates species.

Three days of searches within the Kirisia hills south of the old Olpiroi road did not yield any sighting of the de Brazza's. Interview with KWS officers at Maralal and Baawa security outpost gave the indication that no de Brazza's have ever been seen in this forest, a view supported by local people including herdsmen who almost permanently reside in the forest.

In Mt Nyiro, none of the local people interviewed had seen the species and two days survey along the forest eastern side from Kurante to Kosikosi and Kurante to Anderi proved the locals right. A third day was spent on the western side of Tum and Ewaso Rongai River near Desert Rose Wilderness Camp. We interviewed residents from the two areas who confirmed that the species doesn't inhabit that part of Mt Nyiro as well.

Reports from northern Leroghi forest particularly at Ang'ata Nanyuki were negative. Only a "strange white throated monkey" which we suspected to be Sykes was reported. With a team of five, we spent six days on Keskei, Naashoda, Lesatia, Louwaibor, Lorumbei "Iaggas" and Murui forest searching for any of our target rare primate species without success.

Next we went to Milimani, on what used to be Maralal Sanctuary (much of which was transformed to human settlement) hoping to get some information on the primates that inhabited the forest before allocation and settlement by small-scale farmers who cleared the forest. A retired forest guard Moses



Leluai who owns a plot here said he never saw any de Brazza's, Sykes' or colobus. Kingdon (1974) reported that there were de Brazza's in Maralal although his later editions of the Fields guide to African mammals didn't recognize Maralal as being included in the de Brazza's range.

3.2 Patas Monkey

The first credible sighting of Patas monkey in Samburu came from renowned elephant researcher Dr Iain Douglas-Hamilton, the Executive Office of Save the Elephant, which has project based in Samburu National Reserve. This is the report he gave me in November, 2007.

"In October 2007 during the course of an elephant collaring operation, I sighted along with Daniel Lentipo a Patas Monkey in the western part of Samburu National Reserve. The animal was running through open bush and we got a good view for a few seconds. Both Daniel and I independently recognised it as a Patas Monkey. I don't know if this constitutes a rare sighting but I have never come across one in Buffalo, Shaba, and Samburu National Reserves. The nearest ones are those in Laikipia".

Primatologists Dr Butynski and Yvonne de Jong commenting on this sighting said, *"Looks to be a very nice record, very likely this is a 'wandering adult male'. They do this sort of thin, apparently go off long distances from the range in which groups live in search, I suppose, for new, distant groups and opportunities".*

However, this remains the first confirmed report of the species sighting in Samburu district, though as Dr Butynski suggests, it could just be a wandering male from the Laikipia population and not a resident group in Samburu. Meanwhile, our efforts to confirm reports that there is a troop in the plains between the Ndoto and Leroghi forests did bear fruits. Milgis Trust scouts are trying to verify this information. Please visit; <http://www.samburumonkeys.wildlifedirect.org/> for updates in future.

Last year in June and August we went to two areas where local residents thought the 'brown vervet monkey' (Samburu have no name for Patas and Sykes) living there are indeed Patas monkey. We spent a day at Loosuk searching in one large undisturbed area of natural vegetation but found nothing to support their claims that a family of three have been residing there for years.

On our way to Baragoi, we spent a day at Morinjo and Marti trading enters interviewing local people. They led us to Langat valley where residents also claimed to have seen Patas alongside vervet's monkeys and baboons. We saw none of the three apart from spoor of what seemed to be baboons.



Figure 11: Langat Valley where Patas are suspected to frequent due the permanent source of water



Due to the large territories of Patas and their mobile nature, we could not rule out their presence between Marti, Suiyan and Parsaloi, an area dominated open acacia woodlands and traversed by three rivers that drain to the Milgis. This area is ideal for Patas and hence I decided to send more scouts in this area to gather more information.

3.3 Sykes' monkey

My decision to search for Sykes in Samburu was based on the fact that the no such investigation had been done there before despite the forests habitat appears suitable for the species and it is very close to the known northern limit of the sub-specie; the Aberdare and Mt Kenya.

The search for the species started with a survey at Uaso Ng'iro River, at Lodung'okwe where residents had seen a baboon with a white blemish similar the white throat of the Sykes and mistook it for the Sykes monkey that they identified from our photographs. But we spent a total of eight days searching along the riverine vegetation trying to verify the information given by locals and left convinced there has never been Sykes monkeys along this river.



Figure 12: Uaso Ng'iro River near Lodung'okwe

However, while assessing the northern fringes of Leroghi forests, we stumbled on information that there is a “white-throated monkey” that raids crop on the forest edges. This time to avoid being led by photos of the Sykes that we give our respondents; I decided to interview four residents whose farms were raided by this unknown species before giving them the photos. Three of them clearly painted the picture of a Sykes from their own description on “that” monkey. When given photos of vervets, baboon, guereza colobus and de Brazza's monkeys, they categorically said it was not among the four. When I finally produced the Sykes photos, the four clearly identified it as the “white throated monkey” they referred to.

Assisted by one assistant and four guides, we set out to verify this information and collect tangible evidence of this species great discovery. For six days we searched all the rivers forested river valleys and stream in the area paying particular attention to Keskei, Naashoda, Lesatia, Louwaibor, Lorumbei “laggas” Murui forest. We were not lucky to see the monkey despite the fact that an advance party that we had sent a week earlier claimed to have seen only one after combing the area for a week. I am still convinced that there is another guenon apart from the vervet monkey in that area. I will continue working hard to get tangible evidence to prove this discovery.





Figure 13: semi-Permanent residence inside Mt. Nyiro Forest Reserve

In Mt Nyiro, much of the forest biodiversity has been lost in the last fifty years due to what has been linked to the insecurity that has plagued the region for decades. Cattle rustling between the Samburu and their northern neighbours the Turkana were at times very serious especially during period of drought and Samburu sought refuge in their 'Holy Mountain' and even established permanent residence inside the forest. It is the cumulative effect of this human presence over the years that have led to lose of the mountain flora and fauna. Some of the species believed to have been lost include the Guereza colobus, whose skin is highly valued by the Samburu for cultural purposes. However, the Sykes is not believed to have ever inhabited this habitat in the last five decades according to John Wreford-Smith who was in charge of the districts' forests five decades ago.

3.4 Lesser Galagos

The search for these two nocturnal species, the Somali and Senegal lesser galagos was restricted to South Horr and Ngare Narok in Mathews range whereas in other areas, I only interviewed local people. In South Horr and Ngare narok, I conducted night walks for a day in each area and managed to catch those that were residing in old traditional honey hives near homesteads. They all turned out to be *G senegalensis*.

The GPS co-ordinates of the two locations are:

- South Horr 02.09798°N 036.92107°E
- Altitude: 1026 m a.s.l.
- Ngare Narok at the 'manyattas', 2 kilometres from R. Ngare Narok. 01.32175°N 037.19910°E
- Altitude: 1272 m a.s.l

Body measurements of three members of a family from Ngare Narok. The fourth one, a male on the photo I sent earlier escaped before we could take measurements.

Adult Female

- Tail length 25 cm
- Head plus Body 16 cm
- Ears length 3.5 cm
- Hind foot length 3 cm

Sub-adult male

- Tail length 19 cm
- Head plus Body 11.5 cm



- Ears length 3.3 cm
- Hind foot length 3 cm

Sub-adult Female

- Tail length 19 cm
- Head plus Body 16 cm
- Ears length 3.2 cm
- Hind foot length 3 cm

Body weight was not taken.



Figure 14: Senegal's lesser galago found at Ngare Narok, on Mathews range

Resident in the drier areas of Marti-Baragoi-Parsaloi, Lodung'okwe, Wamba and Lodosoit all easily recognised the Senegal lesser galago as *Lkimoung'* as it is known in Samburu. The community does not differentiate the two lesser galago (by name) and it was difficult to tell if the Somali lesser galago is also found there as we never collected any specimen. The name *Lkimoung'* definitely refers to the two species.

From our interviews with local people and the field verification of the information gathered, there is no doubt that the Senegal lesser galago is one of the most widespread primate in the savannah woodlands of Samburu.

3.5 Mt Uarges guereza

The Mt. Uarges guereza (*Colobus guereza spp. percivali*) is named after Mt Uarges, is the highest mountain range of Mathews range located on the southern end. In 2006, we found the Mt Uarges guereza along Wamba river valley on Mt Uarges as well as on the upper reaches of River Ng'eny, at Ntukuda, and Nkii.

During this survey we interviewed Namunyak Wildlife Conservancy Rangers at Sarara Camp who confirmed there was more group on this eastern side of Mt Uarges. They also confirmed presence that there are more groups at Tipito, the peak of the mountain range to the immediate north of Mt. Uarges.

In Kirisia Hills/Leroghi forest, Forest guards of the Kenya Forest Service confirmed seeing two colobus monkeys at Bora in November, 2006 while escorting tourist in the forest. I deployed three local guides for



three days to the area where they were reportedly seen. Using the old Olpiroi road I also made my way up the Kirisia hills to interview 'resident' herds' men in the forest and personally search the forest for the species. I interviewed three herds men who were in three separate groups and all confirmed that there had not seen the species in the last one year but agreed that the species was plenty two decades ago before killings using automatic weapons started. The skin of the colobus is highly valued among the Samburu people.



Figure 15: A Samburu man wearing the Guereza skin to show us how is worn during traditional ceremonies

We also went to Baawa, the south western part of the Kirisia Hills south of Maralal town where the forest has been left relatively intact compared to the central western and northern parts of Leroghi forest. Interview with KWS officer in charge, a local tour guide and local 'Dorobo' none of them had seen the species in last one year around the Baawa forest.

Meanwhile the team that went to the Kirisia forest from Maralal passing through Narunde to Doinyo Nasipa, to Lokujitaa and Leshoro before returning to Maralal never made sightings. It was only at Doinyo Nasipa that they were led to a valley where two resident guereza colobus lived until one was killed in 2006. Saanata's (Leroghi Peak) Soldon is also reported to offer a safe sanctuary due to its inaccessibility and cold weather.



Figure 16: Lesaatia on your way to Saanata, the highest point in Leroghi, which is not frequented by humans and few remaining guereza monkeys are could have taken refuge there.



In short, our effort trace any of the groups still remaining in this forest didn't yield any fruits though local people still believe that there are a few remaining but have become shy and elusive due to poaching, avoiding all areas accessible to human beings. There is an urgent need to verify this claim so that those remaining can be rescued or protected before they are completely wiped out of Leroghi forest.

In Mt Nyiro, John Wreford-Smith who knew the forest since the 1950s informed us that the guereza colobus was present in this mountain but was wiped out through poaching for their skin and habitat destruction due to human encroachment and prolonged stay in the forest. The Retired Forest Officer also confirmed that there are colobus in Ndoto's Marmanet forest. This area currently under investigation and finding will be in the final report.



4.0 Bibliography

1. Blackett, H.L. (1994). Forest Inventory Report of the Mathews Range Forest Reserve, KIFCON, Nairobi, No.8
2. Bearder, S.K. and Martin, R.D. 1979. The Social Organization of a Nocturnal Primate Revealed by Radio Tracking in a Handbook on Biotelemetry and Radio Tracking. eds. C.J. Amlaner Jr. and D.W. Macdonald. Pergamon Press.
3. Brennan, E.J. (1985). De Brazza's Monkeys (*Cercopithecus neglectus*) in Kenya: Census, Distribution and Conservation, *American Journal of Primatology*, 8:271-277.
4. Brennan, E.J (1989). Demographics of Captive De Brazza's Guenons. *Zoo Biology* 8:37- 47.
5. Bussmann, R.W. (2006). Ethnobotany of the Samburu of Mt. Nyiro, South Turkana, Kenya. *Journal of Ethnobotany and Ethnomedicine*.
6. Bernie, R. (2005). Creating Sustainable Living in Kenya's Indigenous Forests. Wilderness Foundation, UK.
7. Butynski, T. & members of the Primate Specialist Group 2000. *Colobus guereza* ssp. *Percivali*. In: II 2008. 2008 IUCN Red List of Threatened Species. www.iucnredlist.org
8. Douglas-Dufresne, H. 2005. Proof positive. *Swara Magazine Vol; 28(2)*: pp. 68. East African Wildlife Society (EAWLS), Nairobi.
9. Dorst, J. And Dandelot, P. (1972). A Field Guide to the Larger Mammals of Africa. London. Collins press.
10. Estes, R. D. 1991. The Behavior Guide to African Mammals. University of California Press. Fashing PJ. 2001b. Feeding ecology of the guerezas in the Kakamega Forest, Kenya: the importance of Moraceae fruit in their diet. *Intl J Primatol* 22(4):579-609.
11. Hull DB. 1978. Aberrations in the coat colour patterns of black and white *Colobus* monkeys. *E. Afr Wildl J* 16:21-7.
12. Groves C. 2005. Order primates. In: Wilson DE, Reeder DM, editors. *Mammal species of the world: a taxonomic and geographic reference*, third edition, volume 1. Baltimore (MD): Johns Hopkins U Pr. p 111-84.
13. Groves C. 2001. *Primate taxonomy*. Washington DC: Smithsonian Inst Pr. 350 p.
14. Jolly, A. 1972. *The Evolution of Primate Behavior*. Macmillan Publishing Co., NY.
15. Kingdon, J. (1997). *The Kingdon Field guide to African Mammals*, Academic press- London. pp 69-70.
16. Lwanga JS. 2006. Spatial distribution of primates in a mosaic of colonizing and old growth forest at Ngogo, Kibale National Park, Uganda. *Primates* 47(3):230-8.
17. Mwenja, I. (2004). National Rapid Survey on the Status and Distribution of De Brazza's Monkeys in Kenya. *Swara*.
18. Mwenja, I. (2007). A new population of de Brazza's monkey in Kenya. <http://www.primatologist.org/PDF/PC22.neglectus.pdf>
19. Staaden, S. (1996). North American Regional Studbook for de Brazza's monkey, *Cercopithecus neglectus*, First Edition. North Carolina Zoological Park.
20. Grooves, C. (2001). *Primate Taxonomy*. Smithsonian Institute Press, Washington, DC.
21. Napier PH. 1985. Catalogue of primates in the British museum (natural history) and elsewhere in the British Isles, part III: family Cercopithecidae, subfamily Colobinae. London: British Museum (Natural History). 111 p.
22. Oates JF. (1977b). The guereza and man. In: Rainier III (Grimaldi) Prince of Monaco, Bourne GH, editors. *Primate conservation*. New York: Academic Pr. p 419-67
23. Oates JF. 1994. The natural history of African colobines. In: Davies AG, Oates JF, editors. *Colobine monkeys: their ecology, behaviour and evolution*. Cambridge (UK): Cambridge U Pr. p 75-128.
24. Office of the president, 2008. *District's profile, Samburu district profile*. Ministry of States for special programme. Arid lands resources management project II. <http://www.aridland.go.ke/inside.php?articleid=297>

