

HISTORICAL MAMMAL INCIDENCE IN THE CAPE PROVINCE

VOLUME 2

THE EASTERN HALF OF THE CAPE PROVINCE, INCLUDING THE

CISKEI, TRANSKEI AND EAST GRIQUALAND

pp. [1-3], 1-4, 1-112)

by

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ORDER PERISSODACTYLAFamily Rhinocerotidae

Black rhinoceros, Diceros bicornis (Linnaeus, 1758)

Earliest records.

Although the rhinoceros was known and recorded at the Cape before Van Riebeeck's arrival in 1652, and frequently thereafter, few descriptions reliable enough to identify the species are known. In the beginning, a rhinoceros was merely a rhinoceros; the knowledge that two species occurred in southern Africa was not then known to literate man, but, as will be seen, the white rhino's occurrence south of the Orange River had always been controversial, and what little evidence exists has never carried much conviction. But the discovery in 1974 that a partial jaw with teeth, sent to the Albany Museum, Grahamstown, in 1961 by Mr. Keith Collett from his farm 'Grassridge' in the Cradock district of the East Cape Midlands, was that from a white rhino, threw a new light on the problem. At the same time this discovery upset the previous assumption that all rhinos in text or as relics south of the Orange River would safely be black rhinos. The picture had to be seen in a more discerning light. All records assumed to be of black rhinos had either to be dropped to a lower indeterminate status or subjected to greater study and scrutiny in the hope that satisfactory clues could establish the species more exactly.

The necessity for this was greatest in the Eastern Cape where, according to Acocks (1953, Map No. 1) grassveld conditions in the central sector of the Midlands, and for a short way down on to the subcoastal plain, would have favoured the white rhino's grazing preference. Indeed the 'Grassridge' jawbone rather confirmed this, but much of the Eastern Cape is covered by bushveld in various forms which favours the black rhino's browsing habits, and therefore an ecological background could be used as an aid in determining, up to a point, the probable rhino species referred to in a text.

Tempting as it is to accept this white rhino fragment as a certain indication of the species' occurrence there, its trophy value must not be ruled out. The Messrs Herbert and Dudley Collett of an earlier generation at 'Grassridge' were eager big-game hunters who visited the northern hunting grounds. With this fact in the way, the specimen's local provenance becomes controversial. Nevertheless, because it was there and because it might be genuine, the matter must be seen in that light and allowances made accordingly.

S.F. du Plessis (1969:8) who kindly made available to me his excellent thesis of the past and present distributions of the Perissodactyla and Artiodactyla gives instances of presumed black rhinos from earliest times at the Cape, but wisely says that no indication of exact species is given in the texts he consulted.

"In none of these references is any distinction between species given, but in the revised version of Mentzel's description of the Cape of Good Hope in 1787 by Mandelbrote (1944), the rhinoceros found in the Cape is described as follows: 'The upper lip can be stretched half a foot, and ends in a pointed fleshy protuberance which it uses as a kind

of hand and imperfect trunk for taking up its food and putting it into its mouth'.

Kolben (1731) writes of the Cape rhinoceros: 'His mouth is like that of a Hog, but somewhat more pointed ... He is not fond of Feeding on Grass, chusing rather Shrubs, Broom, and Thistles. But the Delight of his Tooth is a Shrub, ... the Rhinoceros-Bush'.

From the above descriptions, the characteristic prehensile upper lip and the preference for browsing can be deduced. These, together with the fact that no records of the square-lipped rhinoceros so far to the south could be found according to Sclater (1900) and others, lead to the assumption that the species recorded at the Cape was D. bicornis."

Based on these few examples there can be no dissent from Du Plessis' conclusions for the Cape Peninsula and vicinity, but later explorations into Bushmanland and along the southern bank of the Orange River have left the impression that the white rhino might have been there in the later 18th century, a fact dealt with more fully under the heading of white rhinoceros. This possibility is interpolated here to emphasise the need for cautious interpretations of traveller's tales. Indeed, on ecological grounds it is true to say that the white rhino could have found suitable grazing as far south as Cape Town. If elephants could live at Tiervlei, near Cape Town (Leibbrandt 1896:47) white rhinos could have done so, and if the grazing argument is to be adopted, white rhinos could have lived on the southern coastal belt from the Hottentot's Holland to Mossel Bay. There is no evidence to suggest that they did, but there is also very little evidence to show that black rhinos did, yet place-names containing 'Renoster' are known there.

Reasonably safe black rhinoceros records

Of published material, with or without accompanying sketches, a few help towards safe determinations of the species. The one by Anders Sparrman (in Forbes 1977,2:81) is especially valuable in its description, backed by a plate (Plate 3) of a rhinoceros dissected and examined carefully by him at Kommadagga in the eastern part of the Somerset East district in December 1775. Sparrman's reference to its "ash-colour" and of how "The muzzle or nose converges to a point, not only above and beneath, but likewise very visibly on the sides, nearly as it does in the tortoise" and "The upper lip is somewhat longer than the lower..." puts the issue beyond doubt, the more so as he had not heard of the existence of a white rhinoceros with its square mouth.

Another good record appears in volume 2, Plate 101, of the Le Vaillant pictures lodged in the Library of Parliament, Cape Town, and published in 1973. Meester, writing the chapter on Le Vaillant's mammal paintings, in the book edited by Quinton, Robinson and Sellicks (1973), comments (p.7) as follows:

"Le Vaillant encountered rhino for the first time north of the Orange River, during his second journey. Indeed, although he states in the narrative of his first journey that he found signs of a rhino along the Platte River [Le Vaillant 2,1790:331-332] and hunted fruitlessly for it, he later seems to have come to the conclusion that the rhinoceros had been exterminated in the Cape before his coming - in referring to

Sparrman's travels (1772-6) in his second narrative he says that "If there were abundance of rhinoceroses in Quammedaka in the time of Dr. Sparrman, there were none there in my time, any more than in the colony itself, which they deserted in proportion as it began to be better peopled" [Le Vaillant 3,1796:54-57].

All his encounters with rhino took place north of the Orange River, where both black and white rhinoceros are believed to have occurred, but he nowhere mentions the white rhino, nor indicates in any way that he is aware of the distinction between the two species. The animal he illustrates is quite clearly a black rhino, judging from the shape of the snout. Presumably, therefore, he did not encounter the white rhino on his travels".

Meester's reference to the 'Platte River' is the Plaatrivier, 20 km west of Pearston town in the eastern Camdeboo of the East Cape Midlands. Le Vaillant himself says he found 'traces of' rhinoceroses there without saying what the traces were. At this place he was 110 km northwest of 'Quammedakka', now Kommadagga in the southeastern part of the Somerset East district where in 1775 eight years earlier, Sparrman (2,1786:90 &95), and Swellengrebel (in Forbes 1965:71) in 1776, had seen rhinoceroses but who left no clue as to their possible species.

Of rhinoceroses to the immediate west of our chosen area a few need to be mentioned. In November 1778, Robert Jacob Gordon (in Barnard 1950:348) shot a rhinoceros about 10 km northeast of Beaufort West in the Great Karoo. Gordon's sketch of the animal is No. 205 of the famous Gordon Collection of pictures in the Rijksmuseum, Amsterdam, Holland. That this was a black rhino is shown by the Keeper of the Rijksprentenkabinet at the Rijksmuseum (M.D. Haga, in litt. 11.02.1975) "No. 205 was to all appearances a Diceros bicornis and shot at the source of the Gamka, or Leeuwenrivier. Though drawn in profile the upper lip is clearly pointed. On the other hand, the hump about the shoulders, peculiar to C. simus, is lacking, and the head is rather on the small side".

On Gordon's map, published by Forbes (1965: Map 21), a small sketch of a rhinoceros over the caption 'Africaanse Rhinoster' is strongly suggestive of a black rhino with the upper lip protruding well beyond the lower.

Sketch - 'Africaanse Rhinoster' on Gordon's map



The value of a sketch beside an author's text, as with Gordon's is proved by W.J. Burchell (2,1824:72), an accomplished artist, whose party saw several rhinoceroses, and shot one, at 'Kaabi's Kraal', somewhere west of De Aar in March 1812. This was certainly a black rhinoceros; his two illustrations leave no doubt of this and, as he says, they were drawn by himself. On page 46 is a front view, and on p. 79 a side view of the head shows the prehensile lip very clearly. On page 75 he gives a short description:

"On examining its mouth I found, agreeably to common opinion, no incisive, or fore, teeth in either jaw: in the upper jaw on each side, were five large grinders, and a smaller one at the back; but in the lower, there were six grinders besides the small back tooth".

In a footnote to this page Burchell adds:

"This Rhinoceros is of the species already described by Sparrman, under the name of Rh. bicornis. But other species with two horns, having been since discovered, the name Rh. Africanus has been substituted by Cuvier. And as I have subsequently discovered another species in Africa, also with two horns, this name would now, according to that principle of nomenclature, require again to be changed".

The new species he claims to have discovered is the white rhinoceros, Ceratotherium simum, which he took on 16 October 1812 at Chue Spring (Heuningvlei) 130 km north-northwest of Kuruman, 330 km and seven months after his experiences with the black rhinos at Kaabi's Kraal in March. He refers to this in another footnote on page 75.

Supporting Burchell's sketch and deductions are comments made to Burchell by one of his party, a man named Speelman who had shot the animal and who was obviously experienced in the habits of rhinos and in the fact of their poor eyesight, a well-known character of the black rhino (p.72). To Burchell, he said:

"Their smell ... is so keen and nice, that they know, even at a great distance, whether any man be coming towards them; and on the first suspicion of this, take to flight". A hunter, according to Speelman must approach them against the wind but even then caution is needed "so as not to make the least noise in the bushes ... otherwise their hearing is so exceedingly quick, that they would instantly take alarm..." Either they run away, or else charge. The hunter must remain calm for "if he will quietly wait till the enraged animal make a run at him, and will then spring suddenly on one side to let it pass, he may gain time enough for re-loading his gun, before the rhinoceros get sight of him again; which, fortunately, it does slowly and with difficulty. The knowledge of this imperfection of sight, which is occasioned perhaps by the excessive smallness of the aperture of the eye (its greatest length being only one inch) [0,25 mm] in proportion to the bulk of the animal, encourages the hunter to advance without taking much pains to conceal himself".

The above animal was an adult male. Burchell did not take any measurements but he remarked (p.73):

"No hair whatever was to be seen upon upon it, excepting at the edge of the ears, and on the extremity of the tail".

More recent confirmation of Speelman's comments on the animal's habit of trotting away, wheeling, and then charging wildly comes from Astley Maberly (1963:18):

"When suspicious it will stand perfectly still, ears cocked and grotesque head raised with widely distended nostrils as it searches the wind. If its fears are confirmed, it will either utter a few piercingly loud, blast-like snorts, loop its tail up over its rump and trot away through the scrub ... until it presently wheels about to stare and snort once more before finally vanishing from view, or else it may elect to come at a limbering gallop straight for the cause of the alarm, such 'charges' in the majority of cases being merely impulsive and confused rather than deliberately aggressive. Provided there is time they can usually be dodged..."

That the dry Karoo area at Beaufort West where Gordon shot his black rhino in 1778, and the country 200 km to the northeast near De Aar where Burchell shot his, was in fact suitable for black rhinoceros is shown by the skull found in 1954 by Dr. M. Courtenay-Latimer at Van Wyk's Vlei, 240 km west of De Aar and in the Carnarvon district, and 160 km southwest of Prieska on the Orange River. This skull is in the East London Museum, its specific status having been confirmed by the British Museum where it was sent for identification.

The black rhinoceros (?) north of the Orange River.

Having reviewed the few facts known about the black rhino west of our East Cape region, a few remarks on records north of the Orange River are given in order to bring greater perspective to the issue.

To the far west, in southern South West Africa, in what was formerly known as Great Namaqualand, now mostly incorporated in the Warmbad district, ample records exist of early rhinoceros incidence, again without satisfactory species recognition but Shortridge (1942:72) shows that both species were not far north of the Orange River: "In 1895-96 Alexander recorded both species of rhinoceros from the Fish River Valley in Great Namaqualand". Shortridge's dates are wrong. These should be 1835-36 (see Alexander 1838)

The country east of this needs careful consideration. As far as the Vaal River confluence with the Orange River the country was dry with some grass. The Orange Free State was originally a sweet grassveld area and a region of greatest importance to a study of the possibilities of rhinos in the East Cape Midlands.

Starting in the southern Free State, Bigalke (1963:7) refers to part of a semi-fossilised skull of a white rhinoceros in the National Museum, Bloemfontein, from Fauresmith, O.F.S., but according to Mr. C.D. Lynch, mammalogist, National Museum, Bloemfontein (in litt. 18.6.1974) this is "A half-fossilized skull (without mandible) No. m622 found in 1934 by F. Rabie on the farm 'Telegraafsfontein' (No. 644, part of No. 1095), district Fauresmith. However, this skull appears to be that of a black rhino. Whether this is the other skull Bigalke is referring to I don't know".

'Telegraafsfontein' lies on the south bank of the Riet River in the northern part of the Fauresmith district, 32 km northwest of Fauresmith town and 18 km southeast of Koffiefontein, in the southwestern Orange Free State.

Thus this skull was a partially-fossilised specimen without recent implications, the type most needed. Of this Du Plessis (1969:11) remarks "Whether the rhinoceros ever ranged into Lesotho is uncertain. Smith (Kirby, 1939) who passed through a portion of the country in 1834 does not mention having encountered any". This comment is supported by my own experience in studying the available literature. In support of his contention, Du Plessis (1969:11) refers to Liebenberg (1964:99-104) who says that early travellers such as Andrew Smith in 1834 and the French missionaries Arbousset and Daumas who visited the province in 1836, did not encounter rhinoceroses. Liebenberg also quotes Steytler (1932) [ref. not given by Du Plessis] who contends that since the Orange Free State had few trees, rhinoceroses did not range there. This could be true of the browser D. bicornis, but does not necessarily apply to R. simus".

Nevertheless there is one definite record of a rhinoceros from the far northwestern Orange Free State, and that from a most reliable hunter and recorder, Capt. William Cornwallis Harris (1839:281) when returning from a hunting trip in the Magaliesberge of the Western Transvaal in mid-December 1836. Coming down from the Mooi River at Potchefstroom he probably crossed the Vaal River somewhere near the present Scandinavia drift which brought him more or less on to the border of the Vredefort and Viljoenskroon districts of the Free State. He wrote that after they had crossed the Vaal River, but he does not indicate which species, viz.:

"We had not advanced more than three miles [4,8 km] before our progress was opposed by a furious storm of hail and thunder... To me it is remarkable from the circumstance of my having there, for the last time, seen and destroyed the rhinoceros".

Oberholzer (1968:32) interpreted the species as the black rhinoceros when he wrote "Cornwallis Harris het sy laaste Swartrenoster in 1836 geskiet en wel sowat drie myl suid van die Vaalrivier. Verder suid het hy nooit weer renosters gesien nie" (translation: "Cornwallis Harris shot his last black rhinoceros in 1836 some 3 miles south of the Vaal River. He saw no rhinoceroses south of there"). But why black rhinoceros? Harris did not claim it as such.

According to Sclater (1,1900:306) "... in the Orange Free State the last recorded [rhinoceros] was killed in 1842, at Renoster Kop, just south of the Vaal River in the Kroonstad district". This is six years after Harris' rhino, and 60 km south of where Harris would have crossed the Vaal. Renosterkop stands 27 km north-northwest of Kroonstad town of 27°26'S; 27°10' in the far northern part of the Kroonstad district, and 17 km south of the Renosterrivier-Heuningspoortrivier confluence.

Sclater does not reveal his source of date and place, both of which are of the greatest importance in this rhino story. He appears to have had no doubt that the species was a black rhino. FitzSimons (3,1925:214), Shortridge (1,1934:416) and Oberholzer (op. cit.) repeat Sclater's date and place obviously following him.

Regrettably, this 1842 date, place, or reference has not been found either by myself or by Du Plessis whose frustration is embodied in his remark "No 'on the spot' records of encounters with rhinoceroses could be found".!

A likely source of Sclater's 1842 record seemed to be the famous hunter Johan August Wahlberg, a Swede, who crossed the Renoster River in 1842 on his way back from hunting in the Magaliesberg of the Transvaal. From 7 to 9 May 1842 he followed the course of the Renoster River without mentioning rhinos in his journal, a typescript copy of which is in the Cory Library, Rhodes University, Grahamstown. On his way up to the Transvaal he had spent six days on the Renoster River, from 1 to 7 November 1841, and, although he describes many other species of game there, rhinos do not feature, nor do they for the rest of his treks across the northern Orange Free State from Natal, yet while at the Magaliesberg he frequently referred to a rhinoceros.

Brand, D.J. (1964) states that the black rhinoceros occurred in the Orange Free State and was exterminated by about 1853, but no reference to this could be found in any of the works of travellers who visited this area. Dr. Brand, Director of the Zoological Gardens, Pretoria, when approached for his source of the year 1853 referred (in litt. 16.8.1974) to Lydekker's (1926:18) statement on the black rhinoceros. "It appears to have been exterminated in Cape Colony and the Orange River Colony by the year 1853". It is submitted here that Lydekker erred in combining both regions under the same date, 1853, which correctly applies to the Cape, not the Orange Free State. Harper (1945:398), also writing of the last of the black rhinos, was more precise in saying: "The last one in the Cape Region was said to have been killed in 1853 on the Coega River, close to Port Elizabeth, while in the Orange Free State, the last one was killed in 1842, a decade earlier, in the Kroonstad district". Here, too, Harper must have been following Sclater's published record of 45 years earlier.

The 1853 record is also referable to Rochlin (1961:259) quoting Henry Hall, a surveyor: "The last rhinoceros killed in the Cape Colony was an old male which was shot in 1853 on the Coega, or Grassridge, near Port Elizabeth". In fact, Grassridge plain is an open grassveld area surrounded by Sunday's River Valley Bushveld between the Coega and Sunday's Rivers, 13 km southwest of Addo, 20 km northeast of Uitenhage and 35 km north-northeast of Port Elizabeth. This Grassridge rhino survived another 'last' rhino by only five years, an animal killed just west of Uitenhage in 1849 (E.H.L.S. 1926) (=Prof. E.H.L. Schwarz).

No support for the idea that these 'last' rhinos were in fact black rhinos is given, but on ecological grounds they should have been.

Black rhinoceros in the Eastern Cape.

From what has been said above it is obvious that the incidence of the black rhinoceros can be assessed only by general inference, or by the more definite evidence of bone and tooth fragments. Some of the latter were collected in the Great Fish River near Grahamstown but seem to have perished in the fire which swept part of the Albany Museum in 1941 and destroyed most of the mammal collection. Fortunately, written evidence in monthly accession reports of the Director, Dr. John Hewitt, have survived. For the Midlands, the absence of sight records and relic material has left a great gap in our knowledge, a fact dealt with more fully in the chapter dealing with 'Gaps in Distribution'.

The rhinoceros distribution pattern as plotted on the map from the historical extracts is odd, and leaves little scope for a safe estimate of its overall distribution.

The earliest record is that of the cow and calf seen and shot by Ensign Schrijver (in Mossop 1931:229) in 1689 near the present town of Aberdeen in the western Camdeboo. The rhino may have occurred eastwards through the Camdeboo to Somerset East and southwards to Addo and Uitenhage. It was known in the Valley Bushveld country of Fort Brown in the Albany district and up the Kat River towards Fort Beaufort, but there its eastward range seems to have ceased. Only one record has been found for the Keiskamma River system and that near Alice, yet the Keiskamma should have provided the rhino with all the food and cover needed. It does not seem to have been common anywhere. For instance, although Sparrman and others mention rhinos at Kommadagga and elsewhere in the Somerset East district, Thomas Pringle (in A.M.L.R. 1951:55) said in a letter to Sir Walter Scott, his friend the famous novelist, that they were not in the Baviaan's River valley of the Bedford district in 1820.

This rhino seems to have avoided the Suurveld of the Alexandria, Albany and Bathurst districts. The few Bathurst records do not seem conclusive, and a single rhino record from Toleni south of Butterworth in the southern Transkei has resisted all attempts to find any corroboratory specimens and thereby to establish the provenance satisfactorily. The bones ascribed to the rhinoceros might have come from a buffalo, a hippopotamus or an elephant, all of which occurred there in good numbers.

To the northwest of Port Elizabeth it is more than possible that black rhino occurred in the Jansenville Noorsveld which would have suited it as much as the similar country in the Great Fish Valley north and east of Grahamstown.

White rhinoceros, Ceratotherium simum (Burchell, 1817)

When this work on the historical evidence of mammals in the East Cape was started no thought was given to the white, or square-lipped, rhinoceros as an inhabitant in the Eastern Cape, but the discovery in the Albany Museum of a partial jaw and teeth of the white rhinoceros from 'Grassridge' in the Cradock district changed the whole picture. This was the first such specimen to have been taken south of the Orange River, and because of its unique position, the whole picture of this rhinoceros immediately north of the Orange River from the river mouth in South West Africa through the Northern Cape and the southern Orange Free State has also been studied in order to present a background picture of the white rhino's known proximity to the Cape Province. Most references are weak and contentious but are given here in order to present all for proper appreciation of their value. Thus, the three regions north of the Orange have been given, followed by all records south of the Orange River starting, as with the northern records, in the far western Cape and moving eastwards to meet the Cradock record in the East Cape Midlands.

As with most bone material from large game animals, the contentious factor is always present that a specimen might have had trophy value originally and not genuine locality provenance. The fact of this 'Grassridge' specimen being found so far beyond any other known white rhinoceros relic brings this into greater perspective, and although it has been argued elsewhere in this work that ecologically the animal could have been there, the fact that early members of the Collett family from 'Grassridge', the Messrs. Dudley and Herbert Collett, were keen big-game hunters in northern regions demands that the status of the jawbone be treated with great caution. Despite this, the case is reviewed here as though the specimen is a genuine local relic. The future may hold the answer, either way.

The white rhinoceros north of the Orange River.

a) In southern South West Africa.

What was thought to be the first-ever record of the white rhinoceros is mentioned by Shortridge (1,1934:428) as coming from Parsons in 1743 "(Phil. Trans. pl.111, fig, 6, horn figured)". However, this was not given as specifically for South West Africa or South Africa; the statement was based on an error of judgement by Parsons, a fact discovered by Dr. R. Bigalke (1963:5), Director of the National Zoological Gardens in Pretoria, whose request to Mr. R.W. Hayman of the British Museum for an opinion of Parsons' statement brought the reply (in litt. 21.5.1963) that it was incomplete and inaccurate. This record, then, must be discarded.

Shortridge (op. cit.) then refers to a weathered pair of white rhino horns discovered at Seeheim in the Keetmanshoop district of southern South West Africa (Great Namaqualand as he calls it) by G. Wickham in 1919. These, he says, are in the Port Elizabeth Museum. Mr. John Greig, then Research Officer of the Department of Nature Conservation at Grahamstown, was sent, on requesting a loan of the horns for study, only one very much weathered and exfoliated horn bearing no provenance

whatever. The author saw this specimen on 24 April 1974 and regretfully had to disregard it as an object of value to this study.

Shortridge, (op. cit. p. 425) writing of a time which might have been in the 1880's, said: "Beyond any reasonable doubt the White Rhinoceros has been extinct in South-West Africa for the last 50 years or more... The supposed survival of a few 'White Rhino' in the (mountainous) Kaokoveld is evidently due to mistaken reports. The Black species has a habit of wallowing in limestone pits and naturally becomes tinged with white, after doing so".

However, eight years later, Shortridge (1942:72) changed his mind, after finding more convincing evidence, because he states "In 1895-96 Alexander recorded both species of rhinoceros from the Fish River valley in Great Namaqualand". Shortridge was wrong in his use of the dates 1895-96 in the above quotation if indeed he really meant James Edward Alexander which, from the context, he obviously did. The years should have been given, as indicated elsewhere, as 1836-37. He died in 1885 which further excludes Shortridge's 1896-97 from probability.

b) In the Northern Cape.

The type specimen of the white rhinoceros stands to the credit of William James Burchell (Bull. Soc. Philom., Paris, 97,1817) from 'the interior of South Africa' near latitude 26 degrees. Shortridge (1934) gave this as near Kuruman, but since then a more precise locality of Heuningvlei (once Chue Spring) on the Makuba Range, 80 miles (130 km) north-northwest of Kuruman has been chosen. This was taken from a map by Cave (1947:141-146) when discussing Burchell's drawings of rhinoceroses, now lodged in the Gubbins Collection, Witwatersrand University Library, Johannesburg. The latitude of the Makuba range is 26°15'S but the hills lie not in the Kuruman district as is generally thought but in the Vryburg district 170 km west-northwest of Vryburg town.

In neither of his two volumes does W.J. Burchell give the circumstances of his discovery of the white rhinoceros at Chue Spring (or Heuningvlei) on 16 October 1812. His narrative stops short of this part of his journey, but on page 75 of the second volume, he describes the black rhino shot at Kaabi's Kraal near De Aar in March 1812, seven months earlier, and in a footnote on the same page, alludes to his having found a new species:

"The new species here alluded to, I have named Rhinoceros simus (Bulletin des Sciences; livr. de Juin 1817, p.96.) from the flattened form of its nose and mouth, by which, and by its greater size, and the proportions of its head, it is remarkably distinguished from the other African species. A more complete account of this, is reserved for a future opportunity, as it belongs to a part of my journal not included in the present volume".

His remarks on the animal's "flattened form of its nose and mouth" leave no doubt of the species. How great the tragedy that the 'future opportunity' of describing the rest of his journey has been lost to us, possibly by the loss of a manuscript. In conversation in 1972 with Mr. R.K. Burchell, a relative of the

late William James Burchell and then living in Grahamstown, Eastern Cape, it was learnt that he remembered his father referring to a manuscript which, as he told his son, had been lent to someone but which was never heard of again. The South African Burchells have been a well-established family in the Bedford district of the East Cape for many years.

The Northern Cape has produced many historical references on the white rhino, all of which are sound. Most of these were in the Mafeking area and can be found in Steedman (2,1835:232), citing a letter from A.G. Bain to J.C. Chase, for the year 1826; A.G. Bain (1834:39) for 1834; and Dr. Andrew Smith (in Kirby 1939:36 & 39) for 1835, etc.

Sclater (1,1900:302) states that "An imperfect skull is preserved in the South African Museum, which was dug out of the black peaty soil at a depth of eight feet [2,4 m], about twelve miles [19 km] from the Vaal River in the Kimberley district, in 1893; this is the southernmost locality yet recorded". Asked for his opinion on this specimen, Dr. Q.B. Hendey, palaeontologist at the South African Museum, replied (in litt. 14.6.1974); "The Kimberley district white rhino mentioned by Shortridge [Sclater?-ed.], of which I have so far found no other record, would, I think, have to be classed as 'a fossil of uncertain age'. In this instance, the specimen actually conforms to the classic definition of a fossil - 'dug out of the earth' - although 'a remnant of past life' is perhaps a more realistic definition of the term" (he added that Mrs. D. M. Leakey was then checking the bone collection at the South African Museum and would report on the specimen later).

c) In the Orange Free State.

Du Plessis (1969:21) sums up the historical situation clearly:

"No conclusive evidence exists that C. simum ever ranged into the Orange Free State (Bigalke, 1963). Bryden (1899) expresses uncertainty as to whether the first pioneers encountered the white species here, but he was inclined to think that they did since places were shown to him just north of the Vaal river on the grassy plains of southern Transvaal where the species had occurred. He also describes the pasture to the south of the Vaal river as very suitable for this animal and the river as easily fordable at many points during the dry season".

Bryden's comment that "the pasture to the south of the Vaal river "was" very suitable for this animal" should not be dismissed lightly. We have the discovery of the white rhino teeth from the Cradock district, in the East Cape Midlands in 1961 as an example of what might have been the animal's distribution in earlier times. The sweet grassveld of the Orange Free State and of 'Grassridge' at Cradock would have been much the same, according to Acocks (1953: Map 1). It is true to say that sight records of rhinoceroses of any species in the Orange Free State are so scarce that no rhinoceros was common there in the white man's time. Nonetheless many place names in the northwestern corner of the Free State contain the name 'Rhenoster' in their context and cannot be ignored entirely. Perhaps both the white rhinoceros and the black rhinoceros were

there, but if we are to estimate the probability on ecological grounds, the white rhino should be the favourite.

Bigalke (1963:7) refers to a white rhinoceros skull, found in 1961 by Dr. A.C. Hoffman, Director of the National Museum, Bloemfontein, in the Valsrivier, near Kroonstad. From Mr. C.D. Lynch, mammalogist at the museum, it was learned (in litt. 18.6.1974) that "A white Rhino skull without mandibles (No. m623) was found in the Vals River in 1958 on the farm 'Letitia' (No. 1367), district Kroonstad. It was donated by Mr. Bester. This is probably the skull Dr. Bigalke is referring to as being found in 1961". This farm 'Letitia' lies on the north bank of the Vals River, 26 km east-south-east of Kroonstad town at 27°45'S; 27°30'E.

Bigalke also referred to part of a semi-fossilized skull from Fauresmith, said to be that of a white rhinoceros but thought by Mr. C.D. Lynch (op. cit.) to "appear to be that of a Black Rhino. Whether this is the other skull Bigalke is referring to, I don't know". Mr. Lynch's further comments strongly suggest that it must be this other skull. It is "a half-fossilized skull, without mandibles (No. m622) found in 1934 by F. Rabie on the farm 'Telegraafsfontein' (No. 644) district Fauresmith". This farm lies on the Riet River, 31 km northwest of Fauresmith town at 29°03'S; 25°07'E, in the Fauresmith district.

The white rhinoceros south of the Orange River.

In studying the three regions immediately north of the Orange River, i.e. the records based on chance visitations there by early travellers, it seems that the northwestern regions of the Cape would have had greater chances of having white rhinos than either the central or eastern regions because white rhinos came further south towards the Orange river. This would seem contrary to ecological argument which would expect this grazing rhino to have thrived on the excellence of the belt of sweet grassveld which came down from the Highveld, passed through the Orange Free State, and went deep into the East Cape Midlands, as far as Somerset East, even during historical times. But there is not the slightest sight-record of the white rhino having done so.

Shortridge (1,1934:428) puts the case bluntly, perhaps too bluntly, when he says "There seems to be no authentic historical record of the existence of White Rhinoceros anywhere south of the Orange River" but he goes on to say that "According to Rowland Ward, the White Rhinoceros was exterminated south of the Orange River early in the 18th century, but no authority is quoted" (Shortridge omits this Rowland Ward reference in his bibliography).

Bryden (1897:182), also generalising on the situation, south of the Orange River for the late 17th century in Bushmanland!

"Its modern range has invariably been between the Orange River and the Zambesi, and it has never been found north of the latter river" (this is incorrect).

He continues:

"There can be little doubt, I think, that, prior to the beginning of this century [i.e. 18th century], this enormous terrestrial mammal ... wandered upon the great grassy plains of Bushmanland (a continuation of the Kalahari desert) just south of the Orange River. Native tradition has it so".

He then cites Barrow's comment on the white rhino at Hantam mountains near Calvinia (to be discussed later).

"... But at all events later Europeans have never encountered this rhinoceros south of the Orange".

He then mentions that Burchell, Andrew Smith, Cornwallis Harris and others found it north of the Orange.

Following the above generalisations, we shall now take what few early references there are from west to east across the Cape Province, i.e. below and south of the three regions used when studying the white rhino's distribution north of the Orange River.

S.F. du Plessis (1969:19), when discussing the possibility of the white rhinoceros' occurrence south of the Orange River sums up the position admirably:

"The question of the occurrence of the white rhinoceros south of the Orange river has never been properly settled and the chances are that it never will be. This species was usually described as being distributed between the Orange river in the south and the 17th degree south latitude in the north, [i.e. just south of the Sahara] but occasional references exist of its occurrence south of the Orange river in the Cape Province. Most of the early authors who encountered rhinoceroses just south of this river unfortunately seldom specified the species, thereby making it impossible to outline the southern boundary of its distribution with any degree of certainty. The rhinoceroses encountered by Wikar (Mossop, 1935) in 1779 for example, could also have included the square-lipped species, since he describes them just south of the lower Orange river near the present-day Goodhouse and Kakamas, just north of which they are known to have occurred. Although Shortridge (1934) and others contend that the square-lipped rhinoceros did not occur south of the Orange, the possibility cannot be ruled out entirely since the river in itself did not offer a formidable barrier in dry periods.

The unknown author of "Een Generale Beschryving van de Colonie De Kaap de Goede Hoop", 1796-98, (VC. 104, Cape Archives) as a rule gives a very accurate survey of the larger animals of the Cape Colony at that time. His observations and descriptions were correct and corroborated by those of latter authors. One of his statements, however, may have rested on mistaken identity. When he reviews the fauna of the Great, Middle and Little Roggeveld he writes of this area: "Onder anderen is de witte Rhinoceros overvloediglijk in, en waarschylijk eigenaardig aan, dit gedeelte van het land. de zelve verschilt in niets van de gemeene twee hoornige Afrikaansche Rhinoceros, als alleen in groote, waar in het dezelve aanmerkelijk overtreft, en in de dunheid en buigzaamheid van het vel".

A free translation of this is: Inter alia, the white rhinoceros is plentiful in, and peculiar to, this part of the country; it differs in no way from the two-horned African rhinoceros except in size in which the latter notably surpasses [it], and in the thinness and pliability of its skin'.

Hence, Du Plessis' comment on the mistaken identity. The white rhino is larger than the black. There is no significant difference in the qualities of their hides.

Du Plessis continues:

"Barrow (1801) contends that the white rhinoceros was not uncommon beyond the Hantam mountain range on the outskirts of the Cape Colony of that time. He lists the differences between the white and black species but does not mention the lip structure. Bigalke (1963) doubts if Barrow's rhinoceros could be definitely identified as the white species since the differences given (colour and thinness of skin) are not recognised criteria of distinction".

Dr. Bigalke's opinion on the lack of validity of skin thickness as a criterion in determining the species is based on his experience with rhinos when he was Director of the National Zoological Gardens in Pretoria; also, his denial of skin colour as a criterion is based on the experience of anyone with knowledge of rhinoceroses, be they white or black, in the veld. But Barrow, unlike the unknown author quoted above, did make a size differentiation in favour of the white rhino which cannot be laid aside lightly. His actual words (1,1801:395) covered an event which took place in 1790 behind the Hantam Mountain in the Calvinia district. This range lies 280 km southeast of Fella in Namaqualand at the point where the Orange River's southern bend is closest to the Hantamberge. The 280 km is a very considerable distance, but the region known as Little Bushmanland would have included the so-called Toa Grassveld at about 29°20'S; 18°30'E which might possibly have been attractive to a grazing animal like the white rhinoceros. The name Twa or T'waa (Toa) is used colloquially for several species of the Aristida genus of 'steek grasses. Although Barrow had previously travelled through Namaqualand to the west, he does not seem to have seen rhinoceroses there and to have had enough experience of them in order to be able to make comparisons between the black and the white. If the white really was involved, he must have taken his knowledge from local residents. Otherwise why should he have said white? He does not say he actually saw white rhinos, or any rhinos, in the Hantam; the knowledge that prompted his remark came from a Namaqua Chief who may or may not have been exaggerating. All we know is what Barrow has left in the following paragraph:

"In our descent of the mountain, we were driven to seek shelter from the violence of the rain in a mixed horde of Bastaards and Namaaquas. The chief was of the former description. In his younger days he had been a great lover of the chase... He boasted that, in one excursion, he had killed seven camelopardales and three white rhinoceroses. The latter is not uncommon on the skirts of the colony behind the Hantam mountain, and seems to be a variety only of the African two-horned rhinoceros. It differs from it in color, which is a pale carnation, in size, which is considerably larger, and in the thinness of its skin; all of which may perhaps be the effects of age".

Du Plessis then gives another instance of white rhinos south of the Orange, but unfortunately he omits the author in his bibliography:

"Carmichael Smythe (1805) compiled a map very similar to that of Barrow and had it printed in 1805 by Arrowsmith. On this he states: "The White Rhinoceros plentiful in this part of the Country..." and indicates its presence in the present Bushmanland.

Shortridge (1942) does not clarify the issue with the following statement: "Although the Black Rhinoceros (D. bicornis) was always, presumably, more plentiful than Ceratotherium simum south of the Orange River !HĀBA the Hottentot name, still surviving, refers correctly to the white species, in indication of its former occurrence in Little Namaqualand".

Du Plessis' remarks, quoted earlier, that Wikar could have seen white rhinos south of the Orange River near the present Goodhouse and Kakamas, opposite which, on the northern bank of the river, they were known to occur, is somewhat counterbalanced by Wikar's own account (p.99) of flushing six rhinos near Seekoeisteeck, west of the Augrabies Falls and in the Kenhardt district. He tells of how the animals charged at their adversaries with ill-directed aim and (p.101) of how a rhino "slips past and cannot check his pace, or possibly he does not see your honourable self, for in any case his eyes are very small and, as the Hottentots tell me, his sight is weak; but when he is standing still, his hearing is all the keener by contrast". Wikar then added "This type of rhino does not look in the least like those I have seen drawings of. Its body closely resembles that of an elephant, but its head is almost like a pig's, with two horns, one above the other, loosely fixed in the skin". In a footnote (p.100), Wikar clarifies the picture slightly by saying "The rhinoceroses which I have seen resemble fairly well the description and drawing of them by P. Kolbe". This description is given at the beginning of this chapter on the black rhino at the Cape.

As an observer Wikar was no fool and from the close contact he had with Hottentot hunters throughout his trek along the Orange River, hunters who had come to excel at hunting rhinos as Wikar himself says, he would surely have learnt from them, if he had not discovered it himself, that two types of rhinoceros existed in the area. Hunters living as close to nature as the Hottentots would soon have come to know the habits which distinguish the black from the white rhino, details of their temperament and their eyesight, etc.

Using the ecological background as a measure of the possibility of white rhinoceros incidence, the knowledge (a) that elephants in historical times came as far south as Tiervlei near the Cape Peninsula (Leibbrandt 1896:47), (b) that this was good grassveld which the frontier settlers found to their delight, and (c) that the East India Company established outpost grazing-farms well into the Malmesbury district, might lead to the thought that not only the black rhinoceros occurred there. Indeed, by carrying this inference further this rhino might also have roamed the grassy districts of Caledon, Swellendam and Riversdale. True, rhinoceros records from the latter region are conspicuous by their absence, but what right have we to be more

certain that black rhinoceros were at the Cape than white rhinoceros? The two observations on the black rhino quoted by Du plessis (1969:8), and by Kolben (1731) are hardly sufficient to enable a cast-iron statement to be made. One criterion against the white rhinoceros' chances of being in these southwesterly sectors is the fact that nobody commented on a rhinoceros with a square jaw. Enough rhino records stand as proof of a rhinoceros being there in historical times. Surely comment on two possible types of rhino would have been forthcoming had both been there?

For that part of the country south of the Orange River and lying south of the region known as the Northern Cape, no white rhino references are known. Here, perhaps, the Great Karoo proved too severe for the white rhino, but satisfactory instances of the black rhino are known.

This leaves the East Cape Midlands and the southeast Cape, lying south of the Orange Free State. But here, again, records are weak and, but for the discovery in the Albany Museum of a white rhino jawbone from Cradock, would not have been considered at all. Shortridge (1934:428) includes the statement that "Pringle (1822) mentions two supposed varieties of rhinoceros in the Eastern Cape, but, as already pointed out by Hewitt, it is doubtful if either of these could have been referable to the White Species" (see Hewitt (1,1931:55)). The suggestion that two species of rhino were there must have come from hearsay because Thomas Pringle (1835:145) when discussing rhinos and their scarcity near the Bedford and Adelaide areas which he knew well, states that he had never seen one, but his remark about two species is forgivable when one studies rhinoceros in South Africa and reads of the almost indescribable confusion which existed over their speciation, up to five species being given by some authors, and then based mostly on the type of horn each carried.

The white rhinoceros jaw-bone from 'Grassridge', Cradock, Cape Midlands.

Until May 1974 when Mr. John Greig, then Research Officer of the Cape Department of Nature Conservation, identified as white rhinoceros material a partial mandible with teeth in the Albany Museum collection, all East Cape rhino records south of the Orange River had been presumed to belong to the black rhinoceros. For reassurance Mr. Greig sent the specimen to Mr. I.L. Rautenbach, mammalogist at the Transvaal Museum, Pretoria, who confirmed the diagnosis (Meyer 1974:26). The result is that all historical records on rhinos have to be reassessed, and unless reasonable certainty can be imputed to, say, a black rhinoceros on the grounds of habitat, the record must be relegated to an indeterminate status.

The specimen's label showed it to have been received by the Albany Museum on 26 June 1961 from Mr. Keith Collett of the farm 'Grassridge'. This farm is 45 km north of Cradock in the most northerly part of the Cradock district, and on the common border with the Middelburg and Maraisburg (Hofmeyr) districts. From Mr. Collett, Mr. Greig learnt that the jawbone had been washed out of a bank of the Grootbrakrivier at a point about 5 km below the wall of Grassridge Irrigation Dam. The locus is 31°46'75"S; 25°25'22"E and the altitude 1021 m.a.s.l.

Regrettably, the specimen's provenance as a local relic, and not as a trophy brought in from outside, is surrounded by the doubt that earlier members of the Collett family at 'Grassridge', the Messrs. Dudley and Herbert Collett, are known to have hunted big-game to the north, which means that they might have brought home a skull of a white rhino shot on an expedition. Bearing this doubt firmly in mind, a discussion of the specimen as though it were a genuine local product can do no harm, and might even stimulate others to seek further along rivers in the Midlands after floods, and to send any large bone or skull specimens to museums in the hope that other relics from other rivers will help determine the 'Grassridge' specimen either way.

Because the specimen had been washed out of the river-bank it must have been buried under the silt of a former flood. Indeed it may well have come down from very much higher up the Grootbrakrivier, even into the Steynsburg district where this river rises in the Suurberge, 60 km to the north and just to the northwest of the town of Steynsburg. Even so, the animal from which this fragment came would still have been well within East Cape territory and south of the Orange River.

A white rhino specimen at any place immediately gives rise to the ecological problem of whether suitable grazing could have been available there, just as the browsing habit of the black rhino needs bushy conditions for the animal's food preferences. By today's standards (1974) the Cradock and adjacent districts have little to offer the white rhino; the cover is predominantly karoo veld, Pentzia incana, with grass reduced to its minimum, and seen only in exceptional circumstances such as the wet summer of 1974. Certainly, no grassveld of value to a white rhino and few adequate karroid conditions of use to a black rhino now exist.

The change, and in most cases deterioration, in the veld-cover has come about since man's occupation and his overstocking with sheep. This, in turn, has given rise to the eastward movement of the Karoo into what was once grassveld with Karoo in a subsidiary role. The very name of the farm on which the specimen was found, 'Grassridge' is a pointer to past conditions. The various records given in the chapter on the ecology of Sector 6 on the East Cape Midlands give a picture of both karoo-bush, P. incana and grass in the Cradock/Middelburg area up to the middle of the 19th century. Man had then been there for about forty or fifty years for which time no records of rhinoceroses in that area have been found.

The most convincing evidence of grazing conditions suitable for white rhinos is to be found in the map of assumed veld conditions for about 1400AD given by Dr. J. Acocks (1953, Map. No.1, opp.p.12). He shows a wide belt of sweet grassveld covering the centre of South Africa from the Transvaal Highveld down through the Orange Free State and southwards over most of the Eastern Cape Midlands until it tapers off in a tongue running through the Somerset East district and on to the Fish River Rand south of Bedford. From the eastern flank of the Midlands a spur of this sweetveld strikes northeastwards through Queenstown and the districts to the north and northeast, and into Lesotho. The sweetveld's western border happens to coincide with the western

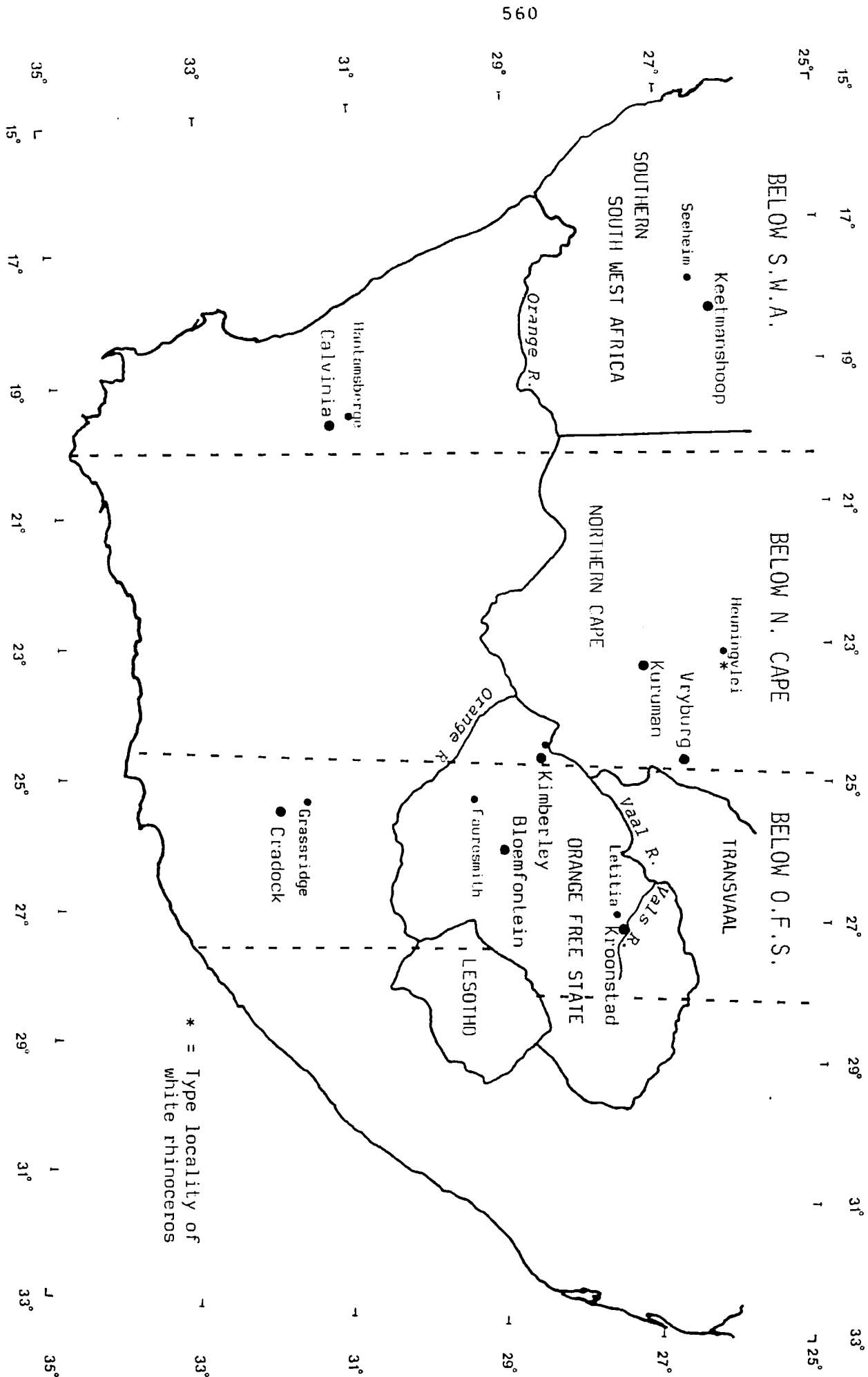
border selected for this work on the Eastern Cape historical distribution of mammals, *viz.* Philipstown, De Aar, Richmond, Murraysburg and the upper part of the Aberdeen district, west of which is the veld type called by Acocks "Karoo (including Karroid Bushveld)" which brings with it conditions suitable for the black rhinoceros, proof of which being the black rhinos seen and shot by Burchell (2,1824:72) at 'Kaabi's Kraal', near De Aar in March 1812. Fortunately his two illustrations (pp. 46 & 79) and his description leave no doubt of the animal being a black rhinoceros.

Summary of the most southerly known white rhinoceros specimen records

The list below shows the most southern white rhinoceros records in descending order of south latitude. Only records of specimens are given, not contentious sight or hearsay records. If the contentious record of Barrow's white rhino at the Hantamberge at Calvinia is true its latitude would be 31°25'S, or only about 21 minutes north of the East Cape's most southerly record at Grassridge, Cradock, still equally contentious even though a specimen is involved.

Date	Latitude south	Locality
1812	26°18'S	Heuningvlei (Chue Spring), Makuba Range, Vryburg district, (130 km north-northwest of Kuruman). = TYPE LOCALITY
1919	26°49'S	Seeheim, Keetmanshoop district, S.W.A. (weathered horns : apparently lost).
1958 or 1961	c. 27°40'S	Farm 'Letitia, Valsrivier, Kroonstad district, Orange Free State.
1895	c. 28°40'S	19 km from Vaal River, Kimberley district, Northern Cape.
1961	31°46'S	'Grassridge' farm, 45 km north of Cradock, Cradock district, Eastern Cape Midlands.

The three regions used in discussing the rhino records in the Cape, etc.



Rock paintings as evidence of white rhinoceros in the East Cape.

As the contentious subject of the use of rock art as distributional evidence keeps cropping up, the various published records are here considered and, if possible, disposed of as aspects of any value.

When Shortridge (1,1934:428) discusses rhinoceros incidence from rock paintings, he leaves the matter in the air. He writes:

"In 'Rock Paintings of South Africa' (D.F. Bleek, 1930) there are reproductions to two Bushman paintings of rhinoceros from the Eastern Cape Province, which may possibly have been intended to represent the White Species:

- (1) From a cave at Rietfontein, Mostert's Hoek, Tarka District. This painting shows a rhinoceros with an elongated head and two slender horns, a giraffe is also shown alongside:
- (2) From rocks on the banks of the White Kei near St. Mark's Mission Station. A painting of a rhinoceros with a single curved anterior horn, but with a head not specially elongated.

There are many other Bushman paintings and engravings of White Rhinoceros in caves north of the Orange River".

Examining Bleek's reproductions of these paintings more closely it is found that:

- (1) Plate 1. This site on the farm 'Rietfontein' is the one mentioned by Barrow (1,1801:307) and which is fully covered in the discussion on giraffe paintings under 'giraffe' in this main list of East Cape mammals. The farm is 23 km northwest of Tarkastad village. The painting is of the right side of a rhino whose colour is strikingly white touched with a slight wash of pink. The two horns look more like two thin upstanding sticks, the rear one longer than the anterior. The neck has a decided hump, a characteristic of the white rhino but the back line is rather straight. The mouth is certainly square in this side view.
- (2) Plate 9. Near St. Mark's Mission just east of the White Kei River in the St. Mark's (or Cofimvaba) district of the Transkei. A right side view of a rhino, in which, as in Plate 1 above, the animal is white. The single horn has a decided backward curve. The neck has a marked hump, and the back-line is straight. The mouth is not pointed. The whole effect is of a hippo with a horn on its nose!

While it is possible that these could be interpreted as white rhinoceroses, the artwork is too indifferent to have any real significance. The fact that the animals are painted white is incidental, because, as will be seen below, paintings of rhinoceroses not far distant from the above are shown in red, black and black-and-white.

Known paintings of rhinoceroses are scarce in the Eastern Cape but Mr. S. Stretton of the farm 'Buffelsfontein' (in litt. 27.11.1976) has one on his farm which lies on the Dordrecht/Molteno boundary at 31°22'S; 26°42'E or only about 70 km northeast of the 'Rietfontein', Mostert's Hoek, Tarkastad, painting mentioned above, and about 100 km northwest of the rhino painting at St. Mark's, also mentioned above. Further archaeological discovery may well reveal more such paintings, and indicate the work of a peripatetic rock-artist.

Following Shortridge's references to more paintings north of the Orange River we find in Bleek's book:

"(3) On farm 'Merino' at the Knoffelspruit which flows into the Orange 'River a few miles above Diepkloof'. This farm, No. 559, is 18 km southeast of Rouxville district, southeast Orange Free State, and only 3 km from the Orange River".

This rhino is jet black, its body lightly speckled with small pale rings. It has a weak horn, a weak hump, and a squared mouth.

"(4) Plate 47. On 'Elandskloof' farm on Vegkopspruit which flows into the Orange River through the Zastron district south-eastern Orange Free State. The farm is 17 km south-east of Zastron village. The rhino is wholly red. It has a weak hump, a single horn and a very pointed mouth.

(5) Plate 63. 'Kareefontein' farm on the Caledon River, Ladybrand district, Orange Free State".

This rhino's body is black with a white belly and chest. It has one horn, a square mouth, no hump, and a straight back.

The square-mouth appears in two of the three above cases, while the one representation of an animal with a pointed mouth is painted wholly red. Colour as an identification factor can be ruled out in all instances, including Nos. 1 and 2. Whether the square-mouth was painted with the intention of representing white rhinoceroses we shall never know. At best it can be said that, from what weak evidence we have of the southern range of the white rhino these paintings come within its distribution, and also that of the black rhino, if less so.