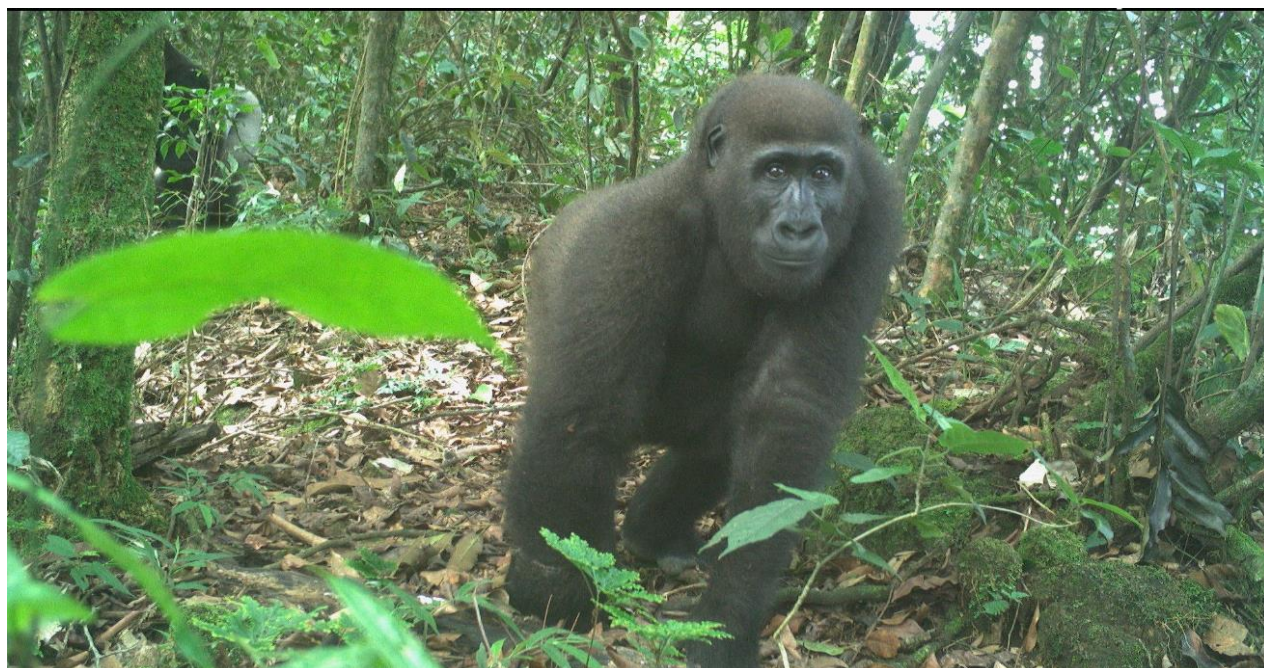




AFI MOUNTAIN WILDLIFE SANCTUARY QUARTERLY REPORT: APRIL-JUNE, 2021



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Summary

This report presents results of ranger patrols of Afi Mountain Wildlife Sanctuary (AMWS) conducted from April to June 2021 by the Wildlife Conservation Society (WCS). Twelve patrols were completed this quarter covering 410.2 kilometers over 76 patrol days (510 man-days). The patrols covered the Esekwe Camp, Base Camp, Nkayang-Kakubok, Kathe-Asuben, Olum Hills, Njua Lowland, Katabang, Buanchor-Drill Ranch, and Ebakken-Boje-Asuben sectors of the sanctuary. Four persons were apprehended – one for illegal logging and three for farming inside the sanctuary. Items confiscated include one chainsaw, petrol, and a motorbike. A total of 12 wire snares and 13 empty cartridges were removed. Six hunting camps were also dismantled. In addition to hunting signs, 41 illegal farms were also encountered, mostly in the Olum Hills, Buanchor, Njua lowland, Kakubok and Esekwe axes of the sanctuary. Great apes were not sighted directly during this period, but 7 nest sites were observed: six gorilla (*Gorilla gorilla diehli*), and one chimpanzees (*Pan troglodytes ellioti*). Monkeys sighted include Mona monkey *Cercopithecus mona* (24 sightings), putty-nosed monkey *Cercopithecus nictitans* (22 sightings); and drill *Mandrillus leucophaeus* (20 sightings). Other large mammals recorded include yellow-backed duiker (*Cephalophus silvicultor*), red river hog (*Potamochoerus porcus*), African civet (*Civettictis civetta*), blue duiker (*Philantomba monticola*), and brush-tailed porcupine (*Atherurus africanus*). In addition to regular patrols of the sanctuary, Gorilla Guardians trained and supported by WCS surveyed adjoining community forests in the Bitiah-Kakwagom-Kakubok, Esekwe-Ndemechang, Kathe-Asuben and Olum-Bubong areas to monitor gorilla presence. The Afi gorillas are known to occasionally move out of the sanctuary into these areas in search of food.

Methods

Four to six patrols were completed per month each lasting 8-10 days. The patrols targeted hotspots of illegal human activities determined based on data from previous patrols and intelligence gathered from surrounding communities. Offenders encountered were arrested and all wire snares and hunting camps found were destroyed. Data were collected and analyzed using SMART software. The patrols covered the Esekwe Camp, Base Camp, Nkayang-Kakubok, Kathe-Asuben, Olum Hills, Njua, Katabang, Buanchor-Drill Ranch, and Ebakken-Boje-Asuben axes sectors of the sanctuary (Figure 1, Table 1).

Results

Patrol effort

Twelve patrols were completed this quarter covering a total distance of 410.2 kilometres over 76 patrol days (510 man-days) (Figure 1; Table 1).

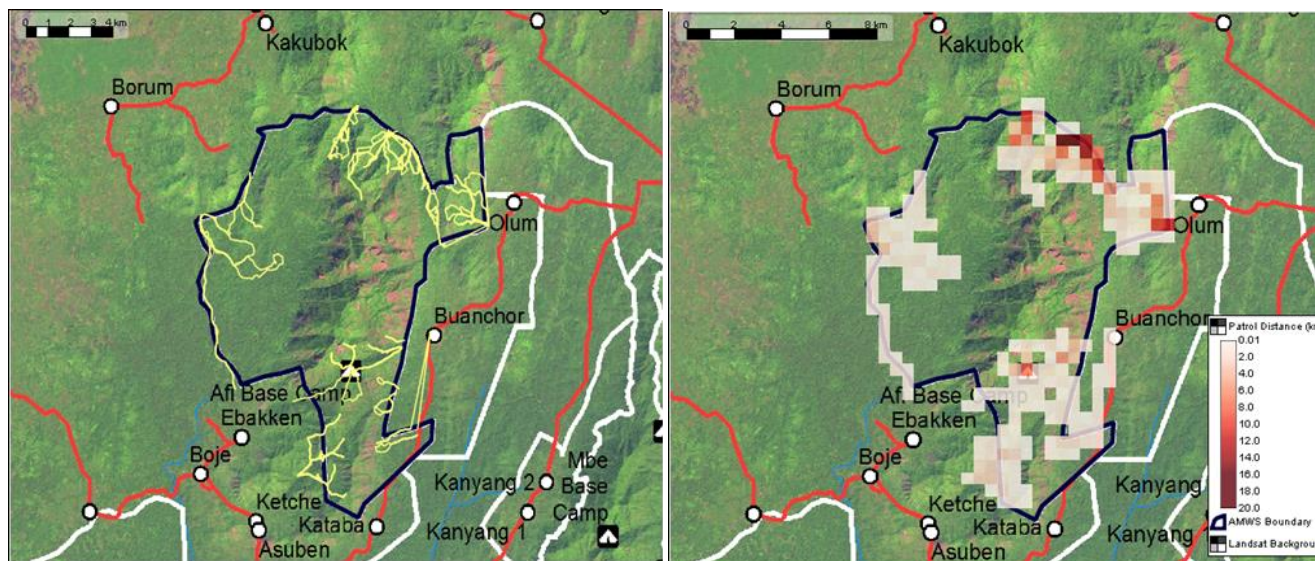


Figure 1. Patrol tracklogs and patrol effort in km walked per grid cell from April to June, 2021. Darker red color indicates areas of more intense patrol coverage.

Table 1. Summary of patrol effort by patrol area for the period April to June, 2021.

Area	Number of Patrols	Patrol Days	Patrol Hours	Distance (km)	Person - Days
Base Camp	2	11	68.6	39.6	66
Buanchor-Drill Ranch	1	7	38.9	31.3	42
Esekwe Camp	4	30	209.2	169.2	215
Ketyche-Asuben	1	5	29.5	31.1	30
Njua Lowland	1	6	29.5	48.8	35
Nkanyang-Kakubo	1	5	27.0	24.5	40
Olum Axis	2	12	95.5	65.7	82
Total	12	76	498.2	410.2	510

Average distance and length of patrols per month

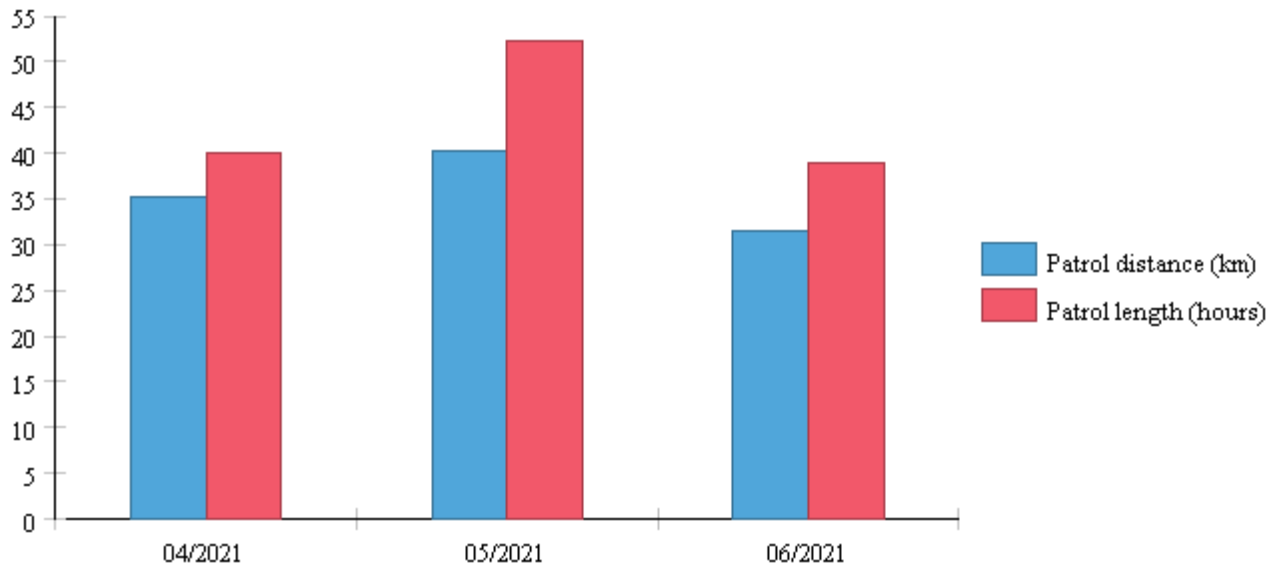


Figure 2. Average distance covered and time taken per patrol per month for the period April to June, 2021.

Total patrol distance and length per month

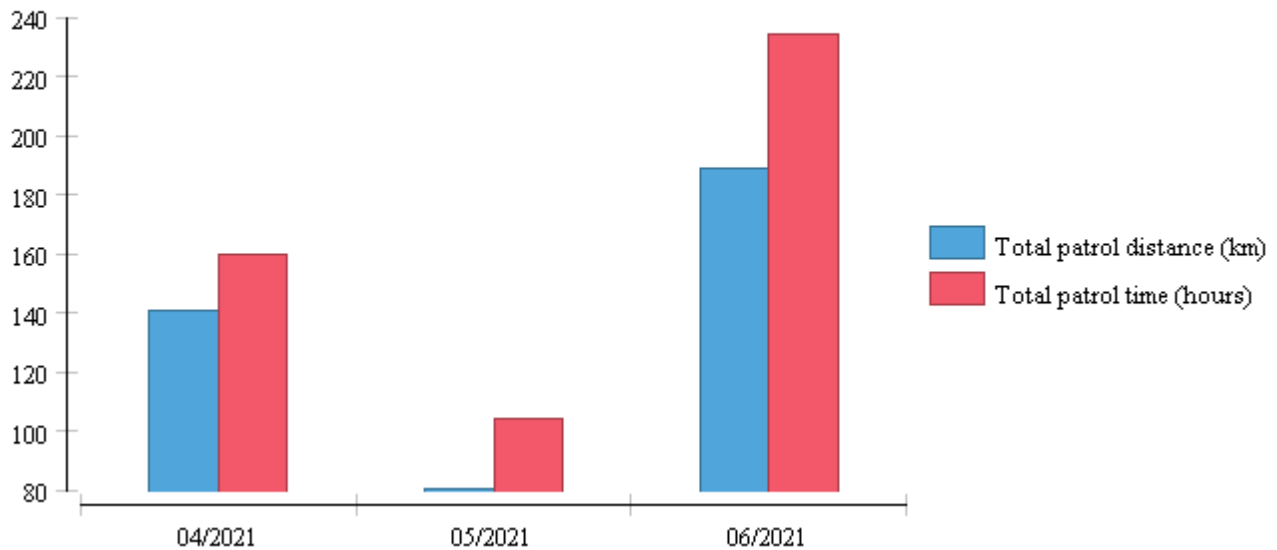


Figure 3. Total patrol distance and time per month for the period April to June, 2021.

Law Enforcement

Patrols this quarter resulted in the arrest of four offenders (Tables 2 & 3) including one person arrested for illegal logging and three people farming inside the sanctuary. Twelve wire snares were removed and six hunting camps were also dismantled (Table 6). Items collected from them include a chainsaw, petrol, and a motorbike. Other signs of hunting observed include 12 gunshots heard (Table 6). Forty-one farms (new and old) were seen in the sanctuary (Table 4).

Table 2. Summary of arrests and other law enforcement for the period April to June, 2021.

Station	Leader	Date	Action Taken - People	Home Village	Name	Threat
Esekwe Camp	George Mgbang	Jun 8, 2021	Aprehended and reported	Esekwe	Emmanuel Odu	Logging
Olum Axis	George Mgbang	Apr 8, 2021	Aprehended and reported	Olum	Ananas Achua	Farming
Olum Axis	George Mgbang	Apr 8, 2021	Aprehended and reported	Olum	Kennedy Otu	Farming
Olum Axis	George Mgbang	Apr 8, 2021	Aprehended and reported	Buanchor	Otu Dibang	Farming

Table 3. Number of people seen as threat from April to June, 2021.

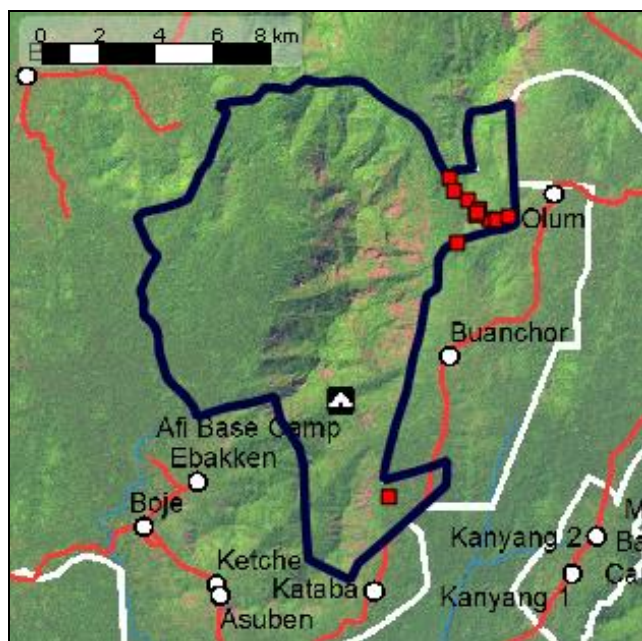
Threat	Number of People	Encounter Rate per km
Farming	3	0.007
Logging	1	0.002

Table 4. Total encounter rates of signs of human activity from April to June, 2021

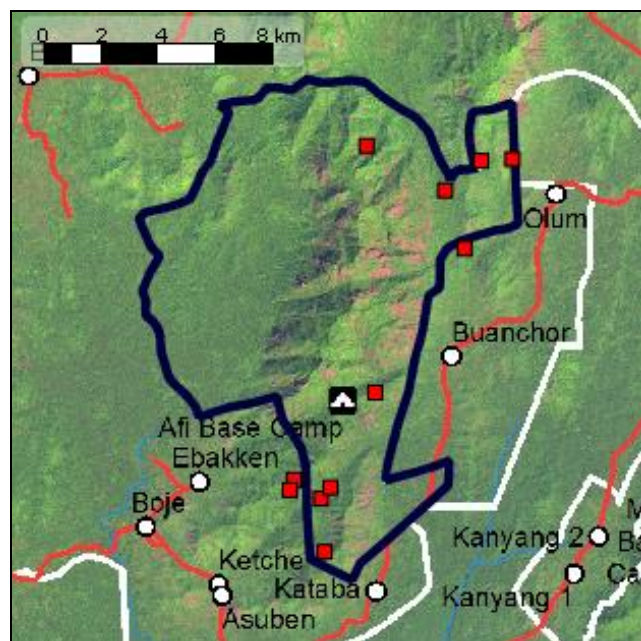
Activity	Number of Incidents	Encounter Rate per km
Farming and Land Clearing	41	0.100
Gunshot heard	5	0.012
Human Sign	12	0.029
Logging and Tree Cutting	5	0.012
People seen	4	0.010
Shed or Camp	5	0.012
Traps, Weapons & Equipment	22	0.054

Table 5. Specific evidence of logging for the period April to June, 2021.

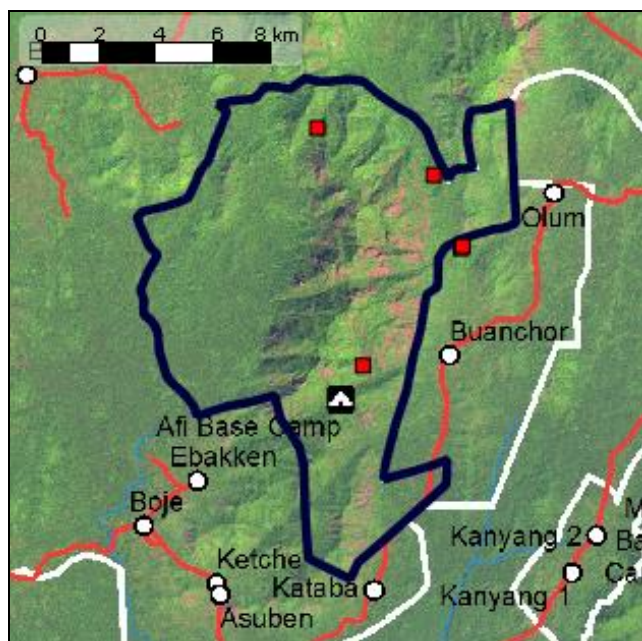
Type of logging evidence	Action Taken	Age of Sign	Number of Logs	Number of Stumps	Tree Species
Logs	Seen Only	Fresh	0.3		Unknown
Logs	Seen Only	Fresh	30		Other
Logs	Seen Only	Fresh	10		Unknown
Stump	Seen Only	Fresh		7	Iroko
Logs	Destroyed	Fresh	2		Unknown



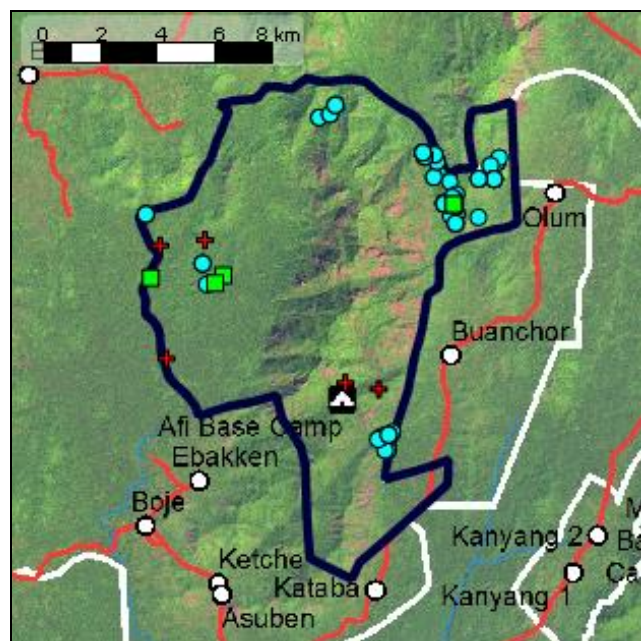
a) Wire snares



b) Empty cartridges



c) Sheds and camps



d) Farms (circles), gunshots heard (crosses), logging (squares)

Figure 4. Distribution of all signs of human activity recorded in April to June, 2021.

Table 6. Hunting signs recorded for the period April to June 2021.

Sign	Number of Observations	Encounter Rate per km
Gunshots heard	5	0.012
Set wire snares	12	0.029
Unset wire snares	0	0.000
Empty cartridges	13	0.032
Hunting camps	4	0.010

Wildlife Observations

Great apes

Great apes were not sighted this quarter. However, seven nest sites were observed: 6 gorilla and 1 chimpanzee in the northern sector of the sanctuary and in south-central sector close to Base Camp (Figure 5).

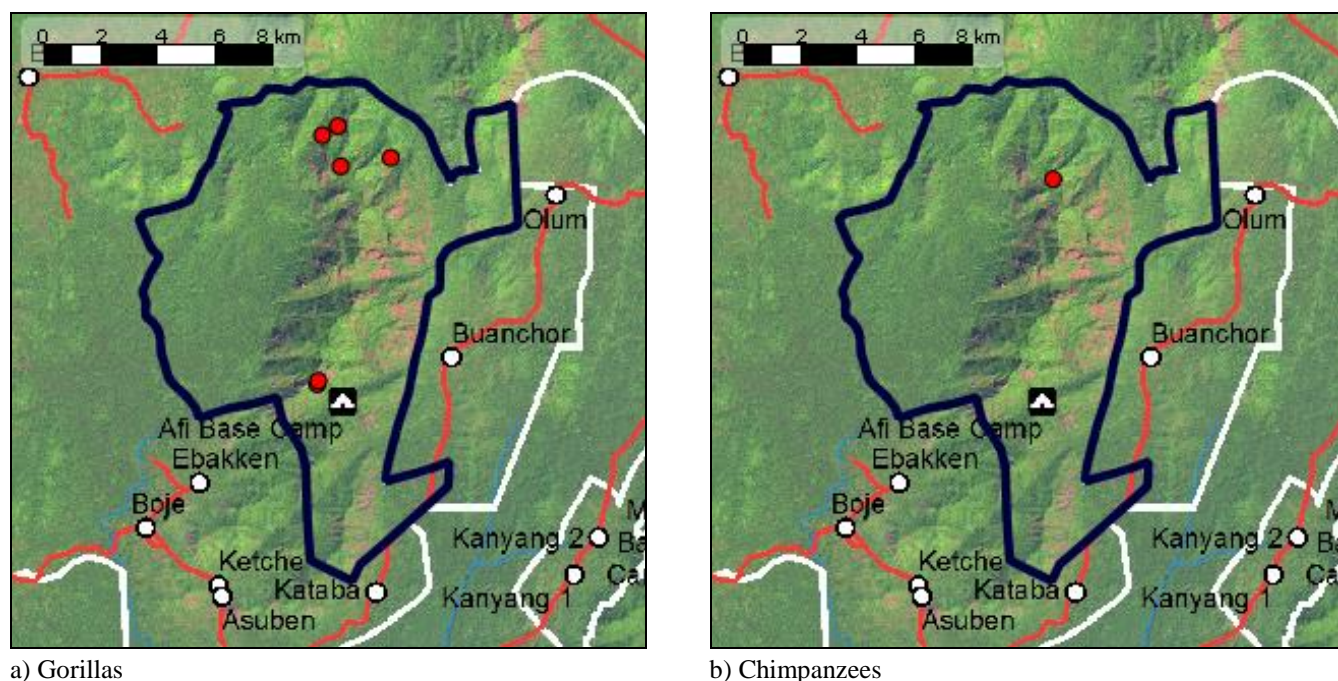


Figure 5. Ape sightings and nest sites recorded from April to June 2021. Nest sites shown as circles.

Table 7. Number and encounter rate of nest sites recorded for the period April to June, 2021.

Species	Number of nest sites	Encounter rate of nest sites per km
Chimpanzee	1	0.002
Gorilla	6	0.015

Table 8. Nest sites recorded for the period April to June 2021.

Species	Nest site type	Age of Sign	Dung present	Number of ground nests	Total number of nests
Chimpanzee	Night nest(s)	Recent	true	1	8
Gorilla	Night nest(s)	Recent	true	1	6
Gorilla	Night nest(s)	Recent	true	0	5
Gorilla	Night nest(s)	Recent	true	2	9
Gorilla	Night nest(s)	Fresh	true	1	5
Gorilla	Night nest(s)	Fresh	true	4	4
Gorilla	Night nest(s)	Fresh	true	8	8

Monkey sightings

Monkeys sighted this quarter include drill (*Mandrillus leucophaeus*), Mona monkey (*Cercopithecus mona*) and putty-nosed monkey (*Cercopithecus nictitans*). See Figure 6 and Table 9.

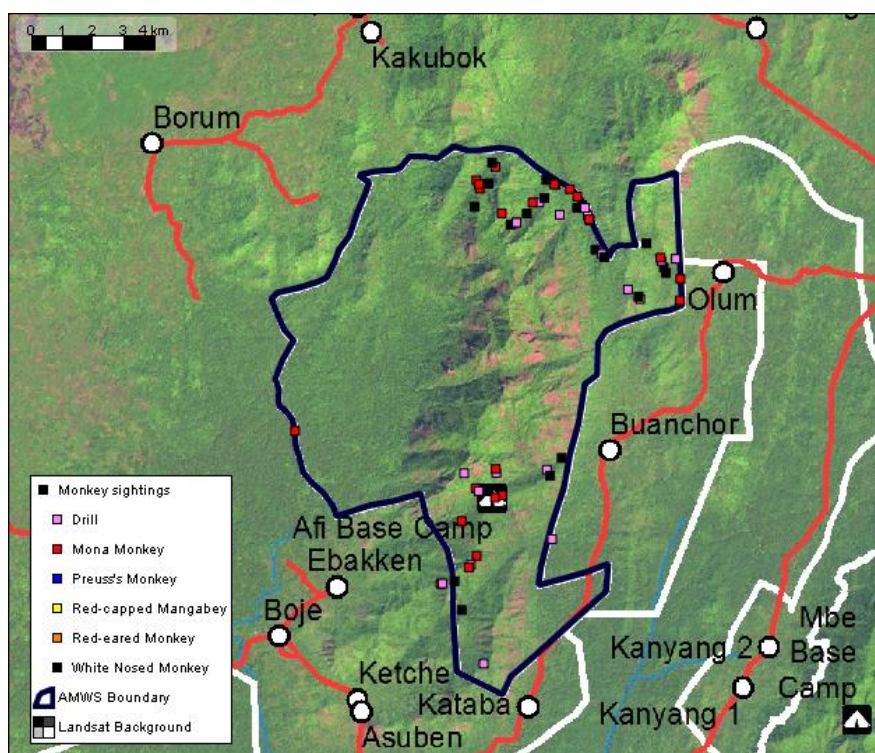


Figure 6. Monkey species observed for the period April to June 2021.

Table 9. Monkey species sighted from April to June, 2021.

Species	Number of observations	Encounter rate per km
Drill	20	0.049
Mona monkey	24	0.059
Putty-nosed monkey	22	0.054

Other Wildlife

Blue duiker (*Philantomba monticola*), brush-tailed porcupine (*Atherurus africanus*) and red river hog (*Potamochoerus porcus*) were the most frequently observed. Encounter rates of all the animal signs (including sightings) are presented in Appendix II below.

Other Activities

Assessment of Management Effectiveness

To monitor management effectiveness at AMWS a reassessment of management effectiveness was conducted in April 2021 using the Management Effectiveness Tracking Tool (METT). The assessment was done jointly with the Cross River Forestry Commission (CRFC) and WCS. The results were compared to a baseline established in 2018 and showed marginal improvement.

Meeting with the Boki Local Government Chairman

The meeting was facilitated by the AMWS Project Manager and had in attendance Bassey Emmanuel, Louise Okonyu, and Hilalry Chucku. The meeting was focused on interviewing the Council Chairman on his stance on forest conservation and protection knowing that Boki has a lot of forest and wildlife, but sadly, it is under very poor management. The chairman reiterated his position on the ban of logging in Boki until there is a deliberate plan to make it sustainable. He also added his voice to the My Gorilla My Community (MGMC) program that is aired on Cross River Broadcasting Corporation and other radio stations, by highlighting some of the reasons why wildlife and wildland conservation is important and also why all hands must be on deck to protect them.

Meeting with CRSFC Chairman, Boki Paramount Ruler, Boki Clan Heads/Village Heads and other Stakeholders

This meeting, facilitated by the CRSFC and held in the Boki Paramount Ruler's palace, Olum, was borne out of the call by the Boki Local Government Chairman to stop logging in all parts of Boki forest. The CRSFC called the meeting to get feedback from communities on those responsible for illegal logging around Afi, their sponsors, and what benefits the communities are receiving from the on-going illegal logging. The traditional ruler's council through the Paramount Ruler and some Clan Heads informed the CRSFC that they were well aware that the logging in Boki is supported by some persons in government, which was the reason it was difficult to deal with. They also stated that the communities received little or no real benefits from illegal logging. They also cited lack of presence of CRSFC staff on the ground at Afi as a reason for the escalating illegal logging around Afi.

Meeting with CRSFC Zonal Officer and Erruan Forest Officer in the zonal office, Ogoja

This meeting was to inform the CRSFC about illegal logging and farm encroachment in the Esekwe axis of the sanctuary and to make plans for the prosecution of the arrested offenders. The CRSFC team agreed to meet with the police in Okundi to discuss plans for prosecution. The issue of lack of presence of CRSFC staff on the ground at Afi was also discussed.



Cross section of participants at the meeting with the Paramount Ruler of Boki in Olum



Cross section of participants during METT assessment in April 2021

Recommendations

- The lack of presence of the CRSFC on the ground at Afi weakens law enforcement efforts, and may be one of the reasons why law enforcement activities are being resisted by communities.
- Lack of prosecutions of arrested defaulters is encouraging communities to perpetrate illegal activities in the sanctuary. The CRSFC should take action to prosecute arrested offenders.
- Decisive action is needed to deal with the problem of farm encroachment in Afi. Some new farms were seen in the sanctuary during patrols this quarter.
- There is need to have a camp (permanent or temporary) in the Kakubok axis of the sanctuary to deal with the increasing illegal activities in the areas around Njua and kakubok.
- Regular meetings between stakeholders increasing the CRSFC, Ministry of Climate Change, Boki LGA, communities around AMWS are encouraged to generate interest and support.
- The existing synergy between the WCS law enforcement, education and livelihood teams should be strengthened and sustained.
- The sanctuary boundary should be cleared regularly to facilitate law enforcement, as most people seen in the sanctuary claimed ignorance of the sanctuary boundary, which is overgrown in many places.
- In addition to clearing, signposts should be placed at strategic locations along the boundary with information on prohibited activities to reduce illegal activities.

- Prosecution is key to reducing illegal logging in and around the sanctuary. The CRSFC should arrest and prosecute defaulters to discourage illegal logging.
- Forestry checkpoints on the roads should be established within logging hotspots around the sanctuary to complement the work of rangers.
- The Boje forest office that was moved from Boje to Ntamante during the Boje crisis with Eso-Bendeghe should be moved back to Boje as peace has been restored.

Acknowledgements

We are grateful to the Great Ape Conservation Fund of the United States Fish and Wildlife Service who have constantly provided financial support to the WCS Nigeria program. We also appreciate the funding from Critical Ecosystem Partnership Fund (CEPF), JRS Biodiversity Foundation, Kolmården Zoo, AZA, Zoo New England, and Dutch Gorilla Foundation. WCS is formally registered in Nigeria through an agreement with the Ministry of Budget and National Planning of the Federal Republic of Nigeria. The Government of Cross River State is also appreciated for giving WCS the enabling environment to operate. WCS works at Afi Mountain Wildlife Sanctuary in collaboration with the Ministry of Climate Change and Forestry and the Cross River State Forestry Commission.

Appendices

Appendix I. Patrol effort statistics April to June 2021.

Date	Number of Patrols	Distance (km)	Number of Hours	Number of Rangers
2021-04-05	2	11.1	12.7	12
2021-04-06	2	8.7	14.4	12
2021-04-07	2	8.9	13.7	12
2021-04-08	2	20.6	15.6	12
2021-04-09	2	6.5	13.9	12
2021-04-10	2	9.6	14.3	12
2021-04-11	2	7.2	11.7	12
2021-04-16	1	3.5	5.5	6
2021-04-17	1	3.8	7.2	6
2021-04-18	1	3.7	7.2	6
2021-04-19	1	2.9	5.2	6
2021-04-20	1	3.7	5.7	6
2021-04-21	1	2.2	3.1	6
2021-04-25	1	8.3	4.1	6
2021-04-26	1	7.6	6.8	5
2021-04-27	1	7.6	5.9	6
2021-04-28	1	11.1	5.4	6
2021-04-29	1	6.0	4.7	6
2021-04-30	1	8.2	2.4	6
2021-05-12	1	6.3	4.6	8
2021-05-13	1	6.0	7.9	8
2021-05-14	1	5.3	8.7	8
2021-05-15	1	4.5	8.3	8
2021-05-16	1	5.9	8.4	8
2021-05-17	1	6.7	8.2	8
2021-05-18	1	4.7	8.4	8
2021-05-19	1	7.6	5.9	8
2021-05-24	1	7.3	6.4	8

Date	Number of Patrols	Distance (km)	Number of Hours	Number of Rangers
2021-05-25	1	6.1	6.9	8
2021-05-26	1	3.8	6.7	8
2021-05-27	1	4.4	8.0	8
2021-05-28	1	8.9	9.2	8
2021-05-29	1	2.7	6.9	8
2021-06-04	2	11.6	13.9	14
2021-06-05	2	7.7	12.6	13
2021-06-06	2	8.5	13.7	11
2021-06-07	2	11.6	14.8	12
2021-06-08	2	21.0	17.3	13
2021-06-09	2	6.3	9.1	12
2021-06-10	2	10.7	12.6	14
2021-06-11	2	11.4	10.6	14
2021-06-16	1	4.2	7.9	8
2021-06-17	2	9.2	15.6	13
2021-06-18	2	11.7	15.5	14
2021-06-19	2	7.3	15.8	14
2021-06-20	2	8.9	13.9	14
2021-06-21	1	3.1	4.3	6
2021-06-24	1	4.3	5.3	8
2021-06-25	2	14.8	12.5	14
2021-06-26	2	10.3	11.5	14
2021-06-27	2	12.1	11.7	14
2021-06-28	2	8.0	9.7	14
2021-06-29	1	6.1	5.8	6

Appendix II. Encounter rate of wildlife species observed during patrols from April to June 2021.
Species not encountered during patrols are not shown.

Species	Number of observations	Encounter rate per km
Blue duiker	<i>Philantomba monticola</i>	0.856
Brush-tailed porcupine	<i>Atherurus africanus</i>	0.612
Red river hog	<i>Potamochoerus porcus</i>	0.600
Drill	<i>Mandrillus leucophaeus</i>	0.449
Mona monkey	<i>Cercopithecus mona</i>	0.349
Mongoose	<i>Crossarchus</i> spp.	0.278
Hornbill	-	0.268
Turaco	-	0.256
White-nosed monkey	<i>Cercopithecus nictitans</i>	0.234
Unidentified monkey	-	0.224
Bay duiker	<i>Cephalophus dorsalis</i>	0.217
African Civet	<i>Civettictis civetta</i>	0.202
Yellow-backed duiker	<i>Cephalophus silvicultor</i>	0.161
Cane rat	<i>Thryonomys swinderianus</i>	0.115
Tree pangolin	<i>Phataginus tricuspis</i>	0.078
Rock fowl	<i>Picathartes oreas</i>	0.071
Palm civet	<i>Nandinia binotata</i>	0.066
Nigeria-Cameroon chimpanzee	<i>Pan troglodytes ellioti</i>	0.054
Cross River gorilla	<i>Gorilla gorilla diehli</i>	0.032
Grey parrot	<i>Psittacus erithacus</i>	0.029
Genet	<i>Genetta</i> sp.	0.015
Unidentified large duiker	-	0.015
Unidentified great ape	-	0.012
Unidentified medium duiker	-	0.010
Unidentified small duiker	-	0.007

Appendix III. Ranger work time for the period April to June 2021.

Name	Number of Patrols	Number of Patrol Days	Number Patrol Hours	Total Patrol Distance (km)
Alphonsus Owah	7	36	223.2	206.7
Anthony Osang	4	25	153.5	124.8
Bernard Akpa	8	51	344.7	285.3
David Otu	7	37	217.7	192.1
Donald Ojie	6	31	178.1	163.1
Esekwe Gorilla Guardian	1	3	20.7	19.4
Etta Joseph	6	37	216.9	193.4
George Mgbang	6	39	281.3	216.8
Henry Achua	4	25	173.2	138.2
Katabang Gorilla Guardian	6	38	271.9	205.7
Olum Gorilla Guardian	2	10	78.1	60.7
Patrick Bankong	6	38	257.9	195.2
Patrick Kejie	7	32	185.7	167.6
Peter Nsan	5	31	216.3	169.1
Philip Ashijua	6	38	273.7	212.3
Vincent Ayang	6	39	281.3	216.8