

SPECIES, MAMMALS - GENERAL

GENERAL

Project 1773

Wildlife Survey, Uganda

WWF GRANT 1980 - \$14,361

The status of wildlife in Uganda steadily deteriorated after Idi Amin came to power in January 1971. In the eight years of his rule, law enforcement in the national parks and reserves collapsed with a concurrent increase in poaching and human encroachment. A survey was made of the status of wildlife in Uganda's protected areas in 1980 at the request of the Ministry of Tourism and Wildlife. The survey which put forward recommendations for the improvement of conservation in these areas was sponsored by the New York Zoological Society and WWF/IUCN, with additional support from the Frankfurt Zoological Society, the African Wildlife Leadership Foundation and the Fauna and Flora Preservation Society.

Our surveys show that stocks of wildlife in the national parks and reserves have been severely depleted. The white rhino is almost certainly now extinct in Uganda, and the black rhino appears little better off. The elephant, which just ten years ago numbered in excess of 30,000 in Uganda, has now been reduced to below 2,000 by the onslaught of ivory poaching. In two of the areas we visited, Rwenzori National Park and Kabalega National Park south of the Nile, the elephant has been all but wiped out by poachers and indeed will disappear unless drastic measures are immediately taken to save them. Of the other wildlife species in the parks, the buffalo is under intensive pressure from meat poachers and numbers have declined substantially over the last eight years.

The consequences of the exponential increase in the human population in Uganda, which began in the early years of this century, are now being felt in the national parks and reserves. The Rwenzori region is particularly seriously affected. Increasing human density on the borders of the conservation areas has numerous implications for the wildlife, but the most obvious are agricultural encroachment and increased poaching activity.

The task faced by the Ugandan authorities in their effort to rehabilitate the national parks and game reserves is immense. With the lack of expertise and foreign exchange, they cannot hope to tackle the problems alone. Despite the complexity of the problem, there are some initial courses of action which need to be pursued immediately to regain control of the situation and prevent the downward

slide in wildlife numbers. The suppression of poaching is the first priority in all the areas we visited. A second priority is the re-establishment of the reserve and

national park boundaries and the removal of all encroaching human settlement. Our survey suggests that at present encroachment is not a serious problem in Rwenzori and Kabalega Falls National Parks, but that several game reserves, in particular Lake Mburo and the Kibale Forest Corridor, have been invaded by pastoralists and cultivators.

The Uganda people are at present recovering from a very difficult period in their history and they face innumerable day-to-day problems. Most villagers in the areas adjoining the protected regions are unaware of the massive decline in wildlife abundance in recent years and would certainly be surprised to learn that the elephant is in danger of extinction. Yet it is these people who have the power to halt the decline. A programme is urgently required to educate the people to the value of Uganda's wildlife heritage.

The field work in the survey consisted of two parts: a ground survey by Dr R.C. Malpas in Rwenzori and Kabalega National Parks and the Kigezi, Chambura, Toro, Bugungu, Karuma and Ajai Game Reserves; and a complementary aerial survey, made by a team headed by Dr I. Douglas-Hamilton, of Rwenzori and Kabalega Parks and of the Kigezi, Chambura, Kibale Forest Corridor, Bugungu, Karuma and Aswa-Lolim Game Reserves and the Semliki Controlled Hunting Area.

RWENZORI NATIONAL PARK AND CONTIGUOUS CONSERVATION

AREAS: Rwenzori (formerly Queen Elizabeth) National Park, an area of 1978 km², lies in the Western Rift Valley on the northeast shore of Lake Edward, across which lies the Virunga National Park in Zaire. The park is situated in an area of great agricultural productivity with the result that it adjoins areas of dense human habitation and cultivation. In addition, there are over 20 fishing villages located within the borders of the park on the shores of Lakes Edward and George and along the Kazinga Channel.

Aerial Survey:

Elephant. During the aerial survey five elephant herds were seen within the park during the total count, totaling 153 animals. The average number of elephants recorded in Rwenzori during 23 aerial counts made between 1963 and 1973, was 2,393. In 1974, the population began to decline as a result of heavy poaching and by September 1976 only 704 elephants were seen in the park, 26% of the 1973 level. No counts were possible between 1976 and 1980

SPECIES, MAMMALS - GENERAL

but the results of the counts made during this survey show that the decline continued unabated. The population is now just 5% of the 1973 level. No elephants were seen north of Lake George, nor in Kasenyi, Crater or Kayanja, although the presence of recent carcasses in these last three blocks suggested that elephants may still use these areas.

Elephant carcasses which totalled 241 were most frequently seen in the Craters, Royal Circuit and Ankole counting blocks. We consider the total to be an underestimate. Nevertheless, carcasses outnumbered living elephants in the ratio of 62% dead:38% living.

Even though the number of recent dead elephants seen is certainly an underestimate, it nonetheless amounts to 17% of the living population killed within six months. It is obvious that unless current trends are immediately arrested, the Rwenzori elephants will be eradicated in a matter of months rather than years.

Buffalo. A total of 4,206 buffalo was recorded during the survey, after correction of the estimates by photograph counts. This compares with an average of 15,741 buffalo recorded on 13 aerial counts between 1963 and 1972, a reduction of nearly 75%.

Kob. With a total park population estimate of 19,802, kob were the most numerous species in the census zone. With the exception of the Maramagambo Forest and the swamps to



Elephant numbers in Uganda National Parks have dropped from 30000 to below 2000 as the result of massive poaching. Five elephants were killed in this one group by poachers armed with automatic weapons. Photo: Malpas

SPECIES, MAMMALS - GENERAL

the north of Lake George, the species was well distributed throughout the park.

Hippo. Hippo numbers, estimated at 4,569, suggest that despite heavy poaching in the aftermath of the liberation war there is still a sizeable population. However, total counts of hippo carried out from a boat probably provide a better picture of hippo numbers and distribution than can be obtained from the aerial sample survey. (See below)

GROUND SURVEY:

Dry season ground counts of large mammals were made in parts of Rwenzori between January and March 1980. The species censused were elephant, buffalo, Uganda kob, waterbuck, warthog, reedbuck, bushbuck and topi. The eleven survey areas totalled 608 km², approximately 40% of the land area of the park excluding the Maramagambo Forest.

There has been a large decline in elephant and buffalo density in all study areas. Buffalo densities in the park are now extremely low, except for central Ankole and the northern circuit of Ishasha. Kob density has fallen dramatically in the areas west of the craters, which once contained a very dense population of kob centred on the territorial ground near to the main tarmac road passing through the park. These kob have now disappeared and the territorial ground is deserted. On the other hand, kob density has increased considerably in other areas. Waterbuck density, never high, has been reduced in all areas of the park with the exception of the southern circuit. Warthog, reedbuck and bushbuck are all inconspicuous species, and trends in their population density are difficult to assess.

Hippo: In March 1980 boat counts of hippo were made along the shorelines of Lakes Edward (Uganda side) and George and the Kazinga Channel. In all, the counts took five days to complete, although part of this time was spent on anti-poaching exercises in Lakes Edward and George. There has been a massive decline in hippo numbers amounting to 68% in three years. The largest decline has occurred on Lake George, where there are now only 150 hippo, and in the Kazinga Channel east of Kabatoro.

Trends in Large Mammal Populations: The rapid decline in the elephant population which was first noticed in 1974 has apparently continued to date. It is clear from the total count results that the few remaining elephant herds are to be found near Mweya, which because of the Ranger Headquarters is perhaps the safest area in the park. These last few herds must be protected, for they are the only surviving grassland population in southwest Uganda. When considering both the live and dead elephant data, it is clear that poaching has been largely responsible for the decimation of the Rwenzori elephant population.

SPECIES, MAMMALS - GENERAL

Changes in the vegetation structure are already occurring particularly in regard to Acacia regeneration. Heavy poaching pressure has led to the disruption of the elephants' social organization and from ground and air observations of herd structure it is apparent that recruitment is negligible at present. If the elephants are protected from now on, there is good reason to believe that the population will increase through breeding and possibly through immigration from Zaire.

The reduction of about 75% from 18,000 to 4,200 (using total count data from ground and aerial surveys) in the buffalo population is stark evidence of the exceptionally heavy poaching pressure on this species. The apparent loss of some 14,000 buffalo since 1969 cannot be regarded as the mere result of the lawlessness in the park following the liberation war. Instead it suggests a widespread and effective operation during Amin's years in power.

There are several reasons to believe that should poaching be curtailed, the buffalo population can recover. The first is that, despite the reduction, buffalo are still widespread in the park. Secondly, ground observations indicated the presence of a number of calves in the population, which suggests that disruption of social organization, apparent in the elephant population, has not occurred. Finally, historical precedents are grounds for some optimism. Following a large scale die off from rinderpest, the Serengeti National Park, Tanzania, buffalo population rose from approximately 27,000 in 1958 to over 61,000 in 1970. Historical evidence from Western Uganda suggests that buffalo have recovered from similar catastrophic declines due to rinderpest.

The reduction in shore-line hippopotamus numbers from 9,100 to under 3,000 represents a decline in the order of 68% between 1977 and 1980. Despite the decline, there is evidence to suggest that the hippo population can recover should poaching cease. A decline in topi was already noted in 1978 and this trend has continued to a point where the present population is about 20% of its 1973 level. Concurrent with the decline in numbers has been the encroachment by Acacia sieberiana woodland of the topi's preferred habitat, the open grassland. Unless poaching is stopped immediately, the outlook for the topi is bleak. As Ishasha supports the last viable population of topi in Uganda, the extinction of the species in this area would be particularly regrettable.

The Uganda kob is the only species to have shown an overall increase in numbers over recent years. While heavy poaching has occurred in the territorial grounds, the bulk of the population appears to have moved into less accessible areas away from roads. While it remains to be seen if the territorial grounds are re-established,

SPECIES, MAMMALS - GENERAL

it can be assumed that the future of the Uganda kob population is, at present, assured.

Kabalega Falls National Park, an area of 3860 km², lies on the shores of Lake Mobutu in the west of Uganda. The Park is bisected by the Victoria Nile, flowing from East to West. The Park derives its name from the Kabalega Falls where the Nile tumbles 45 metres through a cleft just six metres wide.

Elephant: Elephants in Kabalega North, estimated at 1,245 in an aerial count, are distributed in the Tangi River Catchment Area and near Paraa, with some large herds scattered in the east.

In Kabalega South, only one large herd (Herd 2) of 162 elephants remains. Three other small groups were seen in the south, totalling 10 animals. Herd 2 was constantly on the move and left highly visible tracks in the long grass. As our aircraft engine approached the herd began running and appeared panic stricken. There was an almost complete absence of young calves under the age of three. In Kabalega South a total of 369 dead elephants of all categories were seen, outnumbering the living in the ratio of 68%:32%. Recent carcasses, judged to be less than a year old, numbered 122, or 71% of the surviving population. Of these, 26 were fresh carcasses probably killed within the previous month.

Buffalo: A total of 4,560 buffalo were seen on the south bank compared with 10,709 in the north.

Kob: With a total park population estimated of 30,697, kob were by far the most numerous species in the census zone. As in Rwenzori, this demonstrates how little intense poaching activity affects this species.

Hippos: A comparison of the results of the count made in this survey with earlier counts suggests that the hippo population below the Kabalega Falls has been little affected by the massive increase in poaching activity in the park.

Crocodiles: Cott (1968) drew attention to the disturbing decline in crocodile numbers in the Nile between Paraa and the Kabalega Falls which he believed was mainly the result of heavy poaching pressure on the population. He warned that if the poaching continued unchecked a further and catastrophic decline was to be expected and that in a few years the park would be without its main tourist attraction. A major factor besides poaching which influences crocodile natality and recruitment is disturbance of nesting sites by tourist launches.

The results of recent crocodile counts indicated that the crocodile population has continued to decline since

SPECIES, MAMMALS - GENERAL

Cott's study; it is clear that the Kabalega crocodile population is slowly being destroyed by poachers. With the reduction in tourism in recent years it is difficult to blame tourist disturbance for the decline in crocodile numbers.

Trends in Large Mammal Community: Between 1973 and 1976, Eltringham and Malpas carried out a series of aerial counts in Kabalega and the surrounding game reserves to the south of the park. During their counts a large decline in elephant numbers in the park was recorded (from 9,971 to 1,113), such that by 1976 the population was just 17% of the 1973 level. The decline is attributed to a massive increase in poaching within the park. The decline in elephant numbers in north Bunyoro has continued unabated since 1976 and the elephant is now on the verge of extinction in this area.

Kabalega North:

The results of the total count made during this survey suggests that the decline of elephants in Kabalega North has halted since 1976. This extremely encouraging information no doubt reflects the lower level of poaching in the north compared with the south. Ivory poachers are nonetheless very active in the north of the park. During the reconnaissance survey of the Elephant Sanctuary we saw only one herd of 42 elephants. As with Herd Z in Kabalega South, they were evidently terrified by the sound of the aircraft engine. No young calves were seen in the group.

Rhino: The northern white rhino, Ceratotherium simum cottoni, was until recently found in the northwest of Uganda, in parts of southern Sudan and in the Garamba National Park in Zaire. In recent years the species has been subjected to a severe poaching pressure. This has been compounded by the animal's docile temperament which makes it a relatively simple matter for poachers to approach and spear it. As a result, the northern white rhino is now on the verge of extinction throughout its range.

In 1961 and 1964, 21 white rhino were translocated to the Buligi region of Kabalega, though white rhino had not before inhabited this region east of the Nile. Despite an extensive ground search in 1980 over most of this area as far south as the Nile, no rhino were seen. Nor were any seen on the aerial count in Kabalega North. The implication is that the white rhino is now extinct in Kabalega.

No black rhino were seen on the ground or aerial surveys of Kabalega North. While some may have been missed in the thick bush which is now regenerating in many parts of the park, it seems certain that this species has also been decimated by poaching.

SPECIES, MAMMALS - GENERAL

Hippo: A comparison of hippo count numbers between Paraa and the Kabalega Falls from 1976 and 1977 aerial counts and the boat count in 1980 suggest that the hippo population in this stretch of the Nile has not been heavily poached. The estimate of hippo numbers obtained from the aerial sample count at 7,565, confirms that while hippo numbers between Paraa and Kabalega Falls may be stable, the overall population in the park is declining. Total counts of hippo in the Nile within the park in 1963, 1964 and 1967 estimated a total park population in excess of 14,000. This suggests that the population has been cut by almost half between 1967 and 1980.

Buffalo: The sample count estimate of 6,433 buffalo in Kabalega South represents a decline of 45% since a sample count in 1969, which can be attributed to the heavy poaching on the south bank. Buffalo are believed to be the major target for poachers in Kabalega South. No records of previous counts of buffalo are available for Kabalega North. This survey suggests, however, that the population, numbering in excess of 15,000, is under a substantially lower poaching pressure.

Kob: As in Rwenzori, the kob, with a total park population in excess of 30,000, has shown a marked increase in recent years. This further demonstrates the ability of the species to avoid heavy poaching.

Other species: Both the waterbuck and the hartebeest appear to have increased in number in Kabalega South since the earlier survey in 1969. Although warthog numbers have shown an apparent decline on the south bank, there are difficulties in obtaining accurate counts of this species. The populations of all three of these species appear to be satisfactory and none are in imminent danger.

OTHER CONSERVATION AREAS

Ajai's Game Reserve is an area of 156 km² lying between the towns of Arua and Rhiro Camp in the West Nile District of Uganda. The Reserve consists of a system of rivers and swamps surrounded by dry scrubland. Just south of Rhino Camp, two large rivers converge and flow into the Nile through an extensive area of swamp. The rivers, the Ala and the Acha, rise in a highland area 40 km to the west and some 600 metres above the level of the Nile. Within the swamp there are a number of islands and the larger, Ajai's Island in the Ala swamp, is some 5-6 km long and 1 1/2 km wide.

Both the reserve and the island are named after a Madi chief who died in 1953 and who had a large village on the island. The village is now gone and although today there are a few small settlements scattered around the edge of the reserve, the density of human population is not

SPECIES, MAMMALS - GENERAL

nearly so great as in other parts of Uganda further to the south.

Our initially negative impressions were largely revised by a 3-hour walk through Ajai's island. Although we heard shots on several occasions and found one wire snare, we were quite taken by the beauty of this central part of the the reserve. During our short visit we managed to see bushbuck, waterbuck, duiker, warthog, baboon, black and white colobus and a large variety of birdlife. We also saw fresh spoor of buffalo, kob, hyaena and civet cat. There were no signs of any white rhino.

It is clear from our visit and from our discussion with Game Department staff that the white rhino has been exterminated in Ajai as a result of heavy poaching during Amin's rule and the war that followed. It seems likely that there are now no white rhino left in Uganda.

Toro Game Reserve: The Toro Game Reserve, located between Fort Portal and the Rwenzori Mountain Foothills, covers an area of 550 km². Of particular interest is the Reserve's Uganda kob population which has received considerable scientific attention. Other species in the Reserve include the elephant, hippopotamus, lion, Jackson's hartebeest, waterbuck, buffalo, giant forest hog and reedbuck. The major cause of concern is poaching.

Lake Mburo Game Reserve: is an area of 536 km² lying to the east of Mbarara in the Ankole District of Uganda. The reserve has a varied terrain with undulating grassy hills interspersed with swamps and lakes. During the survey we were able to carry out only a short reconnaissance flight over the reserve and thus our assessment of the reserve's problems is superficial in nature.

The major conclusion we drew from our overflights is that the reserve is overrun with domestic stock. We were unable to make an accurate estimate of numbers, but even during our brief survey we saw in excess of 10,000 cattle in the reserve. Despite the density of people and cattle in the reserve, some wildlife still survives, though in low numbers. During our reconnaissance flight, we saw about 100 impala and 125 zebra. We did not, however, see any roan antelope or eland which were at one time also present in the reserve. However, reports from the Game Department suggest that the latter two species are still present, if in very low numbers.

The Kibale Forest Nature Reserve: is a medium-altitude forest (1,100-1,600 metres) in Western Uganda and has a vegetation type which is part way between lowland and montane rain forest. With 11 species of primate, Kibale is one of the richest forests in East Africa and among the very richest in the entire world for primates. The

SPECIES, MAMMALS - GENERAL

forest is the last refuge for the only viable population of the rare red colobus monkey remaining in Uganda. Other primates in Kibale are the black and white colobus, the red-tailed monkey, the blue monkey, the grey-cheeked manglebe, the chimpanzee, the olive baboon and l'Hoest's monkey. Many of these species are exclusively forest-adapted and not found outside the rain forest.

A profusion of other mammals besides primates are also protected in this area. Among them are: antelopes, such as the red and blue duikers, bushpigs, giant forest hogs, pangolins, otters, servals, genets, civets and five species of mongoose. In addition, the more widely ranging elephant and buffalo find at least temporary refuge in the reserve. No less than 276 species of birds are found in the reserve which also constitutes an important reservoir of reptiles, insects and butterflies.

Part of the Kibale Forest has recently been established as a nature reserve. Comprising 60 km² (or some 11% of the entire Kibale Forest Reserve), it is protected against all forms of human exploitation.

The nature reserve acts not only as a rich biological refuge of indigenous plant and animal species, but as an essential and vital ecosystem serving Uganda daily in a variety of ways. For instance, undisturbed rain forests function as watersheds, protect the soil against erosion and flooding and enhance rainfall and stabilise the climate. In a more subtle but no less vital role, the reserve acts as a reservoir of genetic variability, plant seed, pollinators and seed dispersal agents. As such, the natural forest enhances regeneration of surrounding areas, especially parts of the forest which have been selectively felled.

Ruwenzori Mountains ("Mountains of the Moon"): Until recent times, the Ruwenzoris, like many other mountain ranges throughout the world, have remained unspoiled largely by virtue of their inaccessibility. In the past mountains have carried a naturally low human population and there was a delicate balance between these mountain dwellers and their environment.

Unfortunately, this fragile environment is being rapidly destroyed. Overhunting has exterminated populations of hyrax, duiker and leopard in the more accessible areas in the past five years; and possibly only the hyrax can survive in the more remote parts of the mountains. Because leopard need a large range and must compete with the hunters for prey, there are unlikely to be many left. Elephants are almost certainly finished. Habitat destruction was most evident in the northern part of the range, where agricultural encroachment and theft of bamboo and timber are the main threats to the vegetation.

SPECIES, MAMMALS - GENERAL

Although the Uganda side of the Ruwenzoris has been declared a Forest Reserve and the Zaire side a National Park, there is essentially no enforcement of the laws protecting wildlife. Any successful management and protection plan for the Ruwenzoris must involve the Bakonjo people.

Kigezi Gorilla Sanctuary: Established in 1930, the Kigezi Gorilla Sanctuary was reduced from 34 km² to 29 km² in 1950 as a result of public pressure, thus removing important gorilla habitat from protected status. Restricted human use of the Sanctuary has always been allowed under the control of the Forest and Game Departments. However, considerable illegal use of the Sanctuary has always occurred and in the last ten years incursions have been essentially uncontrolled, short of cultivation and housing within the Sanctuary. Bamboo cutters, poachers, herdsmen with their livestock and smugglers are present daily. The result is that gorillas rarely use the Ugandan sector of the Virungas and thus the area of habitat available to them is confined to the Rwanda sector. However, with a mean width of only 5 km, the Rwandan sector alone probably cannot maintain a viable population of gorillas in the eastern Virungas. The 29% decrease in the gorilla population there between 1959 and 1972 is an indication of this.

The Bwindi Forest Reserve, (310 km²) being one of the few large expanses of forest in east Africa where lowland and montane communities meet, contains one of the richest floral and faunal communities in east Africa. It is also one of only two areas outside Zaire that contains members of the eastern gorilla population, the other being the 120 km² Parc National des Volcans of Rwanda. Furthermore, it contains one third of the world's population of the rarest of the three races of gorilla, the mountain gorilla, Gorilla gorilla beringei. Finally, the Reserve and the remnants of as yet unprotected forest outside it are an important water catchment area for many of the rivers in the region on which the surrounding agricultural land and the people depend.

The status of the gorilla population of the Bwindi Forest Reserve can act as an easily measurable index of the level of conflict between human use of the Reserve and conservation of the indigenous flora and fauna. The most detailed recent survey of the conservation status of the Reserve (Harcourt, 1979) indicated a declining gorilla population, in which adults outnumbered immatures by 2:1, of about 115 animals inhabiting only 235 km² of the southern section of the Reserve.

Condensed from a report compiled by
Dr. Robert Malpas
WWF/IUCN Representative in Uganda