

Survey on the Fox's Weaver, the only Ugandan Endemic bird species



Yellow-backed Weaver nests on Lake Bisina

Final Survey Report

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September 2015

INTRODUCTION

The Fox's Weaver *Ploceus spekeoides* in Eastern Uganda is the only endemic bird species for the country yet little is known about it. Fox's Weaver is thought to be in decline basing on the lack of recent reliable sightings in areas where it is expected. Certainly, the last reliable sighting was made in January 2010 by a team of NatureUganda waterfowl counters on Lakes Opeta and Bisina. They recorded seven birds including two males. Such counts are conducted bi-annually but no further sightings have been made.

The type specimen was collected from seasonally flooded grassland at Ngariam in Katakwi district in Eastern Uganda and since then it has remained an enigma with breeding records from Lake Opeta in August and occasional sightings at other times of the year. In the latest classification from BirdLife International Fox's Weaver *P. spekeoides* is classified globally as Near Threatened, while the Uganda Bird Atlas gives its regional status as Near Threatened and Data Deficient. This is because the species is very poorly known and has only been recorded from one area. It is assumed to have a moderately small population, in fact no population estimate is available and it is thought that it may be declining.

NatureUganda conducted a survey on this species under the title: "*Survey of the Fox's Weaver - Ploceus spekeoides, the only Ugandan Endemic bird species*". The objectives of this survey were to attempt to gauge the current population level and density of the species by surveying the presumed core habitat. A comprehensive search of the two main sites, namely Lakes Bisina and Opeta was done as much as possible. This kind of research had not been carried out before and this survey was the first attempt in gauging the population of this species. Its preferred habitat is papyrus-fringed lakes with nearby wooded grassland, a habitat common throughout Eastern Uganda. It is thought that the population of this species has reduced because of the threats to its habitat caused by wetland drainage and cattle grazing, which this survey was trying to confirm.

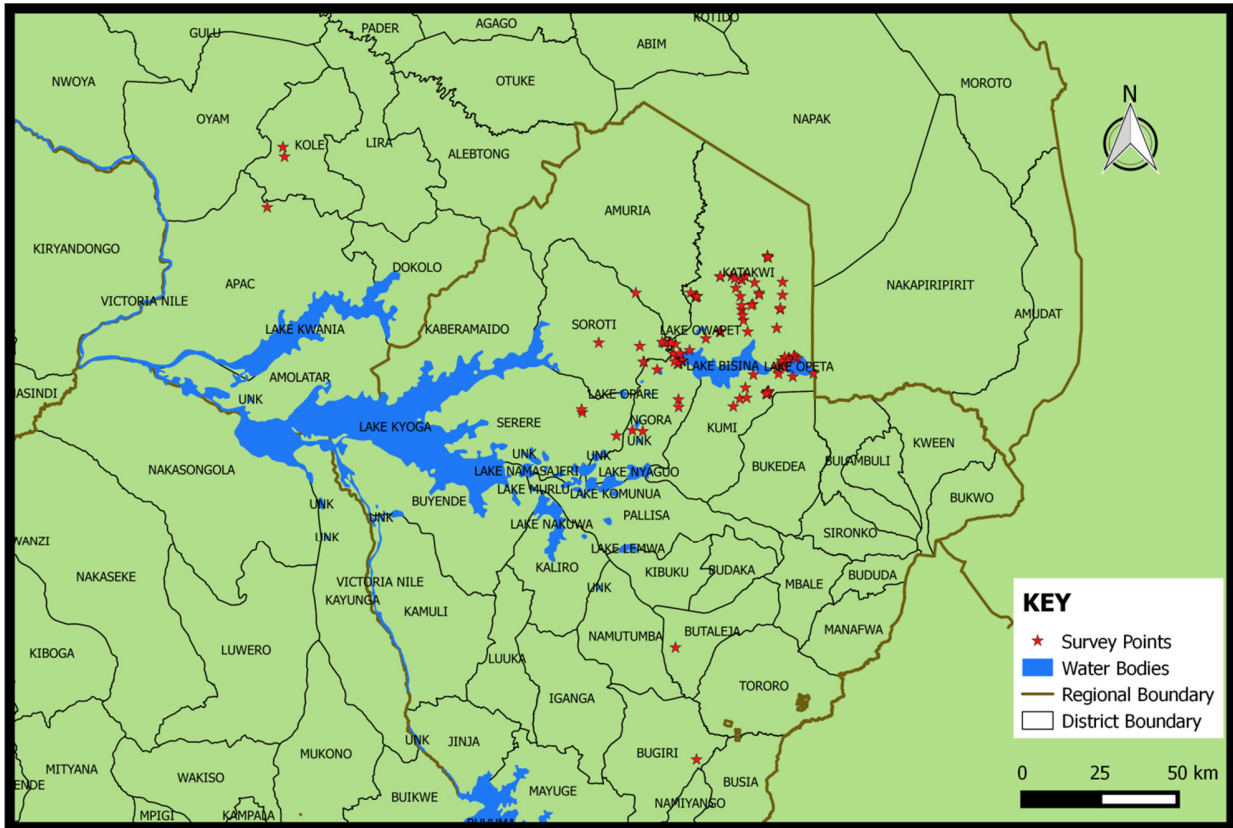
SITE SELECTION



The sites surveyed were all those that seemed to be suitable for the species around the Lakes Opeta and Bisina. Using the maps available at a scale of 1:50,000 all possible suitable sites seen were visited. The sites were parts of seasonally flooded wetlands and small lakes around and including Lakes Opeta and Bisina in Kumi, Soroti, Katakwi and Serere districts of Eastern Uganda. Additional opportunistic sites in Lira and the rice schemes of Doho and Kibimba were also attempted, since their habitat seemed suitable for the species. These included sites both on water and on land

(Map 1 and Appendix I).

Sites Surveyed for Fox's Weaver in Eastern Uganda 2015



Map 1: Area surveyed during the Fox's Weaver survey April –August 2015.

Methods

The initial plan was to estimate the population of Fox's Weaver using transect counts and mist netting. But first, we had to find out where the species was and then lay out transects. Unfortunately, the whole survey involved only searching for the species to find out if they were in the area. Bird survey methods on water involved using a pirogue to traverse as much of the likely-looking habitat as was accessible, engaging the services of local guides who assisted us in showing known Weaver colonies. Off the water, similar methods were used involving moving around all possible habitats, guided by the local guides and searching for the weaver. GPS readings for all colonies of any weavers found were taken and all weaver species found were recorded (Appendix I).

Results

Although no Fox’s Weaver was recorded in all the sites surveyed during the study, 12 species of weavers were recorded with an average total of 246 individuals (Table 1). The Yellow-backed and the Northern Brown-throated being recorded with the highest number of individuals among the other weavers recorded. These two weaver species were the most recorded in all the survey months (Figure 1).



Table 1: Number of individuals of the Weaver species recorded during the April –August survey 2015

Weaver Species	Apr	July	Aug
Northern Brown-throated	44	43	60
Yellow-backed	34	158	107
Lesser Masked	2		
Grosbeak	5	7	9
Slender-billed	1	14	7
Parasitic	1		
Village		20	52
Jackson's Golden-backed		17	53
Compact		1	6
Black-necked		2	
Heuglins Masked		2	2
Spectacled			1
Number of Species	6	9	9

The Yellow-backed, Northern Brown-throated, Grosbeak and Slender-billed weavers were recorded on all the survey months while Lesser-masked and Parasitic Weavers were recorded only in April, Spectacled Weaver was recorded only in August and Black-necked only in July (Table 1, Figure 1).



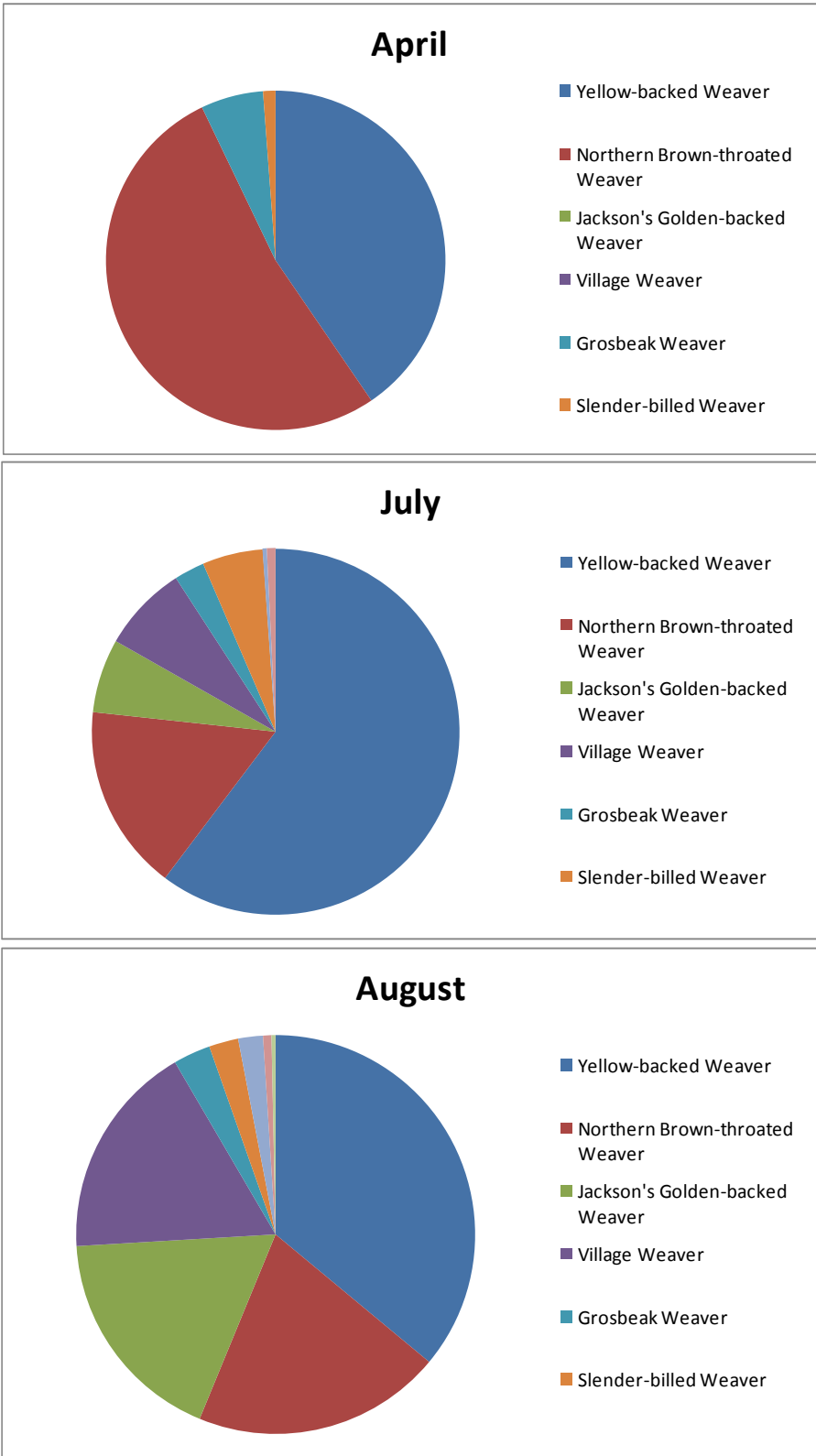


Figure 1: Proportion of each weaver species recorded in the different survey months.

Discussion

The first visit in April involved three full days field work with two further days spent travelling (the sites being 7-8 hrs drive from Kampala) this unfortunately proved disappointing as no Fox's Weaver *Ploceus spekeoides* was recorded.

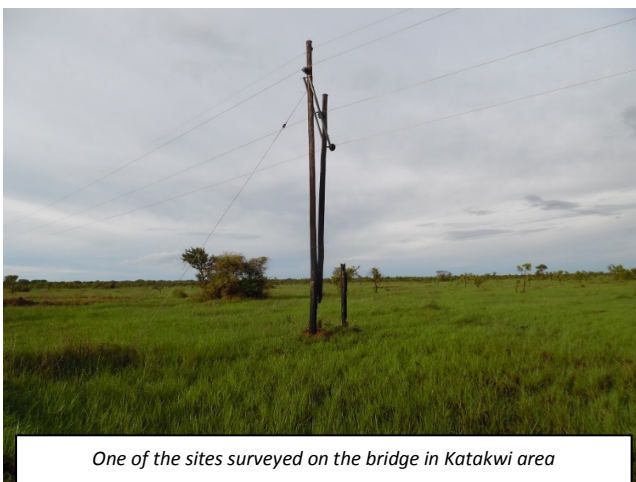
The second visit, targeted July rather than June as we hoped this would coincide with the bird's main breeding season as told by the locals in the areas surveyed. Also after discussion, we decided to broaden our scope and use an extra day to survey the modified wetlands of near-by Kibimba and Doho rice schemes. Although our first day, which we spent in Kibimba rice scheme recorded Golden-backed *Ploceus jacksoni*, Northern Brown-throated *Ploceus castanops* and Yellow-backed weavers *Ploceus melanocephalus*, all in breeding plumage and building nests, no Fox's Weaver *P. spekeoides* were present. Suitable sites in Lira area were also surveyed but none of them recorded the weaver.

The third and final survey targeted the last week of August as this was thought that breeding would be taking place and it was suspected that the sites would be wetter and more to this species' liking. Although some of the wooded, grassed areas were indeed wetter, quite a few areas had not received very much rain. The areas around Ngarium where the type specimen had been collected being particularly dry. We decided to continue surveying previous sites even with two failed attempts because the areas appeared to be suitable and were known in the past to have held the species. However, our only deviation was a speculative visit to the Kyoga system near Ngora which produced a lot of breeding weavers but all had been recorded before and were expected.

Habitat threats such as draining of the wetlands and heavy burning of the grassland during the drier seasons especially to encourage new growth of fodder for the vast amount of cattle present is bound to be a problem for this species. Preferring seasonally flooded wetlands, the species is likely to be affected

by the vast herds of cattle traversing this region, which also experiences long dry spells, worsening the situation.

The timing of the survey might also have affected the results obtained. The survey was conducted in only three months of April, July and August, out of the twelve months in a year. Since nothing is known about this species ecology, we might have missed it during the months that we did not survey. So generally, this survey is still not conclusive on the existence of the species in the country. There is thus a need for a country/wide all year survey of the species to make a conclusive report.



One of the sites surveyed on the bridge in Katakwi area

Added to that, the fact that we did not find the species resulted in the team not employing a standard survey method for the study. If we had employed more thorough methods like mist netting, maybe we would have changed these results. Mist netting is known to pull out the more silent less mobile bird species that would not otherwise have been recorded during the other bird survey methods like timed species counts and point transect counts (Bibby *et al.* 2000). The same applies to the fact that we might have changed the results if we had used a bigger team as compared to the team used during the last two surveys with only two expert birders. The bigger the team, the better the effort put into the search, so given another chance for this survey, we would take that into consideration. Many of the sites were not accessible since they were all flooded so better ways to maneuver through these habitats would have resulted in better coverage.

On another note, we tried as much as we can to survey all possible sites in addition to the known sites where historical records had been made. If we had used the habitat in the known sites to model all the suitable possible habitat locations using GIS, we would have come up with all possible sites which we would have surveyed. This is another venture that is worth trying out.

Conclusion

1. Our three unsuccessful visits in three different months adds to the suspicions of many suggesting a continuing decline. One bright hope is that this species is similar to Weyns's Weaver *Ploceus weynsi* and Clarke's Weaver *Ploceus golangi* which explore totally different habitats outside of the breeding season and only breed if the conditions are correct, ref Scopus 35: 1-10, July 2015, for the article on Clarke's Weaver breeding in Kenya.
2. Habitat threats such as draining of the wetlands and heavy burning of the grassland during the drier seasons, especially to encourage new growth for the vast amount of cattle present is bound to be a problem for this species and shows no sign of reversing these trends.
3. The survey design in this particular study if changed might yield positive results. The next step is to repeat this survey taking into account the survey methods, coverage and timing of the surveys to rule out all the possibilities of having missed the species because of one reason or another.
4. Fox's Weaver remains relatively an unknown species in terms of its location, breeding, population and identification to science and people. Very little is known about this species (Stevenson & Fanshawe 2006, Carswell *et al.* 2005) and so even estimating its locations and migrations if any is not easy.

Recommendations

1. We need an extensive survey of probably the whole country to try and see if this species changed its preference to the habitat or if it has migration tendencies. Local area sources reported that these weavers move and go somewhere at some point during the year and return later to breed during the harvest time.

2. Another theory is perhaps the timing of our visits was at the wrong time of year, so visits in all months of the year will be needed. The unclear planting seasons as determined by the rainfall pattern is another pitfall as it gets more difficult to time the arrival of these birds if the these rainfall patterns are not constant. A one year monthly targeted survey is therefore recommended.

3. As the habitat we are searching has been known in the past to be good for the species and still looks good, then logically we may need to continue searching the same areas. We could have a person on the ground to spend longer periods at good sites and be better able to evaluate. In addition to transects, we recommend use of mist nets next time the survey is repeated done

References

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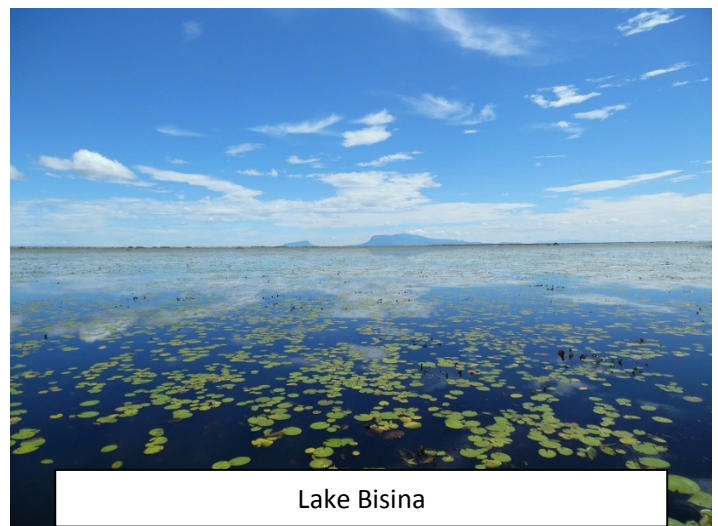
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Acknowledgements

This study was conducted with funding from ABC and we are grateful for their support. We thank all the staff of NatureUganda who contributed to this study. We are further thankful for the contributions from different birders in guiding the site selection by providing your previous records of the Fox's Weaver.



APPENDICES

Appendix I: GPS readings for all colonies of any weavers found during the Fox's Weaver survey April – August 2015

Area	Site	UTM_E	UTM_N	Altitude	Habitat description
Atuta	Atuta	592775	172178	1065 m	Man-made Dam
	Atuta	592832	169757	1076 m	Grassland with thickets
	Atuta	581263	162037	1045 m	Seasonally flooded grassland
	Atuta	577942	162294	1037 m	Seasonally flooded grassland
	Atuta	572822	160628	1038 m	Seasonally flooded grassland
	Atuta	561810	168041	1063 m	Seasonally flooded grassland
Bugiri	Kibimba	598631	56985	1082 m	Rice scheme, flooded
Butaleja	Doho	591831	92700	1062 m	Rice scheme, flooded
Katakwi	Akide	621232	174113	1042 m	Flooded Grassland with a few trees
	Akide	621424	174618	1043 m	Open water with flooded-wooded grassland banks
	Akide	621541	174759	1043 m	Open water with flooded-wooded grassland banks and papyrus
	Akide	621784	174820	1045 m	Open water with flooded-wooded grassland banks and papyrus
	Akide	621719	174589	1045 m	Open water with flooded-wooded grassland banks and papyrus
	Atuitui	614750	172719	1073 m	Flooded Grassland
	Ngariam	621607	217443	1073 m	Flooded wooded grassland, Combretum trees and whistling thorn dominant Recently burnt
	Ngariam	621509	217724	1061 m	Flooded wooded grassland, Combretum trees and whistling thorn dominant Recently burnt
	Opeta	626383	184011	1072 m	Open water with Papyrus & miscunthas banks
	Opeta	625495	200947	1066 m	Open water with Papyrus & miscunthas banks
	Opeta	625562	201354	1062 m	Open water with Papyrus & miscunthas banks
	Opeta	626260	205505	1069 m	Open water with Papyrus & miscunthas banks
	Opeta	626292	209689	1076 m	Open water with Papyrus & miscunthas banks
Kumi	Akide	614321	175950	1053 m	Thru Akide landing site into L. Bisina. Grassland with whistling thorn and Balanitis
	Akide	616881	180103	1051 m	Thru Akide landing site into L. Bisina. Grassland with whistling thorn and Balanitis
	Akide	616880	180102	1050 m	Thru Akide landing site into L. Bisina. Grassland with whistling thorn and Balanitis
	Akide	612479	172391	1079 m	Thru Akide landing site into L. Bisina. Grassland with whistling thorn and Balanitis
	Awoja	581680	184188	1048 m	Miscanthus and papyrus banks, scattered vorsia
	Bisina	567104	190286	1109 m	Open water with Papyrus & Vorsia banks
	Bisina	593499	186745	1045 m	Open water with Papyrus & Vorsia banks
	Bisina	591184	186729	1046 m	Open water with Papyrus & Vorsia banks
Kumi	Bisina	593468	184511	1040 m	Open water with Papyrus & Vorsia banks
	Bisina	593628	184583	1041 m	Open water with Papyrus & Vorsia banks
	Kapujani	601578	191642	1071 m	Lake Bisina, grassland, few tall trees, shrubs, heavily grazed.

	Kolitorom	621447	174291	1045 m	Open water with flooded-wooded grassland banks
	Kolitorom	621552	174372	1045 m	Open water with flooded-wooded grassland banks
	Kolitorom	621582	174422	1045 m	Open water with flooded-wooded grassland banks
	Kolitorom	621412	174474	1046 m	Open water with flooded-wooded grassland banks
	Kolitorom	621173	173843	1048 m	Open water with flooded-wooded grassland banks
	Kolitorom	621008	174121	1047 m	Open water with flooded-wooded grassland banks
	Ongino	610418	169941	1052 m	Flooded grassland with Whistling thorn. Black-necked Weaver nesting.
	Suguru	580314	189212	1047 m	Flooded Grassland with short grass and scattered trees.
	Suguru	588264	190250	1046 m	Flooded Grassland with short grass and scattered trees.
Lake Bisina	Lake Bisina	594018	184518	1044 m	Open water with Papyrus & Vorsia banks
	Lake Bisina	594035	184509	1044 m	Open water with Papyrus & Vorsia banks
	Lake Bisina	593942	184572	1044 m	Open water with Papyrus & Vorsia banks
	Lake Bisina	593601	184671	1044 m	Open water with Papyrus & Vorsia banks
	Lake Bisina	592886	183773	1046 m	Open water with Papyrus & Vorsia banks
	Lake Bisina	592677	183623	1046 m	Open water with Papyrus & Vorsia banks
	Lake Bisina	592542	183605	1046 m	Open water with Papyrus & Vorsia banks
	Lake Bisina	592442	183570	1046 m	Open water with Papyrus & Vorsia banks
	Lake Bisina	591519	184345	1045 m	Open water with Papyrus & Vorsia banks
	Lake Bisina	593213	186864	1042 m	Open water with Papyrus & Vorsia banks
Lake Opeta	Lake Opeta	561580	168978	1091 m	Open water with Papyrus & miscunthas banks
	Lake Opeta	626966	185693	1043 m	Open water with Papyrus & miscunthas banks
	Lake Opeta	627819	184655	1042 m	Open water with Papyrus & miscunthas banks
	Lake Opeta	627819	184655	1042 m	Open water with Papyrus & miscunthas banks
	Lake Opeta	626007	184565	1044 m	Open water with Papyrus & miscunthas banks
	Lake Opeta	624393	194973	1044 m	Open water with Papyrus & miscunthas banks
	Lake Opeta	579012	206188	1058 m	Open water with Papyrus & miscunthas banks
Lira Wetlands	Bala/Kole	471723	443458		Flooded Grassland with a few trees
	Kole	465937	249978		Flooded Grassland
	Kulu Obia	460373	233821		Flooded Grassland
	Okole	465442	253063		Extensive Flooded Grassland
Soroti	Abela	596683	206247	1070 m	Grassland with short grass and short scattered trees. Minimal grazing noted.
	Abela	606157	211375	1093 m	Flooded Grassland with short grass and scattered trees.
	Abela	606210	211441	1095 m	Flooded Grassland with short grass and scattered trees.
	Abela	606228	211459	1095 m	Flooded Grassland with short grass and scattered trees.
	Abela	606235	211466	1096 m	Flooded Grassland with short grass and scattered trees.
	Getom	598703	205090	1048 m	Grassland with short grass and short scattered trees. Minimal grazing noted.
Soroti	Getom	598657	205026	1049 m	Grassland with short grass and short scattered trees. Minimal grazing noted. Weaver roost site noted just before papyrus swamp.
	Gweri	588546	190291	1046 m	Flooded Grassland with short grass and scattered trees. Minimal grazing noted.

	Gweri	590254	190271	1048 m	Flooded Grassland with short grass and scattered trees. Minimal grazing noted.
	Gweri	590364	190269	1049 m	Flooded Grassland with short grass and scattered trees. Minimal grazing noted.
	Gweri	587489	190496	1038 m	Flooded Grassland with short grass and scattered trees. Minimal grazing noted.
	Toroma	606041	193698	1079 m	Flooded Grassland with short grass and scattered trees. Minimal grazing noted.
	Toroma	606324	193816	1078 m	Flooded Grassland with short grass and scattered trees. Minimal grazing noted.
	Toroma	606374	193879	1078 m	Flooded Grassland with short grass and scattered trees. Minimal grazing noted.
	Toroma	606371	193892	1077 m	Flooded Grassland with short grass and scattered trees. Minimal grazing noted.