

**WILDLIFE CONSERVATION SOCIETY**  
**CROSS RIVER NATIONAL PARK (OKWANGWO DIVISION)**  
**QUARTERLY REPORT: APRIL-JUNE, 2015**



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## Summary

Twelve patrols (4 per month) were completed in 96 patrol days during the period April-June, 2015 covering a total distance of 697kilometers in 719 hours. Two patrol teams comprising six Cross River National Park rangers each and a WCS staff patrolled different areas simultaneously. Hunting and other human activities recorded during this period include 8 hunting camps (dismantled), 18 wire snares and 31 spent cartridges removed. There were no great ape sightings during this period. A total of 37 great ape nest sites were recorded. 20 of these were identified as gorilla nest sites, 12 were identified as chimpanzee nest sites, and 5were recorded as unidentified great ape nest sites. Signs of other animal species were also observed in the areas patrolled, although the encounter rates were generally low.

## Methods

Patrols focused on the Boshi Extension and Okwa Hills areas of the park, where gorillas occur. Each patrol lasted 8 days. Patrol teams comprised six Cross River National Park rangers and a WCS staff. Signs of human activities and wildlife were recorded using hand-held CyberTracker units. All wire snares found were removed and all hunting collection camps found were dismantled by patrol teams. CyberTracker software and Microsoft Excel were used for data analysis and presentation.

## Results

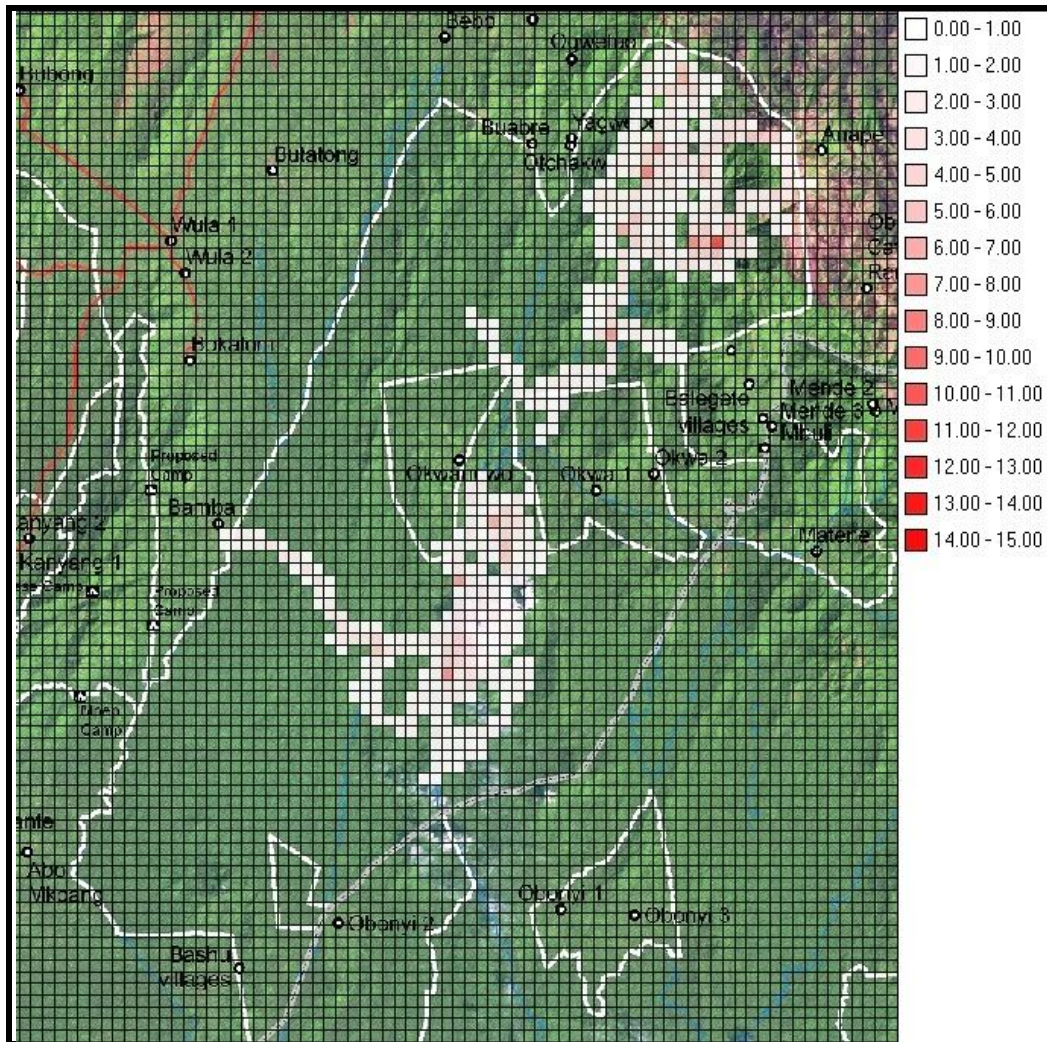
### *Patrol effort*

Twelve patrols were completed during the period January-March, 2015 (Table 1). 96 patrol days were accomplished. A distance of 697 kilometers was covered in 719 hours (details in Appendix 1). Patrol team composition and the areas patrolled are shown in Appendix 2 and Figure 1 respectively.

**Table 1:** Patrol Effort April-June 2015

Month	Number of patrols	Number of patrol days	Distance covered (km)	Time taken (hrs)
April	4	32	233.6	237.5
May	4	32	245.2	237.8
June	4	32	218.5	243.5
Total	12	96	697.3	718.8





**Figure 1:** Map of areas covered (April-June 2015). Grids with brighter red color or + sign represent areas with greater patrol effort.

### Great Apes

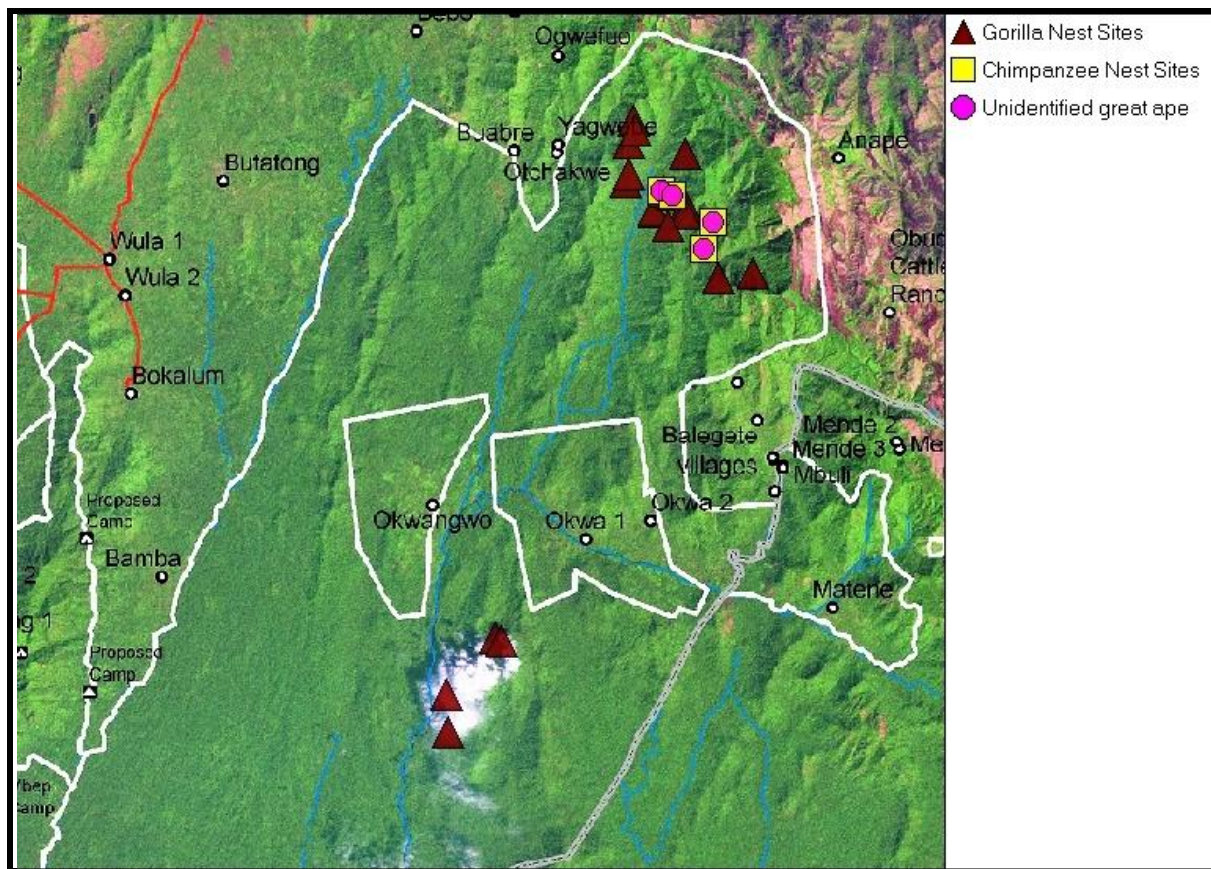
There were no great ape sightings during this period. A total of 37 great ape nest sites were recorded during this period. 20 of these were identified as gorilla nest sites and 12 as chimpanzee nest sites. 5 nest sites which were at an advanced stage of decomposition and could not be classified as gorilla or chimpanzee nest sites were recorded as unidentified great ape nest sites (Table 2). The locations of all great ape nest sites recorded during this period are shown in Figure 2 below.

**Table 2:** Great ape nest sites recorded April-June 2015

Date	Latitude	Longitude	Nest site age	Total number of nests	Nests on the ground	Number on trees	Dung presence
4/15/2015	6.405057	9.296362	Recent	7	7	0	Yes
4/15/2015	6.405675	9.296388	Fresh	8	8	0	Yes
4/16/2015	6.429025	9.28792	Fresh	5	2	3	Yes
4/17/2015	6.425097	9.307382	Fresh	3	3	0	Yes
4/16/2015	6.4233	9.285022	Fresh	5	0	5	No
4/17/2015	6.425077	9.307137	Fresh	1	0	1	Yes
4/17/2015	6.382997	9.319288	Recent	6	0	6	No
5/15/2015	6.415332	9.286482	Recent	4	1	3	No
5/15/2015	6.418207	9.287763	Old	5	2	3	No
5/16/2015	6.436805	9.289478	Fresh	2	1	1	No
5/16/2015	6.433162	9.28969	Fresh	1	1	0	No
5/18/2015	NA	NA	Old	3	3	0	No
5/26/2015	6.226787	9.22563	Fresh	3	3	0	No
5/13/2015	6.412177	9.299883	Recent	3	0	3	No
5/13/2015	6.41294	9.302205	Recent	3	0	3	No
5/14/2015	6.422042	9.299663	Old	5	0	5	No
5/16/2015	6.433928	9.289583	Fresh	1	0	1	No
5/16/2015	6.392233	9.313398	Fresh	2	0	2	No
6/13/2015	6.384407	9.330233	Fresh	5	0	5	Yes
6/14/2015	6.382503	9.318457	Recent	4	0	4	Yes
6/15/2015	6.412198	9.299377	Old	3	3	0	No
6/15/2015	6.411028	9.30281	Fresh	2	2	0	Yes
6/15/2015	6.407477	9.307158	Recent	1	1	0	No
6/15/2015	6.40492	9.306992	Fresh	2	0	2	No
6/15/2015	6.40069	9.301328	Recent	1	1	0	No
6/26/2015	6.258862	9.24188	Old	4	0	1	No
6/26/2015	6.258037	9.24424	Old	1	0	0	No
6/26/2015	6.239367	9.225303	Recent	4	0	0	No
6/24/2015	6.275728	9.236583	Recent	2	0	2	No
6/25/2015	6.225953	9.227223	Fresh	1	0	1	Yes
6/25/2015	6.230923	9.227495	Very old	1	0	1	Yes
6/26/2015	6.239038	9.22315	Fresh	2	0	2	No
6/27/2015	6.274572	9.235348	Recent	6	0	6	No
6/15/2015	6.41232	9.299235	Recent	2	0	2	No
6/15/2015	6.412292	9.299343	Recent	3	0	3	No
6/15/2015	6.41078	9.302618	Fresh	7	0	7	No
6/16/2015	6.401453	9.316715	Recent	5	0	5	Yes

Recent=4-7 days, Fresh= 1-3 days, Old=1-4 weeks, Very old  $\geq$ 1 month





**Figure 2:** Great ape nest site locations April-June 2015



*CRNP Rangers in Okwangwo inspecting gorilla nest sites in Boshi Extension and Okwa Hills.*

### *Other animal species recorded*

Total animal sign encounter rate in this quarter was slightly higher (4.4 signs per kilometer walked) than that recorded in the previous quarter (3.1 signs per kilometer). Signs of brush-tailed porcupine (*Atherurus africanus*) were the most frequently observed (1.4/km). Great ape sign encounter rates were generally low (0.052 for gorillas and 0.084 for chimpanzee). Details of other animal sign encounter rates are shown in Table 3 below.

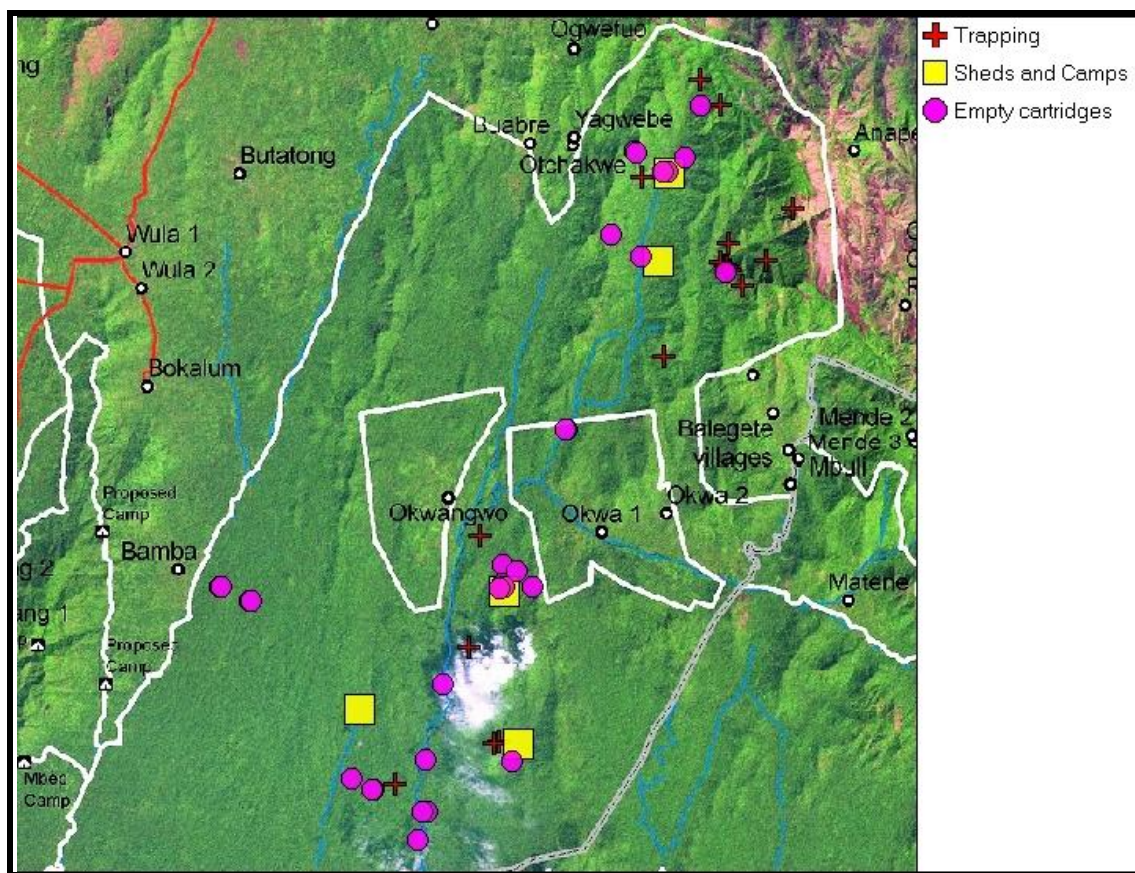
**Table 3:** Encounter rate of the other animal species recorded April-June 2015

Species	Scientific name	Number of observations	Encounter rate/km
Brush-tailed porcupine	<i>Atherurus africanus</i>	958	1.372
Unidentified monkey	-	375	0.537
Unidentified duiker	-	258	0.370
Mona monkey	<i>Cercopithecus mona</i>	257	0.368
Red river hog	<i>Potamochoerus porcus</i>	238	0.341
Common cusimanse (Mongoose)	<i>Crossarchus platycephalus</i>	167	0.239
Blue duiker	<i>Philantomba monticola</i>	135	0.193
Red duiker	<i>Cephalophus</i> sp	127	0.182
Putty-nosed monkey	<i>Cercopithecus nictitans</i>	103	0.148
Squirrel	-	91	0.130
Nigeria-Cameroon chimpanzee	<i>Pan troglodytes ellioti</i>	59	0.084
Forest elephant	<i>Loxodonta africana</i>	46	0.066
Tree pangolin	<i>Phataginus tricuspis</i>	42	0.060
Gorilla	<i>Gorilla gorilla diehli</i>	36	0.052
Rock hyrax	<i>Procavia ruficeps</i>	28	0.040
Yellow-backed duiker	<i>Cephalophus silvicultor</i>	25	0.036
Unidentified great ape	-	24	0.034
Unidentified small mammal	-	17	0.024
Large duiker	-	13	0.019
Bay duiker	<i>Cephalophus dorsalis</i>	12	0.017
Flying squirrel	-	9	0.013
Unidentified cat	-	9	0.013
Olive baboon	<i>Papio anubis</i>	6	0.009
Buffalo	<i>Syncerus caffer</i>	6	0.009
Genet	<i>Genetta sp</i>	5	0.007
Unidentified large mammal	-	5	0.007
Palm civet	<i>Nandinia binotata</i>	2	0.003
African civet	<i>Civettictis civetta</i>	1	0.001
Cane rat (grass-cutter)	<i>Thryonomys swinderianus</i>	1	0.001
Drill	<i>Mandrillus leucophaeus</i>	1	0.001
Other cat	-	1	0.001
Other rat	-	1	0.001
Small duiker	-	1	0.001



## Human and hunting activities recorded

Hunting and other human activities were relatively low in the areas patrolled. A total of 21 persons were seen collecting bush mango in the park. In the past hunting activity increased during the bush mango collection season. The relatively low level of hunting activity recorded this year in the areas patrolled (Tables 4 & 5) is therefore an interesting and welcome development, but one that needs to be better understood through careful monitoring. It is possible that some of the people seen collecting bush mango still hunt at night when rangers have retired to their camps. It could be that, hunters have changed tactics in order to avoid detection and arrest by hiding their guns in the bushes far away from their camps. An alternative explanation could be that continued patrols are deterring hunting in these areas. Figure 3 shows the location of all hunting and other human activities recorded in the areas covered during this period.



*Figure 3: Distribution of human activities recorded during patrols in Okwangwo April-June 2015*



A family from Okwa 1 collecting bush mango (*Irvingia gabonensis*) inside the park during the period

**Table 4:** Hunting signs recorded April-June 2015 CRNP Okwangwo Division

Month	Wire snares removed	Gunshots Heard	Hunters arrested	Hunter/NTFP collection sheds	Empty cartridges Removed
April	7	1	0	1	7
May	8	3	0	3	17
June	3	1	0	4	7
<b>Total</b>	<b>18</b>	<b>5</b>	<b>0</b>	<b>8</b>	<b>31</b>

**Table 5:** Hunting activity indicators encounter rates April-June 2015

Month	Wire snares removed	Gunshots heard	Hunters arrested	Hunter/NTFP collection sheds	Empty cartridges removed
April	0.029	0.004	0	0.004	0.029
May	0.032	0.012	0	0.012	0.069
June	0.013	0.004	0	0.018	0.032
<b>Total</b>	<b>0.074</b>	<b>0.020</b>	<b>0</b>	<b>0.034</b>	<b>0.130</b>

An elephant skull and other bones were discovered inside the park during the period. Though examination of the skeleton revealed no bullet or cutlass marks to confirm poaching, the tusks were missing suggesting possible death from hunting. All other major bones were present. There have been some recent rumors that



some individuals from Okwangwo community recently picked elephant tusks inside the park. It could be that the rumored “picked” tusks belonged to this elephant.



WCS Okwangwo Project Manager and CRNP rangers examining an elephant skeleton for signs of poaching.

**Appendix 1: Patrol effort in Okwangwo: April-June 2015**

Date	Number of observations	# patrol days	Distance covered (km)	Time taken (hr)	Start time	Stop time
4/14/2015	45	2	11.9	14	8:22:15	15:21:30
4/15/2015	80	2	13.6	16.7	7:44:56	16:06:52
4/16/2015	78	2	12.9	15.8	8:15:16	16:10:58
4/17/2015	72	2	13.3	16.4	8:06:27	16:25:05
4/18/2015	63	2	9.3	12.1	8:14:12	14:17:31
4/19/2015	107	2	12.1	15.4	8:08:22	15:56:00
4/20/2015	114	2	18.5	17.6	7:49:35	16:40:56
4/21/2015	37	2	9.5	7.5	7:49:14	11:35:35
4/24/2015	46	2	13.6	12.1	9:16:30	15:20:12
4/25/2015	43	2	14.3	13.7	8:11:06	15:04:31
4/26/2015	76	2	14.7	15.7	8:13:55	16:07:53
4/27/2015	90	2	17.8	17.9	7:55:41	16:05:28
4/28/2015	70	2	13.2	16.7	8:22:26	16:45:00
4/29/2015	49	2	17.3	14.8	7:59:10	15:27:43
4/30/2015	66	2	18.1	18	8:18:24	17:22:46
5/1/2015	60	2	23.4	13.1	8:18:17	14:58:27
5/12/2015	61	2	14.8	15.3	8:47:07	16:26:28
5/13/2015	107	2	12.8	15.3	8:02:23	16:35:00
5/14/2015	79	2	9.8	14.9	8:01:29	15:33:34
5/15/2015	95	2	15.7	13.9	7:45:54	14:53:13
5/16/2015	109	2	10.8	14	8:27:49	15:32:16
5/17/2015	88	2	12.1	15.6	7:41:43	15:37:44
5/18/2015	99	2	9.5	14.7	7:48:28	15:11:19
5/19/2015	62	2	13.2	10.5	7:50:11	13:11:13
5/23/2015	95	2	20.6	16.6	7:58:39	16:16:08
5/24/2015	76	2	15.9	17.7	7:37:39	16:32:18
5/25/2015	58	2	17.2	13.2	7:59:18	14:53:55
5/26/2015	108	2	19.3	16.8	8:05:46	16:32:08
5/27/2015	111	2	19.3	15.7	8:30:23	16:39:31
5/28/2015	107	2	16.5	16.9	8:23:12	16:56:17
5/29/2015	120	2	24.7	18.7	8:06:49	17:51:27
5/30/2015	35	2	12.8	8.1	8:08:22	12:11:08
6/11/2015	50	2	15.4	14.3	9:02:15	16:12:22
6/12/2015	83	2	12.4	15.8	8:17:25	16:17:31
6/13/2015	65	2	11	14.6	8:10:34	15:29:00
6/14/2015	99	2	13.1	14.7	8:05:57	15:39:54
6/15/2015	98	2	15.2	16.1	8:00:04	16:09:56
6/16/2015	73	2	9.4	14.4	8:02:02	15:14:00
6/17/2015	44	2	9.5	12.3	8:48:12	15:45:49
6/18/2015	41	2	11.2	10.2	7:46:43	13:08:32

6/21/2015	45	2	15.6	22.5	7:39:15	18:46:39
6/22/2015	112	2	13.9	16.6	7:56:14	16:22:11
6/23/2015	64	2	13.9	17	7:44:35	16:16:27
6/24/2015	97	2	19	17.2	8:05:34	16:44:50
6/25/2015	63	2	16.3	18	7:31:08	15:41:26
6/26/2015	80	2	17.1	15.5	8:30:19	16:20:19
6/27/2015	75	2	16.6	16.3	7:29:30	15:43:03
6/28/2015	25	2	8.9	8	8:04:52	12:05:06
	3620	96	697.3	718.8	8:097:00	15:40:46

**Appendix 2:** Patrol team composition and areas patrolled April-June 2015.

Patrols	Start Date	End Date	#Patrol Days	Patrol TeamMembers	Areas Patrolled
1	Apr 14	Apr 21	8	Cyril Ogar, Patrick Okwo, Cornelius Onyo, OruAjom, Pius Lakwan, and Akparika Samuel	Boshi Extension
2	Apr 14	Apr 21	8	Jerome Anya, Sunday Achuaw, Ferdinand Anyam, EdetEkpo, FestusNjah, BernadAtakpa and Celestine Mengnjo	Boshi Extension
3	Apr 24	May 1	8	Bassey Usang, Roland Etumon, AbamIbor, Francis Akor, Cyril Ogar, Ferdinand Ayam and Celestine Mengnjo	Boshi Extension
4	Apr 24	May 1	8	Patrick Okwo, Ajom Bassey, Akparika Samuel, Festus Njah, Cornelius Onyo, and EdetEkpo	Boshi Extension
5	May 12	May 19	8	John Bisong, Cyril Ogar, Patrick Okwo, Cornelius Onyo, OruAjom, and Pius Lakwan	Boshi Extension
6	May 12 <sup>th</sup>	May 19	8	Jerome Anya, Ferdinand Anyam, EdetEkpo, Festus Njah, BernadAtakpa and Celestine Mengnjo	Boshi Extension
7	May 23	May 30	8	Bassey Usang, Mathew Ojong, Abe Ita, Francis Akor, MbusaEtim, BernadAtakpa and Celestine Mengnjo	Okwa Hills
8	Apr 24	May 1	8	TheophilusIkunyang, Ajom Bassey, Akparika Samuel, Ernest Achura, Cornelius Onyo, and Lakwan Pius	Okwa Hills
9	June 11	June 18	8	John Bisong, LekamObongha, Ferdinand Anyam, Ajom Bassey, AkparikaSammuel and Francis Akor.	Boshi Extension
10	June 11	June 18	8	Bassey Usang, Cyril Ogar, Pius :akwan, Ernest Achura, Abel Ita, Festus Njah and Celestine Mengnjo	Boshi Extension
11	June 121	June 28	8	Patrick Okwo, Abel Ita, Ebani Martins, Roland Etumond, Kenneth Ambre, SammuelsAkparika and Celestine Mengnjo	Okwa Hills
12	June 121	June 28	8	Bassey Usang, Ernest Achura, Ajom Bassey, Pius Lakwan, OruAjom, Cornelius Onyo and Francis Akor	Okwa Hills