



Past distribution:

Tragelaphus angasi (Nyala)

Present distribution:



Tragelaphus angasi (Nyala):

Angas (1849) gives the first description of this species from the northern shores of St. Lucia Bay.

Elton (1873) records it from the confluence of the Olifants and Limpopo rivers in Mocambique.

Its preference for the densest thickets of the southern littoral and adjacent river systems is manifest from most sources. Drummond (1875) for example, found it ".....in the low, fever-stricken districts, and I have never seen it south of the Bombo range, about the twenty eighth degree of south latitude. It frequents the densest thickets it can find, it is wary and difficult to stalk."

Records of its distribution include the following:

Buckley (1876): along the coastline of Zululand from the Inyalazi river to at least as far north as Delagoa Bay in Mocambique.

Van Oordt (1895): the old Pongola Game Reserve.

Baldwin (1894): from St. Lucia Bay to Delagoa Bay, occurring in fairly large numbers.

Sclater and Thomas (1894-5): from Zululand to southern Malawi.

Rendall (1895): near the river Iembe (= Tembe?) that flows into the southern part of Delagoa Bay.

Ward (1897): St. Lucia Bay in Zululand and Delagoa Bay.

Kirby (1899): the southern part of Mocambique.

Selous (in Bryden, 1899): the narrow strip of country on the south-east coast from latitude 28° S northwards as far as the Sabie river; also along all the rivers flowing into the Indian Ocean in this area; along the Limpopo river as far as its junction with the Olifants river; never found between the Save and the Zambezi rivers; large numbers in Amatongaland in the bush between the Usutu and Pongola rivers; in the Ubombo district; along the Mkuzi river; the Lake Sibaye vicinity; never found south of St. Lucia Lake.

Sclater (1900): the area from St. Lucia northwards to Mocambique.

Findlay (1903): the confluence of the Manzibomvu and Hluhluwe rivers; the dense bush around St. Lucia Lake; Amatongaland and the country around Delagoa Bay.

Selous (1908): as in Bryden (1899).

Vasse (1909): tracks seen near the Urema river.

Breyer (1915): Maputoland in Mocambique.

Capell (1901-42): near the Nuanetsi river in the extreme southeastern Rhodesia, about 20 miles from the Mocambique border, in small numbers, September 1918.

FitzSimons (1920): the Ingwavuma river in northern Zululand to Beira in Mocambique.

Haagner (1920): Zululand and Mocambique.

Haagner (1925): about 1000 left in Zululand, chiefly in the Mkuzi Game Reserve; also found in the Ubombo and Ingwavuma areas; a few left in the bush near Lourenco Marques and in a small area on the Inyamapuzi river in Gorongosa.

#### Present distribution:

##### Natal:

Ellerman et al. (1953): the St. Lucia area in Zululand.

Vincent (1962): limited to the Mkuzi, Hluhluwe, Ndumu and St. Lucia Game Reserves.

Bourquin (1966): very common in the Ndumo and Mkuzi Game Reserves; about 1000-1500 in the False Bay Nature Reserve in 1965; 8000 estimated to occur in the Hluhluwe Game Reserve in 1965; common in the Umfolozi Game Reserve.

##### Transvaal:

Ellerman et al. (1953): the Punda Milia, Shingwedzi and Pafuri areas of the Kruger National Park.

Kettlitz (1955 and 1962): practically non-existent outside the confines of the Kruger National Park; small numbers east of Messina, also in the Pafuri region and on a few farms; small herds in the Pongola valley near Gollel; a few introduced into the Loskop Dam Nature Reserve; unverified reports of nyala along

the upper Matlabas river in northwestern Transvaal; other unverified records of nyala in the Burgersfort area of the Lydenburg district as well as from the Great Letaba river; Kettlitz estimates not more than 100 in the Transvaal outside the Kruger Park.

Pienaar (1963): the Kruger National Park in the following areas: the Levubu riparian forest; the montane forests and valleys around Punda Milia and Dzundwene hill; the Nyandu bush; the nyala has infiltrated the forests along the banks of the Shingwedzi, Mphongolo and Great Letaba rivers; the forests north and immediately south of the Olifants Gorge; estimated numbers between 600 and 650, of which about 50 occur south of the Olifants river in the Gorge area.

De Graaff (in litt.): approximately 750 in the Kruger National Park in 1969.

#### Mocambique:

Sidney (1965): the southern and central parts of Mocambique with the Quelimane district as northern boundary of its distribution; still fairly common along the Save river and also in the Inhambane district and south of Beira; scarce to the north of Beira; a few remaining in the Gorongosa Game Reserve; occasionally found in the Tete and Quelimane districts; common along the Save river; in reasonable numbers south of the Save in the Massangena and Pafuri areas; very scarce in the Maputo and Sabi areas of the Lourenco Marques district; the area south of Delagoa Bay in which the nyala occurs extends for about 40 miles from the Zululand border to the Nimpeluzi river, and from east to west between the Lebombo and Maputo rivers, a distance of about 30 miles.

Tinley (in litt.): agrees to a large extent with the distribution as given by Sidney (1965) but adds that there are also some nyala more or less on the line of the rift valley; common in the north of Gorongosa parque.

#### Rhodesia:

Fraser (1958): very scarce in Rhodesia; along the lower Lundi river; along the Nuanetsi river about 50 miles from the Portuguese border; along the Limpopo and Bubyé rivers; reported to have been seen in the Rekomitje river vicinity in the Zambezi valley, but confirmation required.

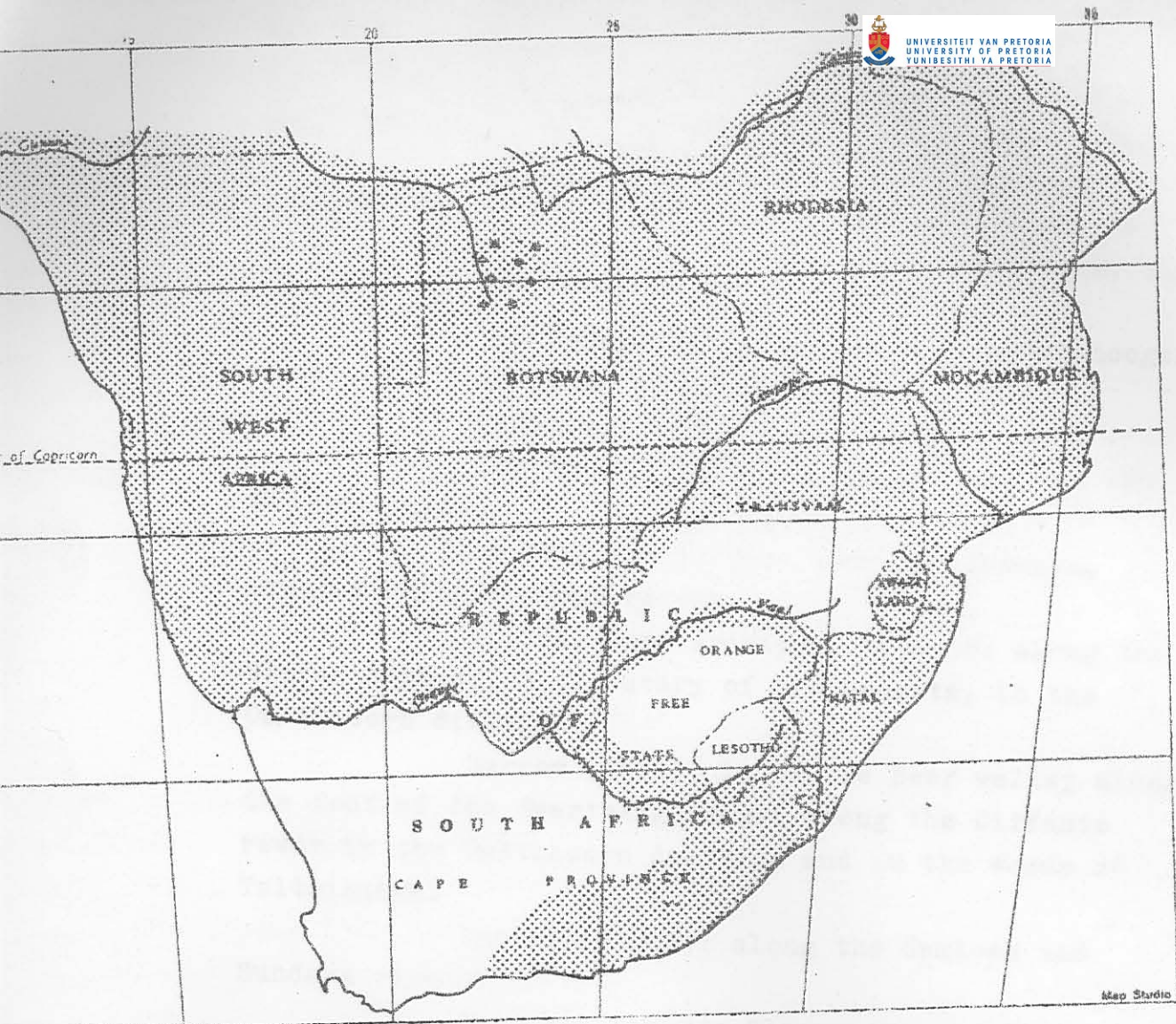
Child and Savory (1964): the southeastern lowveld, but not north of the Lundi river; may possibly occur along the Zambezi river in the northern corner bordering on Mocambique; known to occur in neighbouring areas on the Zambezi below Zumbo in Mocambique.

Sidney (1965): confined to the southeastern lowveld along the lower reaches of the Nuanetsi and Limpopo rivers; the Lundi river vicinity near the Portuguese border and between Buby and the Limpopo river, although scarce.

Change in distribution:

Thanks to more complete records, the known distribution of the nyala is more extensive today than it was in the past. To a large extent it inhabits the same area as before, although no doubt smaller tracts of land in this larger area no longer harbour the species. Tinley (in litt.) for instance, mentions that in parts of the Gorongosa Game Reserve nyala have probably been exterminated by wire snares.

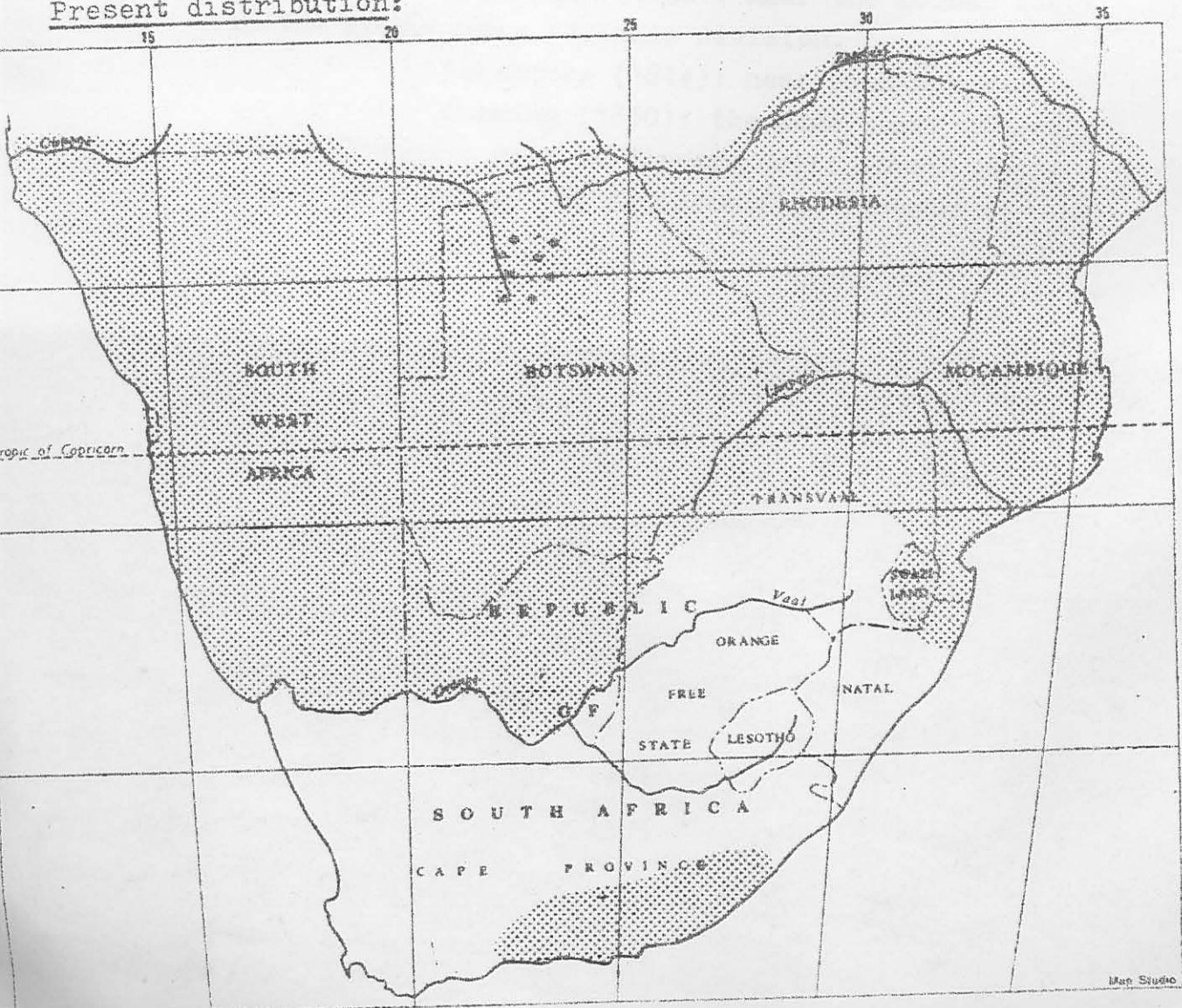
A certain amount of range extension may also have taken place in certain areas. Selous (in Bryden, 1899) states that the nyala only occurred up to the junction of the Olifants and Limpopo rivers along the latter, but Kettlitz (1955 and 1962) records it from as far west along the Limpopo as Messina, and unverified reports of the species along the upper Matlabas have been mentioned.



Past distribution:

Tragelaphus strepsiceros (Kudu)

Present distribution:



Tragelaphus strepsiceros (Kudu):

Although no doubt widely distributed throughout southern Africa in the past, the kudu, due to its secretive ways, is mentioned by relatively few travellers and diarists, and only the professional hunter records the species to any extent.

Cape Province:

The following is a chronological list of authors recording the kudu in this province:

Swellengrebel (1776): near the Little Fish river east of the Sneeuwberg in the present-day Middelburg division.

Gordon (Barnard, 1950): near the Aughrabies Falls along the lower Orange river in the years 1779-80.

Mentzel (Mandelbrote, 1944): between the Olifants and Groen rivers on the Cape west coast, and from the coast to the east as far as the Bokkeveld, in the year 1787.

Sparrman (1789): the Agterbruintjieshoogte and Little Fish river vicinities.

Paterson (1789): near Caledon.

Thunberg (1792): the vicinity of the Van Stadens river.

Le Vaillant (1796): near the Sundays, Great Fish and Orange rivers.

VC.104, Cape Archives, 1796-98: along the Olifants river, a tributary of the Gourits, in the Oudtshoorn division.

Barrow (1801): in the De Beer valley along the foot of the Swartberg range; along the Olifants river in the Oudtshoorn division and in the woods of Tsitsikamma.

Daniell (1804): along the Gamtoos and Sundays rivers.

Burchell (1822): Klaarwater and Griqualand West.

Alexander (1838): near the Koonap river in the present-day Adelaide division.

Backhouse (1844): near Grahamstown.

Cumming (1850): the Addo bush; near the Suurberg range; near De Winnars drift in the Orange river; near Stink- (or Kruidfontein) fontein; between

Stinkfontein and the Vaal river; near the Mareetsane river in the northwestern Cape.

Buckley (1876): near the Suurberg range in 1849.

Holub (1881): between Port Elizabeth and Grahamstown.

Anderson (1888): the Kuruman-Taung-Marico area.

Vols. 57-59, C.F.E., Cape Archives (Correspondence Files, Conservator of Forests): in Albany and Uitenhage in 1889; in Albany, Uitenhage, Fort Beaufort and Victoria East divisions in 1900-1909.

"The South African News" (Sept. 1899): in the Uitenhage, Willowmore, Jansenville, Fort Beaufort, Albany, Victoria East, Vryburg, and in smaller numbers in the Ladismith, Oudtshoorn, Prince Albert, Riversdal, Griqualand West, Kuruman and Mafeking districts.

F 234, Agricultural Correspondence Files (Protection of Game, 1903-1905 and 1905-1908): in the following divisions for the years 1902-1908, giving only the minimum and maximum numbers recorded during that period for each division: Albany, 585-632; Alice, 120-300; Barkly West, 77-234; Fort Beaufort, 300-450; Gordonia, a few; Hay, 51-80; Herbert, 20-80; Jansenville, 400-600; Kenhardt, a few; Kimberley, 0-3; Kuruman, 612 (only figure available); Ladismith, 200-307; Mafeking, 20-150; Mossel Bay, 30-60; Oudtshoorn, 300-400; Prieska, 27 (only figure); Prince Albert, 4 (only figure); Riversdale, (40-50); Steytlerville, 900-1300; Swellendam, 2-50; Uitenhage, 860-1850; Victoria East, 150-175; Vryburg, 720-1850; Willowmore, 6-20.

Haagner (1920): widespread in the Cape, especially in the Addo Bush and the Albany and Uitenhage divisions.

#### Natal:

Drummond (1875): along the Umsundusi river and where the Pongola river cuts through the Lebombo range in large numbers.

Buckley (1876): Zululand.

Anderson (1888): along the Tugela river between Howick and Van Reenen's Pass.

Baldwin (1894): the vicinity of the Empangeni, Umfolozi, Black Umfolozi, St. Lucia and Pongola rivers.



Findlay (1903): between the Lebombo mountains and St. Lucia Lake.

Selous (1908): the angle between the Usutu and Pongola rivers in Amatongaland.

Orange Free State:

Bisset (1875): the farm Rietvlei near Bloemfontein.

Selous (in Bryden, 1899): "Fifty years ago koodoos were common in the country now known as the Orange Free State, along the course of the Vaal River and its tributaries, ..."

Transvaal:

No records of kudu prior to 1835 could be traced for the Transvaal. These and subsequent records include:

Smith (Kirby, 1940): in more or less the vicinity of the Hartebeespoortdam in the present-day Brits district, along the Crocodile river in the same district and along the Marico river where it is joined by the Rietspruit, in 1835.

Trigardt (Le Roux, 1966): near the Soutpansberg range and along the Sand river in the same district in 1837.

Harris (1841): along the Crocodile river in the Magaliesberg vicinity.

Mauch (Petermann, 1870): near the Olifants river in eastern Transvaal in the year 1868.

Wangemann (Grosskopf, 1957): along the Spekboom river in the Lydenburg district in 1868.

Erskine (1869): near the Elands and Sorgobiti rivers in the Lydenburg district.

Glynn (1926): large numbers in the vicinity of Legogot Kop and near Ohrigstad in the 1870's and later.

Elton (1873): the Limpopo river vicinity.

Erskine (1875): along the Limpopo river.

Hofmeyr (1890): the Soutpansberg district.

Van Oordt (1895-6): the old Pongola Game Reserve.

Millais (1899): near Magato and Mara in the Soutpansberg range, and near the Limpopo river.

Chapman (1900): the eastern Transvaal where the Kruger National Park is now situated.

Capell (1901-42): the Komatipoort vicinity in 1904 and 1905.

Stevenson-Hamilton (1912): the Sabi and Shingwedzi Game Reserves.

Haagner (1920): eastern and northern Transvaal.

Stevenson-Hamilton (1934): the lowveld of the eastern Transvaal.

Bryden (1899), Sclater (1900), Lydekker (1908), FitzSimons (1920) and Shortridge (1934) all mention parts of the Transvaal, especially the eastern and northern Transvaal as well as the area along the Marico, the Limpopo and their tributaries.

#### Mocambique:

Peters (1852): the coast near the Zambezi mouth; near Quelimane and near Sena.

Elton (1873): along the Limpopo river between the junction of the Nuanetsi and the Olifants rivers with the Limpopo.

Kirby (1899): Cheringoma and Gorongosa, in small numbers.

Vasse (1909): near Sena on the Zambezi.

Maugham (1910): near the Zambezi.

#### Rhodesia:

Livingstone (Schapera, 1963): along the Zambezi river during 1853-56.

Elton (1873): along the north bank of the Limpopo; between the Ramaquabane and the Satsuke rivers.

Holub (1881): the border between Botswana and Rhodesia; the junction of the Chobe and the Zambezi.

Oates (1889): between the Inkwisi and Sakasusi rivers; between the Mangwe and Shashani rivers; near the junction of the Gwailo and upper Umgwanya; along the Gwailo and Umgwanya; near the Ramaquabane, Semokwe and upper Tati rivers; between the Matengwe and Nata rivers.

Holub (1890): near the Victoria Falls and at the junction of the Chobe and Zambezi rivers.

Selous (1893): from Zumbo upwards along the Panyami; the vicinity of Masheki and the Umfule river; the Umniati highlands, Mashonaland; along the Umgezi river in the Machabi Hills; along the Zambezi

near Wankie; near the Luia river ( a tributary of the Mazoe); along the Gwelo and upper Umfule rivers.

Millais (1899): between the Limpopo and the Nuanetsi; near the Buby river; along the Nuanetsi and between the Nuanetsi and the Lundi rivers.

Capell (1901-42): the Umzingwane river vicinity between West Nicholson and the Limpopo river in 1913; near the junction of the Rekomitje and the Zambezi rivers in 1929; near the Nyakasanga river in 1931; the Nemana pools in 1933.

Selous (1907): along the Jomani river; the angle between the Gwai and the Zambezi rivers; along the Ramaquabane river; between the Bembezi and Sebakwe rivers and along the Umniati and Umsweswe rivers.

Selous (1908): the Dett valley.

Selous (1881), Sclater and Thomas (1894-5), Ward (1896), Sclater (1900), Lydekker (1908), FitzSimons (1920) and Shortridge (1934) all either mention Rhodesia as a whole or state that kudu are distributed throughout Mashonaland and Matabeleland.

#### Botswana:

The kudu was distributed throughout Botswana wherever permanent water and bush cover occurred. In these areas it is mentioned by :

Methuen (1848): near the Mabotsa Mission station.

Moffat (Wallis, 1945): near the Ramaquabane river on the Rhodesian border in 1854.

Cumming (1850): near Boatlaname and along the western banks of the Limpopo and its western tributaries.

Livingstone (1857): near the Chobe marshes.

Stabb (Tabler, 1967): near Shoshong and near the Shashi river.

Gillmore (1878): the vicinity of Serule Vlei and the Shashi river.

Holub (1881): the vicinity of Nataspruit, Henry's Pan, Panda ma Tenga and the junction of the Chobe and Zambezi rivers.

Bradshaw (1881): near the Chobe river.

Holub (1890): the junction of the Marico and Limpopo rivers; the junction of the Notwani and Limpopo rivers; the Makarikari pan vicinity; near Panda ma Tenga and the Chobe-Zambezi confluence.

Bryden (1893): sparsely distributed along the eastern border of the Kalahari towards Khama's country; the wooded banks of the Limpopo river; near Palachwe.

Bryden (1899): the vicinity of the Chobe, Tamalakane, Botletle, Notwani and Limpopo rivers; up to 3 or 4 miles from these rivers in the dry season.

Anderson (1888): near Selene pan between Molepolole and Mongwata; near Molepolole; the Zouga-Ngami-Makarikari area; the vicinity of the Quito, Chobe, Cubango and Touga rivers.

Selous (1907): near the Chobe-Zambezi junction; the 'Pookoo Flats'; near the Ramaquabane river; the vicinity of the Tati river.

Hodson (1912): near Tshane; Kokong; between Gat-garra and the Chobe; near Matomabi and the Chobe river.

Lydekker (1908), Ward (1896), FitzSimons (1920) and Shortridge (1934) all mention Botswana or the eastern and northern portions of this region when giving a survey of the distribution of the kudu.

#### South West Africa:

Brink and Rhenius (Mossop, 1947): near the present-day Grundorn on Braus in Great Namaqualand in 1761-2.

Hop (Molsbergen, 1916): the same area as Brink and Rhenius, in the year 1761.

Mentzel (Mandelbrote, 1944): mentions Hop's encounter with kudu in the vicinity of the Leeu river, Great Namaqualand, in 1787.

Andersson (Wallis, 1936): the Omaruru and Otjambake vicinities during the years 1827-67.

Andersson (1856): near Schmelens Hope, Omanbonde pan and the Otjiombinde river.

Behm (Petermann, 1858): the Walvis Bay and Scheppmansdorf area in 1858.

Hahn and Rath (Petermann, 1859): along the Omarumba Omatako in 1857.

Andersson (1861): Ombolofontein near the Omaruru river; near the Omarumba Omatako and near the Omanbonde Vlei.

Baines (1864): along the Okavango river.

McKiernan (Serton, 1954): Ombakaha north of Omaruru in 1876.

Anderson (1888): between Barmen and Westley Vale on the Nossob river.

Schultz and Hammar (1897): along the Chobe river in the Caprivi.

Donat (1899): between Okokoja and Namutoni.

Capell (1901-42): near Schuckmansburg in the Caprivi in 1913.

Schultz (1907): the hilly parts of Great Namaqualand.

Shortridge (1934): throughout South West Africa in suitable environments except the Namib coast and the arid Great Namaqualand plains; the Caprivi, Kaokoveld, Etosha pan, Damaraland and Great Namaqualand areas; the Outjo, Grootfontein, Otjiwarongo, Omaruru, Okahandja, Windhoek, Gobabis, Karibib, Swakopmund, Rehoboth, Gibeon, Keetmanshoop, Bethanie, Luderitz, Aroab and Warmbad districts.

#### Present distribution:

##### Cape Province:

Power (1954): almost extinct in the northern Cape, a few protected on farms in the Kimberley division.

Rand (1955): estimates the provincial population of the Cape at approximately 1630.

Bigalke and Bateman (1962): on farms in the Aberdeen, Adelaide, Albany, Barkly West, Bedford, Fort Beaufort, Gordonias, Graaff Reinet, Hay, Herbert, Hopetown, Jansenville, Kimberley, Kuruman, Pearston, Peddie, Postmasburg, Somerset East, Steytlerville, Stutterheim, Uitenhage, Uniondale, Victoria East, Vryburg and Willowmore divisions.

De Graaff (in litt.): 18 in the Addo Elephant National Park in 1969.

##### Natal:

Vincent (1962): common in the Mkuzi, Hluhluwe and Umfolozi Game Reserves and on private farms in the Ubombo and Ngotshe districts.

Bourquin (1966): common in the Umfolozi Game Reserve and very common in the Hluhluwe Game Reserve where approximately 1000 occurred in 1965.

Orange Free State:

Roberts (1963): two kudu in the Willem Pretorius Game Reserve.

According to the 1968 census, 13 kudu occurred in the Willem Pretorius Game Reserve.

Transvaal:

Kettlitz (1955 and 1962): practically all lowveld and bushveld districts, e.g. Soutpansberg, Pilgrims Rest, Lydenburg, Nylstroom and Potgietersrust, with a total farm population of approximately 10,000.

Kettlitz and Verschuur (1958): approximately 80 in the Hans Merensky Nature Reserve.

Meester (1960): the Loskop Dam Nature Reserve.

Pienaar (1963): throughout the Kruger National Park, numbering between 5,500 and 6,000.

Hirst (1964): the Timbavati Private Nature Reserve.

De Graaff (in litt.): approximately 5,200 in the Kruger National Park.

Swaziland:

Kirk (1966): the Mlilwane Sanctuary; a few left in the rest of the country.

Mocambique:

Sidney (1965): practically every district of Mocambique where broken territory covered with thorny acacia or not too dense forest occurs; seldom south of the Incomati river in the Lourenco Marques district; scarce along the Limpopo valley.

Tinley (in litt.): as given by Sidney (1965).

Rhodesia:

Fraser (1958): widely distributed throughout Rhodesia.

Child and Savory (1964): throughout the Rhodesian territory.

Sidney (1965): widespread throughout.

Botswana:

Kay (1962): along the Mababe river; on the Mababe flats; along the Kwaai river.

Sidney (1965): everywhere in suitable hilly country, e.g. eastern Botswana; the vicinity of the Goha hills; north of the Mababe river; the Tamalakane basin; south of the Okavango basin and in the Tuli Block.

Kirsten (1966): the Moremi Game Reserve.

Tinley (1966): frequently encountered in small groups in the Moremi Game Reserve.

Palmer (1967): along the Chobe river in the Chobe Game Reserve.

Child (1968): northeastern Botswana; the Chobe Game Reserve ; along the Chobe river; the Maun Front tsetse control area.

Campbell (1968): the woodlands of the Central Kalahari Game Reserves, in considerable numbers.

Smithers (1968): widespread in Botswana, although not so far recorded from the central western sector.

Child et al. (in press): mainly from Xobogo, Phatswe and Makwelekwela along the Maun Front tsetse control area.

Von Richter (1969): the southwestern Kalahari, where kudu are rare in all areas.

#### South West Africa:

Bigalke (1958): small numbers in the arid southern Gibeon, Warmbad and Keetmanshoop districts; does not occur in the Namib but present in all other districts, especially north of Windhoek, in the Kaokoveld, Game Reserve 2, Ovamboland and the Okavango Native Territory.

Van der Spuy (1962): widely distributed in the territory; occurs between longitude  $13^{\circ} 48'$  and  $20^{\circ}$  E, and latitude  $18^{\circ} 30'$  and  $28^{\circ} 54'$  S, with approximately 88.5% of the population north of latitude  $24^{\circ}$  S; the farm population estimated at approximately 60,810.

Moon (1964): the Etosha Pan Game Reserve.

#### Change in distribution:

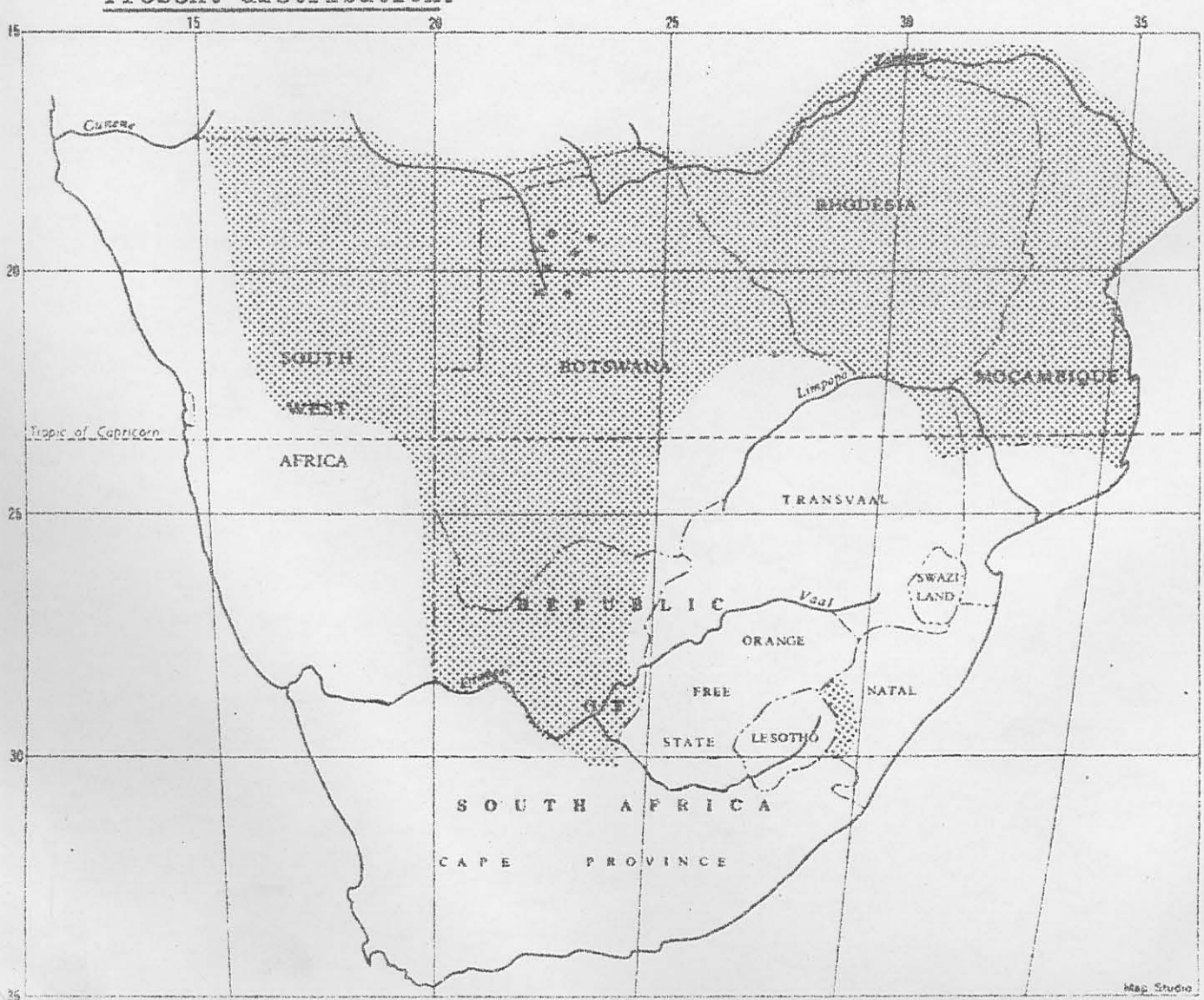
The kudu seems to be holding its own, even in the face of advancing human settlement and development. Only in highly built up areas, or areas from which the bush cover has been removed for farming purposes has it been exterminated. It has disappeared from parts of the Cape, Natal, the riverine borders of the Orange Free State and parts of Transvaal. In other regions its distribution is more or less the same as in the past.



Past distribution:

*Taurotragus oryx* (Eland)

Present distribution:





Taurotragus oryx (Eland):

Cape Province:

Van Riebeeck (Bosman, 1951 and Thom, 1958): the immediate vicinity of the Cape settlement in 1652; large numbers in the vicinity of the Liesbeek, Vars and Salt rivers as well as near Hout Bay, Saldanha Bay and Overberg.

Van Herwarden (Molsbergen, 1916) in 1658, Meerhoff (Thom, 1958) in 1660, Ten Rhyne (Schapera, 1933) in 1673, Grevenbroek (Schapera, 1933) in 1684, Van der Stel (Molsbergen, 1916) in 1685, Leguat (1698), Maxwell (1708) and Kolben (1731): all in the immediate vicinity of the Cape fort or a short distance into the interior and along the coast.

Cruythoff (Molsbergen, 1916): along the Olifants river on the Cape west coast.

De Smit (Journalen en Dagregisters, 1659-1791, Cape Archives): on the way to Namaqualand in 1622.

"Oude Wildschutte Boek", (1687-1714): the vicinity of Drakenstein, Mossel Bay, the Little Berg river, Blouberg, the area between Roodesand and Groene Kloof, Steenberg, Riebeeck Kasteel, the Swartland and Overberg.

Swellengrebel (VC.102, Cape Archives): near the mouth of the Sundays river in 1776.

Mentzel (Mandelbrote, 1944): the area between the Van Stadens and Swartkops rivers in 1787.

Paterson (1789): near False Bay.

Sparrman (1789): the same area as Mentzel (Mandelbrote, 1944).

Van Reenen (Kirby, 1958): along the coast of the Transkei in the area between the Large Fish and the Kaga rivers, near the White Kei and the Mncwasa rivers and near the present-day St.Marks, all in 1790-1.

Towards the end of the eighteenth century, the eland was becoming rare in the southern and eastern parts of the Cape Province. According to "Een Generale Beschrijving van de Colonie De Kaap de Goede Hoop, 1796-1798 ." (VC. 104, Cape Archives), this antelope was already practically exterminated in the Karoo surrounding the Bokkeveld, but still occurred in larger numbers in the Great, Middle and Little Roggeveld area and on the plains to the east thereof and in the general direction of the Orange river in that period. The eland

was also numerous at that time in the Tarka district as well as along the Seekoei river and in the vicinity of the Renosterberg, i.e. both south and north of the Suurberg and Sneeu-berg ranges.

Le Vaillant (1796): Camdebo, the Platte and Kaussi rivers on his first journey and Matjiesfontein on his second.

Barrow (1801): the Karoo in the vicinity of the Suurberg; the Kamiesberg; the area between the Seekoei river and the Renosterberg; the Voor, Middel and Agter Sneeu-berg; the Bokkeveld and the Tarka district.

Van Reenen (Blommaert and Wiid, 1937): the vicinity of Carolus Poort in 1803.

Barrow (1806): the Karoo.

Lichtenstein (1812): east of the Kei river; Towerfontein and Charles Poort (=Carolus Poort ?) in the Karoo; the Sneeu-berg area; Skietfonteinspoort in the Karee mountains; Witwater and Taaibosfontein.

Campbell (1815): Assegaibos near Albany; the vicinity of the Brak river ( a tributary of the Orange) and along the south bank of the lower Orange.

Campbell (1822): on the plains near the Seekoei river; the vicinity of the mission station at Toorn (or Tover)berg.

Burchell (1822): scarce, even in the Karoo; occurs in the Carnarvon and Prieska districts; near Griqua Town north of the Orange; at Kaabis-kraal between the Ongers and Brak rivers in the present-day Britstown division.

Bain (Lister, 1949): between the Kuruman and Mashowing rivers, northern Cape in 1826.

Moffat (Wallis, 1945): near the Setlagodi river in the present-day Mafeking district, near the Great Chue Lake and the Mareetsane river in 1829 or in the 1830's.

Smith (Kirby, 1939): the Kuruman vicinity, near the Mareetsane river and in the present-day Stella area in 1835.

Pringle (1835): a few in the vicinity of the Winterberg in the eastern Cape.

Harris (1841): the vicinity of the Mareetsane river and near the origin of the Molopo river.

Methuen (1848): Little Chue in the vicinity of the Molopo river.

Stanford (Macquarrie, 1958): east of the junction of the Black and White Kei rivers (present-day St. Marks, Tsomo and Xalanga) in the early 1850's.

Dobie (Hattersley, 1945): between Queens-town and Cradock from 1862 to 1866.

#### Natal:

The eland was probably common in the higher parts of Natal, but records are incomplete. The following mention the species:

Fynn (Stuart and Malcolm, 1950): the vicinity of the Umzimkulu river between the years 1824 and 1836.

Gardiner (1836): the vicinity of the Umzimkulu river near Giants Castle.

Drummond (1875): the mountainous parts of Zululand towards the Usutu river on the Swaziland border and also along the Msunduzi river.

Buckley (1876): a few in Natal and Zululand but probably not west of 30° longitude.

Brooks (1876): occasionally in the high uplands of Natal in the cooler months of July and August when it crossed the mountains in search of better grass.

Baldwin (1894): near the Amatikulu, Empangeni, Black Umfolozi, Umhlatuze, Pongola and Tugela rivers between the years 1852 and 1860; numbers varied from a single cow to herds of thirty to a hundred between the Amatikulu and Umhlatuze rivers.

Ritter (1955): near the junction of the White and Black Umfolozi rivers in 1819.

#### Orange Free State:

The eland occurred in large areas of the Orange Free State, especially in the more mountainous eastern districts.

Smith (Kirby, 1939): the Ficksburg area in 1835.

Arbousset and Daumas (1846): the present-day Ficksburg-Bethlehem districts and north of the Sand river in 1836.

Harris (1841): between the Vaal and Vals rivers in large numbers in 1836.

Liebenberg (1964): quotes Orpen and Steytler, who in 1852-3 and 1853 respectively, recorded eland in the Harrismith district.

Bisset (1895): the farm Rietvlei in the Bloemfontein district.

Collins (1907): Nelsonskop in the Harrismith district in 1862.

#### Lesotho:

Arbousset and Daumas (1846): the valleys of the Maluti mountains in 1836.

Smith (Kirby, 1939): near Maseru and in the vicinity of the Phutiatsiana river in 1835.

#### Transvaal:

Few records are available of eland occurring in the Transvaal in the past.

Smith (Kirby, 1940): along the Marico river in northwestern Transvaal approximately at the junction of the Rietspruit and this river, in 1835.

Trigardt (Le Roux, 1966): the Soutpansberg area where eland occurred in fairly large numbers in 1836-7; near the Sand river in the Pietersburg district during the same period.

Harris (1841): between the Magaliesberg range and the Vaal river.

Erskine (1869 and 1875): the vicinity of the Elands and Sorgobiti rivers in the Lydenburg area; along the Limpopo river in the eastern Transvaal and Mocambique.

Chapman (1900): scarce yet surviving in 1899 in the area bound by the Drakensberg in the west, the Lebombo range in the east, the Limpopo in the north and the Sabi or Crocodile rivers in the south, i.e. to a large extent the site of what is now the Kruger National Park.

Glynn (1926): near Legogot Kop in the White River district, Pretorius Kop, the Sabie valley and Ohrigstad in the years 1873-80.

Hofmeyr (1890): the eland became extinct in the Soutpansberg district at about 1865.

Stevenson-Hamilton (1914): a few surviving in the Shingwedzi Game Reserve.

Stevenson-Hamilton (1934): mentions Sanderson as saying that eland abounded in the middle-veld near the present-day White River in 1873.

Swaziland :

Drummond (1875): the Swaziland-Natal border.

Mocambique:

Peters (1852): Baroë, Manica and Buio to the northwest of Tete on the Zambezi.

Elton (1873): the junction of the Olifants and Limpopo rivers.

Kirby (1899): not uniformly distributed; scarce in the Urema-Zangwe area; large numbers in the Cheringoma forest, and to a lesser extent, in the Shupanga district.

Findlay (1903): near the Jungwe river according to local inhabitants.

Vasse (1909): near the Busi river tributaries; near Ganda on the Pungwe.

Peters (1909): the area between the Save and Zambezi rivers.

Maugham (1910): the Gorongosa area.

Glynn (1926): the Pungwe and Dingading rivers.

Rhodesia:

Kirk (1864): the vicinity of Shupanga and Mazzaro.

Erskine (1878): near the Sabi river.

Oates (1889): the western and northwestern parts of Rhodesia in the vicinity of the Mangwe, Simukwe, Ramaquabane, Umpakwe, Ingwesi, Gwailo, Umgwanya and Tamasanka rivers; the region extending from Tati to the Victoria Falls; between Jerewa and Tamafupa.

Selous (1893): the western end of the Umvokwe hills; Zumbo on the Zambezi; along the Panyami river; near the Manyami river in the vicinity of the present-day Salisbury; along the Ruwa river and the Chingika rivalet; the Wedza mountains; the vicinity of the Luia river; near Horns vlei and at Gazuma.

Selous (1907): the vicinity of the Sewhoi-who, Sebakwe, Jomani, Bembesi, Gwazan, Hanyane, Umfule, Gwenia and Inkokane rivers as well as the junction of the Umbila and Umfule rivers.

Botswana:

Bain (Lister, 1949): between Gaberones and Molepolole in 1826.

Moffat (Wallis, 1945): between Kanye and Lithubaruba as well as more to the north near the Shashi river on his journeys between 1829 and 1860.

Cumming (1850): the Bakgatla territory; between the Marico and Notwani rivers; northwest of the Notwani; the Bamangwato territory near Boatlaname and Lethlakane; the vicinity of the Limpopo river.

Holden (1855): mentions McCabe recording eland near Ghanzi.

Price (Long, 1956): eland tracks in the Shoshong vicinity during the years 1854-83.

Livingstone (1857): just north of the Boatlaname wells as well as near Kanye.

Stabb (Tabler, 1967): near the Ramaquabane river in 1875.

Gillmore (1878): the area between the Maklautsi and the Shashi rivers.

Holub (1881) remarks on the recent extinction of the eland between Molepolole and Shoshong, where he saw only skeletons where earlier fair numbers had been found.

Holub (1890): the vicinity of the Makarikari pans.

Bryden (1893): everywhere in Botswana in earlier times, but at the time of writing was found in large numbers only in the northern Kalahari and in Ngamiland.

Baldwin (1894): near Boatlaname, the Shashi river, the Botletle river, the Makarikari pans and Great Namesa.

Schultz and Hammar (1897): the eastern Makarikari pan; the junction of the Sunta and Chobe rivers.

Donat (1899): large numbers along the Omuramba river.

Hodson (1912): between Gat-garru and the Chobe; the vicinity of the Chobe river; near Metsi-bothloko; near Gerua; along the Old Hunters Road in the vicinity of Panda ma Tenga and at Dudu vlei.

Shortridge (1934): widely distributed in the acacia belts of Bechuanaland from about the Tropic of Capricorn to the Zambezi; plentiful in Ngamiland and the northern Kalahari.

#### South West Africa:

Andersson (1856): the Ondongua vicinity in northern South West Africa; along the Omuramba Omatako as well as near the Otjiombinde river.

Behm (Petermann, 1858): the vicinity of the Omuramba Omatako.

Andersson (1861): the Okahandja district and near Omanbonde pan.

Baines (1864): Elephants Kloof in Damaraland.

McKiernan (Serton, 1954): the area between Gaidous and Waterberg as well as near Otjiwarongo and Rietfontein in 1874-79.

Buckley (1876): in Damaraland, but rarely as far south as 20° S latitude.

Donat (1899): along the Omuramba river in large numbers.

Shortridge (1934): more or less east of a line drawn from the Rua Cana Falls in the Cunene to the junction of the Large and Little Nossob rivers; this includes the Grootfontein district, the Caprivi, Ovamboland, Etosha, Outjo district, the Kaokoveld (the Kaokoveld-Ovamboland border only), Otjiwarongo and the Okahandja district.

#### Present distribution:

##### Cape Province:

In the Cape Province, as in practically all the other provinces of the Republic, the eland at present occurs only as a protected and partially domesticated animal.

Ellerman et al. (1953): a few reintroduced into the Cape Point reserve.

Eloff (1959): the Kalahari Gemsbok Park.

Bigalke and Bateman (1962): the Barkly West, Gordonias, Hay, Herbert, Kimberley, Kuruman,

Philipstown, Postmasburg and Vryburg divisions; approximately 100 animals occur in these divisions and in some cases they were obtained elsewhere and reintroduced by farmers; seasonal migrations from Botswana tend to increase the numbers in the Gordonia, Vryburg and Kuruman divisions.

De Graaff (in litt.): 103 eland in the Addo Elephant National Park, 22 in the Bontebok National Park and 88 in the Mountain Zebra National Park in March, 1969.

#### Natal:

Vincent (1962): only the Drakensberg area, mainly in the Giants Castle Game Reserve, but extending outwards along the eastern face of the mountain from about the Sani Pass to Cathedral Peak between the 8,000 ft. and 5,500 ft. levels.

Bigalke (1965): on a few farms in the Kliprivier, Estcourt and Richmond districts; the Forest Reserve in the Underberg district.

Bourquin (1966): 14 introduced into the Umfolozi Game Reserve in 1964; 817 counted in 1964 in the Giants Castle Game Reserve; approximately 500 in the Loteni Nature Reserve in 1965.

#### Orange Free State:

Van Ee (1962): on a few private farms and also the Willem Pretorius Game Reserve.

Roberts (1963): 44 eland in the Willem Pretorius Game Reserve in March, 1962.

192 eland occurred in the Willem Pretorius Game Reserve according to the 1968 census and 35 in the Golden Gate National Park in March, 1969.

#### Transvaal:

Van der Merwe (1955): two introduced into the S.A. Lombard Nature Reserve in June 1949; this number increased to 12 by 1955.

Kettlitz and Verschuur (1958): five in the Hans Merensky Nature Reserve.

Kettlitz (1962): the only natural herds outside the Kruger National Park occur on the Molongo Flats, eastern Soutpansberg district and between the Shingwedzi and Letaba rivers, the latter crossing and recrossing the Kruger Park boundary; small numbers on private farms where protected; total number outside



the Kruger Park boundaries estimated as well over a hundred.

Pienaar (1963): the Kruger National Park in most of the area north of the Letaba river, except the mountainous area north and east of Punda Milia and the area between the Shipikane and Tsende rivers; numbers in the Park estimated at between 400 and 450, fluctuating in the dry season.

477 eland occurred in the Kruger National Park according to the National Parks Board 1968 census.

#### Mocambique:

Fajardo (1953): the Gorongosa National Park.

Sidney (1965): most parts of Mocambique, but decreasing gradually to the south; scarce near Panda in the Inhambane district, very scarce south of the Save river, and not occurring near the Limpopo river any more.

Tinley (in litt.): as indicated by Sidney (1965) but also the Fungwe and Urema areas of Gorongosa; nomadic in many areas but in some, such as in Gorongosa, seem to move in a circumscribed area.

#### Rhodesia:

The Rhodesian distribution of the eland has been obtained mainly from the annual reports of the Game Section, Department of Mines, Lands and Surveys; from the reports of the Federal National Parks Board and from the ranch cropping surveys of the Department of National Parks and Wild Life Management. These deal mainly with the fauna of the various National Parks during approximately the past fifteen years, and eland are mentioned from the following: Wankie National Park (700-1000 head in 1938, increased to approximately 2150 in 1960); Victoria Falls National Park; Robert McIlwaine (restocked with 8 from Wankie in 1960, increased to 26 by 1963); Matopos National Park (restocked with 8 in 1960, increased to 9 by 1963); Chimanimani and Ngesi Parks.

"Southern Rhodesia Annual Report of the Game Section, Department of Mines, Lands and Surveys for the year ended 31st December, 1954": Bikita, Ndanga, Nuanetsi, Gwanda, Wankie, Nyamandhlovu and the Bubi Native districts in fair numbers, and in isolated pockets in other areas of the country.

Other Game Reserves and Non-Hunting Reserves mentioned by the annual reports for the years 1959-61 include: Matusiadona Non-Hunting Reserve in which eland occur in fair numbers; Chizarira Non-Hunting Reserve ; Urungwe Non-Hunting Reserve, with approximately 700 head in 1961; Chete Non-Hunting Reserve and the Gona-re-zhou/Gona Kudzungwa Game Reserves in the southeastern lowveld bordering on Mocambique.

According to the Game Ranching Survey Reports of the Rhodesian Department of National Parks and Wild Life Management, eland are relatively widespread on private farms and ranches. In March, 1965, 48 out of a possible 69 game ranches were operational, covering a total area of about 5 million acres. Of these, those specifically granted cropping permits for eland include Cawoods Mazunga Ranch in the Beit Bridge area; Mkwesine Crown Land; the Mtetengwe Block of Liebig's Mazunga in the Beit Bridge area; Nuanetsi Ranch; Buffalo Range; Mkashi Ranch; Merrievale Ranch; Eaglemont Ranch; Crown R Ranch; the Tuli Circle; Hippo Valley; Belina Ranch; Kyalami; Quagga Pan Ranch; Magondi Ranch; Louise Ranch; Faversham Estates; Railway Ranch No.39 and Pietersdale Farm.

From the above, the distribution of the eland in Rhodesia can be summarised in the words of Child and Savory (1964) as follows: "Reports indicate a widespread, if somewhat patchy distribution, which may have been curtailed by human development as they occur in a wide range of habitat at all elevations."

#### Botswana:

In Botswana, natural herds still occur, but far less commonly than in the past.

Hill (1942): near Damara pan, Shaleshanto, the Mababe flats, Tsotsoroga pan and Kasane.

Kay (1962): large numbers near Nyie pan and in the area between Kanyu and Panda ma Tenga.

Sidney (1965): throughout Ngamiland; near the Chobe river; Ghanze; the Reserves of the Bamangwato and the western areas of the Bakwena, Bakgatla and Bangwaketsi; the Kalahari proper.

Kirsten (1966): the Moremi Game Reserve.

Tinley (1966): small groups on the Kwaai Flood Plains and adjacent Mopane woodland; rare in the Moremi Game Reserve; migrate to the Makarikari pan and the Kalahari in the wet season and back to the Okavango swamp in the dry season.

Child (1968): widely distributed in northeastern Botswana; scarce in and around the Chobe Game Reserve.

Palmer (1967): scarce in the Chobe Game Reserve.

Knobel (1967): the Chobe Game Reserve.

Campbell (1968): up to 1962 on the Piper pans in the Central Kalahari Game Reserves; in the woodlands and open plains elsewhere in these Game Reserves in small numbers at present.

Smithers (1968): widespread throughout Botswana except in the settled parts of the eastern sector; small numbers in the central and southwestern Kalahari.

Von Richter (1969): scarce in most areas of southwestern Kalahari.

#### South West Africa:

Bigalke (1958): mainly restricted to the northeastern section of the territory; isolated occurrences in the Gibeon, Keetmanshoop, Rehoboth, Windhoek, Okahandja, Gobabis and Otjiwarongo districts; more widely distributed in the Tsumeb and Grootfontein districts, the adjoining part of the Outjo district and the Native Reserves in the Gobabis district; the Okavango Native Territory as well as the eastern and northwestern sections of the Kaokoveld; probably ranges into eastern, northern and northwestern Ovamboland.

Van der Spuy (1962): distribution bounded more or less by the  $16^{\circ}$  and  $20^{\circ}$  east longitude and by  $18^{\circ} 30'$  and  $22^{\circ}$  south latitude, with a small number occurring in the extreme northwest of the farming area and along the Botswana border; restocking on farms outside this area occurs; total number of farms in South West Africa approximately 6,080.

Sidney (1965) finds its range curtailed

since the time of Shortridge (1934); primarily limited to the northeastern sector of the territory, with limited occurrence in Gibeon, Keetmanshoop, Rehoboth, Windhoek, Okahandja, Gobabis and Otjiwarongo districts.

Change in distribution:

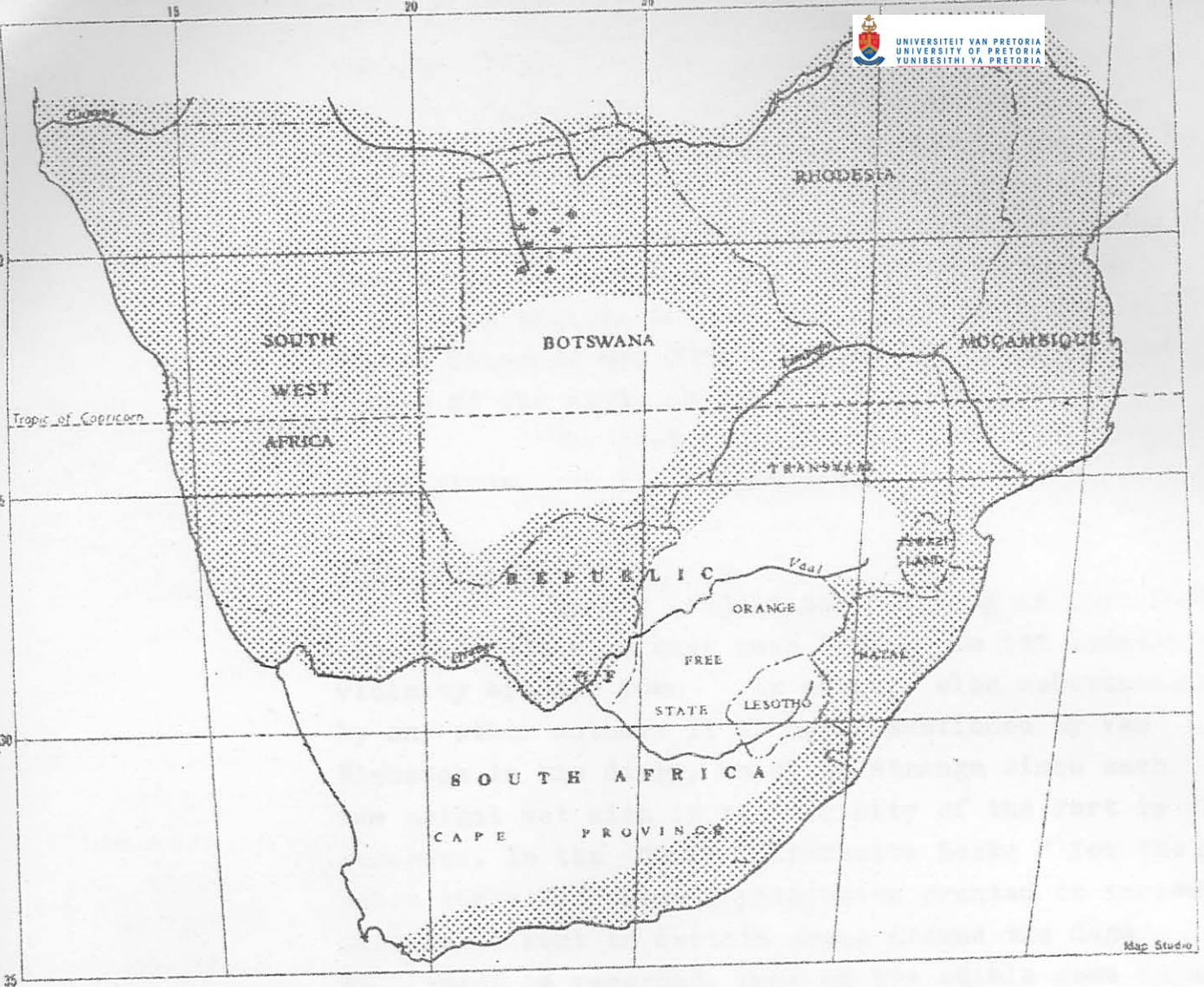
Surveys covering the whole or part of the present distribution of the eland in southern Africa include those of Roberts (1951), Ellerman *et al.* (1953) and Knobel (1958). They all concur on the distribution, stating that it survives in the northern Cape, western Natal, northeastern Transvaal, western Mocambique, Rhodesia, western and northern Botswana, the Caprivi Strip, northern and northeastern South West Africa as well as on farms in most of the above areas, including the Orange Free State.

From the above it is clear that the range of the eland has been curtailed to a considerable extent during the past 300 years. Whereas Van Riebeeck encountered it near the present-day Cape Town in 1652, it has practically disappeared from the Cape Province and only survives as protected game on farms. Also in Natal, the Orange Free State and the Transvaal it is practically non-existent and only represented in the various Game Reserves, except where conservation-conscious farmers have established small herds on their farms.

It still occurs in Botswana in the wild state, but more to the north than in earlier times. This also applies to South West Africa, where it is to be found only in the northern and northwestern sectors of the territory.

In Rhodesia it still has a fairly widespread distribution, coinciding to a large extent with that in the past, except where human activity has made survival impossible.

Owing to far greater agricultural expansion in the south of Mocambique than further north, the eland here also occurs in larger numbers in the more northern districts.



Past distribution:

Syncerus caffer (Buffalo)

Present distribution:



Syncerus caffer (Buffalo):

The overall distribution of the buffalo in southern Africa in earlier times, according to Bryden (1899), Sclater (1900), Selous (1908), Fitz-Simons (1920) and Roberts (1951), would seem to have been as follows: since it needs ample grass to feed on, water to drink and reeds or bush as shelter, the Karoo plains of the western and central Cape, the open plains of the Orange Free State, the highveld of the Transvaal and large parts of southern and central Botswana were unsuitable as habitat and the buffalo was probably never found there. Elsewhere, where their habitat requirements were satisfied, buffalo roamed in large numbers from the Cape coastal bush to the Zambezi, through Natal, Mocambique, eastern and northern Transvaal, along the Marico river to northwestern Transvaal, the eastern part of the northern Cape, throughout Rhodesia, eastern Botswana and across the continent in northern Botswana to South West Africa, in prodigious numbers along the Chobe, Okavango and Cunene rivers and in South West Africa as far south as the Orange river.

The past distribution of the buffalo, as given above, can be authenticated from the following:

Cape Province:

Kolben (1731): the vicinity of Cape Town. (Kolben's claim to have seen buffalo in the immediate vicinity of Cape Town is nowhere else substantiated by any other author. It is never mentioned by Van Riebeeck in his diary, which is strange since each new animal met with in the vicinity of the Fort is recorded. In the "Oude Wildschutte Boeke" for the years 1687-1718 wherein permission granted to various farmers to hunt in certain areas around the Cape settlement is recorded, most of the edible game animals are mentioned, i.e. the eland, hartebeest, klipspringer, steenbok, hippopotamus and even rhinoceroses, but no mention of the buffalo is made. The buffalo could have ranged as far south as the Cape, but it is not until the more dense coastal bush of the southeastern and eastern Cape is reached that authentic records are to be found. The first area probably inhabited by the buffalo in this part could have been the vicinity of the Buffeljags river, a tributary of the

Breede river in the Swellendam -Heidelberg divisions, so called due to the fact that it was a wellknown area for hunting buffalo, according to Paterson, 1789).

Thunberg (1772): near Plettenberg Bay and the Van Stadens river in the Port Elizabeth area.

Swellengrebel (1776): the vicinity of the Kariega, Little Fish, Great Fish and the mouth of the Sunday's river; the Bamboesberg and Kommadagga.

Gordon (Barnard, 1950) : the present-day Kakamas vicinity on the Orange river in 1777-8.

Wikar (Mossop, 1935), during 1778-9, mentions the cut-off heads of buffalo on an island, identified as Paarden island in the Orange river by Mossop; when crossing the Orange at the present-day Marchand, Wikar writes: "Van avond kwam een zeer groote trop met buffels uyt 't geboorte van 't rivier na de vlakke."

Mentzel (Mandelbrote, 1944): the Gamtoos, Sundays, Great Fish and Van Stadens rivers as well as the Outeniqua bush in 1787.

Paterson (1789): the vicinity of the Buffeljags, Gamtoos, Kouga and Great Fish rivers and the Sandflats in the present-day Alexandria division.

Sparrman (1789): the Outeniqua bush; the Tsitsikamma forest; the area between the Sundays and Bushmans rivers; near the Great Fish, Little Fish, Coega, Swartkops and Gamtoos rivers; the Kommadagga area from Assegaibos to Nuwejaarsdrif.

Van Reenen (Kirby, 1958): along the Koonap, White Kei and MnCwasa rivers in 1790-1.

Le Vaillant (1796) mentions the probable occurrence of a few buffalo in the bush near Mossel Bay and in the Outeniqua forest; records them also from near the Swartkops, Gamtoos and Keurbooms rivers and in the Knysna bush.

VC.104, Cape Archives: the banks of the Great Brak river and the Zuureveld (between the Sundays and Fish rivers) in 1796-8.

Barrow (1801): from the area near the Swartkops river mouth to the Great Fish river.

Lichtenstein (1812): from Knysna to the Zwart (= Swartkops ?) river; the Tsitsikamma forest; between the Sundays and Bushmans rivers; Griqualand West.

Campbell (1815): near the mouth of the Buffalo river; near Blink Fountain and Jan Bloemfontein in Griqualand West; between Lattakoo and the Kuruman hills.

Goldswain ( Long, 1946): near Grahamstown in 1820.

Burchell (1822): near Klaarwater (= Griquatown).

Campbell (1822): near the Mashowing river and the vicinity of Lattakoo.

Burchell (1824): near Jan Bloemfontein and Lattakoo.

Bain (Lister, 1949): near Heuning Vlei (Chue Lake) and the Kunkwe Spring in Griqualand West in 1826.

Rose (1829): near the Fish river.

Pringle (1835): very scarce at the time of writing at Glen Lynden, present-day Bedford division.

Backhouse (1844): the area between the Kouga and the Sundays rivers; Addo and Newton Dale.

Cumming (1850): the Addo and Zuurberg bush; near the Mareetsane river in the northern Cape.

Victorin (1854): in the Knysna bush.

Holub (1881): between Port Elizabeth and Grahamstown.

Vols. 57-59, C.F.E., Cape Archives: permits to shoot buffalo during the years 1899-1909 were issued for the Alexandria and Uitenhage (Sundays river poort) divisions and the Kowie bush.

"The South African News ", 14th Sept. 1899 and "The Cape Times ", Sept:3 1900: the number of buffalo occurring in the Albany, Alexandria, Bathurst and Uitenhage divisions in the years 1899 and 1900 estimated at more than 700.

Miscellaneous correspondence of the Conservator of Forests, King William's Town and District Forest Officers, 1894-1899: between 20 and 40 buffalo in the Kowie Bush in 1894; approximately 50 in the Port Alfred division in March 1899 and 15 in 1901; approximately 50 on Olifantsplaats in the Alexandria division in 1897; approximately 200 in the Uitenhage and 100 in the Bathurst division in 1897.

H 1, 1905-1908; F 234, 1896-1905 and 1903-1905 list approximately the lowest and highest



numbers of buffalo in the years 1902-1908 in the following divisions: Albany, 6 and 19; Alexandria, 60 and 150; Bathurst, 20 and 115, Grahamstown, 20 (only figure available); Port Alfred, 115 (only figure); Uitenhage, 345 and 425.

Natal:

Ritter (1955) describes a hunt organised by Shaka in August 1819 between the White and Black Umfolozi rivers where a large number of buffalo were killed.

Isaacs (Herrman, 1936): fairly numerous in Zululand in the vicinity of Shaka's kraal; higher up along the Umgeni river and at the foot of the Ngoye mountain; the vicinity of the Buffalo river (a tributary of the Tugela) ; along the Mhlatuzi river in Zululand in large numbers, all during the years 1825-32.

Smith (Kirby, 1955): near the Umvoti river in 1832.

Champion (Booth, 1967): near the Umgeni river in the years 1835-9.

Wahlberg (Gyldenstolpe, 1934): Zululand and the upper Umvoti river in 1842.

Dobie (Hattersley, 1945): buffalo tracks along the Umgeni river in 1862.

Buckley (1873): Zululand.

Drummond (1875): near the Ingwavuma, Pongola and Msunduzi rivers in northern Zululand.

Brooks (1876): near Pietermaritzburg a few years prior to his writing.

Baldwin (1894): the vicinity of the St. Lucia Lake; the Empangeni, Umfolozi, Black Umfolozi, Amatikulu, Usutu, Mkuzi and Tugela rivers; large numbers near the St. Lucia river and fair numbers in the Tugela river valley.

Van Oordt (1895): Zululand.

Findlay (1903): the confluence of the Manzibomvu and Hluhluwe rivers.

Transvaal:

Moffat (Wallis, 1945) : between the present-day Zeerust district and the Magaliesberg range; large numbers in the bush near Mosega (Zeerust) and near the Marico river in the same vicinity , all in 1829.

Smith (Kirby, 1940): near the Marico river and in the vicinity of Mosega; the present-day Swartruggens, Rustenburg and Brits districts; the junction of the Toelani and the Marico rivers; the junction of the Rietspruit and the Marico; the Dwarsberg range where the Marico cuts through these mountains; the junction of the Marico and the Crocodile and the Notwani and Marico rivers, all in 1835.

Trigardt (Le Roux, 1966): near the Soutpansberg range, northern Transvaal, in 1836.

Bronkhorst (in Chase, 1968): near the Vaal and Olifants rivers in 1836.

Harris (1841): the vicinity of Mosega; near the Magaliesberg range; along the Crocodile river in northwestern Transvaal.

Wangemann (Grosskopf, 1957): near the Spekboom river in the Lydenburg district in 1866.

Mauch (Petermann, 1870): north of Lydenburg in the vicinity of the Olifants river in 1868.

Elton (1873): the south bank of the Limpopo river in the vicinity of the Tolo Azime falls.

Glynn (1926): in the White River district near Legogot Kop in the 1870's.

Des Neves (1879): large numbers in the Soutpansberg area.

Gillmore (1888): large numbers along the Crocodile river in the northwestern Transvaal.

Oates (1889): along the Crocodile river in the present-day Thabazimbi area in northwestern Transvaal.

Hofmeyr (1890): the Soutpansberg area in 1865.

Chapman (1900): the eastern Transvaal approximately where the present-day Kruger National Park is situated.

Stevenson-Hamilton (1911): between the Sabi bridge and Lower Sabi.

#### Mocambique:

Peters (1852): Sena, Tete and Boror in the Zambezi river vicinity.

Livingstone (Schapera, 1963): the vicinity of the Zambezi river during 1853-6.

Kirk (1864): the banks of the Zambezi.

Erskine (1869): along the lower Limpopo to its mouth.

Kirby (1899): fair numbers in most areas in 1894; the Urema-Zangwe marshes and the Urema marshes; the vicinity of the Mwanza river and in the Cheringoma forest; nowhere very plentiful but largest numbers along the Urema and Pungwe rivers in the Cheringoma area.

Findlay (1903): the Cheringoma and Gorongosa areas; along the Massarara and Sabassa rivers; the vicinity of the Jungwe river and between the Mwanza and the Mwardzi rivers.

Vasse (1909): the Gorongosa area.

Maugham (1910): near Shupanga and on the N'Konde plains in the vicinity of the Zambezi river.

#### Rhodesia:

Baines (Wallis, 1941) in 1861, Livingstone (Schapera, 1963) in 1853-6, Kirk (1864), Baines (1864), D. and C. Livingstone (1865) and Holub (1881): along the Zambezi river or near the Victoria Falls.

Elton (1873): the vicinity of the Limpopo river; between the Ramaquabane and Santshokwe rivers; the confluence of the Tuli and Shashi and the Tuli and Limpopo rivers.

Erskine (1878): near the Sabi river.

Oates (1889): between the Sakasusi and Simukwe rivers; between the Nata and Tamasanka rivers; near the Simukwe and along the upper Tati river in western Matabeleland.

Holub (1890): the junction of the Chobe and the Zambezi rivers.

Selous (1893): along the Kadzi, Manyami and Masheki rivers.

Selous (1907): the vicinity of the Jomani river; the angle formed by the Gwai and the Zambezi at their junction; the confluence of the Chobe and the Zambezi; the Daka, Ramaquabane, Umay, Gweo, Umfule, Umniati and Umzweswe rivers; the vicinity of the Victoria Falls.

#### Botswana:

Andersson (Wallis, 1936) in the early nineteenth century records buffalo from the marshes of the Taoghe river, the most westerly channel of the

Okavango delta in the vicinity of Lake Ngami.

Methuen (1848): near the Mabotsa mission station in southern Botswana; along the Notwani and Marico rivers in southeastern Botswana.

Cumming (1850): along the left bank of the Limpopo and the northwestern tributaries of this river; the eastern portions of the country of the Bakgatla and the Bamangwato; along the Notwani river; the junction of the Marico and Limpopo rivers; between the Marico and Sechele's Kraal; the vicinity of Kolobeng.

Andersson (1856) : the vicinity of Lake Ngami in 1850.

Livingstone (1857): the fountains at Kolobeng; large numbers on the Makarikari pans; the vicinity of the Chobe marshes.

Baines (1877): the Tati vicinity and near the Macloutsi river.

Bradshaw (1881): the Chobe river.

Anderson (1888): the Makarikari pans, Tati Station and elsewhere in northern and eastern Botswana.

Holub (1881): the Shua salt pan; the Nata and Gwai rivers; the Mababe depression; the vicinity of Panda ma Tenga and Sesheke.

Selous (1893): the vicinity of the Chobe and in the Chobe marshes.

Baldwin (1894): the vicinity of the Shashi, Botletle, Zouga, Meea, Qualeba and Tamashaki rivers.

Schultz and Hammar (1897): the Chobe swamps and the junction of the Chobe and Sunta rivers.

Oswell (1900): the Botletle and Chobe river vicinities; Lake Ngami.

Passarge (1908): along the banks of the Okavango up to 1897.

Bryden (1893), in a survey of the distribution of the buffalo in Botswana, states that it was earlier to be found in large numbers near the Botletle river, but at the time of writing had already been driven away from the Lake Ngami area; it occurred along the Chobe, Sunta and Zambezi rivers, but nowhere else in Botswana; he records its earlier distribution right down to the Orange river in suitable localities.

Selous, in a foreword to Hodson (1912), writes that he travelled the 140 miles along the Chobe river during September and October of 1910 and that he found no tsetse fly but neither did he see any buffalo, whereas in earlier days he had encountered thousands of both in the same area.

South West Africa:

Molsbergen (1916) mentions Hop finding buffalo in 1761 along the riverbeds when travelling north of the Orange river into South West Africa as far as the present-day Karasburg.

Mossop (1947) likewise mentions Hop recording buffalo in Great Namaqualand.

Van Reenen (Mossop, 1935): records 10 buffalo shot by his party between the present-day Gibeon and Marienthal in Great Namaqualand during his journey in 1791-2.

Le Vaillant (1796): the vicinity of the Draai and Lion rivers in Great Namaqualand.

Duminy (Franken, 1938), in 1793, on a journey of five days into the interior of South West Africa from Walvis Bay, probably along the Kuiseb or Swakop rivers, mentions several buffaloes on the way.

Tindall (Tindall, 1959): near Naosanabis (Wesley Vale mission station) along the Nossob and along the Swakop river near Sandfontein in 1839-55.

Galton (1853): between the Black and the White Nossob rivers.

Shortridge (1934): the northwestern parts of the Grootfontein district as well as northeastern Ovamboland whence buffalo irregularly migrated from southern Angola; the central and eastern Caprivi where the highest numbers occurred near the Maschi river. Shortridge quotes Schwabe, Zukowsky and Steinhardt as earlier recording buffalo as far south as Damaraland and the Rehoboth districts; as standing game up to 1870 near Omaruru, Omaheke and the Kaokoveld; later as extinct in the Kaokoveld and pushed back to the Cunene river. He refers to the devastating effect of the 1806 rinderpest, exterminating the buffalo south of the Okavango river.

General:

To summarise the past distribution of the buffalo, Selous (1908) may be quoted as follows:

"They spread themselves all down the thickly wooded coast belt of East and South Africa as far as Mossel Bay, and along all the tributaries of the Zambezi and the Limpopo rivers, and it was probably from the headwaters of the Marico and Notwani rivers that they found their way to the Molopo, and thence through Bechuanaland to the Orange river."

There can be no doubt that buffalo occurred in extremely large numbers in southern Africa in the past. Bryden (1899) writes: "I imagine that if a census could have been taken fifty years ago of all the animals existing in Southern Africa to the south of the Zambezi, buffaloes would have proved to have been one of the most numerous species, and might possibly have rivalled in aggregate number the most gregarious of the antelopes, ....." These views are shared by Selous (1908), FitzSimons (1920) and most of the early hunters and travellers.

Present distribution:

Cape Province:

Knobel (1958), Skead (1958) and Sidney (1965): the Addo Elephant National Park.

Van der Merwe (in litt.): approximately 240 in the Addo Elephant National Park in 1966; 9 in the Bontebok National Park in 1966.

De Graaff (in litt.): 349 in the Addo Elephant and 17 in the Bontebok National Park in 1969.

Natal:

Knobel (1958) and Sidney (1965): the Zululand Game Reserves.

Bourquin (1966): approximately 500 in the Hluhluwe and 250 in the Umfolozi Game Reserves.

Orange Free State:

Seven buffalo (introduced) in the Willem Pretorius Game Reserve according to the 1968 census.

De Graaff (in litt.): 9 (introduced) in the Golden Gate National Park in March, 1969.

Transvaal:

Kettlitz (1962): outside the confines of the Kruger National Park on the south bank of the Limpopo in the Pafuri vicinity; the eastern Soutpansberg; the Letaba and Pilgrims Rest districts; total outside the Kruger Park estimated at not more than 100 animals.

Pienaar (1963): the Kruger National Park where 2,200 - 2,250 occur south of the Sabi river, 3,600 - 3,800 in the central district and 4,000 - 4,500 in the northern district; the largest single herd of over 1500 occurs on the Lebombo Flats between Lower Sabie and the Crocodile river.

Pienaar et al. (1966): 10, 514 buffalo in the entire Kruger National Park, as ascertained by means of an aerial census carried out in 1964.

De Graaff (in litt.): 19,056 in the Kruger National Park according to the March, 1969 records.

Mocambique:

Fajardo (1953): large numbers in the Gorongosa National Park.

Ellerman et al. (1953): the Beira, Gazaland and Lourenco Marques districts.

Sidney (1965): the Gorongosa Park, Save Reserve and the Pafuri Reserve; the Beira, Gazaland and Lourenco Marques districts; practically extinct south of the Incomati river, with a herd occurring on Mariana island in this river; rare between the Incomati and Limpopo rivers; a few herds occur between the Limpopo and the Sabi rivers with the largest numbers at Massangens on the Sabi; between the Sabi and Pungwe rivers; fair numbers near the junction of the Buzi and Lucite rivers; large numbers along the Zambezi banks, especially on the grassy plains of Marromeu, Luabo and Mopeia.

Tinley (in litt.): agrees with the distribution of the buffalo as given by Sidney (1965); approximately 10,000 in Gorongosa; largest population at the Zambezi delta with approximately 16,000 at Marromeu.

Rhodesia:

Fraser (1958): largest concentrations in a small area on the Mkwisini river which is the boundary between the Bikita and Ndanga Native districts; in fair

numbers along the Nuanetsi, Gwanda, Bulalima-Mangwe, Wankie, Nyamandhlovu, Sebungwe, Urungwe and northern Lomagundi Native districts; odd pockets in other areas.

Child and Savory (1964): most numerous in the southeast, northwest and the Zambezi Valley areas; resident herds along the Nuanetsi river and in the Que Que - Gatooma area; buffalo enter Rhodesia from Mocambique along the eastern border.

Sidney (1965): mainly in the Zambezi Valley and the Wankie Game Reserve.

#### Botswana:

Hill (1942): Kwaai and the Mababe flats in northern Botswana.

Kay (1962): the Okavango swamps along the Kwaai and Boro rivers; large numbers in the Okavango swamps and fairly large numbers on the Mababe flats.

Sidney (1965): northern and eastern Botswana, especially Ngamiland and the Bamangwato territory.

Kirsten (1966): very large herds in the Moremi Game Reserve in the marshes of the Okavango.

Tinley (1966): common in the Moremi Game Reserve; move out of the western part in summer and back in winter.

Palmer (1967): large numbers in the reeds of the Chobe Game Reserve.

Child (1968): locally very numerous in parts of northeastern Botswana, i.e. throughout the Okavango swamps, along the Chobe river, towards the Botletle river east of the Makalamabedi fence.

Smithers (1968): throughout the northern parts of the territory south to the Botletle and Nata rivers; a few small herds preserved on the southern Tati Concession farms.

#### South West Africa:

Bigalke (1958): mainly east of the Okavango river throughout the Caprivi and occasionally west of the Okavango in the Caprivi; occasional stragglers in the Grootfontein district; extinct in Ovamboland.

Sidney (1965): follows Shortridge (1934) in mentioning northern South West Africa as having a



fluctuating population of a few migrating animals coming from Angola; a number still surviving in the Caprivi Strip.

Change in distribution:

The buffalo was one of the species of the family Bovidae that suffered most, not only at the hands of the hunter who subjected it to constant shooting owing to its edibility, but also from the rinderpest epizootic that literally wiped out whole populations in large areas during 1896.

Owing to the above reasons among others, it has been practically exterminated in the southern and eastern Cape coastal bush as well as in the Cape north of the Orange and along the lower Orange river. It has also disappeared from a large portion of Natal and most of the eastern and northern Transvaal as well as from northwestern Transvaal and eastern Botswana. It is also scarce in southern Mocambique, not so widespread in Rhodesia as in the past and in South West Africa it has disappeared from the southern, central and practically also from the northern parts.

According to Child (1968), the buffalo has reappeared in parts of northern and northeastern Botswana since 1944-46 from which it was unknown since the time of its decimation by the rinderpest.