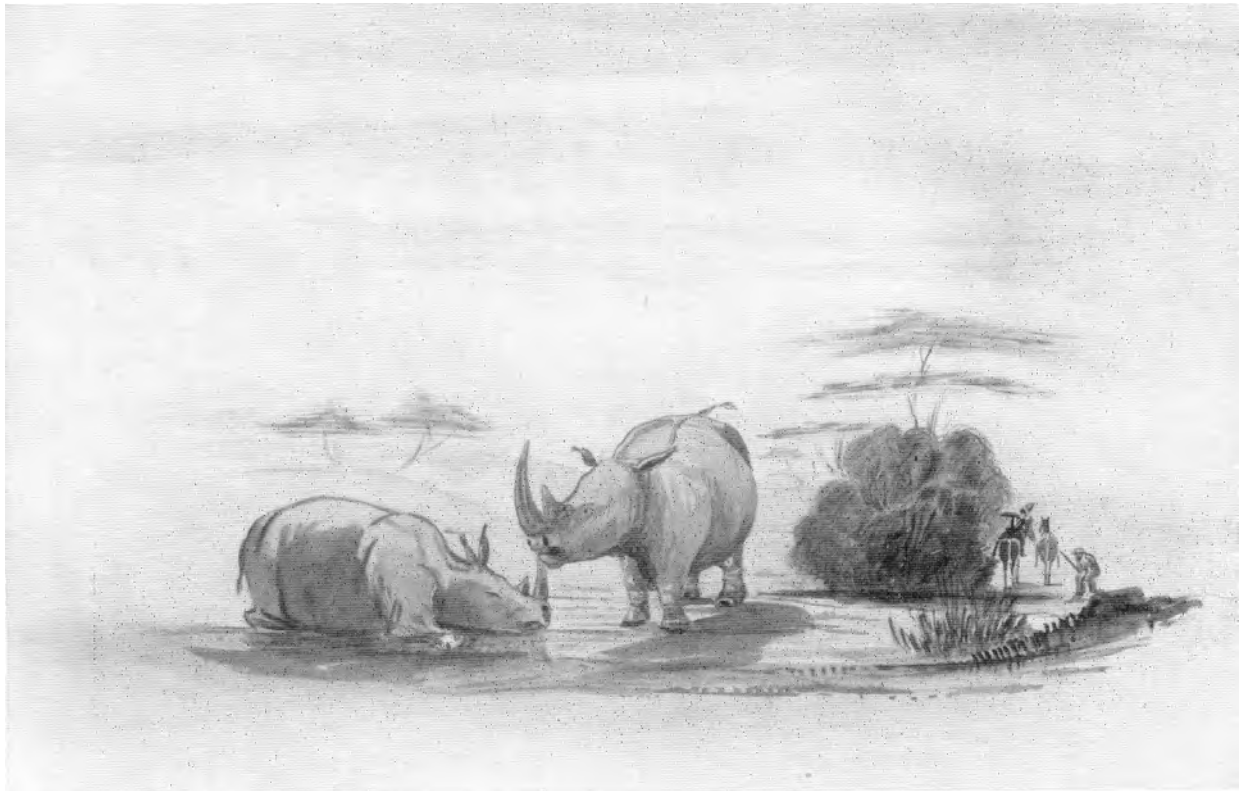


**Figure 98.** Alfred Dolman. Four types of rhinoceros: the Borhili and Keitloa as black rhinoceros, and the Mohoku and Quebaba as white rhinoceros (*In the Footsteps of Livingstone*, 1924, plate facing p. 187).

(Keeling, 1984). He became acquainted with Francis Galton (1822–1911), who had just received information about David Livingstone's "discovery" of Lake Ngami in that year. As he had approached the lake from the southeast, Galton was keen to find a route from the west. Galton and Andersson arrived in Cape Town on 23 June 1850 and took another boat to Walvis

Bay, where they landed on 20 August 1850. There they heard rumours about another great lake called Omanbondé and Galton decided that this should be their first goal.

This first expedition (March to August 1851) undertaken by Galton and Andersson in Namibia, took them northwards into the unexplored regions of Ovamboland. On 26 May 1851 they



**Figure 99.** Alfred Dolman. Rhinoceros stalking (*In the Footsteps of Livingstone*, 1924, plate facing p. 191).

**Table 29.** Records of the rhinoceros relating to the travels of Charles Andersson with Francis Galton (§35).

No.	Date	Locality	Coordinates	Type	Species	Source
E15	1850 Sep 20	Usab Gorge, Swakop R	22°43'S 15°01'E	T	rhino	Andersson, 1856: 35
E12	1850 Sep	Annis Fountain	22°49'S 15°39'E	T	rhino	Andersson, 1856: 44
E12	1850 Sep	<i>idem</i>	<i>idem</i>	K	rhino	Andersson, 1856: 59
E15	1850 Nov 15	Scheppmansdorf	23°08'S 14°40'E	W	rhino	Andersson, 1856: 76–77
E16	1851 Apr	Omanbondé Lake	20°02'S 17°57'E	T	rhino	Andersson, 1856: 161
E17	1851 July 5	Okamabuti	19°30'S 18°08'E	W	rhino	Wallis, 1936: 101
E13	1851 Sep	Elephant Fontein	22°26'S 19°00'E	K	rhino	Wallis, 1936: 107
F21	1851 Oct	Tunobis	21°57'S 20°56'E	K	bicornis	Andersson, 1856: 239; Galton, 1853: 267,269; Wallis, 1936: 108
				K	simum	
E5	1852 Apr	Aamhoup, Hountop R.	25°20'S 16°50'E	K	rhino	Andersson, 1856: 311
E18	1853 May 23	Twass	22°36'S 19°24'E	W	simum	Wallis, 1936: 137
F23	1853 May	Elephant Kloof	22°12'S 20°15'E	W	bicornis	Wallis, 1936: 138–139
F21	1853 June	Tunobis	21°57'S 20°56'E	T	rhino	Andersson, 1856: 373
F21	1853 June 16	Otjiombinde River	<i>idem</i>	S	rhino	Andersson, 1856: 381
F25	1853 June 18	Ghanze	21°46'S 21°45'E	K	rhino	Andersson, 1856: 385; Wallis, 1936: 141
F17	1853 June	Abeghan, Palmietpan	21°11'S 22°15'E	K	rhino	Andersson, 1856: 407; Wallis, 1936: 142
F17	1853 June	Kobis	21°06'S 22°18'E	K	simum	Andersson, 1856: 409
F17	1853 June	<i>idem</i>	<i>idem</i>	K	rhino	Andersson, 1856: 414
				K	simum	Andersson, 1856: 415
F17	1853 July 3	<i>idem</i>	<i>idem</i>	K	simum	Andersson, 1856: 423;
				K	bicornis	Anonymous, 1946; Wallis, 1936: 142, 146
F24	1853 July	Lake Ngami	20°30'S 22°40'E	S	rhino	Andersson, 1856: 448; Wallis, 1936: 144
F24	1853 July	Teoge River	20°23'S 22°24'E	S	rhino	Andersson, 1856: 480
F24	1853 Sep	Lake Ngami	20°30'S 22°40'E	K	simum	Andersson, 1856: 533; Wallis, 1936: 155
E16	1859 Sep 17	Omanbondé Lake	20°02'S 16°57'E	K	bicornis	Andersson, 1861: 117–121; Wallis, 1936: 218

reached Lake Otjikoto, but instead of a large expanse of water, they found a dry valley. Their disappointment was slightly mitigated by the presence of wildlife in large numbers, although rhinoceros was rarely encountered. At Omandondé the party saw tracks of them, but the animals did not show themselves. As Galton and Andersson spent a considerable time travelling in the northern region, we must assume that the species was relatively uncommon in this area.

Soon after their return to Gobabis, Galton and Andersson set out again in October 1851, this time searching for a new western route to Lake Ngami. They proceeded as far as Tunobis or Rietfontein, where they hunted elephants and both black and white rhinoceroses. Wildlife was plentiful and Andersson proudly stated that in the course of just a few days their party shot “upwards of thirty rhinoceroses. One night indeed, when quite alone, I killed in the space of five hours (independently of other game) no less than eight of those beasts, amongst which were three distinct species. And it is my belief that if I had persevered I might have destroyed double that number. But I never took delight in useless slaughter” (Andersson, 1856: 239). As the San Bushmen discouraged them from attempting to reach the lake at that time of the year, they travelled back to Walvis Bay and in January 1852 Galton returned to England. While Galton was sailing back home, Andersson travelled overland to Cape Town. The journey was uneventful, except that one day in April 1852, encamped on the Hountop River, he shot a rhinoceros. Andersson thought that it was probably a

straggler, since rhinoceroses were supposed to be rare south of the Kuiseb River (Andersson, 1856: 311).

Both Galton and Andersson wrote about their experiences. Although Galton (1853: 270) mentions that rhinoceroses were shot, his account does not provide much detail and there are no illustrations. Andersson's work, *Lake Ngami*, is far more informative and detailed, but only appeared in 1856, after Andersson had returned from his second attempt to reach Lake Ngami. Further details are contained in his private papers, which were sent to Sweden after his death and have since been returned to his descendants in South Africa (Lau in Andersson, 1989: vii). These documents were used by Wallis (1936) to produce his biography of the explorer, but only as extracts.

According to Andersson (1856: 251), the natural history specimens collected during the journey were taken by Galton to England. It is curious, however, that no rhinoceros specimens have been attributed to Andersson. His collections were dispersed among museums in Cape Town, Stockholm, Göteborg and Lund, while the main part went to England where it was in private possession for a long time before being transferred to the Nottingham Museum (Brinck, 1955: 42). Presently no specimens collected by Andersson, and certainly none of a rhinoceros, are recognised in the Nottingham Museums (M.P. Cooper, Registrar, *in litt.* 2005). It has also been established that there are no bird specimens dated from or relating to Andersson's early travels, all having been obtained in later years (Dean *et al.*, 2006: 162). In December 1858, Andersson wrote to John Andrew



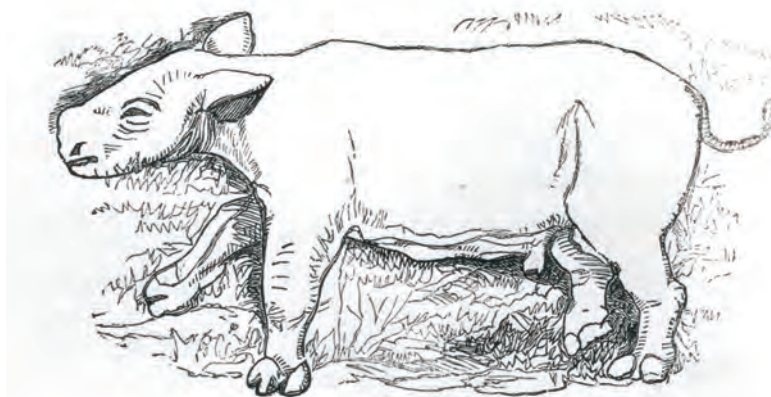


**Figure 100.** Charles Andersson. Heads of four species of rhinoceros (*Lake Ngami*, 1856, p. 386).

instructing that, in the event of his (Andersson's) death, all the preserved bird skins should be forwarded to John Henry Gurney (1819–1890), Curator of the Norwich Museum, who edited Andersson's *Birds of Damaraland* of 1872 (Andersson, 1989: 190). Apparently the Norwich Museum had only four birds collected by Andersson, and these were transferred to the Natural History Museum in London in 1953, i.e., *Scops capensis*, *Macheiramphus alcinus* (= *anderssoni*), *Falco amurensis* and *Athene perlata* (A.G. Irwin, *in litt.* December 2006).

After spending a few months at the Cape, Andersson decided to make a second attempt to reach Lake Ngami, together with George Bonfield (1836–1861). He was away for a year, from 23 January 1853 until January 1854 and was successful in his objective. When he reached Tunobis, where game had been so plentiful just a year and a half earlier, he found far fewer animals

and saw only tracks of the rhinoceros. But at Kobis in western Botswana in June 1853, Andersson was attacked by a black rhinoceros: "I took up a stone and hurled it at her with all my force; when, snorting horribly, erecting her tail, keeping her head close to the ground, and raising clouds of dust by her feet, she rushed at me with fearful fury. I had only just time to level my rifle and fire before she was upon me; and the next instant, whilst instinctively turning round for the purpose of retreating, she laid me prostrate" (Andersson, 1856: 424). There was another charge: the rhinoceros turned around, and "she struck me down a second time, and with her horn ripped up my right thigh (though not very deeply) from near the knee to the hip: with her fore feet, moreover, she hit me a terrific blow on the left shoulder near the back of the neck. My ribs bent under the enormous weight and pressure, and for a moment, I must, as



FETUS OF RHINOCEROS KEITLOA.

**Figure 101.** Charles Andersson. Foetus of black rhinoceros (*Lake Ngami*, 1856, p. 391).





**Figure 102.** Charles Andersson. The approach of elephants (*Lake Ngami*, 1856, p. 414).

I believe, have lost consciousness – I have at least very indistinct notions of what afterwards took place.” Fortunately, the rhinoceros turned and went away.

Rhinoceros became numerous again as Andersson approached Lake Ngami and he claims to have shot about sixty rhinoceroses (Andersson, 1856: 401). It is not known whether he brought any body parts back with him. The only known relic from this journey is a horn cup mounted with a silver rim on the base, with an inscription referring to his stay at Kobis: “Made from the horn of a rhinoceros killed by C.J. Andersson on July 15th, 1853” (preserved in MuseumAfrica, Johannesburg, see Anonymous, 1946). Andersson returned to Sweden in

1854 and remained there until 1857. During this period he wrote his book, *Lake Ngami*, which was published in London in 1856. It contained five plates of the rhinoceros, engraved by Joseph Wolf (1820–1899) or Thomas Dalziel (1823–1906), showing the horns of *Rhinoceros oswellii* copied from Gray (1853), the heads of four species of rhinoceroses, a foetus of *Rhinoceros keitloa*, as well as two African hunting scenes (Andersson, 1856: 338, 386, 391, 414, 424; Figures 100–103). One scene, called “The approach of elephants” (Figure 102) of an event at Kobis in June 1853, was copied in Livingstone (1863: 231). It appears then that Renshaw (1904) was not correct when he attributed the horns figured by Gray to Andersson.



**Figure 103.** Charles Andersson. Desperate situation (*Lake Ngami*, 1856, p. 424).





**Figure 104.** Charles Andersson. Disappointed lions (*The Okavango River*, 1861, p. 52).

On his return to Africa in 1857, Andersson tried to set up a trading business and continued travelling to remote parts of Namibia. In 1859 he undertook a third major expedition, to the Okavango River in northeastern Namibia. Andersson's 1861 book about his adventures is less informative than his previous work, but it is likely that he encountered rhinoceroses only rarely in these regions. The book contains a plate of a black rhinoceros being confronted by lions (Andersson, 1861: 52; Figure 104). Andersson died in July 1867 while exploring Ovamboland near the border with Angola.

As was customary at that time, Andersson (1856: 386) differentiated four species of rhinoceros using their Tswana and scientific names and they are illustrated in one of the plates (Figure 100). Two of them were "black": the *Borele* or *Rhinoceros bicornis* and the *Keitloa* or *Rhinoceros Keitloa*; and the other two were "white": the *Mohooohoo* or *Rhinoceros simus* and the *Kobaaba* or *Rhinoceros Oswellii* (Andersson, 1856: 387). The *Keitloa* or two-horned black rhinoceros differed from the *Borele* or common black rhinoceros in being somewhat larger, with a longer neck; in having the horns of nearly equal length, with a lesser number of wrinkles about the head; and being of a more wild and morose disposition. The two species of white rhinoceros could be distinguished by their horns. Those of the *Mohooohoo* were shorter and curved backward, while those of the *Kobaaba* not unfrequently exceeded four feet, and pointed slightly forward. Andersson had already seen three of the four species when he was hunting at Tunobis with Galton in 1851,

but it is not clear whether he actually ever encountered the *Kobaaba* type of the white rhinoceros, for his only comment was that it was less common than the others and found only in the "far interior."

### 36. Leyland

#### *Botswana, 1850–1851. Table 30*

John Leyland went to Lake Ngami in 1850–1851 in the company of Samuel Howard Edwards (b. 1827), reaching its shores on 13 July 1851. Many years after his return, Leyland (1866) recorded his experiences in *Adventures in the Far Interior of South Africa*. Although he is presented as a "naturalist" on the title page of the book, his observations of the animals he encountered during the journey are more akin to those of a sport hunter. Leyland met both black and white rhinoceroses on his journey, and he recorded that they were particularly numerous near the Zouga (Botletle) River in the vicinity of Lake Ngami.

### 37. Chapman

#### *Botswana, Namibia, Zimbabwe, 1851–1863. Tables 31–33, Figures 105–108*

James Chapman (1831–1872) was one of the greatest South African pioneers of his period (Johnston, 1918; Le Roux, 1939: 123; Gunn & Codd, 1981: 115). Although he could not claim any

**Table 30.** Records of the rhinoceros relating to the travels of John Leyland (§36).

No.	Date	Locality	Coordinates	Type	Species	Source
F1	1850 Nov	near Kolobeng	25°00'S 25°35'E	S	bicornis	Leyland, 1866: 103
F6	1851 May 27	Mashue	23°08'S 26°03'E	T	rhino	Leyland, 1866: 144
F13	1851 June	Mchokotsa, on Zouga River	19°40'S 23°25'E	S	bicornis	Leyland, 1866: 151
				S	simum	
F13	1851 June 26	Zouga River	<i>idem</i>	S	rhino	Leyland, 1866: 163
F13	1851 July 6	<i>idem</i>	<i>idem</i>	S	rhino	Leyland, 1866: 181

**Table 31.** Records of the rhinoceros relating to the travels of James Chapman (§37).

No.	Date	Locality	Coordinates	Type	Species	Source
<b>Travels in the Transvaal and Botswana, 1851 to 1853</b>						
F15	1851	Marico	24°13'S 26°47'E	S	rhino	Chapman, 1971: 29
F4	1852 May 15	Notwani River	23°47'S 26°54'E	T	rhino	Chapman, 1971: 40
F4	1852 May 18	<i>idem</i>	<i>idem</i>	S	simum	Chapman, 1971: 42
F4	1852 May 21	<i>idem</i>	<i>idem</i>	K S	bicornis simum	Chapman, 1971: 43, 44, 45
F4	1852 May 24	Notwani – Limpopo	23°45'S 26°58'E	K	rhino	Chapman, 1971: 45
F18	1852 May 28	Riet Vley	23°23'S 26°45'E	S	rhino	Chapman, 1971: 47
F19	1852 July 1	Lokhotlane	21°25'S 25°36'E	K	rhino	Chapman, 1971: 56
F19	1852 July 7	<i>idem</i>	<i>idem</i>	T	bicornis	Chapman, 1971: 59
F31	1852 July 8	Botletlie River	21°00'S 25°09'E	K	bicornis	Chapman, 1971: 59; 1868, I: 61
F20	1852 Aug 7	Makalakas	20°17'S 25°17'E	K	simum	Chapman, 1971: 69
F5	1852 Oct 15	Lopepe	23°19'S 25°48'E	K	rhino	Chapman, 1971: 80
F22	1853 June 21	Shogotsa	21°07'S 25°20'E	T	rhino	Chapman, 1971: 102
F20	1853 June 29	Thageara	20°03'S 25°18'E	K	rhino	Chapman, 1971: 102
F20	1853 July 2	Thamkerrie	<i>idem</i>	K	bicornis	Chapman, 1971: 102
F20	1853 July 4	<i>idem</i>	<i>idem</i>	K K	bicornis simum	Chapman, 1971: 104
F20	1853 July 8	<i>idem</i>	<i>idem</i>	T	rhino	Chapman, 1971: 105
F22	1853 Nov 20	Botletle-Thamalakane	20°07'S 23°32'E	K	simum	Chapman, 1971: 126
<b>To Lake Ngami with S.H. Edwards and R. Moffat, 1854</b>						
F29	1854 Aug 24	Shua River	20°26'S 26°26'E	H	rhino	Chapman, 1971: 138
F28	1854 Sep 9	Mamtsoe	20°10'S 25°50'E	K	simum	Chapman, 1971: 141
F29	1854 Sep 11	Shua River	20°26'S 26°26'E	K	bicornis	Chapman, 1971: 141, 142
F29	1854 Sep 16	<i>idem</i>	<i>idem</i>	K	rhino	Chapman, 1971: 144
F29	1854 Sep 24	Sibanine River	<i>idem</i>	S	bicornis	Oil in MuseumAfrica 10367 by Baines
F29	1854 Sep 26	Simwani River	20°25'S 26°15'E	K	rhino	Chapman, 1971: 147
F27	1854 Sep 29	Qualeba	20°52'S 26°14'E	S	bicornis	Chapman, 1971: 147
F27	1854 Sep 29	Meea River	<i>idem</i>	S	rhino	Chapman, 1971: 147
<b>To Shinamba Hills and Lake Ngami, 1854–1855</b>						
F31	1855 May	Khama's Drift	20°17'S 24°00'E	S	rhino	Chapman, 1971: 162
F24	1855 June	Lake Ngami	20°28'S 22°51'E	H	bicornis	Chapman, 1971: 163
F23	1855 Sep 14	Elephant's Kloof	22°12'S 20°15'E	S	rhino	Chapman, 1971: 166
<b>To Lake Ngami, 1859–1860</b>						
F25	1859 Sep 10	Ghanze	21°42'S 21°40'E	T	rhino	Chapman, 1971: 204
F17	1859 Sep 13	Kooby	21°06'S 22°18'E	K	rhino	Chapman, 1971: 204
<b>To Lake Ngami and Zambezi River, with Baines, 1860–1863</b>						
E15	1860 Dec	Swagoep River	22°54'S 14°54'E	H	rhino	Chapman, 1971: 215
E19	1861 March	Otjimbengwe	22°21'S 16°08'E	W	bicornis	Chapman, 1971: 223
F17	1861 Nov 1	Kooby	21°06'S 22°18'E	T	rhino	Chapman, 1971, II: 13
F24	1862 Feb 22	Karrop	20°31'S 22°47'E	S	rhino	Chapman, 1971, II: 28,29
F24	1862 Mar 12	Quarantaine Vley	<i>idem</i>	K	simum	Chapman, 1971, II: 30
F22	1862 May 4	Botletlie River	20°12'S 23°47'E	H	rhino	Chapman, 1971, II: 39
F31	1862 May 8	Khama's Ford	20°17'S 24°00'E	S	bicornis	Chapman, 1971, II: 40
F31	1862 May 12	Botletlie River	20°12'S 24°10'E	K	bicornis	Chapman, 1971, II: 41
F20	1862 May 30	Thanyou	20°09'S 25°24'E	S	simum	Chapman, 1971, II: 44
F20	1862 May 31	<i>idem</i>	<i>idem</i>	W	rhino	Chapman, 1971, II: 45
F20	1862 June 1	<i>idem</i>	<i>idem</i>	K	simum	Chapman, 1971, II: 45; 1868, II: 68–71
F20	1862 June 7	<i>idem</i>	<i>idem</i>	K	bicornis	Chapman, 1971, II: 48
F20	1862 June 10	Gnasani Spring	19°54'S 25°31'E	K	rhino	Chapman, 1971, II: 49
F20	1862 June 12	Tsagooby	19°51'S 25°30'E	K	rhino	Chapman, 1971, II: 50
F35	1862 June 16	Metsebotluko	19°43'S 25°46'E	T	rhino	Chapman, 1971, II: 50
F35	1862 June 24	Gumbakie	19°27'S 25°57'E	S	rhino	Chapman, 1971, II: 52

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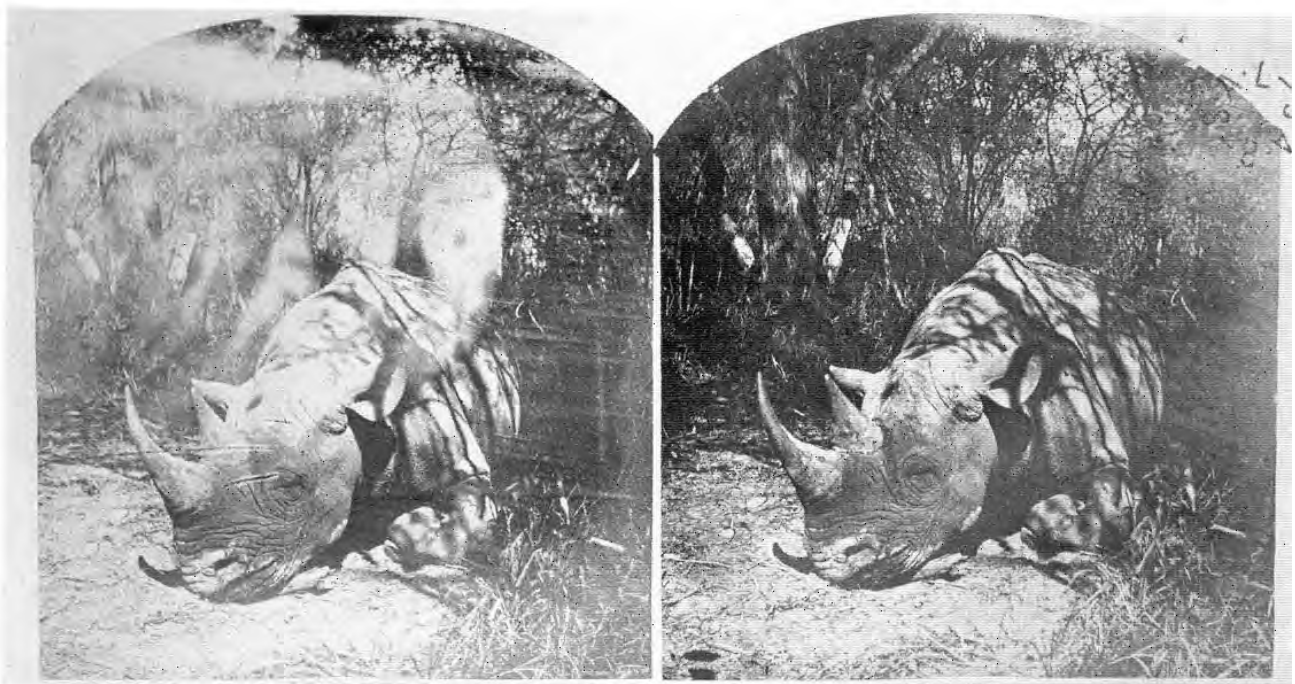
**Table 31** (continued) – Chapman

No.	Date	Locality	Coordinates	Type	Species	Source
F35	1862 June 27	Tamasetchi	19°13'S 26°03'E	S	rhino	Chapman, 1971, II: 54
F35	1862 June 30	<i>idem</i>	<i>idem</i>	W	rhino	Chapman, 1971, II: 54
G11	1862 July 23	Victoria Falls	17°59'S 25°44'E	K	rhino	Chapman, 1971, II: 61
G7	1862 Aug 9	Masue River	18°05'S 25°50'E	W	bicornis	Chapman, 1971, II: 62
G7	1862 Aug 19	<i>idem</i>	<i>idem</i>	K	simum	Chapman, 1971, II: 70
G7	1862 Aug 26	Bolungu River	18°11'S 25°44'E	W	bicornis	Chapman, 1971, II: 71
G16	1862 Aug 28	Pandamatenga	18°16'S 25°39'E	K	rhino	Chapman, 1971, II: 71
G7	1862 Sep 3	Booyana River	18°18'S 25°42'E	W	rhino	Chapman, 1971, II: 72
G7	1862 Oct 1	<i>idem</i>	<i>idem</i>	K	bicornis	Chapman, 1971, II: 77
G7	1862 Oct 2	<i>idem</i>	<i>idem</i>	W	rhino	Chapman, 1971, II: 78
G7	1862 Oct 13	Matetsie River	18°18'S 25°51'E	K	bicornis	Chapman, 1971, II: 80
G12	1862 Oct 31	Gwai River	16°59'S 26°53'E	K	rhino	Chapman, 1971, II: 97
G9	1862 Nov 7	Daka River	18°10'S 26°21'E	K	rhino	Chapman, 1971, II: 104
G9	1862 Nov 10	<i>idem</i>	<i>idem</i>	K	rhino	Chapman, 1971, II: 105
G9	1862 Nov 20	<i>idem</i>	<i>idem</i>	W	rhino	Chapman, 1971, II: 108
G7	1862 Dec 1	Daka River Camp	18°17'S 25°57'E	K	rhino	Chapman, 1971, II: 118
G9	1862 Dec 15	Daka River	<i>idem</i>	K	rhino	Chapman, 1971, II: 119
F20	1863 Apr 7	Thanyou	20°09'S 25°24'E	S	rhino	Chapman, 1971, II: 159
F31	1863 Apr 19	Botletle River	20°11'S 24°23'E	S	rhino	Chapman, 1971, II: 162

great discoveries, he explored remote regions such as around Lake Ngami, the Victoria Falls and the Zambezi River very soon after they became known to whites. Born in Cape Town in 1831, Chapman lived all his life in southern Africa, hunting and trading for a living. He was in the regions along the lower Limpopo River from 1851 to 1853 and he explored the route to Lake Ngami in 1854 in the company of Samuel Howard Edwards and Robert Moffat (§10). He visited the “mysterious” lake again in 1859, and from 1860 to 1863 together with Thomas Baines (§38) he attempted to cross the breadth of the African continent. Although he published some of his adventures in the *Travels in the Interior of South Africa* in 1868, the book does

not do justice either to his perseverance or to the wealth of his observations. More recently, his journals have been edited for the first time and they do reveal the extent of his travels and experiences (Chapman, 1971). Chapman was a naturalist, not by education, but decidedly by inclination. His diary is full of references to rhinoceros, both black and white, which he encountered during his travels. His remarks may be cursory, but they remain a record of how ubiquitous the rhinoceros was in his day. Chapman (1868, vol. 2: 69, 171) included two plates of a white rhinoceros, both after drawings done by Baines (Figures 107–108).

Chapman and Baines first met in Potchefstroom in 1850,



**Figure 105.** James Chapman. “The sleep of death.” Photograph of rhinoceros on the Botletle River, 13 May 1862 (National Library of South Africa, P.H.A. - INIL 11060, no. 73).

**Table 32.** Chapman's measurements of a white rhinoceros female, killed on 12 March 1862 at Quarantine Vley near Lake Ngami, Botswana (Chapman's diary, MSB 223 (Sir George Grey Auckland Collection), National Library of South Africa).

Measurement	Imperial	Metric
From point of upper lip to between ears	3 ft 11 in	119.4 cm
From ears to insertion of tail	9 ft 3 in	281.9 cm
Length of tail	2 ft 2 in	66.0 cm
Height at withers	6 ft 5 in	195.6 cm
Height at hump	6 ft 9½ in	207.0 cm
Hump tip to toe	6 ft 4½ in	194.3 cm
Length of ears	1 ft 1½ in	34.3 cm
Length of long horn	3[?] ft 11½ in	120.7 cm
Length of short horn	7 in	17.8 cm
Circumference of body	12 ft 7½ in	384.8 cm
Circumference of head	5 ft 3½ in	161.3 cm
Circumference of forefoot	3 ft 0 in	91.4 cm
Circumference of hind foot	2 ft 9½ in	85.1 cm

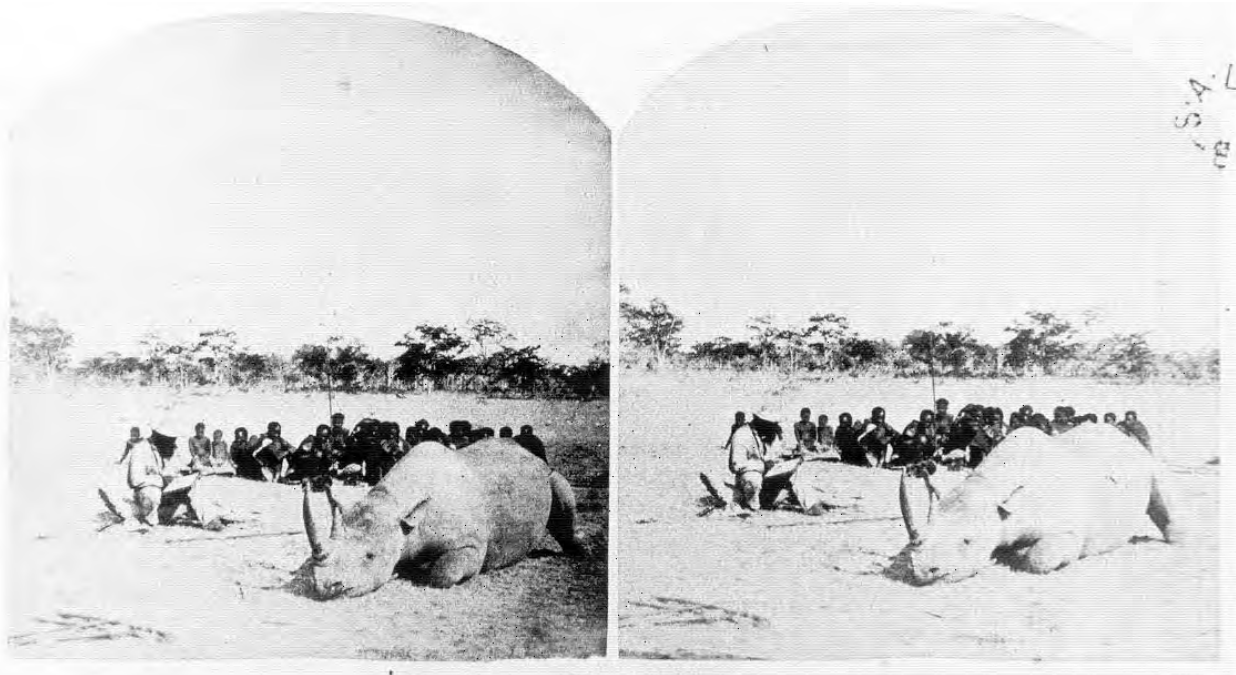
when they were both trying to establish themselves as traders. When Baines returned to Cape Town in 1860 after being dismissed from Livingstone's expedition, Chapman asked him to accompany him on a journey across Africa in order to explore the possibilities for trade in the less accessible regions. Chapman had been trading and hunting in the southern African interior for several years, and by 1860 he had established a cattle trading station at Otjimbingwe in Namibia. From December 1860 to early August 1863, the two men travelled from Walvis Bay, past Lake Ngami to the Victoria Falls, but they were unable to accomplish their goal and had to turn back soon after reaching the Zambezi River. For that reason, Chapman's biographer Tabler (in Chapman, 1971, vol. 1: ix) called the journey a "glorious failure." Nonetheless, the resulting maps and paintings by Baines and the written observations and photographs by Chapman are an invaluable record for historical researchers.

**Table 33.** Chapman's measurements of a black "keitloa" rhinoceros, killed on 7 June 1862 at Thanyou in N.E. Botswana (Chapman's diary, MSB 223 (Sir George Grey Auckland Collection), National Library of South Africa).

Measurement	Imperial	Metric
Extreme length including tail	12 ft 6 in	381.0 cm
Height at withers	5 ft 8 in	172.7 cm
Height at rump	5 ft 6 in	167.6 cm
Actual height at withers	4 ft 9 in	144.8 cm
Actual height at rump	4 ft 5 in	134.6 cm
Circumference of forefoot	2 ft 4½ in	72.4 cm
Circumference of hind foot	2 ft 2 in	66.0 cm
Length of tail, without hair	2 ft 2 in	66.0 cm
Length of tail, with hair	2 ft 6 in	76.2 cm
Point of lip to back of head	3 ft 0 in	91.4 cm
Circumference of pastern joint front leg	1 ft 5 in	43.2 cm
Circumference of pastern joint hind leg	1 ft 4 in	40.6 cm
Length of long horn	1 ft 5 in	43.2 cm
Length of short horn	0 ft 7½ in	19.1 cm
Circumference of front horn at base	1 ft 10 in	55.9 cm
Length of mouth from one corner round the front to the other	1 ft 6 in	45.7 cm

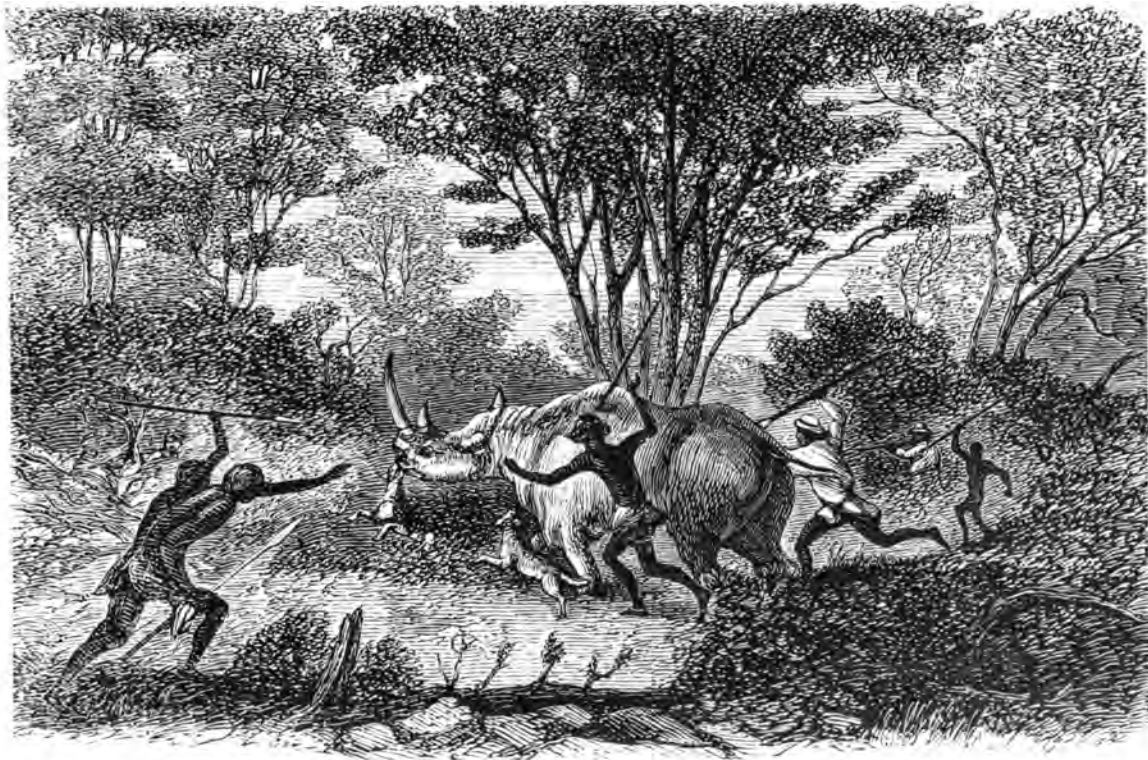
Eyes light brown. Colour of hide blackish.

Chapman carried a stereoscopic camera for the first time on his journey to Lake Ngami in 1859 and 1860 (Tabler in Chapman, 1971, vol. 2: xii). The equipment used a process invented by Frederick Scott Archer (1813–1857) in 1851 and although cumbersome and messy, it was the normal method of photography until about 1875. Chapman failed to get any lasting exposures during his first trip, but he persevered, and when he travelled to the Zambezi River in the 1860s, he obtained over 200 "tolerable" photographs. Some of these are preserved in MuseumAfrica (Tabler in Chapman, 1971), others in the National Library of South Africa (Bester, 1999). Chapman mentioned in his journal on three occasions that he obtained a



**Figure 106.** James Chapman. Black rhinoceros at Mutu Mabe, including Thomas Baines sketching (National Library of South Africa, P.H.A. - INIL 11060, no. 80).

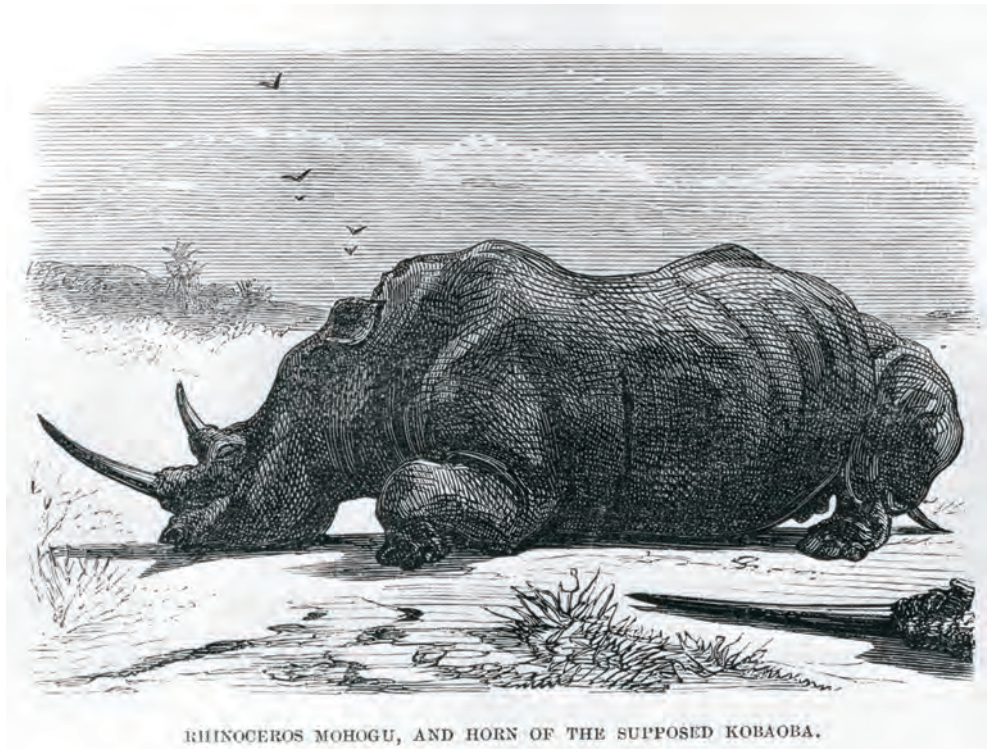




**Figure 107.** James Chapman. White rhinoceros (*Travels in the Interior of South Africa*, volume 2, 1868, p. 69).

photograph of a rhinoceros, on 13 May, 2 June and 13 June 1862. Two of these exposures are still known today (Figures 105–106), a rhinoceros on the Botletle River taken on 13 May 1862 and a black rhinoceros at Mutu Mabe showing Baines working on a sketch of the animal (Carruthers & Arnold, 1995: 12; Rookmaaker, 2006). These are the earliest known photographs of a rhinoceros, an achievement on Chapman's part considering the bulk of the apparatus and the difficult condi-

tions in remote Africa. One can give some perspective to Chapman's achievement by the reminder that the first photographs of animals in the London Zoo date from 1852, but there is none of a rhinoceros. In his illustrated history of animal keeping at London Zoo, Edwards (1996) includes numerous old photos of the various rhinoceroses exhibited there, the earliest of which was by Frank Haes (1832–1916) and dates from 1864. There also is an early photograph of a performing Indian



**Figure 108.** James Chapman, A rhinoceros 'Mohogu' and horn of a Kobaoba (*Travels in the Interior of South Africa*, volume 2, 1868, p. 171).



rhinoceros (*Rhinoceros unicornis*) in a circus in the United States. This creature was first identified as the animal kept by Dan Rice (1823–1901) in 1855 to 1861 (Reynolds, 1967), but it is now thought that the photograph shows a rhinoceros exhibited by John V. “Pogey” O’Brien (1836–1889) and was taken in the 1870s (Reynolds in Rookmaaker, 1998: 109).

Rhinoceroses were met along the entire length of the trans-African route taken by Chapman and Baines. Several were seen in Namibia, even close to the coast, all belonging to the black species. A white rhinoceros was first shot in the vicinity of Lake Ngami. Chapman and his companions killed the animals primarily for food. While Chapman’s notes in his diary are often extremely brief, they provide valuable background for the sketches and watercolours which Baines made whenever he had the opportunity. Chapman twice recorded the measurement of a rhinoceros, one of them a white rhinoceros killed near Lake Ngami, the other a black rhinoceros shot at Thanyou, and this shows that he took pains to examine the specimens carefully (Tables 32–33). Many rhinoceroses were seen in central and eastern Botswana. On 12 May 1862, near the Botletle River, Chapman was lying at a waterhole at night and wounded a black rhinoceros. The dogs ran after the calf and were actually able to catch it while it was still alive (Chapman, 1971, vol. 2: 41). A Damara man in Chapman’s retinue did not wait for orders and killed the young animal. The next night the mother of the dead calf came again to drink at the waterhole and was killed by Chapman’s gun. Baines made sketches of the mother and the calf on the following day, while Chapman photographed the head of the adult female.

Chapman and Baines spent some days at Thanyou (or Kangyon) in eastern Botswana in June 1862. Rhinoceroses, apparently mostly white, were plentiful. One evening, Chapman was sitting in his hide near the waterhole and saw eight rhinoceroses together in one group. He wounded several and killed two. The next morning he and Baines examined the dead

animals and found that the shape of the horns of the two animals were different. In one, both the anterior and posterior horns curved backward, as in the *mahoohoo* type of white rhinoceros. In the other animal, the anterior horn was much longer and inclined forward, while the second horn was shorter, an example of the *kobaaba* type and the only one Baines ever saw. After Chapman and Baines had examined and discussed these two female white rhinoceroses, Baines prepared to sketch them, while Chapman set up his camera to photograph them (this picture has not been located). Five watercolour sketches which Baines made in the field at this time are known (Baines Collection in the Royal Geographical Society). Chapman noted in his diary that he did not believe that these types represented different species: “I never found a person, even a Bechuana or Bushman, who could truly say a young or middle-sized *kobaba* is distinguishable from a *mohuga*” (Chapman, 1971, vol. 2: 45). Later, in 1862, he reviewed the existence of four species of rhinoceros and suggested that there might be a fifth distinct variety or hybrid, which ate both grass and bush. Chapman said that he shot one of those on the Botletle River in 1854, while others were killed by Frederick Joseph Green (1829–1876), John Kenny and Jan Snyman. We may never know what he meant by this, as that is the last we hear of it. And what are we to make of the “famous” long-tailed rhinoceros supposedly found on the Shua River in eastern Botswana (Chapman, 1971, vol. 1: 138)? Famous, possibly, to the hunting fraternity, but unknown to those relying on written records from the past.

### 38. Baines

*Eastern Cape, Botswana, Zimbabwe, 1849–1870.*

Tables 34–36, Figures 109–139

John Thomas Baines (1820–1875) arrived at the Cape in 1842 hoping to find some kind of employment (Wallis, 1941, 1976;



**Figure 109.** Thomas Baines. Oil painting of prehistoric petroglyphs of animals at Baviaans River (MuseumAfrica, AM 1215).



**Table 34.** Records of the rhinoceros relating to the travels of Thomas Baines (§38).

No.	Date	Locality	Coordinates	Type	Species	Source
<b>Eastern Cape</b>						
A6	1849 Mar 12	Baviaans River	32°36'S 25°53'E	P	rhino	AM 1215; Baines, 1961, I: 116
A13	1850 Mar 5	Kliphuis	30°30'S 26°40'E	P	bicornis	Baines, 1964, II: 29
<b>Travel with James Chapman</b>						
F34	1861 Sep 25	Leetjee Pierie	21°25'S 22°07'E	S	rhino	Baines, 1864: 153
F24	1862 Mar 11	Seeakama Vlei	20°40'S 22°35'E	K	simum	RGS – X229/021969, 021970 (foetus); Baines, 1864: 395
F31	1862 May 13	Moromohootoo	20°12'S 24°10'E	K	bicornis	RGS – X229/021987
F31	1862 May 14	<i>idem</i>	<i>idem</i>	K	bicornis	RGS – X229/021988
F20	1862 June 1	Kangyon	20°09'S 25°24'E	K	simum	RGS – X229/021996 (foetus); 021997; 021998; 021909; 021984; Oil sold by Christie's 2000; Baines, 1866, 1877: 60; Chapman, 1868: 171
F20	1862 June 6	<i>idem</i>	<i>idem</i>	K	bicornis	RGS – X229/021999, 022000; AM 50/1250
F20	1862 June 11	Gnasani Spring	19°54'S 25°31'E	K	simum	Oil in AM, B283; Chapman, 1868, II: 69; Baines, 1877: 28
F20	1862 June 13	Mutomabye	19°51'S 25°30'E	K	bicornis	Photo in South African Library
G9	1862 July 14	Daka	18°10'S 26°21'E	S	rhino	RGS –X229/022009
G10	1862 Sep 12	North of Matetsie R.	18°18'S 25°51'E	S	rhino	RGS –X229/022021
G9	1862 Dec 27	Logier Hill	18°03'S 26°34'E	K	bicornis	RGS –X229/022029; Baines, 1866
		Zambesi River		T	rhino	Baines, 1864: 205
G10	1863 Feb 24	Chowee River, Zambesi Valley	18°38'S 25°56'E	H	rhino	AM (Samma Chukooroo)
<b>At the Northern Gold Fields in Zimbabwe</b>						
G22	1869 June 14	Ramakhoban River	21°26'S 27°50'E	S	simum	Baines, 1946: 46
G19	1869 Oct 5	Umzweswe	18°22'S 29°35'E	K	simum	Baines, 1946: 178, NHM 0117
G20	1869 Oct 12	South of Impenbesi R	19°20'S 28°00'E	W	simum	Baines, 1946: 187, NHM 0108
G20	1869 Oct 12	South of Impenbesi R	<i>idem</i>	K	bicornis	Baines, 1946: 188, NHM 0109
G21	1870 Sep 1	Source of Simbo R.	18°31'S 31°06'E	K	bicornis	Baines, 1946: 464, NHM 0110, 0111, 0112; watercolour coll. Suzman
G23	1870 Oct 6	Samarinja between Se-baque and Bembesi rivers	19°00'S 30°05'E	K	bicornis	Baines, 1946: 512, NHM 0113, 0114
G25	1870 Oct 25	Between Ingwainyo and Gwailo rivers	19°15'S 26°25'E	K	simum	Baines, 1946: 534, NHM 0118, 0119

Diemont & Diemont, 1975; Gunn & Codd, 1981: 85–86; Carruthers, 1990; Carruthers & Arnold, 1995; Stevenson, 1999). At the time, there was no indication that he would later become so important as a passionate explorer, skilful artist and author. In fact, for the first five years of his life in South Africa, Baines never even left Cape Town. He spent the years 1848 to 1853 in the Eastern Cape, engaged in a variety of enterprises, hunting, trading, campaigning in the Eighth Frontier War as official war artist, and trying to earn a living as a freelance commercial artist. As far as can be ascertained from his published diaries, Baines did not record seeing any living rhinoceros during this period (Baines, 1961, 1964). However, when he was staying at the farm of William Dodds Pringle (1809–1876) about halfway between Cradock and Fort Beaufort, he saw a San rock painting of the animal. The poet Thomas Pringle (1789–1834) had carved his name in this cave in 1825 and alluded to the San paintings in his poem *The Emigrant's Cabin*, first published in Pringle (1834): “Be Lateral youn Kranz whose pictured records tell – Of Bushmen's huntings in the days of old.” Thomas Baines sketched the cave on 26 January 1849 and included a painting of a rhinoceros (MuseumAfrica, AM 1215; Figure 109).

Baines returned to England in 1853, where he was chosen to join an expedition to North Australia sponsored by the Royal Geographical Society in London and this lasted from 1853 to 1855. Owing to the high quality of his work in Australia, he was then appointed to accompany David Livingstone on his proposed exploration of the Zambezi River. This was a major chance to further his career as explorer and artist.

However, Baines and Livingstone clashed at the end of 1859 and Baines was dismissed from his post, perhaps unjustly. Again, Baines left no record about any rhinoceros he might have encountered during this expedition. Subsequently he accompanied Chapman on his trans-African travels in 1860–1863 (§37). Baines published an account in the *Explorations in South-West Africa* in 1864, while paintings he made of the Victoria Falls appeared as *The Victoria Falls – Zambesi River* in 1865. Baines made numerous sketches and watercolours of the people, animals, plants and landscapes seen during the journey. Baines was back in England from June 1865 to December 1868, when he agreed to guide a party of the South African Gold Fields Exploration Company to prospect for gold deposits in the newly found fields in Zimbabwe in the area south of

**Table 35.** Measurements of a black rhinoceros shot by the party of Thomas Baines on 12 October 1868 South of Impenbesi River, Zimbabwe (Baines, 1946: 188).

Measurement	Imperial	Metric
Note to base of ears	2 ft	61.0 cm
Base of ears to hump	2 ft 6 in	76.2 cm
Hump to after hump	3 ft 9 in	114.3 cm
After-hump to base of tail	2 ft	61.0 cm
Tail	2 ft 4 in	71.1 cm
Total length from nose to end of tail	12 ft 7 in	383.5 cm
Height to hump as he lay	3 ft 4 in	101.6 cm
Height to after hump	3 ft	91.4 cm
Foreleg to knee	1 ft	30.5 cm
Knee to elbow	2 ft	61.0 cm
Length of ears	0 ft 9 in	22.9 cm
Breadth of ears	0 ft 6 in	15.2 cm
Length of Foremost horn	2 ft	61.0 cm
Length of Aftermost horn	0 ft 9 in	22.9 cm

Harare. This enterprise was unsuccessful and Baines returned to Durban in February 1871. Later in the year, however, he made another trip to central Zimbabwe and spent the final two years of his life in Durban, where he died of dysentery on 8 May 1875. His book, *The Gold Regions of South Eastern Africa*, was published posthumously in 1877. In it there are no references to the rhinoceros, although they must have roamed the Zimbabwe area at that time. However, in his diaries Baines provided two sets of measurements of black rhinoceroses (Tables 35–36), and he commented on the classification of the various types (Baines, 1946: 188, 465, 513).

**Table 36.** Selected measurements of a black rhinoceros (keitloa type) shot by the party of Thomas Baines on 6 October 1870 at Samarinja between Se-baque and Bembesi River, Zimbabwe (Baines, 1946: 513–514).

Measurement	Imperial	Metric
Total length	13 ft 2½ in	402.6 cm
Length of front horn	1 ft 9 in	53.3 cm
Length of back horn	1 ft 3 in	38.1 cm
Girth of body	9 ft 6 in	289.6 cm

Baines is currently primarily lauded for his achievements as a draughtsman and painter. The catalogue of his sketches, watercolours and oil-paintings compiled by Frank R. Bradlow (1913–1999) documents some 4000 items, deposited at the University of Cape Town (Bradlow, 1999). Fortunately, Baines had the habit of dating and annotating his sketches, which enables us to correlate them with events found in diaries and publications by himself as well as by others. Preserved in an album kept by the Royal Geographical Society in London, there are 14 drawings showing a rhinoceros that Baines made between 1860 and 1862 during his travels with Chapman in Botswana and Zimbabwe (Stevenson, 1999; Figures 110–114). Other drawings that include a rhinoceros were made during his first gold prospecting trip to Matebeleland in 1869 and 1870, including three sketches in the diary of this journey that are held by The Brenthurst Library in Johannesburg (Figures 115–116). Besides these, there is a watercolour in the private collection of the late Mr A. Suzman in Johannesburg, still kept by the family (“Black rhinoceros – the blue variety – young cow shot by Mr Hartley and Molony, Sep. 1 [1870], near the source of the Sembo River”, 27 × 38 cm), reproduced in Wallis (1976: 191).



**Figure 110.** Thomas Baines. Black rhinoceros (Keitloa) wounded by Chapman near the Botletle River in 1862 (Royal Geographical Society, X229/021988).

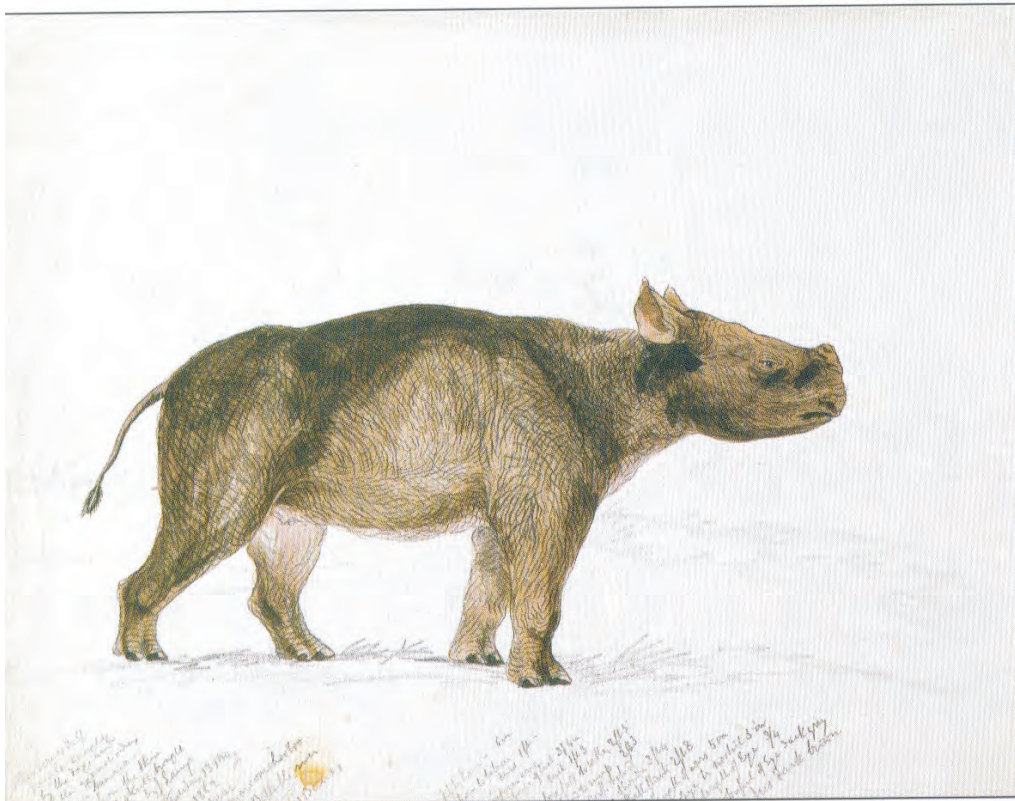




**Figure 111.** Thomas Baines. Foetus of white rhinoceros killed by Chapman at Kangyon on 1 June 1862 (Royal Geographical Society, X229/021996).

There are 17 sketches made during this period in the collection preserved in the Natural History Museum in London, all showing black and white rhinoceroses he encountered during his journey (Stevenson, 1999; Figures 117–133). A watercolour of a black rhinoceros dates from this period (Figure 134). When

Baines returned to Namibia after his travels with Chapman in August 1863, he was employed by Charles Andersson (§35), who had settled in Otjimbingwe, to paint birds. He stayed at Otjimbingwe for about a year before returning to Cape Town on 15 May 1865. During this period he also worked on a num-



**Figure 112.** Thomas Baines. Rhinoceros calf caught by dogs on 13 May 1862 near the Botletle River (Royal Geographical Society, X229/021987).





**Figure 113.** Thomas Baines. Skulls of white rhino types, Mahoohoo and Kobaaba (Royal Geographical Society, X229/022029).

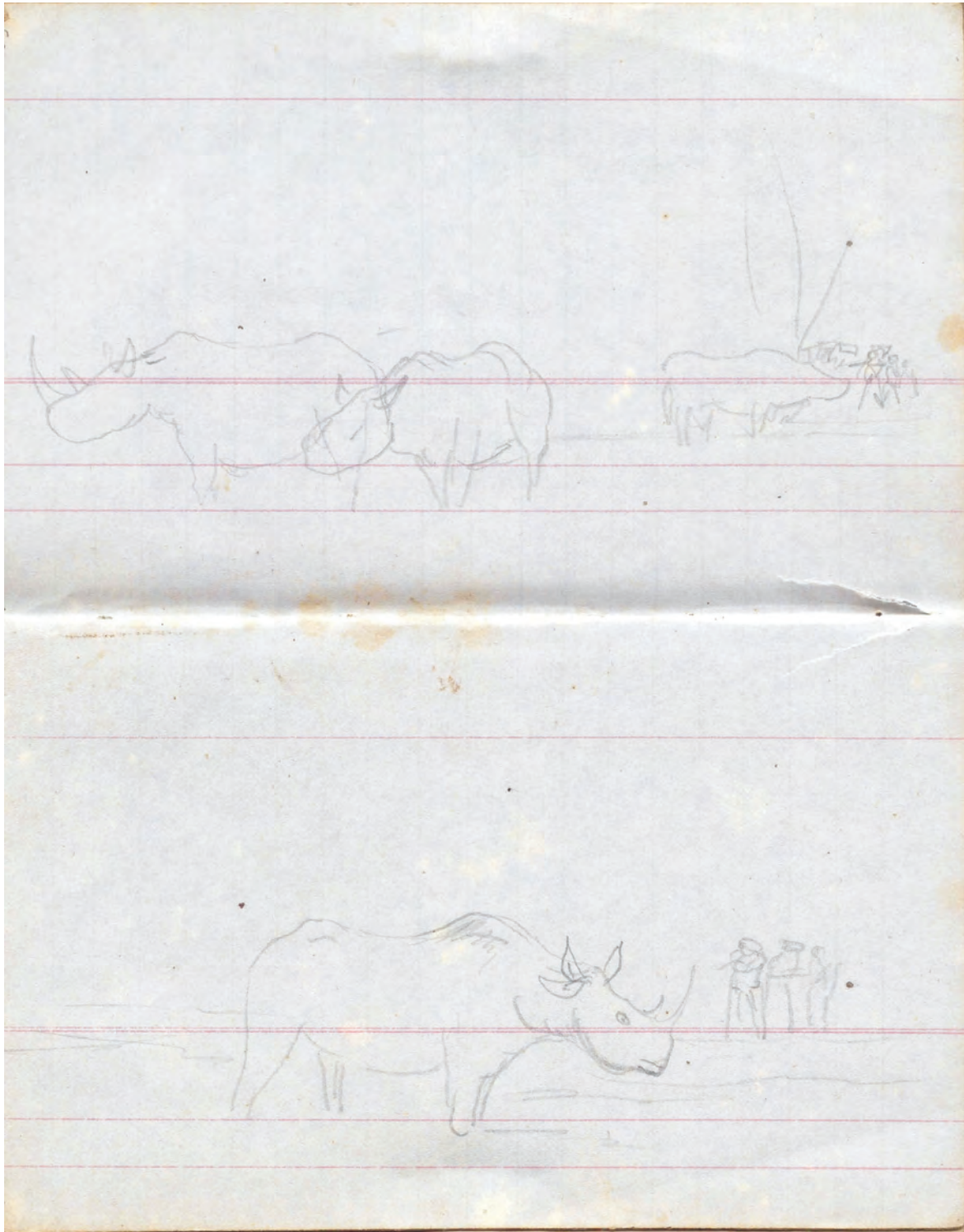
ber of oil paintings depicting scenes connected with his earlier travels, including one that shows a white rhinoceros (Museum Africa, no. 6343; Figure 135). An oil painting showing a black rhinoceros was commissioned by Guy Dawnay (1848–1889) in 1874 (Sanlam Art Collection; Figure 136).

Baines rarely kept specimens of the wildlife encountered during his travels. He donated an embryo of a rhinoceros, preserved in spirits, to the Royal College of Surgeons in London. The specimen was registered with accession number Acc. No. 47 (1865) and attributed to Baines (Datta, 1999: 53). It was still



**Figure 114.** Thomas Baines. Skull and horns of rhinoceroses shot at Logier Hill in December 1862 (Royal Geographical Society, X229/021998).





**Figure 115.** Thomas Baines. Outlines of rhinos (Brenthurst Library, MS.049/9/2).

present in 1904 (Renshaw, 1904: 143). Being six inches long, it was unmistakably a white rhinoceros with the characteristic square lip well defined, the recognisable slit-like nostrils and elongated head. The anterior horn was only indicated by a very slight greyish, flat-topped elevation, hardly differentiated from the rest of the head. There was no sign of a posterior horn, nor any hair or pigment. The specimen was destroyed in 1944 during the Second World War.

Baines generally accepted the classification of rhinoceros species prevalent in his day. When he published a short article on the African rhinoceroses in *Land and Water* in July 1866, he recognised four types, two of which were depicted in an

engraving based on sketches made in Thanyou (Figure 137). The same scene is found in a watercolour, signed "Thomas Baines, Walvisbay, 16 April 1864" (auctioned by Christie's, 2000: no. 68). There would have been two kinds of white rhinoceros at the time, the *Mahooohoo* or *Rhinoceros simus* of Burchell, and the *Kobaaba* or *Rhinoceros Oswelli*, as well as two kinds of black rhinoceros, the *Boriele* or *Rhinoceros bicornis* and the *Keitloa* or *Rhinoceros keitloa*. The Tswana, additionally, would recognise a small variety of the black rhinoceros called the *Borieleana* (Baines, 1866). During his stay at Tete in Mozambique, Baines heard about a further kind of rhinoceros in the country inland from Sofala, possibly of the white variety,



Figure 116. Thomas Baines. Drawing of a black rhinoceros and some notes (Brenthurst Library, MS.049/9/3).

possessing horns, which could grow even to the enormous length of six feet (Baines, 1866). When Baines travelled through the Northern Goldfields of Tati and Zimbabwe, he discussed the views of Henry Hartley (1815–1876), hunter and trader (Le Roux, 1939: 88), who recognised six varieties of rhinoceros and Baines (1946: 465) tried to show five of these in little sketches. There were two kinds of white rhinoceros: “first the elephant rhinoceros or white one with its back shaped like that of an elephant and with the ridge very sharp. Next the common white or *Mahooohoo*; the horn is rather stump pointed; it is distinct from the other white and they are never seen together. These two are called *Inchombo* by the Matabele.” The *Koboaba* (*Rhinoceros Oswelli*) would be the same as the *Mahooohoo*. There were four

kinds of black rhinoceros: “the first is the blue rhinoceros, the horns of which sometimes become equal in length (? *Keitloa*); then the black with one fold on the neck and behind the shoulder. The other two are, I believe, the *Boriele* and the *Borieleana* or little black rhinoceros, exceedingly fierce and vicious; this, I believe, is also called *Maghalie* or fierce.” The “elephant rhinoceros” is also mentioned on a sketch in the first Matabele Journal in The Brenthurst Library, Johannesburg, with a similar description and a sketch (Figure 116). It appears that Baines was not quite sure how to depict these various types adequately, because he had not personally identified all of them and the descriptions were too meagre to be adequately depicted in sketches.





Figure 117. Thomas Baines. Wounded rhinoceros, 12 October 1869 (Natural History Museum, Baines 108).



Figure 118. Thomas Baines. Black rhinoceros killed by John Fontein and Baines near Impenbesi River, 12 October 1869 (Natural History Museum, Baines 109).



Black Rhinoceros (blue variety) - cows ridden to a stand and preparing to charge (sketches to left) - Sept 11. 1870 - Baines -

Figure 119. Thomas Baines. Black rhinoceros ("blue variety"), 1870 (Natural History Museum, Baines 110).



Black Rhinoceros (blue variety) young cow - 8 feet 8 - from nose to base of tail shot by Mr. Harley & Mr. Baines Sept. 1. 1870

Figure 120. Thomas Baines. Black rhinoceros ("blue variety"), at Simbo River in 1870 (Natural History Museum, Baines 111).





Figure 121. Thomas Baines. Black rhinoceros at Simbo River, 1870 (Natural History Museum, Baines 112).



Figure 122. Thomas Baines. Black rhinoceros shot between Sebaque and Bembesi Rivers, 1870 (Natural History Museum, Baines 113).



Figure 123. Thomas Baines. Black rhinoceros shot between Sebaque and Bembesi Rivers, 1870 (Natural History Museum, Baines 114).



Figure 124. Thomas Baines. Hunting a black rhinoceros mother and young (Natural History Museum, Baines 115).





Figure 125. Thomas Baines. Black rhinoceros hunt (Natural History Museum, Baines 116).



Figure 126. Thomas Baines. Dead white rhinoceros, 1869 (Natural History Museum, Baines 117).



Figure 127. Thomas Baines. White rhinoceros between Ingwainyo and Gwailo Rivers, 1870 (Natural History Museum, Baines 118).



Figure 128. Thomas Baines. White rhinoceros on the Ingwainyo River, 1870 (Natural History Museum, Baines 119).





Figure 129. Thomas Baines. White rhinoceros hunt (Natural History Museum, Baines 120).



Figure 130. Thomas Baines. Sketch of white rhinoceros (Natural History Museum, Baines 121).



Figure 131. Thomas Baines. Head of white rhinoceros (Natural History Museum, Baines 122).



Figure 132. Thomas Baines. White rhinoceros (Natural History Museum, Baines 123).





**Figure 133.** Thomas Baines. White rhinoceros hunt (Natural History Museum, Baines 124).



**Figure 134.** Thomas Baines. John Laing and two lions disputing the black rhinoceros (MuseumAfrica, no. 50/1250).





**Figure 135.** Thomas Baines. Oil painting "Black rhinoceros charging out of wood", 1874 (Sanlam Art Collection).



**Figure 136.** Thomas Baines. Oil painting "Killing a white rhinoceros between Botletle and Zambesi Rivers" (MuseumAfrica, no. 6343).





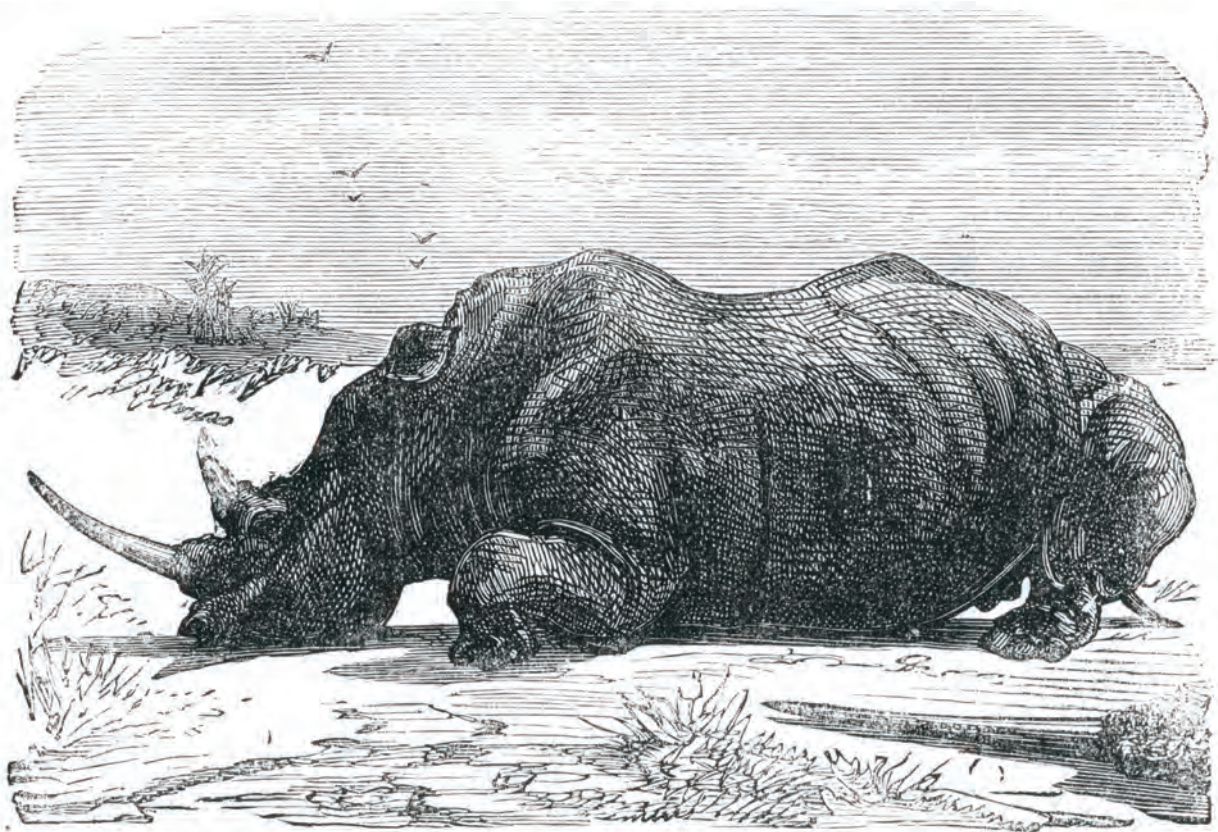
Figure 137. Thomas Baines. Study of rhinoceros types (*Land and Water*, 28 July 1866, p. 13).



SLAYING A RHINOCEROS. FROM A PAINTING BY THOMAS BAINES.

Figure 138. Thomas Baines. Slaying a rhinoceros (*The Gold Regions of South East Africa*, 1877, p. 28).





WOUNDED RHINOCEROS.—FROM A PICTURE BY MR. BAINES.

**Figure 139.** Thomas Baines. Wounded rhinoceros (*The Gold Regions of South East Africa*, 1877, p. 60).

### 39. Struthers

#### *KwaZulu-Natal, 1852–1855.* Table 37

Robert Briggs Struthers (1822–1892) emigrated to Natal in 1849 and in the early 1850s he made several hunting expeditions to Zululand. His journal, unpublished until fairly recently, is brief and matter-of-fact (Struthers, 1971). He saw and hunted rhinoceroses on several occasions, but never mentioned to which species he thought they might belong.

### 40. Baldwin

#### *KwaZulu-Natal, Botswana, Zimbabwe, 1855–1857.* Table 38, Figures 140–144

William Charles Baldwin (1826–1903) spent 10 years hunting and travelling in southern Africa after his arrival in Durban in December 1851 (Hutchinson, 1945). He was the second European to see the Victoria Falls (on 3 August 1860) before return-

ing to England in 1861. His book *African Hunting* was published in 1863, but it is unremarkable as far as zoological detail is concerned. During his time in Zululand from 1855 to 1856, Baldwin shot several white rhinoceroses and saw many black ones, but the latter he did not find worthy of a shot (Baldwin, 1863a: 109). He travelled in Botswana from 1857 to 1859 and reached Lake Ngami in 1858, leaving no record of seeing rhinoceroses there (Baldwin, 1863a). On his journey to the Victoria Falls in 1860, he killed 11 white rhinoceroses or *Incomba* and 12 black rhinoceroses or *Borele* (Baldwin, 1863a: 443). In Baldwin's book there are four small illustrations of hunting scenes including a rhinoceros, which are attributed to James Wolf and Johann Baptiste Zwecker (1814–1876) and which were therefore probably made in England after his return (Baldwin, 1863a: 107, 196, 223, 410; Figures 140–143). The scene in which a black rhinoceros is attacked by dogs (Figure 141) is repeated by Baldwin (1863b: 390) and again in reverse and in a grander style by Meissas (1889: 255; Figure 144).

**Table 37.** Records of the rhinoceros relating to the travels of Robert B. Struthers (§39).

No.	Date	Locality	Coordinates	Type	Species	Source
D4	1852 Dec 29	Inyilazi River	28°20'S 32°14'E	S	rhino	Struthers, 1991: 22
D4	1853 Oct 31	Ithlithlubi	<i>idem</i>	S	rhino	Struthers, 1991: 36
D6	1854 July 1	Umfusi River	26°40'S 32°22'E	S	rhino	Struthers, 1991: 58
D5	1854 Sep 17	Ithlizan River	28°00'S 32°02'E	K	rhino	Struthers, 1991: 66
D5	1854 Sep 18	<i>idem</i>	<i>idem</i>	S	rhino	Struthers, 1991: 66
D5	1854 Sep 23	<i>idem</i>	<i>idem</i>	K	rhino	Struthers, 1991: 67
D5	1854 Sep 27	<i>idem</i>	<i>idem</i>	K	rhino	Struthers, 1991: 68
D7	1855 Nov 21	Umlangeni River	26°46'S 31°20'E	S	rhino	Struthers, 1991: 93



**Table 38.** Records of the rhinoceros relating to the travels of William C. Baldwin (§40).

No.	Date	Locality	Coordinates	Type	Species	Source
<b>Journey to the Transvaal, 1857</b>						
F5	1857 Oct 1	Lopepes Vley	23°19'S 25°38'E	K	bicornis	Baldwin, 1863a: 181
F32	1857 Oct 18	Masaras Country	22°00'S 26°00'E	K	bicornis	Baldwin, 1863a: 188
				K	simum	
F32	1857 Oct 22	<i>idem</i>	<i>idem</i>	K	rhino	Baldwin, 1863a: 190
G3	1857 Dec 18	Moselikatse	20°55'S 28°15'E	K	rhino	Baldwin, 1863a: 223
G3	1857 Dec 24	<i>idem</i>	<i>idem</i>	K	rhino	Baldwin, 1863a: 228
<b>Journey to Victoria Falls, 1860</b>						
F13	1860 July	Tamaskaki	19°13'S 26°03'E	S	simum	Baldwin, 1863a: 389
G7	1860 July 19	Mateste	18°17'S 25°56'E	K	bicornis	Baldwin, 1863a: 392
G8	1860 Sep 30	Jurea	19°30'S 26°20'E	K	rhino	Baldwin, 1863a: 409
F33	1860 Oct 27	Nanta	20°04'S 26°18'E	K	bicornis	Baldwin, 1863a: 420
<b>Excursions in Zululand</b>						
D9	1855 Aug 1	Black Umveloosi	28°10'S 31°40'E	K	rhino	Baldwin, 1863a: 105
D9	1855 Sep 19	Zululand	<i>idem</i>	S	bicornis	Baldwin, 1863a: 109
D8	1855 Nov 18	St Luey River	28°15'S 32°04'E	S	simum	Baldwin, 1863a: 125
D8	1855 Nov 19	<i>idem</i>	<i>idem</i>	W	simum	Baldwin, 1863a: 125
				K	bicornis	
D8	1855 Nov 20	<i>idem</i>	<i>idem</i>	S	bicornis	Baldwin, 1863a: 128
D8	1855 Nov 21	<i>idem</i>	<i>idem</i>	S	simum	Baldwin, 1863a: 128
D8	1855 Nov 22	<i>idem</i>	<i>idem</i>	W	rhino	Baldwin, 1863a: 129

**Figure 140.** William Baldwin. Black rhinoceros mother and calf (*African Hunting and Adventure*, 1863, p. 107).





Figure 141. William Baldwin. Black rhinoceros attacking dogs (*African Hunting and Adventure*, 1863, p. 196).

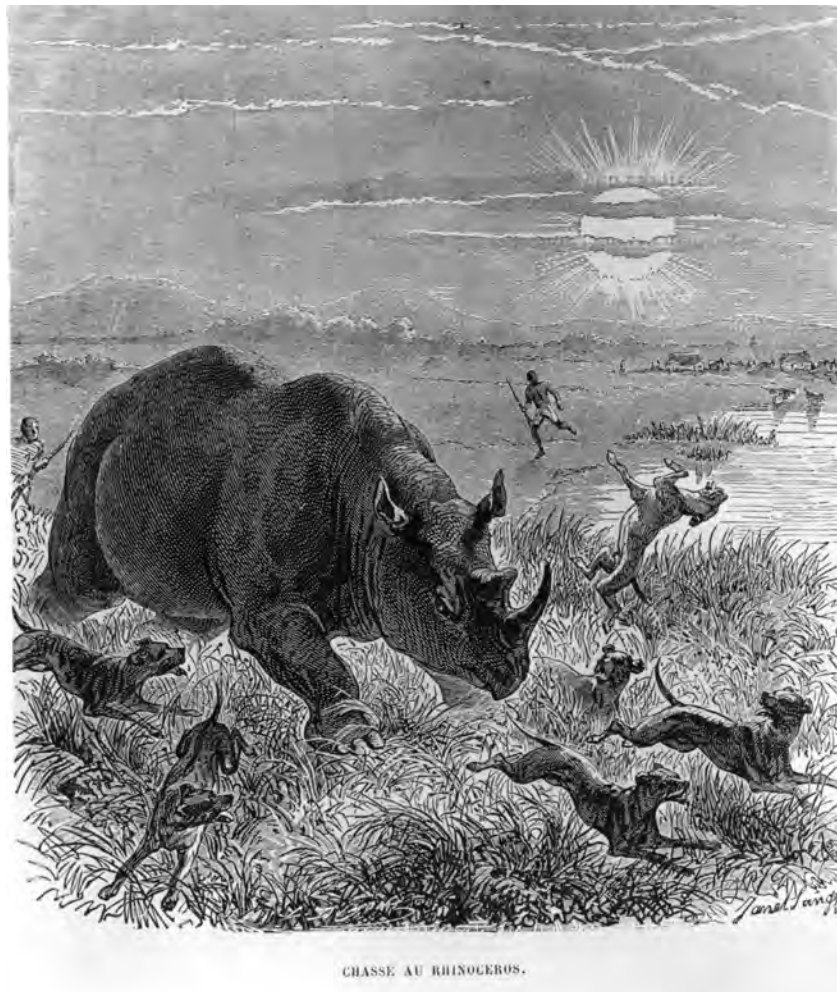


Figure 142. William Baldwin. Giraffe hunt, with rhinos in foreground (*African Hunting and Adventure*, 1863, p. 223).





**Figure 143.** William Baldwin. Night shooting (*African Hunting and Adventure*, 1863, p. 410).



**Figure 144.** William Baldwin. Hunting the rhinoceros (Meissas, *Les grands voyageurs*, 1889, p. 255).



**Table 39.** Records of the rhinoceros relating to Zimbabwe (§41).

No.	Date	Locality	Coordinates	Type	Species	Source
<b>John Mackenzie</b>						
G13	1863 Aug 19	Makalaka Country	21°20'S 28°00'E	K	bicornis	Mackenzie, 1871: 299
<b>William Finaughty</b>						
G18	1870	Junction of Shashi and Simbookie	21°50'S 29°10'E	K	rhino	Finaughty, 1916: 116
G18	1870 Apr	Shashani River	<i>idem</i>	S	bicornis	Finaughty, 1916: 159
G18	1870 Apr	<i>idem</i>	<i>idem</i>	K	rhino	Finaughty, 1916: 162
<b>Augustus Lindley</b>						
	1860s	South Zimbabwe		H	rhino	Lindley, 1870: 242,290
<b>George Cobb Westbeech</b>						
G16	1870s	Pandamatenga	18°31'S 25°39'E	K	simum	Gronum, 1974: 62
<b>Thomas Morgan Thomas</b>						
G14	ca. 1865	Ububi River	19°41'S 28°51'E	S	rhino	Thomas, 1872: 387
<b>Thomas Edward Buckley</b>						
	1873	Zimbabwe		S S	bicornis simum	Buckley, 1876

#### 41. Records from Zimbabwe

*Zimbabwe, 1863–1873.* Table 39, Figures 145–148

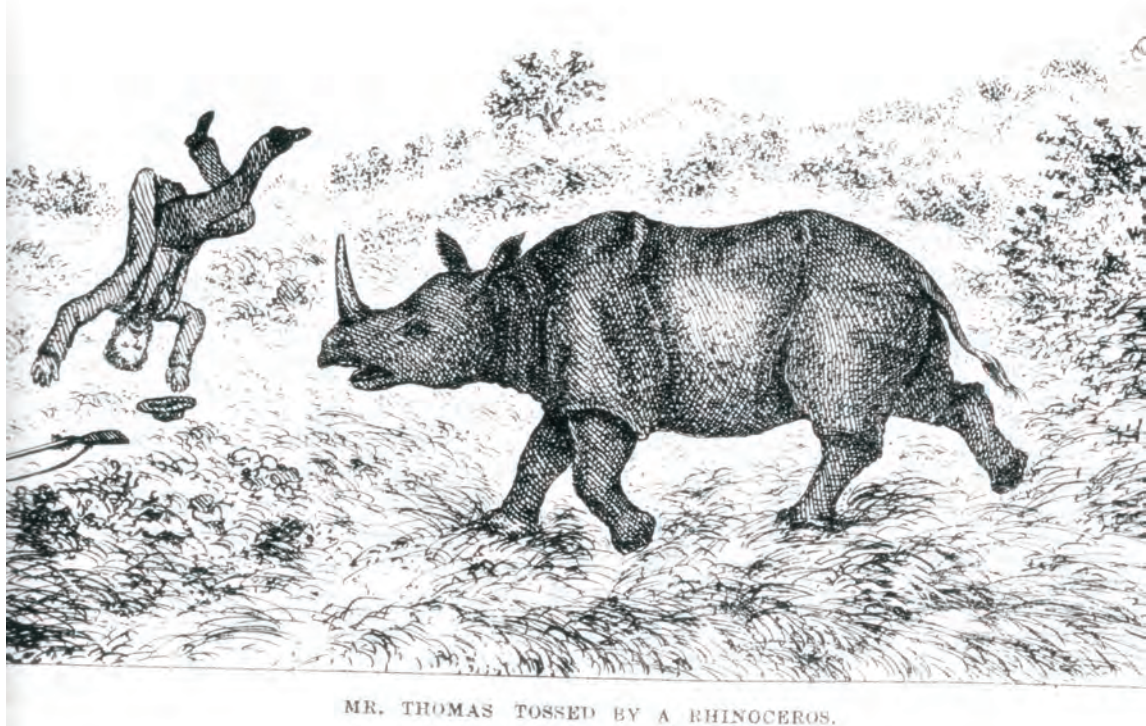
The rhinoceros was common in Zimbabwe in the 1860s and 1870s. A number of authors mention the presence of the animals without providing much additional detail, perhaps

because they thought that the animals were already very well-known. John Mackenzie (1835–1899), a missionary with the London Missionary Society, recorded that one day in August 1863, while he was in southwestern Zimbabwe, a black rhinoceros or *borile* mother and calf were shot after one of the dogs (without fatal consequences) was tossed in the air



**Figure 145.** A. Lindley. Hunting a rhinoceros (After Ophir, 1870, p. 291).





MR. THOMAS TOSSED BY A RHINOCEROS.

**Figure 146.** Thomas M. Thomas, tossed by a rhinoceros (*Eleven Years in Central South Africa*, 1872, facing p. 104).

(Mackenzie, 1871: 299). William Finaughty (1843–1917) earned his living by hunting elephants in Botswana and Zimbabwe from 1864 to about 1870. His *Recollections*, published in 1916, provide a few glimpses of the rhinoceros. The book confirms that the animals were present when Finaughty was active in this region and it appears that the black rhinoceros was the

common species at the time. Captain Augustus Lindley wrote a book in 1870 with stories and adventures of the African bush. Although it is impossible to know exactly what he saw, and when, his account confirms that the rhinoceros was present in the southern parts of Zimbabwe in the 1860s (Lindley, 1870: 242, 290). His book includes a plate of a rhinoceros, almost



**Figure 147.** Thomas M. Thomas. Rhinoceros hunting (*Eleven Years in Central South Africa*, 1872, facing p. 388).





RHINOCEROS AND CALF.

**Figure 148.** Thomas M. Thomas. Rhinoceros and calf (*Eleven Years in Central South Africa*, 1872, facing p. 388).

Indian in appearance, attacking a horse tied to a tree (Lindley, 1970: 291; Figure 145).

George Cobb Westbeech (1844–1888) was a trader and elephant hunter who spent much of the last 17 years of his life based at Pandamatenga on the waggon route that led to Kazungula on the Zambezi (Le Roux, 1939: 142). According to the recollections of Gronum (1974: 62) and probably relating to the 1870s, Westbeech shot white rhinoceroses in great numbers as they were very easy to kill. Next to Westbeech's shop in Pandamatenga, Petrus Viljoen found heaps of rhinoceros horns, there to be taken away whenever transport was available because good money might be made from the sale of rhinoceros horn. It is possible that Selous (1899: 55, 1908: 188) had Westbeech in mind when he stated that "one trader alone supplied 400 Matabele native hunters with guns and ammunition, and between 1880 and 1884 his large store always contained great piles of rhinoceros horns, often the spoils of 100 of these animals at one time."

Thomas Morgan Thomas (1828–1884), another missionary with the London Missionary Society, stationed at Inyati from 1859 to 1870, saw rhinoceroses on several occasions, mainly in the southern part of Zimbabwe (Thomas, 1872: 387). There are three plates of the rhinoceros in his book, all produced in such a sketchy manner that the type of rhinoceros is unrecognisable (Thomas, 1872, facing pp. 104, 388; Figures 146–148). Thomas Edward Buckley (1846–1902) went to South Africa for sport in 1873 and donated the animals obtained "in Amaswaziland" to the University Museum of Zoology, Cambridge (Rookmaaker, 2004b: 55). Buckley (1876) saw both white and black (*keitloa* type) rhinoceroses during his travels, but he failed to give an exact locality. He mentions a conversation with a friend (unnamed), recently returned from the Zambezi River, who

had only seen five rhinoceroses, all of the white species, "and all of which he secured." There are no rhinoceros specimens attributed to him in the museum in Cambridge (R. Symonds, pers. comm. 2007).

#### 42. Murray Family

*Eastern Cape, 1866.* Table 7, Figure 149

Skinner & Chimimba (2005: 581) refer to a horn in the museum at Graaff-Reinet obtained from a rhinoceros shot in the area at a surprisingly late date. The family tradition of this specimen is set out as follows by R.B. Murray (1972) and C. Murray (1978). In 1866, Charles Murray (1833–1904) became pastor of the church at Graaff-Reinet when his father retired from the same position. The parsonage maintained a large garden for agricultural purposes, which extended down to the Sundays River. One day, "about 1880," it was noticed that a rhinoceros was crossing the river at night and, fearing that it would destroy the crops, it was decided that the animal should be stopped. The pastor's brother, James, who was in charge of the gardens, shot the animal: the local people got the meat but Charles Murray kept the horn. From that day onwards, the horn stood by the front door of his house as a doorstep. Charles used it to hang up his top-hat whenever he returned home, until he pushed the hat down too hard one day and made a hole in it. On Charles Murray's death, the horn was inherited by his son Charles Daniel Murray (1870–1948), who in turn bequeathed it to his youngest son, Richard Barry Murray (b. 1916). In 1972, the family donated the horn to the Reinet House Museum in Graaff-Reinet, where it was placed on permanent exhibit (Figure 149). One night in December 2006 thieves broke into the museum to remove the horn and, after





**Figure 149.** Horn of a rhinoceros shot in Graaff-Reinet and preserved by the Murray family (Reinet House Museum).

investigating the incident, the police suspected that an organised crime syndicate was involved (A. Kayster, *in litt.* February 2007). The year in which the rhinoceros was supposed to have been shot, i.e., around 1880, seems to be very late for a rhinoceros to be surviving in the area. The Murray family was well established at Graaff-Reinet from about 1866 and, although the exact date cannot be established, it is unlikely that the incident occurred much before 1866 or much after 1880.

#### 43. Hamilton

##### *KwaZulu-Natal, 1870. Table 40*

Charles Hamilton mentioned in his *Sketches of Life and Sport in South Eastern Africa* of 1870 that the black rhinoceros or *ubejane* was found in KwaZulu-Natal, but mostly along river banks in distant parts. He described how he once saw two rhinoceroses fighting at night: “the roar they uttered was terrible to listen to, their continued stamping and bellowing echoed round the mountains, and could have been heard for miles, and the water in which they indulged their propensity perfectly foamed as if boiling” (Hamilton, 1870: 171).

#### 44. Mohr

##### *Botswana, Zimbabwe, 1870. Table 41, Figures 150–152*

The German traveller Eduard Mohr (1828–1876) reached Africa for the first time in 1863. He travelled around Zululand in 1863–1867 where, on 1 August 1866, when near the Shlue (Hluhluwe) River, Amatonga (Tsonga) country, he brought down a white rhinoceros (Mohr, 1876: 337). After returning to Germany for a year, he then travelled to the Zambezi River in 1868–1870. He wrote a book about his experiences which was published in German in 1875, but which was soon (1876) followed by an English translation. On 20 June 1870 Mohr was the first German to reach the Victoria Falls. Moving southwards from the Falls, he once came across a rhinoceros. He hid in the bush, but was betrayed by the bleating of his tame goat, named Busi. Mohr (1875, vol. 1: 191) said that during all his African travels he hunted 15 rhinoceroses and killed seven of them, but his book provides very little detail about the circumstances. Mohr (1875, vol. 2: 48, 1876: 337) includes a plate of a black rhinoceros surrounded by lions and hyaenas (Figure 151). A very similar scene was depicted on a pastel watercolour by

**Table 40.** Records of the rhinoceros relating to KwaZulu-Natal.

No.	Date	Locality	Coordinates	Type	Species	Source
<b>Charles Hamilton (§43)</b>						
	1870	Natal		H	rhino	Hamilton, 1870: 171
<b>David Leslie (§46)</b>						
D13	ca. 1870	Pongola River	27°25'S 32°10'E	S S	bicornis simum	Leslie, 1875: 107, 110
<b>William H. Drummond (§47)</b>						
D1	1870s	Black Umfolozi	28°24'S 31°57'E	W	bicornis	Drummond, 1875: 75
D1	1870s	<i>idem</i>	<i>idem</i>	S	simum	Drummond, 1875: 120
D11	1870s	Umkusi River	27°38'S 31°40'E	K	simum	Drummond, 1875: 121
D12	1870s	Hlopekulu	28°21'S 31°29'E	H	simum	Drummond, 1875: 121
D11	1870s	Bombo Flats	27°17'S 31°50'E	H	bicornis	Drummond, 1875: 131
	1871	Zululand		K	bicornis	Drummond, 1875: 131

**Table 41.** Records of the rhinoceros relating to the travels of Eduard Mohr (§44).

No.	Date	Locality	Coordinates	Type	Species	Source
D10	1866 Aug 1	Shlue River	27°04'S 32°10'E	K	simum	Mohr, 1876: 337
G15	1869 Oct 21	Kumala River	20°00'S 28°00'E	K	simum	Mohr, 1875, I: 226
G17	1870 May 31	Towards Victoria Falls	18°56'S 26°30'E	S	simum	Mohr, 1875, II: 4, 1876: 294
G11	1870	South of Victoria Falls	18°00'S 26°00'E	S	simum	Mohr, 1875, II: 55, 1876: 340

**Figure 150.** Eduard Mohr. "A doomed rhinoceros" (*To the Victoria Falls*, 1876, p. 340).**Figure 151.** Eduard Mohr, "Caught in the act" (*To the Victoria Falls*, 1876, p. 337).





**Figure 152.** M. Hoffmann. Pastel watercolour of a rhinoceros, after Mohr (MuseumAfrica, 60/646).

M. Hoffmann (MuseumAfrica, 60/464; Figure 152). A second plate of a black rhinoceros pursued by African hunters with spears is unsigned, but is reminiscent of the work of Thomas Baines (Mohr, 1875, vol. 2: 56, 1876: 340; Figure 150). The English publishers also engraved the rhinoceros on the front cover.

#### 45. Selous

*Botswana, Zimbabwe, 1872–1887.* Table 42, Figures 153–154

Frederick Courteney Selous (1851–1917) was twenty years old when he first landed at Algoa Bay on 4 September 1871 (Boyd, 1908; Millais, 1919; Taylor, 1989; Carruthers, 1995; Cassada, 1998; Cloudsley-Thompson, 2000). His aim was to go inland in search of elephants and to trade in their ivory. For this purpose, he decided to travel to the regions north of the Limpopo River, because further south the number of animals had been greatly reduced. At first he was not particularly interested in the rhinoceros, and certainly his chances of seeing one in the more frequented parts of South Africa were not very good. For 10 years, Selous roamed along the Chobe River and in Matabeleland and Mashonaland (Zimbabwe), with short breaks at home in England. On 1 February 1876, he addressed a meeting of the Zoological Society of London and displayed some of his trophies in order to show the forms of the five species of rhinoceros which had been recognised by Drummond in a lecture to the same audience just two weeks earlier (§47). Selous had a series of horns of animals shot in northeastern Botswana and in Zimbabwe, two of which he then allocated to *Rhinoceros bicornis major*, one to *Rhinoceros keitloa* and three to

*Rhinoceros simus* (Selous, 1876).

When he was in England in early 1881, Selous started to write a narrative of his adventures, published later in the year as *A Hunter's Wanderings in Africa*. Being a frank and unassuming account of life and game in Africa, it struck the right chord in Victorian England, and the book was an instant and perhaps unexpected success. In an appendix, Selous (1881a: 447) recorded that in the period 1877–1880, 548 heads of game were shot, including two white rhinoceroses, 10 black ones, and 20 elephants. One of the chapters in the book was a reprint of a second lecture (Figure 153), he delivered to the Zoological Society of London on 7 June 1881, which was his most inspired contribution to the biology of the rhinoceros (Selous, 1881a: 190–203; 1881b). He had seen the animals frequently on his travels, and although he lingered on the issue of their ferocity, he also began to elaborate on their behaviour. For instance, he described how the calf of the white rhinoceros runs in front of the mother when young, while that of the black rhinoceros follows (Selous, 1881a: 193).

Selous (1881a) endeavoured to settle, to the best of his ability, the question of the number of species. He mentioned a local South African hunter, unnamed but possibly Henry Hartley (§38), who was able to distinguish no less than seven different types of rhinoceros in southern Africa. According to Selous, there were in fact only two, the black and the white, despite the great variation in the lengths and the shapes of the horns. Local hunters could easily distinguish between the tracks and the dung of these two species, but were unable to go beyond this classification in the field. When the animal was observed or

**Table 42.** Records of the rhinoceros relating to the travels of Frederick C. Selous (§45).

No.	Date	Locality	Coordinates	Type	Species	Source
<b>First Hunting Expedition 1872–1874</b>						
F36	1872 Aug	Macloutsi River	21°45'S 27°20'E	T	rhino	Selous, 1881a: 26; 1899: 54
G22	1872 Sep	Mangwe River	21°12'S 28°13'E	T	simum	Selous, 1881a: 28; 1899: 54
G14	1872 Sep	Inyati	19°41'S 28°51'E	H	rhino	Selous, 1881a: 31
G23	1872 Oct	Umniati River	18°42'S 29°50'E	S	bicornis	Selous, 1881a: 42,43 Selous, 1876, fig.5
				K	simum	
G24	1873 July	Linquasi	18°47'S 27°09'E	K	bicornis	Selous, 1881a: 56
G24	1873 July	<i>idem</i>	<i>idem</i>	S	bicornis	Selous, 1881a: 58
				S	simum	
G24	1873 Aug	<i>idem</i>	<i>idem</i>	S	bicornis	Selous, 1881a: 79
G17	1873 Sep	Linquasi region	18°40'S 26°30'E	K	bicornis	Selous, 1876, fig.2; 1881a: 80; 1881b, fig.4; Dollman, 1921, no. 435
G17	1873 Sep	<i>idem</i>	<i>idem</i>	K	bicornis	Selous, 1881a: 82, 84
				K	simum	Selous, 1881a: 83
G17	1874 May	Gwai River	<i>idem</i>	K	simum	Selous, 1876, fig.4; 1899: 54
F37	1874 July 11	Chobe River	17°49'S 24°57'E	S	bicornis	Selous, 1881a: 132, 138
F37	1874 July 17	Makuba Village, Chobe	17°57'S 24°41'E	S	bicornis	Selous, 1881a: 144
F37	1874 Aug 28	Chobe River	17°49'S 24°57'E	K	bicornis	Selous, 1876, fig.3; 1881a: 156; 1881b, fig.7; Dollman, 1921, no.434
F37	1874 Aug	<i>idem</i>	<i>idem</i>	S	simum	Selous et al., 1899: 54
F37	1874 Aug	<i>idem</i>	<i>idem</i>	K	bicornis	Selous, 1881a: 162
G25	1874 Nov 15	near Thamma-Setsi	19°00'S 26°00'E	K	simum	Selous, 1876, fig.6; Dollman, 1921, no.441
G25	1874 Nov 19	Thamma-Setsi	19°13'S 26°03'E	K	bicornis	Selous, 1881a: 185; 1876, fig.1; Selous, 1881b, fig.2; Dollman, 1921, no. 436
				S	simum	
<b>Second Hunting Expedition 1877–1878</b>						
G27	1877 Dec	Mendonca's Island	16°26'S 28°45'E	K	bicornis	Selous, 1881a: 300
G28	1878 Apr 22	Gweo River	19°03'S 28°57'E	T	bicornis	Selous, 1881a: 323
G28	1878 Apr 24	Inyoga's Town	<i>idem</i>	K	bicornis	Selous, 1881a: 323, 1908: 190
G23	1878 Sep 6	Umniati River	18°42'S 29°50'E	T	simum	Selous, 1881a: 327
G23	1878 Sep 16	Umbila River	<i>idem</i>	T	simum	Selous, 1881a: 336
G23	1878 Sep 17	<i>idem</i>	<i>idem</i>	S	bicornis	Selous, 1881a: 336
G26	1878 Oct 11	Umsengaisi River	17°53'S 29°54'E	W	bicornis	Selous, 1881a: 352
G29	1878 Oct 18	Gwazan	19°42'S 29°35'E	K	bicornis	Selous, 1881a: 353
G30	1878 Oct 22	Umfule River	18°05'S 30°26'E	K	simum	Selous, 1881a: 357
G30	1878 Nov 5	<i>idem</i>	<i>idem</i>	K	bicornis	Selous, 1881a: 361
–	1878 Dec 11	Return journey	unknown	K	rhino	Selous, 1881a: 363
<b>Further Hunting Experiences</b>						
F38	1879	Mai-ini's Town, Chobe	18°16'S 23°33'E	K	bicornis	Selous, 1881a: 444
F37	1879 July	Chobe River	17°49'S 24°57'E	K	bicornis	Selous, 1894: 455
–	1880 June 30	N.E. Mashonaland		K	bicornis	Selous, 1881a: 446
–	1880 June	Between Umniati and Unzweswi rivers	18°42'S 29°50'E	K	simum	Dollman, 1921, no. 442
G30	1880 July 27	Umfule River	18°05'S 30°26'E	T	rhino	Selous, 1881c: 353
G23	1880 Aug	Umniati River	18°42'S 29°50'E	T	bicornis	Selous, 1881a: 420
G23	1880 Aug 17	Umzweswe River	<i>idem</i>	S	bicornis	Selous, 1881a: 430
G23	1880 Aug 19	<i>idem</i>	<i>idem</i>	K	bicornis	Selous, 1881a: 446; 1881b, figs 1, 3, 8
G23	1880 Aug	<i>idem</i>	<i>idem</i>	S	bicornis	Selous, 1881a: 439
G26	1880 Sep 6	Umsengaisi River	17°53'S 29°54'E	K	simum	Selous, 1894: 472; 1881b, fig. 9
				S	bicornis	
G26	1880 Sep	<i>idem</i>	<i>idem</i>	K	bicornis	Selous, 1881b, fig. 5,6; Dollman, 1921, no. 437
–	1880 Oct 19	N.E. Mashonaland		K	bicornis	Selous, 1881a: 446

Continued on p. 164



Table 42 (continued) - Selous

No.	Date	Locality	Coordinates	Type	Species	Source
G31	1882 Aug 14	Kadzi River, Zambezi Valley	15°37'S 30°40'E	T	bicornis	Selous, 1894: 55
G31	1882 Aug 19	Manyami River	<i>idem</i>	T	bicornis	Selous, 1894: 58
G31	1882 Aug	<i>idem</i>	<i>idem</i>	K	simum	Selous, 1899: 56
G32	1883 Aug 1	Sabi River	18°50'S 31°39'E	K	bicornis	Selous, 1894: 99, 1908: 192; Dollman, 1921, no. 431
G23	1884	Se-who-i-who-i River	18°40'S 29°36'E	K	simum	Selous, 1894: 158, 1914, pl. II; Millais, 1919: 154
F16	1884	Mababi River	19°00'S 24°10'E	T	simum	Selous, 1899: 55
G31	1885 Sep	Hanyani River	15°44'S 30°37'E	K	bicornis	Dollman, 1921, no. 433
G30	1885 Nov	Umfule River	18°05'S 30°26'E	K	bicornis	Dollman, 1921, no. 432
G31	1886	Between Angwa and Manyami rivers	15°40'S 30°40'E	K	simum	Selous, 1899: 56 (shot by Karl Weyand and Jan Engelbrecht)
G31	1887	<i>idem</i>	<i>idem</i>	T	simum	Selous, 1899: 56

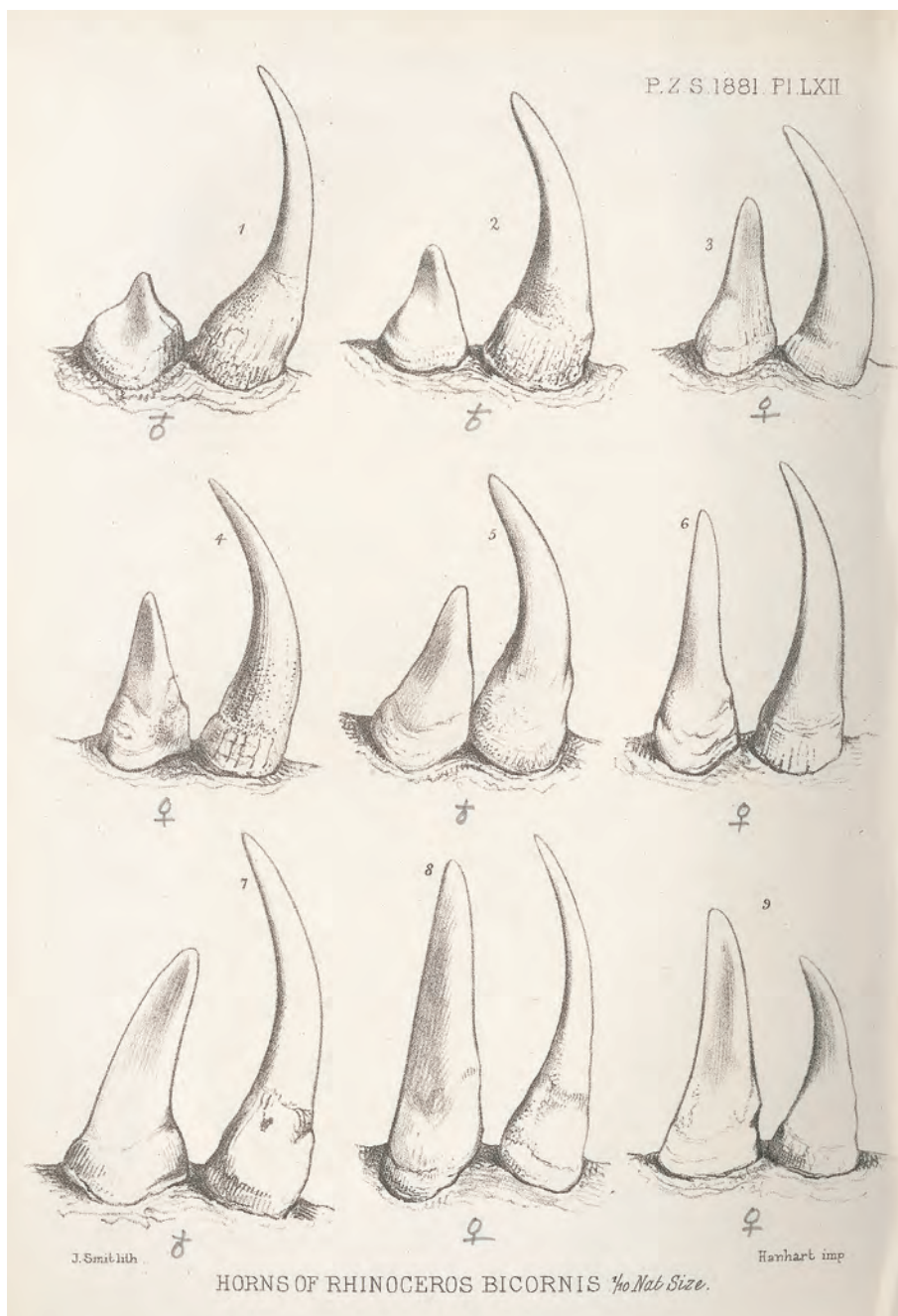


Figure 153. Horns of rhinoceros exhibited by Fred Selous in London in 1876 (Selous, *Proceedings of the Zoological Society of London*, 1881, plate 62).



**Figure 154.** White rhinoceros shot by Fred Selous on the Sebakwe River in Zimbabwe (Selous *et al.*, *The Big Game of Africa and Europe*, 1914, plate 2).

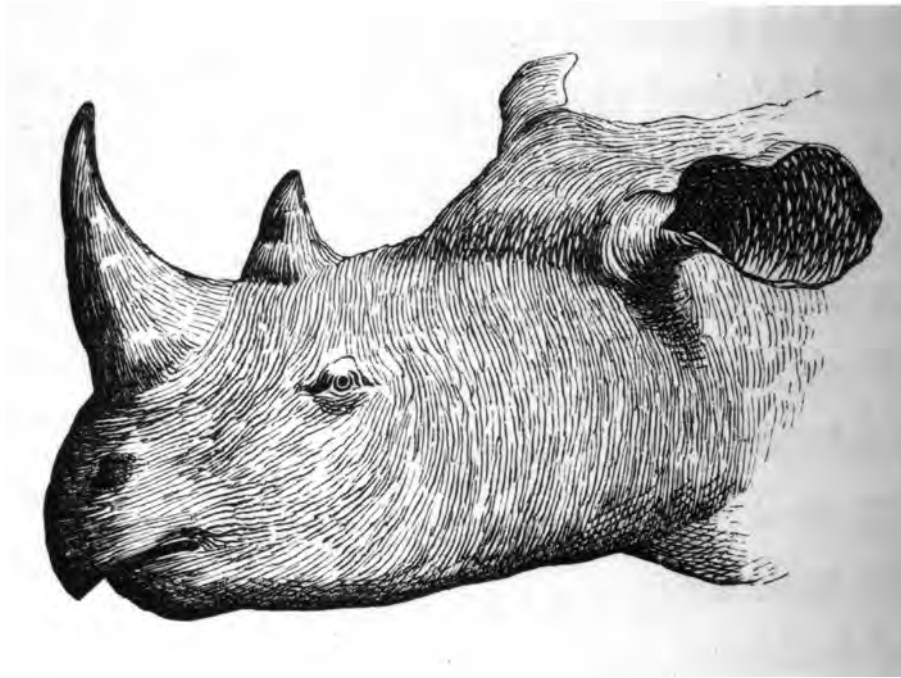
killed, the extreme horn shapes were readily allocated to one of these species, but any intermediate form would be the subject of long and fruitless discussions.

From November 1881 to 1890, Selous again lived and worked in Africa. Ivory hunting was no longer a viable option because the elephant herds had been so greatly reduced. However, Selous received a number of orders from museums and private collectors for specimens or trophies, and he acted as a guide for hunting parties. The events of these years were described in his *Travels and Adventures in South-East Africa*, published in 1893. He did not encounter the rhinoceros as frequently as he had done on previous occasions because their numbers had decreased with the introduction of firearms and the ensuing hunting pressure. The white rhinoceros, for example, was no longer to be found south of the Zambezi River, while the black rhinoceros was still present, but in greatly reduced numbers. Selous witnessed these changes in his own lifetime: rhinoceroses had been plentiful in the early 1870s, but they were few and far between by 1890 (Selous, 1892, 1899: 55, 1901: 186, 1909: 117). Even though he may have overlooked pockets of rhinoceros that survived in remote areas, the value of his testimony cannot be underestimated. These observations made by Selous in the field and expressed with such great confidence were important in fueling a new conservation movement. For half a century the public had been reading about the continuous slaughter of animals in the African interior and must have thought that the supply was inexhaustible. Selous was

influential in changing this perception.

When the curators of museums of zoology in Europe and the United States read the disturbing predictions of the imminent extinction of the white rhinoceros in Selous's works, they realised that there were only a handful of specimens available, more often than not in a dilapidated state. Most trophies consisted of horns only, while there were very few skins, skulls or skeletons which could be shown to a larger public. Selous himself had quite a number of trophies of both species of rhinoceros (Figure 154), which were donated to the Natural History Museum in London after his death in 1917 (Dollman, 1921). Rowland Ward (1896: 288, 1899: 441) listed two exceptional pairs of white rhinoceros horns obtained by Selous, the anterior ones measuring 37 3/8 inches (95 cm) and 33 inches (84 cm) in length respectively, and figured a skull of a white rhinoceros shot by Selous in Mashonaland in 1880. Alfred Cross, a settler who accompanied Selous for many years in Zimbabwe, shot two specimens of the white rhinoceros and gave the anterior horns, 35 1/4 inches (89.5 cm) and 29 5/8 inches (75 cm) long respectively, to the Kaffrarian Museum in King William's Town (Shortridge, 1934: 436). Arthur Eyre, another companion of Selous, shot a male white rhinoceros in Mashonaland in 1895. It was purchased by Cecil John Rhodes (1853–1902), mining magnate and politician, and presented to the South African Museum in Cape Town, where both mounted hide and skeleton were exhibited in 1904 (Selous, 1899: 58, Renshaw, 1904: 144).





**Figure 155.** William H. Drummond. Head of black rhinoceros (*The Large Game* 1875, p. 72).

#### 46. Leslie

*KwaZulu-Natal, 1875.* Table 40

The posthumous book *Among the Zulus and Amatongas* (1875) by David Leslie (d.1874) consists of stories written for a newspaper. There are no illustrations. He observed rhinoceroses, both black and white, in the vicinity of the Pongola River in Zululand (Leslie, 1875: 107, 110).

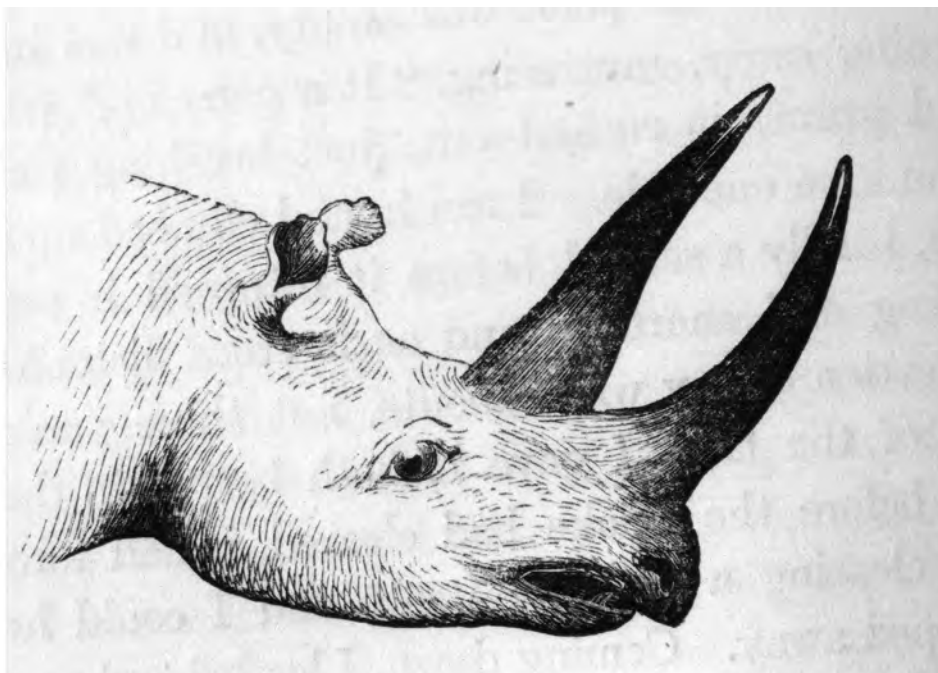
#### 47. Drummond

*KwaZulu-Natal, 1875.* Table 40, Figures 155–156

William Henry Drummond (1845–1879) hunted and traded in the Zulu, Swazi and Tsonga countries from 1868 to 1875,

when he returned to England (Tabler, 1977: 31). There he expediently published a large and comprehensive book on *The large Game and Natural History of South and South-East Africa* in 1875 which included two illustrations of the heads of the black and the *Keitloa* rhinoceroses (Drummond, 1875: 72, 136; Figures 155–156). At the end of 1877, once more back in Africa, he went hide hunting in the northern parts of KwaZulu-Natal, shooting seven rhinoceroses, while his companions accounted for another eight. Drummond was killed in the Battle of Ulundi during the Anglo-Zulu War on 4 July 1879.

Drummond was a correspondent for the British weekly *The Field* and his journalistic aspirations are evident in his book. Although he devoted 70 pages to the rhinoceros, they are filled with general adventures and experiences. There is no doubt



**Figure 156.** William H. Drummond. Head of Keitloa (*The Large Game, 1875,* p. 136).

**Table 43.** Number of 'rhino events' in the regions of southern Africa from 1795 to 1875.

	1800s	1810s	1820s	1830s	1840s	1850s	1860s	1870s	TOTAL
Eastern Cape	11		2	7	6	2	1		29
Northern Cape	10	1							11
North West*		4	25	30	88				147
Free State					1				1
KwaZulu-Natal					13	16		9	38
Namibia		2		18	14	11	17		62
Botswana			4		104	65	12	9	194
Zimbabwe						3	36	50	89
Zambia					1				1
<b>TOTAL</b>	<b>21</b>	<b>7</b>	<b>31</b>	<b>55</b>	<b>227</b>	<b>97</b>	<b>66</b>	<b>68</b>	<b>572</b>

\*Includes few records from Gauteng, Mpumalanga and Limpopo Province.

that Drummond saw and shot large numbers of black and white rhinoceroses, mainly in the area of the Black Umfolozi River, where he spent much of his time. His remarks on rhinoceros classification, however, are quite remarkable. Drummond at first followed the accepted opinion of his time to a large extent and differentiated between four, possibly five species, but he did not discuss this fully, intending "to do so at some future time" (Drummond, 1875: 83). He expanded on his views in a paper read at a meeting of the Zoological Society of London in January 1876. His lecture must have baffled his audience, and anybody who would attempt to classify an individual rhinoceros according to his system must have wondered how accurate it could possibly be. Perhaps it was fortunate for Drummond that so few African rhinoceroses, either alive or dead, were available in the collections in England. While Drummond (1875: 120–121) had consistently used vernacular names only to differentiate the various species of rhinoceros, he obviously deemed this insufficient in front of the learned gathering and provided scientific names for all of them.

Drummond (1876) differentiated three kinds of black rhinoceros:

1. *Rhinoceros bicornis minor*, the small black rhinoceros, known locally as *borele*, at the Limpopo River as the *upetyane*, and among the Dutch settlers as the *klin rhinaster*. This species was rare where the *kulumane* (no. 3) was common. It existed from the Umkusi (Mkuzi) Pass in the Bombo (Lebombo) Mountains to the Mbuluzi River.
2. *Rhinoceros Keitloa*, known as *keitloa* in the Limpopo region, and as *umkombe tovote* in KwaZulu-Natal.
3. *Rhinoceros bicornis major*, the greater black rhinoceros, known as *kulumane* on the eastern side (KwaZulu-Natal) and as *borele* (as no. 1) in "the country north of the Transvaal Republic, and south of the Zambezi." This was a new species: "though I claim for it the position of a distinct species, and believe that I am fully able to prove that claim, [it] has not as yet received a scientific name or recognition from naturalists" (Drummond, 1875: 120). The *kulumane* was found "in greater or less numbers in all parts of South Africa", but they were especially common in the valley of the Black Umfolozi River. It was rare in places where *Rhinoceros bicornis minor* was common.

Drummond (1876) recognised two types of white rhinoceros, which followed the more traditional classification.

4. *Rhinoceros simus*, the common white rhinoceros, the *mohohu* of the Bechuanas, and the *umkave*, or *umkombe woqobo* of the Amazulu, Amatabili (Ndebele) and Amatonga (Tsonga) tribes in KwaZulu-Natal. It was plentiful in the

great thorn district which is watered by the upper portion of the Umkusi" and it was the only species known on the great flats to the south known as Hlopekulu (Drummond, 1875: 121).

5. *Rhinoceros Oswellii*, or *kabaoba*, which Drummond was inclined to believe to be merely a variety of *Rhinoceros simus*.

A comparison of Drummond's book of 1875 and his lecture of 1876 proves how confused he himself was on the issue. Drummond (1875: 84) had inferred that the *kulumane* (no. 3) was a type of the white rhinoceros as it was listed between *R. simus* and *R. oswellii* and he provided three characteristics by which it could be distinguished from *Rhinoceros simus*, but in 1876 it had become a type of black rhinoceros. He listed numerous characters of all five species, but most of them could be assigned to individual variations. For almost a century, his classification was rarely mentioned in print, disregarded, for instance, by Hopwood (1939). Conversely, Zukowsky (1965) not only studied the work of Drummond, but even accepted parts of his argument, resulting in a revival of the scientific names which had earlier been proposed. According to Zukowsky (1965: 48), *Rhinoceros bicornis major* was a synonym of *Diceros bicornis keitloa* (A. Smith, 1836), but *Rhinoceros bicornis minor*, with type-locality restricted to Zululand, was the name for the black rhinoceros of southeastern Africa and areas further northwards, referred to as *Diceros bicornis minor* (Drummond, 1876). It would be difficult to find an historically more awkward and inappropriate selection. Applying the rules of priority in zoological nomenclature, Groves (1967) used *D. b. minor* for the large subspecies of black rhinoceros which ranges from Zululand northwards to Tanzania and Kenya, which has generally been followed subsequently.

## RHINOCEROS EVENTS

In this monograph I have identified 58 persons or groups of persons who had a "rhinoceros event" in southern Africa between 1795 and 1875 (Table 43). A rhinoceros event can be defined as any instance in which a rhinoceros was recorded in the animal's range, be it through hearsay, by finding tracks, or by direct observation. Any number of instances on a particular day is counted as one event, whether the person saw one rhinoceros or a group of twenty, whether he shot one or killed five at the same time. In total, there were 572 rhinoceros events. This includes 272 cases in which a rhinoceros (or several rhinoceroses in one day) was killed: 102 black rhinoceroses, 97 white rhinoceroses, 73 unidentified. As this averages just under seven events per year, and about three sets of rhinoceroses



killed annually, it can be accepted that the reported incidents of these rhinoceros events can only be a fraction of the actual occurrences. It will probably never be known what kind of percentage was actually recorded in books, manuscripts, photographs and drawings.

Table 43 shows that there was a marked peak in events in the 1840s and 1850s, the period in which most travellers headed for the North West Province and further into Botswana towards Lake Ngami. In broad terms it is possible to categorise the kinds of people who took the time to record their experiences in the African interior: there were 12 collectors, 10 missionaries, nine traders, seven military officers and five hunters, the others being less easily classified. Among all of them, there were only three who could be classed as trained zoologists. It is greatly to the credit of these people that we have at least some idea of the fauna living in Africa in the nineteenth century.

### RHINOCEROS SPECIMENS IN EUROPE

Few people involved in the study of natural history in the nineteenth century had the chance to travel abroad and to study animals on the spot. Instead, they had to rely on descriptions in books and artist's impressions. It was important to their understanding of the natural world to be able to examine skins and skeletons, hence the popularity of museums and private collections that preserve naturalia from around the globe. Today, the specimens collected in previous centuries provide tangible information about species or populations no longer in existence in their original range states. Owing to the size and weight of a rhinoceros, it was quite an achievement to transport complete skeletons or even dried hides to the coast to be shipped to Europe. It is no surprise, therefore, that only seven hides of *Diceros bicornis* and five of *Ceratotherium simum* were preserved, and six and one skeletons, respectively. The data of all rhinoceros specimens collected in southern Africa between 1795 and 1875 are listed in Tables 44 and 45, with information on the various changes in ownership and the current status of each item. In view of the great potential significance of each specimen, their history must be traced with special care, especially since data tend to be lost when there is a change of ownership. The taxonomy of the rhinoceros is based primarily on the shape and dimensions of skulls, being the most indicative of the general size of the animals. The existing material collected in southern Africa in the nineteenth century is often the only objective source of information about populations that no longer exist in the wild.

### THE SPECIES DEBATE

When Linnaeus (1758: 56) treated the genus *Rhinoceros* in the tenth edition of his *Systema Naturae*, he recognised two species distinguished among other characteristics by the number of their horns (Rookmaaker, 1998b, 2005a). The first species was single-horned (*Rhinoceros unicornis*), the second was double-horned (*Rhinoceros bicornis*). He called the latter an "obscure species" because he had only seen a head or skull. The distinction between the two species was clarified by the anatomical studies of Petrus Camper (1722–1789), who examined a specimen sent by Baron Joachim Ammena van Plettenberg (1739–1793) from the Cape of Good Hope (Camper, 1782; Rookmaaker, 2004a). There could be no doubt that the rhinoceros of the African continent differed from those in Asia. At the end of the eighteenth century, it was generally accepted that there was a unique species of rhinoceros in Africa.

This stability in classification could only be short-lived because of the increasing number of travellers reaching unexplored lands in the African interior. The various changes in the

classification of African rhinoceroses until 1875 have been set out in Table 46. This includes a selection of authors who provided an overview of all species of rhinoceros in southern Africa. The table includes both travellers who experienced the situation at first hand in the field, as well as taxonomists in Europe who had a chance to compare the data and examine the specimens which had been brought back.

The first indication that there was more than a single variety of rhinoceros came from Barrow (1801), who reported, from hearsay, the existence of a "white rhinoceros" which would be a pale carnation in colour. The members of the 1801 Truter-Somerville expedition to the North West Province saw and shot several rhinoceroses and, although confused about the characteristics, they believed that there was at least one supposedly new species among them (Daniell, 1805). Twenty years later, Campbell (1822a) returned to England with a rhinoceros skull, of which the anterior horn was much more developed than the posterior one. Rather than claiming that this was an unrecognised type of rhinoceros, he believed that it was an example of the unicorn. Although in all these cases the evidence was clearly presented, even to a scientific forum like the Royal Society of London, accompanied by well-executed plates, no nomenclatorial action was taken. The reasons for this comparative restraint among the scientists in Europe are not clear, but perhaps they hoped that better material would turn up.

The rhinoceros seen by Burchell in the North West Province in 1812 was soon found to be a new species, larger than the animals known closer to the Cape. After its description as *Rhinoceros simus* by Burchell (1817a), its acceptance in the literature was ubiquitous and constant. Despite the scant evidence presented in the first reports, the animal could hardly be confused with the other rhinoceros known in Africa. The fact that Burchell was a respected naturalist may have contributed to the admission of this new species. A similarly successful discovery was made by Andrew Smith in 1835 in the Magaliesberg. His party shot a rhinoceros that looked different from the others which had already been seen during the expedition and the animal could easily be distinguished by the two horns being nearly equal in length. Smith, too, was an esteemed zoologist and through his description of *Rhinoceros keitloa* (Smith, 1836), accompanied by a beautiful illustration, he paved the way for speculation about differences between individual rhinoceroses. Although Smith presented a list of characteristics for his new species, it was commonly recognised in the field by the shape and lengths of the horns. There is in fact an infinite variety in the relative shapes of the two horns in all rhinoceros in Africa, now ascribed to individual variation (Groves, 1971). One surmises that there must have been long discussions around the hunter's campfires about the significance of the various forms of horns, always hoping that one would be constant enough to allow recognition of yet another species.

About a decennium after Smith, Schinz (1845) supposed that Alexander (1838) had meant to describe a new species of rhinoceros found in Namibia. The scientific name, *Rhinoceros niger*, was ill-founded and never gained much currency. In 1846, Oswell observed a group of white rhinoceroses which had very long anterior horns curving forward. As this shape materially differed from the usual one, he believed that it might be a separate species, which was soon named *Rhinoceros oswellii* (Elliot, 1847). As in the case of the *Keitloa*, the main character was immediately visible in the field, hence the species was generally accepted afterwards.

From the late 1840s, therefore, it was common to recognise four species of rhinoceros in Africa, the first two classed as

**Table 44.** Specimens of the black rhinoceros *Diceros bicornis* collected in southern Africa from 1795 to 1875, with a number of additional specimens collected by people mentioned in the text.

No	Date Date	Collector Depository (number)	Locality	Material
1	1803 1803 1866	J.A.Uytenhage de Mist (§4) Haarlem, Hollandsche Maatschappij van Wetenschappen Unknown after 1866	? Eastern Cape	Horns
2	1809 1809	Collector unknown Paris, Muséum National d'Histoire Naturelle	unknown	Head
3	1809 1809	Collector unknown Paris, Muséum National d'Histoire Naturelle	unknown	Mounted hide
4	1812 1812	Collector unknown Paris, Muséum National d'Histoire Naturelle	unknown	Skeleton
5	1812 1812	Collector unknown Paris, Muséum National d'Histoire Naturelle (A2.270)	unknown	Skull (juvenile)
6	1812 1815 1817 1843	W.J. Burchell (§6) Private collection, William J. Burchell at Fulham, United Kingdom London, Natural History Museum Unknown after about 1843	[South Africa]	Mounted skin
7	1812 1815	W.J. Burchell (§6) Private collection, William J. Burchell at Fulham – seen by Wahlberg in 1838	[South Africa]	Horns
8	1820 1821	P.A. Delalande (§7) Paris, Muséum National d'Histoire Naturelle (no. 7969)	Eastern Cape	Skeleton, horns
9	1826 1826	H. Boie, 1826 Leiden, Naturalis (Jentink, 1887, no. a; currently 19598)	Cape	Skeleton
10	1829 1829 1865 1938	H.B. van Horstok (§13) Amsterdam, Museum of Gerard Vrolik Amsterdam, Museum of Natura Artis Magistra Amsterdam, Zoological Museum (no. 506)	South Africa?	Skeleton, skull
11	1830 1830 1830	L. Krebs (§11) Berlin, Zoologisches Museum (arrival not recorded) Status after 1830 not known	Eastern Cape	Skeleton, hide
12	1837 1837 1839 1839	A. Smith (§18) London, South African Museum, Egyptian Hall Auctioned in London London, Natural History Museum	unknown	Mounted skin, "bicornis"
13	1837 1837 1839 1839	A. Smith (§18) London, South African Museum, Egyptian Hall Auctioned in London London, Natural History Museum	unknown	Mounted skin, "keitloa"
14	?1837 1851 1852 1939	A. Smith (§18) London, Crystal Palace South African Exhibit in Piccadilly London, Natural History Museum (Hopwood, 1939; no. 1838).	unknown	Skull
15	1838 1838 1838	J.E. Alexander (§21) Private collection, J.E. Alexander (in Ogilby, 1838) Status after 1838 unknown	Namibia	Skull (?)
16	1840s 1843 1876 1916 1916	W.S. Sherwill (§26) Calcutta, Asiatic Society of Bengal Calcutta, Indian Museum Calcutta, Zoological Survey of India Current status unknown	South Africa?	2 anterior horns
17	1830s 1840	Collector unknown Frankfurt am Main, Senckenberg Museum (donated by Ogilby)	[South Africa]	Skull
18	1830s 1842	Collector unknown Frankfurt am Main, Senckenberg Museum	[South Africa]	Posterior horn
19	1840 1840 1843	Collector unknown Liverpool, Knowsley Hall, Earl of Derby London, Natural History Museum (listed in Gray, 1843)	unknown	?Hide
20	1845 1845	J.A. Wahlberg (§23) Stockholm, Natural History Museum (no. A591357)	Caffraria	Skull, mounted skin
21	1845 1845	J.A. Wahlberg (§23) Stockholm, Natural History Museum (no. A581358)	Caffraria	Skull, horns
22	1845 1845	J.A. Wahlberg (§23) Stockholm, Natural History Museum (no. A591569)	Caffraria	Skull without nasalia

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Table 44 (continued) - Specimens of black rhinoceros

No	Date Date	Collector Depository (number)	Locality	Material
23	1845 1845	J.A. Wahlberg (§23) Stockholm, Natural History Museum (not catalogued)	Caffraria	Embryo in alcohol
24	1851 1855 1866	R. Gordon Cumming (§30) Fort Augustus, Gordon Cumming's Museum Auctioned in London – Buyer unknown	unknown	Skull
25	1851 1855 1866	R. Gordon Cumming (§30) Fort Augustus, Gordon Cumming's Museum Auctioned in London –Buyer unknown	unknown	Horns
26	1853 1853 ?	C.J. Andersson (§35) Private collection, C.J. Andersson, Namibia Johannesburg, Africana Museum (MuseumAfrica)	Namibia?	Horn cup
27	1857 1857	J.A. Wahlberg (§23) Stockholm, Natural History Museum (no. A607484)	Namibia	Horn
28	1857 1857	J.A. Wahlberg (§23) Stockholm, Natural History Museum (no. A607562)	Namibia	Horn
29	1857 1857	J.A. Wahlberg (§23) Stockholm, Natural History Museum (no. A621576)	Damaraland	Horn
30	1860s 1860s ? 1972	Murray (§42) Private collection, Murray family, Graaff-Reinet, Private collection, Murray family, Pretoria Reinet House Museum, Graaff-Reinet	Graaff-Reinet	Anterior horn
31	1873 1873 1919	F.C. Selous (§45) Private collection, F.C. Selous, Worplesdon, United Kingdom London, Natural History Museum (no. 1919.7.15.515)	Gwai River	Pair of horns
32	1873 1919	F.C. Selous (§45) London, Natural History Museum (no. 1919.7.15.518)	Matabililand	Horn
33	1874 1919	F.C. Selous (§45) London, Natural History Museum (no. 1919.7.15.514)	Chobe River	Pair of horns
34	1874 1919	F.C. Selous (§45) London, Natural History Museum (no. 1919.7.15.516)	Thamma Setzi	Pair of horns
35	1880 1919	F.C. Selous (§45) London, Natural History Museum (no. 1919.7.15.517)	Umfuli River	Pair of horns
36	1880 1880 1881	F.C. Selous (§45) Private collection, F.C. Selous, Worplesdon, United Kingdom Destination unknown. Illustrated in Selous, 1881, fig. 1.	Umniati River	Pair of horns
37	1880 1880 1881	F.C. Selous (§45) Private collection, F.C. Selous, Worplesdon, United Kingdom Destination unknown. Illustrated in Selous, 1881, fig. 3.	Umfuli R.	Pair of horns
38	1880 1880 1881	F.C. Selous (§45) Private collection, F.C. Selous, Worplesdon, United Kingdom Destination unknown. Illustrated in Selous, 1881, fig. 5.	Umsengaisi R.	Pair of horns
39	1880 1880 1881	F.C. Selous (§45) Private collection, F.C. Selous, Worplesdon, United Kingdom Destination unknown. Illustrated in Selous, 1881, fig. 6.	Umsengaisi R.	Pair of horns
40	1880 1880 1881	F.C. Selous (§45) Private collection, F.C. Selous, Worplesdon, United Kingdom Destination unknown. Illustrated in Selous, 1881, fig. 8.	Umfule River	Pair of horns
41	1883 1919	F.C. Selous (§45) London, Natural History Museum (no. 1919.7.15.511)	Umsengaisi River	Skull and horns
42	1884 1884	F.C. Selous (§45) Cape Town, South African Museum (no. ZM 21384)	Zimbabwe	Skull
43	1884 1884	F.C. Selous (§45) Cape Town, South African Museum (no. ZM 21385)	Zimbabwe	Skull
44	1884 1884	F.C. Selous (§45) Cape Town, South African Museum (no. ZM 34011)	Zimbabwe	Skeleton, skull
45	1885 1919	F.C. Selous (§45) London, Natural History Museum (no. 1919.7.15.512)	Umfuli River	Pair of horns
46	1885 1919	F.C. Selous (§45) London, Natural History Museum (no. 1919.7.15.513)	Hanyani River	Pair of horn
47	1913 1913	Dug up London, Natural History Museum (no. ZE 1962.2.16.1)	Beaufort West	Skull

**Table 45.** Specimens of the white rhinoceros *Ceratotherium simum* collected in southern Africa from 1795 to 1875, with a number of additional specimens collected by people mentioned in the text.

No	Date Date	Collector Depository (number)	Locality	Material
1	? 1820 1879	Collector unknown The Hague, Mauritshuis Leiden, Naturalis (cf. Jentink, 1892: 197)	unknown	Flat skin, no horns
2	1812 1815 1865	W.J. Burchell (§6) Private collection, William J. Burchell at Fulham, United Kingdom Oxford, University Museum (no. 8218, O.C. 1564)	[South Africa]	Left upper first molar (A)
3	1812  1815 1865	W.J. Burchell (§6)  Private collection, William J. Burchell at Fulham, United Kingdom Oxford, University Museum (no. 8219, O.C. 1565)	[South Africa]	Right upper 4th premolar (A)
4	1812  1815 1865	W.J. Burchell (§6)  Private collection, William J. Burchell at Fulham, United Kingdom Oxford, University Museum (no. 8220, O.C. 1567)	[South Africa]	Left upper 4th premolar (A)
5	1812  1815 1865	W.J. Burchell (§6)  Private collection, William J. Burchell at Fulham, United Kingdom Oxford, University Museum (no. 8221, O.C. 1568)	[South Africa]	Right upper second molar (A)
6	1812 1815 1865	W.J. Burchell (§6) Private collection, William J. Burchell at Fulham, United Kingdom Oxford, University Museum (no. 8222, O.C. 1566)	[South Africa]	Left upper second molar (B)
7	1812 1815 1865	W.J. Burchell (§6) Private collection, William J. Burchell at Fulham, United Kingdom Oxford, University Museum (no. 8223, O.C. 1569)	[South Africa]	Lower left third molar (B)
8	1812  1815 1865	W.J. Burchell (§6)  Private collection, William J. Burchell at Fulham, United Kingdom Oxford, University Museum (no. 8224, O.C. 1570)	[South Africa]	Lower right first molar (B)
9	1812 1815 1865	W.J. Burchell (§6) Private collection, William J. Burchell at Fulham, United Kingdom Oxford, University Museum (no. 8225, O.C. 1571)	[South Africa]	Lower left first molar (B)
10	1812 1815 1865	W.J. Burchell (§6) Private collection, William J. Burchell at Fulham, United Kingdom Oxford, University Museum (no. 10570, O.C. 1562)	[South Africa]	Integument
11	1812 1815 1865	W.J. Burchell (§6) Private collection, William J. Burchell at Fulham, United Kingdom Oxford, University Museum (no. 10571, O.C. 1563)	[South Africa]	Integument
12	1812 1815 1865	W.J. Burchell (§6) Private collection, William J. Burchell at Fulham, United Kingdom Oxford, University Museum (no. 10572, O.C. 1573)	[South Africa]	Posterior horn
13	1812 1815 1865	W.J. Burchell (§6) Private collection, William J. Burchell at Fulham, United Kingdom Oxford, University Museum (no. 10573, O.C. 1573)	[South Africa]	Horn
14	1812 1815 1865	W.J. Burchell (§6) Private collection, William J. Burchell at Fulham, United Kingdom Oxford, University Museum (no. 13216)	[South Africa]	Portion of skin
15	1812 1815	W.J. Burchell (§6) Private collection, William J. Burchell at Fulham (seen by Wahlberg in 1838)	[South Africa]	Horns
16	1812 1815 1853 1941	W.J. Burchell (§6) Private collection, William J. Burchell at Fulham, United Kingdom London, Royal College of Surgeons (no. 2155, O.C.2959) Destroyed	[South Africa]	Left upper molar
17	1812 1815 1853 1941	W.J. Burchell (§6) Private collection, William J. Burchell at Fulham, United Kingdom London, Royal College of Surgeons (no. 2156, O.C.2960) Destroyed	[South Africa]	Upper milk molar
18	1812 1815 1853 1941	W.J. Burchell (§6) Private collection, William J. Burchell at Fulham, United Kingdom London, Royal College of Surgeons (no. 2157, O.C.2968) Destroyed	[South Africa]	Pair of horns
19	1812 1815	W.J. Burchell (§6) Private collection, William J. Burchell at Fulham, United Kingdom	[South Africa]	Pair of horns, young

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Table 45 (continued) - Specimens of white rhinoceros

No	Date Date	Collector Depository (number)	Locality	Material
	1853	London, Royal College of Surgeons (no. 2158A, O.C.2966)		
	1941	Destroyed		
20	1821	J. Campbell (§8)	Mashow	Skull
	1821	London, London Missionary Society		
	1902	New York, American Museum of Natural History (donated by Cecil Graham)		
21	1831	H.B. van Horstok (§13)	[South Africa]	Skull
	1831	Leiden, Naturalis		
22	1833	R. Dunn (§17)	South Africa	Hide
	1833	Saffron Walden Museum		
	1960	Discarded		
23	1837	A. Smith (§18)	[South Africa]	Mounted skin
	1837	London, South African Museum, Egyptian Hall		
	1838	Auction in London		
	1838	London, Natural History Museum		
24	1838	J.E. Alexander (§21)	Namibia	Skull, imperfect
	1838	Private collection, J.E. Alexander (in Ogilby, 1838)		
	1838	Status after 1838 unknown		
25	1840s	W.S. Sherwill (§26)	South Africa ?	Anterior horn
	1843	Calcutta, Asiatic Society of Bengal		
	1876	Calcutta, Indian Museum		
	1916	Calcutta, Zoological Survey of India		
	1916	Current status unknown		
26	1842	J. Burke (§24)	Magaliesberg	Skull, skin
	1842	Liverpool, Knowsley Hall, Earl of Derby		
27	?	J. Burke (§24)	unknown	Head, skull
	1842	Liverpool, Knowsley Hall, Earl of Derby		
	1869	Liverpool, Free Museum		
	?	Liverpool Museum		
	1941	Destroyed		
28	1842	A. Delegorgue (§22)	Umfoloji River	Skeleton
	1845	Paris, Muséum National d'Histoire Naturelle		
29	1842	J.A. Wahlberg (§23)	Zululand	Skull
	1845	Stockholm, Natural History Museum (no. A591359)		
30	1842	J.A. Wahlberg (§23)	Zululand	Mounted hide
	1845	Stockholm, Natural History Museum (no. A591359)		
31	1845	J.A. Wahlberg (§23)	Caffraria	Skull
	1845	Stockholm, Natural History Museum (no. A581360)		
32	1845	J.A. Wahlberg (§23)	Caffraria	Horn
	1845	Stockholm, Natural History Museum (no. A607566)		
33	1850	R. Gordon Cumming (§30)	unknown	Skull
	1851	London, Crystal Palace		
	1852	South African Exhibit in Piccadilly		
	1855	Fort Augustus, Gordon Cumming's Museum		
	1866	Auction in London		
	1866	London, Royal College of Surgeons of London (no. 2154)		
34	1850	R. Gordon Cumming (§30)	unknown	Horns
	1851	London, Crystal Palace		
	1852	South African Exhibit in Piccadilly		
	1855	Fort Augustus, Gordon Cumming's Museum		
	1866	Auction in London – Buyer unknown		
35	1850	R. Gordon Cumming (§30)	unknown	Horn
	1866	Private collection, Sir William Gordon Cumming, Forres, Scotland (present 1999)		
36	1850	R. Gordon Cumming (§30)	unknown	Horn
	1866	Private collection, Sir William Gordon Cumming, Forres, Scotland		
	1999	Lost		
37	1853	W.C. Oswell (§31)	South Africa	Pair of horns
	1853	Thomas Steele		
	1853	London, Natural History Museum (no. 1853.4.18.1)		
		type of <i>Rhinoceros oswelli</i> Gray, 1853 (figured by Groves, 1971, fig. 20)		
38	1853	W.C. Oswell (§31)	Limpopo River	Horn
	1853	Oswell's private collection		
		"the horn now hangs over the entrance to my front door" (Oswell, 1894: 103).		
39	1857	J.A. Wahlberg (§23)	Damaraland	Horn
	1857	Stockholm, Natural History Museum (no. A607464)		

Continued on p. 123

Table 45 (continued) - Specimens of white rhinoceros

No	Date Date	Collector Depository (number)	Locality	Material
40	1857 1857	J.A. Wahlberg (§23) Stockholm, Natural History Museum (no. A607485)	Damaraland	Horn
41	1857 1857	J.A. Wahlberg (§23) Stockholm, Natural History Museum (no. A581567)	unknown	Skull
42	? ?	J.A. Wahlberg (§23) Stockholm, Natural History Museum (no. A587554)	unknown	Horn
43	1865 1865 1904	T. Baines (§38) London, Royal College of Surgeons of England (no. 47) Not known after 1904	unknown	Embryo
44	1872 1872 ?	F.C. Selous (§45) Private collection, F.C. Selous, Worplesdon, United Kingdom Destination unknown (Selous, 1876, no.5)	Sech Wechive	Pair of horns
45	1874 1874 ?	F.C. Selous (§45) Private collection, F.C. Selous, Worplesdon, United Kingdom Destination unknown (Selous, 1876, no.4)	Chobe River	Pair of horns
46	1874 1874 ?	F.C. Selous (§45) Private collection, F.C. Selous, Worplesdon, United Kingdom Destination unknown (Selous, 1876, no.6)	Zimbabwe	Pair of horns
47	1884 1884 ?	F.C. Selous (§45) Private collection, F.C. Selous, Worplesdon, United Kingdom Destination unknown (illustrated in Selous, 1914, pl. II)	Sebakwe River	Skull with horns
48	1884 1884	F.C. Selous (§45) Cape Town, South African Museum (no. ZM 21379)	Zimbabwe	Skull
49	1884 1884	F.C. Selous (§45) Cape Town, South African Museum (no. ZM 21381)	Zimbabwe	Skull
50	? 1884 1884	F.C. Selous (§45) Cape Town, South African Museum (no. ZM 21382)	Zimbabwe	Skull
51	1900 1900	Dug out Cape Town, South African Museum	Kimberley Dt	Skull, imperfect
52	1919 1919	F.C. Selous (§45) London, Natural History Museum (no. 1919.7.15.521)	Thamma Setzi	Pair of horns
53	1919 1919	F.C. Selous (§45) London, Natural History Museum (no. 1919.7.15.522)	Umniati River	Skull with horns

black, the remaining as white. Officially they were called *Rhinoceros bicornis*, *R. keitloa*, *R. simus* and *R. oswellii*, but travelers preferred variations of indigenous names: *Borele*, *Keitloa*, *Mahooohoo* and *Kobaaba*. These four types were well depicted by Andersson and Baines (Figures 100, 137). This nomenclatorial practice was by no means confined to explorers and hunters. Whenever scientists and popular writers outside Africa needed to name a rhinoceros, they would use a classification which closely resembled the practice in the field. The best example is J.E. Gray, curator of mammals at the British Museum in London, who, in his widely circulated catalogues of the collection, distinguished four species with common names directly taken from the African usage (Gray, 1862, 1869). The new names of the rhinoceros also found their way into the world of novels. For instance, Fenton (1858: 262) narrated an adventure of Mrs Somerset in Caffraria in which an immense *borelé* while "foaming with disappointed rage" attacked a girl. Reid (1868: 199) told about young hunters pursuing a *borelé* or black rhinoceros.

During a period when species of rhinoceros were divided according to the shapes of their horns, it was inevitable that types were added based on a variety of morphological criteria, as well as on size or temperament (Table 46). These classifications became increasingly subjective and hence less useful. There were reports that some farmers could separate six or even seven species. This tendency was transferred from the African bush to the English lecture hall by Drummond (1876), who showed his audience that there were four species of

rhinoceros, one of which was separated into two subspecies (a novel concept at the time). Drummond's exposition showed that the characters dividing the five taxa were confusing and that their ranges had significant overlap. As an early critic, Selous (1876) was at first willing to exhibit horns which would correspond with these species. He was far less indulgent in his chapter-length study of the African rhinoceros, however, in which he tried to convince his readers that there was no logical way to distinguish all these species and that it would be preferable to allow just two, the black and the white rhinoceros (Selous, 1881a). Selous was an authority who had many avid readers. His opinion was based on personal experience and common sense and he avoided the problems attached to the proliferation of species advocated by local farmers like Hartley and journalists like Drummond. At the end of the nineteenth century, therefore, it was common to accept that there were only two species of rhinoceros in the southern third of Africa, relegating Campbell's unicorn, Schinz's *Rhinoceros niger*, Smith's *R. keitloa*, Oswell's rhinoceros and Drummond's subspecies to the list of synonyms.

The confusion was more profound in the vernacular than in the binomial nomenclature. Only a handful of authors ventured to provide English (or Dutch) names for the various species, instead using the African appellations transcribed in a bewildering variety of spellings. The *Keitloa* never had an accepted English name, although Baldwin (1863a) proposed to call it blue rhinoceros. The *Kobaaba* was usually named after its discoverer, Oswell's rhinoceros. The origin of the names



**Table 46.** Comparison of the number of rhinoceros species in Africa admitted in the nineteenth century. This includes scientific and common names accepted by authors intending to list all rhinoceros species in southern Africa between 1795 and 1875, as well as those introducing new species. Scientific names are in *italics*, those in European and African languages given as in the original.

Source	Black rhinoceroses		White rhinoceroses		Additional types
	Common black	Keitloa black	Common white	Long-horned white	
Linnaeus, 1758	<i>Rhinoceros bicornis</i>				
Blumenbach, 1779	<i>Rhinoceros bicornis</i> Afrikanische Nashorn				
Pennant, 1793	Two-horned rhinoceros				
Blumenbach, 1797	<i>Rhinoceros africanus</i>				
Shaw, 1800	Two-horned rhino				"White rhinoceros"
Barrow, 1801	African rhinoceros				
Lacépède & Daudin, 1802	<i>Rhinoceros bicornis</i>				
Borchards, 1802	Magooe	Seikloa			
Daniell, 1805	African rhinoceros				Kemenjana
Barrow, 1806		Jeckloa			Another new species
Bewick, 1807	<i>Rhinoceros bicornis</i>				
Thunberg, 1811	Two-horned rhinoceros				
Lichtenstein, 1811	<i>Rhinoceros bicornis</i>				
Cuvier, 1817	Ronnoster Unkhomo, K'homba <i>Rhinoceros Africanus</i> Rhinocéros d'Afrique				
Burchell 1817b					
Blainville, 1817	Rhinocéros bicolore du Cap				Rhinocéros de Gordon
Campbell, 1822a	Common rhinoceros				Unicorn
Home, 1822a	African rhinoceros				New species of rhino [=Campbell's unicorn]
Burchell, 1824a	Common black rhino Killenjan			Mohohu	
Burchell, 1825	<i>Rhinoceros bicornis</i> Killenyan			<i>Rhinoceros simus</i> Mohohu	
Bain, [1826] 1949	Black rhino			White rhino	
Lesson, 1827	<i>Rhinoceros africanus</i>			<i>Rhinoceros Burchellii</i>	
Thompson, 1827a	Black rhino			Burchell's rhinoceros	
Cuvier, 1829	<i>Rhinoceros Africanus</i> Rhinocéros d'Afrique				
Smith, 1833	<i>Rhinoceros africanus</i>				
McMurtrie, 1834	<i>Rhinoceros Africanus</i>			<i>Rhinoceros simus</i>	

Source	Black rhinoceroses		White rhinoceroses		Additional types
	Common black	Keitloa black	Common white	Long-horned white	
Smith, 1836a	<i>Rhinoceros africanus</i>	<i>Rhinoceros keitloa</i>	<i>Rhinoceros Sinusus</i>		
Jardine, 1836	<i>Rhinoceros africanus</i> Two-horned African rh.		<i>Rhinoceros simus</i> Flat-nosed rhinoceros		
Smith, 1837	<i>Rhinoceros africanus</i> Black rhino	<i>Rhinoceros keitloa</i> Keitloa	<i>Rhinoceros simus</i> White rhino		
Alexander, 1838a	Black rhino		White rhino		
Ogilby in Alexander, 1838a	<i>Rhinoceros africanus</i>		<i>Rhinoceros simus</i>		
Harris, 1838	<i>Rhinoceros africanus</i> Boreli, Black rhino		<i>Rhinoceros sinusus</i> White rhino Chikore, Mohoohoo		
Smith, 1838b–1839	<i>Rhinoceros bicornis</i>	<i>Rhinoceros keitloa</i>	<i>Rhinoceros simus</i>		
Harris, 1841b	<i>Rhinoceros africanus</i> Chukuroo, Black rhino		<i>Rhinoceros simus</i> White rhino Chikore, Mohoohoo		
Arbousset, 1842	Mogoufou				Magalé [type of black rhino]
Lesson, 1842	<i>Rhinoceros bicornis</i>		<i>R. bicornis</i> , var. <i>simus</i>		
Gray, 1843	<i>Rhinoceros bicornis</i> Gargatan, Rhinaster	<i>Rhinoceros keitloa</i> Sloan's Rhinoceros	<i>Rhinoceros simus</i> Burchell's Rhinoceros		
Backhouse, 1844	<i>Rhinoceros bicornis</i> Common two-horned rh	<i>Rhinoceros keitloa</i>	<i>Rhinoceros Simus</i>		Rhino with one long horn
Tindall, [1844] 1959	Black rhino		White rhino		
Wahlberg, [1844] 1994	Black rhino	?Keitloa	White rhino		
Knudsen, [1845] (Moritz, 2000)	Black rhino		White rhino		
Schinz 1845	<i>Rhinoceros camperi</i>	<i>Rhinoceros keitloa</i>	<i>Rhinocerossimus</i>		<i>Rhinoceros niger</i>
Arkwright [1846] 1971	Black rhino	Small black rhino Borele	White rhino		
Blainville, 1846	<i>Rhinoceros bicornis</i>	<i>Rhinoceros keitloa</i>	<i>Rhinoceros simus</i>		
Methuen, 1846	Black rhino	<i>Rhinoceros keitloa</i>	White rhino		Rhino, another species
Delegorgue, 1847	<i>Rhinoceros africanus bicornis</i> chukourou makaley	<i>Rhinoceros quetloha</i>	<i>Rhinoceros simus</i>	<i>Rhinoceros lelongouanne</i>	<i>Rhinoceros unicornis</i>
Oswell in Elliot, 1847	<i>Rhinoceros bicornis</i> Boreali	Keitloa, variety of <i>R. bicornis</i>	White rhino Chakuru, Mahuhu	Quebaba	
Elliot, 1847				<i>Rhinoceros oswellii</i>	
Dolman [1849]	Borhili	Keitloa	Mohohu	Quebaba	
Gordon Cumming, 1850	Black rhino Borele	long-horned black rh. Keitloa	White rhino MUCHOCHO	Long-horned white rh. Kobaaba	
Pöpping, 1851	<i>Rhinoceros bicornis</i>	<i>Rhinoceros keitloa</i>	<i>Rhinoceros simus</i>		
Livingstone, [1853] 1960	Black rhino Borelé	Keitloa is full-grown Boreele	White rhino Mohohoo	Kuabaaba	Black short-horned rhino, Boreelenyane

Continued on p. 126



Source	Black rhinoceroses		White rhinoceroses		Additional types
	Common black	Keitloa black	Common white	Long-horned white	
Wagner, 1855	<i>Rhinoceros africanus</i>	<i>Rhinoceros keitloa</i>	<i>Rhinoceros simus</i>		
Andersson, 1856	<i>Rhinoceros bicornis</i> Black rhino, Borele	<i>Rhinoceros keitloa</i> Keitloa	<i>Rhinoceros simus</i> Mohohoo	<i>Rhinoceros oswellii</i> Kobaaba	
Livingstone, 1857	Black rhino		White rhino		
Chenu, 1858	<i>Rhinoceros bicornis</i> Rhinocéros d'Afrique	<i>Rhinoceros keitloa</i> Rhinocéros keitloa	<i>Rhinoceros simus</i> Rhinocéros camus		<i>Rhinoceros Gordonii</i> Rhinocéros de Gordon
Hall, 1859	<i>Rhinoceros africanus</i> Boreli	<i>Rhinoceros keitloa</i>	<i>Rhinoceros simus</i> Mohohoo	<i>Rhinoceros oswellii</i> Kabaaba	
Gray, 1862	<i>Rhinaster bicornis</i> Gargatan, Rhinaster	<i>Rhinaster keitloa</i> White rhinoceros [sic]	<i>Rhinaster simus</i> Burchell's Rhinoceros	<i>Rhinaster oswellii</i> Kobaaba	
Baldwin, 1863a	Black rhino, Borele	Blue rhino	White rhino, Incomba		
Dusseau, 1865	<i>Rhinoceros bicornis africanus</i>				
Baines, 1866	<i>Rhinoceros bicornis</i> Bortele	<i>Rhinoceros keitloa</i> Keitloa	<i>Rhinoceros simus</i> Mahohoo	<i>Rhinoceros oswellii</i> Kobaaba	Borteleana
Murray, 1866	<i>Rhinoceros bicornis</i>	<i>Rhinoceros keitloa</i>	<i>Rhinoceros simum</i> Mahohoo	<i>Rhinoceros kiaboaba</i> Kobaaba	
Chapman, 1868			<i>Ceratotherium simum</i> Mahohoo	<i>Ceratotherium oswellii</i> Kobaaba	
Gray, 1868, 1869	<i>Rhinaster bicornis</i> Bovili	<i>Rhinaster keitloa</i> Keitloa or Keitloa var. 1 Keitloa var. 2 <i>camperi</i>			
Baines, [1871] 1946	Black rhino	Blue rhino, Keitloa	White rhino, Mahohoo = Kobaaba	Elephant rhino	Bortele and Borteleana
Sciater, 1872	<i>Rhinoceros bicornis</i>		<i>Rhinoceros simus</i>		
Gray, 1873	<i>Rhinaster bicornis</i>	<i>Rhinaster Keitloa</i>	<i>Ceratotherium simum</i>	<i>Ceratotherium oswellii</i>	
Noll, 1873	<i>Rhinoceros bicornis</i> Schwarze Nashorn	[ <i>R. keitloa</i> is old male of <i>R. bicornis</i> ]	<i>Rhinoceros simus</i>		
Leslie, 1875	Black rhino		Weisse Nashorn		
Drummond, 1875	<i>Rhinoceros bicornis</i>	<i>Rhinoceros keitloa</i>	White rhino		
Drummond, 1876	<i>Rhinoceros bicornis major</i>	<i>Rhinoceros keitloa</i>	<i>Rhinoceros simus</i>	<i>Rhinoceros oswellii</i>	<i>Rhinoceros bicornis minor</i>
Flower, 1876	<i>Atelodus bicornis</i>	[ <i>R. keitloa</i> is synonym of <i>R. bicornis</i> ]	<i>Atelodus simus</i>	<i>Rhinoceros oswellii</i> [ <i>R. oswellii</i> is synonym of <i>R. simus</i> ]	
Sciater, 1876	<i>Rhinoceros bicornis</i>	<i>Rhinoceros keitloa</i>			
Selous, 1876	<i>Rhinoceros bicornis major</i>	<i>Rhinoceros keitloa</i>	<i>Rhinoceros simus</i>		
Brehm, 1877	<i>Rhinoceros bicornis</i>	<i>Rhinoceros keitloa</i>	<i>Rhinoceros simus</i>		
Brandt, 1878	<i>Atelodus bicornis</i>	<i>Atelodus simus</i> var. A. <i>camptoceros</i>	<i>Atelodus simus</i> var. B <i>prosthoceros</i>		
Selous, 1881b	Black rhino	White rhino			



**Figure 157.** James Hope Stewart. Different species of rhinoceros (Goldsmith, 1868. *A History of the Earth and animated Nature*).

“black” and “white” has never been adequately explained. People have wondered why an animal which is not at all white in colour could have come to bear that name (Renshaw, 1904: 131–134; Rookmaaker, 2003a). The colours adjusted according to the names are shown in an engraving by James Hope Stewart, first published in Goldsmith (1868), where a dark “two-horned African rhinoceros” stands besides a “muchoo white rhinoceros” which is entirely white (Figure 157). The explanation most commonly accepted today, that “white” is a corruption of the Dutch or Afrikaans word “wyd” (wide), was first introduced by Pitman (1931), but fails to satisfy linguistic criteria and cannot be correct. The qualifications “black” and “white” for the rhinoceros were first consistently used in print by Harris (1838) and Alexander (1838a), but neither gave any reason for their selection. It is likely that they referred to an older usage among settlers. The term “white” had been used by Barrow (1801), by missionaries in Namibia around 1806 (S6) and by Bain (1949) in 1826 for rhinoceroses which were supposed to differ from the usual specimens, but whether they actually referred to the species now known by the name white rhinoceros is questionable. It seems, remarkably, that nobody considered trying to explain the names until the end of the nineteenth century when, for instance, Nicholson (1894) thought it referred to the comparative frequency of albino specimens and MacGillewill (1894) noted that the horns of the animals were actually coloured as the names of the species would suggest. The distinction possibly came in use after the discovery of the new rhinoceros by Burchell in 1817, but hitherto no written evidence has been uncovered.

#### DISTRIBUTION OF THE RHINOCEROS

The records of the historical distribution of the black and white rhinoceros are given in Tables 1–42. These are here analysed first according to the present provinces of South Africa and the countries of Namibia, Botswana and Zimbabwe, followed by an overview of the range of each species.

#### I. Eastern Cape

The presence of the black rhinoceros in the Eastern Cape was noted by Barrow, Paravicini, Lichtenstein, Delalande, Krebs, Boie, Van Horstok, Steedman, Pringle, Moodie, Backhouse, Bunbury, Black, Murray family, Hall, Gordon Cumming and Baines (Map A). The animal had been known in the area since the seventeenth century and was particularly numerous in the densely forested valley of the Great Fish River (Skead, 1987: 548). Although there are only few records after the 1840s, it seems undeniable that the rhinoceros continued to thrive in the area for a long time, with claims of the last animal being shot dating from 1842, 1853 and even the 1860s.

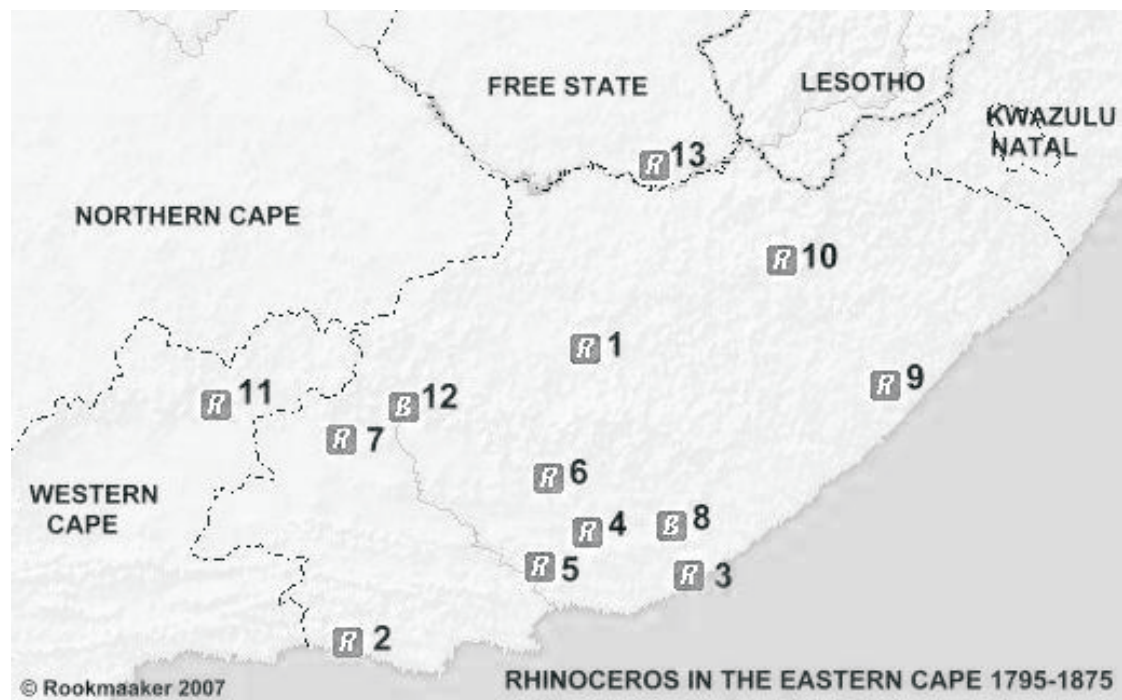
The greatest anomaly in this respect is the apparent lack of direct observations. This is partly explained by the fact that the sport hunters and adventurers who have left written records tended to travel much further inland. They were interested in areas where elephants and other game could be found in abundance, and where they could hope to make other discoveries of unknown phenomena or untapped minerals. The late dates of the occurrence of the rhinoceros mentioned by Hall (1857) appear to be based on a thorough knowledge of the region and discussions with local farmers, hence there is no reason to doubt his statements. It is equally certain that a rhinoceros was killed in the immediate vicinity of Graaff-Reinet between 1865–1880, of which the horn preserved in the museum in that town bears witness.

The rhinoceros may only have occurred west of the Kei River, as there are no records of any period for the eastern part of the Eastern Cape Province, or in adjoining parts of Lesotho and southern KwaZulu-Natal.

#### II. Northern Cape

The rhinoceros was reported in the Northern Cape by Barrow, Truter-Somerville, Lichtenstein, Smith and Burchell (Map B). There are no available records for the area stretching between the Olifants River in the north of the Western Cape to





**Map A.** Records of the rhinoceros in the Eastern Cape, South Africa between 1795 and 1875, including one record of the Western Cape and one of the Free State. Records are numbered chronologically: 1, Tarkaberg (Barrow 1798). 2, Sitsikamma (Barrow 1798). 3, Zuureveld (Barrow 1798); Great Fish River (Lichtenstein 1803; Delalande 1820; Moodie 1830; Bunbury 1838; Backhouse 1838; Black 1848); Zuurberg (Gordon Cumming 1849). 4, Dirkskraal (Paravicini 1803; Lichtenstein 1804). 5, Koega River (Lichtenstein 1804); Addo (Gordon Cumming 1849); Coega River (Hall 1853). 6, Modderfontein (Lichtenstein 1804); Agterbruintjeshoogte (Lichtenstein 1804); Baviaans River (Baines 1849). 7, Camdeboo (Lichtenstein 1804). 8, Hermannuskraal (Lichtenstein 1804); Fort Willshire (Steedman 1826); Ecça Valley (Hall 1842). 9, Bashee River (Steedman 1830). 10, Transkei (Arbousset 1836). 11, Renosterkop [in Western Cape] (Hall 1842). 12, Graaff Reinet (Murray Family 1866). 13, Kliphuis [in southern Free State] (Baines 1850).

**Legend:** B, black rhinoceros; R, rhinoceros of unidentified species; W, white rhinoceros; Z, both black and white rhinoceros.

the lower course of the Orange River. All reports pertain to the eastern part of the Northern Cape on both sides of the Orange River. The relative scarcity of accounts may indicate that the animals were always uncommon in the area and this may have contributed to their early extinction. The rhinoceros was last seen in the province by Burchell's party in 1812.

### III. Free State

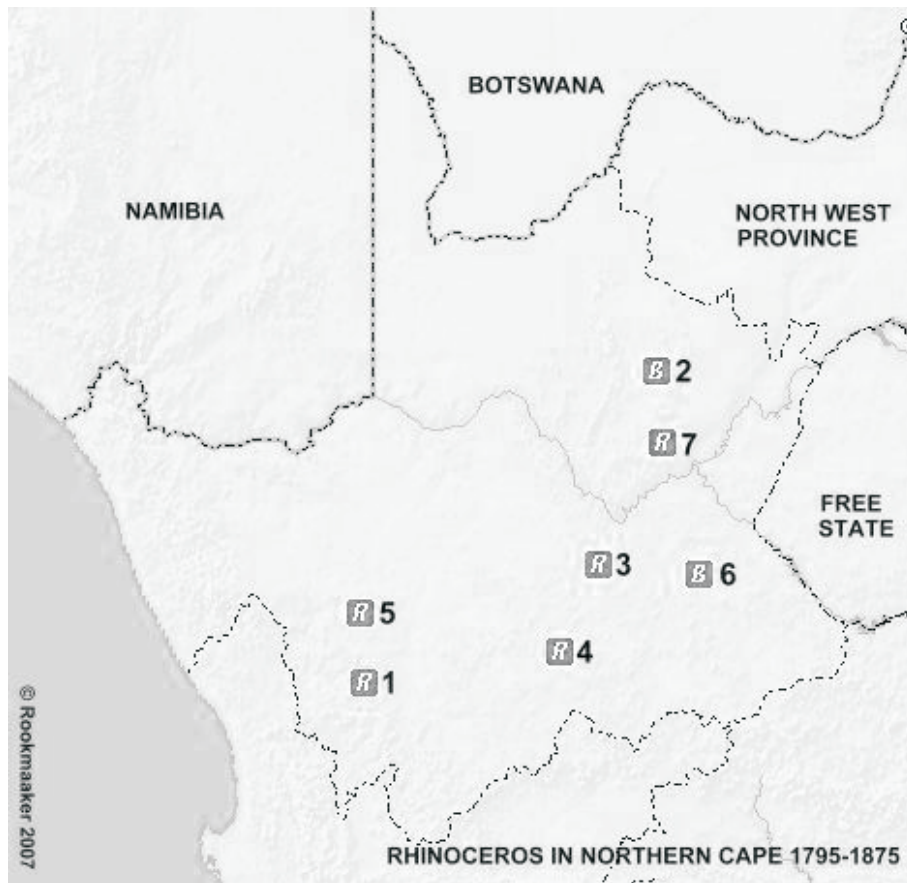
There are just two records of the rhinoceros occurring in the Free State between the Vaal River and the Orange River (Maps B, C). In 1836, Cornwallis Harris on his southwards return journey had just crossed the Vaal River when he killed his final rhinoceros. On 31 March 1850, Baines reached a place called "Rhinoster Kop", which name was given when the Boers killed the first rhinoceros during the Great Trek of the mid-1830s (Baines, 1964, vol. 2: 53). Renosterkop is still recognised today and lies about 27 km NNW of Kroonstad. While Baines does not state in which year the Boers shot this rhinoceros, Hall (1857) mentioned that the last one known in the area was killed in 1842. The latter date is repeated by Sclater (1900), Shortridge (1934), Skead (1987: 546) and Skinner & Chimimba (2005). Neither Harris nor Hall identified the species, but imply that the black rhinoceros was known in the area. The only other evidence consists of skulls dug up from the soil. One was found on the farm Letitia in the Vals River near Kroonstad, the other on the farm Telegraafsfontein in the Fauresmith district, and both are preserved in the National Museum in Bloemfontein (Lynch, 1991).

Although Bryden (1893: 494) suggested that the white rhinoceros was once found in the Free State, the evidence is extremely scant (Lynch, 1983: 179; Bigalke, 1963). At the end of the nineteenth century an imperfect skull of a white rhinoceros was

dug out of black peaty soil from a depth of 8 feet at a place 12 miles south of the Vaal River in the Kimberley District (Sclater, 1900). Said to be preserved in the South African Museum in Cape Town, the specimen does not appear in their inventory (Skead, 1987: 552; D. Drinkow, *in litt.* 2000). Some white rhinoceros material about 100 000 years old was found at Florisbad (Lynch, 1991).

### IV. North West Province and Gauteng

The rhinoceros was found in the North West Province and the adjoining territory of Gauteng by Burchell, Campbell, Thompson, Moffat, Bain, Smith, Kay, Harris, Delegorgue, Wahlberg, Burke, Methuen, Gordon Cumming, Oswell and Dolman (Map C). Records from the southern part of the province are few. The animals were often encountered in the Magaliesberg range and north of it. Both black and white rhinoceroses were commonly seen in the region in the 1830s and 1840s and were then particularly plentiful. When the expedition of Andrew Smith travelled there in 1835, Burrow noted that they saw so many rhinoceroses that he would no longer record them in his daily log. A year later, Cornwallis Harris (1841a: 82, 99) counted 60 black rhinoceroses in a single day and 22 white rhinoceroses in half a mile's travel. Unfortunately, it is difficult to interpret these figures and compare them with current estimates of rhinoceros densities. High rhinoceros density figures have been reported for black rhinoceroses as 1.1/km<sup>2</sup> in Hluhluwe and 1.4/km<sup>2</sup> in Tsavo (Hitchins & Anderson, 1983: 81, Hillman-Smith & Groves, 1994) and for white rhinoceroses up to 0.81/km<sup>2</sup> in Umfolozi (Groves, 1972). It would certainly appear that the population densities reported by Harris would be among the highest ever known. In the light of such numbers, it is remarkable that the reports of rhinocer-



**Map B.** Records of the rhinoceros in the Northern Cape, South Africa between 1795 and 1875. Records are numbered chronologically: 1, Hantam (Barrow, 1798). 2, Eende Fountain (Truter 1801); Koussie Fountain (Truter 1801); Maganga Mountains (Truter 1801); Yzerberg Mountains (Truter 1801). 3, Jonkers Fountain (Truter 1801). 4, Skeetfontein (Truter 1802); Schieffontein (Lichtenstein 1804); Karre Mountains (Lichtenstein 1804). 5, Hartebeestfontein (Lichtenstein 1803). 6, Kaabi's Kraal (Burchell 1812). 7, Griqua Town (Smith 1830).

**Legend:** B, black rhinoceros; R, rhinoceros of unidentified species; W, white rhinoceros; Z, both black and white rhinoceros.

oses in the North West Province suddenly stop at the end of the 1840s. The tracks seen by Gordon Cumming in May 1846 might be the last direct evidence of rhinoceroses the area.

#### V. Limpopo Province and Mpumalanga

The rhinoceros was found in the Limpopo Province by Harris, Delegorgue and Wahlberg (Map C). These records are all located in the southern and southwestern parts of the province close to the boundaries with the North West Province, Gauteng and Botswana. Apparently, few people travelled to the more northern areas in search of game, which may explain the absence of reports about the rhinoceros until about 1875.

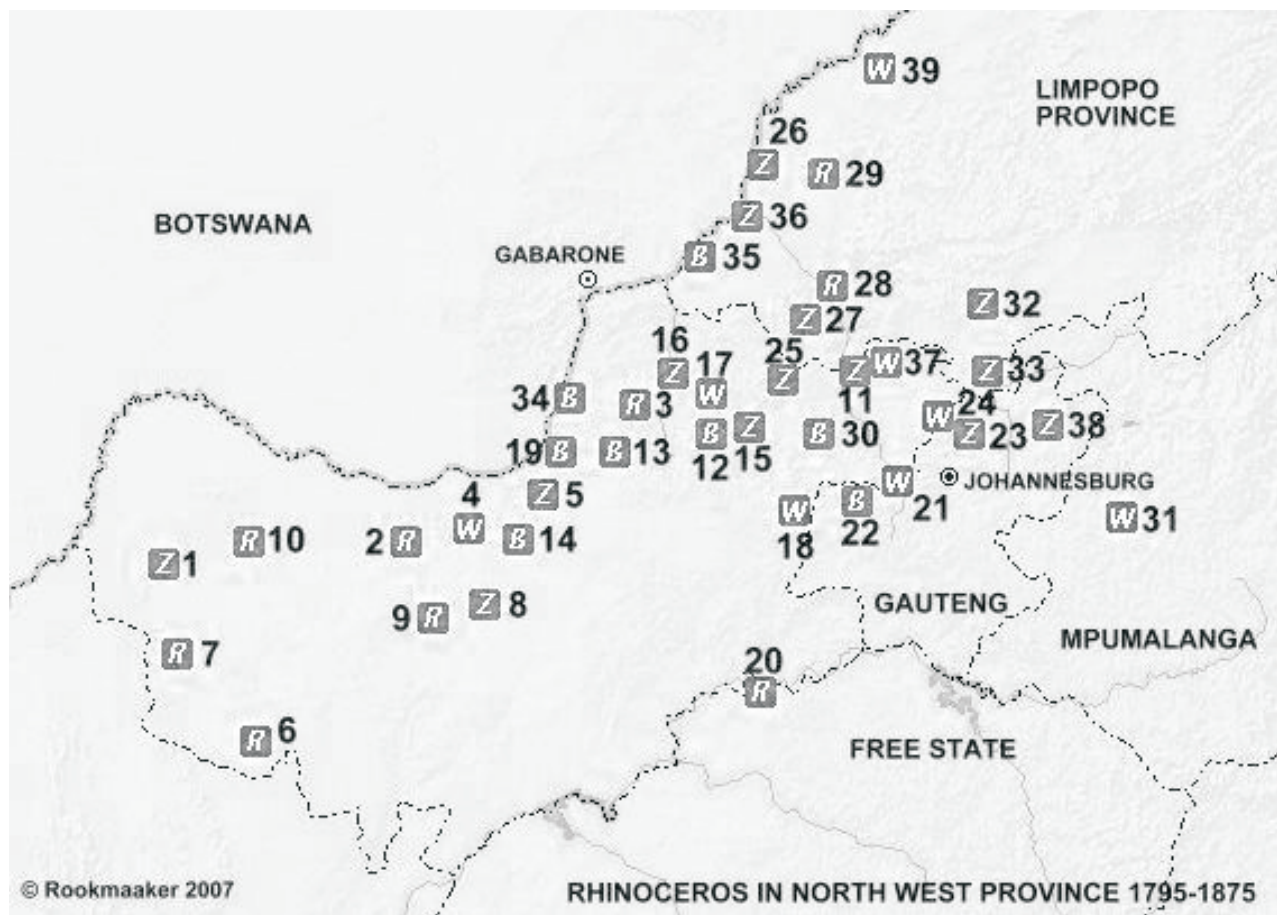
#### VI. KwaZulu-Natal

The rhinoceros was observed in Zululand by Delegorgue, Wahlberg, Struthers, Baldwin, Hamilton, Leslie and Drummond (Map D). The earliest record dates from 1841 and the animals continued to be seen in the area in subsequent decennia. There is only a single observation from the southern part of KwaZulu-Natal, i.e., the rhinoceros tracks seen at the Umvoti Poort near Durban by Delegorgue (1847, vol. 2: 345). It might be best to discount this piece of evidence because of its distance from other records and the fact that the animal itself did not show itself. Both the black and the white rhinoceroses are therefore unknown south of the Tugela River, and the southern boundary of their ranges may even lie about 100 km further to the north near the Mfolozi River. It is noteworthy that in the 1840s Delegorgue and Wahlberg never saw a black rhi-

noceros along the White Mfolozi River, while they killed a number of white rhinoceroses there. It might be the case that the black rhinoceros originally did not penetrate southwards of the Black Mfolozi River and stayed in the region now within the Hluhluwe Game Reserve. Maberly (1938) also appeared to indicate that in his day the white rhinoceros was found mostly in Umfolozi, south of the Black Mfolozi River, and the black rhinoceros in Hluhluwe north of it. However, Drummond (1875) recorded the black rhinoceros in Umfolozi, even to the extent of distinguishing two subspecies of *Diceros bicornis* (*minor* and *major*). His opinion was revived by Potter (1947), who believed that a type called "punyana" in Zulu and named as *Diceros bicornis punyana* differed from the more numerous "ubejane" by its smaller size and temperament: "they are most aggressive and bad-tempered creatures." Zukowsky (1965: 41–49) recognised both forms, but allowed for a far wider distribution of the larger animals than seems to be the argument of both Drummond and Potter. Both white and black rhinoceroses were observed further northwards in KwaZulu-Natal and it is likely that their range was continuous to southern Mozambique and eastern Swaziland.

The scarcity of records of the rhinoceros in Zululand must be largely due to the fact that the region remained an unpopular destination for most of the nineteenth century. The area could not be settled at the time due to the presence of tsetse flies (*Glossina morsitans*) which killed all imported livestock. Most of the reports on the fauna written during this period came from authors who remained in the growing town of Durban without





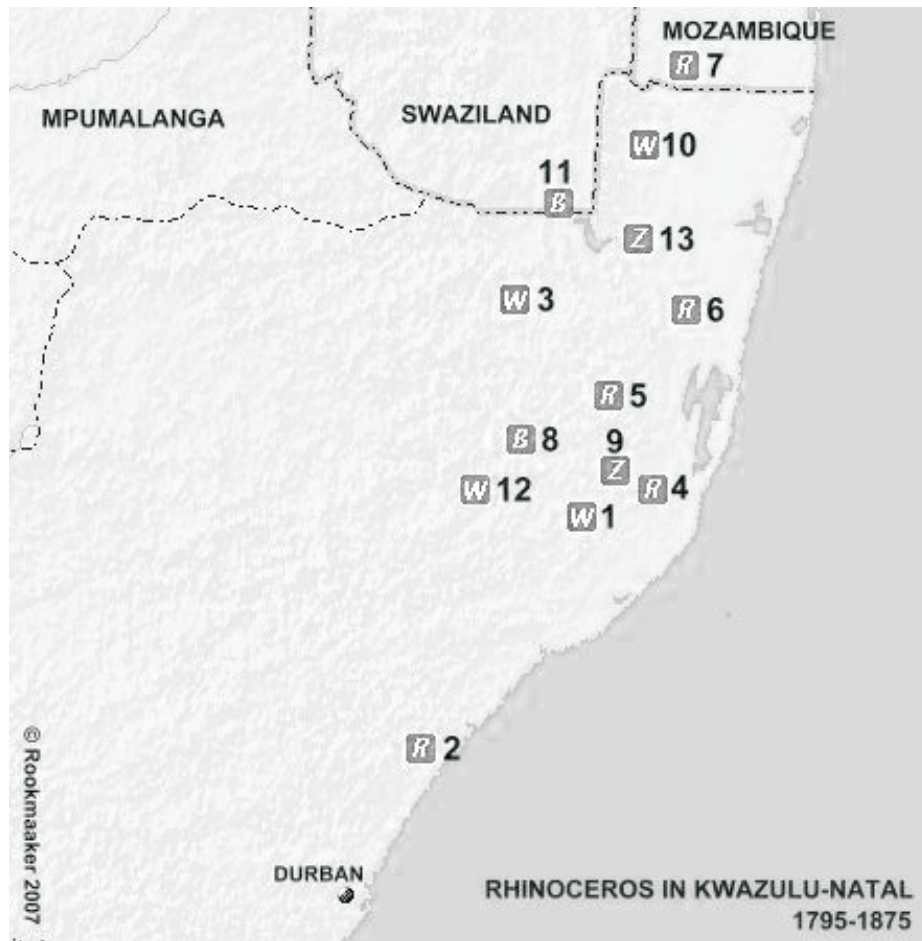
**Map C.** Records of the rhinoceros in the North West Province, South Africa between 1795 and 1875, including those in Limpopo Province, Gauteng, Mpumalanga and one in the Free State. Records are numbered chronologically: 1, Chue Springs (Burchell 1812); Hot Station (Burchell 1812); Heunigvlei (Moffat 1824); Honingvlei (Bain 1826), Konkay (Bain 1826). 2, Meribohwhey (Campbell 1820); Mosita (Moffat 1823). 3, Kurrichane (Campbell 1820); Philip Fountain (Campbell 1820). 4, Mashow (Campbell 1820; Kay 1830). 5, Molopo River (Campbell 1820; Smith 1835); Musaree River (Campbell 1820); Maloppo River (Bain 1834). 6, Maquareen River (Thompson 1823). 7, Mashow River (Bain 1826). 8, Seechagholie River (Bain 1826). 9, Chuin (Moffat 1827) Great Chooi (Smith 1835; Gordon Cumming 1844). 10, Makalongkuan (Moffat 1827); Marokweng (Moffat 1827). 11, Elands River (Smith 1835); Oori River (Smith 1835; Harris 1836); Machachuan River (Harris 1836); Oury River (Delegorgue 1844); Dassenkop (Delegorgue 1843); Crocodile River (Wahlberg 1844). 12, Kaditshwene (Smith 1835); Oli River (Smith 1835). 13, Mirimani River (Smith 1835); Mosegha River (Smith 1835). 14, Meritsane (Smith 1835; Gordon Cumming 1846). 15, Cashan Mountains (Smith 1835); Bagobone River (Harris 1836). 16, Mariqua River (Harris 1836; Methuen 1844); Kapain (Harris 1836). 17, Tolaan River (Harris 1836); Similikate River (Harris 1836). 18, Sant River (Harris 1836); Cashan Mountains (Harris 1836); Olifantsnek (Wahlberg 1842). 19, Molopo River (Harris 1836; Oswell 1845). 20, Vaal River [in northern Free State] (Harris 1836). 21, Crocodile River (Burke 1841; Wahlberg 1841); Makhaliesbergpoort (Wahlberg 1841). 22, Magalies River (Burke 1841). 23, Pienaars River (Burke 1841); Apies River (Wahlberg 1842). 24, Soutpan (Wahlberg 1842). 25, Pilaans Camp (Delegorgue 1843); Pilaansberg (Wahlberg 1843); Leroma Mountain (Wahlberg 1843 1844). 26, Oury River (Delegorgue 1843); Ourityle River (Delegorgue 1843). 27, Limpopo River (Harris, 1836); Makaschlas Country (Delegorgue 1843); Spitskop (Wahlberg 1844). 28, Makoha River (Delegorgue 1843). 29, Om-Schlabatzi River (Delegorgue 1843). 30, Sloane River (Delegorgue 1843); Matlapini's Berg (Wahlberg 1843). 31, Umslabazi River [in Mpumalanga] (Wahlberg 1844). 32, Makallakoane (Wahlberg 1844). 33, Lake Masoba (Wahlberg 1844); Muzi River (Wahlberg 1844). 34, Mabotse Village (Methuen 1844); Manwane (Arkwright 1846). 35, Marico River (Wahlberg 1844). 36, Crocodile-Marico (Wahlberg 1844). 37, Moretele River (Wahlberg 1844); Injaka's Kraal (Wahlberg 1844). 38, Muzi River (Wahlberg 1844). 39, Makolwe River (Oswell 1845); Lephalala River (Arkwright 1846). Legend: B, black rhinoceros; R, rhinoceros of unidentified species; W, white rhinoceros; Z, both black and white rhinoceros.

personal knowledge of the region. It would seem from the absence of data that there was very little hunting and even less settlement in Zululand for the greatest part of the nineteenth century. It is therefore hard to believe that after this period of perceived inactivity, the numbers of rhinoceros suddenly dropped to a mere handful at the end of the century. When Selous (1893: 58) wrote in no uncertain terms about the impending extinction of the white rhinoceros, he spoke from his personal experience in the country north of the Limpopo River. It is not surprising that European conservationists at this time suspected that any remaining population of the white rhinoceros in Africa was unlikely to have more than a few specimens. W.L. Sclater (1900, vol. 1: 302), Selous (1901) and

Renshaw (1904) all estimated that there were "a few" white rhinoceroses in Natal around the turn of the century. The historical evidence significantly gives no indication that rhinoceros numbers in Zululand much declined in the course of the nineteenth century, while all the low estimates were based on hearsay rather than on personal experience (Rookmaaker, 2002b). Although there appear to be reasons not to study the historical record (Emslie & Brooks, 2002), further investigations may provide useful clues in this debate.

## VII. Namibia

The early records on the rhinoceros relating to Namibia are relatively sparse (Joubert, 1971, 1996: 59–64). The black rhinoc-



**Map D.** Records of the rhinoceros in Kwazulu-Natal, South Africa between 1795 and 1875, including one record in Mozambique. Records are numbered chronologically: 1, Om-Philos-Om-Schlopu (Delegorgue 1841); Om-Pholozu (Delegorgue 1841); Kos Mountain (Delegorgue 1841); White Umfolozi (Wahlberg 1842); Black Umfolozi (Drummond 1870). 2, Om-Vooty's Poort (Delegorgue 1842; record questionable). 3, Om-Kouzi, Umkuzi (Delegorgue 1842; Drummond 1870). 4, Inyilazi River (Struthers 1852). 5, Ithlizan River (Struthers 1854). 6, Umfusi River (Struthers 1854). 7, Umlangeni River [South Mozambique] (Struthers 1855). 8, St Luey River (Baldwin 1863). 9, Black Umveloosi (Baldwin 1863). 10, Schlue River (Mohr 1866). 11, Bombo Flats (Drummond 1870). 12, Hlopekulu (Drummond 1870). 13, Pongola River (Leslie 1870).

**Legend:** B, black rhinoceros; R, rhinoceros of unidentified species; W, white rhinoceros; Z, both black and white rhinoceros.

eros had been seen in the far south of the country in the last quarter of the eighteenth century by Robert Jacob Gordon, William Paterson and François Levallant (Rookmaaker, 1989: 284). These observations were followed by those of Schmelen, Alexander, the German missionaries, Tindall, Chapman and Andersson (Map E). The common species was certainly the black rhinoceros, which was seen in the basin of the Fish River, in the region between Windhoek and the coast, and in the east. The absence of records in the north, towards the Kunene River, and indeed in most other parts of the country, probably reflects the extent of travel and exploration in the nineteenth century and does not provide proof of the absence of the rhinoceros.

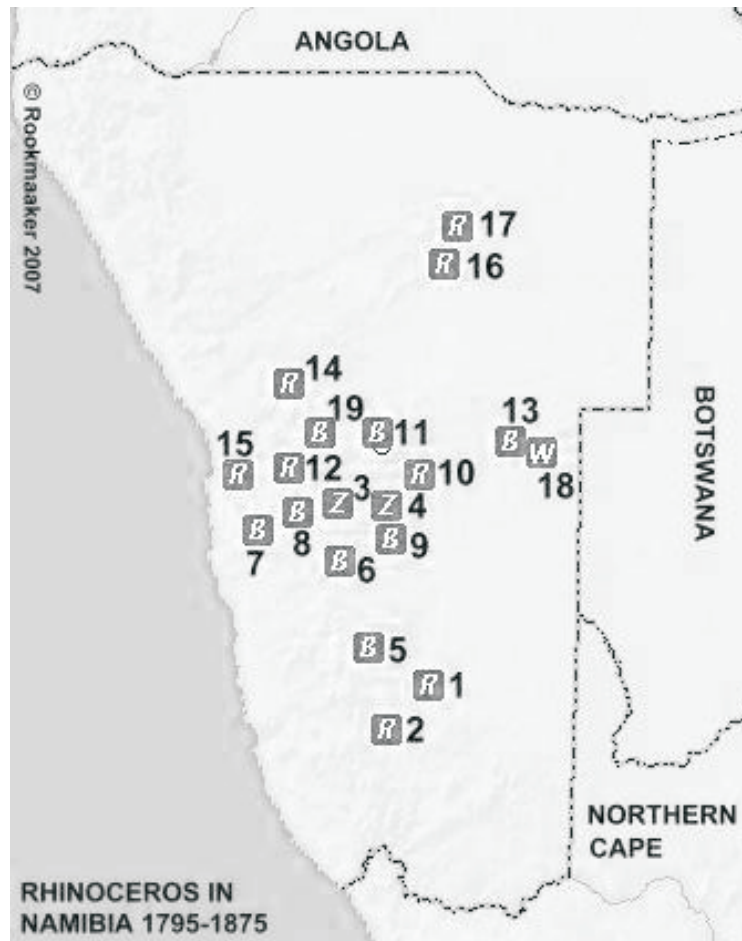
The occurrence of the white rhinoceros in Namibia has been much debated. The animals may have lived along the lower course of the Kunene River near the border with Angola, as well as in the southern parts of the country. The data compiled by Shortridge (1934: 427) and Gaerdes (1963, 1967) include rock paintings and horns recovered from the soil. In 1963, a greatly worn anterior horn of a white rhinoceros was found in the sand (Zukowsky, 1965: 54). The local people distinguished the white rhinoceros as the *ekozi* of the Herero, *naba* of the San Bushmen and *navas* of the Nama Khoisan. In their diaries of 1843–1844 Hahn and Knudsen (§24) mentioned a “white” rhinoceros, without elaborating on any external differences or why they used this particular name, hence their “white” may be unre-

lated to our current usage. However, Alexander, Galton and Andersson also hunted specimens of a “white” rhinoceros in different parts of Namibia and they may well have meant *Ceratotherium simum* when referring to the white rhinoceros. Alexander killed one near Rehoboth and took an imperfect skull with him to England. Andersson shot them at Tunobis and Kobis in the eastern parts of the country near the border with Botswana. There is no doubt therefore that the white rhinoceros once existed in Namibia and perhaps it lingered on near the Kunene River until the 1880s. There is no reason to believe that they still lived in other parts much beyond 1860.

#### VIII. Botswana

Both black and white rhinoceroses were seen in the south-eastern and eastern parts of Botswana from 1823 by Moffat, Bain, Wahlberg, Gordon Cumming, Chapman, Livingstone, Baldwin, Leyland and Mohr (Map F). The animal was probably equally numerous in these areas as they were in the adjoining North West Province. Both species also lived in the northern and western parts of Botswana as observed by Andersson, Chapman, Baines, Livingstone and Leyland. The first rumours about an “unknown” lake in the interior reached the most remote mission stations at the end of the 1840s. Lake Ngami in western Botswana was first seen by Livingstone in the company of Oswell in 1849 and soon became the focus for many





**Map E.** Records of the rhinoceros in Namibia between 1795 and 1875. Records are numbered chronologically: **1**, Harragaap River (Schmelen 1814). **2**, Koon River (Schmelen 1814). **3**, Chama River (Alexander 1837); Kobi Mountain (Alexander 1837). **4**, Abashouap (Alexander 1837); Kuisip River (Alexander 1837); Niais (Alexander 1837); Glenely Bath (Alexander 1837); Tuap River (Alexander 1837). **5**, Usis Mountain (Alexander 1837); Kei'us (Alexander 1837); Aamhoup (Andersson 1852). **6**, Chuntop (Alexander 1837); Bull's Mouth Pass (Alexander 1837); Kham (Knudsen 1844). **7**, Kuisip River (Alexander 1837); Kuiseb River (Schepman 1845; Rath 1850). **8**, Humaris River (Alexander 1837); Keree Kama (Alexander 1837); Onakasis (Alexander 1837). **9**, Kukama River (Alexander 1837). **10**, Hatzamas (Hahn 1843). **11**, Schwagaup River (Hahn 1843); Harris (Hahn 1843). **12**, Tsaobis (Hahn 1844); Deineus (Hahn 1844); Gross Barmen (Bam 1844); Annis Fountain (Andersson 1850). **13**, Gobabis (Tindall 1844); Elephants Fontein (Andersson 1851). **14**, Mount Erongo (Rath 1850). **15**, Schepmannsdorf (Andersson 1850); Usab Gorge (Andersson 1850); Swagoep River (Chapman 1860). **16**, Omanbonde (Andersson 1851). **17**, Okamabuti (Andersson 1851). **18**, Twass (Andersson 1853). **19**, Otjimbengwe (Chapman 1861). Legend: B, black rhinoceros; R, rhinoceros of unidentified species; W, white rhinoceros; Z, both black and white rhinoceros.

hunters and adventurers in their search for ivory and trading opportunity. Livingstone approached the lake from the east, starting out from the well known hunting grounds around the Limpopo River. Andersson pioneered the approach from the west and was successful in his endeavours in July 1853. The lake was visited frequently for a period of 10 years, after which much of the wildlife had disappeared and eventually even the water itself, fed by the Okavango River, became more shallow and seasonal (Shaw, 1985).

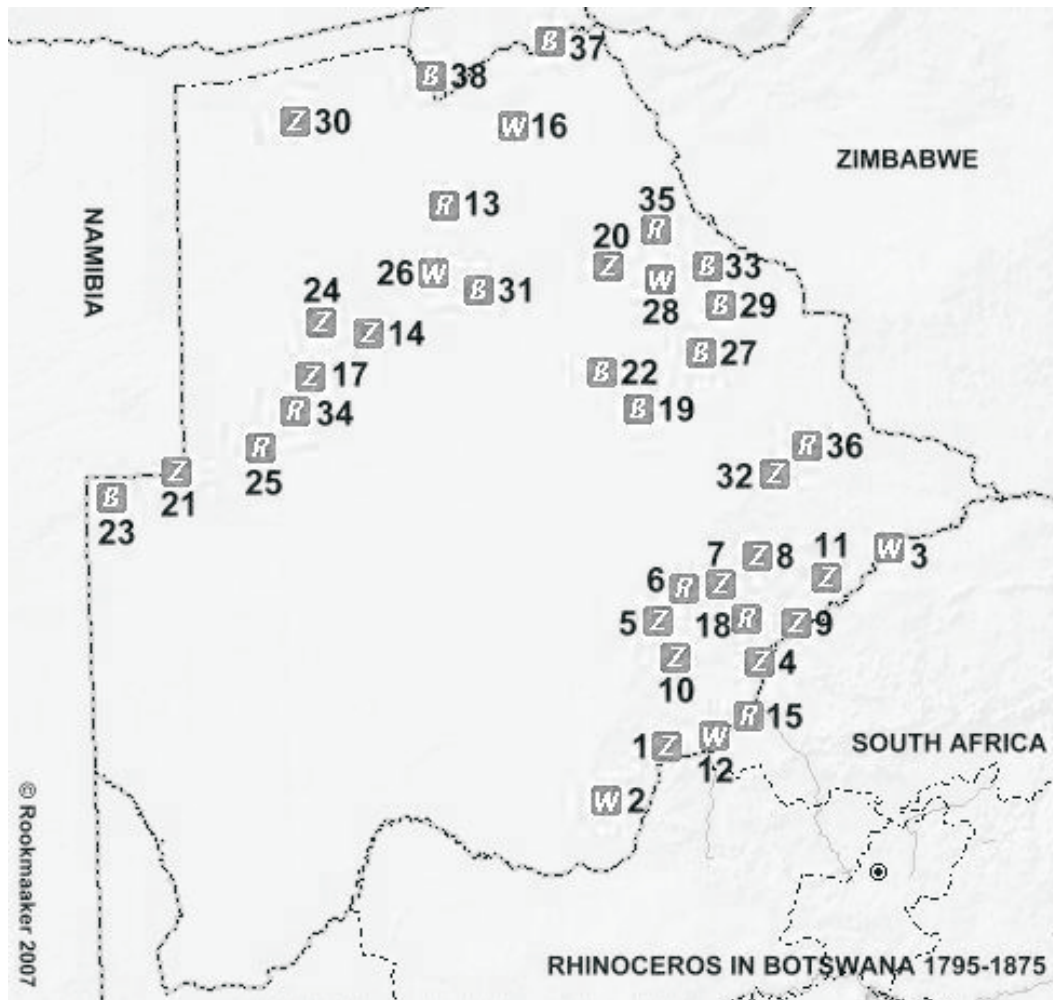
There are no records for central and southwest Botswana, showing that the rhinoceros could not survive in the arid areas of the Kalahari Desert. The white rhinoceros became extinct in Botswana between 1880 and 1890, while the black rhinoceros was by then rare (Bryden, 1893: 489, Smithers, 1971: 199–201). A reduction in rhinoceros density is difficult to extract from the earlier records, but the decline started in the middle of the nineteenth century due particularly to human interference.

### IX. Zimbabwe

In the 1840s, the hunters and settlers left behind the hunting fields favoured by Gordon Cumming and his contemporaries

on the Limpopo River. They were now interested in the less settled areas to the north. Their new route became known as the "Hunters' Road", which runs northward very close to the present eastern border of Botswana. Rhinos were occasionally seen there, and, of course, along the Chobe River, near the Victoria Falls and in southern Zimbabwe. Although the rhinoceros was hunted to near extinction in these large tracts of land, records are again relatively sparse. The distribution of the rhinoceros in Zimbabwe was mapped by Roth (1967), who mentioned dates, but unfortunately he omitted to provide a legend explaining the source of each entry.

Both the black and white rhinoceroses were found in Zimbabwe. The animals were seen in the western and central parts by Livingstone, Chapman, Baines, Baldwin, Mackenzie, Finaughty, Lindley, Westbeeche, Thomas, Buckley, Mohr and Selous (Map G). As this region was only explored from the 1850s onwards, it is unlikely that their records do justice to the full extent of the rhinoceros's range. There are no records for southeast Zimbabwe from this time up to 1875. The black rhinoceros still inhabits Zimbabwe, but the last white rhinoceros was killed in 1893 (Rookmaaker, 2003b).



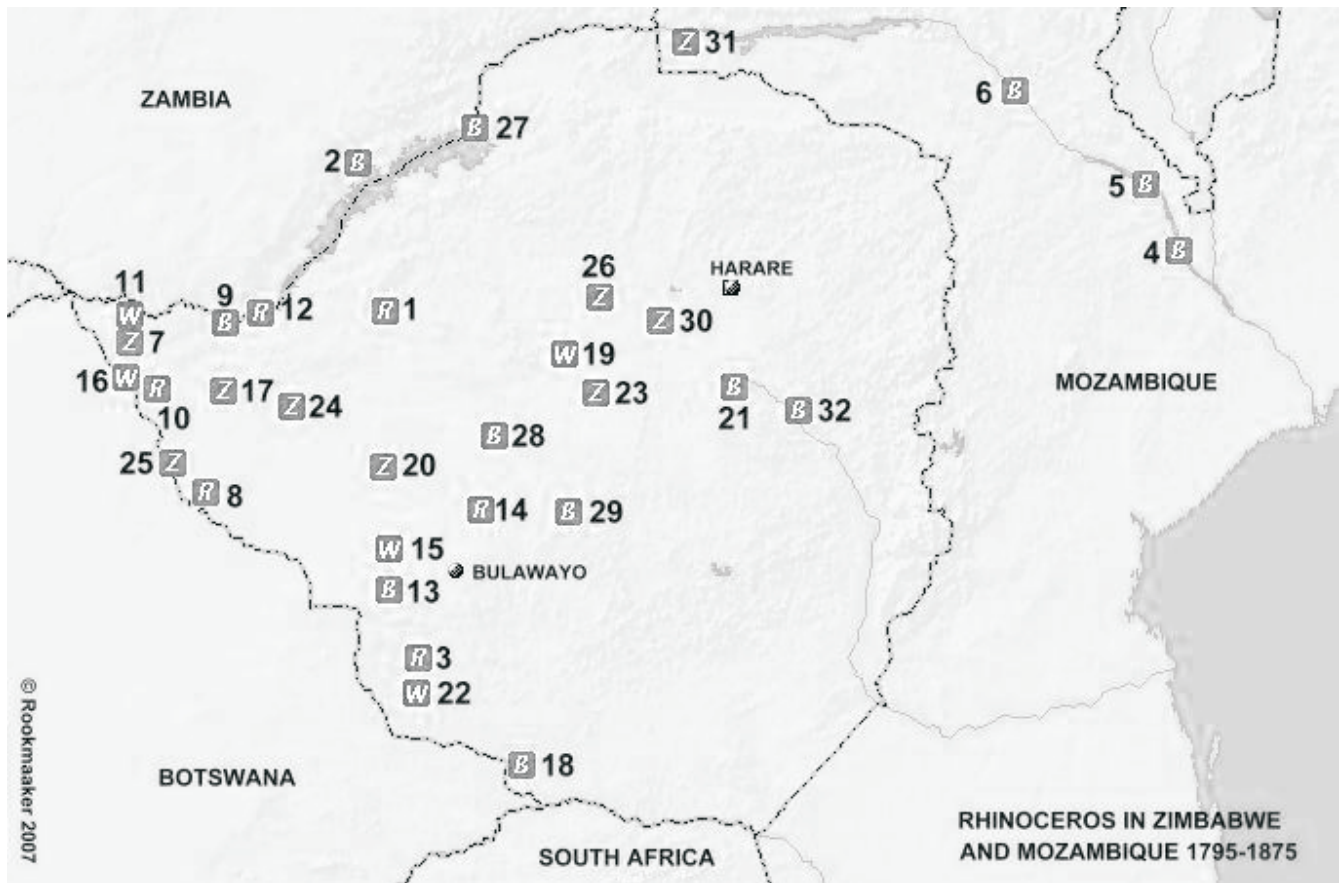
**Map F.** Records of the rhinoceros in Botswana between 1795 and 1875 (with few dated until 1879). Records are numbered chronologically: 1, Bakween Country (Bain 1826); Sichele's Village (Methuen 1844); Bakatla (Gordon Cumming 1844); Ngotwani River (Gordon Cumming 1847); Kolobeng (Livingstone 1848; Leyland 1850); Kok-khola (Dolman 1849); Moleto (Dolman 1849); Chooi Moklape (Dolman 1849). 2, Sibootzanie (Bain 1826); Silaqualaly (Bain 1826). 3, Limpopo River (Wahlberg 1844); Limpopo River (Arkwright 1846); Paapua (Arkwright 1846); Seboono (Gordon Cumming 1847); Lotsane River (Gordon Cumming 1846); Mokoja River (Gordon Cumming 1846); Pepe Fountain (Gordon Cumming 1847); Mariqua River (Gordon Cumming 1847). 4, Notwane River (Wahlberg 1844); Notwani River (Chapman 1852). 5, Bootlony (Gordon Cumming 1844); Lephebe (Gordon Cumming 1844); Soobie (Gordon Cumming 1845); Lephephe (Arkwright 1846); Lopepe (Chapman 1852); Lopepes Vley (Baldwin 1857). 6, Massouey (Gordon Cumming 1844); Mashue (Leyland 1844); Masoni (Arkwright 1846). 7, Sabie (Gordon Cumming 1844); Letlochee (Gordon Cumming 1844); Lesausau (Gordon Cumming 1845); Shoshong (Arkwright 1846). 8, Mangmaluky (Gordon Cumming 1844); Schanie River (Arkwright 1846); Serowe (Arkwright 1846). 9, Limpopo River (Oswell 1845); Marique River (Oswell 1845). 10, Moselakose (Gordon Cumming 1845). 11, Guapa Mountain (Gordon Cumming 1846); Limpopo River (Gordon Cumming 1846). 12, Mariqua River (Gordon Cumming 1847). 13, Zouga River (Leyland 1851); Mchokotsa (Leyland 1851); Mababi (Livingstone 1851); Tamashaki (Baldwin 1860). 14, Zouga River (Livingstone 1851). 15, Marico (Chapman 1851). 16, Tsaeheriga (Livingstone 1852); Ngwa Hill (Livingstone 1852); Mababi River (Selous 1884). 17, Koobe (Livingstone 1852); Abeghan (Andersson 1853); Kobis (Andersson 1853); Koobye (Chapman 1859). 18, Riet Vley (Chapman 1852). 19, Lokhotlane (Chapman 1852). 20, Makalakas (Chapman 1852); Thageara (Chapman 1853); Thamkerrie (Chapman 1853); Masenassa Plain (Wahlberg 1855); Gnasani Spring (Chapman 1862); Tsagoobye (Chapman 1862); Thanyou (Chapman 1862); Kangyon (Baines 1862); Gnasani Spring (Baines 1862); Mutomabye (Baines 1862). 21, Tunobis (Andersson 1851); Otjiombinde River (Andersson 1853). 22, Bottletie River (Chapman 1852); Shogotsa (Chapman 1853). 23, Elephant Kloof (Andersson 1853; Chapman 1855). 24, Lake Ngami (Andersson 1853; Chapman 1854; Wahlberg 1855); Teoge River (Andersson 1853); Seeakama Vlei (Baines 1862); Karrop (Chapman 1862); Quarantaine Vley (Chapman 1862). 25, Ghanze (Andersson 1853; Chapman 1859). 26, Thamalakane (Chapman 1853); Tamalakane (Wahlberg 1855). 27, Qualeba (Chapman 1854); Meea River (Chapman 1854). 28, Mamtsoe (Chapman 1854). 29, Shua River (Chapman 1854); Sibanine River (Chapman 1854); Simwani River (Chapman 1854). 30, Taokhe River (Wahlberg 1855). 31, Khama's Drift (Chapman 1855); Khama's Ford (Chapman 1862); Moromohootoo, Botletlie River (Chapman 1862; Baines 1862). 32, Masaras Country (Baldwin 1857). 33, Nanta (Baldwin 1860). 34, Leetje Pierre (Baines 1861). 35, Gumbakie (Chapman 1862); Tamasetchi (Chapman 1862); Metsebotluko (Chapman 1862). 36, Macloutsie River (Selous 1872). 37, Chobe River (Selous 1874); Makuba Village (Selous 1874). 38, Mai-ini's Town (Selous 1879). Legend: B, black rhinoceros; R, rhinoceros of unidentified species; W, white rhinoceros; Z, both black and white rhinoceros.

#### X. Historical distribution of the black rhinoceros

The historical distribution of the black rhinoceros has previously been illustrated by Cumming *et al.* (1990: 5), followed by Emslie & Brooks (1999: 4), showing the situation "around 1700" and by Guggisberg (1966: 46) with the state of affairs in

"c.1850." Cumming showed a continuous distribution throughout the countries of the southern African subregion, except for a small stretch of land on the western coast from the northwest tip of the Northern Cape along the Namibian shore to about Rehoboth. Guggisberg assumed that in 1850 the black



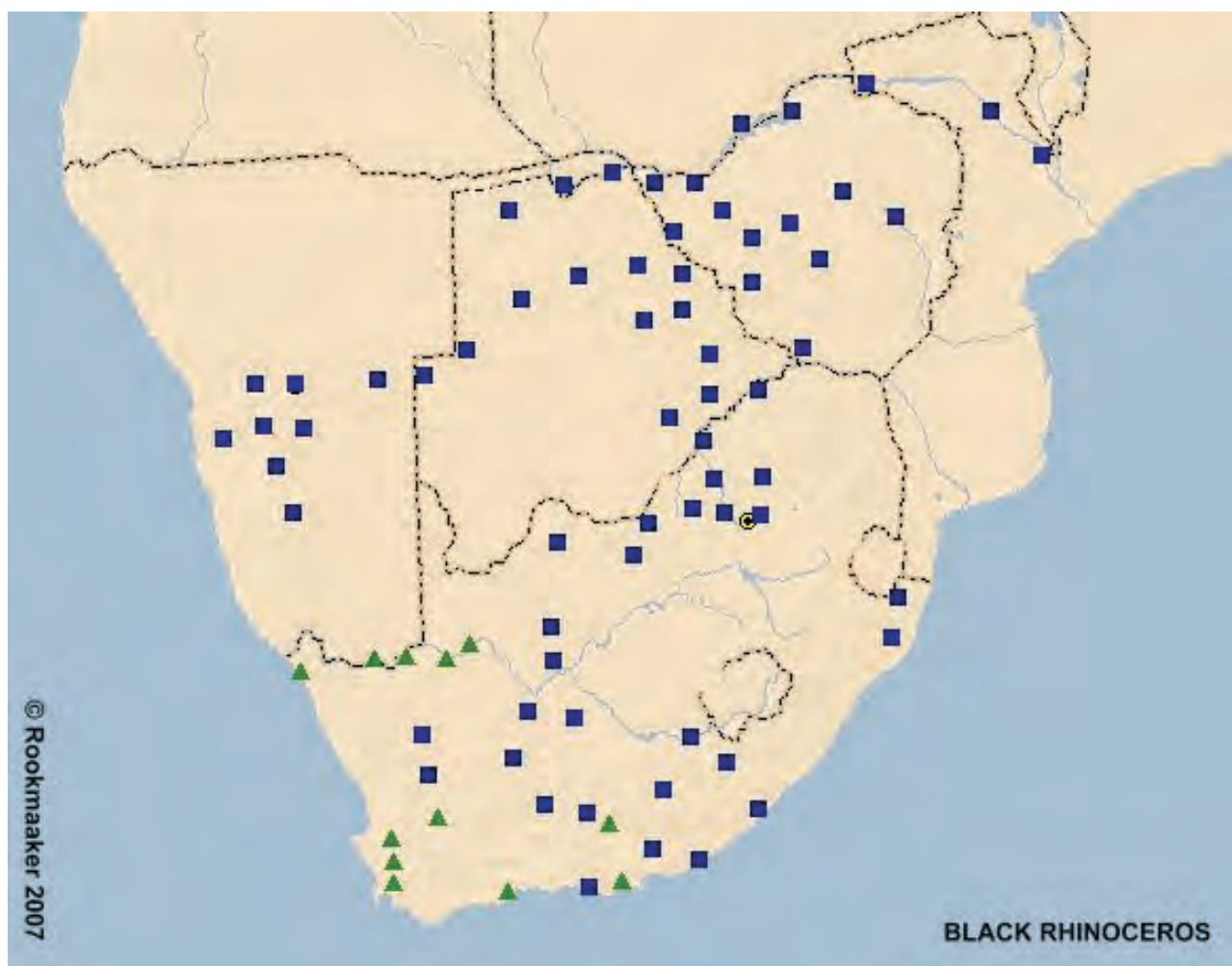


**Map G.** Records of the rhinoceros in Zimbabwe between 1795 and 1875 (with few dated until 1886), including some in northern Mozambique and in Zambia. Records are numbered chronologically: 1, Matabele Country (Livingstone 1854). 2, Batoka Plateau [Zambia] (Livingstone 1856). 3, Moselikatze (Baldwin 1857). 4, Sena [Mozambique] (Livingstone 1860). 5, Moramballa [Mozambique] (Livingstone 1860); Zambesi River (Livingstone 1860). 6, Tete [Mozambique] (Livingstone 1860). 7, Mateste (Baldwin 1860); Masue River (Chapman 1862); Matetsie River (Chapman 1862); Bolunga River (Chapman 1862); Daka River Camp (Chapman 1862); Booyane River (Chapman 1862). 8, Jurea (Baldwin 1860). 9, Daka River (Chapman 1862; Baines 1862); Logier Hill (Baines 1862). 10, Chowee River (Baines 1862); Matetsie River (Baines 1862). 11, Victoria Falls (Chapman 1862; Mohr 1870). 12, Gwai River (Chapman 1862). 13, Makalaka (Mackenzie 1863). 14, Ububi River (Thomas 1865); Inyati (Selous 1872). 15, Kumala River (Mohr 1869). 16, Pandamatenga (Chapman 1862; Westbeech 1870). 17, Route to Victoria Falls (Mohr 1870); Linqvasi Region (Selous 1872). 18, Shashani River (Finaughty 1870). 19, Umzweswe (Baines 1869). 20, Impenbesi River (Baines 1869). 21, Simbo River (Baines 1870). 22, Ramakhoban River (Baines 1869); Mangwe River (Selous 1872). 23, Samarinja (Baines 1870); Umniati River (Selous 1872); Umbila River (Selous 1878); Umzweswe River (Selous 1880); Se-who-who-who River (Selous 1884). 24, Linqvasi (Selous 1872). 25, Ingwainga (Baines 1870); Thamma-Setsi (Selous 1874). 26, Umsengaisi River (Selous 1877). 27, Mendonca's Island (Selous 1877). 28, Gweo River [Mozambique] (Selous 1877); Inyonga's Town (Selous 1877). 29, Gwazan (Selous 1878). 30, Umfule River (Selous 1880). 31, Kadzi River (Selous 1882); Manyami River (Selous 1882); Hanyani River (Selous 1885); Angwa River (Selous 1886). 32, Sabi River (Selous 1883). Legend: B, black rhinoceros; R, rhinoceros of unidentified species; W, white rhinoceros; Z, both black and white rhinoceros.

rhinoceros had disappeared from most of the region, showing a southern boundary to the range in northern Namibia, northern Botswana, southern Zimbabwe and in Zululand. While the dates of these maps must be imaginary with the virtual absence of records of the rhinoceros outside the Western Cape before 1750, a comparison of these maps do indicate the perception that the black rhinoceros had disappeared from most areas south of the Orange and Limpopo rivers by the middle of the nineteenth century.

The records of the occurrence of the black rhinoceros in southern Africa until 1875 have been shown in Map H. It includes only those reports where the author definitely stated that a black rhinoceros was involved, because the addition of less definite records does not appear to alter the general picture. In the period until 1790, the black rhinoceros had been found in the Western Cape, the western part of the Eastern Cape and in the Northern Cape along the Orange River (Rookmaaker, 1989: 284, map 6) and these places have been added to Map H to provide a more comprehensive view of the

historical distribution in southern Africa. The black rhinoceros once occurred everywhere south of the Kunene and Zambezi Rivers, with a few remarkable empty spaces. There are absolutely no records of the species in (1) the western part of the Northern Cape except along the Orange River, (2) the region comprising most of the Free State, Lesotho, the eastern part of the Eastern Cape and the southern part of KwaZulu-Natal, (3) the Kalahari region of southwestern and central Botswana, (4) the most northern part of Namibia, and (5) the region comprising western Swaziland, western parts of Mpumalanga and Limpopo Province and southeastern Zimbabwe. One has always to weigh up whether the lack of records in a certain area is due to the actual absence of the species or to a scarcity of travellers during the period. I believe that the latter reason could help to explain the fact that the species remained unrecorded in the fourth and fifth regions mentioned above. In my opinion, this reason is less likely as an explanation for the other three regions and it may therefore well be that in fact the black rhinoceros never occurred there.



**Map H.** Historical distribution of the black rhinoceros (*Dicerus bicornis*) in southern Africa. The green triangles refer to records before 1795 according to Rookmaaker (1989) and the blue squares to those of the period 1795-1875.

#### XI. Historical distribution of the white rhinoceros

Similarly to the black rhinoceros, Cumming *et al.* (1990: 5) showed the historical distribution of the white rhinoceros around 1800 and Guggisberg (1966: 79) around 1820. These maps are largely the same, showing the species to have been distributed from the Kunene and Zambezi rivers in the north to the Orange and Vaal rivers in the south. The white rhinoceros was absent in the western part of the Northern Cape, in the Free State, in most of Mpumalanga and in KwaZulu-Natal south of the Tugela River. This distribution corresponds quite well with the data provided in this paper shown on Map J, which only contains definite records of the white rhinoceros. However, there are no historical reports from the Kalahari region of southwestern Botswana and from the region comprising most of Swaziland, Mpumalanga and the eastern part of the Limpopo Province into southeastern Zimbabwe. The white rhinoceros almost invariably occurred in regions also inhabited by the black species. It is unknown why the white rhinoceros never lived in the more southern parts of South Africa, as the habitat would appear to have been suitable in some places.

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**Map I.** Historical distribution of the white rhinoceros (*Ceratotherium simum*) in southern Africa.

Manager of the Special Collections Information Service, University of Cape Town Libraries, Rondebosch; Najwa Hendrickse, Acting Head: Reference and Research Section, National Library of South Africa, Cape Town; L.B. Holthuis, National Museum of Natural History 'Naturalis', Leiden; Stefan Hundt, Curator: Sanlam Art Collection, Bellville; John Irving, Westbury; A.G. Irwin, Curator of Natural History, Norfolk Museums and Archaeology Service; Anziska Kayster and Reinette Warner, Graaff-Reinet Museum, Graaff-Reinet; Simon D. Keynes, Trinity College, Cambridge; Andrew Kitchener, Department of Zoology, Royal Museum of Scotland, Edinburgh; Heinz-Georg Klös, former Director of the Zoological Gardens of Berlin; Dieter Kock, Senckenberg Naturforschenden Gesellschaft, Frankfurt am Main; Rina Krynauw, Librarian, South African Museum, Cape Town; Malcolm J. Lagen, Curator of Vertebrates, Liverpool Museum; Claire Loughney, Newcastle-upon-Tyne; Robert and Helen Levitt, Cape Town; Lalou Meltzer, Director, William Fehr Collection, The Castle, Iziko Museums of Cape Town; Anna Merz, Melkrivier; Christopher A. Norris, Department of Mammalogy, American Museum of Natural History, New York; Margaret Northey, John C. Gubbins Africana Library, University of Witwatersrand, Johannesburg; Victor Olivier, Koninklijke Bibliotheek, Den Haag; Florence Pieters, formerly at Artis Library, University of Amsterdam; Leonard M. Pole, Saffron Walden Museum; Reinhold Rau, South African Museum, Cape Town; Richard J. Reynolds III, Atlanta, Georgia; Daniel

Robineau, Laboratoire d'Anatomie Comparée, Muséum National d'Histoire Naturelle, Paris; Tony van Ryneveld, Chairman of the John and Charles Heritage Trust, Cape Town; Richard C. Sabin, Curator of Mammal Group, Department of Zoology, The Natural History Museum, London; C.J. Skead, Port Elizabeth; Chris Smeenk, Curator of Mammals, National Museum of Natural History 'Naturalis', Leiden; Russell Stebbings, University Museum of Zoology, Cambridge; Nico J. van Strien, Director of the Rhino Resource Center, Doorn; Ray Symonds, Collections Manager, University Museum of Zoology, Cambridge; Ulla Weiss, Librarian, Stockholm University Library, Stockholm; Matthew A. Wills, Assistant Curator of Zoology, Oxford University Museum, Oxford; and the Head of Cape Town Archives Repository, National Archives of South Africa. The editorial team of the *Transactions* has been generous with their advice and I thank especially John Skinner and Jane Carruthers for many valuable suggestions improving the text and contents. The Rhino Resource Center ([www.rhinoresourcecenter.com](http://www.rhinoresourcecenter.com)) is committed to assisting research and conservation of the rhinoceros worldwide by collecting all publications and maintaining archives and is supported by the International Rhino Foundation ([www.rhinos-irf.org](http://www.rhinos-irf.org)) and SOS Rhino ([www.sosrhino.org](http://www.sosrhino.org)).

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## BIBLIOGRAPHY

### UNPUBLISHED SOURCES

The manuscripts and artworks used in this paper are listed alphabetically according to the town of the depository and the institution.

#### SANLAM Art Collection, Bellville

1. Baines, Thomas. "Black rhinoceros charging out of wood, 1874." Oil painting, 51.3 × 66.7 cm.

#### William Fehr Collection, The Castle, Iziko Museums of Cape Town

1. Bell, Charles. CG 5. White rhinoceros shot on the Crocodile River. Oil on canvas, 45.7 × 61 cm.
2. Bell, Charles. CG 6. Hunting a white rhinoceros on the Crocodile River. Oil on canvas, 46 × 61 cm.

#### National Archives of South Africa, Cape Town

1. VC [Verbatim Copies] 104. Generale Beschrijving van de Colonie de Kaap de Goede Hoop.

#### National Library of South Africa, Cape Town

1. Chapman, James. P.H.A. – INIL 11060, no. 73. "The sleep of death." Stereo photograph of rhinoceros on the Botletlie River, 13 May 1862.
2. Chapman, James. P.H.A. – INIL 11060, no. 80. "Black rhinoceros (Rhinoceros bicornis) Linn. and Bushmen at Mutu Mabe, including Thomas Baines sketching." Stereo photograph of Baines sketching a rhinoceros, dated 13 June 1862.
3. Chapman, James. MSB 223 (Sir George Grey Auckland Collection). Manuscript of Chapman's Travels in the Interior of South Africa, 9 December 1860 to 10 October 1862; largely edited by Tabler (1970) except for some measurements of animals (see Tables 32, 33 for those of rhinoceros).

#### Bell Heritage Trust, Library, University of Cape Town

There are six drawings showing a rhinoceros by Charles Bell in the collection of the John and Charles Bell Heritage Trust. They are all dated circa 1835.

1. Bell, Charles. No. 21 (C22). Rhinoceros attacking the hunters. Watercolour, 14 × 21.5 cm.
2. Bell, Charles. No. 22 (C23). Rhinoceros at bay. Watercolour, 13.5 × 21.5 cm.
3. Bell, Charles. No. 23 (C24). Rhinoceros at bay. Watercolour, 13.5 × 21.5 cm. Differs slightly from C23.
4. Bell, Charles. No. 24 (C25). Rhinoceros – the death. Watercolour, 13.5 × 21 cm.
5. Bell, Charles. No. 27 (C28). Hunters with spears attacking a rhinoceros. Watercolour, 13.5 × 21.5 cm.
6. Bell, Charles. No. 28 (C29). Rhinoceros caught in a pitfall. Watercolour, 13.5 × 21 cm.

#### National Library of Scotland, Edinburgh

1. Steele, Thomas Montague. Generic list of animals killed by Thomas Steele, 1843. Page extracted on www.rls.org.uk, accessed June 2007.

#### The Brenthurst Library, Johannesburg

1. Baines, Thomas. First expedition to Matabeleland. Notebook, no. 2. 18690527–18691002. MS.049/9/2. Two pencil sketches of a rhinoceros.
2. Baines, Thomas. First expedition to Matabeleland. Notebook, no. 3. 18690805–18691220. MS.049/9/3. Pencil sketch of a rhinoceros "Changanie".

#### MuseumAfrica, Johannesburg

##### Baines, Thomas

1. Baines, Thomas. AM 1215. "Bushmans Krantz Bavians River. Animals painted on the rock by the Bushmen. Much visited by the poet Pringle." Oil painting, 50 × 63 cm.
2. Baines, Thomas. W.T. Spencer 1837, no. 6343. "Killing a White rhinoceros between Botletlie and Zambesi Rivers." Oil painting, 45.7 × 66 cm.
3. Baines, Thomas. Howden Simpson, no. 50/1250. "John Laing and two lions disputing his quarry, the black rhinoceros." Watercolour, 27 × 35 cm.
4. Baines, Thomas. AM W.T. Spencer 1937, no. 6329. "Samma Chukooroo, the rhinoceros hunter on the Chowee River, Zambesi Valley, 1863." Watercolour, 27 × 36 cm.
5. Baines, Thomas. AM 10367. An Elephant hunt. Signed "TBaines March 31, 1864." Oil on canvas, 46 × 66 cm. Rhino in background.

##### Bell, Charles

Two coloured drawings of the rhinoceros by Charles Bell were transferred to the Africana Museum (later MuseumAfrica) in 1965 from the collection of the University of the Witwatersrand.

6. Bell, Charles. MA1965/3781. Three rhinoceroses in a landscape: "No. 110. Scenery of the Kashan Mountains and the Mavooba River." Coloured drawing.
7. Bell, Charles. MA2449. Rhinoceros in a landscape: "No. 114. The Kashan Mountains at the Oorie River in 1835." Coloured drawing.

##### Burchell, William John

The drawings by Burchell were purchased in 1934 by John Gaspard Gubbins (1877–1935) for the library of the University of the Witwatersrand, Johannesburg. In 1968 they were purchased by the Africana Museum (later transferred to MuseumAfrica). The rhinoceros drawings appear in three different sketchbooks and as three separate items. Sketchbook 68/1464 is a leather-bound volume of 92 folios numbered in pencil; size of leaves 11.5 × 18.6 cm. All items are listed and illustrated by Kennedy, 1971: B1803 to B1876). The drawings were made in the field in 1812. Sketchbook 68/1952 is a half-bound volume of 26 folios numbered in pencil, measuring 22.8 × 33.5 cm. All items were listed and illustrated by Kennedy (1971: B1899 to B1924). Sketchbook 68/1468 in MuseumAfrica in grey paper cover has 22 folios, numbered in pencil, measuring 31.5 × 19.6 cm. All items were listed and illustrated by Kennedy (1971: B1925 to B1946).

8. Burchell, W.J. 68/1464, p. 68. White rhinoceros, lateral view facing right: "Mohoohu. 572." There are various measurements on the drawing. Pen and ink and grey wash, 11.5 × 22.4 cm. Burchell's number 572, no date.
9. Burchell, W.J. 68/1464, p. 70. Lateral view of black rhinoceros: "576. p. 19.10.12." Pen and ink and grey wash, 11.5 × 18.6 cm. There are various measurements on the animal. Burchell's number 576, dated 19 October 1812, when he was at Chué Spring.
10. Burchell, W.J. 68/1464, p. 71. Black rhinoceros: "Killenjan. 576. Tail (bold). Circumference of the middle of the body over the abdomen 124 inches. Horizontal diameter of the same 34 inches. Length or horizontal opening of the eye scarcely 1 inch. The tongue nearly smooth. Transverse diameter of the foot, 9½ inch." Pen and ink and grey wash, 11.5 × 18.6 cm. The measurements probably refer to the black rhinoceros on 68/1464, p. 70.
11. Burchell, W.J. 68/1464, p. 72. Black rhinoceros: "Killenjan. 575. p. 19.10.12 [date given twice]." Grey wash, 11.5 × 18.6 cm. Two sketches of a black rhinoceros: above a front view with two horse-



- men, and below the animal seen from behind, with a dog. Burchell's number 575, dated 19 October 1812, when he was at Chué Spring.
12. Burchell, W.J. 68/1464, p. 73. Body of dead black rhinoceros with two men: "577. p. 19.10.12. \*Too narrow." Pencil, 11.5 × 18.6 cm. Burchell's number 577, dated 19 October 1812, when he was at Chué Spring.
  13. Burchell, W.J. 68/1464, p. 75. Head of black rhinoceros: "Killenjan. 578. 20.10.12." Pen and ink, 11.5 × 18.6 cm. Burchell's number 578, dated 20 October 1812, when he was at Chué Spring.
  14. Burchell, W.J. 68/1952, p. 20. White rhinoceros: "Mokhoru. 5.11.12. 573." Pencil and grey wash, 22.8 × 33.5 cm. Several measurements with the drawings. There are four sketches on the page: (upper left) white rhino head, lateral view; (upper right) white rhino head, frontal; (lower right) white rhino head, from behind; (lower left) skull, lateral view. Burchell's number 573, dated 5 November 1812.
  15. Burchell, W.J. 68/1468, p. 21. Three view of rhinoceros feet: "569. 14.10.12." Grey wash, 31.5 × 19.6 cm. Burchell's number 569, dated 14 October 1812, when he was at Chué Spring.
  16. Burchell, W.J. 68/1818. Front view of black rhinoceros. Pencil, 15 × 24.2 cm. This is the original of the vignette in Burchell, *Travels*, 1824a.
  17. Burchell, W.J. 68/1843. Lateral view of black rhinoceros: "Rhinoceros bicornis. fem." Pencil, 21.5 × 27.2 cm. Burchell's number 576, probably dated 19 October 1812 at Chué Spring.
  18. Burchell, W.J. 68/1844. Front view of white rhinoceros. Pencil, 23.8 × 30.3 cm.
- Campbell, John**
19. Campbell, J. Sketchbook, volume 3, no. 53/740b. Lateral view of a double-horned rhinoceros: "Rhinoceros."
- Daniell, Samuel**
- The museum has a collection of artwork attributed to Samuel Daniell and Charles Bell contained in 5 large albums bound in full morocco. They were originally acquired (from unknown source) in 1934 by J.G. Gubbins and kept in the Gubbins Collection at the University of the Witwatersrand. In 1965 they were acquired by MuseumAfrica. The Daniell sketches are found in volumes 3, 4 and 5. They are all listed and illustrated in the Catalogue of Drawings edited by Kennedy (1967a, D47–D58). Each item in the collection was given a separate accession number. These drawings may all be dated circa 1801.*
20. Daniell, Samuel. 65/4036. Head of black rhinoceros: "Kininianah." Daniell Albums, volume 3, p. 32. Pencil and wash, 15.9 × 16.5 cm.
  21. Daniell, Samuel. 65/4037. Lateral view of black rhinoceros: "Kininianah. Daniell delt." Daniell Albums, volume 3, p. 31. Pencil and wash, 25.4 × 35 cm.
  22. Daniell, Samuel. 65/4038. Lateral view of black rhinoceros: "Kininianah." Daniell Albums, volume 3, p. 33. Pencil and wash, 15.9 × 17 cm.
  23. 65/4039. Lateral view of black rhinoceros, with various measurements. Daniell Albums, volume 3, p. 35A. Pencil, 14 × 16.5 cm.
  24. Daniell, Samuel. 65/4040. Black rhinoceros: front view of head, with various measurements. Daniell Albums, volume 3, p. 35B. Pencil, 14 × 15.9 cm.
  25. Daniell, Samuel. 65/4041. Head of black rhinoceros. Daniell Albums, volume 3, p. 37. Pencil, 15.2 × 18.4 cm.
  26. Daniell, Samuel. 65/4042. Lateral view of black rhinoceros and four sketches of feet. Daniell Albums, volume 3, p. 34A; Pencil, 15.2 × 19 cm.
  27. Daniell, Samuel. 65/4043. Black rhinoceros: "H. Foot." Daniell Albums, volume 3, p. 34B. Pencil, 9.5 × 7 cm.
  28. Daniell, Samuel. 65/4044. Black rhinoceros: "F.Foot." Daniell Albums, volume 3, p. 34C. Pencil, 10.8 × 7 cm.
  29. Daniell, Samuel. 65/4045. Studies of lower jaw of warthog. Daniell Albums, volume 3, p. 36A. Pencil, 7.6 × 12.7 cm. Although Kennedy (1967a: D56) identified it as a rhinoceros, the presence of large incisors point to a warthog.
  30. Daniell, Samuel. 65/4046. Black rhinoceros head, and feet: "Fore-foot." Daniell Albums, volume 3, p. 36B. Pencil, 15.9 × 17.8 cm.
  31. Daniell, Samuel. 65/4047. Black rhinoceros seen from the front. Daniell Albums, volume 3, p. 38. Pencil, 15.9 × 14 cm.

**Hoffmann, M.**

32. Hoffmann, M. 60/646. Dead black rhinoceros surrounded by lions and hyenas: "M. Hoffmann." Pastel watercolour, 40 × 52 cm (Kennedy, 1967b: H204). The scene is very similar to Mohr, 1875, vol. 2: 48.

**Langschmidt, W.F.H.L.**

70. Langschmidt, W.F.H.L. 828. White rhinoceros: "Rhinoceros simus. Height at shoulders 5 feet 10 inches. Langschmidt del. I.C. Poortermans Lith." Lithograph copied from plate 19 of Andrew Smith's *Illustrations of Zoology* (Kennedy, 1968a: P69, 1972: 116).

**William Cullen Library, University of the Witwatersrand, Johannesburg**

*The section of Historical Papers, William Cullen Library, University of the Witwatersrand, Johannesburg, has three volumes of drawings by George Henry Ford with accession number A649. They contain originals from which plates in Andrew Smith, *Illustrations of the Zoology of South Africa* (1838–1847) were engraved. The volume with drawings of mammals and birds has a handwritten note by Albert Günther about the history of the collection. The drawings were bound and kept by Andrew Smith and after his death in 1872 returned to Ford. He presented them to Albert Günther, "as a token of our old friendship." They were inherited by Robert Gunther and sold to the University in 1936 for £225 (Kirby, 1965: 263; Gunther, 1972). There are eight drawings relating to the rhinoceros in this unpaginated volume.*

1. Ford, George H. A649 (a). Lateral view of white rhinoceros: "Rhinoceros simus. Original to Mammalia plate 19. G. Ford." It is the original sketch used for plate 19 in Smith, *Illustrations of Zoology* (1839).
2. Ford, George H. A649 (b). White rhinoceros. Uncoloured proof of plate 19, illustrating the transition from drawing to lithograph. It must be the first proof. In the process of lithographing, the image is sketched on the block and afterwards erased, so that no originals remain. That is one of the reasons why so little of Ford's original work has survived.
3. Crawford, A649 (c). Head of black rhinoceros with measurements. Drawn by Capt. Crawford, but further particulars unknown.
4. Ford, George H. A649 (d). "Penis of Rhinoceros Africanus."
5. Ford, George H. A649 (e). Lateral view of black rhinoceros and calf: "Rhinoceros bicornis. Original to pl. 2. G. Ford." It is the original sketch used for plate 2 in Smith, *Illustrations of Zoology* (1838b).
6. Ford, George H. A649 (f). Sketches of skull and toothrows of "Rhinoceros keitloa". It is the original sketch used for plate 1 in Smith, *Illustrations of Zoology* (1838b).
7. Ford, George H. A649 (g). "Rhinoceros kitloa [sic]. Original to pl. 1." Signed by G. Ford. It is the original sketch used for plate 1 in Smith, *Illustrations of Zoology* (1838b).
8. Anonymous. A649, h. "Rhinoceros shooting". Not by Ford and not attributed.

**National Museum of Natural History 'Naturalis', Leiden**

1. Letter by Heinrich Boie to C.J. Temminck, 10 April 1826.

**Natural History Museum, London**

**Baines, Thomas**

*The Natural History Museum in London preserves a volume with pencil sketches and watercolours by Baines with dates between October 1869 and October 1870, listed by Stevenson (1999: 205–209). Seventeen of these depict black and white rhinoceroses, which were made during his stay in Zimbabwe in 1869–1870.*

1. Baines, Thomas. No. 108. "[Wounded rhinoceros] [Oct 12, 1869] (p. 60)." Pencil 19 × 27.8 cm. There are several measurements of the rhinoceros below the drawing.
2. Baines, Thomas. No. 109. "Black rhinoceros (Changani) killed by John Fontein and myself, South of the Impenbesi River, Oct 12 – 1869, stripping the hide for Zamboks – T. Baines." Pencil, 19 × 28.1 cm.
3. Baines, Thomas. No. 110. "Black rhinoceros (Blue variety) – cows ridden to a stand and preparing to charge (She who hesitates is lost). Sept. 1st, 1870 – T. Baines." Pencil 27.3 × 38.3 cm.
4. Baines, Thomas. No. 111. "Black rhinoceros (Blue variety) young

- cow – 8 feet 8 [263. 2 cm] – from nose to base of tail shot by Mr Hartley & Molony, Sept 1, 1870, sources of Simbo River. T. Baines." Pencil 27.3 × 38.6 cm.
5. Baines, Thomas. No. 112. "Black rhinoceros (Blue variety) young cow, shot by Mr Hartley and Molony, Sept 1, 1870, T. Baines, sources of Simbo River." Watercolour & pencil, 27.3 × 38.3 cm.
  6. Baines, Thomas. No. 113. "Black rhinoceros (Matabili Shangani) 6 feet 2 at shoulder shot by myself at Samarinja between Sebaque and Bembesi Rivers Oct 6, 1870, T. Baines, Impetjaan." Watercolour & pencil, 27.3 × 38.5 cm. Rhinoceros is standing.
  7. Baines, Thomas. No. 114. "Black rhinoceros (Matabili Shangani) 6 feet 2 at shoulder. Shot by myself at Samarinya between Sebaque and Bembesi Rivers, Thursday Oct 6, 1870, T. Baines, Impetchane Mashona." Watercolour & pencil, 27 × 38.1 cm. Rhinoceros is lying down.
  8. Baines, Thomas. No. 115. "Mkombo." Pencil, 17.7 × 27.6 cm. Hunting a black rhinoceros mother and young.
  9. Baines, Thomas. No. 116. Black rhinoceros hunt. Watercolour and pencil, 28 × 39.2 cm. Rhinoceros followed by a calf with one sportsman on horseback and two walking.
  10. Baines, Thomas. No. 117. "White rhinoceros, Oct 5th, 69" [unfinished]. Pencil 17.7 × 27.6 cm. A rhinoceros with the horns cut off lying down.
  11. Baines, Thomas. No. 118. "White rhinoceros between Ingwainyo and Gwailo Rivers, Tuesday Oct 25th 1870." Pencil, 19.3 × 27 cm. Rhinoceros walking in the bush.
  12. Baines, Thomas. No. 119. "White rhinoceros. Ingwainyo R. Oct 25, 1870." Pencil, 19 × 27.1 cm.
  13. Baines, Thomas. No. 120. White rhinoceros hunt. Pencil, 19 × 27 cm. Rhinoceros hunted by two men on horseback.
  14. Baines, Thomas. No. 121. Sketch of white rhinoceros. Pencil, 19 × 27.2 cm.
  15. Baines, Thomas. No. 122. Head of a dead white rhinoceros. Pencil, 19 × 27.1 cm.
  16. Baines, Thomas. No. 123. White rhinoceros, with unexplained dimensions (very faint): "3–3, 9–4, 2 1, 6 7." Pencil, 19.3 × 27.3 cm.
  17. Baines, Thomas. No. 124. White rhinoceros hunt [unfinished]. Watercolour and pencil, 28.5 × 38.9 cm.
- Harris, William Cornwallis**  
*Collection of drawings made in South Africa and Ethiopia by William Cornwallis Harris, with reference number RBR 175–176. Each item has a number within this collection. The drawings of rhinoceros made in South Africa are dated circa 1837.*
18. Harris, W.C. No. 3. "The wild sports of southern Africa." Watercolour, 25 × 17 cm. The same scene as the frontispiece of *The Wild Sports*.
  19. Harris, W.C. No. 103. "The black rhinoceros. W.C. Harris." Hand-coloured proof for engraving, 22.5 × 14.5 cm. Similar to the engraving in Harris, 1838: 202.
  20. Harris, W.C. No. 104. "Rhinoceros Africanus. Black rhinoceros. Inkomfu." On reverse the text: "76. W.C. Harris." Watercolour, 27.5 × 21.5 cm.
  21. Harris, W.C. No. 105. Black rhinoceros. Watercolour, 25 × 17 cm. Text under the drawing: "I have given the natural color. It may be darkened in consequence of the shade cast by the tree under which she is to stand, to whatever extent may be requisite." On the reverse, this text is written in ink: "Plate XVI. Rhinoceros Africanus. The African Rhinoceros. N.B. This figure to be substituted for the figure of the African Rhinoceros given in pl. XVI."
  22. Harris, W.C. No. 106. Black rhinoceros. Watercolour, 33 × 24 cm. There is no text with the drawing. Above the black rhino, there is a small pencil sketch of a white rhinoceros seen from the front (like no. 111).
  23. Harris, W.C. No. 107. "The white rhinoceros. page 163. W.C. Harris." Watercolour, 22 × 14 cm.
  24. Harris, W.C. No. 108. White rhinoceros with short posterior horn. Watercolour, 27 × 17 cm. On the reverse, this text is written in pen: "Plate XIX. Rhinoceros Simus. The White Rhinoceros. N.B. This figure is to be substituted for the figure of the White Rhinoceros given in Plate XIX."
  25. Harris, W.C. No. 109. White rhinoceros with short posterior horn. Pencil (outline only), 25 × 17 cm. The same sketch as no. 108.
  26. Harris, W.C. No. 110. White rhinoceros with short posterior horn. Pencil and ink (sketch only), 27 × 22 cm. The same sketch as no. 108.
  27. Harris, W.C. No. 111. "Pl. XIX." White rhinoceros seen from the front. Pencil, 12 × 8.5 cm.
  28. Harris, W.C. No. 112. "No. 25." Indian rhinoceros. Pencil sketch on tracing paper, 10.5 × 8 cm.
- Royal Geographical Society, London**  
*The drawings by Thomas Baines in the Royal Geographical Society were listed by Stevenson (1999: 198–204). These drawings were executed during his travels with James Chapman from the Namibian coast eastward to the Victoria Falls in 1860–1862.*
1. Baines, Thomas. X229/021909. "White rhinoceros killed by J. Chapman at his scherma at the loop of the Kangyon on the night of ? May 1860 [illegible]." Pencil, 26.5 × 27 cm.
  2. Baines, Thomas. X229/021969. "White rhinoceros nearly full grown Seeakama vlei. 1 March 1862. [8]." Pencil, 27 × 38.5 cm.
  3. Baines, Thomas. X229/021970. "Foetus of White rhinoceros. Seea Kaama Vlei. T. Baines. March 11 1862." Watercolour, 27.5 × 38 cm.
  5. Baines, Thomas. X229/021984. "White rhinoceros with the anterior horn [illegible]; 'Kobaaba' killed by Chapman at his scherma at the pool of Kangyon on the night of 5 May 1862." Watercolour, 27.5 × 35.5 cm.
  6. Baines, Thomas. X229/021987. "Rhinoceros calf female caught by dogs and killed against orders by a Damara. From the skin & skull brought in by J. Laing. 13 May 1862. Near Mooroomohootoo. Botletle River." Watercolour and pencil, 27.2 × 35.3 cm.
  7. Baines, Thomas. X229/021988. "Black rhinoceros (Keitloa) wounded in the night of 14 May and again on night of 16 May by Chapman at his scherma about 2 mile below Moroomohootoo ford, Botletle River. The mother of the calf brought in on 13 May, the difference in colour is the watermark of her last bath. The grey mud remaining on her back. The blood about the horn is from turning her head to examine the wound. 14 May 1862." Watercolour, 26.7 × 35.7 cm.
  8. Baines, Thomas. X229/021996. "Foetus of white rhinoceros (natural size) killed by Chapman at his scherma at the pool of Kangyon on the night of June 1, 1862. T. Baines, June 3rd." Watercolour 26.5 × 35.2 cm.
  9. Baines, Thomas. X229/021997. "The bushmans camp and remains of their rhinoceros. Every particle of flesh or skin turned to account even to the [illegible] of the hooves. Kangyon 4 June 1862." Pencil, 27 × 35.5 cm.
  10. Baines, Thomas. X229/021998. "Horns and skulls of white rhinoceros, Kangyon. T. Baines, 5 June 1862. Mahoohoo. Kobaaba." Watercolour, 26.6 × 35.7 cm.
  11. Baines, Thomas. X229/021999. "Black rhinoceros shot by John Laing at the pool of Kangyon. Friday night 6 June 1862." Pencil and watercolour, 26.3 × 35.5 cm.
  12. Baines, Thomas. X229/022000. "Black rhinoceros, shot by John Laing at the pool of Kangyon. Friday night 6 June 1862. [Ink, another hand:] Black rhinoceros." Watercolour, detail, 27 × 35.2 cm.
  13. Baines, Thomas. X229/022009. "Kokoow Kobaabie Mokaalan – names of the rhinoceros. Makalakas at Daka, 14 July 1862." Watercolour and pencil, 27.4 × 37 cm.
  14. Baines, Thomas. X229/022021. "John Laing's narrow escape from being run down by a couple of rhinoceros. Friday 12 Sept 1862 north of the Mahebie River." Watercolour, 26.4 × 38 cm.
  15. Baines, Thomas. X229/022029. "Dentition of Rhinoceros Keitloa, Logier Hill, 27 Dec 1862, Zambezi [10]." Pencil, 26.8 × 37 cm.
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