HISTORY

Uganda: elephants, people and fire in Gulu District

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Abstract

In this historical essay Uganda's Gulu District is as it was in colonial times. Today this area contains the districts of Moyo, Adjumani, Amuru and Gulu. It focusses on gross environmental change mediated by elephants, people and fire within it from before the colonial era to the present, complementing my previous paper on the same topics in Bunyoro. Most of the District was peopled by the Acholi (Acoli), though in its north the Madi straddled the Nile between Gulu east of the river and West Nile District to the west. In slightly more than a century, elephants changed areas of woodland and forest to open, treeless grassland from which they were then replaced by people and largely treeless farmland. However, while basic patterns have similarities to those in Bunyoro they were less well defined as the District was not studied as closely.

Résumé

Dans cet essai historique, le district de Gulu en Ouganda est semblable à ce qu'il était à l'époque coloniale. Aujourd'hui, cette zone comprend les districts de Moyo, Adjumani, Amuru et Gulu. Il se concentre sur les changements environnementaux bruts provoqués par les éléphants, les habitants et les incendies dans cette région, d'avant l'ère coloniale à aujord'hui, en complément de mon précédent article sur les mêmes sujets à Bunyoro. La majorité de la zone était peuplée par les Acholi (Acoli), quoique dans le nord, le Madi enjambait le Nile entre Gulu à l'est de la rivière et le District Nil Occidental vers l'ouest. En un peu plus d'un siècle, les éléphants ont modifiés les régions boisées et les forêts en prairies ouvertes, sans arbres, desquelles ils furent ensuite extirpés pour être remplacés par des gens et des terres agricoles largement dépourvues d'arbres. Cependant, alors que les charactéristiques fondamentales étaient semblables à celles de Bunyoro elles étaient moins bien définies comme le District n'a pas été aussi précisément étudié.

Assembled notes

This paper complements Parker (2018a) drawing on the same sources: Thomas and Scott (1935; pages 342/34), Laws, Parker and Johnstone (1975) up to 1970, and unpublished observations thereafter including the recall of RJ Wheater, Chief Warden of Murchison Falls National Park (1961-1965), and then Director of Uganda National Parks (1970-1972).

Two issues confront Africa's ecological historians. The first is that conservation policy from the outset of colonial rule stood on assumptions that biota existing at the time were the benchmarks of what should be conserved in the future. It was assumed that animals were satisfactorily numerous, the flora was in their most desirable states and that there was some ecological equilibrium (the balance of nature) that extended far back into the past. This thinking was widespread in 1900, but most aptly summed in the words of Leopold et al. (1963) in this passage:

"As a primary goal we would recommend that the biotic associations within each park be maintained, or where recreated, as nearly as possible in the condition that prevailed when the area was first visited by the white man."

While this was written in reference to national parks in the USA, the same idea had prevailed widely in Africa through the 20th century. It is a false assumption, however, that it is possible to hold biota as they were at any point in time. *Inter alia* astronomy, archaeology, geology, climatology, ecology, palaeontology and physics all establish the realities of constant change and that though rates may vary, there is no evidence that biological stasis has ever existed. It undermines many assumptions on which conservation was planned.

The second issue is the complete absence of written records in most of pre-colonial Africa and the sparseness of those in the colonial era's early decades. In 'connecting the dots' to create a picture of past and ongoing change, the dots are far apart and can only be joined with degrees of assumption. Nevertheless this should not stop us trying to interpret change over time from the data available, however limited.

Little is known about the political history of northern Uganda prior to the 19th century. However from at least as early as c. 1840, traders were travelling up the Nile valley in search of ivory and slaves (summed in Parker 1979) and must have contacted both the Acholi and Madi people. Sir Samuel Baker was the first white explorer to pass through their land (Baker 1866). When he returned eight years later (Baker 1874) claimed sovereignty for the Khedive of Egypt, setting in train the events that ended in British rule of Uganda (Thomas and Scott 1935). As inferred by Davidson (1966), at the end of the 19th century Africa's sub-Saharan people were likely to have been in reduced numbers generally from the influences of slavery and its attendant political chaos. As the Albert Nile was a major route for the introduction of such disruptive influences, it is not unreasonable to assume that

the Acholi and Madi would have been fewer in the late 19th century than they had been in the 18th.

Gulu District (GD) was not so well described as Bunyoro to its south because travellers tended to use the navigable Albert Nile along its western border rather than walk cross-country through it. In addition as there were fewer people (1931 in GD 5.8 km² versus Bunyoro 9.3 km² ex-Thomas and Scott *op.cit.*) it attracted less government involvement. Yet patches of forest (the largest being the Zoka Forest) and woodland similar to North Bunyoro occurred, but from Baker's (1866) records, there was more open grassland and elephant (*Loxodonta africana*) were common.

In 1901 the Uganda Government was confronting the epidemic of sleeping sickness (*Trypanasomiasis*) summed in Parker (2018a). To break contact with the tsetse vector *Glossina palpalis*, people were evacuated from its presence. Such depopulated areas in Gulu are illustrated in Fig. 1; (see colour plates: page iv). In 1913 1,935 km² on the District's southern fringe along the northern bank of the Victoria Nile were integrated into North Bunyoro-Gulu Game Reserve (NBGGR) and closed to people. In 1952 most of this was incorporated within the Murchison Falls National Park (MFNP).

North of NBGGR a swathe between 48 and 64 km wide and 80 km long (c. 4,500 km²) of GD and the southern third of its East Madi sub-District along the Albert Nile's eastern bank, was closed to humans as an anti-sleeping sickness measure. That the disease existed there is evident as afflicted Madi, unaware of the cause, believed the area was cursed (R. Lamprey pers. comm.). Thus while there may have been more open grassland than in NBGGR along its southern border, it nevertheless had sufficient tsetse habitat, i.e. woodland and forest, to warrant closure. (Thomas and Scott1935). give ancillary confirmation of this by noting the presence of woodland species like roan antelope (Hippotragus equinus) and giraffe (Giraffa camelopardalis). Devoid of people the area acted as a de facto game reserve, becoming known as the Gulu Elephant Sanctuary (GES).

Langdale-Brown et al. (1964) based their description of the GES's vegetation on aerial photography taken in the late 1950s. At that date they classified it as grass savannas, with *Vitellia-Hyparrhenia* prominent in East Madi to the north. Yet from personal aerial reconnaissance between 1965 and 1967 most of the GES including its southern component of Aswa-Lolim was now open rolling grassland largely devoid of woodland and tsetse habitat. As in Bunyoro, where woodland was replaced by flammable grasses, a single fire might burn >100 km² and by the end of dry seasons vast areas of the GES were black wastelands and a constant smoke haze constrained visibility. Yet despite this widespread seasonal burning, in the Aswa-Lolim area of the southern GES, ungulates were sufficiently abundant for the Game Department to establish an experimental game-cropping project there in 1964. In 1965 the Game Department opened the GES to controlled tourist hunting. Neither would have been implemented had wildlife been too few to warrant such policies. In January 1971 and despite abundant evidence of recent large scale commercial hunting (Parker 2018b) the area held >8,000 elephants and abundant buffalo (Syncerus *caffer*), hartebeest (*Alcelaphus buselaphus*) and kob (Kobus kob) (Parker and Graham unpublished aerial survey data). Until 1971 and other than for small itinerant hunting bands of Acholi, there had been little obvious occupation of the GES by people.

Richard Lamprey (*in litt*) drew my attention to the 1961 Annual Report of the Uganda Game Department (Anon 1961) alleging that Acholi people were responsible for greatly reducing the GES's wildlife through excessive hunting. From his own observations of the paucity of large mammals and how extensively the grassland was burned, he assumed this was caused by hunters and felt the allegation should be given credence or at least addressed. Its essence was in the comment:-

"As a result of these tribal hunts the wildlife of Acholi is disappearing at a most alarming rate save in the remoter areas."

This is at odds with the Department setting up the Aswa-Lolim game cropping project in 1964 or opening parts of the GES to tourist hunting in 1965 if game was scarce. It was also contradicted by my own aerial observations between 1965 and 1967 of abundant wildlife in the GES, and the results of the aerial count I made with Graham in 1971. Further many male elephants in the GES in 1965-67 bore heavy ivory. As indicated in Laws (1966), large tusks are primarily products of age and evidence of animals reaching their potential life expectancies, which does not happen where heavily hunted. In this respect the GES contrasted starkly to the rest of Uganda where hunting so reduced expectancy that the weight of male tusks had fallen progressively until by the late 1950s few exceeded 18 kg (40 lb). In the GES, tusks of double this weight were common and some exceeded 45 kg (100 lb) (Parker 1979).

The 1961 report also claimed: -

"...hippo [were] reduced almost to the point of extinction throughout the 120 mile stretch of the Nile between Lake Albert and the Sudan border."

Again, while hippo density in this section of the Albert Nile was low compared to that in MFNP's Victoria Nile, I saw small numbers there in 1965-67 and in 1971, that is after they were allegedly close to extinction. In 1961 and earlier, apart from a foresters' track to the Zoka forest, farmer's trails here and there along the eastern edge and what could be seen from the Nile, the GES was inaccessible. No aerial or other wildlife counts had, to my knowledge, been made prior to 1961 and there is no evidence of how the reporter reached his conclusions. Without supporting data and so diametrically contradicted by all other evidence from the ground at that time, I do not accept what was reported in the 1961 Uganda Game Department Annual Report.

This is not to deny that large scale, communal and well organised hunts had been a feature of Acholi culture. Anthropological records, traditional poems and hunters standing's in society all refer to it (Wheater in litt.), and I suspect the report on Acholi hunting derived indirectly from such sources. That such large scale events conflicted with western hunting ethics and appeared indiscriminate was particularly the case when hunts involved ring-firing (which they occasionally did—Pitman pers. comm.), that is surrounding quarry with a ring of fire that either killed or maimed it making it easier to despatch. Yet ethics aside, if these communal hunts had been part of Acholi culture and economy long before (centuries?) the colonial era, the region's abundant wildlife when that era commenced has to be explained. Clearly, these hunts influenced wild populations, the resource had been sustained at sufficiently high levels and for long enough for such hunting to be embedded in Acholi culture. British rule discouraged the tradition, making it even less commonly practiced than in the past. Ancillary to this,

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the colonial era introduced the Acholi to the cash economy and, for example, growing tobacco and cotton, gave them alternative means to meet the nutritional needs that hunting had formerly met (e.g. buying fish—major source of animal protein in Uganda), thereby decreasing demand for wild flesh and ergo, the need for large scale hunting.

This permits return to considering the role elephant were playing in the GES and the argument, discredited in Bunyoro, that fire and not elephants had eliminated its woodland. The similarities between the two areas argue against it being the proximate cause of tree removal in one but not the other. As in Bunyoro, so in the GES, trees still grew in steep sided watercourses and along the precipitous east bank of the Nile that limited access by elephant, but terrain was no barrier to fire. It is even less likely given the compelling evidence from the MFNP Chobe plots contiguous to the GES (Parker 2018a). Despite these plots being deliberately burned annually, with elephants excluded from them, trees nevertheless reappeared among treeless plains. The same elephant conversion of woodland to open grassland so well documented in Bunyoro had been going on in the GES before 1971, but was not influenced by human expansion and the policy of compressing elephants into designated areas that occurred in the former.

By 1971 large-scale commercial hunting was now observed across the GES on a scale that could only have reduced animal numbers (Parker 2018b). That this had happened was confirmed by how few elephants were seen in 1976 on a reconnaissance flight (Parker and Douglas Hamilton 1976). It was followed by an era of lawlessness between 1989 and 2008 when occupied by the rebel Acholi Lord's Resistance Army (LRA) living off the land and whose influence was similar to that of Amin's lawless military in the 1970s in Bunyoro. Aerial survey in this era confirmed that by now wild animals in the region were few (Lamprey pers. comm.).

After the LRA had been chased out of northern Uganda, farmers commenced entering the once-Sanctuary on a large scale. In 2017 Google Earth illustrates extensive small scale as well as large scale mechanised agricultural conversion of the landscape in place of wildlife (Figs. 2 & 3; see colour plates: page iv). In this respect it should be recalled that the GES held many wild animals by default as a measure to stop the spread of sleeping sickness, and never specifically designated for conservation. Even when national parks were formed in 1952, the opportunity to include it in MFNP was not taken up. Reasons for this are outside the scope of this essay, but it is notable that though national parks were affected by the political vicissitudes that afflicted Uganda in Amin and Obote times, their status as land designated for conservation was not challenged. Without designated conservation status there was no conservation law to prevent farmers expanding into the GES.

Conclusion

To sum up, as in Bunyoro to the south, in 1900 people were distributed among elephants generally in GD and East Madi. To disconnect them from the expanding sleeping sickness vector, the people were evacuated from a 4,500 km² area along the east bank of the Albert Nile. This became the GES, its protection arising through a disease control measure but not game law. Between the evacuation of people before 1913 and 1971 elephant eliminated all but vestigial forest and woodland, with its dependent fauna and invertebrates among which were tsetse flies. Small transient bands of hunters were definitely re-entering the area in and likely before the 1960s and frequently set alight to the extensive grassland. However there is no evidence that, other than clearing up the trees killed and damaged by elephants, it converted former woodland to open grassland, or that the processes bringing this about were any different to those well documented in contiguous MFNP and Bunyoro.

This being so, the importance of this historical Gulu record, for all that it is spare, is that *Loxodonta africana* apparently can eliminate trees in favour of grasses without such human influences as impinged on it in Bunyoro (Parker 2018a) or Kenya's Tsavo (Parker 2018c). Combined, the records of Bunyoro, Gulu and Tsavo show that while tree reappearance in grassland can be very rapid, even despite annual burning, quite what plant species emerge or how the frequencies of burning or the elimination of fire, or the vagaries of climate may influence them may be unpredictably variable. When detail and local circumstances are taken into account, elephant roles in African ecology may be beyond description in their complexity.

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Above. Figure 1. Uganda's Gulu District in 1935 showing the land evacuated in 1913 to curtail trypanosomiasis—green hatching, and that part of it then proclaimed as the Bunyoro-Gulu Game Reserve purple hatching. The hatched green lying north of the Reserve was known as the Gulu Elephant Sanctuary.

Bottom left. Figure 2. In the southern part of the GES a rising proportion of the open, treeless grasslands elephants created are now under mechanical ploughs (2° 48' 31.87" N, 31° 40' 36.10" E from Google Earth).

Bottom right. Figure 3. In the north of the GES small-scale cultivators are creeping in upon the Zoka forest borders. $(3^{\circ} 5' 41.81" \text{ N}, 31^{\circ} 39' 2.16" \text{ E from Google Earth}).$

