

The Magnificent National Parks in Angola

By S. C. J. Joubert

(*Kruger National Park*)

ONE OF THE lesser known countries on the African continent is the Portuguese Province of Angola, although the White settlement dates back to as early as 1482, when Diogo Cam first dropped anchor at the Island of Luanda. When Paulo Dias de Novais, grandson of the better known Bartolomew Dias, founded the town of Luanda in 1575 he was, in fact, creating the oldest city in Central Africa. Initially settlement and development of the country were slow, but steady, and today Angola consists of no fewer than fifteen districts (including Cabinda) and at least seven cities or large, expanding towns.

Between latitudes 4° 22' S. and 18° 03' S. along the west coast of Africa lie the vast expanses of Angola, covering well over 400 000 square miles. Topographically the area consists of a coastal belt varying in width between approximately 50 and 200 kilometres, which is delimited on its eastern fringes by a north-south escarpment rising to heights of up to 3 500 feet. The plateau stretches over most of the interior of Angola, in places reaching altitudes of 6 000 ft. above sea level. Rainfall varies in accordance with the topography with generally low precipitation along the coast (approx. 500 mm north of Benguela and less to the South) despite a relatively high humidity. In the higher altitudes of the escarpment and adjoining highland plateau the rainfall is appreciably higher and averages between 1 000 and 1 500 mm annually.

The diversity in the topography and rainfall of the country has a profound influence on the vegetation and within the boundaries of Angola one may find virtually anything Africa has to offer in the line of vegetation — from barren, apparently lifeless desert to humid, rank, tropical rain forests. Between these two extremes there are extensive open grasslands and tree savannas with varying densities of trees and shrubs, which eventually merge into closed-canopy *Brachystegia* woodland with its characteristic open, grass-covered drainage lines, known locally as "mulolas".

In a country so richly endowed with variety of habitat it may be expected that the animal life will reflect equal diversity in species and numbers. In this respect the nature lover is certainly not disappointed as Angola boasts a considerable percentage of Africa's rich fauna. However, in keeping with the trend in most other African countries where game animals were once abundant, the game populations in Angola were seriously depleted through

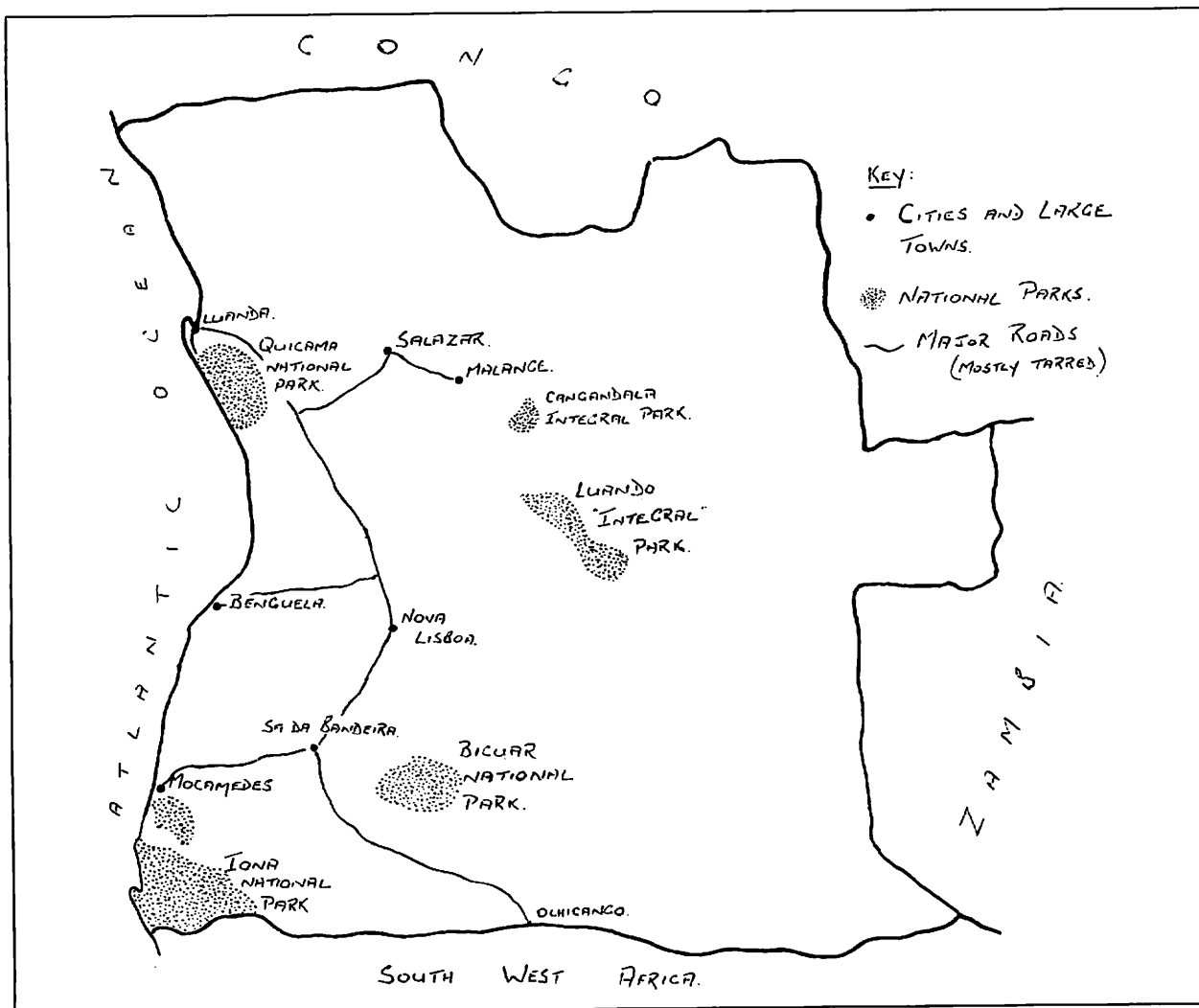
indiscriminate hunting and the advance of civilisation. Numbers of game reminiscent of the "good old days" are now confined to the proclaimed national parks and other areas, where they are protected against wanton killing.

During June and July, 1969, I had the good fortune to visit some of the Angolan national parks and acquaint myself with the prevailing conditions in the country. An account of my visit may give some information on the nature conservation attempts of a neighbouring country which is attracting an increasing number of tourists from South Africa.

The six national parks and two "Natural Integral" parks are administered by the Department of National Parks which is incorporated in the Department of Veterinary Services, with its head office in Luanda. Each national park is controlled by one or more Portuguese game wardens with a staff of African assistants.

The first park I visited was the Quiçama National Park which is a fairly big reserve covering an area of more than 7 000 sq. kilometres, with its entrance only 70 k from Luanda, the capital. This park has the exceptional attraction that its western boundary is the Atlantic Ocean, while its northern and part of its eastern boundary is the impressive Cuanza river.

Vegetationally the reserve may be divided into a number of distinct habitats, each with its characteristic fauna. One of the most impressive of these habitat types is the extensive flood plain of the Cuanza river. This great river has its catchment area in the high rainfall zone of Malanje and annually overflows its banks in the Quiçama area, creating a flood plain which in places may be as much as one or two kilometres wide. After the floods the receding water leaves in its wake a carpet of luscious green grass which provides a valuable food reserve during the dry months. Adjoining the flood plain there is a low escarpment, the slopes of which are covered with dense stands of tree and shrub growth, of which the following are the most conspicuous: *Adansonia digitata*, *Euphorbia conspicua*, *Pteleopsis* sp., *Sterculia* sp., *Strychnos* spp., and *Croton* sp. In some areas there is a transitional zone of ascending, undulating country covered with a dense stand of *Setaria welwitschii* grassland, with few or no trees or shrubs between the flood plain and the woodland of the escarpment. I found the most significant aspect of this vegetation type the fact that it is the preferred habitat of the astounding little red buffalo (*Syncerus caffer nannus*). This animal does not exist in South Africa and is smaller than its counterpart, the



Cape Buffalo. The young bulls and cows are light and more-or-less orange-brown in colour, apparently getting darker brown with age. Old bulls are generally much darker than the others. The large ears are covered with long hair, the horns are lighter than those of the southern race and do not extend laterally, but curve upwards. I was assured that, though these little red buffalo were somewhat smaller than their dark relatives, they were equally pugnacious. From their appearance alone I had no reason to doubt this. Other animals which also resort to the environs of the river include elephant, hippopotami, bushpig, bushbuck, and roan antelope. Elephant are not abundant and confine themselves to the thickets on the river bank. Occasional glimpses of small parties of up to six or eight bushpig were possible as they darted over an open plain to find cover in the dense undergrowth. The handsome little bushbuck immediately attracts attention as its brick-red colour with the bright white stripes and spots contrasts markedly with the darker form occurring in the Transvaal Lowveld and other areas of South Africa.

The vast flood plain also has its fair share of bird life as was evidenced in both variety and numbers. Overhead the palm-nut vulture (no longer considered a true vulture by ornithologists, but more appropriately placed with the eagles) soared majestically, while lower down in the estuaries the scene was highlighted by aggregations of flamingo, open bill storks, blacksmith plovers, white headed plovers, black wing plovers, jacana, lesser jacana, sacred ibis, yellow billed egret, little egret, cattle egret, hadeda, white faced duck, marabou stork and grey heron.

In the thickets and grass plains adjoining the river the most conspicuous birds include the red-necked francolin which is particularly abundant, grey loeries, various species of doves, waxbills, bishop birds, cisticolas, weaver birds, and many more.

The interior region of Quicama is characterised by sandy to sandy-loam soils supporting an interesting mosaic of vegetation types, which may conveniently be subdivided into dense thicket and tree savanna on the one hand and open grasslands on the other. The thickets comprise a considerable area

on the deep sands on the plateau of the escarpment above the river. The thick, entangled undergrowth consists of a wide spectrum of different tree and shrub species, of which the following feature most prominently. *Euphorbia conspicua*, *Strychnos ligustroides*, *Strychnos welwitschii*, *Croton sp. (gratissimus)*, *Grewia angolensis*, *Combretum camporum*, *Pteleopsis diptera*, *Fagara angolensis*, *Guibourtia spp.*, and *Tessmannia camoneana*. The transitional zone between the thickets and open grasslands varies greatly from one area to another in the density of the tree and shrub stratum, but may quite justly be referred to as a tree savanna, with the following species immediately drawing one's attention in the various associations: *Adansonia digitata*, once again the ever present and conspicuous *Euphorbia conspicua*, *Sterculia setigera*, *Combretum zeyheri*, *Combretum psidioides*, *Boscia urens*, *Strychnos spinosa*, *Commiphora spp.*, and *Carissa edulis*. The most striking aspect of this veld type is the tall *Schizachyrium semiberbe* grass with its rusty-red colour. Sub-dominant grasses include a wide variety, of which the following are but a few: *Pogonarthria squarrosa*, *Tricholaena monachne*, *Hyparrhenia rufa*, *Digitaria spp.*, *Aristida spp.*, etc.

This habitat type harbours game species common to both the denser thickets on the one hand and open grassland on the other. Game does not appear to be particularly common in this area, although species such as roan antelope and eland are often seen and also the elusive little bushbuck. Red buffalo is occasionally seen.

From the animal point of view the most exciting areas in Quiçama are the large open grasslands which cover extensive areas in the interior of the park. Two different types of grassland can easily be differentiated on the basis of the dominant grass species, i.e., *Setaria welwitschii*, and *Eragrostis superba* grasslands. Both types have a great attraction for the plains-loving antelope, although the *Eragrostis superba* plains are obviously better favoured during the winter months. Structurally the two grass types vary considerably from one another. *Setaria welwitschii* is a robust, fairly coarse grass with broad leaves and forming dense stands 2½ to 3 feet tall, while *Eragrostis superba* gives rise to a more open stand with much less foliage.

Because I have a particular interest in roan antelope I concentrated more on the open *Eragrostis* plains in the area of Cabo de S. Braz on the western side of the reserve, as these plains carry an impressive number of these animals. Topographically, this area of more than 300 square kilometres represents an undulating landscape, with gentle slopes to the drainage lines. An interesting and important feature of the area is the shallow depressions, which serve as catchment pools for rain water as well as the dual purpose of providing both drinking water and luscious green growth well into the dry season. Sparsely distributed clumps of *Hyphaene guineense*, *Phyllogeiton sp.*, *Carissa edulis*, *Combretum camporum* and



A beautiful Royal Sable antelope in the Cangandala Integral Nature Reserve, Angola.
(Photo: S. J. C. Joubert.)

Boscia urens are the only signs of tree growth. Grasses closely associated with *Eragrostis superba* are *Eragrostis fascicularis*, *Heteropogon contortus*, *Digitaria milanjiana*, *Schmidtia papaphoroides*, and in the moist depressions, also *Sporobolus robustus*, *Cyperus sp.*, *Echinochloa sp.*, and *Bothriochloa sp.*

The plains-loving animals frequenting these grasslands include roan antelope and eland while reedbuck are also common in the patches of taller grass. Red buffalo are, however, not common in the grasslands and are only occasionally seen. Before the advent of civilized man roan antelope were apparently common in Angola wherever the habitat was suitable, and although they have suffered severely, together with most other species, through indiscriminate hunting, Quiçama is one of the few places where this beautiful animal may still be seen in large numbers.

Herds consisting of as many as 57, 53 and 46 were seen on various occasions, and contributed to the most thrilling moments of my Angolan tour. Eland, Africa's largest antelope, are also present in considerable numbers and herds of up to 30 or 40 individuals are not uncommon, while aggregations of over one hundred were also seen.

Development of the Park to accommodate tourists is at present in full swing and the first twelve rondavels of an extremely attractive camp (Pousada), overlooking the beautiful flood plain of the Cuanza river, were completed when I was there in July, 1969. Each rondavel is self-contained and has its own shower, wash basin and toilet. The building of a restaurant was in progress. Narrow gravel roads traverse the Park and are suitable for sedan cars. The tourist season is confined to the dry winter months (July to September).

A particular highlight of my visit to Angola was the opportunity of visiting the Cangandala Integral

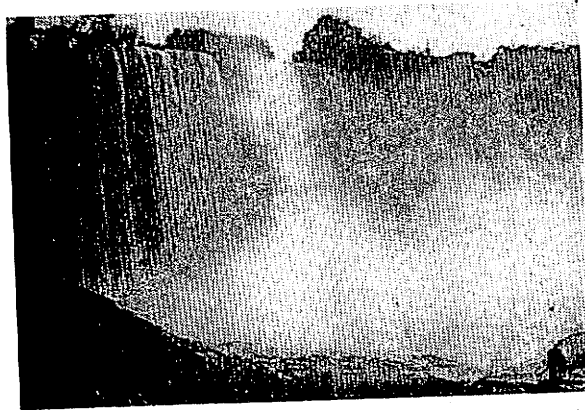
Nature Reserve*, one of the two reserves in the country earmarked solely for the protection of Angola's rare Giant or Royal Sable antelope (*Hippotragus niger varians*). Of the two reserves the Luando Integral Nature Reserve is the larger and provides sanctuary for the bulk of the approximately 2 000 head of Royal Sable in Angola. The two reserves both lie within the Malanje District and are only 70 to 80 kilometres apart in the higher reaches of the great Cuanza river. Cangandala is a relatively small reserve of only a few hundred square kilometres and was proclaimed an integral reserve after the discovery of a small herd of Royal Sable in the area not more than 10 years ago.

Recently the Portuguese authorities in Angola suggested that the vernacular name of this magnificent antelope be changed to Royal Sable Antelope, thus discarding the old "Giant Sable". The impressive shiny black bulls with their long sweeping horns certainly deserve this majestic title and the use of the new name should be encouraged.

The history of the royal sable, after its discovery by H. F. Varian, follows a similar pattern to that of most of the other antelope species in Southern Africa, i.e., heavy and indiscriminate hunting, with the resultant decrease in the population, and a last, desperate attempt to save the species from total extinction. For a most interesting account of the discovery of the Royal Sable by Frank Varian himself the reader is referred to an article which appeared in an earlier volume of African Wild Life under the title "The Giant Sable Antelope of Angola". (Afr. W. Life, Vol. 7, p. 272). Early reports of the discovery of one of Africa's finest antelopes soon led to an influx of sportsmen and trophy hunters and owing to the localised occurrence of the species, it soon reached its low ebb in the twenties and thirties of this century. However, efficient protection by the Portuguese authorities has led to a steady increase in numbers and Dr. Crawford Cabral, mammalogist in Angola, estimates their present population at 2 400.

Vegetationally the Cangandala Reserve differs markedly from the Quiçama National Park and the deep sandy loam soils, together with the high annual rainfall, give rise to closed canopy *Brachystegia* woodlands on the higher watersheds while the lower drainage lines are broad, open grass-covered depressions with very little or no woody growth. The greatest variety of trees and shrubs is found in the transitional zone (ecotone) between the *Brachystegia* woodlands and the open drainage lines (mulolas), the commonest being *Brachystegia* spp., *Isobertinia angolensis*, *Uapaca benguellensis*, *Terminalia sericea*, *Azelia cuanzensis*, *Piliostigma thonningii*, *Pterocarpus angolensis*, *Faurea saligna*, *Strychnos* sp. and *Combretum* sp. Associated grasses favouring the sandy substrate include *Hypparrhenia* spp., *Tristachya* sp., *Ctenium newtoni*, *Loudetia* sp., *Pogonarthria squarrosa*, *Eragrostis*

*See African Wild Life, Vol. 16, p. 31 and Vol. 22, p 15.



The Lovely Duke de Braganza waterfall near Malanje.
(Photo: S. C. J. Joubert.)

chapelieri and in the moist areas *Imperata cylindrica* is conspicuous.

During my stay in Cangandala extensive bush fires were raging throughout the long-grass veld. One of the great grassy drainage lines (to avoid any confusion I would like to make it clear that the "mulolas" of Angola are the same as the "dambos" of Rhodesia and Zambia and the vleis of South Africa) had been burnt a few days before my visit and the young green shoots soon attracted the royal sable from the adjoining woodland. During the early morning and late afternoon the sable normally moved on to the "mulola" to graze, while seeking the shelter of the woodland during the heat of the day. Quite unforgettable was the morning when we came across a heard of twenty of these beautiful animals: a few magnificent black bulls with a number of dark to rusty-brown cows and their fawn coloured calves. The animals were remarkably tame and we were able to approach within fifty yards without disturbing them. A few days later a group of nine fully matured males was encountered on the grass plains.

The most striking feature of the Royal Sable antelope is its long recurving horns which rise almost vertically above the head before bending backwards in a wide, graceful sweep. A distinguishing character between the royal sable and our "ordinary" sable is the absence of the white eye-to-nose line running down the face of the better known sable, giving the royal sable a rather dark face. Apart from the visibly longer horns and the facial markings there seems to be very little difference between the two types.

Other game species occurring with the royal sable in the two Integral Reserves are roan antelope, eland, buffalo, reedbeek, warthog, bushpig and, along the Cuanza river, also puku. Carnivora are alleged to occur in the reserves, though small in numbers, and include lion, leopard, cheetah, wild-dog, hyaena, jackals and the smaller felids.

A study of the life history and ecology of the royal sable is currently being undertaken by Dr.

R. D. Estes and it can only be hoped that his results will assist in supporting and confirming the measures to be taken to ensure the future safety of one of the world's most beautiful and rare antelopes.

Another very pleasant reserve in which I spent some time is the Bicua National Park, in the District of Huila, and only about 150-160 kilometres from Sá da Bandeira in the south-central area of Angola. The climate is humid and hot in the northern areas of Angola, but the higher altitude of Bicua has a drier atmosphere and wider day and night temperature differences. The nights during the winter months cool down considerably in comparison with the bright warm days. Development of this national park (for utilisation by tourists) is under way, but it's not yet as advanced as Quiçama. Roads are being constructed and a rest camp is also being planned.

Basically the soils of this reserve are deep and sandy and support a number of different vegetation types ranging from dense, entangled thickets to open woodland and parkland and open grassland drainage lines. Some of the most conspicuous trees and shrubs are *Brachystegia spiciformis*, *Julbernardia paniculata*, *Baikiaea plurijuga*, *Terminalia sericea*, *Baphia massaiensis* var. *obovata*, *Guibourtia coleosperma*, *Burkea africana* and *Entandrophragma ekebergioides*.

Animals most frequently encountered on drives through the park are roan antelope, blue wilde-

beest, warthog and eland while the species favouring the wooded areas, such as elephant, kudu and buffalo are more evident from their signs than from sightings. A small nucleus population of some 100-150 zebra is slowly but surely increasing.

Two other Angolan National Parks are situated in the district of Moçamedes in the south-western corner of Angola. The largest of all the national parks, the Iona National Park,* has the Cunene river as its southern boundary and is the desert park of Angola. Unfortunately I was unable to visit it, but I was assured by Dr. Cabral that it is one of the most interesting areas in Angola.

Slightly to the north of Iona is the Azevedos National Park which may be regarded as an arid zone, but not true desert as in parts of Iona. Botanically the most interesting aspect of my drive through this park was the abundance of the desert plant, *Welwitschia mirabilis*, which develops only two leaves. These grow and form new material from their base while the tips are torn to shreds and wear away in wind and weather. Great flocks of ostriches were also seen on the grass-covered plains together with herds of springbok.

The development of the national parks and the preservation of wild life by the Portuguese authorities are most encouraging and a visit to Angola will be a most rewarding experience for the nature lover.

* See *African Wild Life*, Vol. 22 (2), p. 107.

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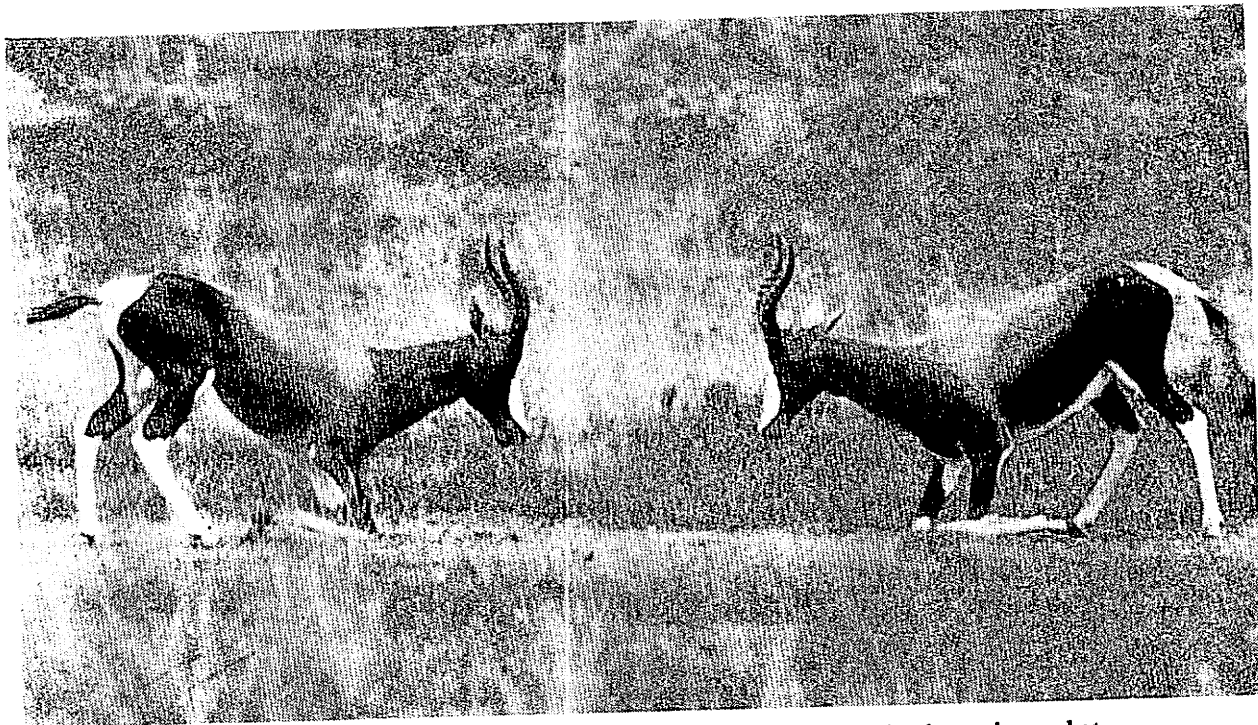
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Two territorial males face each other on their knees before engaging horns in combat.

Territorial Behaviour Of Bontebok

By J. H. M. David

(Photographs by the Author.)

THE BONTEBOK, *Damaliscus dorcas dorcas*, is probably the rarest antelope in Southern Africa. It is restricted in range to the coastal region of the south-western Cape, occurring roughly between Caledon and Mossel Bay, and between the Langeberg mountains and the sea. The story of its decline to the verge of extinction and its salvation through the efforts of landowners in the Bredasdorp district and of the National Parks Board is well known, and I will say no more about it here. The species has made a fine recovery, and at present there are about 800 bontebok in the world. By far the largest herd, numbering about 260, occurs in the Bontebok National Park at Swellendam, which is 10,8 sq. miles in area.

At the beginning of 1969 I had the opportunity of spending 15 months in the Bontebok Park, with the encouragement of the National Parks Board, while making a behavioural study of this beautiful antelope. Its markings are strongly contrasting black, brown and white, which make it conspicuous from a distance. The long face and the high withers sloping down to the hindquarters show its close relationship to the hartebeest and wildebeest species. In the Transvaal an even closer relative is the blesbok, *Damaliscus dorcas phillipsi*, which is, however, less brilliantly coloured than the bontebok and lacks

the shining white rump of the latter.

Bontebok are strongly territorial throughout the year, and at Swellendam the most dominant adult males in the population defend territories of between about 10 ha (22,5 acres) and 40 ha (90 acres) in extent. Social organisation is similar to that of most of the other gregarious African antelopes, consisting of nursery herds of females with their young, territorial males, which may often be solitary, and bachelor herds consisting of males of all ages from one year old upwards. These bachelors are largely young, sub-adult animals, but there are also old and prime males present. They are non-territorial. At Swellendam the bachelors congregated in a single herd of up to 75 males.

Bontebok nursery herds are small, averaging only about three females per group, plus their calves. As they are strictly seasonal breeders, the main calving months being September and October, yearlings and lambs of the current season are easily distinguishable. The lambs stay with their mothers until they are about a year old. When the new lambs are due to be born the yearlings of both sexes then leave their mothers and go to join the bachelors. The female yearlings stay with the bachelors for up to a year before joining a territorial male on his territory.

One of the most fascinating aspects of the behaviour of African antelopes, which has come to light in the course of field studies conducted over