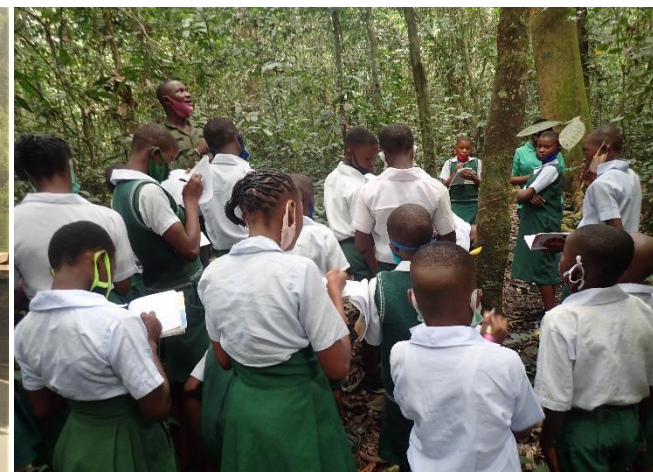




**WILDLIFE CONSERVATION SOCIETY
CROSS RIVER NATIONAL PARK- OBAN DIVISION
QUARTERLY REPORT: JANUARY TO MARCH, 2021**



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WCS Nigeria Program

Summary

This report summarizes the results of law enforcement, education and awareness, and livelihood support activities implemented in the Oban Division of Cross River National Park (Oban) from January to March 2021 with support from the Wildlife Conservation Society (WCS). A total of 18 anti-poaching patrols were completed during this period over 132 patrol days (821 man-days) covering a total distance of 1268 kilometers. A total 16 people including four hunters were arrested and handed over to the park management for prosecution. One shotgun, six live cartridges, and two machetes were confiscated from the arrested hunters. The patrols also destroyed a total of 3,982 wire snares and 21 hunting/fishing camps. Other signs of hunting recorded include 1,306 expended shotgun cartridges and 12 gunshots heard. Primates sighted during the period include Preuss's red colobus *Piliocolobus preussi* (3 sightings), red-eared monkey *Cercopithecus erythrotis* (7 sightings), Mona monkey *Cercopithecus mona* (28 sightings), putty-nosed monkey *Cercopithecus nictitans* (20 sightings), and drill *Mandrillus leucophaeus* (sighted once). Chimpanzees (*Pan troglodytes ellioti*) were not sighted, but their calls were heard. Other mammals recorded include white-bellied pangolin *Phataginus tricuspis*, forest elephant *Loxodonta cyclotis*, and African buffalo *Syncerus caffer*.

WCS and CRNP conservation education staff established 48 new conservation clubs in schools around Oban during this reporting period. A total of 672 customized notebooks and 135 pens were distributed to members of the conservation clubs to create awareness about endangered species. A total of 55 posters focusing on water resource management produced by Tengwood Organization were also distributed to create awareness. Other activities implemented to create awareness include four wildlife film shows attended by 951 viewers, two conservation education teachers' training workshops, and 22 community meetings.

The project continued to support cocoa and bush mango agroforestry on community land adjacent to the park to reduce rates of deforestation and pressure on the park. During this quarter, a total of 100 cocoa farmers selected from 10 communities and 147 women (from 10 women's groups) were trained in sustainable bush mango harvesting and improved cocoa farming practices such as reduced use of harmful pesticides, farm diversification, and soil fertility management. In addition to training, WCS purchased 2,920 improved variety bush mango pods to establish nurseries to raise seedlings for distribution to the women to plant on their farms. In previous quarters WCS established improved variety cocoa nurseries to produce seedlings for distribution to trained cocoa farmers to replant existing old and increasingly unproductive farms to increase productivity.

Background

Created in 1991 from existing forest reserves, the Cross River National Park (CRNP) is the most extensive area of tropical rainforests remaining in Nigeria today. The Park consists of two separate divisions: Oban and Okwangwo. The Oban Division covers an area of roughly 3,000 km² and is contiguous with Korup National Park in Cameroon. Oban is recognized internationally as a biodiversity hotspot with high levels of species richness and endemism and is a particularly significant site for rare and threatened primate species including Preuss's red colobus (*Piliocolobus preussi*), drill (*Mandrillus leucophaeus*), and Nigeria-Cameroon chimpanzee *Pan troglodytes ellioti*. Oban faces a huge threat from hunting to supply the lucrative bushmeat trade and deforestation from commercial plantation agriculture.

In 2011, WCS signed an MOU with the Nigeria National Park Service to support the protection of Cross River National Park. This is primarily focused on strengthening law enforcement monitoring through facilitating regular anti-poaching patrols, but now expanded to include conservation education, and providing support to improve the livelihoods of the local communities with the aim of reducing deforestation within and around the park. This report covers law enforcement, education and livelihood support activities supported by WCS in Oban during the period from January to March 2021.

Methods

Our conservation education and livelihood work adopts the focal group approach where target groups including farmers, hunters, community leaders, school children, youth, women, and men are engaged in discussions on more sustainable ways of managing the forests. Anti-poaching patrols are planned based on intelligence from informants, and results of previous patrols. Each month at least six teams comprising a minimum of six CRNP rangers and a WCS staff patrolled different areas of the park over periods of 8-10 days. The teams search areas where hunting activities are suspected or known to be high including valleys and rivers courses, following hunting trails, and large mammal trails where they exist. Signs of human activity and large mammals were recorded using hand-held devices with the Spatial Monitoring And Reporting Tool (SMART) software installed. All wire snares and hunting camps observed were destroyed. Patrol data were analyzed using SMART software. The conservation education program in Oban is implemented to complement the existing law enforcement monitoring project. The program focuses on raising levels of conservation awareness in the local communities and strengthening local support for conservation. Field activities are implemented jointly by WCS and CRNP education staff. WCS also works with cocoa farmers and women's groups in surrounding communities to improve the sustainability of cocoa farming and non-timber forest products harvesting through training and provision improved planting material and other inputs

1. Law Enforcement Monitoring

A total of 18 anti-poaching patrols were completed during the reporting period, covering a total distance of 1267.6 kilometers over 132 patrol days (821 man-days). Field data for one patrol in March could not be downloaded from the data collection used due to technical issues with the device.

Figure 1. Patrol tracklogs and effort in km walked per grid cell for the period January to March 2021. Darker red color indicates areas of more intense patrol coverage



Table 1. Summary of patrol effort for the period January to March 2021.

Patrol ID	Number of Patrols	Number of Days	Distance (km)	Person - Days
CRNP-OB_000222	1	6	63.8	36
CRNP-OB_000223	1	10	68.1	60
CRNP-OB_000224	1	10	103.7	70
CRNP-OB_000225	1	7	60.6	49
CRNP-OB_000226	1	7	71.6	28
CRNP-OB_000227	1	7	60.1	49
CRNP-OB_000228	1	7	70.4	56
CRNP-OB_000229	1	7	76.9	28
CRNP-OB_000230	1	5	66.6	35
CRNP-OB_000231	1	9	106.2	36
CRNP-OB_000232	1	8	85.0	48
CRNP-OB_000233	1	8	62.5	56
CRNP-OB_000234	1	10	73.2	60
CRNP-OB_000235	1	10	75.0	70
CRNP-OB_000236	1	7	66.8	42
CRNP-OB_000237	1	7	98.0	49
CRNP-OB_000238	1	7	59.2	49
Total	17	132	1267.6	821

N/B: Data for one patrol in March could not be downloaded

Figure 3. Total patrol distance and time per month for the period January to March 2021.

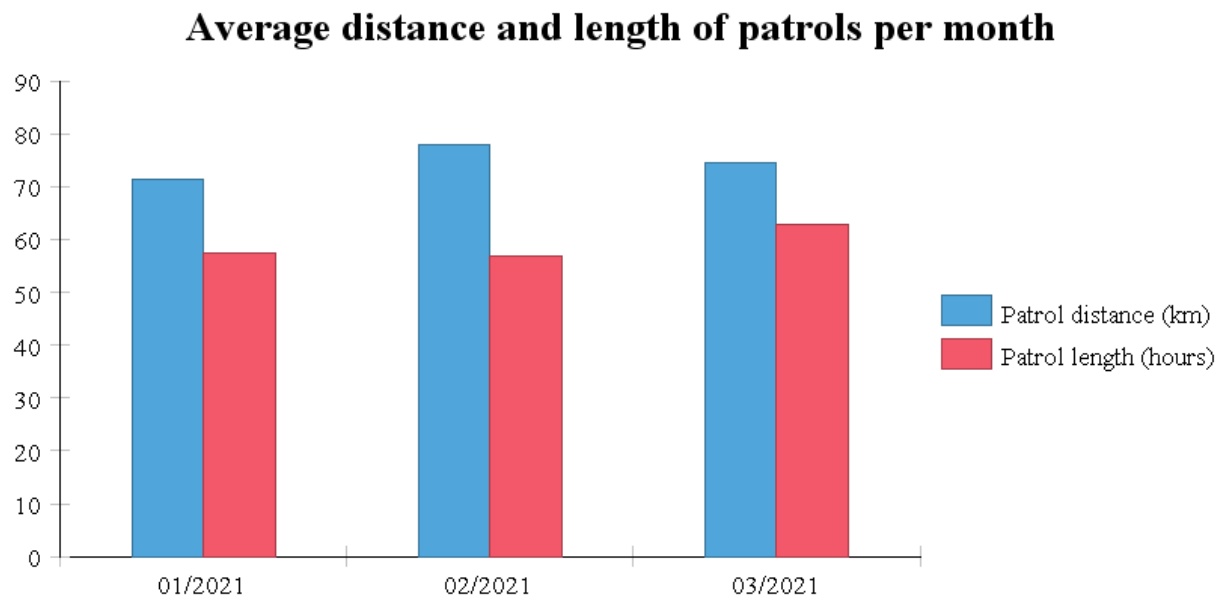
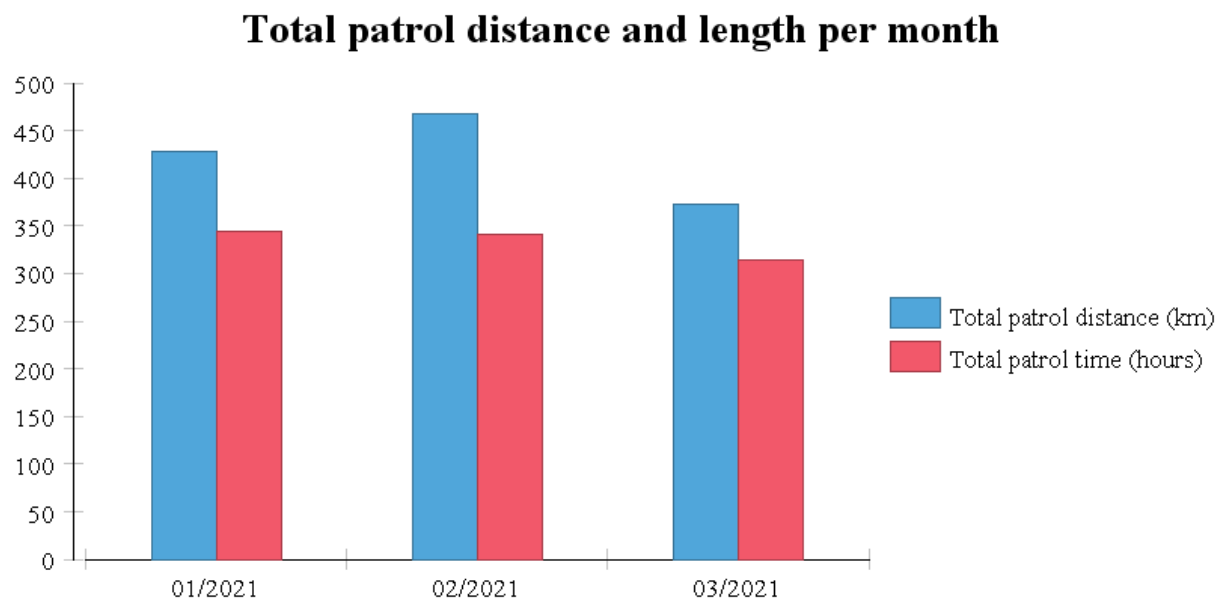


Figure 2. The average distance covered, and time taken per patrol per month for the period January to March 2021.



Law enforcement results

Patrols this quarter led to the arrest of 16 offenders including four hunters (Table 2). The culprits were handed over to the CRNP management for prosecution. One shotgun, six live cartridges, and two machetes were confiscated. The patrols also destroyed a total of 3,982 wire snares and 21 hunting/fishing camps. Other signs of hunting recorded include 1,306 expended shotgun cartridges and 12 gunshots. Other human activities observed include illegal logging (in the Owom, Ifumkpa, Netim, and Obung areas of the park) and harvesting of cattle stick (*Carpolobia lutea*) observed in the Acharum

area. Twenty bundles of cattle stick found were destroyed. Following a meeting between CRNP rangers, the WCS Oban law enforcement project manager and Acharum village, cattle stick collectors based in Acharum were sanctioned by the community. Follow-up patrols of the area are planned for next quarter to monitor the areas for illegal logging and cattle stick extraction activities.

Table 2. Summary of arrests for the period January to March 2021.

Leader	Waypoint Date	Action Taken	Home Village	Name	Threats	Outcome
Bassey Effiong	14 Jan 2021	Arrested	Ifumkpa	Benson Agu	Fishing	Charged to court
Bassey Effiong	15 Jan 2021	Arrested	Uruang	Imoh Sunday	Logging	Charged to court
Bassey Effiong	15 Jan 2021	Arrested	Uruang	Jerimaiah Okon	Logging	Charged to court
Leonard Akwo	25 Jan 2021	Arrested	Ikpai	Raymond Usang	Gunting	Charged to court
Leonard Akwo	22 Feb 2021	Arrested	Etara	Usman Bello	NTFP Collection	Handed over to CRNP
Leonard Akwo	22 Feb 2021	Arrested	Etara	Saminu Kumar	NTFP Collection	Handed over to CRNP
Leonard Akwo	22 Feb 2021	Arrested	Etara	Tukur Abdulahi	NTFP Collection	Handed over to CRNP
Leonard Akwo	22 Feb 2021	Arrested	Etara	Inunsa A Bello	NTFP Collection	Handed over to CRNP
Leonard Akwo	22 Feb 2021	Arrested	Etara	Tukur Nuhu	NTFP Collection	Handed over to CRNP
Dominic Abel	20 Feb 2021	Apprehended	Etara	Emmanuel Asam	Fishing	-
Dominic Abel	20 Feb 2021	Apprehended	Etara	Franklin Asam	Fishing	-
Dominic Abel	20 Feb 2021	Apprehended	Ekuri	Mbe Ike	Fishing	-
Cyril Maurice	25 Feb 2021	Arrested	Obung	Etim Effiong	Hunting	Handed over to CRNP
Cyril Maurice	19 Feb 2021	Verbal Warning	Ojor	Bassey Egbe	Hunting	-
Aondona Michael	20 Feb 2021	Verbal Warning	Aningeje	Uduak Neabasi	Farming	-
Delvis Okon	21 Feb 2021	Arrested	Aningeje	Esther Mathew	Farming	Handed over to CRNP
Delvis Okon	21 Feb 2021	Verbal Warning	Aningeje	Patience Wilson	Farming	Handed over to the CRNP
Delvis Okon	21 Feb 2021	Arrested	Aningeje	Akaniyene Ebork	Farming	Handed over to the CRNP
Delvis Okon	21 Feb 2021	Verbal Warning	Aningeje	Okon Udo	Farming	-
Leonard Akwo	10 Feb 2021	Arrested	New Ekuri	Cosmos Mbe	Hunting	Handed over to CRNP
Leonard Akwo	10 Feb 2021	Arrested	New Ekuri	Bernard Mbe	Hunting	Handed over to CRNP
Ntui Ojong	17 Mar 2021	Arrested	Etinan	Ubong Udoh	Illegal Entry	Charged to court
Ntui Ojong	17 Mar 2021	Arrested	Etinan	Anietie Udoh	Illegal	Charged to court

Table 3. The number of people seen by threat for the period, January to March 2021.

Threat	Number of people seen	Encounter rate per km
Farming	5	0.004
Fishing	3	0.002
Hunting	5	0.004
Illegal Entry	2	0.002
Logging	1	0.001
NTFP Collection	2	0.002

Table 4. Total encounter rates of signs of human activity for the period, January to March 2021.

Activity	Number of Incidents	Encounter Rate per km
Farming and Land Clearing	5	0.004
Gunshot heard	12	0.009
Human Sign	11	0.009
Logging and Tree Cutting	6	0.005
NTFPs	1	0.001
People seen	15	0.012
Shed or Camp	31	0.024
Traps, Weapons & Equipment	722	0.570

Table 5. Total encounter rates of signs of logging for the period, January to March 2021.

Type of logging evidence	Action Taken - Items	Age of Sign	Number of cut pieces	Number of Logs	Number of Planks
Logs	Seen Only	Very old		80	
Cut Pieces	Destroyed	Recent	1000		
Logs	Seen Only	Old		800	
Logs	Seen Only	Fresh		5	
Planks	Seen Only	Fresh			10
Logs	Seen Only	Fresh		50	

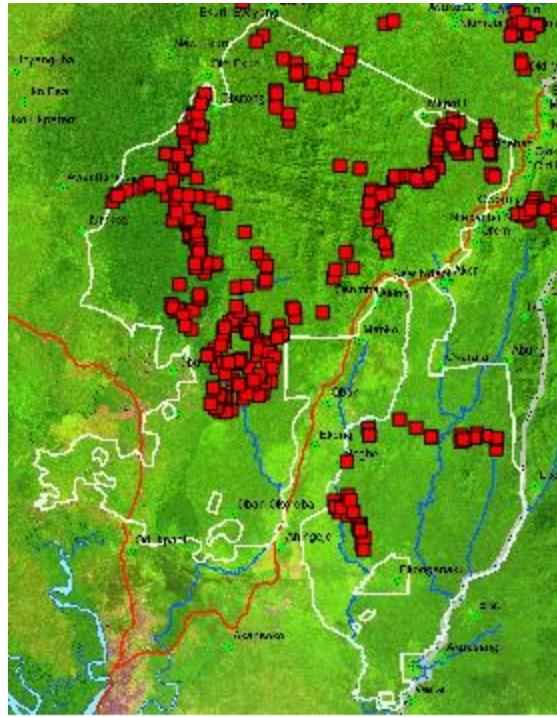
Pictures of logging, hunting and other illegal activities in the Park.



Figure 4. Distribution of all signs of human activities recorded during the period January to March 2021



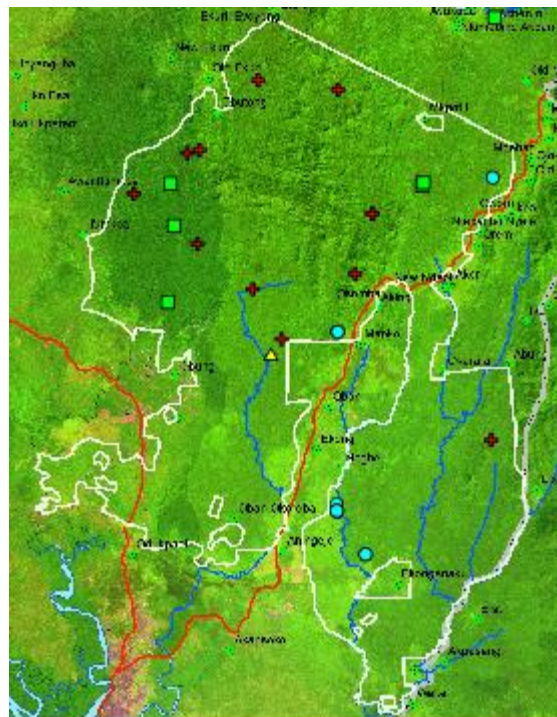
a) Wire snares



b) Empty cartridges



c) Shed and Camps



d) Farms (circles), gunshots heard (crosses), logging (squares) and NTFP collection (triangle)

Table 6. Hunting signs recorded for the period, January to March 2021.

Sign	Number of Observations	Encounter Rate per km
Gunshots heard	12	0.009
Set wire snares	3848	3.036
Unset wire snares	134	0.106
Empty cartridges	1306	1.030
Hunting camps	21	0.017

Wildlife Observations

Primates

Primates sighted during this quarter include red colobus *Piliocolobus preussi* (3 sightings), red-eared monkey *Cercopithecus erythrotis* (7 sightings), Mona monkey *Cercopithecus mona* (28 sightings), putty-nosed monkey *Cercopithecus nictitans* (20 sightings), and drill *Mandrillus leucophaeus* (sighted once). Chimpanzee vocalizations were heard and trails were observed.

Figure 5. Primate sightings and vocalizations for the period, January to March 2021

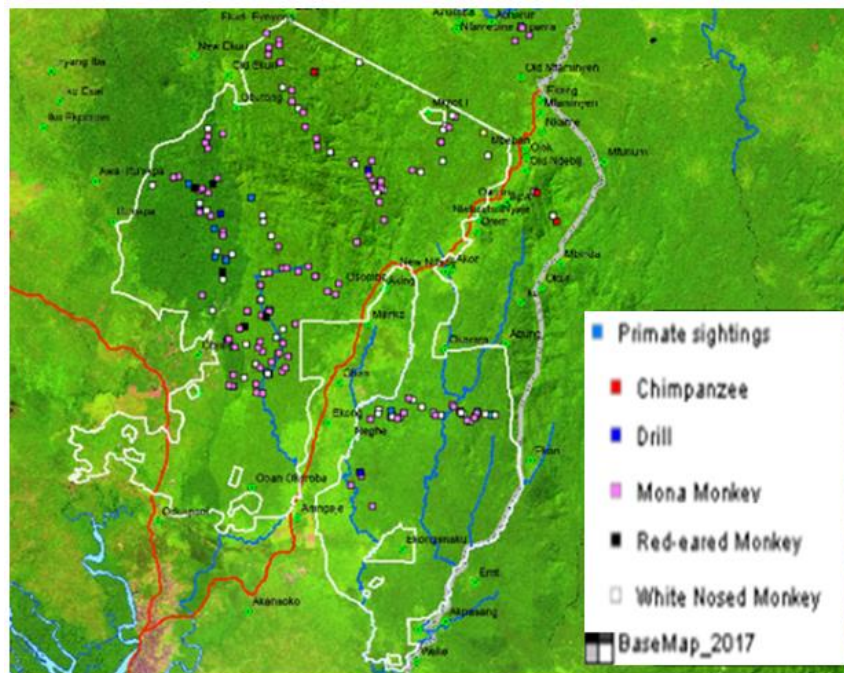


Table 7. Sightings of primate species for the period, January to March 2021

Species	Scientific name	Number of sightings	Encounter rate per km
Mona monkey	<i>Cercopithecus mona</i>	28	0.0221
Putty-nosed monkey	<i>Cercopithecus nictitans</i>	20	0.0158
Red-eared monkey	<i>Cercopithecus erythrotis</i>	7	0.0055
Red colobus	<i>Piliocolobus preussi</i>	3	0.0024
Drill	<i>Mandrillus leucophaeus</i>	1	0.0008

Other Wildlife

Other wildlife species recorded include forest buffalo (*Syncerus caffer*), blue duiker (*Philantomba monticola*), red river hog (*Potamochoerus porcus*), and white-bellied pangolin (*Phataginus tricuspis*) (See Appendix II). Animal signs recorded were mainly sightings, calls and fresh dung.

2. Conservation Education

Film shows

Visual learning delivers information more directly, improves the learning process, engages the audience, creates lasting memories, and at the same time provides entertainment. For these reasons, film shows are used to convey our conservation message in the communities where we work. During the reporting period, four film shows were facilitated in four communities in Oban attended by a total of 951 viewers. Documentaries on great apes, effects of deforestation, hunting, causes, and effects of climate change were projected.

Table 8: Number of viewers at film shows in Oban communities January to March 2021

Communities	Estimated number of viewers
Ekan	215
Mfamieyen	128
Mbeban	350
Ojok	258

Field trips

WCS facilitated four guided field trips for schoolchildren during this reporting period. Students were taken to the Aking axis of the park and the Erokut Gate park entry (Table 2). Usually, pupils and students are accompanied by two school teachers, two CRNP staff, and two WCS education staff. Students have shown keen interest and have asked relevant questions about the natural environment on these field trips.



Field trip to the Obung axis of Erokut camp, CRNP-Oban

Table 9: Participants in field trips to Cross River National Park - Oban

Community	School	Location	Number of Students	Notebooks distributed
Nsan	Ibenda community Sec. Sch., Nsan	CRNP – Obung axis	20	10
Obung	St. Bernard's Tech. Sch., Obung	CRNP – Obung axis	20	11
Oban	St. Michael's Primary School, Oban	CRNP – Aking axis	20	-
Ekong	St. Kevin's Primary School, Ekong	CRNP – Aking axis	20	-

School visits/ establishment of new conservation clubs

A total of 23 existing school conservation clubs were visited during this quarter. During each visit, a recap of previous lessons was given and new lessons organized. Lesson topics included importance of protected areas, the importance of forests, threats to the forest, effects of deforestation, and ways to improve our forest. Lessons were accompanied by rhymes formed from the topics; conservation games were also used to portray the message of conservation. Students were always excited to gain new knowledge and happily rehearsed the songs they were taught. Also, a total of 48 new conservation clubs were established in 23 communities. Firstly, conservation education was introduced to the headteachers/principals of the schools before proceeding to classrooms. Conservation lessons were introduced to pupils and students using candy games, pictures of animals in the forest using puzzle games, songs, and the question and answer techniques to discover their previous knowledge about conservation. Students who participated actively were rewarded with WCS branded exercise books, candies, and applause.



Conservation lesson sessions with WCS education staff Chidiogo & Victoria

Community meetings

A total of 22 community meetings were organized in Oban (Table 5). While a few new communities (eg, Camp 4) visited disapproved of the idea of the park reserving part of their natural heritage, others welcomed the idea of conservation (eg New Ekuri, Mbere ntung), and a few others (Iko esai, Iko ekperem) regretted that the conservation education program was neglected for a long time but were happy to see it restarted. During the meetings, the education team emphasized the need for community support in conserving the forests and mitigating the threats faced by the forests as well as the effects of such threats to wildlife and humans.



Community meetings and film shows.

Teacher training workshops

A two-day teacher training workshop was organized for 37 teachers in the Oban east axis of the park from 26-27 February. The training was aimed at familiarizing teachers with conservation education methods and building the capacity of teachers for effective teaching of conservation topics and the continuity of conservation clubs in schools. The teachers trained are then expected to lead and facilitate conservation education in their schools by continuing to educate their pupils and students in the absence of WCS and CRNP staff. The participants eagerly reviewed the different teaching methods and were enjoined to attempt what they had learned by creating a lesson framework with direction from the teaching manuals provided by WCS.



Table 10: List of schools represented in the teacher-training workshops

s/n	Schools present at the Ikpai centre	s/n	Schools present at the Oban centre
1	Government Primary School, Ekang	1	Community Primary School, New Ndebeji
2	Angelic Bright Star Academy, Mfamieyen	2	Government Primary School, Ekong –Anaku
3	Government Primary School, Mfamieyen	3	Government Secondary School, Akor
4	Community Primary School, Nkame	4	Aunty Mercy Nursery/ Primary School
5	Government Primary School, Mbeban	5	Government Primary School, Okarara
6	Achan Comprehensive High School, Mbeban	6	Government Primary School, Nkorokumi
7	Government Migrant Primary School, Ojok	7	Evangel Nursery /Primary School, Osomba
8	Government Primary School, Ojok	8	Evangel Nursery /Primary School, Osomba
9	Government Primary School, Old Ndebeji	9	St. Kelvin Primary School, Ekong
10	Community Primary School, Owom	10	Jacoscience Secondary School, Ekong
11	Government Secondary School, Ikpai	11	Poebea Nursery/ Primary School, Akor
12	The Apostolic School, Nyaje	12	Government Primary School, Akor
13	St. Benedict Primary School, Nyaje	13	Government Grammar Secondary School, Oban
14	Government Migrant School ,Ntebachot	14	Dominion Nursery/ Primary School, Camp 4
15	Government Primary School, Orem	15	CRNP Staff
16	Government primary School, Abung	16	Government Migrant Primary School, Akor
17	Government Primary School, Okarara	17	Government Migrant Primary School, Akor
18	St. Johnbosco Technical School, Okarara	18	St. Johnbosco Technical Secondary School, Okarara
		19	Trinitas Academy Nursery/ Primary School

3. SUPPORT FOR LOCAL LIVELIHOODS

Livelihood Beneficiaries Selection

The WCS Oban livelihood project team held meetings with ten of the target communities in Oban to select households to benefit for the first phase of distribution of improved cocoa and bush mango seedlings. A total of 250 beneficiaries (100 for cocoa and 150 for bush mango; 154 female, 96 male) were selected from across the ten communities. The selected beneficiaries were trained in sustainable bush mango harvesting and cocoa farming practices during this quarter ahead of seedling distribution planned to take place in the next quarter.



Table 11: Selected Beneficiaries of Livelihood Support

S/N	Name of Community	Beneficiaries (cocoa)		Beneficiaries (bush Mango)
		Male	Female	
1	Neghe	10	-	15
2	Aking	10	-	15
3	Osomba	10	-	15
4	Akor	10	-	15
5	Orem	10	-	15
6	Ntebachot	10	-	15
7	Nyaje	8	2	15
8	Owom	10	-	15
9	Ojok	9	1	15
10	Mfaminyen	9	1	15
	Total	96	4	150

Training of cocoa farmers and bush mango women's groups

We completed the training of 245 farmers in 10 communities, including (98 cocoa farmers trained in February on sustainable cocoa production, and 147 farmers predominantly women trained in sustainable bush mango production). The training covered a number of topics in agricultural & environmental best practices in cocoa and bush mango production; including farm planning; cocoa nursery establishment, seedling propagation and spacing, harvesting, processing (fermentation & drying), bagging and marketing, cocoa farm rehabilitation, and use of organic pesticides.



Table 12: Number of people trained in sustainable cocoa and bush mango production

S/N	Community	Number of people trained (cocoa)		Number of people trained (bush mango)
		Male	Female	Females only
1	Neghe	10	-	15
2	Aking	10	-	15
3	Osomba	9	-	15
4	Akor	10	-	15
5	Orem	10	-	15
6	Ntebachot	10	-	15
7	Nyaje	8	2	15
8	Owom	10	-	12
9	Ojok	8	1	15
10	Mfaminyen	9	1	15
	Total	94	4	147

Monitoring of Cocoa Nurseries

Each month the WCS livelihood team visited cocoa nurseries established in Neghe, Aking/Osomba, Akor, Orem, Ntebachot, Nyaje, Owom, Ojok, and Mfaminyen to raise seedlings for distribution to farmers in the area to assess their progress. All the nurseries were observed to be growing well and in good condition.



Two of the cocoa nurseries developed by WCS

Establishment of Bush Mango Nursery

A total of 2,920 bitter or dry season bush mango (*Irvingia wombolu*) seeds were purchased and used to establish a nursery at Akor, on the edge of the park to raise seedlings for distribution to women in target communities. We used local labour to prepare pre-nursery beds, construct shade over the beds, fence the nursery to prevent damage by rodents, and plant the 2,920 seeds. The nursery was visited each month to monitor progress. As at the time of the last visit, 2,020 of the 2,920 seeds planted had germinated and are growing well.



Irvingia wombolu (bitter bush mango) nursery at Akor village on the edge of the park

Monitoring Of Cocoa Farms

During the period, the livelihood team visited Fifty cocoa farms belonging to fifty (50) prospective cocoa seedlings beneficiaries in five communities of Aking, Osomba, Orem, Akor, and Neghe. GPS coordinates were collected to ascertain whether farms are located outside the protected area as a condition to qualify as a beneficiary.



Monitoring of cocoa farms at Osomba and Akor

Recommendations

- Prosecution of arrested offenders is considered to be a stronger deterrent than “compounding” of offences, and it is highly recommended. In addition to deterring potential offenders, a higher rate of prosecution will boost morale among rangers and improve overall effectiveness of protection efforts.
- Regular refresher ranger training for all rangers in Oban to improve their skills and raise morale.
- Targeted patrols of identified “hotspots” of illegal logging activities and farm encroachment in the park are recommended.

Acknowledgments

Funding for this project was provided by the European Union in Nigeria, through the Preservation of Forest Ecosystem in Cross River State (PREFEC) project. The project is also supported by the GRASP. WCS appreciates the support and collaboration of the Cross River National Park. WCS is formally registered in Nigeria through an agreement with the Ministry of Budget and National Planning of the Federal Republic.

Appendices

Appendix I. Encounter rate of wildlife species observed (all sign types) January to March 2021.

Species	Scientific name	Number of Observations	Encounter rate per km
Mona monkey	<i>Cercopithecus mona</i>	128	0.101
Preuss's red colobus	<i>Piliocolobus preussi</i>	1	0.001
Red river hog	<i>Potamochoerus porcus</i>	93	0.073
Bay duiker	<i>Cephalophus dorsalis</i>	28	0.022
Putty-nosed monkey	<i>Cercopithecus nictitans</i>	64	0.050
Blue duiker	<i>Philantomba monticola</i>	38	0.030
Yellow-backed duiker	<i>Cephalophus silvicultor</i>	5	0.004
African forest elephant	<i>Loxodonta cyclotis</i>	31	0.024
Brush-tailed porcupine	<i>Atherurus africanus</i>	33	0.026
Unidentified monkey	-	12	0.009
Forest buffalo	<i>Syncerus caffer</i>	22	0.017
Nigeria-Cameroon chimpanzee	<i>Pan troglodytes ellioti</i>	4	0.003
Drill	<i>Mandrillus leucophaeus</i>	3	0.002
Common kusimanse (mongoose)	<i>Crossarchus platycephalus</i>	14	0.011
Helmeted guineafowl	<i>Numida meleagris</i>	7	0.006
Grey parrot	<i>Psittacus erithacus</i>	1	0.001
Unidentified medium duiker	-	24	0.019
Unidentified small duiker	-	6	0.005
African civet	<i>Civettictis civetta</i>	3	0.002
Unidentified large duiker	-	6	0.005
African pied hornbill	<i>Tockus fasciatus</i>	5	0.004
Red-eared monkey	<i>Cercopithecus erythrotis</i>	10	0.008
White-bellied pangolin	<i>Phataginus tricuspis</i>	3	0.002

Appendix II. Patrol effort statistics from January to March 2021

Date	Number of Patrols	Distance (km)	Number of Hours	Number of Rangers
2021-01-11	1	11.5	8.4	6
2021-01-12	3	27.6	20.4	19
2021-01-13	3	26.4	25.3	19
2021-01-14	3	30.5	24.4	19
2021-01-15	3	34.3	27.1	19
2021-01-16	3	30.8	23.0	19
2021-01-17	3	21.3	20.2	19
2021-01-18	2	20.9	16.5	13
2021-01-19	2	9.3	15.5	13
2021-01-20	2	14.8	9.9	13
2021-01-21	1	8.2	3.3	7
2021-01-23	1	6.6	4.6	7
2021-01-24	3	28.2	19.5	18

2021-01-25	3	30.4	22.9	18
2021-01-26	3	31.9	25.9	18
2021-01-27	3	31.4	25.3	18
2021-01-28	3	29.6	24.8	18
2021-01-29	3	18.3	18.7	18
2021-01-30	2	16.0	8.0	11
2021-02-07	3	29.6	16.6	19
2021-02-08	3	37.7	25.5	19
2021-02-09	3	33.4	26.2	19
2021-02-10	3	23.8	21.2	19
2021-02-11	3	38.4	23.9	19
2021-02-12	2	22.8	16.4	12
2021-02-13	2	28.2	7.1	12
2021-02-16	1	2.9	4.3	7
2021-02-17	3	29.2	25.4	17
2021-02-18	3	26.5	23.2	17
2021-02-19	3	51.5	34.6	17
2021-02-20	3	28.8	26.7	17
2021-02-21	3	35.3	25.1	17
2021-02-22	3	21.5	26.4	17
2021-02-23	3	33.5	20.8	17
2021-02-24	2	14.7	12.5	10
2021-02-25	1	9.5	4.9	4
2021-03-09	1	9.8	6.1	6
2021-03-10	2	15.6	14.0	13
2021-03-11	2	13.4	18.1	13
2021-03-12	2	12.5	15.8	13
2021-03-13	2	17.9	16.0	13
2021-03-14	2	15.6	15.9	13
2021-03-15	2	17.3	17.8	13
2021-03-16	2	15.3	16.2	13
2021-03-17	2	16.1	18.7	13
2021-03-18	2	11.7	7.7	13
2021-03-19	1	3.1	2.2	7
2021-03-23	2	16.4	15.0	13
2021-03-24	3	21.9	18.7	20
2021-03-25	3	55.3	25.3	20
2021-03-26	3	33.6	25.9	20
2021-03-27	3	33.8	24.3	20
2021-03-28	3	33.9	31.7	20
2021-03-29	3	18.2	19.1	20
2021-03-30	1	11.0	4.6	7

Appendix III. Ranger work time for the period, January to March 2021.

Name	Number of Patrols	Number of Patrol Days	Number of Patrol Hours	Total Patrol Distance (km)
Abel Ita Akpu	4	32	245.4	257.4
Agbor Innocent	1	7	46.2	66.8
Anyia Godsgift	1	6	41.5	63.8
Aondona Michael Aernyi	4	32	229.9	297.1
Asuquo Edet Itaya	3	27	234.6	202.3
Augustine Oyamo Mbeh	3	22	159.7	253.4
Bassey Effim Ajom	2	20	162.0	143.1
Bassey Effiong	4	27	180.0	292.8
Bassey Prince	4	35	271.3	276.0
Charles Sampson Okon	2	15	136.3	121.7
Christopher Agbachom I.	2	14	118.4	129.6
Cornelius Itafaha Onyo	2	14	129.6	119.3
Cyril Maurice Ogar	4	29	209.7	318.5
David Clement Agu	2	17	120.6	164.3
Delvis Okon	5	42	355.2	324.9
Dominic Abel Samuel	4	35	253.9	322.5
Dominic Inyang Anki	1	7	46.2	66.8
Ebri Okoi Ofem	1	5	41.3	66.6
Ekpe Etta Joel	4	25	175.0	268.8
Ekun Effiong Ekpe	5	35	248.6	368.4
Emmanuel Itashu Akpona	1	9	72.4	106.2
Ephraim Imoh Oyoma	1	5	41.3	66.6
Felix Emmanuel	3	25	179.3	256.2
Festus Njah Ekun	1	7	49.8	76.9
George Itambu Okpan	2	14	96.6	137.4
Godfrey Lawo Ashu	6	47	341.1	487.1
Ime Salas	1	10	65.3	73.2
John Effiom Edet	2	17	146.4	162.9
John Osang Bisong	4	29	209.7	318.5
Leonard Akwo	5	39	328.1	364.6
Nicholas Okpa Abang	2	15	113.9	182.9
Ntui Ojong	6	49	341.1	468.3
Okon Edet Edet	1	10	83.4	75.0
Patrick Godwill Ekpe	3	23	170.2	202.3
Roland Tansung Etumon	2	17	140.4	135.1
Romanus Orim Egbi	1	7	45.9	98.0
Sylvester Ojong Akat	1	5	41.3	66.6
Samuel Ekun Effa	4	32	238.6	290.3
Saviour Clement Oyom	1	7	57.0	60.1
Sunday Keyo Onu	1	7	57.0	60.1

Appendix IV. Schools visited in Oban East and Oban West January to March 2021

S/N	Communities	Schools	Number of notebooks distributed
1	Ekan	Government Primary School, Ekan	10
2	Mfamien	Angelic Bright Star Academy, Mfamien	12
3	Oban	St. Michael Primary School, Oban	20
4	Oban	Trinitas Academy International, Oban	15
5	Oban	Government Grammar School, Oban	29
6	Ekon	St. Kelvin Primary School, Ekon	18
7	Ekon	Aunty Mercy Primary School, Ekon	10
8	Akor	Government Migrant School, Akor	5
9	Akor	Poebian Nursery/Primary School, Akor	14
10	Akor	Government Primary School, Akor	9
11	Akor	Excellent nursery/Primary School, Akor	4
12	Ekon-Anaku	Government Primary School Ekon –Anaku	9
13	Ekon-Anaku	Evangel Model Nursery/Primary School, Ekon –Anaku	12
14	Ekon-Anaku	Evangel Model Secondary School, Ekon –Anaku	27
15	Ekuri	St. Joseph Primary School, Old Ekuri	9
16	Ekuri	Government Migrant Secondary School, Old Ekuri	20
17	Mkp	Community Science School, Mkp	20
18	Nsof	Community Primary School, Nsof	13
19	Nsof	Community Secondary School, Nsof	20
20	Old Netim	Community Sec. sch. Old Netim	5
21	Owai	Presbyterian Primary School, Owai	4
22	Old Ekuri	Government Sec. Sch. Old Ekuri	4
23		Government Pri. Sch. Old Ekuri	5

Appendix V. List of schools with new Conservation Clubs January to March 2021

S/N	Communitie	School	Number of notebooks distributed
1	Nding-Ane	Dominion Nursery/Primary School, camp 4, Nding-Ane	0
2	Camp 4	Government Primary School Nkorokumi, Camp 4	11
3	Old Netim	Government Primary School, Old Netim	10
4	Obung	Apostolic Divine Academy, Obung	12
5	Nsan	Government Primary School, Nsan	8
6	Nsan	Ibenda Community Secondary School, Nsan	17
7	Ojor	Sunshine Academy Nursery /Primary School, Ojor	11
8	Ojor	Government Secondary School, Ojor	15
9	Ifumkpa	Government Secondary School, Ifumkpa	10
10	Neghe	Government Primary School, Neghe	20
11	Okarara	Government Primary Okarara	15
12	Itaka	St. Finians Primary School, Itaka	5
13	Etara	Government Primary School, Etara	20
14	Okoroba	St. Raphael Primary School, Okoroba	10
15	Itaka	Government Secondary School, Itaka	20
16	Mkpot 2	St. Georges Primary School, Mkpot 2	10
17	Camp 3	St. Peters Oban Rubber estate, Camp 3	12
18	Obung	St. Bernard Technical School, Obung	11
19	Old Netim	Netim computer Institute Sec. School, old Netim	10
20	Old Netim	Recin School, Old Netim	5
21	Old Netim	Apostolic graceland Sec. Sch. Old Netim	10
22	Old Netim	Apostolic graceland nur/ Pri. Sch. Old netim	10
23	Old Netim	Model Primary Sch. Old Netim	10
24	Old Netim	St. Georges Primary School, Old Netim	9
25	Uyanga	Abakum Intl. Sec. Sch., Uyanga	7
26	Uyanga	Abakum Intl. Pri. Sch., Uyanga	7
27	Uyanga	Uyanga Model high School	9
28	Ojor	Pius Helen Global Institute, Sec. Sch. Ojor	6
29	Ojor	Infant Jesus Pri. Sch. Ojor	4
30	Ojor	Apostolic Shalom Pri. Sch. Ojor	4
31	Owai	Comprehensive Sec. Sch. Owai	6
32	Iko Esai	Community Sec. Sch. Iko esai	5
33	Iko Esai	The Presbyterian International Pri. Mission school	4
34	Iko Esai	Gov. Migrant Sec. Sch, Iko esai	4
35	Iko Esai	Community Pri. School. Iko esai	-
36	Iko Esai	Presbyterian Church of Nigeria. Sch, Iko esai	3
37	Iko Esai	Ikoh parish Presbyterian church pri school, Iko esai	-
38	Iko ekperem	Hans International Pri. Sch. Iko ekperem	4
39	Iko ekperem	Presbyterian Church of Nigeria. Sch, Iko ekperem	-
40	Iko ekperem	Blessed minds academy sec sch. Iko ekperem	-
41	Iko ekperem	Blessed minds academy Primary sch. Iko ekperem	-
42	Iko ekperem	Community Pri. School Iko ekperem	-
43	New ekuri	Gov. Sec. Sch. New Ekuri	2
44	New ekuri	St. Charles Pri. Sch. New Ekuri	4
45	Edondon	Comprehensive Sec. Sch. Edondon	2
46	Edondon	Migrant Sci. Tech. college Edondon	5
47	Edondon	Mary Famous Pri. Sch Edondon	3
48	Edondon	St. Bernard Pri. Sch. Edondon	3