TINLEY

ETOSHA AND THE KAOKOVELD

(323)

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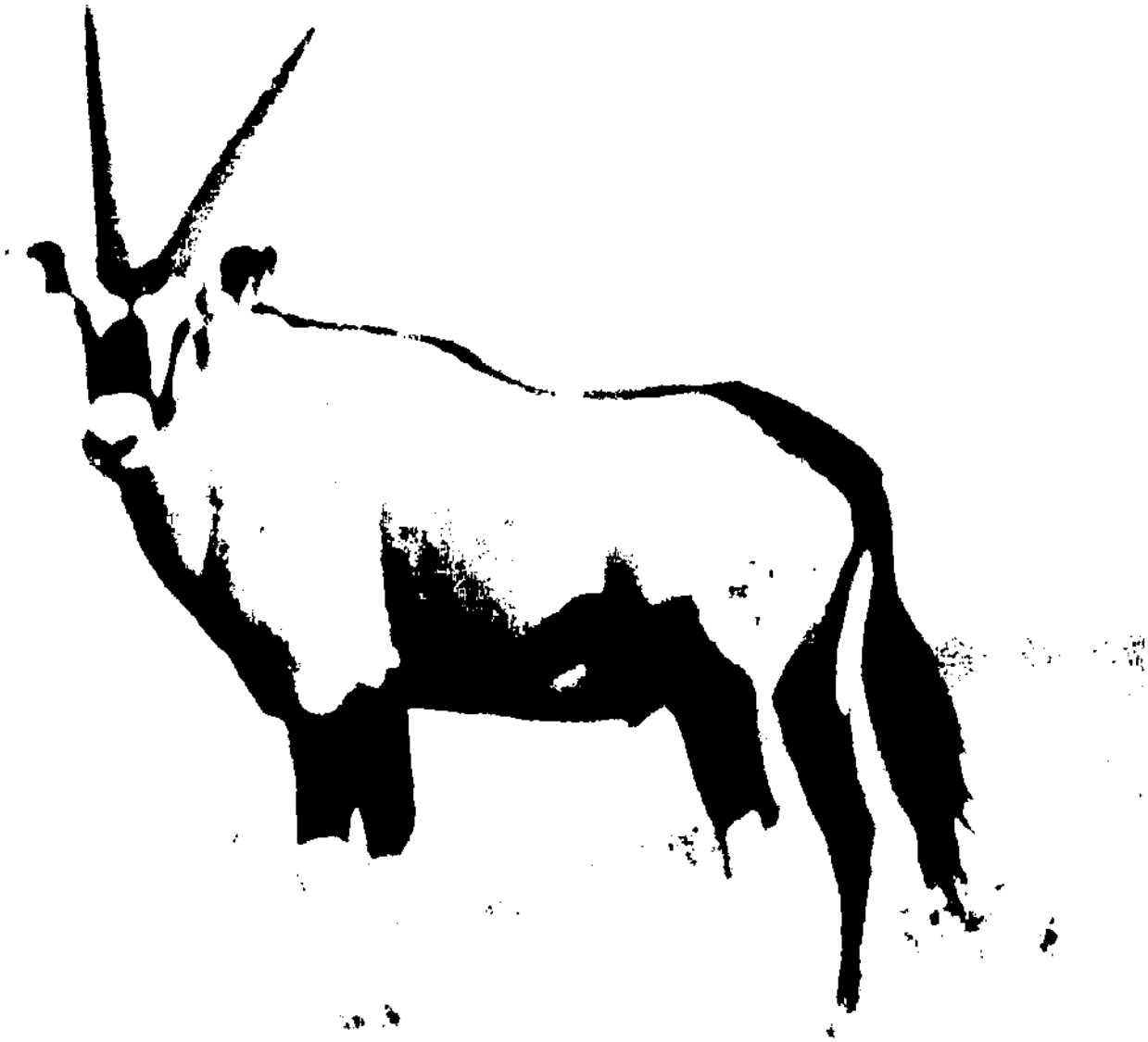


The Epupa Falls on the Kunene River. The picture shows two of the six cataracts making up the falls. Angola is on the left.

COVER PICTURE

A lone gemsbok bull on the short saline grasslands west of the Etosha Salt Pan.

The Case For Saving Etosha

By K. L. Tinley, M.Sc.

THIS REPORT *is motivated by the Government's intention to implement the Odendaal Commission's recommendations for northern South West Africa, which will result in the loss of the most valuable and greater part of the Etosha National Park.*

This report submits an alternative plan of land apportionment for man and wild life based on the intrinsic ecological potential and capabilities of the different land types, providing man with better living sites and at the same time making provision for the preservation of the unique features of Etosha and Kaokoveld as a natural resource of national importance. It is appreciated that the Government has to implement the Odendaal Commission report since no alternative plan exists. The present report presents a case for saving the Etosha and Kaokoveld while at the same time providing better and more ecologically viable living sites for the different ethnic groups at present in desert terrain.

THE PRESERVATION of Etosha and the Kaokoveld as one of the finest national parks in the world presents a unique problem in which the division of land between man and wild life is naturally demarcated by the inherent environmental characteristics. Desert, mountain and saline areas can support wild life, whereas the better environments of the higher rainfall interior plains containing perennial savanna grassland and good soils can be more efficiently used by man. In certain areas under the present and proposed political division of land, this situation is in reverse. Desert and mountain areas have been allotted to man and tall perennial grasslands in the west of Etosha to wild life.

South Africa is the scientific and technical leader in Africa, and in the field of conservation should lead with a realistic division of the land, based on its inherent characteristics rather than on inadequately informed short-term planning, which bears little relation to the ecological limits governing the life of a region. In the present context we cannot ignore the fact that some of the homelands proposed for various ethnic groups in South West Africa are in fact pure desert. The country receiving less than 100 mm (4 in.) mean annual rainfall is desert and was used in the past by pastoralists on the rare occasions when a light shower fell once in several years in a particular area. These people were nomadic, as is the wild life that has been evolved in the extreme arid zone. But today it is impossible for man to be nomadic any longer as all the land has been settled, and to settle people in desert and sub-desert without considerable technical aid (even this is questionable, owing to salinity problems) only results in devastation of the environment and wretchedness of the people.

As few people in head Government positions making the decisions have had the time or opportunity to experience the uniqueness of the Kaokoveld, or to read detailed reports from cover to cover, this report attempts to be as succinct as possible and the attached maps and photographs are being relied upon to present the facts in a more graphic and striking form than words can. It is hoped that the maps and photographs will help to remove the seemingly considerable confusion or misunderstanding among both conservationists and politicians as to what is really involved in the partition of land in northern South West Africa.

ENDEMIC FLORA AND FAUNA

THE ENDEMIC* flora and fauna of South West Africa are confined chiefly to the Namib Desert and the adjoining mountain country of the Kaokoveld (see Maps 4 and 5). The overall richest endemic region includes the country on either side of the Kunene River, i.e., north-western South West Africa and south-western Angola between latitudes 14° and 20° S. A few of the endemic plants and animals extend out of this region on to the Interior Continental Plain where there are ranges of rocky mountains. Within the Namib Desert there is a separation of endemic centres, the Central Namib containing endemics in the high transverse dune systems not found in the Northern Namib.

The exceptionally rich invertebrate and reptile endemic fauna is associated mostly with the Namib Desert, but many reptiles are endemic to the Kaokoveld Mountains. Several of the endemic plants and animals have scientific names which honour the region of their occurrence, e.g., the grass *Kaokochloa nigrirostris*, and the bird *Namibornis herero*. Map 5 shows the distribution of endemic plants and animals in northern South West Africa, and the Appendix

**Endemic = confined to and evolved under the unique conditions of a particular region or site (e.g., Namib and Kaokoveld.) and occurring nowhere else in the world.*

provides a partial list of the endemic elements. The remainder of South West Africa contains vegetation and animal life common to the other dry areas in Southern Africa (i.e., Botswana, W. Rhodesia, W. Transvaal, N. Cape). The original Etosha Game Park (Game Reserve No. 2) contained the whole variety of endemics as well as sufficient area for the migrations of the large wild ungulates, but it also included a large area inhabited by the Himba Herero pastoralists of the north-east Kaokoveld. The present Etosha boundaries still include many, but not all the endemics.

The political boundaries proposed for Etosha by the Odendaal Commission not only ignore the ecology of the region entirely, but effectively exclude almost all of the endemic flora and fauna from any national park space, as well as cutting the annual and periodic migration routes of certain large ungulates, such as elephant and gemsbok between the Kaokoveld and the Etosha saline area.

SCENIC MASTERPIECES

ASSOCIATED WITH the major endemic region in South West Africa is the most spectacular scenery in Southern Africa. Towering and stark wild mountains are interspersed with great valley plains or plunging rocky gorges. Wild unblemished scenery is today one of the major natural resources of a country. Wild scenery of this magnitude is rare and, as the Americans boast of the scenic grandeur of the Grand Canyon and Arizona, we should boast of the Kaokoveld. Wild scenery is an important aspect of the preservation of the individuality of a country, and this alone will draw millions of visitors and sightseers. In all Southern Africa nowhere are there such awe-inspiring vistas in bare rock colour. The mountains of the Kaokoveld parallel the beauty and fascination of the Cape mountains and their world-famous endemic flora, but are more impressive because of their wildness — and as such deserve the same protection.

The most striking scenery occurs in three regions: (1) the region with Sesfontein at its centre, including the Hoarusib, Hoanib and Unjab River basins, (2) the Etosha Salt Pan area and (3) the Marienfluss — Kunene — Baynes Mountains region. (See Map 7). These three scenic masterpieces occur outside the terrain suitable to man as a pastoralist or cultivator — either within the Desert Zone (below 100 mm rainfall) or in highly saline soil country, as around the Etosha Pan.

HUMAN ECOLOGY

THE PRESENT and recent-past distribution of man is shown on Map 6. The various language groups and their ways of life are shown as ecological groups irrespective of their ethnic relationships. The striking features of this distribution pattern can be summarised as follows:

The mountain and plains setting of the old Sesfontein Fort. In the middle distance are huts of Nama Hottentot people living at Sesfontein. The trees in the valley are confined to the watercourses: otherwise the ground is quite bare of plant cover.

(1) Hunter-food gatherers (Bushman way of life) occur on four distinct substrates. The Qung Bushman on the northeast sandveld, the Heiqum "Bushman" (Nama) on the clayveld of the Etosha Basin, the recently discovered Tjimba stone-using "Bushman" on the Baynes and other mountains of the Kunene Gorge, and the recently extinct Strandlopers along the coast.

(2) The pastoralists occupy the country between the 100 mm and 500 mm isohyets. In the north-east of South West Africa the Kalahari Sand limits permanent occupation by pastoralist or cultivator despite the higher rainfall.

(3) The cultivators live chiefly along the drainage lines of the fossil inland delta of the Kunene-Kuvelai Rivers in Ovamboland, and along the narrow alluvial margin of the Okavango River in the north-east. The remainder of the country remained empty before the advent of the borehole and windpump, because of the lack of surface water and poor soils.

During extreme drought periods the stone-using "Bushmen" are forced out of the mountains and do menial services for the Himba Herero in exchange for food and other requirements. The distribution of the Strandlopers along the coast was discontinuous as they were governed by the occurrence of freshwater in the mouths of the seasonal rivers crossing the Namib Desert. They also extended up some of the rivers traversing the desert. They are

extinct today except for one or two very old individuals living at Sesfontein.

It most be pointed out that the Nama people at Sesfontein and Warmquella, the extinct Strandlopers, and the Heiqum "Bushmen" are all of the Hottentot or Nama stock and share the same language. One homeland should suffice, as they are a single language group. The homelands proposed for these people and for the tall, proud Himba Herero pastoralists are situated in desert (under 100 mm rainfall) and mountainous areas totally unsuited to permanent settlement. The creation of homelands will also deny access to a region of fantastic natural diversity and richness merely for a handful of people who cannot use the extreme terrain anyway. On the other hand the tall perennial grasslands of western Etosha (receiving between 300 and 400 mm rainfall) are of little value to wild life and are better suited to pastoralists.

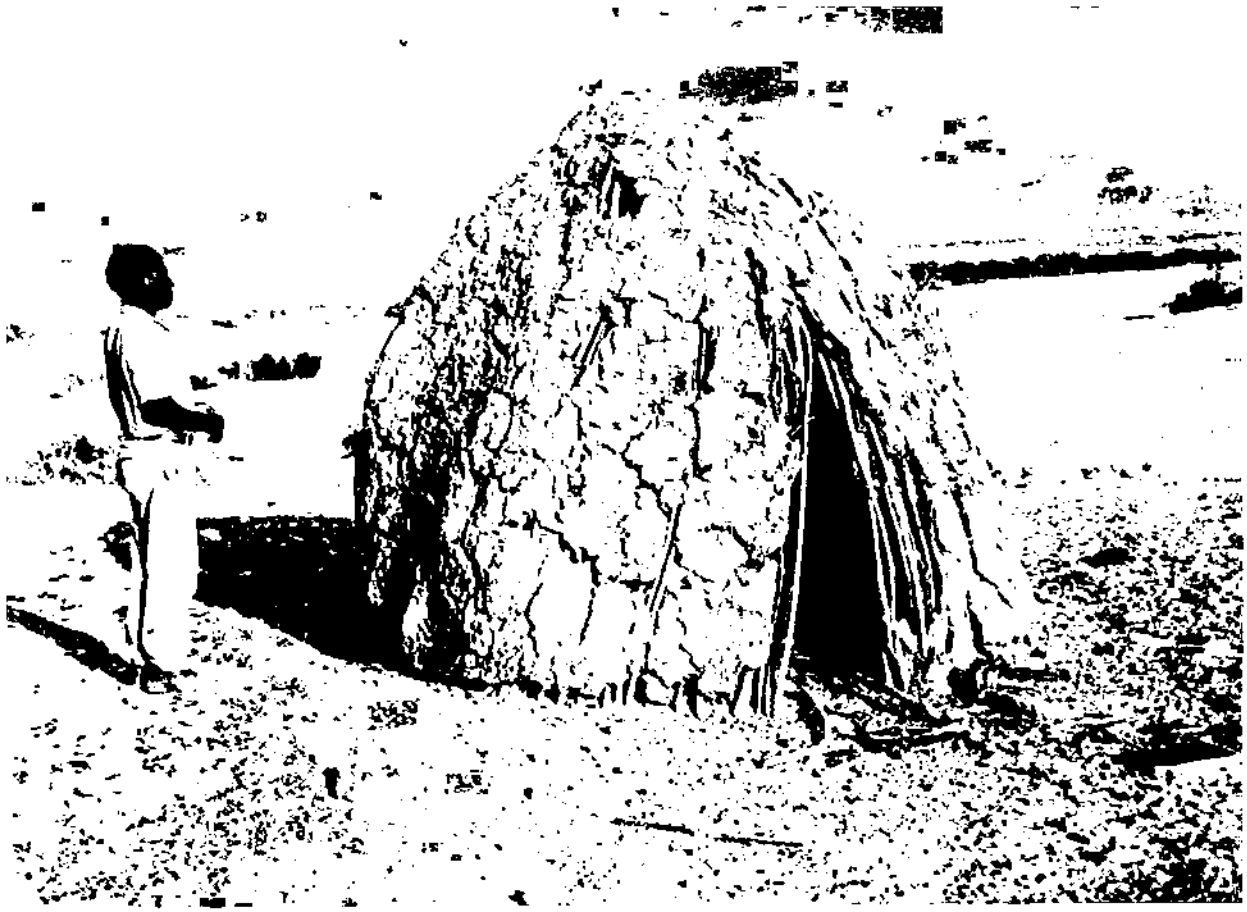
The Etosha and Kaokoveld National Park limits proposed in this report in fact will occupy very little of the past range of the various ethnic groups (see Map 6) as it will contain the regions with the least effective human living area in the whole of northern South West Africa (i.e., desert, mountain and saline).

For their own survival and for conservation of the sensitive, desert habitats in the terrain below the 100 mm rainfall line it is essential that man's farming activities be confined to above at least this rainfall limit. Ideally all permanent settlement should be confined to above the 200 mm rainfall line. The area below the 100 mm rainfall line is suitable to wild life which has evolved specifically for survival in desert land. In the Etosha National Park (present limits) the various wild herbivores use all the strata of the vegetation, and they are opportunistic, moving to take advantage of the changing conditions in the arid environment. In this way the sensitive substrate is maintained in good state, but movement is the key factor for the survival of the animal and the substrate it depends on.

A large amount of farmland has been long overstocked, leading to a permanent state of man-induced drought, erosion and degraded vegetation (mainly the loss of perennial grasses.) These are common features throughout large tracts of country. Many of these ranchers are bankrupt or retain their ranches while working elsewhere, waiting for a year of good rain. But, as in the Western Transvaal, a good or normal rainfall year is still in effect a drought as the compacted bare ground sheds the rain like a tiled roof. The only grass cover in large areas of the Outjo District, for example, is on either side of the main roads, which are fenced off from the ranches, on properly managed farms or particularly on abandoned farms, and in Etosha National

Himba Herero pastoralists from the north-eastern Kaokoveld.

The intermontane plains and high dolomite mountains of the Hoanib River drainage area west of Kowarib and Otjivasandu. Central Kaokoveld.



A Himba Herero hut made of sticks and cow dung in the Namib Desert at Purros near the Hoarusib River, which is indicated by the line of trees in the background. These temporary huts are made by the pastoralists for the period during which their herds graze the ephemeral flush of desert grass before moving back inland to sites with perennial grasslands.

Park on the poorest of soils. In order to rectify past mistakes in land allotment many farms in areas more suitable for homelands or for wild life and water catchment conservation need to be bought up. Considering the natural desert conditions on the extreme marginal area farms the move should be welcomed by the farmers.

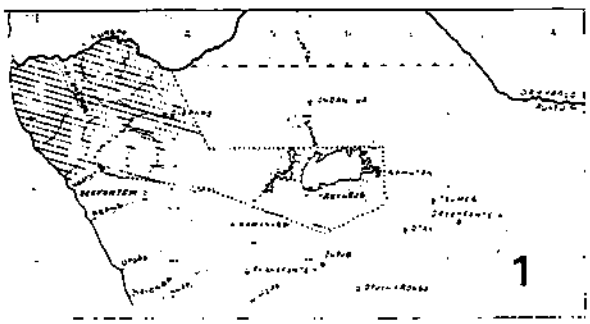
ETOSHA

THE UNIQUE feature of Etosha is the vast saltpan or salina, with infinite vistas and mirages, the huge flocks of flamingo, and herds of gemsbok, springbok, plains' zebra, giraffe, red hartebeest and dikdik in the terrain surrounding the salt desert.

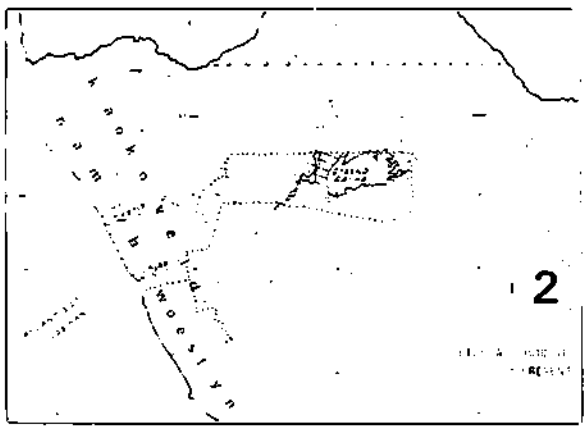
On the southern margin of the Etosha Basin, outside present park limits, are lines of dolomite mountain ranges. These ranges contain a few of the plant and animal endemics typical of the Kaokoveld Mountains. They are bare rock mountains supporting mostly softwood, highly deciduous trees and contain remarkable scenery.

The large area of tall perennial grass plains between Okohakana and Otjitjekwa are little used by wild ungulates (mostly only by elephant during the dry season) and are better suited to use by cattle. The area lacks surface water, but this is easily remedied by well spaced boreholes with wind pumps. These western grasslands between Okohakana and the Kaokoveld do, however, serve a vital function as a protected enclave for game migrations between the Kaokoveld and the Etosha Pan region. Large numbers of gemsbok and elephant move between the Kaokoveld and Etosha Pan. Mountain zebra also move inland to the top of the escarpment in the higher rainfall zone when there are extended natural droughts in the desert zone. The west to east movement is forced on them

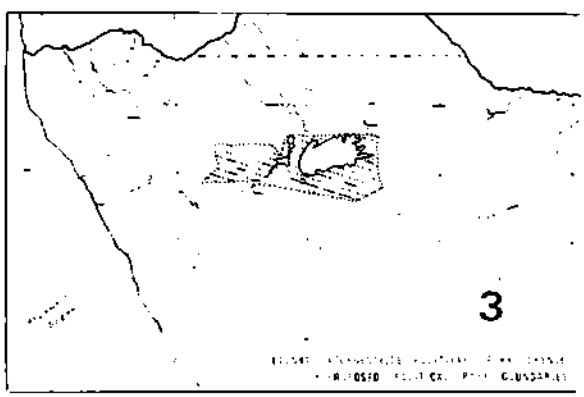
ETOSHA: Past, Present–and Future?



As the Reserve was in 1907



As it is today



As it will be, if the Government's plans are implemented

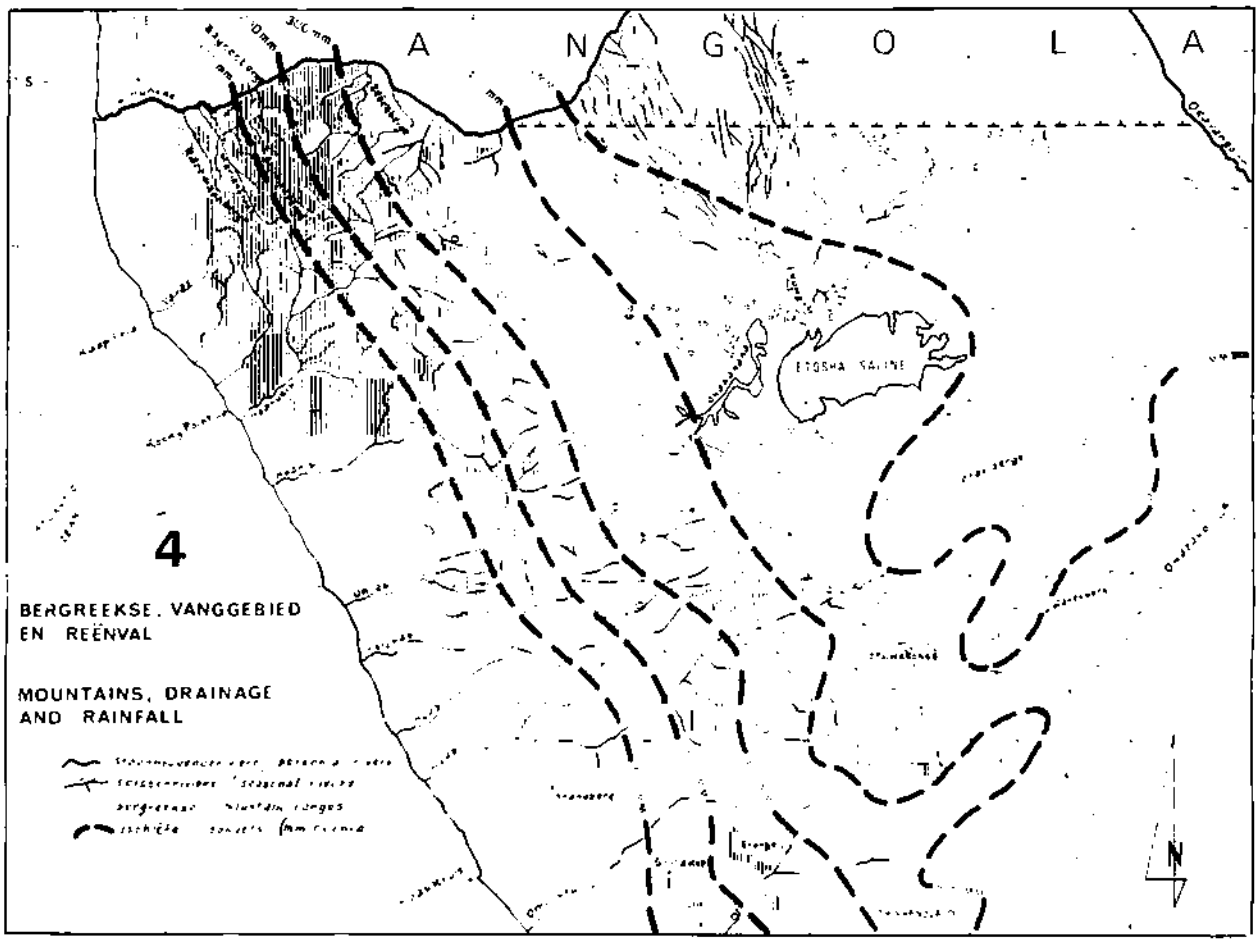
by the periodic and annual environmental extremes in the desert and sub-desert. The Etosha Pan sector is complementary to the adjoining extreme arid Kaokoveld region and the survival of certain large wild ungulates depends on the contiguity of these two areas.

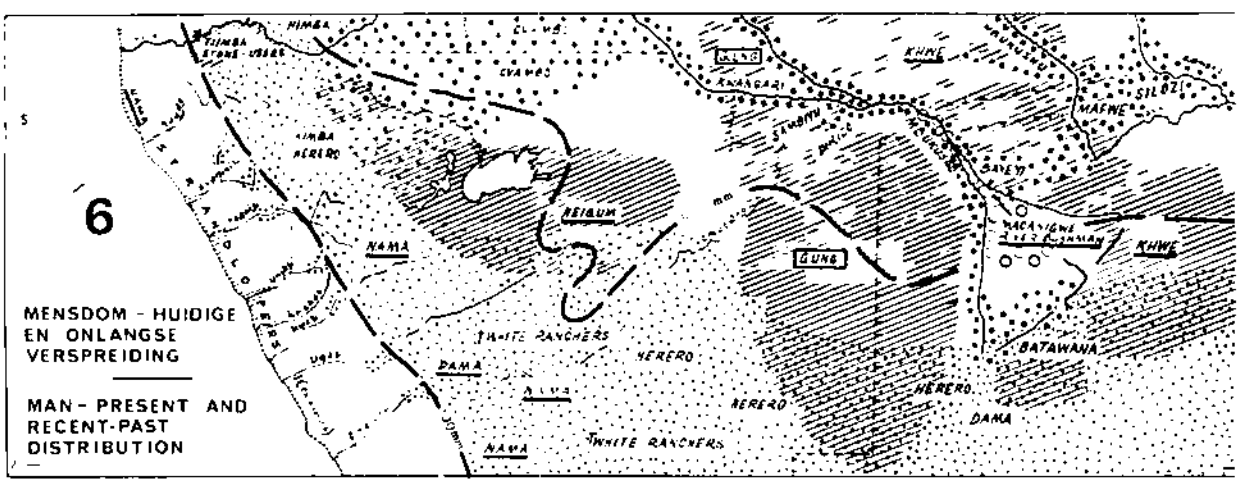
An important fact often overlooked by land-use planners is that 3 200 square miles of Etosha National Park are taken up by the Etosha saltpan desert. This must be excluded from any computation of effective living space for wild life, particularly the wild ungulates.

In the northeast of Etosha are the Andoni saline grasslands which serve as the main dry season centre for the large herds of plains' zebra and wildebeest. This grassland forms one ecological unit, but is bisected at present by the Ovamboland political boundary. There is also an anti-clockwise annual migration of the great herds along the northern perimeter of the Etosha Pan. Both the dry season game concentration and the subsequent migration to the west is *outside* the present sanctuary area of the Etosha National Park (Map 7). Very little land is required however, to be added to Etosha in this sector to ensure the maintenance of this annual migration and the dry season populations while they are at their most vulnerable.

The narrow sliver of land required to preserve the Andoni Plains and the migration routes is shown in Map 8. A triangle of land has been excised from western Etosha to provide salt pans

(Continued on page 11)


A N G O L A
ETOSHA SALINE
4
BERGREEKSE, VANGGEBIED
EN REËNVAL
MOUNTAINS, DRAINAGE
AND RAINFALL
N


HIMBA
CVAMBO
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6
MENSDOM - HUIDIGE
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MAN - PRESENT AND
RECENT-PAST
DISTRIBUTION
WHITE RANCHERS
HERERO
DAMA
NAMA
HERERO
BATAWANA
HERERO
DAMA
WHITE RANCHERS

5

VERSPREIDING VAN DIE ENDEMIESE FLORA EN FAUNA IN NOORD SUIDWES AFRIKA

DISTRIBUTION OF THE ENDEMIC FLORA AND FAUNA IN NORTHERN SOUTH WEST AFRICA

EKOLOGIESE GROEPE / ECOLOGICAL GROUPS

1 JAGTER-VERSAMELAARS
HUNTER-GATHERERS
Gung · Khwe · Heigum · Tjimba Stone-Users · Strandlopers (uitgestorwe/extinct in SWA)

2 VISSERS / FISHERMAN
Macunigwe Rivier Boesmanne

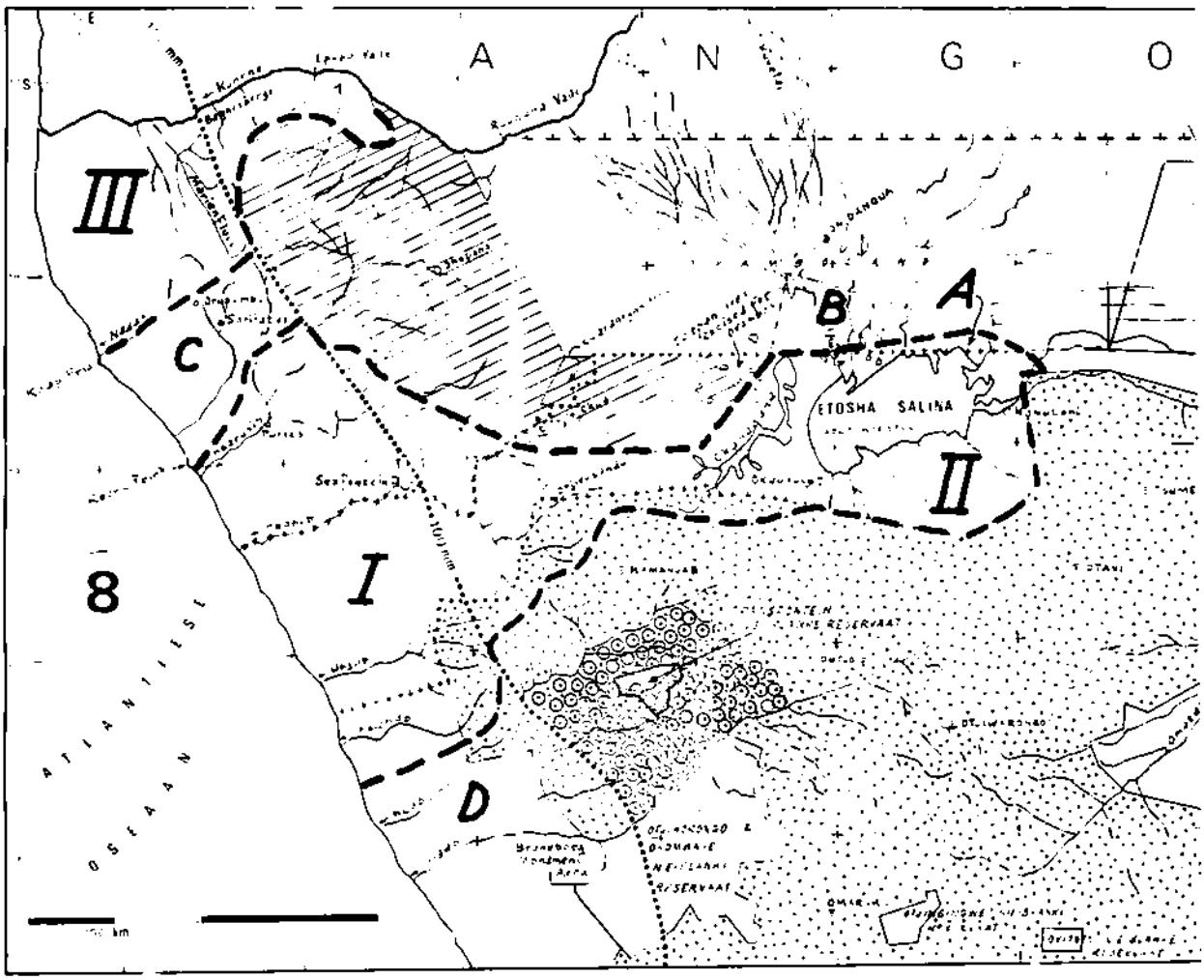
3 HERDERS / PASTORALISTS
Blanke Veeboere · Herero · Nama · Dama

4 LANDBOUERS / CULTIVATORS
Ovambo · Kwangari · Sambiyu
Dirico · Mbukushu · Bayeyi
Mafwe · Silozi · Batawana

7

NATUURSKOON EN HUIDIGE HOOFTREK ROETES VIR WILD

THE SCENIC MASTERPIECES & PRESENT PRINCIPAL MIGRATION ROUTES



PROPOSED ETOSHA, KAOKOVELD & KUNENE NATIONAL PARK LIMITS

I KAOKOVELD PARK JOINED BY THE 12° LATITUDE ENCLAVE

II ETOSHA PARK

III KUNENE PARK

PROPOSED NATIONAL PARK LIMITS

PRESENT ETOSHA BOUNDARIES

A ESSENTIAL AREA TO PROTECT THE ANNUAL GAME MIGRATIONS

B POSSIBLE WILDLIFE RESERVE FOR OVAMBOLAND

C AREA BETWEEN THE KAOKOVELD AND KUNENE PARKS

either i. AREA FOR MINING DEVELOPMENTS AND COMMUNICATIONS WITH THE INTERIOR

or ii. PART OF THE HIMBA HERERO HOMELAND

or iii. PART OF THE KUNENE AND KAOKOVELD PARKS

D POSSIBLE DESERT AND COAST EXTENSION OF THE SUGGESTED NAMA HOTTENTOT HOMELAND

WHITE FARMING AREA

SUGGESTED HIMBA HERERO HOMELAND

SUGGESTED NAMA HOTTENTOT HOMELAND

The Marienfluss Valley in the northern Kaokoveld–Namib region adjoining the Kunene River. On the right are the Otjihipaberge and in the background is the beginning of the Baynes Mountains, which attain an altitude of over 2 333 m (7 000 ft.). The circular bare patches in the foreground are probably fossil termite mounds, now truncated, from a geological period when this region received a higher rainfall. These grasslands are perennial only if rain occurs consecutively in the same area for several years. Otherwise the ground is completely bare.

for the Ovambos despite the existence of similar salt pans within their own area, which now, however, is devoid of wild life. This sliver of land could be a fair exchange for that excised for the salt pans. Making the Ovamboland sector of the Andoni plains a tribal wild life reserve would not be a viable proposition either from the ecological or administrative point of view. A more viable Ovambo wild life reserve area adjoining Etosha on the north is suggested (see Map 8).

The Etosha Park boundary limits have been changed a number of times in the past and these with the political boundary limits for the Park recommended by the Odendaal Commission are shown on Maps 1, 2 and 3.

KAOKOVELD

There are two unique regions within the Kaokaveld. In the north there is the Marienfluss Valley with the Hartmannberge on the west, the Otjihipa and Baynes Mountains on the east, and the Kunene River with the magnificent Epupa Falls on the north. Several water storage dams are planned for the Kunene and this development could escalate the tourist explosion already experienced in South West Africa.

The other unique region is centred on Sesfontein, containing the Hoarusib, Hoanib and Unjab Rivers. This area has the greatest variety of scenery and natural communities, and in addition is in the same latitude as the Etosha Pan area to and from which game movement occurs. The western margin of the Kaokoveld is desert land.

The Kaokoveld harbours the last concentration and largest population of black rhino in South West Africa, and contains the largest population of mountain zebra in Southern Africa. It has also become the last stronghold of elephant in South West Africa, and is the home of the endemic black-faced impala. A typical feature of the extreme arid country is the nomadic movement of animals following the availability of their life requirements. By way of example, in April 1967 the writer counted a gathering of more than 1 000 mountain zebra and 2 000 springbok over a distance of 15 miles where an isolated thunderstorm rain in the Unjab River basin had made the desert bloom. On either side of this site the desert was bare of plants and ungulates. The Kaokoveld and adjoining Namib Desert are also of extreme international importance in the conservation of natural systems, as this is probably the last place in Africa where big game

Desert landscape of rock and sand on the Nadas River between Sanitatas and Kaap Fria.

Herd of gemsbok in the northern Namib Desert between the Hartmannberge and the Skeleton Coast. (*Photo: Eugene Joubert.*)

(e.g., elephant, black rhino, giraffe, lion) occur on a desert coast by following the seasonal river courses which traverse the desert. Elephant and rhino also walk across the bare desert between river courses, a distance of 30 miles or more. The intermontane valley plains support the wild ungulates and the mountains support most of the endemics.

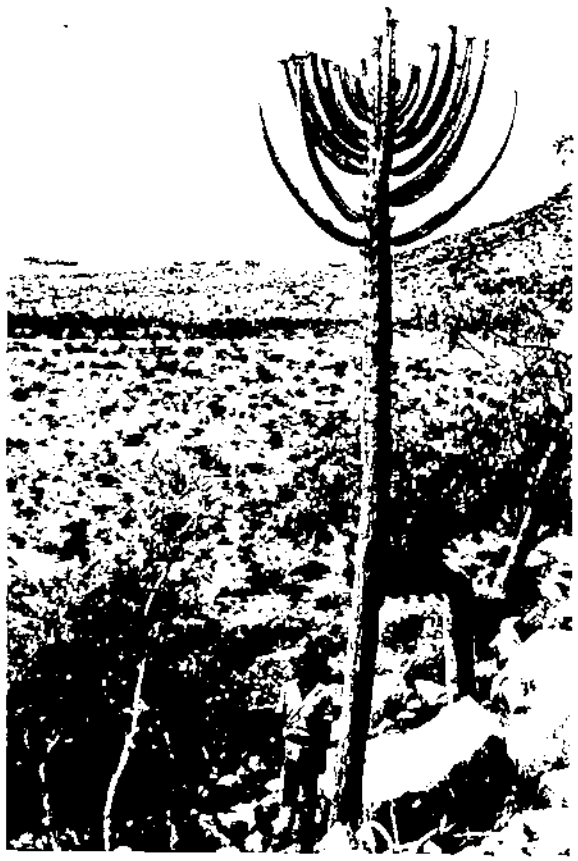
The Kaokoveld and adjoining Skeleton Coast are the last places where research can be made into the manner in which wild ungulates adapt themselves to the desert environment. This would give an insight into the real potential of the deserts under natural conditions with the whole spectrum of life. It would also provide a truer answer as to the disappearance of the wild ungulates from the Sahara Desert, where change of climate is blamed for their extinction.

NAMIB

THE NORTHERN Namib Desert, or Skeleton Coast, has often been described in books as one of the most barren and forbidding wastes in the world. It is not waste land, but wilderness, and, apart from its considerable biological and scenic value, it is the frightening atmosphere with its history of shipwrecks which in itself is a major attraction. The establishment of a national park in this region will ensure the preservation of the unique endemic life of the northern desert region.

The small brack lagoons and pans at the mouths of the seasonal rivers traversing the desert are oases containing rich waterfowl populations and are the water sources for many desert animals. They provide a striking contrast to the surrounding bare sand and stony desert pavement.

On a world scale desert lands are defined as those receiving less than 200 mm mean annual rainfall. Desert is composed of two distinct zones — the sub-desert zone receiving between 50 and 100 mm mean annual rainfall, and the pure desert zone receiving 0 to 50 mm rainfall. The larger desert animals are dependent on the sub-desert for their life requirements, and venture into and through the pure desert zone from this base. To confine the desert wild ungulates solely to the pure desert would lead to their extinction — the two zones are complementary. The sub-desert zone supports a *periodically perennial* grass cover, which depends for its survival on the coincidence of rain occurring in consecutive years in the same area. Thus in the normal cycle of events the sub-desert grasslands may persist for several years and then die back leaving tremendous areas bare and similar in appearance to the pure desert sector. It is an all-or-nothing system. There are periods when even the specialised arid zone ungulates (among other animals) are forced to move into the adjoining higher rainfall arid savanna receiving more than 200 mm mean annual rainfall.



The endemic tree euphorbia (*Euphorbia edouardi*) on the mountain ranges between the Marienfluss Valley and Sanitatas, Northern Kaokoveld — Namib region.

SUGGESTIONS

THE SUGGESTED requirements to preserve the unique natural features of Etosha and the Kaokoveld, and to provide better living sites for man are:

(1) Establishment of the Kaokoveld National Park in the Hoarusib, Hoanib and Unjab River basins, with a narrow national park enclave to link it with the Etosha National Park. The enclave will also serve as a stock-free zone for veterinary requirements.

The Kaokoveld National Park should be bounded on the south by the Koichab River, and in the north by the divide between the Hoarusib and Khumib Rivers (see Map 8). The watershed of the Hoanib and Unjab should form the eastern boundary where it adjoins the 19° Latitude enclave to Etosha.

(2) Establishment of the Kunene National Park to include the Marienfluss Valley, Epupa Falls and the adjoining Namib Desert. It is probable that the Water Affairs Department will require an unoccupied water conservation zone along the

Sub-desert existence. A Nama Hottentot cultivation below a mountain spring. This is in the Warmquella area of the central Kaokoveld–Namib region. The sub-desert country surrounding the maize patch is bare except for trees.

Kunene River. This zone should form part of the Kunene National Park.

(3) If the country between the suggested Kaokoveld and Kunene National Parks is not required for harbour developments, mining or communications between the coast (Cape Fria and Rocky Point) and the interior or as a coast extension of the Himba Herero homeland, then these parks should be linked as one.

(4) A narrow triangle of land should be added to the north-east of Etosha National Park to enclose the whole of the Andoni Plains and the migration routes of the ungulates within the Etosha sanctuary area (see Map 8). The sector at present within the Ovamboland boundary is too small to be of any value as a separately administered park area.

(5) Farmland should be bought out for inclusion in the Etosha and Kaokoveld National Parks: i) to include the headwater catchment of the Hoanib and Unjab Rivers, and (ii) to include the first line of hill ranges on the southern edge of Etosha.

(6) Extension of the Himba Herero homeland to include the present western Etosha National Park mostly of the 190 latitude and west of the Okahakana drainage (Map 8). In the Kaokoveld the Himba Herero should be confined to the country east of the 100 mm isohyet.

(7) The Nama people at Sesfontein and in the adjacent country be moved to the same homeland area as the Fransfontein people.

(8) Farmland should be bought out to increase the size of the Fransfontein Nama Reserve to include the country between the Huab and Ugab Rivers.

(9) The magnificent old German Fort at Sesfontein in its mountain setting should be rebuilt, as was done at Namutoni. The road from Otjivasandu to Sesfontein and Purros to the coast should be made an all-weather road (without harming the scenery) for tourism and nature conservation research and administration.

(10) If the powerlines, etc., from the Ruacana hydroelectric scheme are not planned to follow the the national road between Ruacana, Ondangua and Tsumeb, by-passing the Etosha National Park, they should be planned to pass through the narrowest part of the Etosha Park following the main road between Kamanjab and Ruacana. Powerlines, pipelines, etc., should be kept out of national park areas.

(11) If the above primary ecological requirements for man and wild life can be fulfilled, it would be of value in time to include part of the Otavi Mountain Range within the SE sector of Etosha National Park (i.e., NW of Otavi Town).

Compiled and written for and on behalf of the Wild Life Society of South Africa by Kenneth Lochner Tinley, M.Sc. (Pretoria). The author obtained first hand experience of the entire northern South West Africa (ie., the Western Caprivi Strip, Okavango, Ovamboland, Etosha, Kaokoveld and Namib) while he was employed as ecologist by the South West African Nature Conservation Department for three years, and based in Etosha National Park. Prior to this the author completed ecological studies in the Okavango Swamps of Botswana, and in north-eastern Zululand. At present the writer is employed by the Portuguese Government as Chief Wild Life Ecologist for Mocambique. Except where otherwise stated, all photographs are by the author.

Intermontane valley plains of the Hoanib River drainage area are backed by high, folded dolomite mountains. A view of the country east of Sesfontein in the central Kaokoveld.

The Minister's Reply

DIVISION OF LAND BETWEEN THE KAOKOVELD, DAMARALAND AND THE ETOSHA NATIONAL PARK

The President, Wildlife Society of South Africa

By direction of the Honourable the Minister, and with reference to the representations by your society in the above connection, I have to advise that the representations of 1969 to the Honourable the Prime Minister, which were not in time for consideration by the committee concerned, have now been duly considered by the Minister of Bantu Administration and Development in consultation with the Honourable the Prime Minister.

Your recommendations cannot be accepted with a view to the drastic deviating nature thereof and also viewed against the background of all the relative considerations and Government decisions which emanated from the Report of the Odendaal Commission.

Conservation of fauna and flora will be maintained. The Natives will be guided to act similarly and to establish game parks in the course of time.

The Honourable the Minister has further directed me to advise that the Government is responsible for the balance of all elements to be taken into consideration and it should be realised that the interests of the Natives — the more so as they themselves have made strong representations to the Government about it — could not be subordinated to nature conservation.

A copy of a Press Statement in this regard is attached for your information.

Administrative Secretary: Ministry of Bantu Administration and Development

PRESS STATEMENT

After negotiations with the South West Africa Administration and investigations carried out and with due regard to the representations received, the Government has now arrived at a decision in regard to the division of land between the Kaokoveld and the intended Damara homeland in the west and the Etosha National Park in the east.

Approximately six per cent of the area of the original Etosha National Park is now going over to the Kaokoveld. Unlike the section east of Okaukuejo, this land was never before developed as game park and was also in the past from time to time being used by the Natives as grazing land.

The developed section of the original Etosha National Park, more or less 125 km in length, remains untouched, as well as nearly 90 km undeveloped game park area.

The Minister of Bantu Administration and Development will, on behalf of the Government, at a time convenient to both parties, negotiate with the Natives concerned in regard to the establishment of a game park in their homeland. In the meantime conservation of fauna and flora will be carried out according to the existing S.W.A. legislation and, if necessary, special steps will also be taken.

(Issued by the Deparment of Information at the request of the Department of Bantu Administration and Development.)

Pretoria, 14 December, 1970.

Appendix

Partial list of the endemic flora and fauna in South West Africa.*

A. Endemic Plants

The greatest number and variety of endemics are in the arid savanna and sub-desert mountains of the Kaokoveld, and in the adjoining Namib Desert in north-western South West Africa. Probably over 100 plants are endemic to north-western South West Africa and the adjoining part of south-west Angola, i.e., they occur nowhere else in Africa or the world. The richest plant endemic region in Southern Africa is the south-west Cape containing the renowned Cape Flora. The other most important endemic region is in the north-west of South West Africa.

(The list of endemic plants given below is by no means complete; a full list can be obtained from Mr. W. Giess, Botanist, Department of Agriculture, South West Africa.)

Trees

Acacia montis-usti
Acacia robynsiana
Boscia welwitschii
Balanites welwitschii
Commiphora anacardiifolia
Commiphora glaucescens
Commiphora multijuga
Commiphora crennato-serrata
Ceraria longipenduculata
Euphorbia currori
Euphorbia eduardoi
Euphorbia geurichiana
Kirkia dewinteri
Moringa ovalifolia
Pachypodium lealii
Sesamothamnus benguellensis
Sterculia zestrowiana

Dwarf Trees and Shrubs

Acanthosicyos horrida
Combretum wattii
Commiphora virgata
Commiphora wildii
Cyphostemma uter
Rhigozum virgatum
Sarcocaulon mossamedensis
Welwitschia mirabilis
Zygophyllum stapfii

Grasses

Danthonia mossammedensis
Kaokochloa nigrirostris
Stipagrostis dinteri
Stipagrostis hotchstetteriana
Stipagrostis ramulosa
Stipagrostis subacaulis

B. Endemic Birds

Francolinus hartlaubi — Hartlaubse Fisant/Hartlaubs Francolin (Roberts 184).

Eupodotis ruppellii — Damara Vaal Korhaan/Rüppells Korhaan (Roberts 221).

Poicephalus ruppelli — Bruin Papagaai/Rüppells Parrot (Roberts 329).

Lophoceros monteiri — Monteirose Neushoringvoël/Monteiro's Hornbill (Roberts 429).

Ammomanes grari — Grayes Lewerkie/Greys Desert Lark (Roberts 483).

**Owing to lack of time, the tremendous number and variety of invertebrate and reptile endemics are not listed. These data can be obtained from (1) the Director, Namib Desert Research Station, P.O. Box 953, Walvis Bay, South West Africa, (2) the Director, Transvaal Museum, Pretoria.*

Aethocichla gymnogenys — Kaalwang-Katlagter/Bare-cheeked Babbler (Roberts 537).

Achaetops pygmopygius — Damara Bergkatlagter/Damara Rockjumper (Roberts 539).

Namibornis herero — Herero-Spekvreter/Herero Chat (Roberts 660).

Lanioturdus torquatus — Koristert-Laksman/Black and White Chat-Shrike (Roberts 726).

Nine birds are endemic of which one (Gray's Lark) is confined to the Namib Desert, and all the others are confined to the mountains of South West Africa, particularly those of the escarpment zone in north-west South West Africa. Other endemics occurring in the adjoining part of south-west Angola may well occur in the northern Kaokoveld Mountains, and are yet to be discovered, e.g., the Cave Robin Cossypha ansorgei.

C. Endemic Mammals

Equus zebra — Mountain Zebra.
Modogua kirki — Dikdik.
Aeipyceros malampus petersi — Black-faced Impala.
Procavia welwitschii — Kaokoveld-Dassie.

The Kaokoveld and adjoining Namib Desert are also the main centre of the black rhino (*Diceros bicornis*) population in South West Africa. There is also an ecological form of the lion *Panthera leo*, known as the bergleeu which is maneless and generally grey in colour, living in the mountain country of the Kaokoveld. The West African Striped Tree Squirrel *Funisciurus congicus* occurs in South West Africa only in the Kaokoveld Mountains and the mountain ranges on the southern perimeter of the Etosha Basin. Gemsbok, springbok, elephant, giraffe, klipspringer, steenbok all occur in the Kaokoveld and into the Namib Desert, mostly along the rivers traversing the desert. Plains zebra also occur side by side with mountain zebra in the sub-desert zone of the Namib such as at Sanitatas.

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