Chapter

Hunting and Deforestation: A Threat to the Existence of the Niger Delta Red Colobus Monkey (*Procolobus epieni*)

Lameed Gbolagade Akeem and Lateef Funmilayo Lewiska

Abstract

The Niger Delta in Nigeria is the largest wetland in Africa and the third largest mangrove forest in the world. The region is known for its richness in biodiversity as well as its oil and gas resources. Due to the high level of oil exploration, deforestation, hunting and insecurities in these areas, the wildlife especially endemic species like the Niger Delta red colobus becomes vulnerable to extinction. Most researches on their range have noted a significant reduction in their population and range distribution. Hence, up-to-date information on their current status is paramount to ensure proper and urgent conservation measures. Data was obtained through the use of field survey and secondary data. The species was recently discovered endemic to Niger delta region in Nigeria for about 23 years ago and recent studies observed that there has been a drastic reduction in their population and a shift in the range they formally occupied faulting this to anthropogenic activities. This study revealed that the location is under intense timber extraction and hunting and as a result, one of the location in the Apoi creek where it was reported to be present, record no species of Red colobus monkey. Only the red capped mangabey monkey (3) were sighted at the location with some evidence of alligator (10). Result also revealed that most of the communities (age ≤ 30) do not know or have seen the species. The situation at the location is exacerbated because of the level of poverty and insecurity in the areas. Going by the evidence of intense timber extraction and hunting at the location, the number of this species may have drastically reduced compared to what it was formally projected (±200 individuals). It is therefore strongly recommended that a follow up of the research is done in other location where it was reported to be present.

Keywords: Deforestation, Hunting, Niger Delta Red Colobus Monkey, Threat

1. Introduction

The Niger Delta red colobus monkey, *Piliocolobus epieni* [1] was listed one of the 25 most threatened species in the world. It was made known to science as a result of a wide range of survey conducted in the South–South region of Nigeria [2]. Formally, it classified geographically as a close relative to the red colobus populations; Preuss's red colobus (*Procolobus preussi*), located in over 240 kilometers away

along the Nigerian-Cameroon border and also the Bioko red colobus (*Procolobus pennantii pennantii*) was also classified as a close relative prior to the survey. As a result, it was categorized as a subspecies of *Procolobus badius* in the *pennantii* group [3]. After some years, Groves [4, 5] and Ting [6] studied the species with focus on vocalizations and mitochondrial DNA and arrived at the conclusion that the species is distinct (*Procolobus epieni)*. However, before the study of the aforementioned author, the species was only studied by Werre between 1994 and 1997 Werre [7], where he established the location of the rare species, which he stated to occur only in the Niger Delta's freshwater swamp forest, with a year-round, high water table but with no deep flooding or tidal effects [8]. Studies on their habitat revealed that [8] the more clustered distribution of plant species peculiar the forests was a key factor restricting the monkey to its limited range of about 1,500 km^2, demarcated by the Forcados River and Bomadi Creek in the northwest, the Sagbama, Osiama and Apoi creeks in the East, and the mangrove belt to the South [8] in the Central Niger Delta, Bayelsa State, Nigeria. Unfortunately for the species, they exist outside protected areas of the southern region except for the Apoi creek which is protected. This wetlands region on the other hand, play a vital role in the hydrological cycle, acting as sinks into which surface water and/or groundwater flows from the surrounding catchment. Some replenish groundwater and some regulate river flows. Some also clean water, removing pollutants and sediment. But smaller, less well-known wetlands are also enormously important, acting as a source of food and water for people living nearby. Cumulatively these small wetlands play a significant role in reducing poverty and supporting both livelihoods and biodiversity. However, human activities, either within the wetland, or in the catchment in which they are situated, can alter these natural processes or accelerate the rate of change, threatening the wetland's continued existence especially endemic species which depends on it. These threats are likely to grow in the next few decades, as populations rise and demand more food and greater economic development. The Niger Delta Coastal settlements, which are already under stress of demographic pressure and unsustainable oil exploitation, are equally under the threat of sea level rise.

As the world's populations grow and competitions for scarcely available resources increase, pressure is mounting on the available natural resources. According to Makenzi (2011) and Nordas and Gleditsch [9], the effects are characterized by deforestation; depletion of biodiversity; air and water pollution; global warming; increased poverty and food insecurity. Awotodunbo and Adewumi [10] also maintain that resources upon which the "rural poor" in developing economies depend are being progressively threatened. This paper seeks to ask the way forward to ensure sustainable conservation amidst increasing poverty, population increase and conflict in regions with endemic species. The study highlights some field experiences and pressing issues threatening the existence of the Niger Delta Red Colobus monkey in Apoi creek forest reserve.

2. Materials and methods

The Apoi Creek forest reserve is located in the central part of the Niger Delta in Bayelsa State (carved out of the former River State), in the central Niger Delta. It is located in the old Koluama Divison (latter Southern Ijaw Local Government Area) and bounded by Gbaraun and Paratubo to the North, Okubie and Lobia to the East, Apoi Creek to the South and Ekinigbene/Kokologbene village to the West. The land area is 29 213 ha with an elevation of 2–4.5 m. a.s.l. It is mainly of marsh and mangrove forests as well as fresh water swamps. It is very significant due to the presence of populations of fauna life, most particularly the endemic Niger Delta Red Colobus monkey [11].

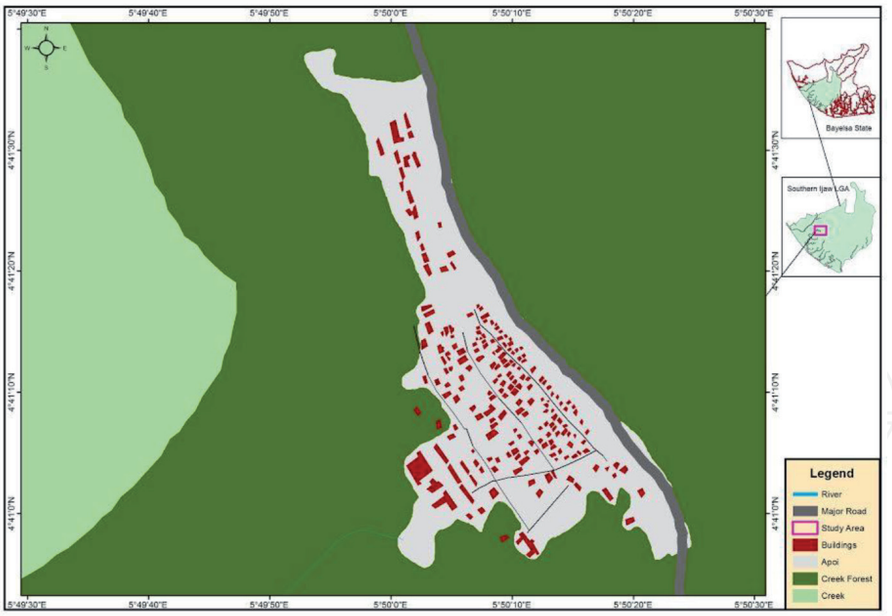

Figure 1.
Apoi creek forest with major road/river.

The study adopted an observational and socio-economic procedure in data collection. Mixed methods of data collection as recommended by Malgosia et al. (2013) was used in data collection, and these include combining data from surveys, document reviews, and information from key informants (**Figure 1**).

3. Results and discussion

The survey discovered that as a result of intense hunting and deforestation at the creek, there was no species of the Niger Delta red colobus monkey present after a three days survey of the Gbaraun axis of the reserve. Although in the 1990s, visitors to the forests near the town of Gbanraun observed *P. epieni* relatively easily [7]. It was also reported that the Werre [12] estimated the entire population of *P. epieni* may have fallen below 10,000 individuals. However, a more recent study by Ikemeh (2015) estimated the population of Epieni to be more or less than 200 individuals. Ikemeh (2015), findings also revealed that there was presence of the species in the Gbaraun axis of the forest, although they were unable to site any individuals directly only report from communities. This study however, did not observe any species even though report gathered from the community confirmed their presence. It was also observed that people who claimed to see and are knowledgeable of the species were folks of age between the range of 40–50 years and above, those below this age range have not seen or heard about the species. Other species like Aliigator, birds and Mangabey monkey (*Cercocebus torquatus*) were sited. There were more than five logging points at the location, leaving the forest with little or no trees and as a result rendering wildlife species especially the Niger Delta red colobus money homeless. An unfortunate situation during the survey happened when the supposedly individual that the community chiefs suggested to go with me during the survey (from the Gbaraun village), left me at the center of the forest to kill a mother of Mangabey monkey with its infant who narrowly escaped death as the bullet happened to hit the infants' eye (see **Figures 2–4**). His reason was income to take care of his family! With what he did, it was concluded that the forest is in serious threat and in no time, there would not be a single wildlife species let alone the endemic

Figure 2.
Apoi forest.

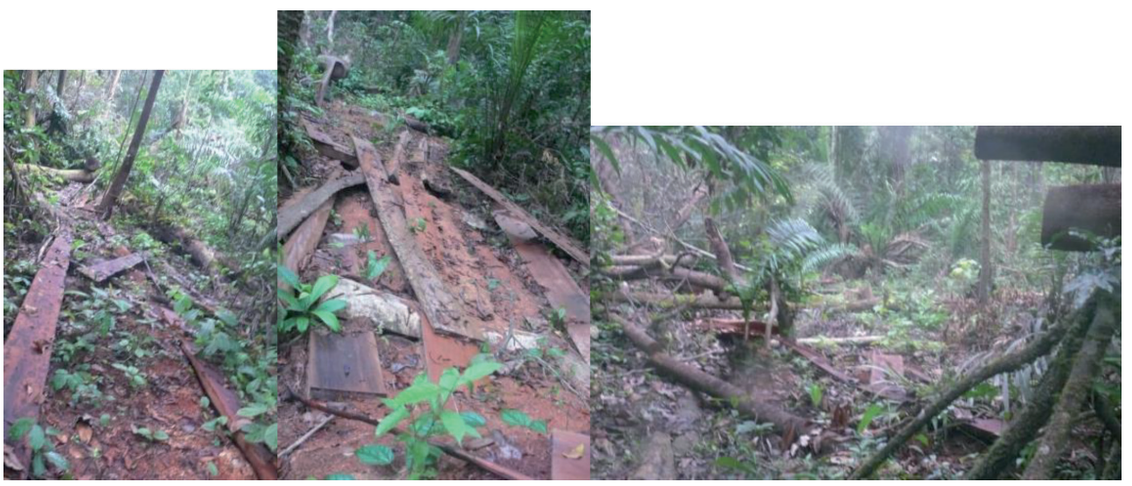

Figure 3.
Logging activities at different locations within the Apoi creek.

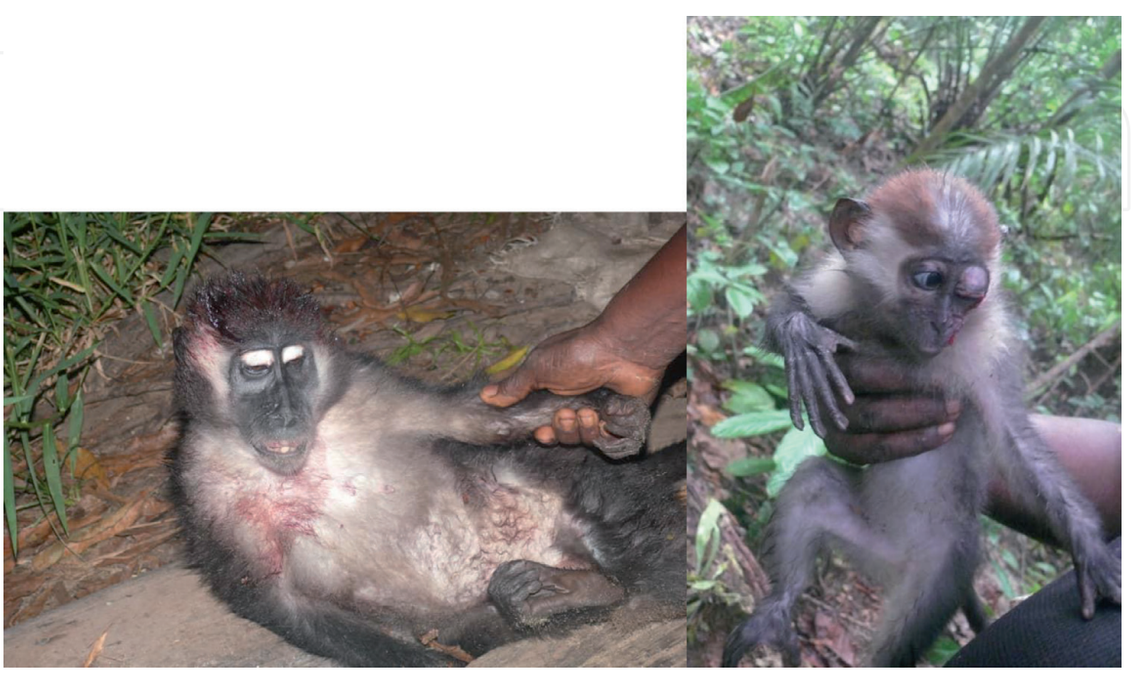

Figure 4.
Mother and infants of a Mangabey monkey shot by the guard that was supposed to guide the researcher.

species in the reserve. The implication is, there is no fear of state government or fear that I could report him to a body that would not even implement the law.

This experience is just a measure of many of Africa's problems. The growing population, conflicts between different ethnic groups, national political instability, and unsustainable exploitation of natural resources are all the problems affecting conservation in the area. Roger (2007), highlighted some basic problems frustrating research effort in the area which he listed to be lack of development, electricity only in a few of the Delta's towns and absent of fresh water and health care facilities as well as the kidnappings.

The human population of the Niger Delta is growing rapidly, with the result that most of the natural resources (for example, fish and timber) there have either been reduced to a level where they are insufficient to meet the local needs, or have been depleted altogether. As a result, the only local large scale economic activity that provides cash comes from the exploitation of the Delta's other natural resource; trees. From experience and observation during the course of this study, the following was observed to be the major problem militating against conservation:

- Access route to the location: The route to the creek is basically by water with several check point owing to the frequent occurrence of sea pirate. Furthermore, the location of the forest cannot be surveyed successfully during the peak of wet season due to the terrain which is highly water-logged. It is practically inaccessible on foot only by speed boat and this could limit thorough survey during wet season because of a lot of thickets and climbers' species that could prevent easy see through within the forest.

- Security: The location as record of several kidnapping occurrences, there were numerous check points on water along the route to the forest which implies that the location is not safe for researchers especially non indigene. Apart from this, communities have conflicting issues regarding the boundary of the forest.

- Lack of awareness: most of the youth are not aware of the importance of the forest when it comes to the rare wildlife being housed by the forest. The forest is important to them because of the oil and timber. To them, wildlife is bush meat! Report from this survey is evident that if nothing is done urgently to protect the forest, the endemic species will be history as it is already happening where no single species can be found where they were once many.

4. Conclusion

The study was conducted as a follow-up on the current status of the critically endangered species, Niger Delta red colobus monkey in one of its location where it was reported to be sighted in the Gbaraun axis of Apoi creek. The survey discovered that they are not present in the said location owing to intense timber extraction and hunting. This is presumed to be worse because of the insecurities in the area that has prevented researchers and possibly the state government to implement any form of enforcement. Further research is strongly encouraged because of the ever increasing threat on the forest.

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