

6. The Sumatran rhinoceros (*Dicerorhinus sumatrensis*)

There have been 96 Sumatran rhinoceroses in captivity. The first specimen to be seen in Europe arrived in January 1872 at Hamburg, Germany. In fact, in 1872 no less than seven specimens arrived at various collections around the world, including two destined for American circuses. There was a relatively large number of Sumatran rhinos in captivity between 1872 and 1909, with 48 animals being imported from the wild. In 1885, there were nine specimens in captivity at the same time. By the end of 1916, all these animals had died. After this date, only a few Sumatran rhinos were imported, until in 1959 when five specimens were caught in Sumatra. Of these, only one female survived for several years at Copenhagen Zoo, but she died in 1972. In 1984, both a private initiative and an international programme, intending to conserve the species through captive breeding, were initiated and, from that year until 1993, about 32 Sumatran rhinos were caught in Malaysia, Sumatra and Borneo (Sabah). Only one birth was recorded. In 1991, there were 23 specimens simultaneously in various collections.

Earlier lists and the Studbook

Reynolds (1961a) collected information on the animals exhibited until that time. Information on recent imports was collected by Thomas J. Foose and Zainal Zahari Zainuddin and was presented on 10th September 1991 as a draft for an International Studbook for Sumatran Rhino. They recorded 33 animals, and provided each with a simple studbook number. In 1994, Foose issued two versions of the definitive international studbook for the Sumatran rhinoceros. In the latter version (31st December 1994), he listed 40 specimens, of which 23

(9/14) were alive at the time (Foose 1994b). Up until the end of 1994, captive breeding efforts were not successful. At that time, there were five collections around the world with at least one male and one female. From Stuart (1994), speaking for the IUCN/SSC, it appeared that hope had already been given up, since he wrote that "unfortunately, the safeguard of captive breeding has not been successful for this species". However, he added in the caption to the accompanying photograph that "soon zoos may be the only place these animals can be found". Until now, the Sumatran rhinoceros has only produced four young in captivity, of which only one was zoo-bred (see below).

Longevity

The Sumatran Rhinoceros has not reached an exceptional age in captivity. Just over half the specimens lived for over one year, and only seven reached the age of ten years (Table 26,27).

Table 26. Average longevity

Years in captivity	Imported animals		Captive births	
	No.	%	No.	%
0	30	31	1	25
1- 9	54	60	1	25
10-19	6	7	1	25
20-29	2	2	1	25

Origin of imports

Three subspecies are recognized at this time (Groves 1993): the typical *Dicerorhinus s.*

Table 27. Longevity of captive Sumatran rhinos dying in captivity

Sex	Place	Dates	Age		Total in days
			years	months	
Female	London	14 February 1872 – 31 August 1900	28	6.5	10,425
Male	London	April 1884 – 22 November 1910	26	8	9,730
Male	Calcutta	30 January 1889 – June 1913 (?)	24	5	8,887

sumatrensis in Sumatra and Malaysia, *D.s. harrissoni* on Borneo, and *D.s. lasiotis* in Thailand, Myanmar, Bangladesh and N.E. India. Amato *et al.* (1995) studied mitochondrial sequences in 17 specimens from Sumatra, Malaysia and Borneo. This showed that there was no special reason to support more than one conservation unit, so all captive specimens could be mixed in breeding programmes. Most of the animals in captivity came from Sumatra and Malaysia.

Country	Total	Subspecies
Bangladesh	2	<i>lasiotis</i>
Borneo	10	<i>harrissoni</i>
Malaysia	27	<i>sumatrensis</i>
Myanmar	2	<i>lasiotis</i>
Sumatra	30	<i>sumatrensis</i>
Unknown	25	
Total	96	

Births in captivity

The first Sumatran rhinoceros was born on board ship in London harbour as early as 1872. The female was pregnant when she was caught. The baby could not survive the rather difficult conditions and died within a few days. Another wild-bred female gave birth on a ship while it was in Calcutta in 1885. The third captive birth occurred in 1889 at Alipore Zoo in Calcutta, India, which was a remarkable achievement since the parents had been in the zoo together since 1882. Almost a century later, in 1987, a fourth baby was born, again from a wild-bred female, in the zoo at Melaka, Malaysia.

Table 28. Collections where the Sumatran rhinoceros has been exhibited (1872-1994), arranged by country in each continent

Country	Total places	Year and place of first rhino	Largest (>5) No. (Zoo + total No.)
<i>Asia</i>			
Afghanistan	1	1888 Kabul	
India	3	1882 Calcutta	
Indonesia	11	1641 Private	
Japan	1	1921 Osaka	
Malaysia	3	1930 Private	Melaka: 14
Myanmar	2	1859 Theybo	
Singapore	1	1875 Botanical Garden	
Thailand	1	1986 Bangkok	
Total: 8 countries, 23 collections. First import 1641 into Indonesia			
<i>Australia</i>	1	1902 Perth	
Total: 1 country, 1 collection. First import 1902 into Australia			
<i>Europe</i>			
Austria	1	1900 Vienna	
Belgium	1	1878 Antwerp	
Denmark	1	1959 Copenhagen	
France	1	1885 Paris	
Germany	6	1872 Hamburg Zoo	
Hungary	1	1894 Budapest	
Netherlands	1	1881 Amsterdam	
Poland	1	- Wroclaw	
Switzerland	1	1959 Basel	
UK	4	1872 London (Show)	London: 9
Total: 10 countries, 18 collections. First import 1872 into UK			
<i>North America</i>			
<i>USA</i>			
Various	1	1872 Circus	
California	2	1988 Los Angeles/San Diego	
D.C.	1	1893 Washington	

Country	Total places	Year and place of first rhino	Largest (>5) No. (Zoo + total No.)
New York	1	1902 N.Y. Bronx	
Ohio	1	1989 Cincinnati	
Pennsylvania	1	- Philadelphia	
Total: 1 country, 7 collections. First import 1872 into USA			
World Total	20 countries, 49 collections		

Table 29. Population changes in the Sumatran rhinoceros between 1600 and 1994. Numbers show total (male/female/sex unknown)

Period	Imported animals	Captive births	Deaths	Total animals at end of period	Captive born population
1600-1699	1 (0/0/1)		1 (0/0/1)	0	
1850-1869	1 (0/0/1)		1 (0/0/1)	0	
1870-1879	12 (2/7/3)	1 (0/1)	11 (2/6/3)	2 (0/2)	
1880-1889	13 (3/4/6)	2 (1/1)	13 (2/5/6)	4 (2/2)	2 (1/1)
1890-1899	9 (0/5/4)		7 (0/3/4)	6 (2/4)	1 (1/0)
1900-1909	6 (1/3/2)		6 (0/4/2)	6 (3/3)	1 (1/0)
1910-1919	0		5 (3/2)	1 (0/1)	
1920-1929	2 (0/1/1)		3 (0/2/1)	0	
1930-1939	2 (0/1/1)		2 (0/1/1)	0	
1940-1949	0		0	0	
1950-1959	7 (2/5)		4 (2/2)	3 (0/3)	
1960-1969	0		2 (0/2)	1 (0/1)	
1970-1979	0		1 (0/1)	0	
1980-1989	26 (10/16)	1 (0/1)	9 (5/4)	18 (5/13)	1 (0/1)
1990-1994	13 (8/5)		11 (6/5)	20 (7/13)	1 (0/1)
Total	92 (26/47/19)	4 (1/3)	76 (20/36/20)		

Chronological list of all known specimens of *Dicerorhinus sumatrensis* in captivity

This list presents all known (and possible) specimens of the Sumatran rhinoceros in captivity, in chronological order. The first column 'Studbook No.' gives the number of the animals in Foose's studbook (1994b) on 31st December 1994. The second column is 'Status' (W: imported from the wild; B: born in captivity; B+: captive stillbirth). The third column gives the 'Sex' of the animal (M: male; F: female, no indication: sex unknown). The final column 'History' starts with the year in which the animal was imported/born, followed by the place where the collection was located, and other collections with the years of transfer; if the entry ends with the name of a collection, the animal is presumed to be alive; if the line ends with a year, it died at that time.

Studbook Status Sex History No.

W		1641 Sumatra, Atjeh 1641
W		1859 Theybooo 1859
W	F	1872 Hamburg 1876
W	F	1872 London 1900
W	F	1872 London 1872
B	F	1872 London Docks 1872
W	F	1872 London Docks 1872
		USA (?)
W		1872 USA: Barnum 1873
W		1872 USA: Forepaugh 1875
W	F	1875 London 1877
W		1875 Singapore (?)
W	F	1878 Antwerp 1878 Berlin 1880
W	F	1878 London 1879
		Antwerp 1879
W	M	1879 Antwerp 1879
W	M	1879 London 1879
W		1880 USA: Robinson 1887
W		1881 Amsterdam 1881
W		1881 USA: Barnum 1886

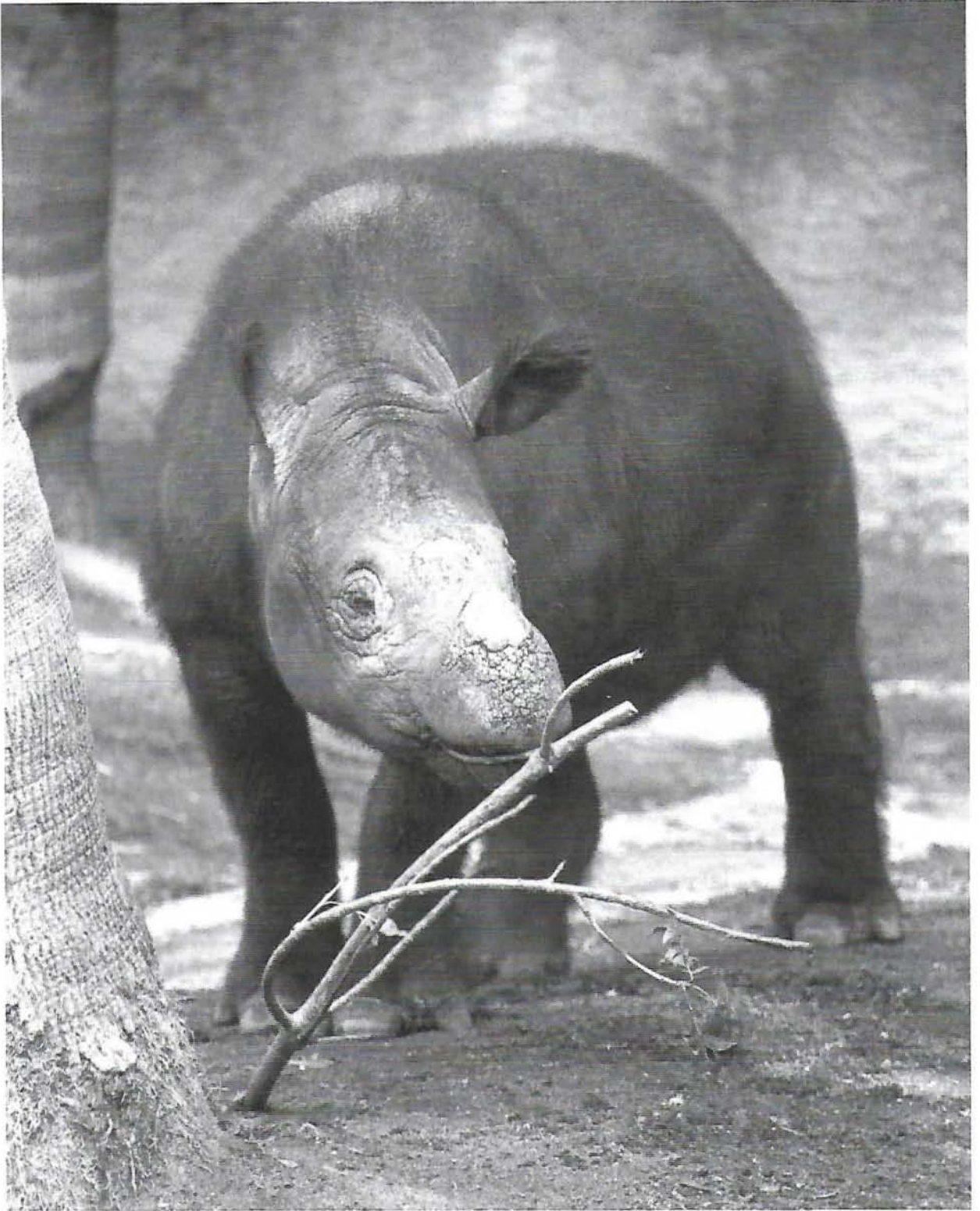
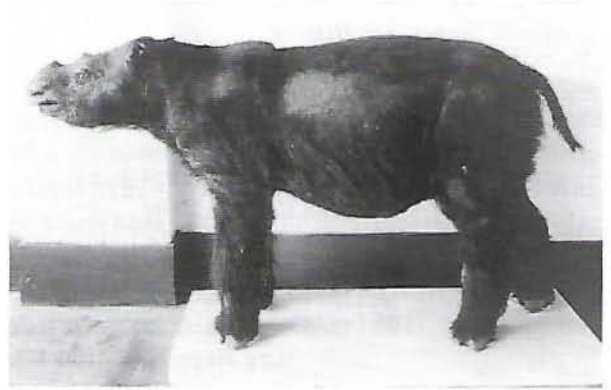
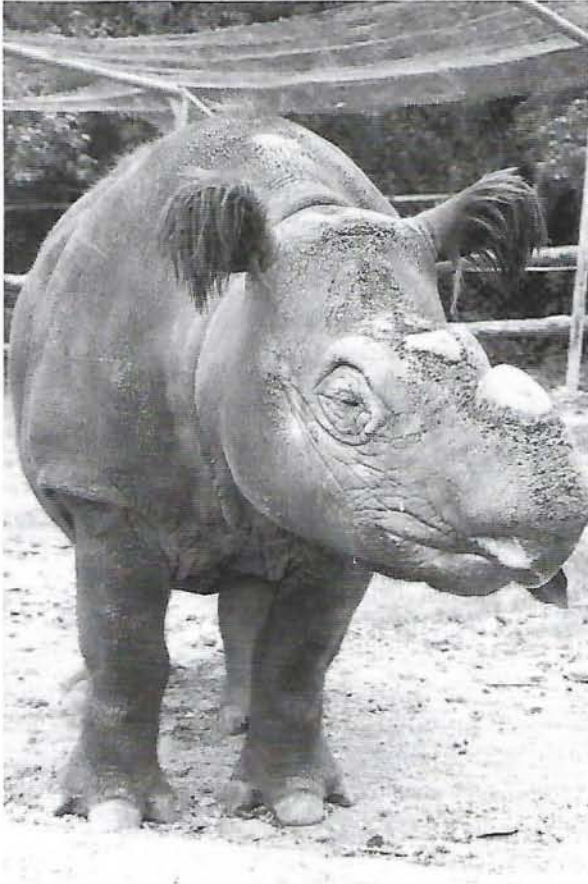


Fig. 77. Los Angeles Zoo's female Sumatran rhinoceros 'Augustina' in July 1990.



↑
Fig. 79. Amsterdam's Sumatran rhinoceros from Borneo in 1896, now mounted at the Zoological Museum of Amsterdam.

←
Fig. 78. One of the Sumatran rhinos in Bogor in 1995. The long drooping hair on the ear fringes makes it a typical example of the *lasiotis* type.

Fig. 80. Hide of a male Sumatran rhinoceros shown at Antwerp Zoo in 1879 in Brussels.



Studbook Status Sex History
No.

	W	F	1882	Calcutta	1884
	W	M	1882	Calcutta	1888 Kabul (?)
	W	F	1882	Calcutta	1892
	W		1884	Hamburg	(?)
	W		1884	Hamburg	(?)
	W	M	1884	Calcutta	1886 London 1910
	W	F	1885	Calcutta Docks	1885 Hamburg Hagenbeck 1886 USA (?)
	B	F	1885	Calcutta Docks	1885 Hamburg Hagenbeck 1886 USA (?)
	W	M	1885	London	1885
	W	F	1885	London	1888
	W		1885	Paris	1887
	B	M	1889	Calcutta	1913
	W	F	1890	USA: Forepaugh	1893 Washington 1896 USA: Forepaugh (?)
	W		1894	Budapest	(?)
	W		1894	Leipzig	1895
	W	F	1895	Antwerp	1903
	W		1895	Germany: Ehlbeck	(?)
	W		1895	Stuttgart	(?)
	W	F	1896	Amsterdam	1896
	W	F	1898	London	1900
	W	F	1899	Madras	1913
	W	F	1900	Singapore	1900 Vienna 1910
	W	F	1901	Singapore	1902 Vienna 1920
	W	F	1902	New York Bronx	1902 USA: Ringling 1908
	W		1902	Perth	(?)
	W		1904	Liverpool (Cross)	1904
	W	M	1909	Yangon	1916
	W		1921	Osaka	1925
	W	M	1928	Sumatra: Poser	1928
	W	F	1930	Sumatra: Coenraad	1930
	W		1930	Malaysia: Rajah of Jelebu	(?)
	W	M	1952	Transit to Philadelphia	1952
	W	F	1952	Transit to Philadelphia	1952
	W	F	1959	Basel	1961
	W	F	1959	Bogor	1961
	W	F	1959	Copenhagen	1972
	W	M	1959	Sumatra Capture	1959
	W	F	1959	Sumatra Capture	1959
01	W	F	1984	Melaka	
02	W	M	1984	Melaka	1984
03	W	F	1985	Melaka	1986 Bangkok 1986
07	W	F	1986	Melaka	
04	W	M	1986	Port Lympne	
08	W	M	1986	Jakarta	1994
11	W	F	1986	Melaka	1989

Studbook Status Sex History
No.

10	W	F	1986	Port Lympne	1986
12	W	F	1986	Melaka	1987 Jakarta
05	W	M	1986	Sumatra: Torgamba	1986
13	W	F	1987	Melaka	
09	W	M	1987	Melaka	1987
15	B	F	1987	Melaka	
16	W	F	1987	Melaka	1988
19	W	F	1987	Melaka	
14	W	M	1987	Sepilok	1987
17	W	M	1987	Sepilok	1992
20	W	M	1988	Melaka	
18	W	F	1988	Port Lympne	1994
06	W	M	1988	Surabaya	1993
21	W	M	1988	Sepilok	1988
23	W	F	1988	Melaka	
22	W	F	1988	Bogor Safari	1993
24	W	F	1988	Los Angeles	1989 Cincinnati 1992
25	W	F	1988	San Diego	1995
26	W	F	1989	Sepilok	
27	W	F	1989	Los Angeles	1990 New York Bronx 1993 Cincinnati
28	W	M	1991	San Diego	1991 Cincinnati
31	W	M	1991	Sepilok	1995
30	W	M	1991	Bogor Safari	
32	W	F	1991	Bogor Safari	
29	W	F	1991	Los Angeles	1995 Cincinnati
33	W	F	1991	San Diego	1992
34	W	F	1992	Surabaya	
36	W	M	1992	Sepilok	
35	W	M	1992	San Diego	1995
37	W	M	1993	Tabin Reserve	(released)
38	W	M	1993	Sepilok	
40	W	F	1994	Sepilok	
39	W	M	1994	Melaka	



Fig. 81. Sumatran rhinoceros in Bangkok, February 1986.

List of specimens of *Dicerorhinus sumatrensis* in captivity

Amsterdam, The Netherlands

Zoological Gardens 'Natura Artis Magistra' Artis Zoo

1881 April 18 – 1881 November 11 †

In his historical list of species exhibited in Artis, Swierstra (1888: 19) stated that the first Sumatran rhinoceros arrived in 1881. It was probably imported from Sumatra (Rookmaaker and Reynolds 1985: 143, from zoo archives). The history and sex of the animal are otherwise unknown. No remains are to be found in the Zoological Museum of Amsterdam.

F 1896 June 1 – 1896 December 16 †

Date of arrival was recorded in the zoo archives. The animal was bought from H. Owen for 2400 guilders. A note on its hide preserved at the Zoological Museum of Amsterdam identifies W.J. Krolin of Singapore as the dealer. It was shipped on the SS *Telemachus* from Borneo. Apparently, this is the only rhinoceros that was ever exported from Borneo, belonging to the subspecies *Dicerorhinus sumatrensis harrissoni* (Groves, 1965). Sclater (1896: 784) said that he saw in the zoo a "young female *R. sumatrensis* from Borneo". The skeleton and stuffed hide are preserved at the Zoological Museum of Amsterdam, Nos. 539 (skull) and 7001 (hide, illustrated by Rookmaaker 1984a, fig. 7). The specimen is 175 cm long and 89 cm high. See Fig. 79.

Antwerp, Belgium

Société Royale de Zoologie d'Anvers Jardin Zoologique

The Antwerp Zoo actively engaged in the trade of animals. Each year they held at least one important auction at the gardens (Loisel 1912, III: 290-291, Baetens 1993: 94). See Fig. 82.

F 1878

The Berlin Zoo received a female Sumatran rhinoceros on 21st November 1878, bought at an auction at Antwerp. There is no other information about the arrival or origin of the specimen.

M 1879

Gijzen (1960: 16) gave the year of arrival of the first specimen of the Sumatran rhinoceros in Antwerp as 1879, but added no particulars. The source of this information is that, on 19th May 1879, the Museum of the Institut Royal des Sciences Naturelles de Belgique, Brussels, received from the zoo the hide and skeleton of a male Sumatran rhinoceros, originally from the coast of Sumatra (No. 1204). See Fig. 80.

1879

Apart from the male specimen preserved in Brussels (previous entry), there was possibly another Sumatran rhinoceros at the zoo in the same year. The Muséum National d'Histoire Naturelle, Paris also received one Sumatran Rhinoceros (sex not stated) from Antwerp Zoo in 1879 (No. 2122). The specimen is still in existence (Marvin Jones, in litt.). It could be the female deposited by Jamrach in London from October 1878 to March 1879, and then shipped with no definitely known destination. If it was the same animal, it was a female.

F 1895 – 1903 (?)

A Sumatran rhinoceros was illustrated in an undated *Guide Illustré*, which probably appeared ca. 1895. On a sheet dated 16th August 1898, the Zoological Society advertised the next annual sale, to be held on Tuesday and Wednesday, 13th and 14th September 1898. Among the animals offered for sale, they listed 'Le Rhinocéros de Sumatra, femelle (*R. sumatrensis*).' The outcome of the sale is not available, but the animal possibly remained unsold, as a rhinoceros was present in 1899 (Epstein 1899: 11) and in 1902 (Knottnerus-Meyer 1902: 185, Peel 1903: 61). The same animal (?) was mentioned in a guidebook from 1903, but was absent in a guidebook dated around 1910.

Bangkok, Thailand

Dusit Zoo

F 1986 July – 1986 November 23 †

'Linchong' (=Flower).

St.03

This animal was caught on 18th April 1985 in Perak, Malaysia and kept at Melaka Zoo. It

1890

Société Royale de Zoologie d'Anvers

GRANDE VENTE PUBLIQUE D'ANIMAUX

ANVERS, LE 16 AOÛT 1898.

L'Administration fera procéder les Mardi et Mercredi, 13 et 14 Septembre 1898, de 10 heures du matin à 5 heures de relevée, au local de la Société, à la vente annuelle d'ANIMAUX, tels que :

MAMMIFÈRES :

<p>Deux Orangs-outangs (<i>Simia satyrus</i>).</p> <p>Singes divers.</p> <p>Lémuriens divers.</p> <p>Un Lion du Sénégal, importé, 20 mois d'âge (<i>Felis leo</i>).</p> <p>Une Lionne du Sénégal, importée, 20 mois d'âge.</p> <p>Trois Panthères mouchetées de l'Inde, adultes, mâles, importées (<i>Felis pardus</i>).</p> <p>Une Panthère mouchetée de l'Inde, adulte, femelle, importée.</p> <p>Deux Panthères mouchetées de l'Inde, jeunes, mâle et femelle.</p> <p>Deux Panthères noires, mâle et femelle, adultes.</p> <p>Un Caracal (<i>Felis caracal</i>).</p> <p>Un Puma femelle, importé, 2 à 3 ans d'âge (<i>Felis concolor</i>).</p> <p>Un Puma femelle, jeune, importé.</p> <p>Deux Hyènes rayées, jeunes, mâle et femelle (<i>Hyana striata</i>).</p> <p>Deux Ratons laveurs, jeunes (<i>Frocyon lotor</i>).</p> <p>Deux Coatis, adultes, mâle et femelle (<i>Nasua rufa</i>).</p> <p>Deux Ours bruns, jeunes (<i>Ursus arctos</i>).</p> <p>Deux Ours malais, jeunes (<i>Ursus malayanus</i>).</p> <p>Plusieurs Phoques communs (<i>Phoca vitulina</i>).</p> <p>Plusieurs Ecreuils de Prevost (<i>Sciurus prevosti</i>).</p> <p>Un Ecreuil de Malabar (<i>Sciurus maximus</i>).</p> <p>Un Porc-épic à queue prenante (<i>Sphingurus prehensilis</i>).</p> <p>Plusieurs Agoutis dorés (<i>Dasyprocta aguti</i>).</p> <p>Un Capybara, mâle (<i>Hydrochaeris capybara</i>).</p> <p>Un Elephant de l'Inde, mâle; hauteur : 1m15 (<i>Elephas indicus</i>).</p> <p>Un Rhinoceros de Sumatra, femelle (<i>Rhinoceros sumatrensis</i>).</p> <p>Un Tapir du Brésil, mâle, adulte (<i>Tapirus americanus</i>).</p> <p>Un Gayal, femelle, né au local le 6 Juin 1898; à livrer en Octobre (<i>Bos indicus</i>).</p>	<p>Un couple de Faisans prélat, adultes (<i>Euplocamus pralatus</i>)</p> <p>Un - - - de Swinhoe, - (<i>" swinhoii</i>).</p> <p>Un - - - de Vieillot, - (<i>" vieilloti</i>).</p> <p>Un - - - nobles, - (<i>" nobilis</i>).</p> <p>Un - - - à queue havane, - (<i>" erythrophthalmus</i>).</p> <p>Un - - - argentés, - (<i>" nycthemerus</i>).</p> <p>Un - - - de Raynaud, - (<i>" lineatus</i>).</p> <p>Un - - - Trapogans satyres, - (<i>Cerionis satyrus</i>).</p> <p>Un - - - de Temminck, - (<i>" temmincki</i>).</p> <p>Un - - - de Cabot, - (<i>" caboti</i>).</p> <p>Un - - - Paons ordinaires, - (<i>Pavo cristatus</i>).</p> <p>Un - - - panachés, -</p> <p>Un - - - nigripennes, - (<i>" nigripennis</i>).</p> <p>Un - - - spicifères, - (<i>" spicifer</i>).</p> <p>Plusieurs mâles de Paon spicifère, -</p> <p>Un couple d'Eperonniers Chinquois, - (<i>Polyplectron chinquois</i>)</p> <p>Deux couples d'Argus géants, - (<i>Argus giganteus</i>)</p> <p>Plusieurs mâles d'Argus géant, -</p> <p>Un couple de Pintades vulturines (<i>Numida vulturina</i>).</p> <p>Divers Hoecos (<i>Cras</i>).</p> <p>Un couple de Perdrix des Bambous (<i>Bambusicola thoracica</i>).</p> <p>Plusieurs couples de Francolins d'Abyssinie (<i>Pternistes infuscatus</i>).</p> <p>- - - de Californie (<i>Callipepla californica</i>).</p> <p>Plusieurs Pigeons frugivores blancs (<i>Carpophaga bicolor</i>).</p> <p>Plusieurs Colombes poignardées (<i>Phlogothanas cruentata</i>).</p> <p>- - - Nicobar (<i>Calanus nicobarica</i>).</p> <p>- - - L'umachelles (<i>Phaps chalcoptera</i>).</p> <p>- - - Mouettes (<i>Columba leucozota</i>).</p> <p>- - - Tigrées (<i>" guinea</i>).</p> <p>- - - Mouchetées (<i>Columb " maculosa</i>).</p>
---	---

Fig. 82. Part of a poster advertising the 1898 auction in Antwerp.

was a present from Sultan Iskander, King of Malaysia, to King Bhumipol of Thailand (Meckvichai 1987). While the studbook states its arrival in Bangkok in July 1986, it probably came earlier, as Esmond Martin took a photograph of the animal at the end of February 1986. It died after an accidental fall in its cage. Photographs of this specimen were published by Pitman (1991: 30) and Esmond Bradley Martin in *Pachyderm*, 15: 53 (1992). See Fig. 81.

Basel, Switzerland

Zoologischer Garten

F 1959 July 2 – 1961 September 8 †

'Betina'

Caught near Buatan, Sumatra on 17th March 1959, and kept there as a pet by Harry Gill-

more [cf. Sumatra, Gillmore]. It was bought by Peter Ryhiner (animal dealer) and transported via Singapore, leaving on 30th June 1959 (see pictures in Rookmaaker and Reynolds 1985, figs. 4-6). Photographs taken in Basel were published by Lang (1959), Anonymous (1959), Grzimek (1960, fig. 2) and Klös (1987: 23). It died of chronic nephritis. The anatomy of the viscera was described by Cave and Aumonier (1962, 1963). The remains are at the Zoological Museum of Basel (NMB 10259); the skull is quite small (Groves 1982: 258). See Fig. 83.

Berlin, Germany

Zoologischer Garten

F 1878 November 21 – 1880 March †

This animal was bought in Antwerp by Heinrich Bodinus (1814-1884), director of the

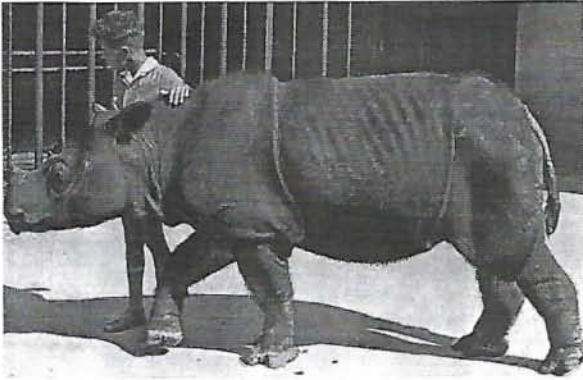


Fig. 83. Sumatran rhinoceros in Basel in 1959.

zoo. The money was donated by Barons Arthur and Ferdinand von Schickler. It died due to a festering lung (Schlawe 1969: 28). This should be the specimen recorded in Reynolds (1961a: 35) which would have lived for only six months in 1879. It is probably this specimen which was depicted by G. Mützel 'nach dem Leben' as published by Heck (1896: 1020). See Fig. 84.

Bogor, Indonesia

1. Grounds of Presidential Palace

F 1959 (summer) – 1961 August 8 †
Caught by the Danish expedition on the Siak River in Sumatra, and presented to President Sukarno. Medway (1972) published a picture. The skull can be seen in the Bogor Museum (MZB 8440), not quite mature (Groves 1982: 258).

2. Taman Safari Indonesia

The animals are kept in an open enclosure of about 1800 m² (Prasetyo and Noordin 1993). See Figs. 78, 165.

F 1988 November 30 – 1993 July 27 †
'Dalu' St.22
Caught in Torgamba, Sumatra, on 8th July 1988.

M 1991 September 2 –
'Romi' St.30
Caught in Torgamba, Sumatra, on 18th April 1991.

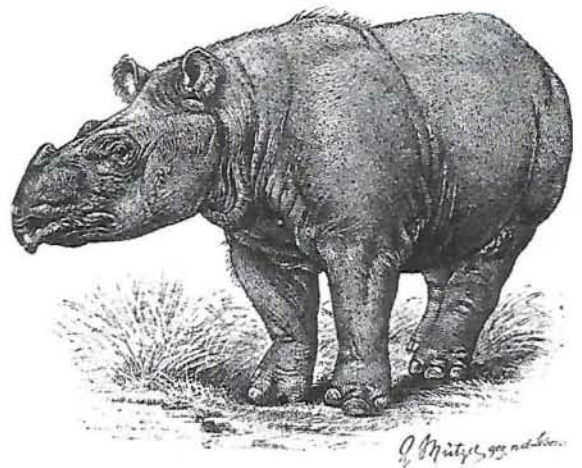


Fig. 84. Drawing by G. Mützel from a specimen in Berlin.

F 1991 September 2 –
'Bina' St.32
Caught in Torgamba, Sumatra, on 17th May 1991.

Budapest, Hungary

Zoological Gardens

The zoo was founded in 1865 (Peel 1903: 168) and bought by the municipality of Budapest in 1907 (Loisel 1912, III: 110).

1894

This specimen travelled from Penang, Malaysia via Trieste, together with the animal which arrived in Leipzig in 1894 (Anonymous 1895). It was not noticed by Peel (1903) when he visited the zoo in 1902. No further particulars.

Calcutta, West Bengal, India

1. Alipore Zoological Gardens

In 1883, the rhinoceros enclosure measured 229 × 116 feet. There was a tank of 165 feet long and 30-40 feet wide (Anderson 1883: 73).

In his catalogue of specimens in the Indian Museum, Calcutta, W.L. Sclater (1891: 205, Nos. e, s) listed two skeletons of *R. sumatrensis* donated by the Zoological Gardens in 1889. It is not clear which specimens these would have been. These two skeletons are no longer in the Zoological Survey collection in Calcutta (Groves and Chakraborty 1983).

M 1882 June – 1888

This animal was imported from Malaysia, together with the following female (Anderson 1883: 74). It was the father of the calf born in 1889. It went to Amir Abdul Rahmann of Kabul, Afghanistan (Buckland 1889), probably at the end of 1888, but there it was lost from view. Sanyal (1892: 132) stated, in general terms, that the length of life of *R. sumatrensis* would be from 1882 to 1889.

F 1882 June – 1883/1884 (?) †

This female came together with the male from Malaysia. In 1882, the zoo obtained a “young female *lasiotis* [next entry] and a pair of adult *sumatrensis*” (Sanyal 1892: 132). The three animals are also mentioned by Anderson (1883: 74). This female probably only lived for a short time. It may be the animal referred to by Sanyal (1892: 134) which died of tuberculosis of the lungs and liver.

F 1882 June – 1892 (?) †*‘Muni Begum’*

This animal was caught on the estate of Begum Latifa Khatum of Ramu (Anderson 1883, Sclater 1884). Ramu is a small town west of Cox Bazar, Chittagong, S.E. Bangladesh. It was believed to be a specimen of *Rhinoceros lasiotis*. It was the mother of the calf born in 1889, and it was still alive in 1892 (Sanyal 1892: 132).

M 1884 April/June – 1886 (January ?)

This young male was captured in the Bassein District of Burma (an area just west of Rangoon), “close to the sea, and, when first seen by its captors, it was in company of its mother. The mother, however, escaped, I was told, by plunging into the sea and swimming away, leaving her young one behind” (Flower 1886).



Fig. 85. Male Sumatran rhinoceros ‘Bagus’ in Cincinnati in 1994.



Fig. 86. Cincinnati’s male ‘Mahatu’ exhibited from 1989–1992.

The animal arrived in Rangoon on 27th March 1884. It was sent to Calcutta Zoo, and then, in exchange, to London Zoo, where it arrived on 27th April 1886 (Flower 1886).

M 1889 January 30 – 1913 (?)

Born to the Malaysian male of 1882 and the Chittagong female ‘Muni Begum’ (Sanyal 1892: 133). The birth was announced in the *Englishman* newspaper from Calcutta (Buckland 1889): “Rhinoceros. – At the Zoological Garden, Alipore, on the 30th January, *Rhinoceros Lasiotis*, the wife of *Rhinoceros Sumatrensis*, of Caboul, of a son.”

Sanyal (1892: 133) described the circumstances of the birth. It was still present in June 1913 (Flower 1914: 57).

2. Calcutta Harbour

F 1885 February – 1885*F* 1885 February – 1885 (Birth)

Noack (1886) mentioned a female, which gave birth in Calcutta while in transit in February 1885. Both animals were shipped to Hagenbeck in Hamburg, Germany, and later sold to Barnum in the USA. See Fig. 90.

Cincinnati, OH, USA*Cincinnati Zoo**F* 1989 June 5 – 1992 May 10 †*‘Mahatu’*

St. 24

From Los Angeles. Ehrlinger (1993: 106) published a photograph. See Fig. 86.

- M* 1991 October 25 –
'Bagus' St. 28
From San Diego. See Fig. 85.
- F* 1993 February 6 –
'Rapunzel' St. 27
From New York Bronx.
- F* 1995 August 4 –
'Embam' St. 29
From Los Angeles.

Cologne, Germany

Zoologischer Garten Köln

ca. 1875

It is rumoured that a rhinoceros of this species was shown in Cologne somewhere between 1863 and the end of the century (Reynolds 1961a: 36, Kohle 1981: 104). It is not clear on what evidence this record is based. If a rhinoceros was shown in Cologne around that time, it could also have been part of a travelling menagerie.

1936

Kohle (1981: 104, according to W. Roelvinck) stated that, in 1936, the animal dealer Schulz exhibited a rhinoceros, probably Sumatran, for a short time in Cologne at an exhibition. The zoo director, G. Nogge (in litt. December 1993), however, writes that the available evidence is very slim and considerable care should be taken when accepting this statement.

Copenhagen, Denmark

Zoologiske Have

F 1959 December 4 – 1972 February 24 †
'Subur'

This animal was caught on the Siak River, Sumatra, by a Danish expedition (Andersen 1963, Skaftø 1964). Subur lived for a long time as the only Sumatran rhinoceros in captivity. Its behaviour was studied by Sonne-Hansen (1972, with illustrations) and by Krumbiegel (1965, with many illustrations). The animal died after 12.5 years in the zoo. The remains



Fig. 87. 'Subur', for many years the only Sumatran rhinoceros in captivity, at Copenhagen Zoo.

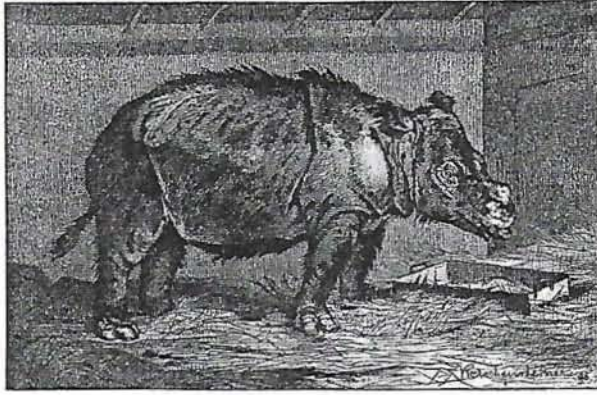


Fig. 88. Rhinoceros in Ehlbeck's Menagerie, drawn by J. Kerschensteiner in 1895.

are preserved at the Natural History Museum in Copenhagen (No. 3791). Meinertz (1974) studied the kidney. See Fig. 87.

Germany

Ehlbeck Wanderschau

This was a travelling menagerie. I have been unable to find any information about the extent and operation of this show.

1895

There is a drawing by Jos. Kerschensteiner dated 1895 of a Sumatran rhinoceros exhibited with a travelling menagerie owned by Ehlbeck (see Fig. 88). The animal was about ten years old at the time, 1.3 m high and 2.2 m long. The drawing was illustrated in *Über Land und Meer* 1895/96, No. 7, p. 120 (reproduced by Krumbiegel 1960: 13, fig. 1).

It is possible that this is the same animal shown in Cologne in the second half of the 19th century, and also the one seen in Stuttgart in 1895. No information was recorded about the owner in those cases.

Hamburg, Germany

1. Zoologischer Garten

This zoo was opened in 1860 and closed in 1930. Schlawe (1972) gives some interesting details about its history. Grzimek (1958: 120) remarks that a rhinoceros calf was present in 1885, which is discussed under Hagenbeck's establishment in Hamburg, below.

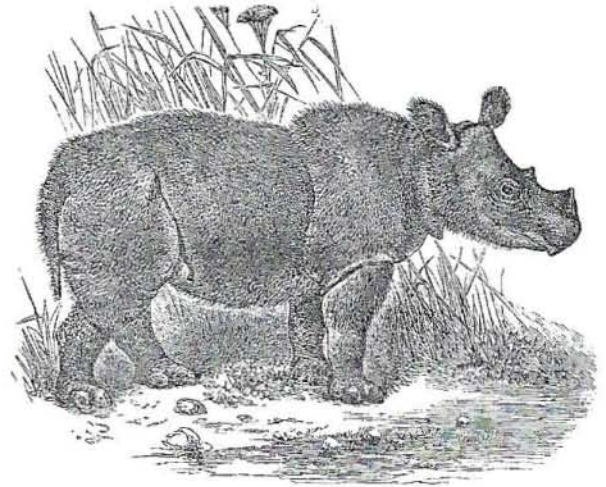


Fig. 89. Female Sumatran rhinoceros in Hamburg 1872-1876.

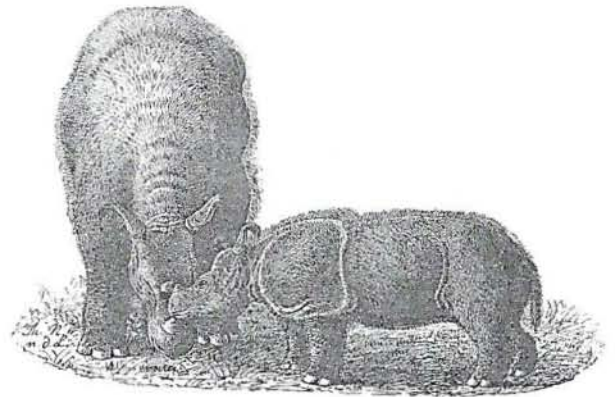


Fig. 90. Mother with calf born at Calcutta Harbour in February 1885, drawn by Th. Noack, in Hagenbeck's collection in Hamburg, December 1885.

F 1872 January 18 – 1876 March 24 †

This animal was captured in a pit in the interior of Malaya and transported to Singapore (Noll 1873: 82-83 with figure). W. Jamrach Jr. and B. Hagenbeck Jr. were together responsible for its importation into Europe (Noll 1873: 80). The animal was pregnant on arrival, but lost the embryo (Kourist 1973: 139). This was the first specimen of the Sumatran rhinoceros ever exhibited in captivity in Europe. See Fig. 89.

1884 March (?)

Two specimens were shown in March 1884 (Schlawe 1972: 181). It is likely that they were deposited by Hagenbeck for a short period. Their disposition is unknown.

2. Carl Hagenbeck (dealer)

Carl Hagenbeck (1908: 313) wrote in 1908 that

he had possessed five specimens of the Sumatran rhinoceros (not necessarily all at the same time), and all had died from enteritis: "da alle fünf Exemplare, welche ich kaufte, an Darmentzündung eingingen". He may have meant the following animals: (1) the female imported by Hagenbeck and Jamrach to the Hamburg Zoo in 1872; (2) and (3) two specimens deposited in Hamburg Zoo in 1884; (4) and (5) the mother and calf which arrived in Stellingen in 1885.

F 1885 December – 1886

Caught in Malaysia when pregnant and gave birth in Calcutta harbour in February 1885. Both mother and calf (see following entry) were shipped to Hamburg, arriving in December 1885. Noack (1886) studied them in detail, and published an illustration from his own drawing made 'nach dem Leben' (see Fig. 90). The dates 1895/1896 in Reynolds (1961a: 39) are wrong. Noack (1886) mentioned that both animals were sold for DM 25,000 to the famous American showman Barnum. It is strange that their arrival in the USA was not recorded, so perhaps they died while still in Hamburg or during transit across the ocean.

F 1885 December – 1886

This is the calf born in Calcutta in February 1885 to the female in transit. It was 72 cm high on arrival in Hamburg. This should be the ten-month old calf recorded by Grzimek (1958: 120). It was sold to Barnum together with the mother (see previous entry).

Jakarta, Indonesia

Ragunan Zoological Gardens

The rhinoceroses are kept in two enclosures of 2200 and 1100 m². They were observed mating in January 1991 (Prasetyo and Noordin 1993). A photograph was published by Stuart (1994).

M 1986 May 24 – 1994 June 15 †

'Jalu'

St.08

A young male which was caught at Torgamba, Sumatra on 24 March 1986 (Manan *et al.* 1987).

F 1987 April 25 –

'Dusun'

St.12

From Melaka. This animal was thought to be pregnant in 1992.



The Sumatran Rhinoceros in Leipzig in 1895. (After the illustration by Hagenbeck)

Fig. 91. Sumatran rhinoceros in Leipzig in 1895, after H. Leutemann.

Kabul, Afghanistan

Collection of Amir Abdul Rahmann

No information about the private (?) collection of this ruler has been found.

M 1888

From Calcutta. It is only known that this animal left Calcutta to join this collection. Its arrival and further stay in Kabul have not been registered.

Leipzig, Germany

Zoologischer Garten

The zoo was opened in 1878 by Ernst Pinkert.

1894 – 1895 (?)

This specimen was caught in Penang, Malaysia, and was imported by Ernst Pinkert. It travelled via Trieste, together with an animal destined for Budapest (Anonymous 1895). A drawing by H. Leutemann dating from 1895 was published in the *Leipziger Illustrierte Zeitung* (see Fig. 91). The animal was said to be four feet four inches high. It is not known how long it lived. It could perhaps be this rhinoceros which was (temporarily?) shown by Ehlbeck in his menagerie in 1895 (see Germany, Ehlbeck). In 1896, Heck (1896: 1020) mentioned that the species had been imported several times during the preceding years by Pinkert of Leipzig and Vokram of Altona (?), but it had proved difficult to keep them. Perhaps this meant that the Leipzig animal had already died?

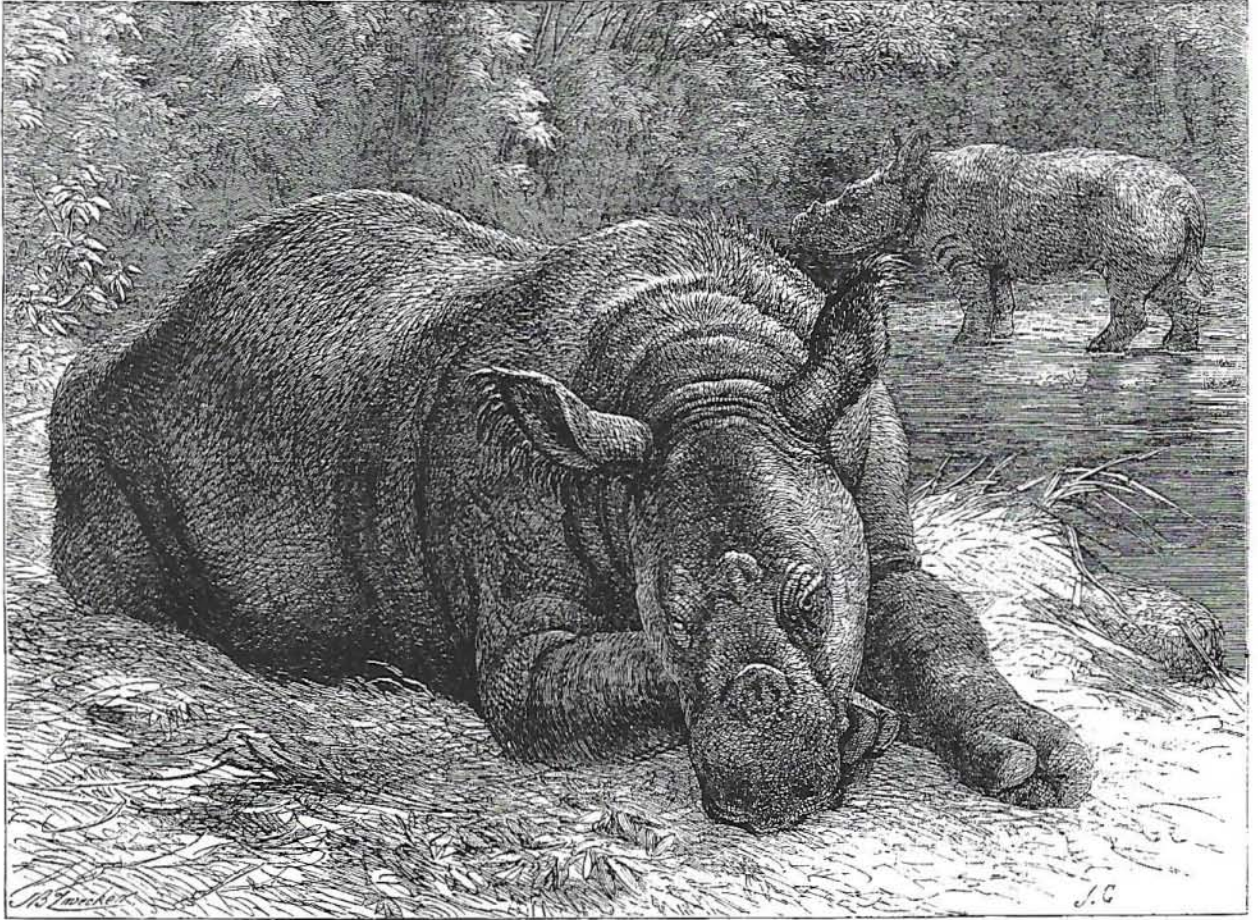


Fig. 92. 'Begum', type *Rhinoceros lasiotis*, at London Zoo in 1872.

Liverpool, UK

William Cross (dealer)

1904

In 1904, a Sumatran rhinoceros was offered for sale by William Cross, an animal dealer who maintained a 'Zoological Establishment' in Liverpool. It was bought by the Breslau Zoo (Reynolds 1961a: 36), but never arrived, probably having died before shipment.

London, UK

1. *Zoological Society of London*

F 1872 February 15 – 1900 August 31 †
'Begum'

This animal was captured "by some villagers on the Sungoo River, close to the Chittagong Hill Tract" in November 1867, and was purchased by F.H. Hood who published a first description accompanied by an illustration in 1869 (Hood 1869). The 'Sungoo River' is the

present Sangu River in the southern part of Chittagong province, Bangladesh. Sclater (1876a: 652) published an account of its capture taken from a Calcutta newspaper, with the date of capture being given as January 1868, but this is probably incorrect. Presumably Hood kept the rhinoceros in Chittagong until plans were made for its transport some 2.5 years later (Anderson 1872). William Jamrach negotiated its purchase for London Zoo in November 1871, for £1250. At the end of 1871, while it was in Calcutta, it was described by Anderson (1872), who noted "peculiar long dropping hair" some five inches long on the ear margins. It was transported to England on the screw steamer *Petersburg*, passing through the Suez Canal. The Daily Occurrence Books kept by London Zoo show that it arrived on 15th February 1872. It created a sensation on arrival due to its hairy ears and some other bodily characteristics (Sclater 1876a: 653, figs. 4,5).

It was the type of *Rhinoceros lasiotis*, a new species proposed by P.L. Sclater, but first published by Buckland in 1872 (see Rook-

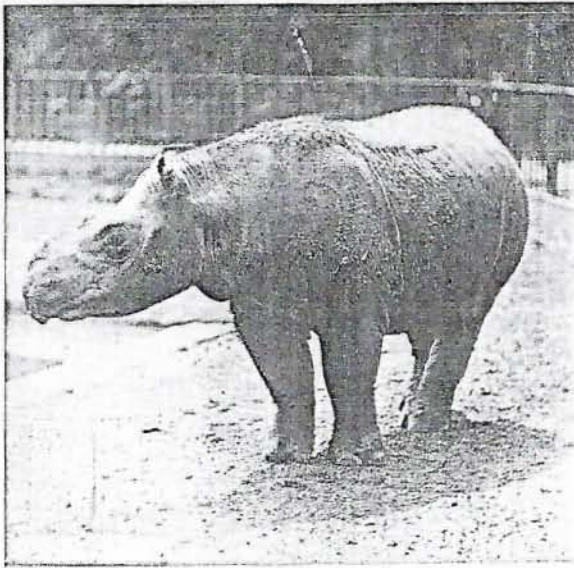


Fig. 93. London's female Sumatran rhinoceros shown in August and September 1872.

maaker 1983a: 87, 1984a: 16, 19). It was first illustrated in colour in Sclater (1872: 493, pl. XXIII) after a drawing by J.C. Keuleman, and then in Sclater (1876a, pl. XCVIII) after a watercolour by J. Wolf. There is an engraving by 'J.G.' in the *Illustrated London News* (Anonymous 1872; see Fig. 92). Edwards (1996a: 124-125) reproduced three photographs of this specimen in the zoo. Its remains (skull, horns and skin from the head only) went to the Natural History Museum, London, No. 1901.1.22.1 (Thomas 1901). The skull is exceptionally large (Groves 1982: 259).

21-9?
F 1872 August 14 – 1872 September 21 †

This animal was caught by William Kroke in the Sunghi-njong [=Sungei Ujung] district, Negri Sembilan, Malaysia (Buckland 1872). It was deposited by Jamrach on 14th August (Daily Occurrence Books kept at the zoo) and bought by the zoo on 21st August for £600. It was an old female. Illustrated in Sclater (1876a, pl. XCVII) after J. Wolf. A photograph taken by Frederick York is shown in Edwards (1996a: 124, 1996b: 143). Garrod (1873) described its anatomy. Hide and skull are preserved at the Natural History Museum, London, No. 1872.12.31.1 (Groves 1982: 258, calling it an extremely aged skull). Groves (1971: 246, fig. 14) showed a photograph of the skull. It is of the type *Ceratorhinus niger* Gray, 1873, as the hide was blacker than other specimens (Rookmaaker 1984a: 20). See Fig. 93.

F 1875 July 14 – 1877 May 30 †

Captured in Johore, Malaysia, and imported by Charles Jamrach, London, who deposited it at the zoo on 14th July. It was purchased on 28th June 1876 for £600 (Sclater 1876a: 659).

F 1878 October 4 – 1879 March 19

A fully grown female, deposited by Jamrach (Sclater 1878). Reynolds (1961a: 35) recorded that it was returned to Jamrach to be sold to the Barons Arthur and Fernand von Schickler for Berlin Zoo in 1879. The von Schicklers gave a female Sumatran rhinoceros to that zoo in 1878 (see Berlin), but a second female arriving there in 1879 is not recorded (see Schlawe 1969). It is possible, in fact, that this specimen went to Antwerp to be auctioned at one of the zoo's regular animal sales. Antwerp Zoo probably had two Sumatran rhinos in 1879, and, after its death in that year, one of unknown sex was taken to the museum in Paris (see Antwerp, 1879).

M 1879 March 20 – 1879 April 5 †

On deposit (from the dealer Rice). It died of dropsy, combined with tuberculosis of the lungs and spleen. Forbes (1885) described the penis.

M 1885 April 1 – 1885 May 22 †

Purchased from Edward Cross of Liverpool on 16th April, together with the following female, for £500 (Sclater 1885). The date of death was mentioned as 22nd April in Beddard and Treves (1889).

F 1885 April 1 – 1888 October 26 †

Purchased from Edward Cross of Liverpool together with the above male. Beddard and Treves (1889) studied its anatomy.

M 1886 April 27 – 1910 November 22 †

'Jackson'
 Caught in the Bassein District of Burma and exhibited at Calcutta Zoo between 1884 and 1886. It had a very large front horn. Flower (1931: 202) recorded the date of death.

F 1898 September 26 – 1900 February 13 †

Evidence about this previously unrecorded animal was found by John Edwards in the Daily Occurrence Books of London Zoo. The animal was on deposit from the dealer Edward Cross of Liverpool.



Fig. 94. 'Embam' in Los Angeles, 1993.

2. Victoria Docks/Rice (dealer)

F 1872 December - (?)

The steamer *Orchis* arrived at the Victoria Docks from Singapore with this female rhinoceros on board. She gave birth while on board (Bartlett 1873, with illustration). Mother and child were taken to the stables of the dealer Rice. The mother was later shipped to the USA. The destination was not clarified.

F 1872 December 7 - 1872 December 21 †

Born to a female in transit on board the steamer *Orchis* (see previous entry). It was three feet long, two feet high at the shoulder, and weighed 50 lbs. It lived just two weeks.

Los Angeles, CA, USA

Los Angeles Zoo

F 1988 November 25 - 1989 June 2

'Mahatu' St.24
Caught in Sumatra on 22nd July 1988. Thomas (1989) reported the arrival in Los Angeles and supplied a photograph. To Cincinnati. See Fig. 1.

F 1989 November 29 - 1990 May 16

'Augustina' St.27
Caught in Sumatra on 26th August 1989. Photograph in Johnston (1990). To New York Bronx. See Fig. 77.

F 1991 November 25 - 1995 August 4

'Embam' St.29
Imported from Sumatra when it was between eight months and one year old. To Cincinnati. See Fig. 94.

Madras, Tamil Nadu, India

Zoological Gardens

F 1899 - 1913 (?)

In 1913, Flower (1914: 73) saw "a female *R. sumatrensis*, which has now been about 14 years here", which would mean that it came in 1899. Flower (1931: 203) added to the entry on this rhinoceros in Madras: "and left alive", which probably meant it was still alive when he last saw it in 1913.

Malaysia

Collection of Datok Rajah Kiah of Jelevu

M ca. 1930 - 1937 (?)

Jelevu is a region immediately east of Kuala Lumpur, Malaysia. Hubback (1939: 600) recorded, without dates (but probably referring to the period around 1930) that the Rajah caught a male baby rhinoceros. He cared for it for seven years. It was still hairy when it arrived. After seven years, it was a little over



Fig. 95. One of the Sumatran rhinoceroses in Melaka, 1991.

seven feet high. It was just showing the anterior horn, but there was no sign of a posterior horn.

Melaka, Malaysia

Zoological Gardens

Several Sumatran rhinos of Malaysian origin were kept in this zoo from 1984 onwards. Some interesting papers on various aspects of their behaviour and husbandry have been published by Zainal-Zahari *et al.* (1990a) and Richard *et al.* (1990). Zainal-Zahari *et al.* (1990a: 3) also tabulated the animals kept in captivity. The zoo cooperates with the Malaysian Government. Some animals are kept in special enclosures constructed on the edge of the forests of the Sungei Dusun Wildlife Reserve, Perak, Malaysia. See Fig. 95.

F 1984 April 30 – *St. 01*
 ‘Jeram’

In April 1984, this animal was found by estate workers on an oil palm plantation near Jeram, Selangor, Malaysia. It was about seven or eight years old at the time. When it was found, the horns had been removed, and the jaw and left eye were badly damaged. Nardelli (1985: 4) published a photograph. It was kept in Sungei Dusun Wildlife Reserve from 13th January 1987 to 15th August 1987, and again from 31st May 1991 to 6th February 1993.



Fig. 96. Baby ‘Minah’ born on 23rd May 1987 at Melaka.

M 1984 May 21 – 1984 May 31 † *St. 02*
 ‘Erong’
 Caught in Perak, Malaysia, after being abandoned by its mother. Died after just ten days.

F 1985 April 18 – 1986 July *St. 03*
 ‘Melintang’
 Caught in a plantation in the Melintang Forest, Malaysia. Not recorded in Zainal-Zahari (1990a). To Bangkok.

F 1986 February 10 – *St. 07*
 ‘Rima’
 This adult female was captured in a pit trap in Tenggaraoh, Johor, Malaysia, on 8th February 1986. It was caught when pregnant and gave birth on 23rd May 1987. From 13th February to 6th March 1987, it was kept at the Sungei Dusun Wildlife Reserve, and again from 4th February 1993. Zainal-Zahari *et al.* (1990b) analyzed the milk.

F 1986 July 6 – 1989 December 15 † *St. 11*
 ‘Julia’
 Caught on 6th July 1986 near Sungai Samak, Ulu Bernam, Perak, Malaysia. Kept in Sungei Dusun Wildlife Reserve from 13th January 1987 to 21st April 1989.

F 1986 September 9 – 1987 April 25 *St. 12*
 ‘Dusun’
 Caught on 8th September 1986 in a pit trap near Sungei Dusun, Malaysia. It was kept at the Sungei Dusun Wildlife Reserve from 13th January 1987 to 6th March 1987. To Jakarta.

F 1987 March 5 – *St. 13*
 ‘Panjang’
 Caught in Selangor, Malaysia, on 25th February 1987. It was kept at the Sungei Dusun

Wildlife Reserve from 25th September 1987 to 20th April 1989, and again from 27th April 1991.

M 1987 April 25 – 1987 August 6 †
 'Napangga' St. 09
 Caught at Torgamba, Sumatra on 15th June 1986. Müller (1988) published two photographs. It died due to severe colic (Zainal-Zahari *et al.* 1990d).

F 1987 May 23 –
 'Minah' St. 15
 Born to 'Rima' (St.07) after 469 days in captivity. The mother was bred in the wild. At its birth, it weighed 24 kg, with a length of 92 cm, and a shoulder height of 45 cm. Tajuddin *et al.* (1988) described the birth. Photographs were published by Zainal-Zahari *et al.* (1990a, pl. 6, 8) and Foose (1987). See Figs. 7, 96.

F 1987 July 1 – 1988 September 23 †
 'Seri Delima' St. 16
 Caught in Selangor, Malaysia, on 1st July 1987.

F 1987 August –
 'Mas Merah' St. 19
 Caught in Selangor, Malaysia, on 26th May 1987, and kept at the Sungei Dusun Wildlife Reserve from 2nd May 1991.

M 1988 March 26 –
 'Shah' St. 20
 Caught in Selangor, Malaysia, on 26th March 1988. Kept at the Sungei Dusun Wildlife Reserve from 2nd May 1991.

F 1988 July 12 –
 'Seputih' St. 23
 Caught in Pahang, Malaysia, on 11th July 1988. Kept at the Sungei Dusun Wildlife Reserve from 31st May 1991.

M 1994 August 25 –
 'Ara' St. 39
 Caught in Malaysia.

New York, NY, USA

Bronx Zoo

F 1902 March 25 – 1902 December 16
 'Mary'
 This animal was received from Perak, Malay-

sia. There was no space in the zoo and the rhinoceros had to be kept in an orang-utan cage. It was sold to Ringling Brothers World's Greatest Show for \$5000 and transported to their headquarters in Baraboo, Wisconsin, USA. (Rookmaaker and Reynolds 1985: 137). It died at the circus during the autumn of 1908 (cf. USA, Travelling Menageries).

F 1990 May 16 – 1993 February 5
 'Rapunzel' St.27
 From Los Angeles, and transferred on loan to Cincinnati.

Osaka, Japan

Tennoji Zoo

1921 June 21 – 1925 January 30 †
 Two rhinoceroses were shipped from the Malayan Peninsula via Singapore in 1921. One died on the way. The other (sex unknown) arrived in June 1921 (Sotani 1974). It cost 23,500 yen. It died of utemia. After its death, the skeleton went to the University of Osaka, while the hide remained at the zoo. It was still there in 1975, in a poor condition, minus the horns which had been stolen (Rookmaaker and Reynolds 1985: 143). This was the first rhinoceros of any species exhibited in Japan.

Paris, France

Jardin des Plantes

1885 June 11 – 1887 June 13 †
 One very hairy specimen was seen in Paris by Bölsche (1910: 125), who clearly stated that it was Sumatran and that it was at the Jardin des Plantes, but did not specify the dates of arrival and death. These dates were recorded by the zoo. The specimen is preserved at the Natural History Museum in Paris (Marvin Jones, in litt.).

Perth, Western Australia

Zoological Gardens

The zoo was founded in October 1898.

1902

Charles Mayer (1922: 124-129) caught a rhinoceros in Trengganu, Malaysia. It was



Fig. 97. Male Sumatran rhinoceros 'Torgamba' at Port Lympne, 1988.

shipped to Perth and Mayer was paid £200. From his story, Mayer gives the impression that the animal arrived, but no further data are known.

Philadelphia, PA, USA

Zoological Gardens

1952

Reynolds (1961a: 39) noted [from *America's First Zoo*, 4 (2), June 1952] that a pair of Sumatran rhinoceroses bound for Philadelphia on board the steamer *Schuyler Otis Bland* in March 1952 perished at sea. The animals had been obtained by the dealer Alton V. Freeman, who had to keep them in Singapore for almost a year before the documents and permits were ready. They probably came from Sumatra. They were due to arrive in New York on 12th March 1952, as reported in the *Inquirer* of 11th February, when they were still alive. The *Evening Bulletin* from Philadelphia dated 4th March 1952 reported that the zoo had been notified the previous day that the male had died near Suez after a sandstorm, and the female, missing her mate, died soon after near Naples. The bodies were not preserved.

Port Lympne, UK

Zoo Park

The Sumatran rhinoceroses imported to Port Lympne in the 1980s were caught in Sumatra. The project was explained by Buntaran (1987),

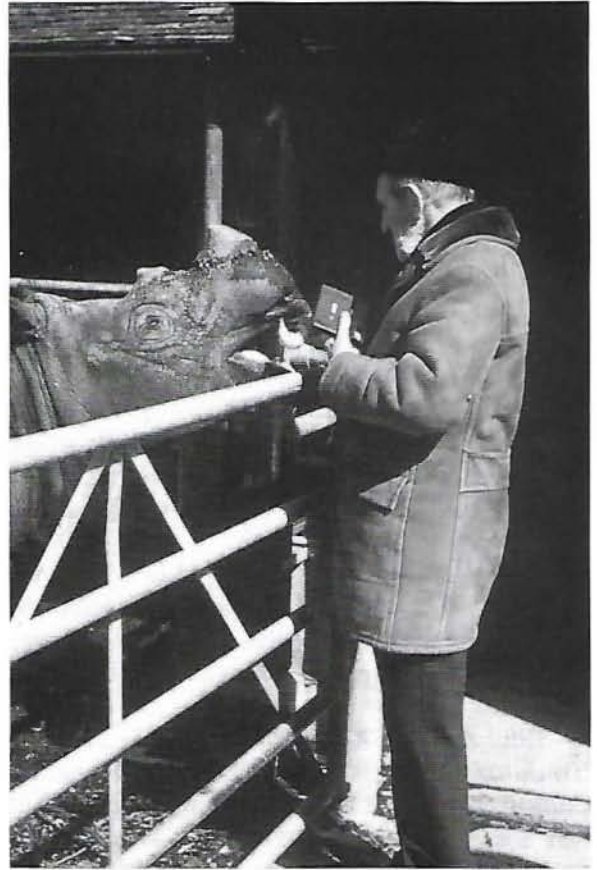


Fig. 98. 'Torgamba' at Port Lympne, with the late Tim H. Clarke, a rhinoceros iconography expert.

Begg (1988), Nardelli (1985-1987) and Furley (1993a).

M 1986 April 5 –

'Torgamba'

St. 04

Caught on 25th November 1985 in Torgamba, Sumatra. Photograph in Klös (1987: 28). See Figs. 97, 98.

F 1986 August 26 – 1986 October 30 †

'Subur'

St. 10

Caught on 22nd June 1986 in Torgamba, Sumatra. Nardelli (1986) showed pictures of the capture, while Begg (1986) described its transport to England. Furley (1987, 1993b) described its clinical history.

F 1988 April 30 – 1994 November 4 †

'Meranti'

St. 18

Caught on 9th September 1986 in Torgamba, Sumatra. Begg (1988) described its transport to England. It died of ovarian cancer.

San Diego, CA, USA*San Diego Zoo*

F 1988 November 25 – 1995 February 22 †
 'Barakas' *St.* 25
 Caught in Torgamba, Sumatra on 24th July 1988, and was 12 years old on arrival (Greeley 1989, Shima 1989). It was euthanized when its health continued to deteriorate due to chronic interstitial nephritis.

M 1991 April 10 – 1991 October 24
 'Ipuh' *St.* 28
 Caught in Sumatra on 23rd July 1990. To Cincinnati.

F 1991 November 23 – 1992 May 25 †
 'Rami' *St.* 33
 Caught in Sumatra on 12th June 1991. It was eight years old on arrival.

M 1992 August 30 – 1995 February 26 †
 'Tanjung' *St.* 35
 Caught in Sumatra on 20th March 1992. It was six years old on arrival. It died due to torsion of the caecum.

Sepilok, Sabah, Borneo, Indonesia*Sumatran Rhino Capture Operation*

Sumatran rhinoceroses are captured in various places in Sabah, the northern part of the island of Borneo, Indonesia. These animals belong to the smallest known sub-species, *Dicerorhinus sumatrensis harrissoni* (Groves, 1965), named after Tom Harrison. It appears that none of these specimens have been taken out of Borneo. Bosi (1996) described the project, giving details of the breeding of the species.

M 1987 March 28 – 1987 March 29 †
St. 14
 Caught in Linbar Kinabatangan, Sabah. It died after one day due to internal injuries and respiratory failure.

M 1987 July 14 – 1992 April 22 †
 'Tenegang' *St.* 17
 Caught in Lahat Datu, Sabah. Kept at Sepilok, Sabah (Zainal-Zahari *et al.* 1990a: 3). According to Bosi (1996: 24), it died in 1991.

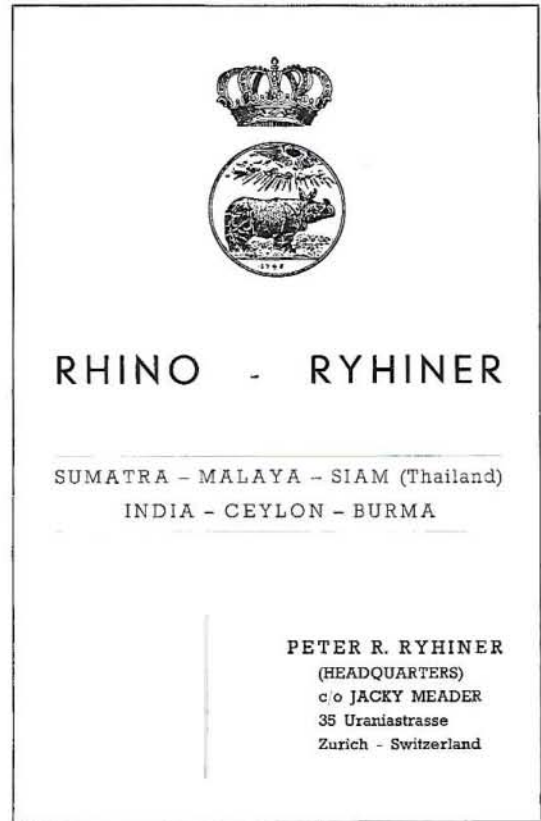


Fig. 99. Advertisement from Peter R. Ryhiner, in *International Zoo News*.

M 1988 May 24 – 1988 May 25 †
St. 21
 Caught in Sabah, but died after one day.

F 1989 April 22 –
 'Lun Parai' *St.* 26
 Caught in Lahat Datu, Sabah. Kept at Sepilok, Sabah (Zainal-Zahari *et al.* 1990a: 3).

M 1991 May 5 – 1995 May 8 †
 'Takala' *St.* 31
 Caught in Sabah on 5th May 1991. Died of tetanus.

M 1992 August 28 –
 'Sidom' *St.* 36
 Caught in Sabah on 27th August 1992.

M 1993 July 27 –
 'Tanjung' *St.* 38
 Caught in Sabah on 20th July 1993.

F 1994 June 18 –
 'Gologob' *St.* 40
 Caught in Sabah on 17th June 1994.

Singapore, Singapore*Botanic Gardens*

The presence of rhinoceroses at the Botanic Gardens in Singapore was noted by Ridley in two papers, but his statements are confusing. Ridley (1901) first stated that "lately ... two examples of *R. sumatrensis* have been on view at the Botanic Gardens. ... Both were females trapped at S'tiawan in Perak." However, Ridley (1906: 161) subsequently recorded that "three of these were kept temporarily before shipping to the Vienna Zoological Gardens in 1901." Vienna Zoo only received two specimens, which arrived in 1900 and 1902, respectively. Therefore, one of the 1901 Singapore animals could have been the female arriving in Vienna in 1902. The second specimen might have been in Singapore in 1900, unless the date of arrival in Vienna was recorded incorrectly. The third specimen is unknown from the records in Vienna: it either died on the way or went elsewhere.

1875

Ridley (1906: 161) stated that "there was one [rhinoceros] in the gardens as early as 1875". The same source (p. 133) mentioned that the Botanic Gardens disposed of its large mammals in 1878, mostly to Calcutta Zoo. However, no rhino arrival is recorded in Calcutta in 1878. It would, of course, be possible that this is one of the animals which were imported into Europe in 1878, to London and Berlin, but in neither case is the actual provenance of the specimen exactly known.

F (?) - 1900

This specimen was purchased by the Austrian Consul and sent to Vienna arriving on 26th October 1900 (Antonius 1937).

F 1901 - 1902

A second female purchased by the Austrian Consul arrived in Vienna on 17th July 1902. This may have been the specimen caught in 1901 in the Dindings, Malaysia, near Sitiawan (Wray 1905). During that expedition, three animals were caught: one male which went to the Perak Museum (and presumably died soon after capture), a second animal which also died, and a third which "was shipped to Singapore". Ripley (1901) also recorded the locality of Sitiawan for two animals, as mentioned above.

Stuttgart, Germany*Nil's Tierpark*

Loisel (1912, II: 226) recorded that this zoo was opened in 1870 with Mr. Nil as its director. In fact, it was Johannes Nill who opened a garden in 1871 on the Herdweg (Hässlin and Nogge 1985: 111). After 1892, the work was continued by Adolf Nill, until the garden's closure in 1906 (Neugebauer 1993: 22-25).

1895

One rhinoceros was exhibited in 1895 (Reynolds 1961a: 36, from I. Krumbiegel). No details were recorded.

Sumatra, Indonesia*1. Atjeh, Sultan Iskander**1641*

Nicolaus de Graaff (1701: 13) was in 'Achin' (=Atjeh, N. Sumatra) when Sultan Iskander Tsani died on 15th February 1641. When he was buried, the pageant included 260 elephants and 'enige Rinoceros' [some rhinoceros].

*2. Collection of Max Poser**M 1928*

Captured in the interior of Langsar, Sumatra [probably Langsa, Aceh, N. Sumatra]. This rhinoceros was in the possession of Max Poser (in Sumatra) and he agreed to sell it to Dresden Zoo. However, a cobra bite killed it before it could be transported. Ullrich (1955) published two photographs of the animal.

*3. Collection Coenraad-Uhlig**F 1930*

Coenraad-Uhlig (1933) recorded that a young female called 'Bong' was found after the mother had been killed, about 275 km from Atjeh [Aceh], North Sumatra. It was transported to Atjeh while it was rather ill. It recovered at first, but at the onset of the wet season, it died of bronchitis. Coenraad-Uhlig published five photographs taken on 16th and 18th November 1930.

4. Danish Sumatra Rhino Expedition 1959

This expedition organized by the Copenhagen Zoo was headed by A. Dyhrberg and H. Skafte. It operated in the Siak River area, Riau. Skafte (1964) and Andersen (1963) recounted this venture. In all, nine females and one male were captured. Six females were released back into the forest. The male escaped from his enclosure. The details of the remaining three females are as follows:

F 'Mulia': caught summer 1959. Died (poisoned?) after some weeks. Photograph in Skafte (1964: 32). Hide and skeleton in the Natural History Museum, Copenhagen.

F 'Subur': caught summer 1959. To Copenhagen Zoo.

F (no name): caught summer 1959. To Bogor Palace.

5. Animals caught by Gillmore and Ryhiner

1958 – 1959

Harry Gillmore was the manager of Standard Vacuum Oil Co., stationed at Buatan on the Siak River, Sumatra. In November 1958, he caught a male and a female rhinoceros, which he kept near his compound. In December 1958, Peter Ryhiner (a Swiss animal dealer) saw the female called 'Dimples', but the male was elsewhere (see Fig. 99). Ryhiner went to Singapore on other business, and on his return in January 1959, he found that the rhinos had been released into the forest (see Rookmaaker and Reynolds 1985: 144-146). However, Ryhiner caught two animals in the following months in the same place:

F 'Betina' caught on 17th March 1959 (probably the same as 'Dimples' caught and released earlier). The animal was transported to Singapore in May 1959 where it was kept at the farm of exporter Louis F. De Jong. On 20th June 1959, it was flown to Switzerland; arrival in Basel Zoo on 2nd July 1959.

M captured September 1959. It escaped after three days.

6. Sumatra Rhino Capture Operation 1985-1991

This team operates in the Torgamba area, between the villages of Bakambatu and Tan-

jungmedan in Riau Province, Sumatra (Nardelli 1985, 1987a,c; Klös 1987).

The following animals have been caught:

- 1985 25th November: Male (young) 'Torgamba' caught in pit trap. In April 1986 it was transported via Singapore to Port Lympne in England (St. 04).
- 1986 23rd January: Female (adult), 'Riau', panicked in trap, died the same day (St. 05).
- 1986 2nd February: Male 'Rokan', sent to Surabaya in May 1988 (St. 06).
- 1986 23rd or 24th March: Male (young) 'Jalu' caught in pit trap. Sent to Jakarta Zoo (St. 08).
- 1986 15th June: Male 'Napangga' caught in pit trap; it had a snare wound on the legs. To Melaka, April 1987 (St. 09).
- 1986 22nd June: Female 'Subur' caught in trap, with snare wound on the leg. It left on 25th August 1986 for Port Lympne, England (St. 10).
- 1987 21st July: Female 'Meranti', to Port Lympne in April 1988 (St. 19).
- 1988 8th July: Female 'Dalu', to Bogor in November 1988 (St. 22).
- 1988 22nd July: Female 'Mahato', to Cincinnati via Los Angeles in November 1988 (St. 24).
- 1988 24th July: Female 'Barakas', to San Diego in November 1988 (St. 25).
- 1989 26th August: Female 'Rapunzel', to New York Bronx via Los Angeles in May 1990 (St. 27).
- 1990 23rd July: Male 'Ipuh', sent to San Diego in April 1991 (St. 28).
- 1991 6th March: Female 'Ipak', to Los Angeles in November 1991 (St. 29).
- 1991 18th April: Male 'Romi', sent to Bogor in September 1991 (St. 30).
- 1991 17th May: Female 'Bina', to Bogor in September 1991 (St. 32).
- 1991 12th June: Female 'Rami', to San Diego in November 1991 (St. 33).
- 1992 17th January: Female 'Wiwien', to Surabaya in July 1992 (St. 34).
- 1992 20th March: Male 'Tanjung', to San Diego in August 1992 (St. 35).

Surabaya, Indonesia

Kebun Binatang Surabaya

Animals are kept on a moated island of about

half a hectare in size (Prasetyo and Noordin 1993).

M 1988 May – 1993 August 12 †
 'Rokan' St. 06
 Caught on 2nd February 1986 in Torgamba, Sumatra. Begg (1988) described its transport to Surabaya.

F 1992 July 25 –
 'Wiwien' St. 34
 Caught in Sumatra on 17th January 1992.

Tabin Wildlife Reserve, Sabah, Malaysia

M 1993 September 25 – Released
 'Bulud' St. 37
 This animal was caught during capture operations in Sabah on 7th July 1993, and subsequently released in the park (Foose 1994b).

Theyboo, Myanmar

Monastery

1859

The French traveller, A. Thomas-Anquetil, visited the monastery of Theyboo, on the banks of the river Mhyet-Nghy, near Mandalay, Burma. This contained a large menagerie which exhibited, among many other animals, 'le rhinocéros' (from Loisel 1912, III: 11).

USA

Travelling Menageries and Circuses

1872 – 1873 (?)

In 1872, the circus run by P.T. Barnum, W.C. Coup and Dan Castello exhibited a 'black rhinoceros'. In November 1872, this animal was touring through Indiana with 'P.T. Barnum's Great Traveling Museum' owned by P.A. Older. On 6th December, 1872, it was seen in Atlanta, Georgia and was called a 'black rhinoceros'. At the end of December 1872 it was in winter quarters at Algiers, LA. In 1873, Older's circus was renamed 'Older & Chandler'. There was an auction of the show at Shreveport, Caddo Parish, in September 1873 where they advertized a 'black Sumatran rhino'. It was purchased by James Cumpston, who took it to New York and offered it for sale again. Its further history is not known.

Although it was called a 'black' rhinoceros, it was probably an example of the Sumatran species.

1872 – 1875 October †

Adam Forepaugh received a 'monster two-horned hairy rhinoceros' for his Great Forepaugh Show during 1872. It was still present in 1873. There is a newspaper review written during Forepaugh's stand at Chicago on 25th-30th May, 1874, where the reporter saw "a full-grown specimen of the black Indian rhinoceros, a hideous beast, with eyes half way down his nose, and so small and fiery that they looked like a candle shining through a knot-hole in a dead wall; with splay feet two sizes too small for him and his skin three sizes too large. It is the color of an asphalt pavement, feels like the side of a barn, and hangs in wrinkles and folds all over him."

On 13th October, 1875, a rhinoceros was injured in a road accident between Amsterdam and Schenectady, N.Y. The animal died of its injuries after about a week.

1880 – 1887 (?)

John Robinson had a rhinoceros in 1880 when he visited Carlisle, PA. It was called a 'Sumatran' animal. In 1882 the animal was in California. In 1887, again visiting California, John Robinson advertized a 'double horned rhinoceros'. At that time, the animal might have been dead, because the style of the advertisement was less specific than usual.

1881 – 1886

P.T. Barnum and James A. Bailey had one rhinoceros (species unknown) in 1881 in the Barnum & London Circus. Later in the 1880s, they had two rhinoceroses, which, in 1886, were described as an African and a 'double-horned' animal. Perhaps the latter was in fact a Sumatran specimen.

F 1890 – 1896 (?)

The Great Adam Forepaugh Show in 1890 was acquired by Cooper, Bailey and Barnum. From 1892 onwards, Bailey was the sole owner. From 1890 to 1893, the circus showed a female Sumatran rhinoceros. It was left at Washington Zoo from 7th November 1893 to 3rd March 1896. It was then shown in Columbus, OH, by Adam Forepaugh and Sells Bros. It was alive on 18th November, 1896 when the circus performed in Anderson, SC. No later records.

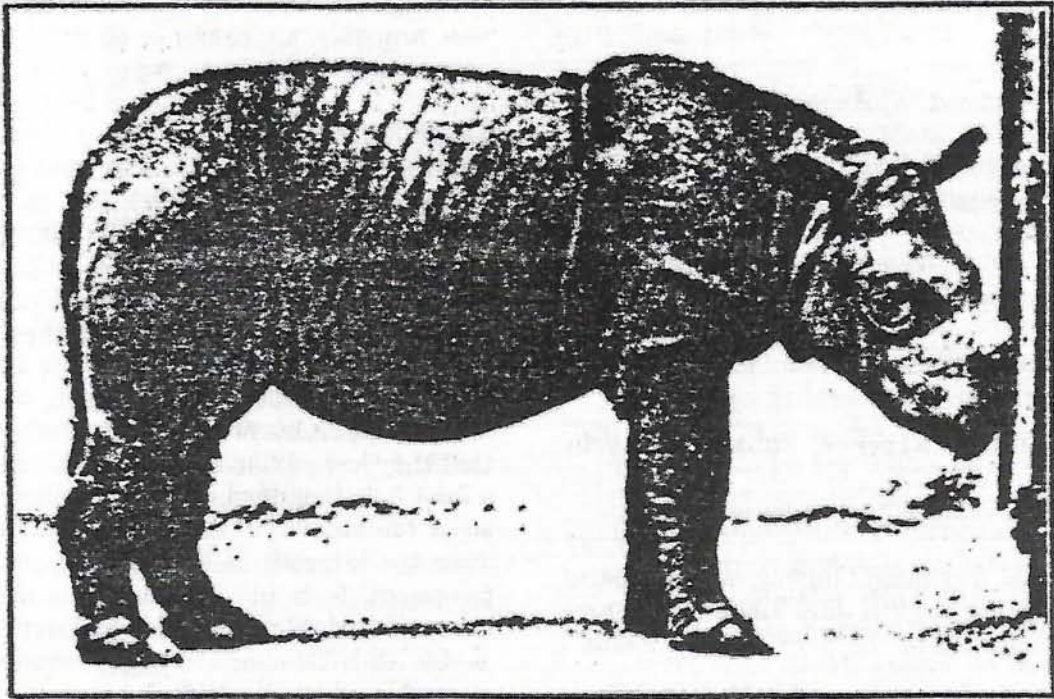


Fig. 100. Early photograph of Sumatran rhinoceros 'Mary' in Vienna, around 1905.

F 1902 December 16 – 1908 †

The animal was purchased from the Bronx Zoo, New York by the Ringling Bros. Circus. The animal was with the circus for several years. A Ringling Bros. advertisement in *The Baraboo News* (Wisconsin) dated Thursday 18th March 1909 states that "last fall [1908] their Sumatran rhinoceros died".

Vienna, Austria

Schönbrunner Tiergarten

F 1900 October 26 – 1910 November 11 †
'Jenny'

This animal had been exhibited for a short time in the Botanic Gardens, Singapore, where it was bought by the Austrian consul. Antonius (1937) published a photograph; he stated that the animal died on 11th November 1908 from lung tuberculosis. However, the remains were entered in the catalogue of the Natural History Museum in Vienna on 15th November 1910 and it is possible that 'Jenny' died in 1910 (as recorded by Brachetka 1947: 73).

However, Hagenbeck (1914: 277) referred to just one animal in Vienna in 1908 (female Mary). The skull, still in the museum, NMW 3082, is said to be not quite mature (Groves 1982: 257).

F 1902 July 17 – 1920 September †
'Mary'

This animal was caught in the Dindings, Perak, Malaysia in 1901 and was then shown in the Botanic Gardens in Singapore for a short time. It was bought by the Austrian consul in Singapore. It was very weak on arrival. Both this female and 'Jenny' had very bad tempers. For instance, the keeper Anton Husz was once thrown against the fence by Mary. He could only escape by throwing the food bucket at her horn and running away in the confusion. Antonius (1937, figs. 2,3) published two photographs of Mary, one taken around 1905 by A.K. Schuster, the second dated 1911 by C. Seebald (these pictures were probably destroyed in a bomb attack in February 1945, according to Dr. Kurt Kolar, in litt. 14th August 1995; see Fig. 100). Mary died either in 1919 (Antonius 1937, Brachetka 1947) or more

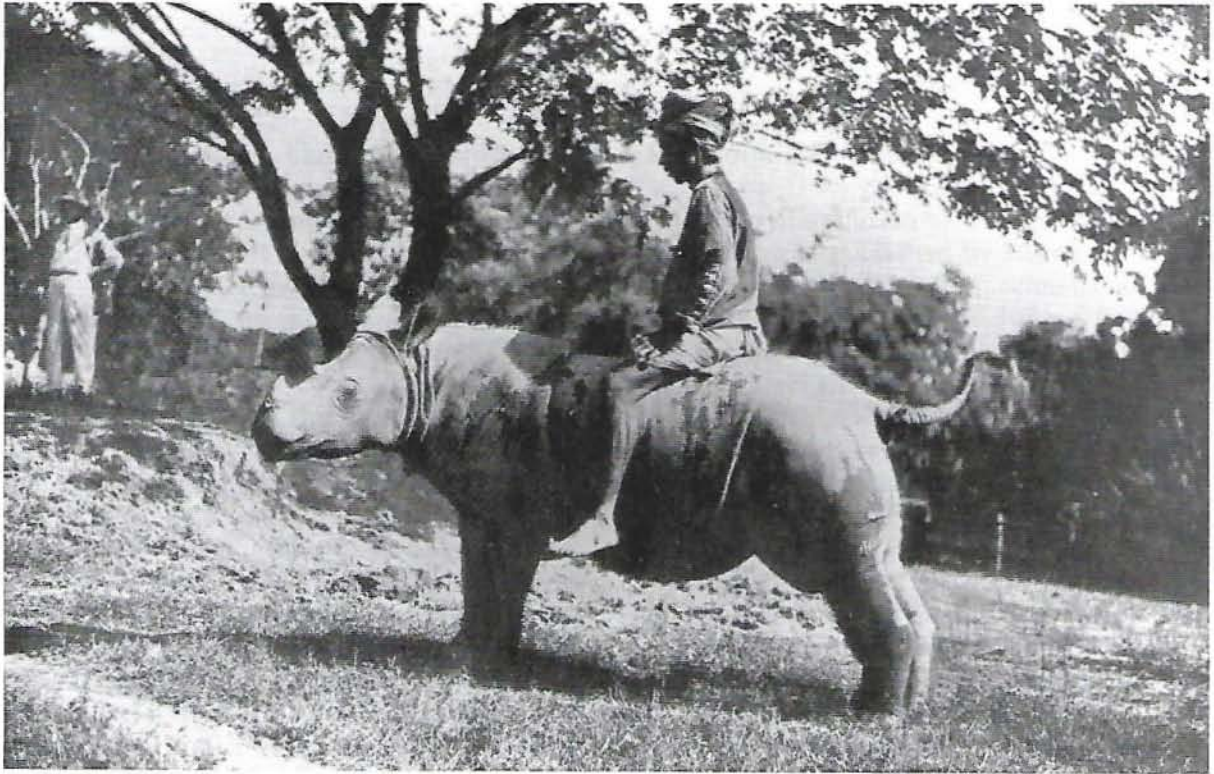


Fig. 101. Sumatran rhinoceros in Rangoon in 1913 (from Flower 1914, pl 10).

probably in 1920, as the remains were received at the Natural History Museum of Vienna on 16th September, 1920 (see Rookmaaker and Reynolds 1985: 148). The skull (NMW 5026) is exceptionally large (Groves 1982: 258).

Washington, DC, USA

National Zoological Gardens

F 1893 November 7 – 1896 March 24

This animal was left at the zoo by the Adam Forepaugh Circus and it returned to this show after its interests had been acquired by the Sells Brothers, operating under the name of the Adam Forepaugh and Sells Brothers Combined Circus (Reynolds 1961a: 38).

Wroclaw, Poland

Zoologischer Garten

1904

In 1904, a Sumatran rhinoceros was offered for sale by William Cross, an animal dealer who maintained a 'Zoological Establishment'

in Liverpool (not in London), and it was supposedly bought by Breslau Zoo (see Reynolds 1961a: 36). It probably never arrived. It is not mentioned by Gleiss (1967) in his extensive history of Breslau Zoo.

Yangon, Myanmar

Zoological Gardens

M 1909 – 1916 (?)

Flower (1914: 90, pl. 10) saw this animal in 1913 and said that it had been received from the Straits Settlements [Malaysia] in 1909. It was tame enough to allow the keeper to sit on its back. Christopher (1916, fig. p.228) published a photograph taken ca. 1916. See Fig. 101.