

THE CHIMPANZEES AND OTHER PRIMATES OF OMO FOREST RESERVE

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Omo Forest Reserve is one of six contiguous forest reserves protecting the last remnant of lowland tropical forest in Ogun State, Nigeria. The reserve is known to have a rich fauna (Anon, 1992; Anon 1994; Johansen 1994a), including endangered species like West African Chimpanzee, Nigerian White-Throated Monkey and Forest Elephant, together with the vulnerable Red-Capped Mangabey (Kingdon, 1997).

Due to lack of adequate protection and, in some cases, poor implementation of the rules regulating activities within the reserves, these species and their habitat are threatened by logging, poaching and encroaching farmland.

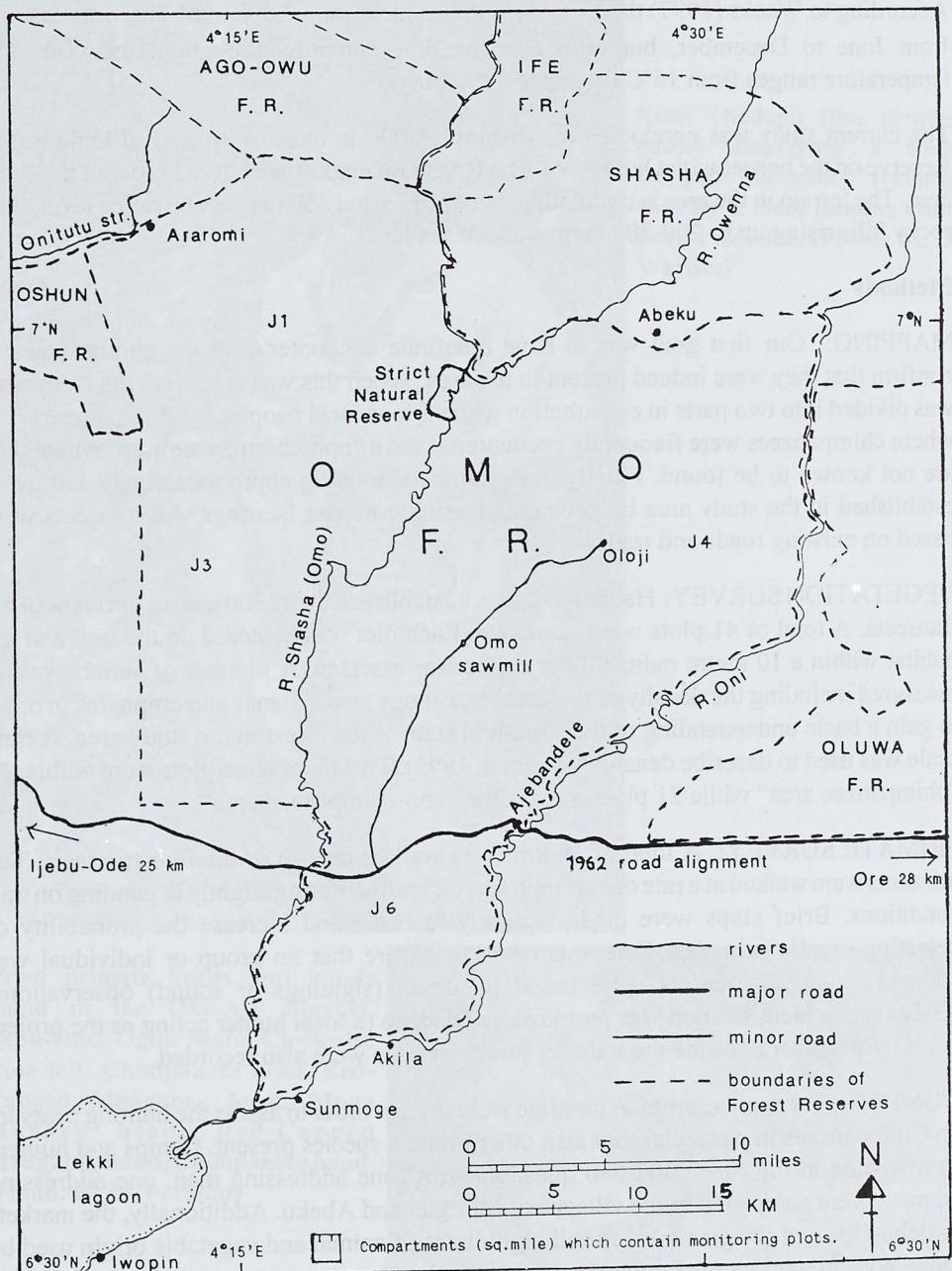
This article makes a short evaluation of the current state of part of the area where West African Chimpanzee is known to be found.

Study area

The Omo Forest Reserve is located in southwestern Nigeria (only 135 km north east of Lagos). It is bordered by the rivers Osun, Oni, Sasa, Owena and divided by the Omo. The total area covers about 1305 km². More than half of this is mature secondary lowland tropical moist forest, with small pockets of primary forest along the rivers, on hilltops and in ravines. Within this area there is a Strict Natural Reserve, a Biosphere Reserve and a Biosphere Extension Area. The rest of the reserve consists of *Gmelina arborea* plantation plus enclaves.¹

According to Amador and Uijtewaal (1997) the total human population in Omo Forest Reserve is approximately 20,000 inhabitants, living within twenty enclaves. The communities are very dispersed and are mainly on the periphery of the forest, either in small camps or villages with up to a few thousand inhabitants. Few people are indigenous to the area. Most are probably Yoruba, but the rest of the population has a diverse background. During the dry season, there is a temporary influx of Hausa from the north, Igbo from the east and also non-Nigerians, mainly Ghanaians. There are four timber camps and one small town in the areas J1, J3 and J4.

¹Enclaves are defined areas within the Reserve that are excluded from the Reserve Order, and which contain (or formerly contained) human settlements.



Map showing position of Omo Forest Reserve

According to Weeks (1997) the annual rainfall is more than 2,000 mm. The wet season is from June to December, but rains continue intermittently throughout the year. The temperature ranges from 15°C (night) to 38°C (day).

The current study was conducted in November 2000 in the eastern part of Omo Forest Reserve on the border with Ondo State. The River Oni marks the eastern border of the study area. The terrain in the area is undulating, between 15 and 150 metres above sea level, with rocky hills rising up to 200-300 metres above sea level.

Methods

MAPPING: Our first goal was to have a definite encounter with the chimpanzees to confirm that they were indeed present in the area. When this was achieved, the study area was divided into two parts in consultation with various local people: A "chimpanzee area" where chimpanzees were frequently encountered and a "non-chimpanzee area" where they are not known to be found. Finally, four transects, totaling approximately 12 km, were established in the study area by pacing and using compass bearings. All transects were based on existing roads and trails.

VEGETATION SURVEY: Habitat plots were established every 300 metres throughout the transects. A total of 41 plots were examined. Each plot was centered on the trail and the habitat within a 10 metre radius of the centre was assessed. A number of variables were measured including the density of undercover, canopy cover, lianas and epiphytes in order to gain a basic understanding of the structural state of the forest in the study area. A rank scale was used to describe densities (Barnett, 1995). Twenty of these plots were within the "chimpanzee area" while 21 plots were in the "non-chimpanzee area".

PRIMATE SURVEY: A total of 18 km were walked on two of the four transects. The transects were walked at a rate of approximately 2 km/h differing slightly depending on trail conditions. Brief stops were made regularly to listen and increase the probability of detecting cryptic primates. Care was taken to ensure that no group or individual was counted twice. Encounters were based on direct (sightings or sound) observations. Assistance in identification was provided by Oladepo (a local hunter acting as the project guide). Encounters outside the transect survey periods were also recorded.

HUNTING: As many sources as possible were used in order to assess the hunting pressure on Chimpanzees in particular, but also other primate species present. Camps and hunters were visited in the forest and two questionnaires (one addressing men, one addressing women) were completed in the villages of Idi Egun and Abeku. Additionally, the markets in Ijebu-Ode and Shagamu which sell ingredients of animal and vegetable origin used by indigenous practitioners of medicine were visited and past reports on hunting activities in the area were consulted (e.g. Johansen, 1994b).



Remi Oladepo (the project guide) displaying a Red-Capped Mangabey recently shot by a local hunter, Omo Forest Reserve. (Photo: M. D. Warner)

Dried primate heads and hands found in the Oke-Aje Market, Ijebu-Ode, Ogun State. Clockwise from left: Chimpanzee head, Red-Capped Mangabey head, Mona Monkey head, Red-Capped Mangabey hand, Chimpanzee hand. (Photo: H. M. Persson)



Results

VEGETATION SURVEY: The results in Table I suggest that the "chimpanzee area" is characterized by sparse undercover and fairly dense canopy cover together with large amounts of lianas and several epiphytes. In contrast the "non-chimpanzee area" is characterized by dense undercover and sparse canopy cover with few lianas and even fewer epiphytes present.

Table 1. Percentage (%) of habitat plots with different rankings of habitat variables

Habitat Variables	Chimpanzee Area				Non-Chimpanzee Area			
	0	1	2	3	0	1	2	3
Density of Undercover	3	42	33	22	5	14	29	52
Canopy Cover	18	30	37	15	17	45	33	5
Lianas	0	40	18	42	5	59	26	10
Epiphytes	50	28	20	3	62	31	5	2

0=absent, 1=sparse, 2=moderate, 3=dense

PRIMATE SURVEY: Five primate species were encountered during the two week survey period (Table 2).

Table 2. Number of encounters with the primate species present.

English name	Scientific name	No. Encounters
West African Chimpanzee	<i>Pan troglodytes verus</i>	7
Mona Monkey	<i>Cercopithecus mona</i>	16
Putty-Nosed Monkey	<i>Cercopithecus nictitans</i>	15
Nigerian White-Throated Monkey	<i>Cercopithecus erythrogaster</i>	4
Red-Capped Mangabey	<i>Cercocebus torquatus</i>	2

Encounters were by direct sightings or hearing vocalization/characteristic movement

Primates were encountered in mixed groups on four occasions. On two occasions Mona Monkeys and Putty-Nosed Monkeys were found together, on one occasion Mona Monkeys, Putty Nosed Monkeys and Nigerian White-Throated Monkeys, and once Mona Monkeys

and Red-Capped Mangabeys.

HUNTING: One dried Chimpanzee head and two dried hands together with heads and hands from several other primate species were found in the Oke-Aje Market in Ijebu-Ode. Also three dried Chimpanzee heads were on display in a market in Shagamu (Aleke, pers.comm.). No killed Chimpanzees were found in the forest or at the hunting camps visited. None of the villagers consulted admitted to hunting Chimpanzees, but they all claimed that hunters from other villages and even from Osun State were hunting Chimpanzees in the area. All other primates are clearly intensively hunted for bushmeat.

Discussion

Broadly, the results of the vegetation survey suggest that Chimpanzees prefer less disturbed forest, which is of concern as the area is greatly threatened by logging activities. The Chimpanzees were sighted in two trees less than 14 metres away from one of the many logging roads. These trees were identified as Eru (Yoruba) *Pachyelesna tessmanii* and Eku (Yoruba) *Brachystegia nigerica*. Both of these species are known to be commercially viable timber species (Weeks, 1997), which suggest further pressure to the Chimpanzees' habitat.

The destruction of the habitat is also a threat to other primate species in the area. Mona Monkeys and Putty-Nosed Monkeys were encountered many times in such a short study period (Table 2). Both species are described as generalists and adaptable (Kingdon, 1997) and therefore they are able to survive in high numbers in the study area. In contrast, Red-Capped Mangabeys were encountered much less (Table 2) and the species has been described as being "incompatible with intensive cultivation and is disappearing from all areas where agricultural expansion is occurring" (Kingdon, 1997). Certainly, this area of Omo Forest Reserve contained a high number of plantations created from cleared forest. Also intense hunting pressure on this species has been described (Kingdon, 1997), and this pressure within the study area is clear. Encountering the highly endangered Nigerian White-Throated Monkey on four occasions during the short study period (Table 2) suggests that they may still be found in reasonable densities within the study area. Much further study is required but the possible importance of the Omo population of this species should be highlighted.

Conclusions

At least one group of Chimpanzees is found in the study area. The study shows that logging activities in the area are likely to be the most serious threat to the Chimpanzee population through disturbance and habitat alteration. Also the increasing encroachment of farmland into their range is an issue both for Chimpanzees and the other primate species present. The level of hunting of Chimpanzees is unclear but there is no doubt that it does occur. As for the other primate species present they all appear to be intensively hunted. The area in which

the Chimpanzees are found is not part of the Biosphere or Strict Natural Reserve. The conclusion must therefore be that the Omo Forest Reserve needs improved and more complete protection. In the areas that are already protected, it is of great importance that the implementation of rules regulating the activities is improved. The need for improved and more complete protection of the Omo Forest Reserve has been highlighted previously with reference to the highly endangered Nigerian White-Throated Monkey (Lee *et al.*, 1988). The population of Nigerian White-Throated Monkey found in Omo Forest constitutes one of the last in the world, with only scanty populations remaining in southwestern Nigeria and southeastern Benin. The current study was only a preliminary investigation of the situation for the Chimpanzees and other primates present in the Omo Forest Reserve. There is a great need for more detailed study of this important and often overlooked area. With the presence of such a diverse and important primate community, including the West African Chimpanzee and Nigerian White-Throated Monkey, the importance of the Omo Forest Reserve should be recognized and given the support it requires.

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