



**AFI MOUNTAIN WILDLIFE SANCTUARY  
CYBERTRACKER QUARTERLY PATROL REPORT:  
OCTOBER - DECEMBER 2014**



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## **Summary**

This report presents results of 17 anti-poaching and wildlife monitoring patrols in Afi Mountain Wildlife Sanctuary (AMWS) during October to December 2014 including a reconnaissance survey of two adjoining areas – the Olum Hills and Kakwagwom-Bitiah community forest. The patrols were carried out by Cross River State Forestry Commission (CRSFC) rangers and facilitated by the Wildlife Conservation Society (WCS). The reconnaissance survey was conducted to investigate the presence of gorillas and chimpanzees in two areas where great ape presence had been previously recorded but no recent surveys have been conducted. The patrols and reconnaissance survey covered a total distance of 536 kilometers in 98 patrol days (738 hours). Data were collected using handheld PDAs running CyberTracker software (two units used in October and November and three in December). During the period 6 poachers were apprehended, 25 gunshots were heard, 341 wire snares and 102 expended cartridges were removed. A total of 12 hunting camps encountered were dismantled and 75 new farms were recorded with some existing ones expanding. For great apes, 8 gorilla nest sites, 6 chimpanzee nest sites and one unidentified nest site were recorded. Evidence of the presence of gorillas and chimpanzees was recorded in the Olum Hills but not in the Kakwagwom-Bitiah forest. 1 gorilla nest site and 5 chimpanzee nest sites were also recorded in the Olum Hills. More extensive surveys of the area will be conducted in subsequent months to gain a better understanding of the current status of the Kakwagom-Bitiah forest with regard to its use by gorillas. In 2006, following reports of crop-raiding by gorillas, WCS conducted a reconnaissance survey of the area which confirmed the presence of gorillas, noting the rapid loss of habitat in the area. A high level of human activity was recorded in both areas during the survey, especially in the Kakwagom-Bitiah forest. In addition to hunting, forest conversion to farms poses a serious threat to the Kakwagom-Bitiah forest and requires urgent attention. During the period WCS also facilitated the training of 32 ex-hunters selected from 16 communities surrounding the Afi Mountain Wildlife Sanctuary on bee keeping as part of ongoing efforts to reduce hunting pressure on the sanctuary.

## **Methods**

To increase effectiveness, patrol plans and route were based on experience and information provided by informants in villages. Patrol teams walked assigned areas, spending 7-9 nights per patrol. To effectively clear each patrolled area of wire snares and hunting camps, and apprehend poachers encountered, the “sweep” method was used. Two patrols in November were dedicated to surveying two adjoining areas, the Olum Hills and Bitiah/Kakwagom forest, where the presence of great apes has previously been recorded, to investigate continued use of the area by great apes. Two teams searched the Olum Hills and Kakwagom-Bitiah community forest simultaneously over 8 days from 6-19 November 2014 for gorilla signs and signs of human activity. Signs of other wildlife were also recorded in all patrols. Geo-referenced data were collected using hand-held computer devices running CyberTracker. With expected increase in hunting activity over the Christmas and New Year period, patrols in December were expanded and extended. Data were collected using handheld computers running CyberTracker software which automatically records GPS coordinates for every observation. Data were analyzed using CyberTracker software and Excel.

## **Results**

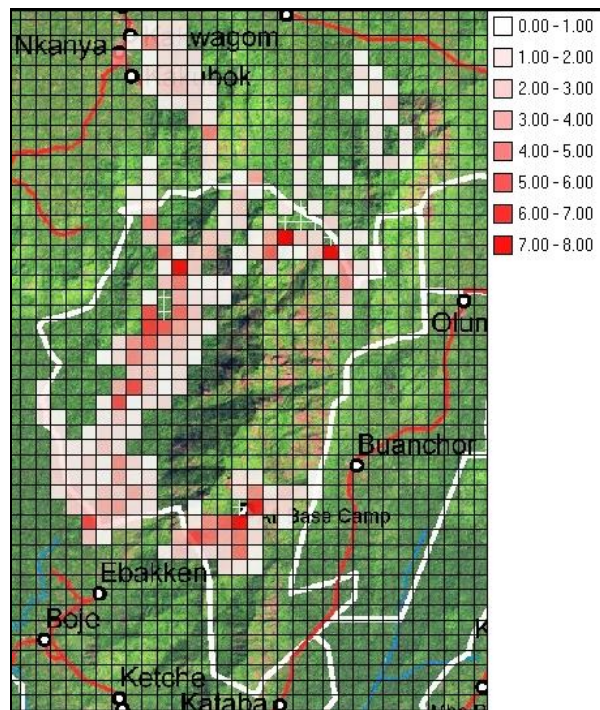
During the reporting period 112 patrol days were planned and completed, but only 98 were completed using CyberTracker, data for 14 patrol days were collected using note books. The patrols covered a total distance of 536 kilometers in 738 hours. Patrol dates and coverage is presented in Table 1 and Figure 1 below. The presence of gorillas and chimpanzees was confirmed in the Olum Hills but not in the Bitiah/Kakwagom forest. A total of 16 survey days were completed (8 in each of the two areas) covering

a total distance of 56 km. One gorilla nest site and five chimpanzee nest sites were recorded in the Olum Hills. No ape signs were recorded in the Bitiah-Kakwagom forest. One group each of Mona and white-nosed monkey were also sighted in the Olum Hills. Several farms were recorded in both areas, but especially in the Bitiah/Kakwagom area. Numerous hunting signs were also recorded (Tables 2 and 3). WCS trained 32 ex-hunters from 16 communities surrounding the sanctuary in beekeeping, with the clan heads of Boje and Abo clans participating in the training. In addition to the training they were each provided 5 bee hives and harvesting gear.

**Law Enforcement**

During the quarter, six poachers were apprehended in the Esekwe axis of the sanctuary (Denis Akabashu, Linus Onabe, Francis Mkpe, Ferdinand Mgbang, OcheAtim and Super Mkpe, all Esekwe indigene). Another hunter (refused to provided name) identified as a worker hired by one Ferdinand Ejah from Esekwe community was also encountered during the patrols. Though he claimed to be returning from his farm, the team discovered one shotgun, one cutlass, one carcass of porcupine and one carcass of pangolin carefully concealed in his sac. The items were all confiscated. In all, two shotguns, five cutlasses, several smoked carcasses of porcupine (8), blue duiker (1), pangolin (1) and giant rat (3) were confiscated from apprehended hunters. Because the team could not make contact with either of the patrol coordinators at the time, they hunters were reported the Esekwe community chief. The CRSFC Coordinator is expected to liaise with the community to decide on the appropriate action to be taken against the culprits. Other hunters encountered during the patrols include a gang of seven hunters believed to come from Bitiah. On sighting the patrol team, they fled. The patrol team pursued them and made sure they were out of the sanctuary. Yet another gang of six hunters was pursued out of the sanctuary at the Kakubok/Nkanya axis. All the hunting camps encountered except those found outside the sanctuary were destroyed.

**Patrol Effort in Afi Mountain Wildlife Sanctuary: October - December 2014**



**Figure 1:** Patrol effort. Grids with brighter red color and +sign represent areas with greater patrol effort (distance covered).

**Table 1:** Areas covered during the period October - December 2014

Patrol	No of patrol days	Dates	Locations
1	8	6 -15/10/14	Base camp/down Katche axis
2	8	6 -15/10/14	Kakubok/Nkanya axis
3	8	20 -19/10/14	Base camp/OTBC axis
4	8	20 -19/10/14	Esekwe camp axis
5	8	10 -19/11/14	Olum hills
6	8	10 -19/11/14	Bitiah/Kakwagom hill
7	8	22-30/11/14	Base camp axis
8	8	22-30/11/14	Njua/Epuase axis
9	7	8 -16/12/14	Base camp axis
10	7	8 -16/12/14	Esekwe camp
11	7	8-16/12/14	Kakubok/Nkanya axis
12	6	17-24/12/14	Boje/Njua lowland axis
13	6	17-24/12/14	Nkanya/Epuase axis
14	6	17-24/12/14	Esekwe/“Oh My-God” axis
15	3	27 -30/12/14	Base camp/“08” axis
16	3	27 -30/12/14	Esekwe camp axis
17	3	27 -30/12/14	Kakwagom axis
Total	112 <sup>1</sup>		

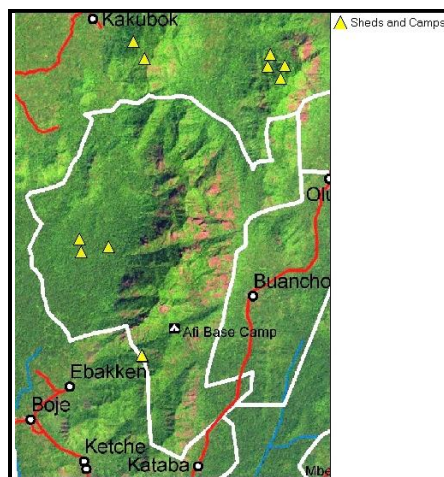
<sup>1</sup>112 patrol days were planned and completed, but only 98 were completed using CyberTracker, data for 14 patrol days were collected using note books.

### Human Activity

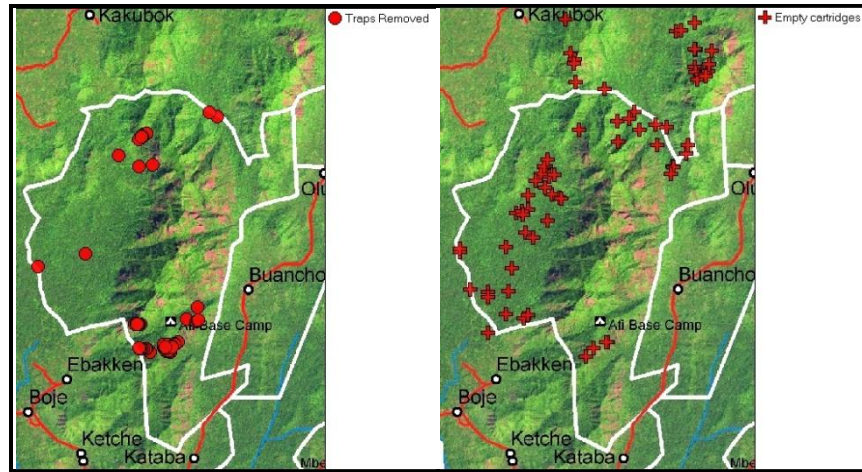
**Table 2:** Hunting signs recorded in the sanctuary during patrols from October - December 2014.

Sign	Number of observations	Encounter rate/km
Gunshots heard	25	0.08
Wire snares	341*	1.20
Empty cartridges	102*	0.11
Hunting camps	12	0.36

\*No of pieces of each sign observed.



**Figure 2:** Location of hunting camps destroyed during patrols from October - December 2014.



**Figure 3:** Distribution of all wire snares and expended cartridges found during the patrols

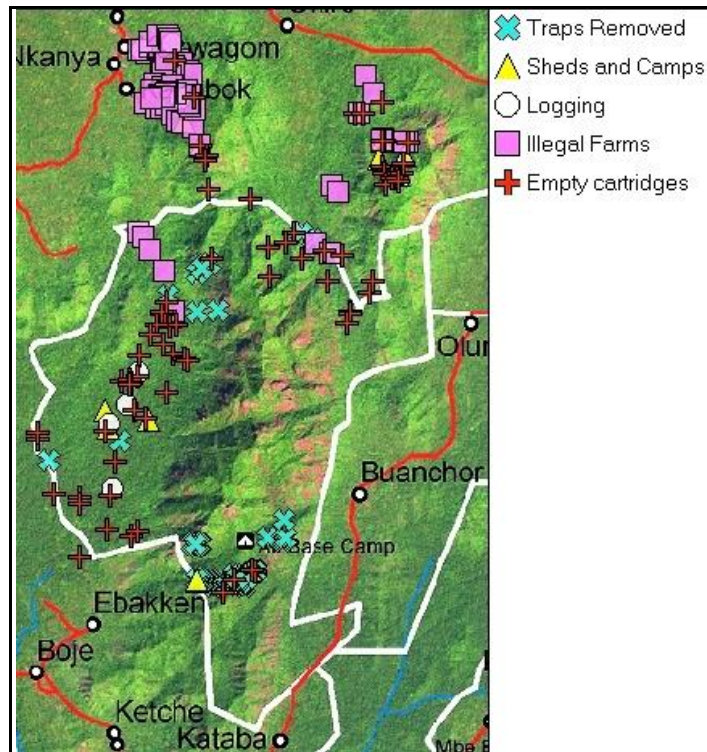
All empty cartridges (recently expended) and wire snares found in the sanctuary were removed. Removing wire snares is a major focus of patrols in the sanctuary. Hunting sheds found in the sanctuary were also dismantled.

**Table 3:** Encounter rate of signs of human activity recorded during October - December 2014

Activity	No of observations*	Encounter rate/km
Hunting	209	0.740
Farming	74	0.260
Shed or camp	12	0.040
Logging	8	0.030
Illegal path use	7	0.020
Clearing or burning	3	0.010
Cutlass mark	3	0.010
Fishing	2	0.007
NTFP Collection	1	0.004
<b>Total</b>	<b>319</b>	<b>1.121</b>

\*Number of times sign was encountered

Currently, hunting is the leading illegal human activity in the sanctuary. Majority of the farms and empty cartridges recorded during the patrols were found in the Olum Hills and Bitiah/Kakwagomforest, outside of the sanctuary where a reconnaissance survey was conducted in the month of November (Fig. 4). Because no concrete action has ever been taken to address farm encroachment into the sanctuary, new farms are expected to be cleared as a new farming season approaches especially in the lowland areas and the periphery of the sanctuary.



**Figure 4:** Distribution of all signs of human activity recorded during patrols October - December 2014

**Wildlife observations**

Wildlife monitoring was not the main focus of the current patrols. However, fresh signs of wildlife encountered were recorded.

*Great Apes*

Great ape nest sites encountered include 8 gorilla nest sites, 6 chimpanzee nest sites and 1 unidentified nest site. Fresh signs such as dung, feeding remains and trails of great ape were also recorded.

*Other wildlife*

Porcupine, blue duiker, red river hog and Mona monkey signs were the most abundant (Appendix 2). Very few animals were sighted. The most frequently sighted species was Mona monkey (sighted on 16 different occasions). Other sightings include 7 groups of drill and white-nosed monkey respectively, each group consisting of 15-30 individuals, 1 bay duiker, 6 blue duikers and 13 groups of mongoose consisting of several individuals.

**Table 4:** Chimpanzee nest sites recorded October – December 2014

Date	Latitude	Longitude	Nest site age	Total nests	Tree nest	Dung present
10/9/2014	6.3161973	8.9872417	Fresh	2	2	Yes
11/11/2014	6.4224417	9.0166917	Recent	1	1	No
11/11/2014	6.4214567	9.016425	Recent	3	3	No
11/11/2014	6.420635	9.0165183	Recent	2	2	No
11/13/2014	6.3981767	9.00732	Old	3	3	No
11/13/2014	6.3983583	9.00766	Very old	5	5	No

N/B. Fresh (1-3 days), Recent (4-7 Days), Old (1-4 Weeks), Very old (1month-above)

**Table 5:** Gorilla nest sites recorded October–December 2014

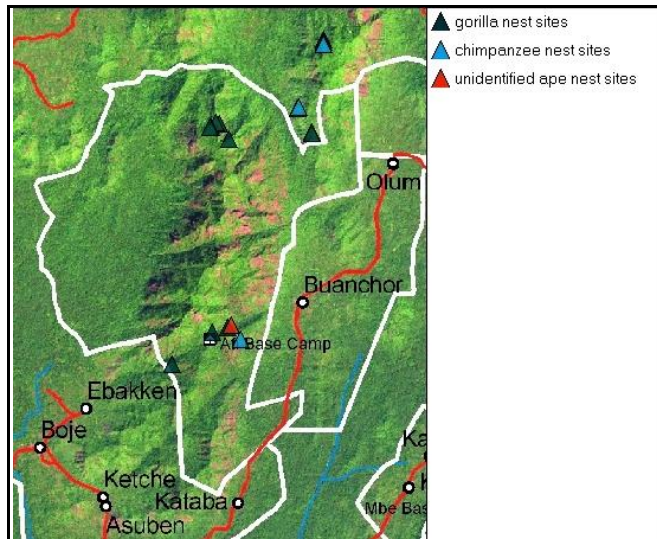
Date	Latitude	Longitude	Nest site age	Total nests	Ground	Tree nest	Dung present
10/11/2014	6.3185102	8.9769328	Recent	1	1	0	Yes
10/11/2014	6.3200788	8.9824103	Fresh	1	1	0	Yes
10/22/2014	6.3870285	8.982756	Very old	2	2	0	No
10/23/2014	6.3927493	8.979557	Old	4	1	3	Yes
10/23/2014	6.393141	8.978152	Old	5	0	5	Yes
10/23/2014	6.3912502	8.9760135	Very old	1	1	0	No
11/15/2014	6.3894917	9.0124117	Recent	4	0	4	Yes
11/23/2014	6.3073317	8.9628377	Fresh	1	0	1	Yes

N/B. Fresh (1-3 days), Recent (4-7 Days), Old (1-4 Weeks), Very old (1month-above)

**Table 6:** Unidentified great ape sites recorded October–December 2014

Date	Latitude	Longitude	Nest site age	Total nests	Tree nest	Dung present
10/11/2014	6.3210418	8.9837075	Fresh	1	1	No

N/B. Fresh (1-3 days), Recent (4-7 Days), Old (1-4 Weeks), Very old (1month-above)



**Figure 5:** Distribution of great ape nest sites October– December 2014

## **Challenges**

The non-payment of arrears of allowances owed to community rangers for nine months now (April-December 2014) is affecting their attitude to work and making management of the Afi CyberTracker project very difficult. Lack of a functional vehicle for AMWS is a serious hindrance to law enforcement.

## **Recommendations**

1. Unpaid allowances owed to community rangers (9 months, April - December 2014) should be paid immediately.
2. The issue of illegal farms in the sanctuary should be addressed without further delay.
3. A functional vehicle is needed to facilitate law enforcement and patrol team deployment.
4. Sanctuary boundaries should be cleared and demarcated. Boundary beacons are currently being located by patrol teams.



**Appendix 1. Patrol Effort Statistics October-December 2014**

<b>Date</b>	<b>No of observations</b>	<b>Patrol days</b>	<b>Distance covered (km)</b>	<b>Time taken (hr)</b>	<b>Start time</b>	<b>Stop time</b>
10/7/2014	28	2	2	2	10:10:22	14:58:10
10/8/2014	28	2	13	17	8:03:32	16:32:48
10/9/2014	40	2	11	19	7:14:06	16:30:27
10/10/2014	67	2	14	19	7:13:25	16:34:44
10/11/2014	59	2	12	18	7:12:28	16:08:43
10/12/2014	57	2	12	18	7:15:39	16:20:10
10/13/2014	52	2	12	18	7:05:56	16:06:39
10/14/2014	26	2	9	13	7:24:31	14:18:00
10/21/2014	35	1	4	10	7:46:14	18:23:52
10/22/2014	28	1	6	9	6:33:40	15:59:37
10/23/2014	20	1	6	10	7:49:09	18:03:10
10/24/2014	22	1	5	11	6:21:34	17:13:10
10/25/2014	24	1	6	10	7:09:06	17:30:44
10/26/2014	13	1	3	8	6:18:07	14:14:29
10/27/2014	33	1	9	9	8:09:09	16:52:36
10/28/2014	18	1	4	8	6:22:20	14:04:44
11/11/2014	76	2	12	15	8:19:14	15:34:44
11/12/2014	29	2	9	8	8:47:11	12:41:35
11/13/2014	39	2	5	11	9:11:15	14:55:39
11/14/2014	40	2	9	14	9:00:31	15:47:15
11/15/2014	41	2	10	16	8:22:55	16:27:14
11/16/2014	14	1	4	4	6:46:07	11:02:24
11/17/2014	15	1	3	7	8:34:24	15:33:46
11/18/2014	9	1	4	6	8:13:10	14:03:00
11/22/2014	5	1	4	8	6:40:30	15:08:10
11/23/2014	30	2	15	14	8:01:49	15:01:59
11/24/2014	27	2	7	13	9:03:17	15:38:18
11/25/2014	32	2	10	14	9:05:36	15:56:35
11/26/2014	36	2	9	18	7:13:35	16:23:02
11/27/2014	24	1	6	7	8:08:02	15:33:15
11/28/2014	15	1	7	6	9:48:52	15:44:54
11/29/2014	20	1	4	6	9:30:37	15:48:36
11/30/2014	15	1	6	5	9:27:56	14:51:49
12/9/2014	66	3	14	21	9:07:43	16:02:45
12/10/2014	81	3	16	25	7:46:08	16:10:06
12/11/2014	86	3	19	24	7:45:21	17:27:56
12/12/2014	72	3	22	24	8:08:41	16:18:09
12/13/2014	67	3	14	23	7:43:27	15:33:31
12/14/2014	65	3	18	25	7:18:18	15:33:42
12/15/2014	51	3	16	21	7:34:13	14:28:56
12/18/2014	52	3	17	22	8:49:11	16:09:34
12/19/2014	55	3	21	25	7:35:02	15:56:28
12/20/2014	61	3	21	25	7:44:47	16:05:23
12/21/2014	65	3	18	25	7:38:13	15:55:49
12/22/2014	66	3	18	26	7:44:13	16:22:07
12/23/2014	43	3	17	20	7:58:54	14:37:27
12/27/2014	70	3	16	21	7:49:47	14:51:15
12/28/2014	64	3	21	24	8:14:28	16:18:16
12/29/2014	66	3	14	17	7:54:07	13:37:26
<b>Total/average</b>	<b>2047</b>	<b>98</b>	<b>536</b>	<b>738</b>	<b>8:05:25</b>	<b>15:39:31</b>

**Appendix 2:** Encounter rate of wildlife species observed during patrols October - December 2014

<b>Species/common names</b>	<b>Scientific names</b>	<b>No of observations</b>	<b>Encounter rates/km</b>
Porcupine	<i>Atherurus africanus</i>	508	01.790
Blue duiker	<i>Philantomba monticola</i>	161	0.570
Red river hog	<i>Potamochoerus porcus</i>	151	0.535
Mona monkey	<i>Cercopithecus mona</i>	99	0.351
Large duiker	-	85	0.301
Small duiker	-	53	0.187
Drill	<i>Mandrillus leucophaeus</i>	50	0.177
White nosed monkey	<i>Cercopithecus nictitans</i>	50	0.177
CR Gorilla	<i>Gorilla gorilla diehli</i>	32	0.113
Mongoose	<i>Crossarchus platycephalus</i>	32	0.113
Rock hyrax	<i>Procavia sp.</i>	30	0.106
Unidentified monkey	-	25	0.088
Medium duiker	-	16	0.056
Bay duiker	<i>Cephalophus dorsalis</i>	13	0.046
Nig.-Cam. Chimpanzee	<i>Pan troglodytes ellioti</i>	11	0.039
African buffalo	<i>Syncerus caffer</i>	10	0.035
Unidentified great ape	-	9	0.031
Genet	<i>Genetta genetta</i>	8	0.028
Unidentified duiker	-	6	0.021
Cane rat (grasscutter)	<i>Thryonomys sp</i>	4	0.014
African civet	<i>Civettictis civetta</i>	2	0.007
Pangolin	<i>Phataginus tricuspis</i>	2	0.007
Unidentified cat	-	2	0.007
Galago	<i>Galago sp.</i>	1	0.004
Common otter	<i>Lutra lutra</i>	1	0.004
<b>Total</b>		<b>1419</b>	<b>4.807</b>

**Appendix 3.** Results of the reconnaissance survey of Olum Hills and Bitiah/Kakwagwom forest

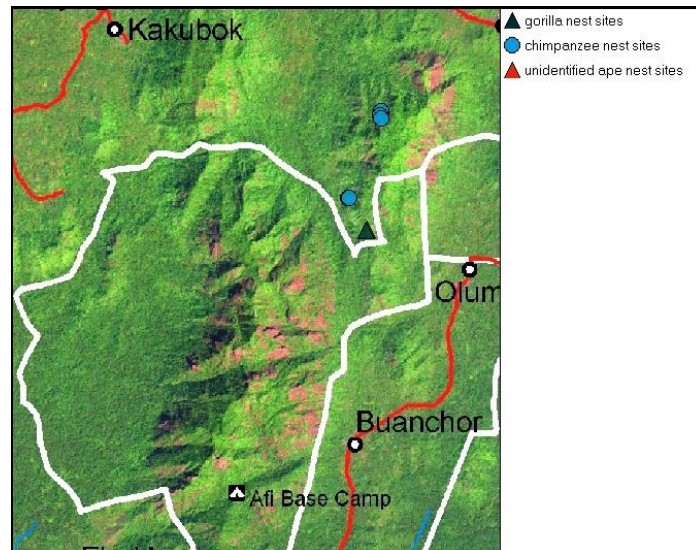
**Table A1.** Gorilla nest site recorded during the survey

Date	Latitude	Longitude	Nest site age	Number of nests	Presence of dung
11/15/2014	6.3894917	9.0124117	Old (1-4 weeks)	4	present

**Table A2.** Chimpanzee nest sites recorded during the survey

Date	Latitude	Longitude	Nest site age	Number of nests
11/11/2014	6.4224417	9.0166917	Recent	1
11/11/2014	6.4214567	9.0164250	Recent	3
11/11/2014	6.4206350	9.0165183	Recent	2
11/13/2014	6.3981767	9.0073200	Old	3
11/13/2014	6.3983583	9.0076600	Very old	5

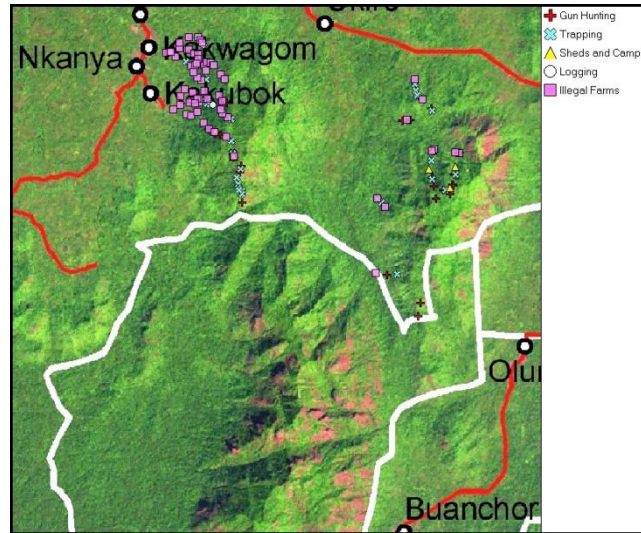
*Recent = 4-7 days, Old = 1-4 weeks, Very old =  $\geq$  1month*



**Figure A1.** Location of ape nest sites recorded during the reconnaissance survey of Olum Hills and Bitiah/Kakwagwom forest

**Table A3.** Human activities recorded during the reconnaissance survey of Olum Hills and Bitiah/Kakwagwom forest

Activity	No of observations	Encounter rate/km
Farming	68	1.21
Hunting	61	1.09
Camp	7	0.12
Logging	3	0.05
Total	140	2.47



**Figure A2.** Location of human activities recorded during the reconnaissance survey of Olum Hills and Bitiah/Kakwagwom forest