

INSTITUTE OF CURRENT WORLD AFFAIRS

IMW-35
Ngorongoro II: Problems and Prospects

P.O. Box 770
Arusha, Tanganyika
February 29, 1964

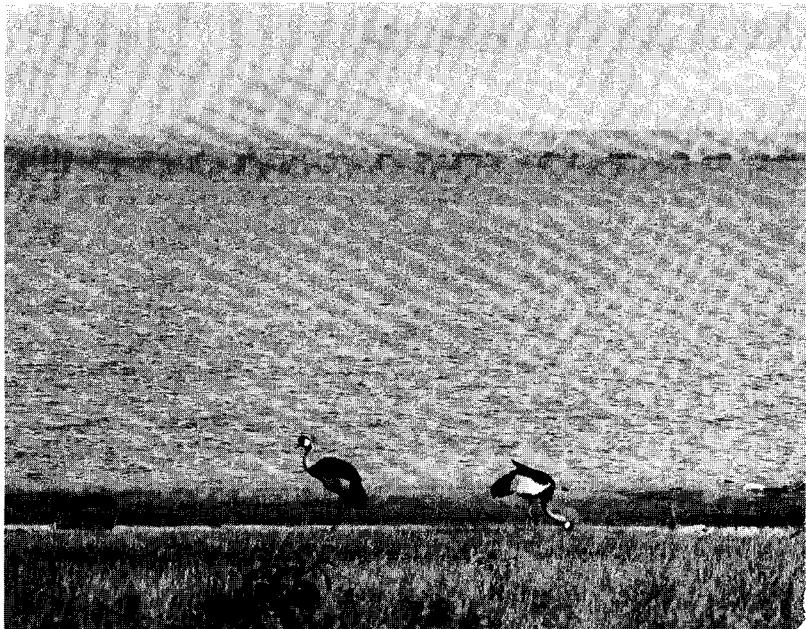
Mr. Richard H. Nolte
Institute of Current World Affairs
366 Madison Avenue
New York 17, New York

Dear Mr. Nolte:

Although the major interests of conservationists in general may be the preservation of flora and fauna for the recreation and education of future generations, the major interests of the East African governments lie in the creation of stable economies with increasing rates of economic development. Therefore an area to be preserved must obviously be a natural resource with long-term benefits. Essentially Ngorongoro is a tourist attraction, the major tourist attraction in Tanganyika. Tourism is presently one of the most important foreign exchange earners, and there is every indication its importance will increase rapidly. So far the Government has supported the Ngorongoro Conservation Area, and if its economic importance has any bearing on its future, its status as a reserve would seem to be assured.

Unfortunately, the situation is not quite so simple. Conservationists in the most developed countries have their opponents, and nowhere can they rest on their laurels. Tanganyika is no exception; the N.C.A. itself is a compromise between these two factions. We have already seen (in IMW-34) the unique reasons which led to its creation as a combined area rather than on the lines of a national park where the interests of wildlife would be supreme. It is one of the very few attempts in East Africa to preserve an area with both its animal and human inhabitants (not to mention its flora), and in judging its success one must realize it



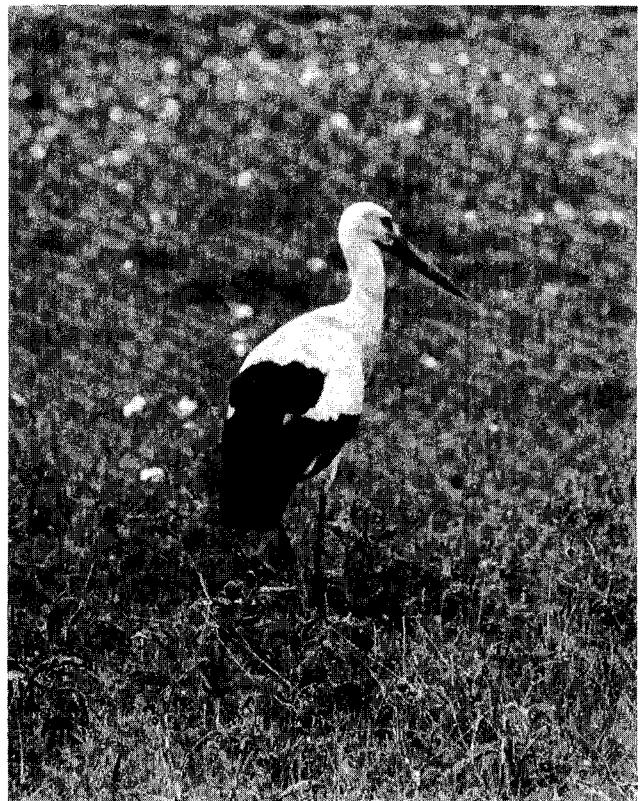
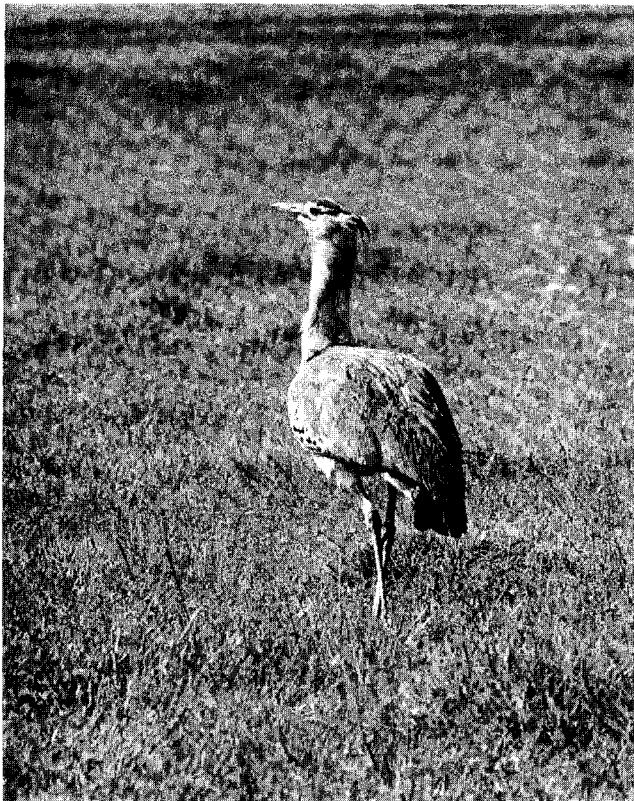


Some birds of Ngorongoro

Crowned Cranes are common
although this photo was
actually taken at Lake
Manyara (l.)

Kori Bustard (b.l.)

White Storks migrate from
Europe and are common
in January (b.r.)



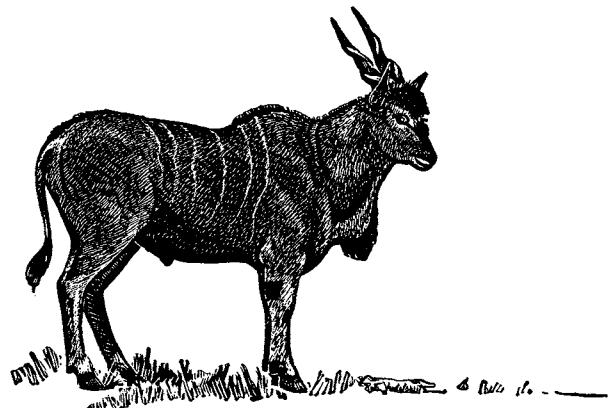
is a pioneering venture in which there are few, if any, precedents to indicate the most suitable course of action. There are bound to be unforeseen problems and setbacks. The burden of the N.C.A.'s responsibility is to strike an equitable balance between the need to preserve the game and its habitat, and the commitment to look after the interests of the pastoral inhabitants. It has been accepted that in attempting this the principle of overriding consideration must be the protection of the habitat, and the vast majority of the Area's policies, rules, and research are directed toward this goal.

The N.C.A. is most fortunate in that its cool climate and relatively reliable water supply have kept the ecological deterioration so evident in other parts of Masailand to a minimum. It is also one of the few exceptions to the general devastation of African wildlife, and all the evidence indicates there has been no significant decline in the animal population since Baumann first viewed the Crater in 1892. Of course there are exceptions as far as certain species are concerned (i.e., rhino), but the Conservator, Henry Fosbrooke, told us, "The game situation is extremely satisfactory."

On the whole the animal population takes care of its own interests, and the N.C.A. does not interfere except to protect them. There have been exceptions to this, however. When hyaena molested humans and killed a large number of domestic stock in the highlands in 1962, forty were shot (and twenty more probably) in a successful campaign to put an end to the marauding. Continued observation of the effects of wildlife on the habitat may call for further control measures. An example is the considerable damage elephant are causing to the Lerai Forest on the floor of the Crater. If this proceeds faster than the regenerative capacity of the forest itself, it may prove necessary to cull a few members of the herd.

Another instance in which official interference was considered but not eventually resorted to concerned a severe outbreak of biting flies in the Crater between April and June 1962. Known as stomoxys flies, they pestered human beings, cattle, and wildlife alike. The lion were most affected by this plague, and in order to evade the flies some climbed trees while others hid in hyaena holes. They completely changed their hunting habits and raided Masai bomas at night. It is estimated the lion population dropped from 60 to 15 by death or migration during the plague.

The N.C.A. considered spraying the Crater floor against this pest, but before they had taken action the natural life cycle of the fly had led to their almost complete disappearance. During



East African Eland (*Taurotragus oryx*)



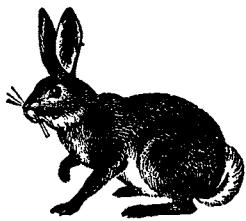
Rhino (l.)

Henry Fosbrooke (b.l.)

The Upper Munge
Waterfall (b.)



our visit there was another minor outbreak of the stomoxys plague (see photo on page 11, IMW-34), but they sprayed the infected areas and it has since subsided.



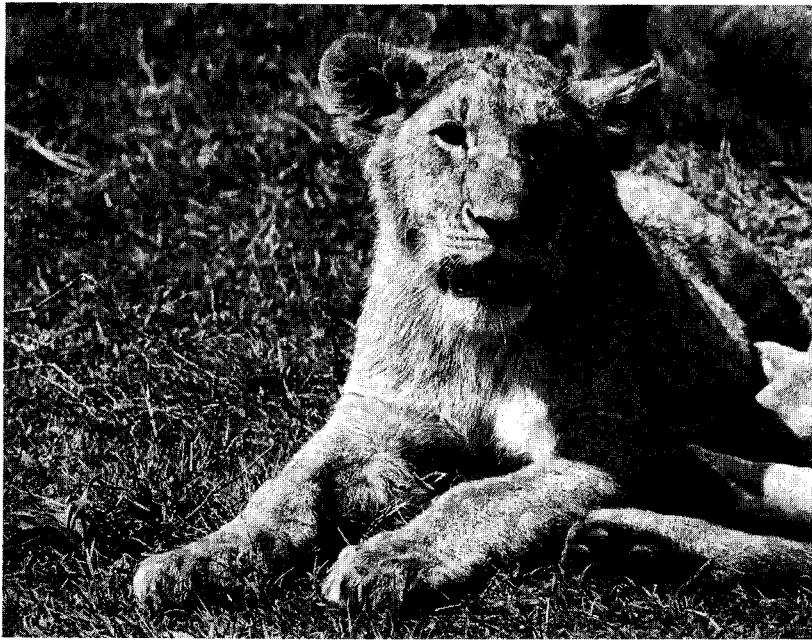
East African Hare (*Lepus capensis*)

The most interesting game phenomenon in the Area is the massive migrations that involve hundreds of thousands of animals as well as numerous lions and scavengers which follow these migratory herds. At certain seasons of the year, the bulk of the Serengeti populations of wildebeest, zebra, and the gazelles are in the Conservation Area. Incidentally, they are a reservoir of rinderpest and malignant catarrh although through injections only the latter is a health hazard to Masai cattle. The reasons for these migrations are obscure, but there appears to be an instinct to return to the area for calving, and the animals' obvious preference for short and green grass has something to do with it.

In the Crater itself there are estimated to be 7-10,000 wildebeest, 3-4,000 zebra, and 10,000 gazelles. To what degree, if any, this more permanent population takes part in the migrations has not yet been ascertained, but there seem to be no wholesale migrations in or out of the Crater. There are usually anywhere up to 60 lion, one of the major attractions, and the number of hyaena, jackal, and bat-eared foxes are directly related to the number of plains game within the Crater. Most are regularly seen during the day. The larger game animals, such as elephant, rhino, and buffalo, are also regularly seen on the Crater floor, although they prefer to keep to the main forest belt above.

People who have visited other game reserves usually note how much tamer the animals at Ngorongoro are. One can drive up alongside rhino, and zebra have been known to graze within the herds of Masai cattle. This is largely because the game are not harried by poachers. In marked contrast with most of the other game reserves and national parks in East Africa, poaching is practically non-existent, and there is no protein poaching at all. In recent years only a few animals have been killed and these for several reasons. In 1961 two young Masai boys, one ten and the other twelve, speared and killed an elephant at a water hole. Shortly afterwards another youngster speared a sleeping zebra. Both were done for the hell of it, or as we were told, "Boys will be boys!" There are also a few cases of spearing in self-defense, although the Masai are at times a bit foolhardy and rather than walk around a sleeping buffalo are just as likely to walk right past him and then be forced to spear him in self-defense should he awaken. There was also a temporary increase in poaching around 1959/60, but it was probably caused by the general feeling that since Ngorongoro had been withdrawn from the National Parks there would no longer be the same restraint exercised against it.

But by far the most serious cases of poaching in the past have involved rhinos. During the last four years a number have



Lion

been killed for their horns. Since the Tanganyika Government offered a reward of 1000 shillings (\$140) for information leading to the arrest of those involved in this nefarious business, the trade has virtually died out in the Area. One enterprising dealer who found himself with 84 hot rhino horns on his hands he couldn't get rid of, took a chance; he turned them in and claimed the reward, but he was soon unmasked and sent to jail.

There has been some talk about game cropping to help alleviate the general protein deficiency in East Africa, but at Ngorongoro it has not gone very far for several reasons: worry about how conservationists may react; insufficient research; and finally, how to overcome the wild animal's wildness and marked disinclination to allow himself to be slaughtered, or as a long-forgotten poet once wrote:

East is East and West is West,
Though this may not seem relevant,
You all know how to milk a cow,
But you can't muck about with an elephant.

Nevertheless, control over the activities of Ngorongoro's human inhabitants is the most important aspect of its management as a combined area. There is no doubt that ecological deterioration has taken place, and that it is primarily the work of man, his livestock, and his agriculture. In order to halt this overall trend, a thorough system of rules and regulations has been evolved with the objective of restoring Ngorongoro as much as possible to the state it was in before the advent of non-Masai, African and European. For the Masai who form the vast majority of its residents and who are not agriculturalists, these rules relate mainly to restrictions on numbers of stock and people, but other regulations refer to grazing, burning, and water.

The aim is to develop a system which not only satisfies the traditional aspirations of the Masai but also conserves the grazing and, if possible, improves it. Therefore the number of stock, both domestic and wild, must be carefully regulated. In fact, the number of domestic stock in the Area has tended to decline in recent years. Disease, especially East Coast Fever which is more virulent during the good grazing years, has played a large part in this trend, and domestic stock form less than a seventh of the total of animals

within the Crater. This proportion also has tended to fall over the past few years, due no doubt to the consistent policy of discouraging new immigrants in the Crater.

The maintenance of sufficient forest reserves and water supplies are also closely related. The nearby settlements of Karatu, Oldeani, and Mto wa Mbu are almost entirely dependent upon the rain that falls at Ngorongoro, and to conserve this important watershed an area of 344 square miles has been set aside as the Northern Highlands Forest Reserve. This is a protection forest only, and so neither cutting nor grazing is allowed. Fire is an ever-present danger, and although only one-third of one percent of the Forest Reserve was affected last year, the incidence of uncontrolled fire elsewhere was high. This is due to the practices of the local Masai as well as those of honey hunters who smoke out the high-powered African bees and then forget about the fire. Visiting tourists have also been known to start fires. The N.C.A. itself uses fire as a tool of management but always under strict control.

Relations with the Masai have not always been good because of their deep suspicion that all rules made for the conservation of the Area are really steps in the direction of removing them from the Crater. They have improved, however, since the headman who used to lead the opposition to the N.C.A. has now become an ardent conservationist and joined the staff as "liaison officer". Now a number of experimental projects, heretofore held up by suspicion and lack of co-operation, are moving ahead.

For example, a demonstration dairy herd previously thought to be the first step in an attempt to confiscate all Masai cattle has now been established on a co-operative basis. The milk is sold locally and has made a handsome profit. It is also hoped that by breeding up the local stock and controlling disease through dipping, it will be possible to convince the local Masai of the possibilities of dairying in the areas of high potential around the Crater.

Another project currently under discussion is a compensation scheme. It is a revolving fund into which the Masai pay on a communal basis whenever there has been wanton des-



Hyaena

tribution to wildlife and the culprit is not produced. On the other hand, when damage to life or property is caused by wildlife, the Masai receive compensation from the fund. The idea is acceptable in principle, but the scale of compensation has yet to be agreed upon. Although there is already a rigid customary scale for the lives of men, women, and children as well as for minor injuries, what value should be placed on a rhino or a lion? It would be offensive to value them at a higher rate than a human, but ineffective if they were valued much lower.

Inside the Crater the resident Masai co-operate in several ways. These people are intensely proud of their right to live there, and they readily inform on outsiders (even Masai) who try to move in. The number of bomas (settlements) are kept constant, and they are utilized as a tool of management. Recently one boma moved into a long grass area which wildlife usually avoid (probably because lion and other predators can easily hide themselves). It is hoped that grazing will reduce the grass sufficiently that game will move in. Another area of co-operation lies in the use of bamboo in building the bomas. Wood on the Crater floor is in short supply and valuable for the habitat and watershed, but there are massive bamboo forests on Oldeani Mountain where the Masai can cut all they need and have it transported for them freely by the N.C.A.

The illegal intrusion of cultivators has been one of the most difficult problems faced by the N.C.A. The vast majority of squatters are alien Africans, mostly from the Arusha and Mbulu tribes, and only recently have a few Masai begun to cultivate on a small scale. There were large numbers of squatters in Ngorongoro and Embagai Craters until 1954 when the National Park authorities moved them out to be resettled elsewhere. Those who had farmed in Embagai, however, refused to accept their removal, and they returned to that crater at their earliest

opportunity. All efforts to dislodge them failed until a few months ago when they agreed to move. There are also several other areas within the N.C.A. where agriculture has been practiced for some time although the actual number of individuals involved has been small.

The appropriate policy has been thrashed out for years, but clearly the settlers in Embagai have been the real problem. The general opinion is that the existence of agricultural settlements within the Conservation Area presents both a



Bat-eared foxes

Wild dog

real threat to the habitat and a danger to the conservation of the Area as a whole. Recently the Government has issued a statement that Ngorongoro should be used as "an area in which the Masai can practice their pastoral mode of life, and in which game viewing and tourism should be developed to the full". Agricultural development is not considered compatible with these two aims, and it is intended to keep it to an absolute minimum and under strict control. Henceforth

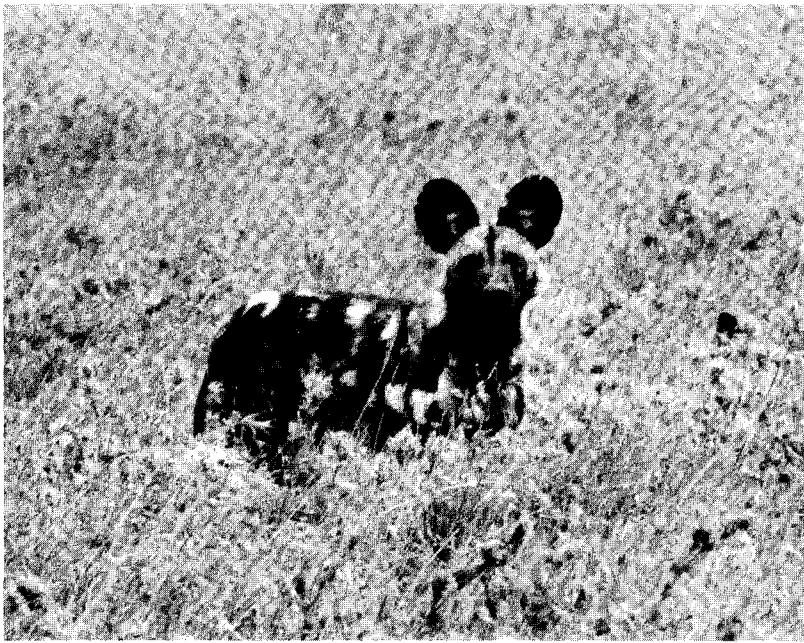
all cultivation is to be restricted to the Endulen Controlled Area (where limited hunting is also permitted), which forms about 10% of the total, and where there can be close supervision by agricultural officers and the enforcement of elementary rules of soil conservation.

Getting the squatters to move to Endulen, however, was more easily said than done. Many, including the 50-60 people now living in Embagai, adopted what was officially described as "a truculent attitude" and simply refused to move. Although the N.C.A. had authority to remove them by force, it was hesitant to do so for fear of local political repercussions. Even if they had wanted to, the heavy rains this year made Embagai difficult to reach and at the same time led to flourishing crops which the owners were naturally reluctant to abandon. A showdown was imminent at the time they capitulated and agreed to move.

* * * * *

In general Ngorongoro's prospects would appear to be good. Basically the experiment is working and working well; a number of the problems which beset the authority at the beginning are gradually working themselves out; and the Masai are coming to realize the value of wildlife. And yet one must hesitate because there are weaknesses. The main one is the N.C.A.'s almost complete dependence on the Government; albeit a government which has clearly shown itself interested in maintaining Ngorongoro as a tourist attraction. Nevertheless politics do not exist in a vacuum, and a change in government or in attitude could conceivably result in its losing the priority it now enjoys.

Fosbrooke is well aware of this problem, and it is his hope that its UN-recognized status as a "National Park or Equivalent



Reserve" will encourage international interest in its conservation which will not only provide cash for its development but also increase the power of outside groups interested in its conservation. (Foreign representatives are already included in the N.C.A. Advisory Board.) Too much, however, depends on the attitude of Government for any N.C.A. official to feel secure.

Another potential problem is the position of the Masai. Although this tribe is remarkable in that it does not look upon western civilization as the dawn of a new era, the day can not be far away when their attitude will change. Those living in the Area have the right to continue their primitive pastoral mode of existence only, and there is little scope for African development save in the Endulen Area. The Masai look upon Ngorongoro and its wildlife as tribal rather than national property. This could obviously lead to charges that the N.C.A. was trying to discourage Masai development at their own expense, and that it wants to keep them primitive and subservient.

The game areas with human inhabitants have presented the various East African governments with a difficult problem. Pastoralists or hunters generally inhabit such areas, and governmental policy has usually resulted in either the game or the people being turned out. The unique experiment at Ngorongoro is pointing the way to another solution, one which more nearly approximates the natural state.

It may well succeed.

Very sincerely yours,



Ian Michael Wright

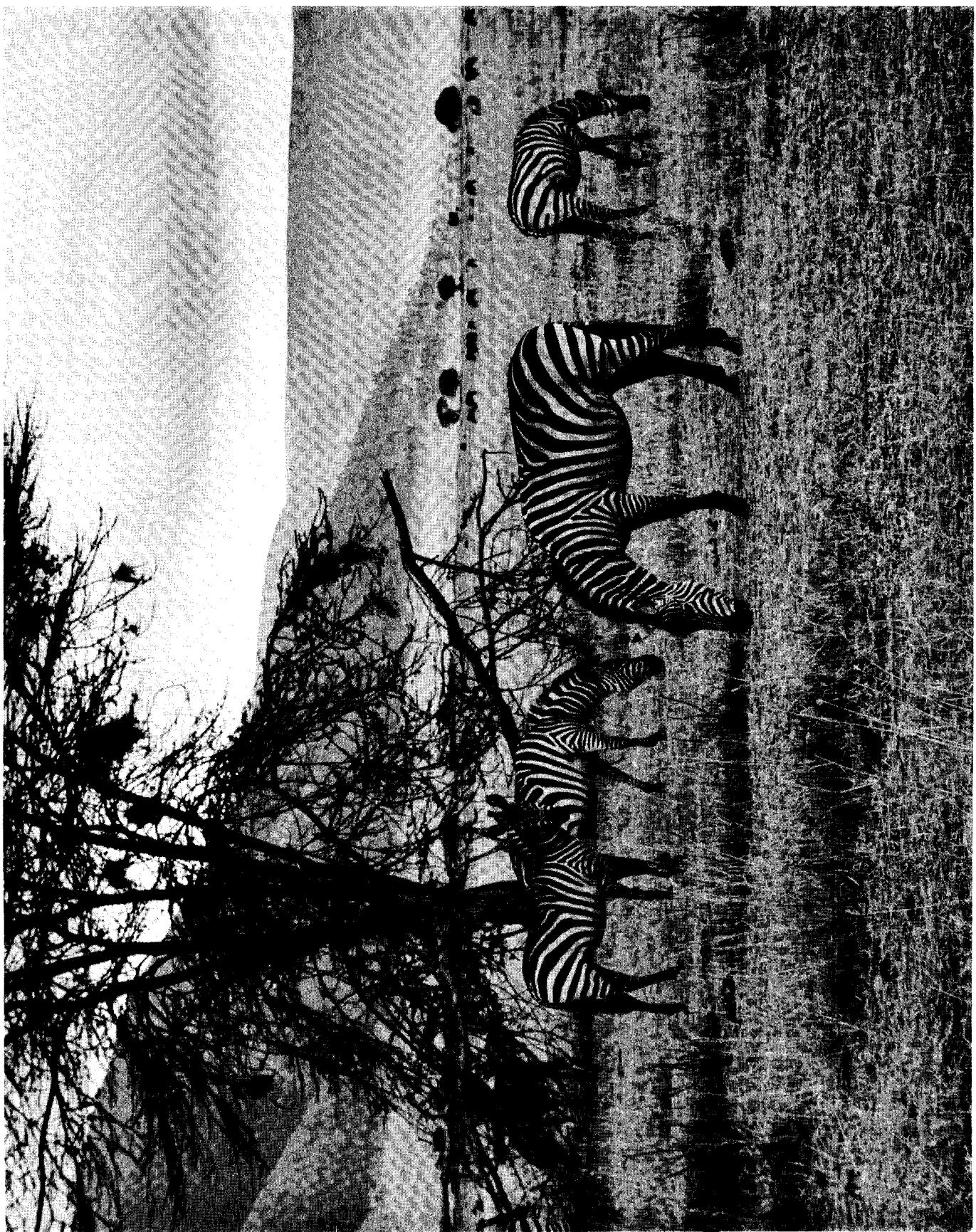
Opposite: Zebra.

Page 12: Lion (Photo actually taken at Lake Manyara).

The line drawings on pages three and five are reproduced by courtesy of Miss Ruth Yudelowitz.

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