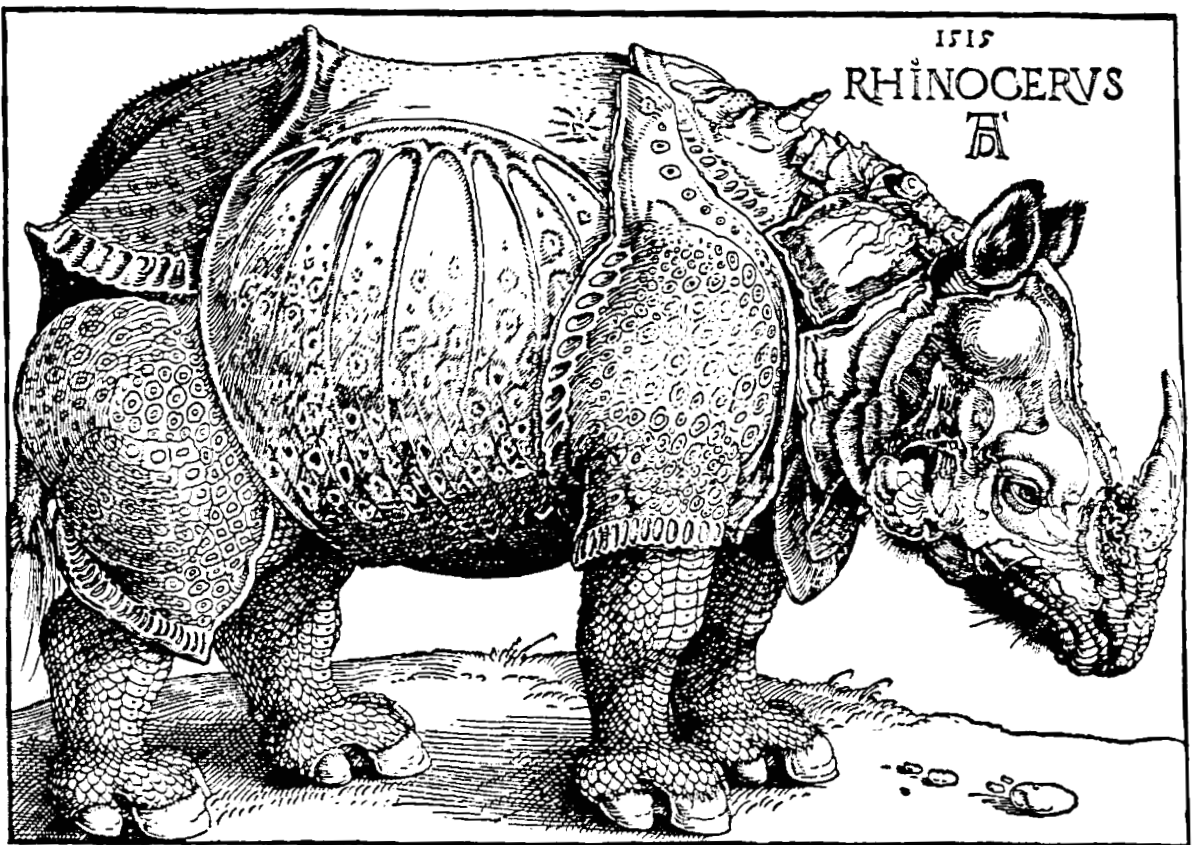


THE RHINOCEROS IN CAPTIVITY

by L.C. Rookmaaker



SPB Academic Publishing bv

THE RHINOCEROS IN CAPTIVITY

**A list of 2439 rhinoceroses kept from
Roman times to 1994**

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4. The Indian rhinoceros (*Rhinoceros unicornis*)

The Indian rhinoceros is a fascinating subject for the zoo historian. The first rhinoceroses seen in Europe (after Roman times) belonged to this species, and it has been consistently imported in small numbers ever since. They have been kept in royal menageries, private homes, zoological gardens, travelling shows and circuses, all with equally acceptable results. Since 1515, 397 Indian rhinos have been individually recorded in captivity. On 20 May, 1515, a rhinoceros reached the harbor of Lisbon, Portugal, a donation from an Indian ruler to the King of Portugal. Its likeness was remarkably accurately depicted by the great German artist, Albrecht Dürer, on a woodcut dated 1515, which became the unrivaled prototype of the rhinoceros for many ages. There were at least eight rhinos in Europe before 1800, all of them Indian: 1515 and 1579 in Lisbon, 1684 and 1739 in London, 1741 in the Netherlands and throughout Europe, 1770 in Versailles, and 1790 and 1799 once again in London. It was not until the end of the 18th century that the most discerning rhinoceros experts began to realize that not all rhinos belonged to one species.

The Indian rhinoceros has consistently been kept in captivity, albeit never in great numbers. From the total of 397 specimens, 260 (65%) were imported from the wild and 137 (35%) born in captivity. Since at least 1850, there has never been a year with less than three specimens living in a captive situation. Up until 1872, the number of living animals in collections around the world at any one time was less than ten. There was a marked increase in imports from India between 1870 and 1878, which must have been due to the activities of animal dealers such as Jamrach operating from Calcutta. In those few years, 33 specimens were exported to various collections. At the end of the 19th century, the collective number of Indian rhinos kept in captivity once again dropped to below ten, and this number remained stable until about 1933. The total number of living animals from this species of rhinoceros reached 30 in 1959, 50 in 1971, and in 1986 exceeded one hundred for the first time.

It is not surprising that the Indian rhinoceros found its way into the collections of kings and maharajahs in its native India and Nepal. The first records, vague as they are, date back to 1409, 1615 and 1660, but obviously these instances happened to be recorded by accident, and there were probably many others. From at least the end of the 18th century, the rhinoceros was regularly to be found in the gardens of various rulers in the Indian subcontinent. Our information is very probably incomplete. The Kings of Oudh (*cf.* Lucknow), for instance, had a remarkable liking for rhinos, since various reports referring to the period between 1820 and 1840 indicate that up to 20 specimens could be seen in their gardens. One early visitor, Bishop Reginald Heber, even said, in a rather general fashion, that rhinos "seem to propagate in captivity without reluctance". We would like to know more, but the sources are silent. The Kings of Nepal also kept rhinos in Kathmandu from time to time, while preserving and hunting them in their natural habitat. In these royal gardens in Nepal, the first captive birth of a rhinoceros occurred in May, 1824. Although the exact circumstances are elusive, we are reliably informed by Brian Hodgson (1800-1894) that the parents mated in captivity and that the young animal survived. Other captive births occurred in 1925 and 1948, and then with some regularity from 1956 onwards.

Previous lists and the studbook

The American lawyer and zoo-historian Richard Reynolds III collected information on the rhinoceros in captivity in the 1950s. In his compilation published in 1961, he listed about 110 examples of the Indian rhinoceros. A studbook for this species was started around 1970 at Basel Zoo, Switzerland, under the capable supervision of Dr Ernst M. Lang, the then director, assisted by Mrs Kathleen Tobler. When the data were first published in 1975, they contained 61 specimens (Lang, 1975). Since that time, the studbook for Indian rhinoceroses has regularly been published by Basel Zoo, in 1980, 1982, 1985, 1988, 1991,

1993 and 1995. Throughout the years, the number of specimens listed increased from 93 in 1980, to 100, 119, 145, 184, 203 and 224, respectively, in the following editions. Each animal is given a (consecutive) number and a house-name, based on the place of origin or the zoo of birth. The data in the ninth edition of the studbook published in Basel in 1997, and for the first time edited by Gabriele Wirz-Hlavacek and Peter Studer, have only been used in this work in connection with transfers up to 1994 and deaths of specimens already listed. In 1993, a studbook for the existing population in Indian zoos was compiled by Kanpur Zoo, and included 41 specimens.

Travelling shows and circuses

In 1741, a female rhinoceros was brought from India to the Netherlands. This animal, answering to the name of 'Clara', travelled with her enterprising owner to all corners of Europe until approximately 1758, which shows that this species can quite easily be kept even in adverse conditions. The first rhinoceros ever

to be seen in America, as early as 1830, was part of a travelling circus. Since that time, at least eight Indian rhinos have been kept in travelling exhibitions in Europe and 18 in the USA. The last of these animals died in 1919.

Taxonomy

The species has traditionally been treated as monotypic. Groves (1993) reported that a multivariate analysis performed on a rather limited number of skulls from Assam, Cooch Behar and Nepal indicated a clear difference between specimens from Assam and Nepal. Until further investigations have been carried out and the Nepal group has been named, it may be advisable not to mix specimens originating from these two populations, if this can be avoided.

Origin of imports

During the course of history, 260 Indian rhinos have been taken from the wild. The origin

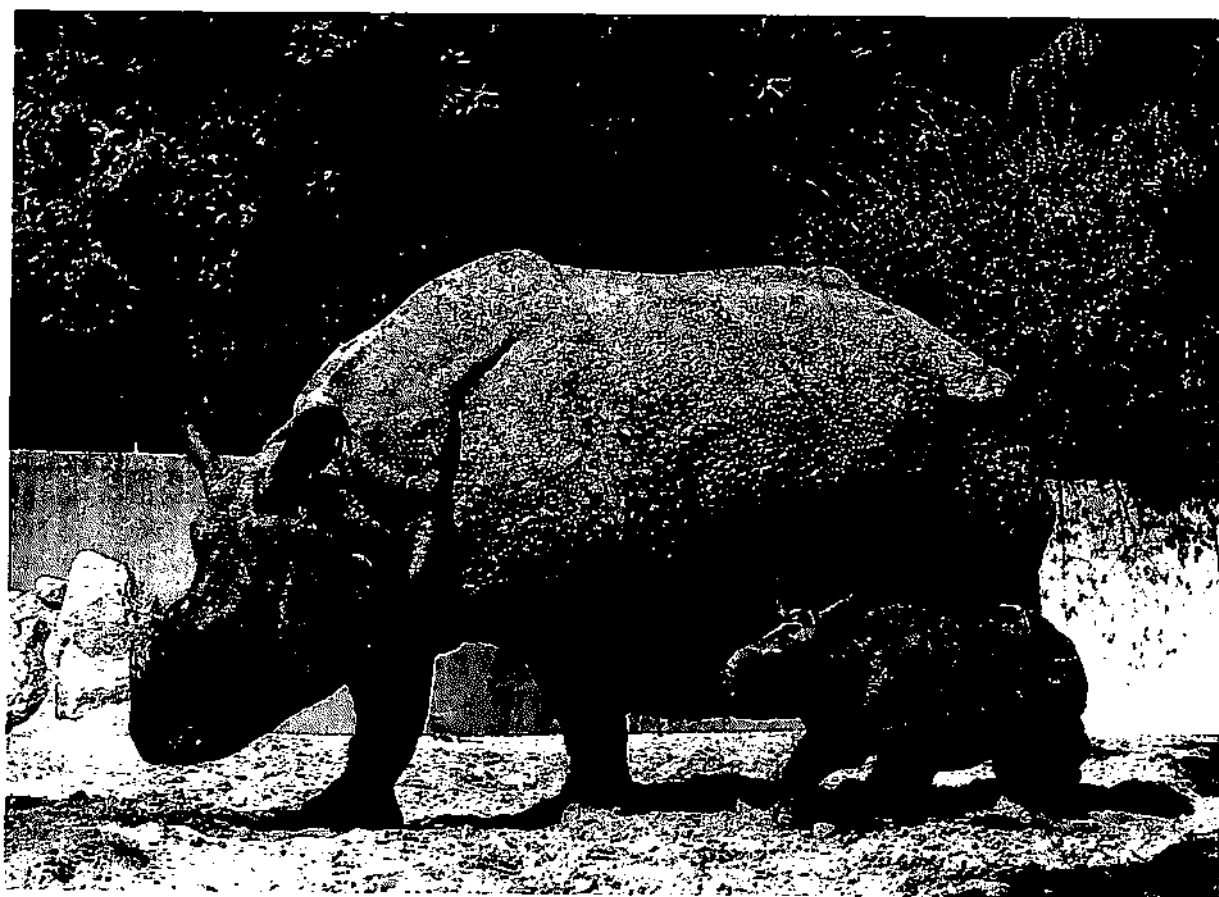


Fig. 15. Female Indian rhinoceros 'Miris' with calf 'Terai' at Berlin Zoo in September 1979.

Table 18. Average longevity

| Years in captivity | Imported animals | | Captive births | |
|--------------------|------------------|----|----------------|----|
| | No. | % | No. | % |
| 0 | 71 | 26 | 33 | 24 |
| 1-9 | 87 | 34 | 52 | 38 |
| 10-19 | 43 | 17 | 32 | 24 |
| 20-29 | 41 | 16 | 17 | 13 |
| 30-39 | 15 | 6 | 3 | 1 |
| >39 | 3 | 1 | | |

of 97 of these is unknown, while that of the others is summarized here:

| | |
|------------------|-----|
| India | 12 |
| India, Bihar | 1 |
| India, Assam | 71 |
| India, Kaziranga | 30 |
| Bhutan | 1 |
| Nepal | 48 |
| Unknown | 97 |
| Total | 260 |

This shows that 114 rhinos (or 44%) came from different parts of India. Most of these must have been caught in the present State of Assam, which has always been the region where the species was particularly common. A large number is stated to have come from the Kaziranga National Park. There is also quite a large number from Nepal. It is remarkable that almost all specimens imported into Europe and America between 1905 and 1939 were said to have come from Nepal.

Longevity

The Indian rhinoceros lives reasonably long in captive conditions. Just over a quarter did not survive a year, but this category includes specimens with incomplete data as well as common stillbirths. About half the animals lived for ten years or more in captivity (Table 18).

The longest living specimen was a male from London Zoo during the last century, which reached just over 40 years (Table 19). Unfortunately, there is no record of how old it was when it arrived. It is often mentioned that an Indian rhinoceros died in Calcutta Zoo at the age of 47 years (Reynolds 1961a: 18). However, since the animal lived at the zoo for about 37 years and its previous history was unknown, it is obvious that this length of captive life is just an estimate or a guess, with no accurate evidence to support it.

Births in captivity

There have been 137 births of Indian rhinoceroses in captivity up to the end of 1994. This includes 28 cases (20%) in which the baby was aborted (12), stillborn (13) or died within a month (3). The first birth was recorded in May 1824 at the Royal Collection in Nepal. Basel Zoo has been remarkably successful in breeding this species of rhinoceros since 1956, where there has been a total of 25 births. This has only been surpassed by San Diego Wild Animal Park where there have been 27 births since 1975. The Basel female 'Joymothi', which first gave birth in Basel in 1956, has become the matriarch of a productive rhinoceros family: she had ten (6/4) calves herself, and these produced 19 female and 17 male offspring. Joymothi's grandchildren in the third generation have produced 14 female and ten male young. This makes a total of 42 offspring for Joymothi, or 36% of the total. Reynolds (1961a) only recorded five births in the Indian rhinoceros. Thanks to the success and research in Basel, the record has changed dramatically. The species breeds slowly, but without any major complications.

The young animals were born at a rather limited number of zoos in three continents (Table 20).

Table 19. Longevity of captive Indian rhinos dying in captivity

| Sex | Place | Dates | Age | | Total in days |
|--------|--------------|------------------------------------|-------|--------|---------------|
| | | | years | months | |
| Male | London | 25 July 1864 – 12 December 1904 | 40 | 4 | 14,742 |
| Male | Philadelphia | 14 September 1955 – 7 January 1996 | 40 | 3 | 14,725 |
| Female | Vienna | 24 May 1856 – 14 November 1895 | 39 | 5 | 14,418 |
| Female | New York | 24 May 1923 – 25 January 1962 | 38 | 8 | 14,126 |
| Male | Calcutta | March 1932 – 30 August 1970 | 38 | 5 | 14,031 |

Table 20. Locations of births in the Indian rhinoceros (1824-1994)

| Continent | No. of births | Year of first birth | No. of countries | Leading country |
|------------|---------------|---------------------|------------------|------------------|
| Africa | 0 | | | |
| Asia | 34 | 1824 (Nepal) | 3 | India (30) |
| Australia | 0 | | | |
| Europe | 59 | 1956 (Switzerland) | 5 | Switzerland (27) |
| N. America | 44 | 1967 (USA) | 2 | USA (42) |
| S. America | 0 | | | |

Countries:

| | |
|---------------|---|
| Asia | India, Japan, Nepal |
| Europe | Belgium, Czech Republic, Germany, Switzerland, UK |
| North America | Canada, USA |

Table 21. Collections where the Indian rhinoceros has been exhibited (1500-1994), arranged by continent and country

| Country | Total No. places | Year and place of first rhino | Largest (>5) No. Zoo: Total No. |
|---------|------------------|-------------------------------|---------------------------------|
|---------|------------------|-------------------------------|---------------------------------|

Africa

| | | | |
|---|---|------------|--|
| Egypt | 1 | 1949 Cairo | |
| Total: 1 country, 1 collection. First imported in 1949 into Egypt | | | |

Asia

| | | | |
|-------------|----|-----------------|--------------|
| Bangladesh | 1 | 1827 Private | |
| China | 1 | 1959 Beijing | |
| India | 29 | 1409 Delhi | Gauhati: 72 |
| Japan | 3 | 1958 Tokyo Tama | |
| Myanmar | 1 | 1938 Yangon | |
| Nepal | 2 | 1823 Kathmandu | |
| Pakistan | 1 | Mohenjo Daro | |
| Singapore | 1 | 1989 Singapore | Singapore: 8 |
| South Korea | 1 | 1983 Seoul | |
| Thailand | 1 | 1986 Chiangmai | |

Total: 10 countries, 41 collections. First imported in 1409 into India

Europe

| | | | |
|----------------|----|---------------------|----------------------|
| General | 1 | | |
| Austria | 1 | 1856 Vienna | |
| Belgium | 1 | 1861 Antwerp | Antwerp: 13 |
| Czech Republic | 2 | 1980 Dvur Kralove | |
| France | 4 | 1770 Versailles | |
| Germany | 13 | 1870 Hamburg Zoo | Stuttgart: 14 |
| Ireland | 1 | 1834 Dublin | |
| Italy | 2 | 1951 Rome | |
| Netherlands | 2 | 1964 Amsterdam | |
| Poland | 2 | 1874 Breslau Circus | |
| Portugal | 2 | 1515 Lisbon Palace | |
| Russia | 2 | 1865 Moscow | |
| Spain | 1 | 1583 Madrid | |
| Switzerland | 1 | 1951 Basel | Basel: 31 |
| UK | 15 | 1684 London (show) | London/Whipsnade: 14 |

Total: 14 countries, 49 collections. First imported in 1515 into Portugal

North America

| | | | |
|-------------|---|--------------|--|
| Canada | 1 | 1976 Toronto | |
| USA | | | |
| Countrywide | 1 | 1830 Circus | |

Table 21. Collections where the Indian rhinoceros has been exhibited (1500-1994), arranged by continent and country

| Country | Total No. places | Year and place of first rhino | Largest (>5) No. Zoo: Total No. |
|--------------|------------------|-------------------------------|---------------------------------|
| California | 4 | 1963 San Diego | San Diego WAP: 28 |
| DC | 1 | 1939 Washington | Washington: 10 |
| Florida | 2 | 1970 Miami | |
| Illinois | 1 | 1948 Chicago Br. | |
| Missouri | 1 | 1934 St Louis | |
| Nebraska | 1 | 1966 Omaha | |
| New York | 4 | 1871 NY Central | NY Bronx: 13 |
| Ohio | 1 | 1877 Cincinnati | |
| Oklahoma | 1 | 1981 Oklahoma | |
| Oregon | 1 | 1964 Portland | |
| Pennsylvania | 1 | 1875 Philadelphia | Philadelphia: 13 |
| Texas | 3 | 1970 Houston | |
| Wisconsin | 1 | 1959 Milwaukee | |

Total: 2 countries, 24 collections. First imported in 1830 into US circus.

South America

Brazil 1 1977 Sao Paulo
Total: 1 country, 1 collection. First imported in 1977 into Brazil

World Total: 28 countries, 116 collections

Table 22. The Indian rhinoceros: population changes 1400-1994. Numbers show total (male/female/sex unknown)

| Period | Imported animals | Captive births | Deaths | Total animals at end of period | Captive born population |
|-----------|------------------|----------------|-----------------|--------------------------------|-------------------------|
| 1400-1799 | 18 (6/3/9) | | 17 (5/3/9) | 1 (1/0) | |
| 1800-1809 | 3 (0/0/3) | | 4 (1/0/3) | 0 | |
| 1810-1819 | 2 (1/0/1) | | | 2 (1/0/1) | |
| 1820-1829 | 10 (1/1/8) | 1 (1/0) | 11 (1/1/9) | 2 (2/0) | 1 (1/0) |
| 1830-1839 | 8 (5/1/2) | | 8 (5/1/2) | 2 (2/0) | |
| 1840-1849 | 4 (1/2/1) | | 4 (3/1) | 2 (0/1/1) | |
| 1850-1859 | 12 (3/4/5) | | 8 (1/2/5) | 6 (2/3/1) | |
| 1860-1869 | 12 (3/2/7) | | 8 (3/2/3) | 10 (2/3/5) | |
| 1870-1879 | 30 (6/8/16) | | 25 (1/6/18) | 15 (7/5/3) | |
| 1880-1889 | 8 (2/1/5) | | 11 (1/3/7) | 12 (8/3/1) | |
| 1890-1899 | 2 (0/0/2) | | 4 (2/1/1) | 10 (6/2/2) | |
| 1900-1909 | 10 (7/1/2) | | 13 (8/2/3) | 7 (5/1/1) | |
| 1910-1919 | 3 (2/0/1) | | 5 (3/0/2) | 5 (4/1) | |
| 1920-1929 | 6 (1/5) | 1 (1/0) | 6 (4/2) | 6 (2/4) | |
| 1930-1939 | 10 (6/4) | | 5 (2/3) | 11 (6/5) | |
| 1940-1949 | 7 (3/4) | 1 (0/1) | 5 (2/3) | 14 (7/7) | |
| 1950-1959 | 19 (11/8) | 3 (1/2) | 6 (3/3) | 30 (16/14) | 3 (1/2) |
| 1960-1969 | 26 (11/14/1) | 17 (8/8/1) | 20 (7/11/2) | 53 (28/25) | 18 (9/9) |
| 1970-1979 | 24 (13/11) | 29 (17/11/1) | 31 (19/11/1) | 75 (39/36) | 36 (19/17) |
| 1980-1989 | 35 (19/16) | 53 (33/19/1) | 50 (25/24/1) | 113 (66/47) | 68 (44/24) |
| 1990-1994 | 11 (4/7) | 32 (18/14) | 29 (16/13) | 127 (72/55) | 82 (50/32) |
| Totals | 260 (105/92/63) | 137 (79/55/3) | 270 (112/92/66) | | |



Fig. 16. The first Indian rhinoceros to be born in captivity, Kathmandu 1824, drawn by Brian Hodgson in 1834.



Fig. 17. Indian rhinoceros calf at Basel Zoo.

Chronological list of all known specimens of *Rhinoceros unicornis* in captivity

This is a list of all known or likely specimens of the Indian Rhinoceros kept in captivity throughout the ages. The first column indicates the studbook number of the animal according to the publication by Basel Zoo (1995) with additions up to 31 December 1994. The second column indicates the status of the animal: W: imported from the wild; B: born in captivity; B+: captive stillbirth. The third column indicates the sex of the specimen: M: male; F: female; no entry means sex unknown. The final column indicates the history, starting with the year of arrival or birth, followed by the name of the place where the collection is located. This is followed by another year and collection in cases of transfer. If the line ends with a year, the animal died at that time; if the line ends with the name of a collection, the animal is presumed still alive in 1995.

| Studbook No. | Status | Sex | History |
|--------------|--------|-----|---|
| W | | | 1409 India: Delhi (?) |
| W | | | 1515 Lisbon 1515 To Rome 1516 |
| W | | | 1579 Lisbon 1583 Madrid 1586 |
| W | | | 1615 India: Ajmer (?) |
| W | | | 1615 India: Ajmer (?) |
| W | | | 1660 India: Delhi (?) |
| W | | | 1665 India: Jahanabad (?) |
| W | | | 1671 India: Kasimbazar 1671 |
| W | F | | 1684 London 1686 |
| W | M | | 1737 To London (Shaftesbury) 1737 |
| W | F | | 1737 London (George Inn) 1737 |
| W | M | | 1739 London 1744 |
| W | F | | 1741 Europe: Dutch Rhinoceros 1758 |
| W | M | | 1770 Paris Versailles 1793 |
| W | | | 1788 Paris Versailles (?) |
| W | M | | 1790 London: Exeter Change 1793 |
| W | M | | 1790 Pune (?) |
| W | M | | 1799 London: Exeter Change 1800 |
| W | | | 1800 India: Bhagalpur (?) |
| W | | | 1807 Dhaka (?) |
| W | | | 1807 India: Patna (?) |
| W | M | | 1810 London: Exeter Change 1814 Europe: Tourniaire 1839 |

| Studbook No. | Status | Sex | History |
|--------------|--------|-----|---|
| W | | | 1816 UK: Wombwell 1820 |
| W | M | | 1823 Kathmandu (?) |
| W | F | | 1823 Kathmandu (?) |
| B | M | | 1824 Kathmandu 1834 To Calcutta (?) |
| W | | | 1825 Vadodara Court (?) |
| W | | | 1825 Lucknow (?) |
| W | | | 1825 Lucknow (?) |
| W | | | 1825 Lucknow (?) |
| W | | | 1825 Lucknow (?) |
| W | | | 1825 Lucknow (?) |
| W | | | 1828 Calcutta: Chittpour (?) |
| W | | | 1829 Calcutta: Barrackpore (?) |
| W | M | | 1830 USA: Flatfoots 1835 |
| W | M | | 1830 USA: Flatfoots 1836 |
| W | | | 1834 London: Surrey (?) |
| W | M | | 1834 London 1849 |
| W | M | | 1834 Liverpool 1834 Dublin 1834 Liverpool 1841/43 |
| W | F | | 1834 USA: Purdy 1837 |
| W | M | | 1835 USA: Titus 1836 |
| W | | | 1836 UK: Wombwell 1836 |
| W | F | | 1840 Europe: Schreyer 1843 |
| W | F | | 1840 Manchester 1842 UK: Wombwell 1850 |
| W | M | | 1841 Europe: Huguet 1848 |
| W | | | 1848 USA: Raymond 1853 |
| W | | | 1850 Unknown 1861 Marseilles (?) |
| W | | | 1850 Paris Jardin 1854 |
| W | | | 1850 London (?) |
| W | F | | 1850 London 1873 |
| W | M | | 1851 USA: Quick/Rice 1861 |
| W | | | 1852 India: Allahabad (?) |
| W | | | 1853 USA: Robinson 1853 |
| W | F | | 1855 London: Jamrach 1856 Vienna 1894 Wroclaw 1895 |
| W | M | | 1855 London: Jamrach 1856 Manchester (?) |
| W | F | | 1855 London: Jamrach 1856 Manchester (?) |
| W | F | | 1856 Calcutta: Barrackpore 1860 |
| W | M | | 1856 Calcutta: Barrackpore 1862 |
| W | M | | 1861 Antwerp 1898 |
| W | | | 1864 Amsterdam 1873 |
| W | M | | 1864 Calcutta: Barrackpore 1864 Dublin 1865 |
| W | F | | 1864 Calcutta: Barrackpore 1864 London 1865 Paris Jardin 1874 |
| W | M | | 1864 London 1904 |
| W | | | 1864 UK: Manders (?) |
| W | | | 1864 Vadodara: Court 1875 |
| W | | | 1864 Vadodara: Court 1875 |
| W | | | 1865 Moscow 1866 |

| Studbook No. | Status | Sex | History | Studbook No. | Status | Sex | History |
|--------------|--------|-----|---|--------------|--------|-----|---|
| 231 | W | F | 1867 Calcutta: Mallik 1867 | | W | | 1907 Antwerp 1910 |
| | W | | 1868 USA: Bailey 1874 | | W | M | 1907 Manchester 1917 |
| | W | | 1868 USA: Van Amburgh 1870 | | W | M | 1907 New York Bronx 1918 |
| | W | M | 1870 Hamburg 1900 | | W | M | 1907 USA: Ringling 1926 |
| | W | | 1870 Manchester (?) | | W | M | 1910 Calcutta 1912 London 1921 |
| | W | M | 1870 UK: Wombwell (?) | | W | M | 1910 Calcutta 1930 |
| | W | F | 1870 UK: Wombwell (?) | | W | | 1911 St Petersburg 1918 |
| | W | M | 1870 USA: O'Brien 1875 Philadelphia 1901 | | W | F | 1922 London 1926 |
| | W | F | 1871 Calcutta: Mallik 1871 | | W | F | 1923 Cincinnati 1929 |
| | W | | 1871 NY Central Park (?) | 232 | W | F | 1923 New York Bronx 1962 |
| | W | | 1871 USA: O'Brien 1875 | | W | F | 1923 Philadelphia 1943 |
| | W | F | 1871 Antwerp 1871 Berlin 1872 London: Jamrach (?) | | W | M | 1924 London 1941 |
| | W | | 1872 NY Central Park (?) | | B+ | M | 1925 Calcutta 1925 |
| | W | F | 1872 Cologne 1900 | | W | F | 1929 Hamburg 1955 |
| | W | M | 1872 Berlin 1909 | | W | M | 1932 Calcutta 1970 |
| | W | F | 1872 Berlin 1896 Frankfurt/M 1909 | | W | F | 1932 Calcutta 1965 |
| | W | | 1872 USA: Robinson 1877 Cincinnati 1878 USA: Robinson (?) | | W | M | 1933 London 1935 Whipsnade 1945 |
| | W | | 1872 USA: Barnum 1873 | 74 | W | F | 1933 London 1938 |
| | W | | 1873 USA: Barnum 1875 | | W | M | 1934 St. Louis 1961 |
| | W | M | 1873 Dresden 1892 | | W | M | 1934 Paris Vincennes 1960 |
| | W | | 1874 Wroclaw: Kallenberg (?) | | W | F | 1935 Amityville 1936 |
| | W | | 1874 New York: Central Park 1874 | 233 | W | M | 1938 Calcutta 1939 Washington 1959 |
| | W | F | 1874 Berlin Zoo 1884 | | W | F | 1938 Yangon 1942 |
| | W | F | 1875 London: Rice 1875 | | W | M | 1939 Kathmandu (?) |
| | W | | 1875 USA: O'Brien 1882 | | W | F | 1941 Udaipur 1946 Jaipur 1964 |
| | W | | 1876 USA: Bailey 1877 | 105 | W | F | 1944 Lucknow 1973 |
| | W | M | 1876 Manchester 1904 | 13 | W | M | 1947 Whipsnade 1961 |
| | W | | 1876 New York: Central Park (?) | 03 | W | M | 1948 Chicago 1970 |
| | W | | 1877 USA: Bailey 1879 | 02 | W | F | 1948 Chicago 1968 |
| | W | F | 1877 Calcutta 1880 | 04 | B+ | F | 1948 Transit to Chicago 1948 |
| | W | | 1878 USA: Barnum 1878 | | W | M | 1949 Cairo 1955 |
| | W | | 1878 Trivandrum 1900 | | W | F | 1949 Cairo 1955 |
| | W | | 1879 USA: Robins 1887 | 05 | W | M | 1951 Basel 1964 |
| | W | M | 1880 Calcutta: Burdwan (?) | 06 | W | M | 1951 Rome 1983 |
| | W | F | 1880 Calcutta: Burdwan (?) | 07 | W | F | 1952 Basel 1983 |
| | W | | 1880 Germany: Planet (?) | 08 | W | F | 1952 Whipsnade 1976 Amsterdam 1985 |
| | W | | 1882 St Petersburg 1884 | 62 | W | M | 1952 Bombay 1980 |
| | W | | 1883 USA: Barnum 1886 | 75 | W | M | 1953 Madras 1980 |
| | W | | 1884 USA: Forepaugh 1888 | 09 | W | F | 1953 Philadelphia 1976 San Diego WAP 1977 |
| | W | M | 1886 London 1911 | 10 | W | M | 1955 Philadelphia 1996 |
| | W | | 1887 Calcutta (?) | 12 | W | M | 1956 Trivandrum 1987 |
| | W | | 1896 Gwalior (?) | 11 | W | F | 1956 Mysore 1992 |
| | W | | 1898 USA: Bailey 1902 | 14 | B | M | 1956 Basel 1959 Milwaukee 1987 |
| | W | | 1902 Antwerp (?) | 16 | W | F | 1957 Hamburg 1968 Los Angeles 1971 |
| | W | M | 1905 Kathmandu (?) | 15 | B | F | 1957 Whipsnade 1959 Milwaukee 1975 |
| | W | M | 1905 Kathmandu (?) | | W | M | 1957 Gauhati 1959 Delhi (?) |
| | W | M | 1905 Kathmandu (?) | | W | F | 1958 Bombay 1958 |
| | W | F | 1905 Calcutta 1932 | | B | F | 1958 Basel 1973 |
| | W | M | 1906 London 1924 | 17 | | | |

| <i>Studbook No.</i> | <i>Status</i> | <i>Sex</i> | <i>History</i> | <i>Studbook No.</i> | <i>Status</i> | <i>Sex</i> | <i>History</i> |
|---------------------|---------------|------------|--|---------------------|---------------|------------|---|
| 82 | W | F | 1958 Gauhati 1964 | 42 | B | M | 1968 Mysore 1971 Berlin Tierpark 1996 |
| 22 | W | M | 1958 Tokyo 1995 | 43 | W | F | 1968 Delhi 1986 |
| 90 | W | M | 1959 Lucknow 1979 | 77 | W | F | 1968 Hyderabad 1983 |
| | W | F | 1959 Beijing 1961 | 48 | W | F | 1968 Gauhati 1970 Transit to Omaha 1970 |
| 72 | W | M | 1959 Beijing 1978 | | W | F | 1968 Gauhati 1969 |
| 18 | W | M | 1959 Berlin Zoo 1965 Basel 1983 | | | | Vadodara 1990 Mysore 1992 |
| 19 | W | M | 1960 Washington 1981 New York 1983 Oklahoma 1989 | 44 | B | M | 1969 Basel 1970 Houston 1971 |
| 33 | W | M | 1960 Gauhati 1965 Delhi 1988 | | W | F | 1969 Gauhati 1970 |
| | W | F | 1960 Gauhati 1963 Paris Vincennes 1967 | | W | M | 1969 Gauhati 1969 |
| | W | M | 1960 Hamburg 1961 | | W | M | 1969 Gauhati 1970 |
| 20 | B | M | 1960 Whipsnade 1975 | 45 | B | F | 1969 Basel 1970 Houston 1972 Brownsville 1974 Los Angeles |
| 24 | W | M | 1960 Gauhati 1986 | | | | |
| 21 | W | F | 1961 Calcutta 1961 Tokyo 1991 | 49 | W | M | 1970 Miami |
| 23 | B | F | 1961 Calcutta 1982 | 50 | W | F | 1970 Miami 1987 |
| | W | F | 1962 Yangon 1964 | | | | Philadelphia 1988 New York Bronx 1990 |
| 26 | B | M | 1962 Basel 1963 San Diego 1972 San Diego WAP | 73 | W | M | 1970 Gauhati 1971 Antwerp 1988 |
| 76 | W | M | 1962 Gauhati 1964 | 51 | B | F | 1971 Delhi 1973 Whipsnade |
| | | | Hyderabad 1983 | 53 | B | M | 1971 Mysore 1975 |
| 30 | W | F | 1962 Gauhati 1963 | | | | Gelsenkirchen 1976 |
| | | | Washington 1963 | | | | Toronto 1990 New York Bronx |
| 27 | B | M | 1963 Basel 1964 Paris Vincennes 1976 | 81 | W | M | 1971 Gauhati 1973 |
| 28 | B | F | 1963 Gauhati 1963 | | | | Brownsville 1973 |
| | | | Washington 1980 | 54 | B+ | F | 1971 Stuttgart 1971 |
| 29 | B | F | 1963 Gauhati 1965 San Diego 1972 San Diego WAP | 55 | B | F | 1971 Basel 1972 Antwerp |
| | W | | 1964 Kathmandu (?) | 56 | B | F | 1971 Basel |
| 63 | W | M | 1964 Portland 1966 Omaha 1975 | 57 | B | M | 1971 Gauhati 1974 Nagoya |
| | | | | 58 | B | M | 1971 Hyderabad 1983 |
| 31 | B | F | 1964 Basel 1965 Berlin Zoo 1993 | 60 | B | M | 1972 Berlin Zoo 1973 |
| 32 | B | M | 1964 Hamburg 1965 Berlin Zoo 1993 | | | | Amsterdam 1976 |
| | W | M | 1964 Gauhati 1964 | 67 | W | F | Whipsnade |
| 01 | W | M | 1965 Mysore 1979 | | | | 1973 Gauhati 1975 New York Bronx |
| 34 | B | F | 1965 Basel 1968 Stuttgart 1992 | 128 | W | F | 1973 Gauhati 1977 Kanpur |
| | | | | 66 | W | F | 1973 Gauhati 1975 New York Bronx |
| 25 | W | F | 1965 Gauhati 1982 | 65 | B | M | 1973 Tokyo 1978 |
| 35 | W | M | 1966 Los Angeles | | | | Amsterdam 1989 |
| 36 | B+ | | 1966 Tokyo 1966 | 68 | B | M | 1974 Basel 1974 |
| 37 | W | F | 1966 Berlin Tierpark 1967 | 64 | W | F | 1974 Gauhati 1974 Nagoya |
| 52 | B+ | F | 1967 Milwaukee 1967 | 69 | B | M | 1974 Washington 1975 New York Bronx 1989 |
| 38 | B | F | 1967 Hamburg 1983 Berlin Zoo 1985 Hamburg 1994 Singapore | | | | Toronto |
| | | | | 94 | W | M | 1974 Gauhati 1974 Calcutta |
| 39 | B | M | 1967 Basel 1968 Hamburg 1994 Singapore 1994 | 70 | B | M | 1974 Gauhati 1977 Kanpur 1992 |
| 40 | W | F | 1967 Berlin Tierpark | 155 | W | F | 1974 Gauhati 1979 Patna |
| 41 | B | M | 1967 Basel 1969 Stuttgart | | W | F | 1974 Gauhati 1977 |
| 46 | W | F | 1967 Gauhati 1969 Los Angeles 1988 | 153 | W | F | 1974 Gauhati 1976 |
| | W | F | 1968 Gauhati 1970 | | | | Bhubaneswar |
| | | | | 95 | W | F | 1974 Gauhati 1974 Calcutta |

| <i>Studbook No.</i> | <i>Status</i> | <i>Sex</i> | <i>History</i> | <i>Studbook No.</i> | <i>Status</i> | <i>Sex</i> | <i>History</i> |
|---------------------|---------------|------------|--|---------------------|---------------|------------|--|
| 71 | B | M | 1974 Stuttgart 1976 Gelsenkirchen 1977 Sao Paulo | 171 | W | F | 1980 Gauhati |
| 78 | B+ | M | 1975 San Diego WAP 1975 | 103 | W | M | 1980 Yangon 1993 |
| 79 | B | F | 1975 Mysore 1979 Toronto | 104 | W | F | 1980 Yangon 1993 |
| 80 | B | F | 1975 Basel 1979 Philadelphia | 218 | W | M | 1980 Gauhati 1985 Madras |
| | B+ | | 1975 Hyderabad 1975 | 98 | W | F | 1980 Beijing |
| | W | M | 1976 Gauhati 1976 | 102 | B+ | M | 1980 Antwerp 1980 |
| 83 | B | M | 1976 Berlin Zoo 1981 Oklahoma 1983 New York Bronx | 106 | B | M | 1981 Hyderabad |
| 84 | B | M | 1976 Basel 1977 Gelsenkirchen 1978 Cologne 1987 | 107 | B+ | F | 1981 Whipsnade 1981 |
| | W | M | 1976 Gauhati 1976 | | W | F | 1981 Gauhati 1981 |
| 85 | B+ | M | 1976 San Diego WAP 1976 | 109 | B | M | 1981 Stuttgart 1983 Rotterdam 1990 Singapore 1994 Chiangmai |
| 91 | W | M | 1976 Gauhati 1979 Lucknow 1980 | 108 | W | M | 1981 Beijing 1981 |
| 156 | W | M | 1977 Gauhati 1979 Patna | 110 | B | F | 1982 Basel |
| 154 | W | M | 1977 Gauhati 1979 Bhubaneswar | | W | M | 1982 Gauhati 1982 |
| 86 | B | M | 1977 Stuttgart 1980 Dvur Kralove 1992 Singapore 1992 | 120 | B+ | F | 1982 Los Angeles 1982 |
| 215 | W | M | 1977 Gauhati 1977 Chandigarh | 157 | W | M | 1982 Patna |
| 168 | B | F | 1978 Gauhati | | W | F | 1982 Gauhati 1982 |
| 88 | B | M | 1978 Basel 1978 | 151 | W | M | 1982 Gauhati 1983 Delhi |
| | W | M | 1978 Gauhati 1987 | 194 | W | F | 1982 Gauhati 1990 Delhi |
| 99 | B | F | 1978 San Diego WAP | | B | M | 1982 Gauhati 1990 |
| 92 | W | F | 1978 Gauhati 1979 Lucknow (?) | 172 | W | M | 1982 Gauhati |
| 216 | W | F | 1978 Gauhati 1978 Chandigarh 1986 | 112 | B | M | 1982 San Diego WAP 1983 San Diego 1983 Seoul 1990 |
| 87 | B | M | 1978 Basel 1979 Philadelphia 1982 New York Bronx 1991 Milwaukee | 113 | B | F | 1982 Antwerp |
| | W | M | 1978 Gauhati 1978 | 111 | B | F | 1982 Los Angeles 1985 San Diego WAP 1985 |
| 96 | B | M | 1978 Hyderabad 1983 San Diego WAP | 122 | B | F | 1982 Kanpur 1985 Yokohama 1995 |
| 97 | B | F | 1979 Calcutta 1986 Cologne | 115 | B | M | 1983 Whipsnade 1985 Antwerp |
| 217 | W | M | 1979 Gauhati 1985 Bombay | | W | F | 1983 Gauhati 1983 |
| 89 | B | F | 1979 Berlin Zoo 1981 Oklahoma 1990 Los Angeles | 116 | B | M | 1983 San Diego WAP 1985 San Diego 1988 Tampa |
| 93 | B | F | 1979 Stuttgart 1981 Dvur Kralove | 117 | B | M | 1983 Stuttgart 1985 Magdeburg 1985 Yokohama |
| 100 | B | M | 1980 Basel 1995 | 121 | B+ | M | 1983 Los Angeles 1983 |
| | W | F | 1980 Gauhati 1983 | 118 | B+ | F | 1984 Philadelphia 1984 |
| 61 | W | M | 1980 Gauhati 1985 Mysore | 119 | B | M | 1984 Basel 1985 |
| 169 | W | M | 1980 Gauhati | 150 | B | M | 1984 Calcutta |
| | W | F | 1980 Gauhati 1986 | 225 | B+ | F | 1984 San Diego WAP 1984 |
| 114 | W | F | 1980 Kathmandu 1990 | 129 | B | M | 1984 Kanpur |
| 101 | B | M | 1980 San Diego WAP 1982 San Diego 1985 Washington | | W | M | 1985 Kathmandu 1990 |
| 170 | W | M | 1980 Gauhati | 123 | B | M | 1985 Stuttgart 1987 Cologne |
| | | | | 124 | B | M | 1985 San Diego WAP 1988 San Diego 1989 Singapore |
| | | | | 125 | B | M | 1985 Los Angeles 1990 Oklahoma |
| | | | | 127 | B+ | | 1985 Berlin Tierpark 1985 |
| | | | | 126 | B | M | 1985 Philadelphia 1987 Miami |
| | | | | 167 | B+ | F | 1986 Dvur Kralove 1986 |
| | | | | 130 | B | F | 1986 San Diego WAP |

| <i>Studbook No.</i> | <i>Status</i> | <i>Sex</i> | <i>History</i> | <i>Studbook No.</i> | <i>Status</i> | <i>Sex</i> | <i>History</i> |
|---------------------|---------------|------------|--|---------------------|---------------|------------|--|
| 131 | B | F | 1986 New York Bronx | 181 | B | M | 1990 Basel 1991 Nagoya |
| | W | F | 1986 Chiangmai | 182 | B | F | 1990 San Diego WAP 1994 Stuttgart 1994 Berlin Tierpark |
| | W | M | 1986 Chiangmai 1988 | | | | |
| | B | M | 1986 Chandigarh | 179 | W | M | 1990 Gauhati |
| 132 | B | M | 1986 Whipsnade 1987 Chester | 183 | B | F | 1990 Basel 1991 Nagoya |
| 133 | B+ | F | 1986 Los Angeles 1986 | 184 | B | M | 1990 San Diego WAP |
| 134 | B | M | 1986 Antwerp 1990 Rotterdam | 185 | B | F | 1991 Stuttgart 1993 Rotterdam |
| 158 | B+ | F | 1986 Patna 1986 | 186 | B | M | 1991 Kanpur |
| 135 | B | M | 1986 Stuttgart 1989 Nuremberg | 203 | B | F | 1991 Patna |
| 142 | B+ | M | 1987 San Diego WAP 1987 | 187 | B | M | 1991 Philadelphia 1992 Buffalo |
| 173 | B | M | 1987 Gauhati | | W | F | 1991 Gauhati 1991 |
| 138 | W | F | 1987 Washington | 192 | W | F | 1991 Gauhati |
| 139 | W | F | 1987 Washington | | W | F | 1991 Gauhati 1991 |
| 143 | B | F | 1987 San Diego WAP | 234 | B+ | F | 1991 Whipsnade 1991 |
| 140 | B | M | 1987 Kanpur | 188 | B | M | 1991 San Diego WAP |
| 136 | W | M | 1987 San Francisco 1996 | 189 | B | F | 1991 Toronto 1994 Cincinnati |
| 137 | W | F | 1987 San Francisco | | | | |
| 174 | W | M | 1987 Gauhati 1995 Released in wild (?) | 195 | B | F | 1992 Basel 1993 Nuremberg |
| 141 | B | M | 1987 Dvur Kralove 1989 Liberec | 196 | B+ | F | 1992 Antwerp 1992 |
| 145 | B | M | 1988 Whipsnade 1990 Dvur Kralove | 197 | B+ | M | 1992 San Diego WAP 1992 |
| 144 | W | F | 1988 Berlin Zoo | 198 | B+ | F | 1992 San Diego WAP 1992 |
| 146 | B | M | 1988 San Diego WAP 1990 San Diego | 199 | B+ | M | 1992 Washington 1992 |
| 159 | B | F | 1988 Patna | 200 | B+ | M | 1992 San Diego WAP 1992 |
| 147 | B | M | 1988 Philadelphia 1989 Cincinnati | 201 | B | F | 1992 Antwerp |
| | W | M | 1988 Gauhati 1988 | 202 | B | M | 1992 Delhi |
| 175 | W | F | 1988 Gauhati 1993 Trivandrum | 205 | B+ | M | 1993 Washington 1993 |
| 148 | B | F | 1988 Basel 1990 Munich | 206 | B | M | 1993 Basel 1995 Singapore |
| 152 | B | M | 1988 Stuttgart 1990 Munich | 207 | B | F | 1993 Whipsnade 1993 |
| 149 | B | F | 1988 Basel 1988 | 204 | W | F | 1993 Stuttgart |
| 176 | B | M | 1989 Gauhati | 208 | B+ | M | 1993 Antwerp 1993 |
| 163 | B+ | F | 1989 San Diego WAP 1989 | 209 | B | F | 1993 San Diego WAP |
| 160 | B | M | 1989 Kanpur | 210 | B | F | 1993 Basel |
| | W | M | 1989 Gauhati 1989 | 220 | B | M | 1994 San Diego WAP |
| 177 | W | M | 1989 Gauhati 1993 Trivandrum | 221 | B+ | M | 1994 New York Bronx 1994 |
| 178 | W | M | 1989 Gauhati 1995 Released in wild (?) | 222 | B | M | 1994 Toronto |
| | W | M | 1989 Gauhati 1989 | 223 | B | F | 1994 Philadelphia |
| 161 | B | F | 1989 New York Bronx 1993 Oklahoma | 224 | B | M | 1994 San Diego WAP |
| 162 | B | M | 1989 Whipsnade | | | | |
| 166 | B | M | 1990 Berlin Tierpark 1993 Berlin Zoo | | | | |
| 180 | B | M | 1990 San Diego WAP | | | | |
| | W | M | 1990 Gauhati 1990 | | | | |
| 193 | W | F | 1990 Munich | | | | |
| 164 | W | M | 1990 Singapore | | | | |
| 165 | W | F | 1990 Singapore 1991 | | | | |
| 190 | W | M | 1990 Fort Worth | | | | |
| 191 | W | F | 1990 Fort Worth | | | | |

List of specimens of *Rhinoceros unicornis* in captivity

Amityville, Long Island, NY, USA

Frank Buck's Jungle Camp

The animal dealer Frank Buck kept some animals at this zoo, which was open to the public. It grew out of Buck's Jungle Camp which operated during the second year at Chicago's Century of Progress (1934), in partnership with T.A. Loveland. The zoo opened on Long Island, between Amityville and Massapequa, at

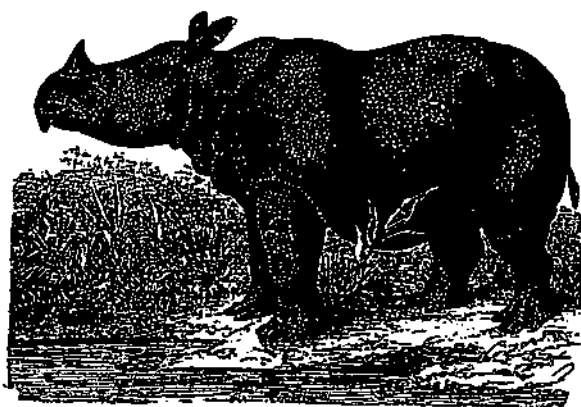


Fig. 18. Rhinoceros at Amsterdam published by Schlegel (1872).

the end of 1934 or in 1935. It was about 35 acres in size. In 1941, Buck withdrew and the zoo continued to be operated by Loveland for some years, probably closing during the second World War (Buck and Fraser 1941, Reynolds, in litt.).

F 1935 September 13 – 1936 February †
 'One-Eared Lucy'. Frank Buck captured this young rhinoceros during the filming of his third movie *Fang and Claw* (released in December 1935). In the movie, Buck shoots a tiger which attacks a rhinoceros calf. In the process, the calf was injured and one of its ears almost torn off. Buck removed the ear and treated the wound. From Assam, the rhinoceros was transported to Buck's compound at Katong, Singapore, where it was loaded on the Isthmian freighter *Steel Navigator*. The ship docked at St George, the Staten Island port of New York City on 13th September, 1935 and the animal was transported by truck to Amityville.

Buck kept the rhinoceros for five months while trying to find a buyer. Buck and Fraser (1941: 270) state, "she became a pet of mine, and when out of her pen waddled about after me like a dog". Buck was ready to ship the animal to St Louis, but she died after eating some old, wet, moldy hay which had been left in its pen, causing her stomach to swell during the night (Buck and Fraser 1941: 271).

Amsterdam, The Netherlands

Zoological Garden 'Natura Artis Magistra',
 Artis Zoo

1864 June 19 – 1873 March 21 †

This animal was purchased for 4710 guilders from E. Fonsacq in Bordeaux, when it was not quite adult (Noll 1873: 51). Writing in 1873, Noll stated that the rhinoceros was still alive in Amsterdam, adult, and quite tame towards its keepers. The date of arrival is uncertain. Swierstra (1888: 19) said the first specimen arrived in 1864, and the date 19th June 1864 is given by Noll (1873: 51). However, some other recent sources record its arrival as 1867, e.g., 20th June, 1867 (Kourist 1970: 147) and 1867 (Nieuwendijk 1970: 96). I would suggest that we go by Noll's, probably first-hand, information.

Nieuwendijk (1970: 96) stated that this animal possibly was a Javan rhinoceros (*Rhinoceros sondaicus*) based on an illustration published by Schlegel (1872: 134) in a description of the Amsterdam Zoo (see Kourist 1970, fig. 13; see Fig. 18). Schlegel did not say where he obtained the illustration, nor did he mention the presence of any kind of rhinoceros in Amsterdam. Additional evidence is needed before we can follow Nieuwendijk's suggestion on the supposed specific identity of the animal. The specimen apparently was not preserved. The current Zoological Museum in Amsterdam does not have a specimen of *Rhinoceros unicornis*. It possesses several skulls and a skeleton of *Rhinoceros sondaicus*, but most are without data (there are some well-documented specimens from Indonesia).

M 1973 July 10 – 1976 April 22

'Kumar'

60-BER W 1

From Berlin Zoo. In 1973, something frightened it in its enclosure resulting in a head wound. To Whipsnade.

F 1976 April 22 – 1985 April 25 †

'Mohini'

8-ASSAM 3

From Whipsnade. Died of pneumonia.

M 1978 December 12 – 1989 May 24 †

'Saitaro'

65-TOKYO 2

From Tokyo Tama (Redeker 1982). Died after a prolapse operation.

Antwerp, Belgium

Société Royale de Zoologie d'Anvers
Jardin Zoologique

The old records of the zoo were destroyed during the second world war (Gijzen 1960). After 1960, some of the rhinos were also shown in Planckendael, a zoo under the same management outside the city.

M 1861 – 1898 September 7 †

Year of arrival is uncertain. Reynolds (1961a: 21) gives 'circa 1858', based on Flower (1931: 203), who stated that the animal was about 40 years old when it died in 1898. Gijzen (1960: 16) gives 1861, perhaps according to Brehm (1877: 515), who stated that it had been in Antwerp for 16 years (and that it was 18 years old). We are certain it was present in 1861, since it was mentioned by Gens (1861: 93), who added that the rhinoceros was about five years old on arrival. It was a huge and good-natured animal (Noll 1873: 51). There is an illustration in Brehm (1877, facing p. 514) by Robert Kretschmer. This artist had made his preliminary sketches inside the animal's enclosure, maintaining that it was quite tame and docile (Brehm 1877: 533). Kourist (1970: 147, fig. 7) owns a pastel drawing made in 1865 by the Berlin artist Paul Meyerheim (1842-1915). A. Heins executed two drawings of this rhinoceros around 1880 (kept in the Koninklijke Bibliotheek Albert I, Brussels, Belgium, No. F.3436/7, one illustrated in Rookmaaker and Reynolds 1985, fig. 8; the other, see Fig. 9). The Museum of the Institut Royal des Sciences Naturelles de Belgique, Brussels, received the remains on 30 November, 1898, and still has the mounted hide and skeleton (No. 1208), although it was said to be a female specimen. See Fig. 19.

F 1871 September

Arrived at Berlin Zoo via an auction at Antwerp Zoo [see entry for Antwerp in Chapter 6 (*D. sumatrensis*) on auctions]. The stay in Antwerp is not substantiated.

1902

Peel (1903: 61) saw a rhinoceros sometime during this year. No other information has come to light.



Fig. 19. Antwerp's male Indian rhinoceros 1861-1898, drawn by Robert Kretschmer before 1877.

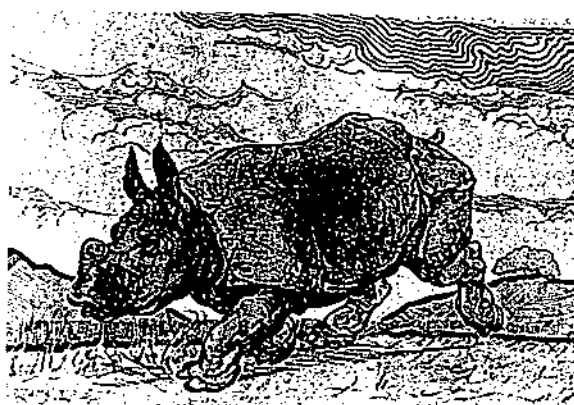


Fig. 20. Antwerp's Indian rhinoceros in 1909, drawn by Alfred Ost.

1907 April/May – (?) 1910

Imported by Hagenbeck from Nepal when it was about six months old. The zoo bought it for 25,000 francs (Maes 1910). Flower (1908: 11) saw it in transit at Port Said in April 1907, together with three others imported by Hagen-

beck [it was one of four specimens]. Marx and Koch (1910: 161) said that it was still alive in 1910, but most probably it died soon after. It was drawn by Alfred Ost (1884-1945) in 1909 (Schrevers 1984: 32; see Fig. 20).

M 1971 March 23 - 1988 October 16 †
'Yassam' 73-INDIA 1

From Gauhati. Exhibited both in Antwerp and in Planckendael. Died of heart disease. The Museum of the Institut Royal des Sciences Naturelles de Belgique, Brussels has the stuffed hide (No. 21578, entered 19th October 1988).

F 1972 September 5 -
'Zutuma' 55-BASEL 11
From Basel. Exhibited both in Antwerp and Planckendael.

M 1980 November 3 - 1980 November 7 †
102-ANTW 1
Born to Yassam (73) and Tutuma (55). The baby died because the mother lacked sufficient milk.

F 1982 August 9 -
'Johanna' 113-ANTW 2
Born to Yassam (73) and Tutuma (55).

M 1985 October 3 -
'Bheema' 115-WHIP 4
From Whipsnade. A picture taken on arrival in Planckendael was shown in Douliez (1986).

M 1986 October 24 - 1991 October 9
'Nico' 134-ANTW 3
Born to Yassam (73) and Tutuma (55). Gestation 494 days. Weight approximately 60 kg. There is a photograph in *Zoo*, Antwerp, 52 (3), January 1987, p. 6. To Rotterdam (Struyf 1991 with pictures).

F 1992 February 3 - 1992 February 3 †
196-ANTW 4
Stillborn to Bheema (115) and Johanna (113).

F 1992 November 15 -
'Teja' 201-ANTW 5
Born to Bheema (115) and Zutuma (55). Gestation 476 days, weight at birth 65 kg. Pictures of the birth were published in *Zoo*, Antwerp, 58 (3), Winter 1993, pp. 10-11 and 58 (4), Spring 1993, p. 10 and in Struyf (1993). The zoo also produced a 19.5 minute video of the

birth procedures in 1992 (entitled: 'Teja, of de geboorte van een Indische neushoorn').

M 1993 August 4 - 1993 August 4 †
208-ANTW 6
Stillborn to Bheema (115) and Johanna (113).

Bangalore, Karnataka, India

Lal Bagh Park

In this park, there is a 100 ha botanical garden laid out by Haidar Ali in 1760. I had a picnic in there in 1992. It is a place to escape from the busy town and there was a horticultural exhibition, but not a zoo. Even Loisel (1912, III: 21) does not list an animal collection in Bangalore in his summary of Indian zoos.

1913

Flower (1914: 40) saw an empty enclosure, which supposedly had been inhabited by a rhinoceros. There are no further details about this animal.

Barpali, Orissa, India

Collection of the Rajah of Barpali

1875

While in Barpali, a small town near Sambalpur in Western Orissa, Ball (1877) was told that "on the occasion of a marriage between a daughter of one of his ancestors and the Bama Raja, the bride's dowry had been a Rhino, which before that had for some years been kept at Barpali". Ball mentions this in his discussion on the distribution of *Rhinoceros sondaicus*, but it is more likely that this was an Indian rhinoceros.

Basel, Switzerland

Zoologischer Garten

Basel Zoo imported a pair of Indian rhinoceroses in 1951 and 1952. Since this pair produced their first calf in 1956, the zoo has been exceptionally successful in breeding and rearing this species of rhinoceros (see Lang 1961, 1967, 1975, and Blaszkiewicz 1980: 73-82). Since March 1953 they have been kept in the

elephant house. (See Figs. 4, 15, 17, 21, 22, 166).

M 1951 May 30 – 1964 November 25 †
'Gadadhar' 5-KAZ 4
Caught in Kaziranga by Peter Ryhiner, as told by Ryhiner and Mannix (1959) and Hediger (1955: 28 ff.). This male and the female Joy-mothi (see next entry) were named after a 17th century royal couple from Assam. Some photographs of this animal can be found in Lang (1957, 1961), Wackernagel (1962) and *Das Tier*, June 1963. It died of lung fibrosis (post-mortem in Lang 1966).

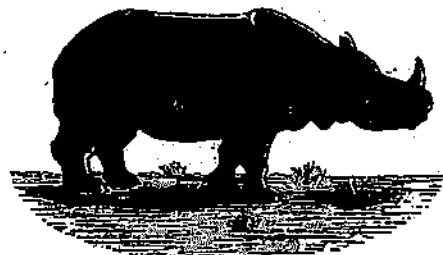
F 1952 July 8 – 1983 November 10 †
'Joymothi' 7-KAZ 5
Caught in Kaziranga at the age of about five years by Peter Ryhiner (see Ryhiner and Mannix 1959, and Hediger 1955: 36-41). This is the mother of the first baby born in a European zoo. The animal was very tame and would allow people to sit on her back (Lang 1961: 373, with several photographs). A photograph was published by Wackernagel (1962), and pictures of her mating with Arjun were displayed by Speiser (1973). She was euthanized.

M 1956 September 14 – 1959 June 25
'Rudra' 14-BASEL 1
Born to Gadadhar (5) and Joymothi (7). Gestation 474 days, weight 60.5 kg (Lang 1957, with many photographs; Lang 1961, fig. 21). Two photographs by Pierre Brouard were published in *International Zoo News* April/May 1976, 23 (3): 24, 34, and others by Wackernagel (1962). To Milwaukee.

F 1958 August 17 – 1973 January 4 †
'Moola' 17-BASEL 2
Born to Gadadhar (5) and Joymothi (7), gestation 478 days, weight 67 kg (Lang 1958, 1961, with photographs of the birth). Other photos can be found in Wackernagel (1962). The animal died of lung fibrosis and the hide was mounted for the Natural History Museum in Bern, Switzerland (Küng 1978).

M 1962 August 31– 1963 October 10
'Lasai' 26-BASEL 3
Born to Gadadhar (5) and Joymothi (7), gestation 479 days, 68 kg. The placenta was described by Ludwig and Müller (1965). There is a photograph on the cover of *Zolli*, Basel, No. 11, 1963. To San Diego.

100 JAHRE



ZOO BASEL

Der Zoologische Garten Basel,
gegründet 1874, umfasst heute 13,35 ha.

3500 TIERE
aus sechs Kontinenten leben bei uns in
650 ARTEN

1956 kam hier das erste in einem Zoo
geborene Panzernashorn zur Welt, elf
weitere folgten.

Fig. 21. Basel – 100 years (1974).

F 1962 September 21 – 1963 May 28
'Nepali II' 16-KAZ 7
From Hamburg on loan for breeding and returned there. It was shown again from 3rd November, 1965 to 13th April, 1966, when it was returned to Hamburg.

M 1963 March 9 – 1964 September 29
'Khunlai' 27-BASEL 4
Born to Gadhadar (5) and Moola (17), gestation 486 days, weight 59 kg. There are photographs of it in *Zolli*, Basel No. 10: 5, April 1963, and No. 11, front cover, 1963. To Paris Vincennes.

F 1964 June 12 – 1965 July 5
'Miris' 31-BASEL 5
Born to Gadadhar (5) and Joymothi (7), gestation 476 days, weight 70.5 kg (Lang, 1964 with photo). The placenta was described by Ludwig and Villiger (1965). To Berlin Zoo. It was returned to Basel on loan for breeding from 8th August, 1970 to 28th April, 1971 and again from 10th June, 1974 to 6th May, 1975.



Fig. 22. Basel's Indian rhinoceros.

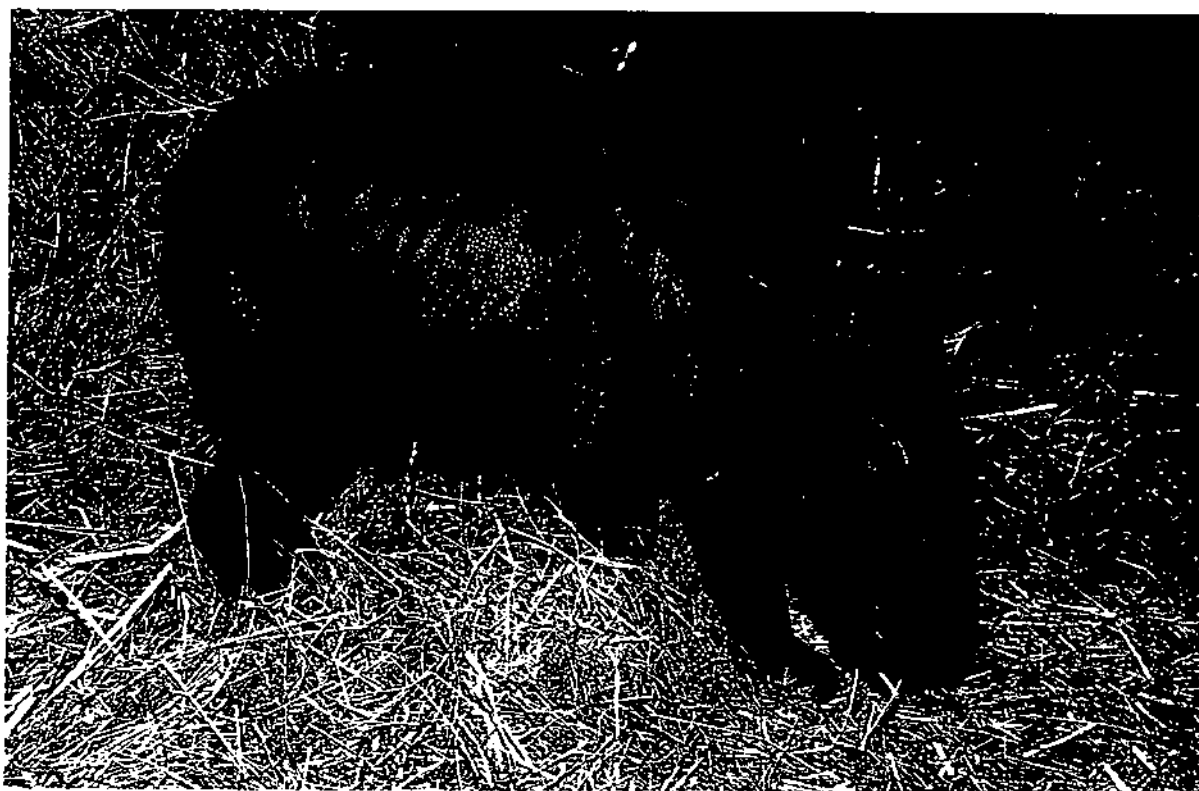


Fig. 23. Indian rhinoceros born at Berlin Tierpark, 21st January 1995.

- M* 1965 July 8 – 1983 April 15 †
'Arjun' 18-KAZ 8
From Berlin Zoo (Lang, 1965 with photo). It was illustrated in Blaszkiewicz (1980: 79, figs. 1, 2). It had to be euthanized due to foot troubles and chronic pulmonary emphysema.
- F* 1965 August 25 – 1968 May 29
'Nanda' 34-BASEL 6
Born to Gadhadar (5) and Moola (17), gestation 475 days, weight 69 kg. To Stuttgart. It was back in Basel on breeding loan from 3rd June, 1969 to 9th June, 1970 and again from 19th July, 1973 to 24th October, 1973.
- M* 1967 July 7 – 1968 September 3
'Pandur' 39-BASEL 7
Born to Arjun (18) and Joymothi (7), gestation 489 days, weight 72.5 kg. There is a photograph in *Zolli*, Basel, No. 20:12, 1968. To Hamburg.
- M* 1967 December 22 – 1969 June 3
'Puri' 41-BASEL 8
Born to Arjun (18) and Moola (17), gestation 486 days, weight 78 kg. To Stuttgart.
- M* 1969 April 27 – 1970 October 6
'Ruedi' 44-BASEL 9
Born to Arjun (18) and Joymothi (7), gestation 474 days, weight 79 kg. To Houston.
- F* 1969 October 5 – 1970 October 6
'Randa' 45-BASEL 10
Born to Arjun (18) and Moola (17), gestation 478 days, weight 81 kg. To Houston.
- F* 1971 August 11 – 1972 September 5
'Tutuma' 55-BASEL 11
Born to Arjun (18) and Moola (17), gestation 476 days, weight 79 kg. To Antwerp.
- F* 1971 August 24 – 1996 February 17 †
'Tanaya' 56-BASEL 12
Born to Arjun (18) and Joymothi (7), gestation 481 days, weight 69 kg. She produced six babies in Basel (Rüedi 1990 with photographs).
- M* 1974 January 3 – 1974 January 3/4 †
68-BASEL 13
Born to Arjun (18) and Joymothi (7), gestation 473 days, weight 51 kg. The animal did not survive and died either the same day or the next from anemia. Date of death recorded as 3rd January in Basel Zoo (1988).
- F* 1975 October 10 – 1979 November 6
'Xavira' 80-BASEL 14
Born to Arjun (18) and Joymothi (7), gestation 474 days, weight 69.5 kg. To Philadelphia.
- M* 1976 March 26 – 1977 November 2
'Yamatari' 84-BASEL 15
Born to Arjun (18) and Tanaya (56), gestation 479 days, weight 59 kg. To Gelsenkirchen.
- M* 1978 January 26 – 1979 November 6
'Assam' 87-BASEL 16
Born to Arjun (18) and Tanaya (56), gestation 465 days, weight 68 kg. A photograph is on the cover of *Zolli*, Basel, No. 40 (1978). To Philadelphia.
- M* 1978 July 16 – 1978 November 19 †
'Angkor' 88-BASEL 17
Born to Arjun (18) and Joymothi (7), gestation 485 days, weight 55.5 kg. It died of torsio colio.
- M* 1980 January 11 – 1995 November 13 †
'Chitawan' 100-BASEL 18
Born to Arjun (18) and Tanaya (56). Wacker-nagel (1985) published some photos.
- F* 1982 January 16 –
'Ellora' 110-BASEL 19
Born to Arjun (18) and Tanaya (56), illustrated in *Zolli*, Basel, No. 50, May 1983.
- M* 1984 February 29 – 1985 March 11 †
'Gandak' 119-BASEL 20
Born to Arjun (18) and Tanaya (56), as described by Rüedi (1985: 13). Weighed 77 kg at birth. There is a photograph in *Zolli*, Basel, No. 52: 2, May 1984. The animal fell into an empty pool and fractured vertebrae; it had to be euthanized.
- F* 1988 October 4 – 1990 July 11
'Nasi' 148-BASEL 21
Born to Chitawan (100) and Tanaya (56). Gestation 472 days, weight 66 kg (see Rüedi 1989). To Munich.
- F* 1988 December 11 – 1988 December 11 †
149-BASEL 22
Foetus was aborted after 242 days. Father was Chitawan (100), mother Ellora (110).

M 1990 May 31 – 1991 December 1
 'Nandi' 181-BASEL 23
 Born to Chitawan (100) and Ellora (110), illustrated by Rüedi (1991). To Nagoya.

F 1990 October 23 – 1991 December 1
 'Nilgiri' 183-BASEL 24
 Born to Chitawan (100) and Tanaya (56). There is a photograph in Rüedi (1991). To Nagoya.

F 1992 January 23 – 1993 July 8
 'Purana' 195-BASEL 25
 Born to Chitawan (100) and Ellora (110), gestation 466 days, birth weight 70.5 kg. To Nuremberg.

M 1993 February 22 – 1995 April 28
 'Quilon' 206-BASEL 26
 Born to Chitawan (100) and Tanaya (56). To Singapore.

F 1993 October 10 –
 'Quetta' 210-BASEL 27
 Born to Chitawan (100) and Ellora (110).

Beijing, China

Zoological Gardens

F 1959 – 1961 (?) †
 Dates are uncertain. C. Jarvis remarked that the zoo had once had a female (Rookmaaker and Reynolds 1985: 153). The animal was probably imported together with the male (72) in July 1959, but only survived for a short time.

M 1959 July – 1978 November 12 †
 'Xiangka' 72-NEPAL 6
 Caught in Nepal, about one year old on arrival. It died of a gastric ulcer and chronic gastritis (see Fig. 24).

F 1980 September 10 –
 'Bhunti' 98-NEPAL 7
 Caught in Nepal.

M 1981 October 20 – 1981 November 26 †
 'Kumat' 108-NEPAL 11
 Caught in Nepal. Died of malnourished exhaustion due to large numbers of parasites.

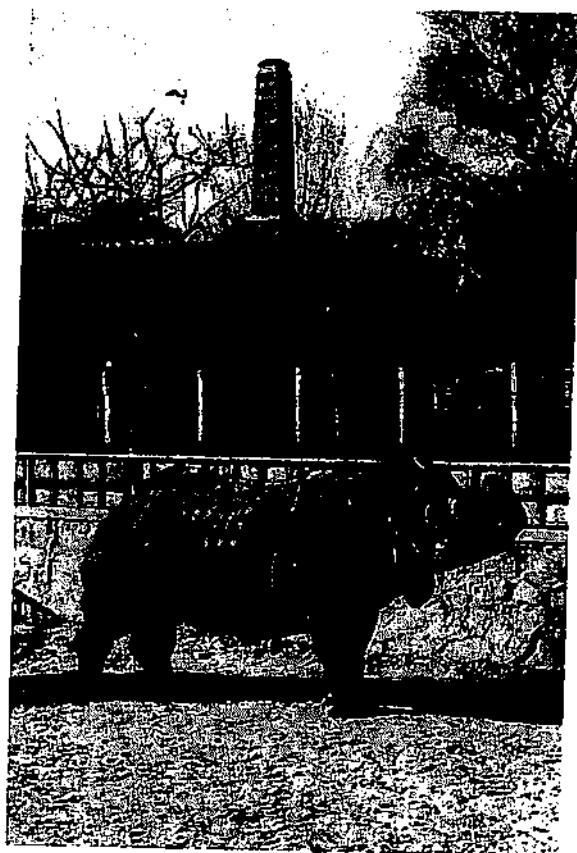


Fig. 24. Postcard of Indian rhinoceros at Beijing (male 72) taken around 1970.

Berlin, Germany

1. Zoologischer Garten

Called 'Berlin Zoo' to distinguish it from the Tierpark in the same town. This is the oldest existing zoo in Berlin, founded in 1844. It is located in the former West Berlin. A list of rhinoceroses exhibited up to 1888 was provided by Schlawe (1969: 28). Rhinos were shown in various buildings: in the elephant pagoda up until 1943, in a new rhinoceros/tapir house built in 1964, and in a second rhinoceros building opened in 1986/1987 (Klöß and Klöß 1990: 70, 263-266).

F 1871 September 21 – 1872 September 19
 Imported via Antwerp, first brought to London by Captain Harrison on the *Lady Melville* in 1871. It was traded with Jamrach in London for the following pair, but the final destination remains unknown.

M 1872 September 19 – 1909 October 26 †
 Bought together with following female from

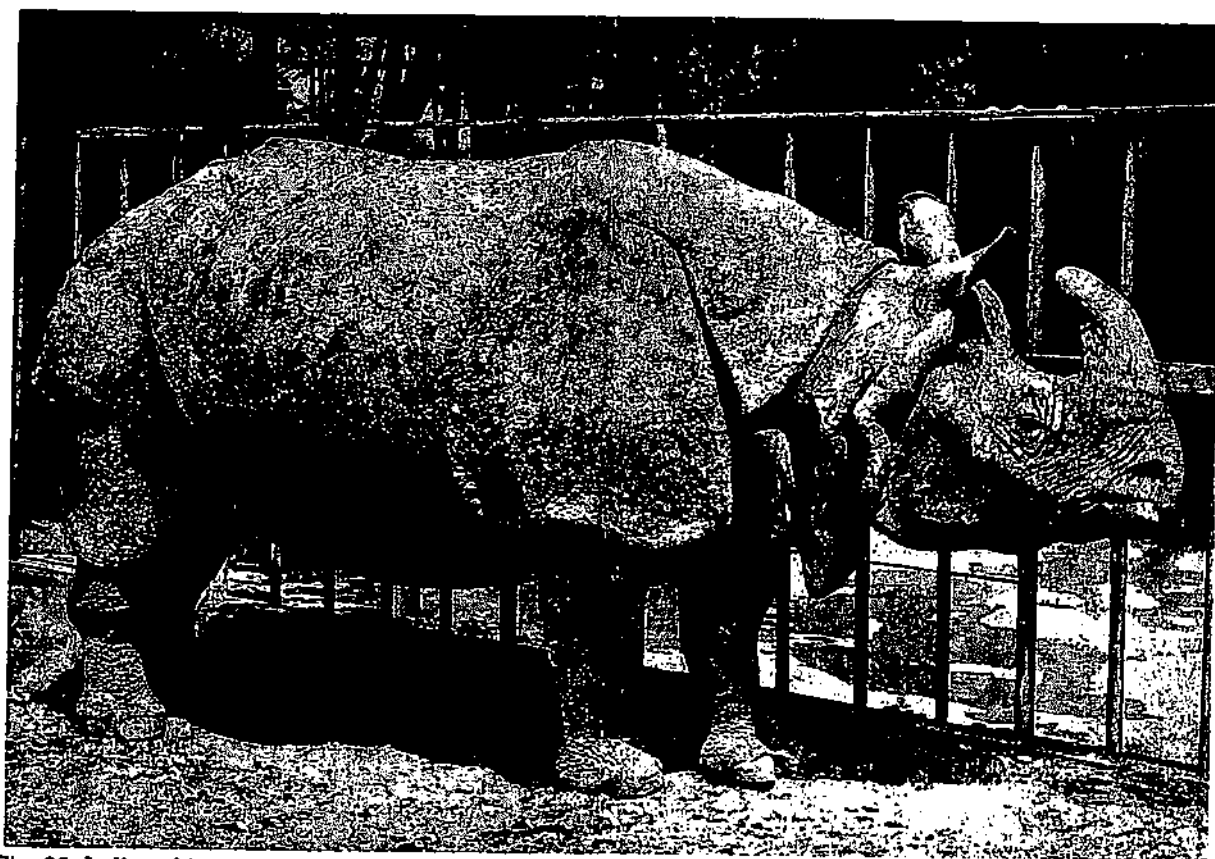


Fig. 25. Indian rhinoceros male at Berlin Zoo in 1899.

Charles Jamrach for 8000 Thaler. On arrival, it was 2.75 m long, 1.3 m high, and about three years old (Noll 1873: 52). The remains are preserved in the Zoological Museum in Berlin (Schlawe 1969: 28). A photograph of this specimen was published by Heck (1899: 72), while it was also used on a postcard (Heikamp 1980, fig. 21). This male was often seen fighting with the female, now known to be common, preliminary to mating. On 30th June, 1881, the male hit the female on the side, and the keepers decided to separate the two animals (Opperman 1994: 69-72). This incident was depicted by Paul Meyerheim in the *Illustrierte Zeitung* of 1881 (reproduced by Klös 1969: 73, Kourist 1970, fig. 8, Heikamp 1980, fig. 22, Klös *et al.* 1994: 86). Another drawing of the rhinoceros pair by Paul Meyerheim dated 1872 can be found in Heikamp (1980, fig. 23). See Fig. 25.

F 1872 September 19 – 1896 April 9

Imported together with the above male. A photograph of this animal in its pool can be seen in Heck (1899: 73). To Frankfurt am Main.

F 1874 August – (?) 1884 †

The actual dates of arrival and death were not recorded, which is very uncharacteristic of Berlin Zoo. Its early history can be pieced together from publications by Sclater (1876a: 650) and Jamrach (1875). It was caught when it was only a few months old in the 'district of Mooneypoor', *i.e.*, in the present state of Manipur in the extreme North-East of India. It was shipped from Calcutta in April 1874 by agents employed by William Jamrach, the London-based animal dealer. It may have arrived in London in May or June of that year. Apparently, Jamrach did not deposit it temporarily in Regent's Park, but probably kept it for some time in his own facilities. While in London, it was seen by Abraham D. Bartlett (1812-1895), Philip L. Sclater (1829-1913) and Alfred H. Garrod (1846-1879), all associated with London Zoo. Soon after, it was bought by Heinrich Bodinus (1814-1884), director of the zoo in Berlin. It probably arrived in Berlin around August 1874 where its exhibition, in an enclosure next to the pair of rhinos listed above, was uneventful. It was seen by a Mr. Bau in the autumn of 1884, according to Schlawe (1969: 28). Its remains were not preserved in the museum in Berlin.

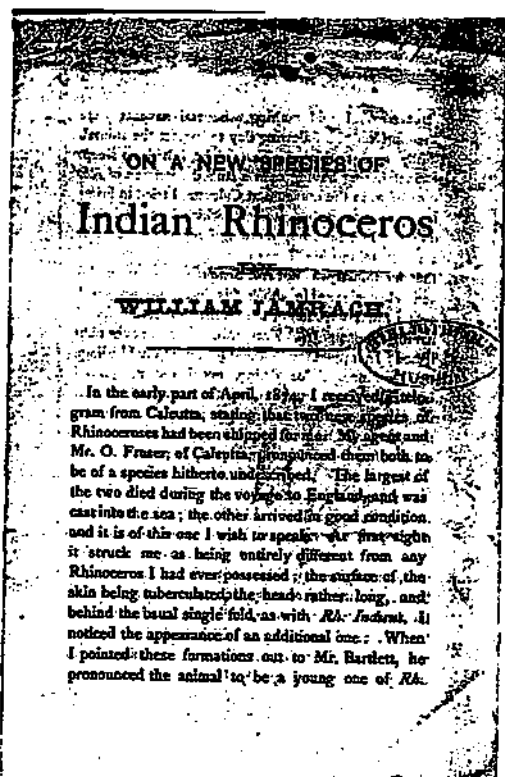


Fig. 26. Facsimile copy of Jamrach's green description of *Rhinoceros Jamrachi*, 1875.

The identity of this rhinoceros was the subject of much discussion and speculation (cf. Reynolds 1961c, Schlawe 1969: 28, Rookmaaker 1977, 1983b). In his report delivered on 15th June 1875 in London, Sclater (1876a: 650) said that he exhibited a drawing "made while the animal was in Hamburg" (when?). Unfortunately, the whereabouts of this drawing, if it still exists, are no longer known. Sclater continued that the specimen was remarkable "for its large head, long ears, and the numerous boss-like excrescences which cover its body". He identified it as a young *Rhinoceros sondaicus*. The same conclusion was reached by Bartlett, as reported by Jamrach (1875), but who, however, did not agree with this, recognizing both the characteristics mentioned by Sclater, and an additional fold at the nape of the neck. He went to Berlin to see the animal again, and on 8th October, 1875 [not 1874] he published the curious description of *Rhinoceros Jamrachi*, on a green sheet of paper mentioned in a footnote by Sclater (1876a: 650). Rookmaaker (1983b) quoted and discussed a [only extant?] copy of this description at the library of the Muséum National d'Histoire Naturelle in Paris (see Fig. 26 for facsimile). In 1880, Sclater was in Berlin, when

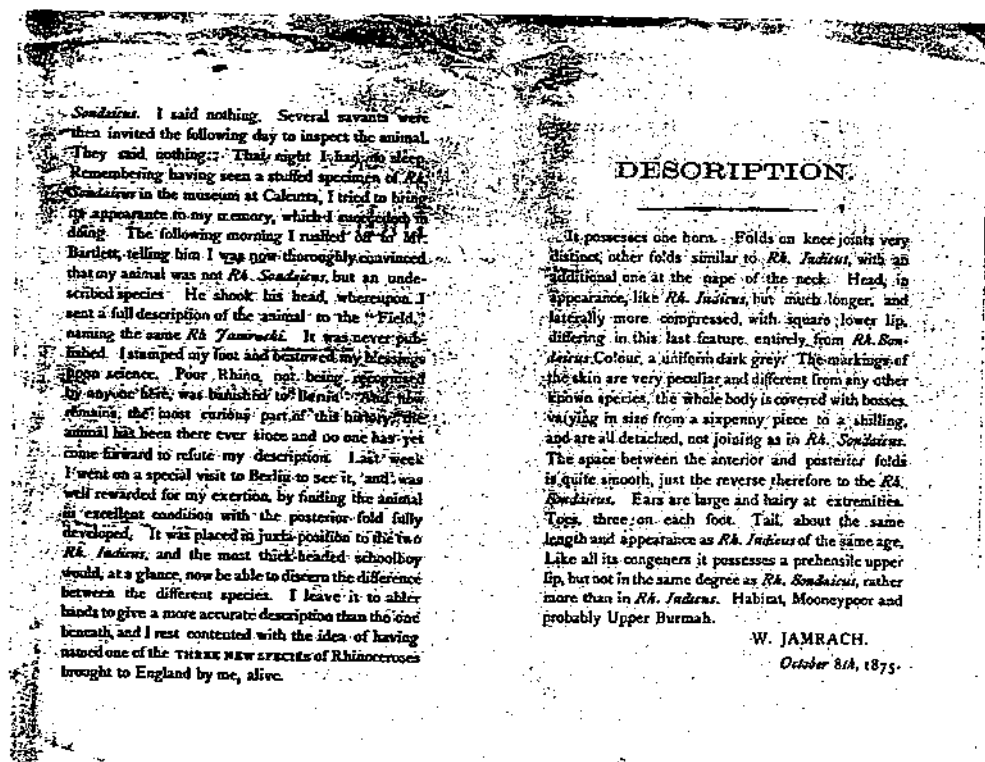


Fig. 26b.

he changed his mind about this rhinoceros, and decided that it was Indian, because it was too large to be *Rhinoceros sondaicus*, and "did not show the peculiar shoulder fold that characterizes that species" (Sclater 1880).

There is a print published by Gustav Mützel in the *Gartenlaube* of 1882, which shows this rhinoceros from the rear (illustrated in Schlawe 1969, fig. 20, Heikamp 1980, fig. 24, Rookmaaker 1983b: 44; see Fig. 27). Rookmaaker (1977) identified the animal as an Indian rhinoceros, because it had a short horn which would have been absent in a female Javan rhino, and because the rhinoceros in this print does not clearly show the saddle in the neck typical of *Rhinoceros sondaicus* (however, others claim it is there, see Rookmaaker 1983a: 127 for various opinions). As there is no additional evidence, I would still adhere to that opinion.

M 1959 September 22 – 1965 July 8
'Arjun' 18-KAZ 8
Caught in Kaziranga, as a gift from the German lottery. It was seven years old on arrival (Klös 1959, with two pictures). Photograph in Blaszkiewicz (1991b, fig. 5). To Basel.

F 1965 July 6 – 1993 March 2 †
'Miris' 31-BASEL 5
From Basel. It returned to Basel on loan for breeding from 8 August, 1970 to 28 April, 1971 and again from 10th June, 1974 to 6th May, 1975. Photograph in Klös (1969: 204).

M 1965 August 6 – 1993 December 9 †
'Gauhati' [Mohan] 32-HAMB 1
From Hamburg. Photograph in Klös (1969: 204) and Klös *et al.* (1994: 219).

M 1972 April 4 – 1973 July 10
'Kumar' 60-BER W 1
Born to Arjun (18) and Miris (31), gestation 477 days (Blaszkiewicz 1980: 85, figs. 3,4). To Amsterdam.

M 1976 February 18 – 1981 July 10
'Heiner' 83-BER W 2
Born to Arjun (18) and Miris (31), gestation 471 days. Klös *et al.* (1994: 218) published a photograph of the calf with its mother. To Oklahoma.



Fig. 27. Berlin 1882, print by Gustav Mützel, showing on the right the animal of uncertain identity.

F 1979 August 13 – 1981 July 10
'Terai' 89-BER W 3
Born to Gauhati (32) and Miris (31). Heikamp (1980, Fig. 25) presents a photograph. To Oklahoma.

F 1983 April 12 – 1985 June 13
'Shita' 38-HAMB 2
From Hamburg, to which it returned.

F 1988 May 15 –
'Narayani' 144-NEPAL 17
Caught in Nepal, donated by the King of Nepal. It was about six months old on arrival. Photographs in Blaszkiewicz (1991a: 42) and Klös *et al.* (1994: 219).

M 1993 June 21 –
'Belur' 166-BER E 2
From Berlin Tierpark.

2. Tierpark

The rhinos were shown in an enclosure near the main gate until 1991, in which year they were transferred to the new elephant house (Blaszkiewicz, 1992). Blaszkiewicz (1991b) discussed the Indian rhinoceroses from the Tierpark (see Fig. 23: recent birth, not listed).

F 1966 August 6 – 1967 January 9 †
'Kanchi' 37-NEPAL 1
Caught in Nepal (dealer George Munro, Calcutta). It was about three months old on arrival. It was mentioned by Blaszkiewicz (1991b, fig. 1). It died of enteritis. The skull is preserved in the Zoological Museum of Berlin (No. 51812).

F 1967 August 1 –
 'Kumari' 40-NEPAL 2
 Caught in Nepal (dealer George Munro), being about three months old on arrival. It was mentioned by Blaszkiewicz (1991b, figs. 2,3,4,7). Kuckelkorn and Dathe (1990) analyzed her progesterone as a marker for gestation.

M 1971 April 24 – 1996 December 23 †
 'Mysore' 42-MYSO 1
 From Mysore. It is illustrated in Blaszkiewicz (1991b, figs. 3,4,8). The animal grew a small third horn on the shoulders (Blaszkiewicz 1986). It was euthanized.

M 1985 September 23 – 1985 Sept. 23 †
 127-BER E 1
 Stillborn to Mysore (42) and Kumari (40), gestation 484 days, birth weight 44 kg.

M 1990 January 1 – 1993 June 21
 'Belur' 166-BER E 2
 Born to Mysore (42) and Kumari (40), gestation 471 days. Illustrated in Blaszkiewicz (1991b, figs. 5,6,7). To Berlin Zoo.

F 1994 October 11 –
 'Jhansi' 182-SDWAP13
 From Stuttgart.

Bhubaneswar, Orissa, India

Nandankanan Biological Park

F 1976 April 8 –
 'Numuli' 153-KAZ 21
 From Gauhati. It was one year and seven months old on arrival. Indian studbook (Kanpur Zoo 1993) No. NR-09, see Fig. 28.



Fig. 28. Female Indian rhinoceros at Bhubaneswar, February 1993.

M 1979 December 2 –
 'Nandan' 154-KAZ 22
 From Gauhati. Indian studbook (Kanpur Zoo, 1993) No. NR-13.

Bombay, Maharashtra, India

Zoological Gardens

This zoo is located in Victoria Gardens. The Indian studbook (Kanpur Zoo, 1993) locates the 1985 animal in a garden called 'Veeramati Jijibhai Bhosale Udayan', which could be the same locality.

In June 1958, Osman Hill (1958) received two horn samples taken from a rhinoceros at Bombay Zoo. The first sample was taken from the usual horn which had been completely rubbed down, while the second was "from an irregular horny growth which had arisen between the base of the normal horn and the forehead, approximately mid-way". These observations could refer to either of the two specimens living in Bombay Zoo in 1958.

M 1952 April 14 – 1980 September 14 †
 'Lacit' 62-ASSAM 11
 Presented to the zoo. It died of squamous cell carcinoma of the upper jaw.

F 1958 May 12 – 1958 December 15 †
 Presented to the zoo.

M 1985 February 25 –
 'Shiva' 217-ASSAM 28
 From Gauhati. Indian studbook (Kanpur Zoo, 1993) No. NR-18.

Brownsville, TX, USA

Gladys Porter Zoo

F 1972 April 6 – 1974 November 22
 'Rhonda' 45-BASEL 10
 From Houston. To Los Angeles.

M 1973 September 12 – 1973 December 3 †
 'Radjah' 81-ASSAM 13
 From Gauhati (dealer Zeehandelaar). It died of intestinal complications.

Buffalo, NY, USA

Buffalo Zoological Gardens

M 1992 July 21 –
'Dhaulagiri'

From Philadelphia.

187-PHIL 4

Cairo, Egypt

Giza Zoological Gardens

M 1949 – 1955 †

Caught in Kaziranga, together with the following female. Died of poisoning in the early spring of 1955.

F 1949 – 1955 †

Imported from Kaziranga. Died of poisoning in the early spring of 1955.

Calcutta, West Bengal, India

1. Alipore Zoological Gardens

F 1877 April 7 – 1880 May †

The arrival was noted in a list of animals from Calcutta Zoo published in 1878 (Anonymous 1878: 29), where it is stated that it was presented by the Maharajah of Dumraoh. Dumraoh is a town on the Ganges River, in Bihar, west of Patna. Sanyal (1892: 131) said that it arrived in 1878 and added that first it had lived "for upwards of 45 years in a private menagerie". This latter collection was not identified, and there could be doubt as to the truth of the statement. Reynolds (1961a: 19) associated these '45 years' with a similar length of captive life of a rhinoceros in Barrackpore, which was recorded by Edward Blyth (see below, Barrackpore) but who did not live until 1878.

In the collection of the Indian Museum, Calcutta, Sclater (1891: 202, No. d) reported the presence of a skull and skeleton of a female *Rhinoceros unicornis* received in 1880 from the Zoological Gardens. However, it is no longer available in this collection or in its successor, the Zoological Survey of India (Groves and Chakraborty 1983).

1887 (?)

Noll (1889), following the *Annual Report* for 1887/1888, mentioned the arrival of one *Rhinoceros unicornis* and one *Rhinoceros sondaicus*. The specimen of the Javan rhinoceros is known, but the Indian animal is not mentioned by Sanyal (1892), and it is possible that there is some error in the transfer of the information.

F 1905 February – 1932 January †

Presented to the zoo. It is strange that the arrival of this animal was not mentioned in the *Annual Report* for 1904-1905, although there is a note on the diet of "the Indian Rhinoceros now living in the Gardens" (Sanyal 1905). Perhaps it arrived a little earlier? It was the mother of the stillborn calf from 1925.

M 1910 December – 1930 June †

Although Reynolds (1960a: 19) recorded its arrival in 1905, this cannot be substantiated by a study of the annual reports of this period. However, the superintendent B. Basu wrote in the report for 1909-1910: "The most important addition to the collection during the year was a couple of male Indian Rhinoceroses. They were purchased at Rs. 15,000 from Nepal and brought down to the Gardens in December, 1910. The larger of the two was mated with the female we had in our collection" (Basu 1910: 10).

M 1910 December – 1912 April 1

Imported together with the previous male from Nepal (Basu 1910: 10). Its death is not recorded in the annual reports (which were quite exhaustive in this respect), but on 31st March, 1912, there were only two Indian rhinos in the zoo. Therefore, I assume that this is the male which was included in a collection of animals given by the Prince of Wales to London Zoo in 1912. Basu (1912: 10) mentions that an important event during the year had been "the exhibition of a fine collection of animals presented to His Majesty by the Nepal Durbar. By the request of the Zoological Society of London, they were accommodated in the garden prior to their departure ... to London". This collection of animals, which included 'one young rhinoceros' left Calcutta on 1st April, 1912, on the *SS. Afghanistan*, accompanied by the superintendent B. Basu, and reached England on 20th May, 1912. To London.

M 1925 October 9 – 1925 October 9 †

Born to the male from 1910 and the female from 1905. The sex of this premature baby was mentioned in the annual report of the zoo for 1925-1926. The baby only survived for a few hours. The keeper said that mating of the parents had started on 17th March, 1924. At birth, it weighed 74 lbs, it was three feet two inches (65 cm) in length and one foot 11 inches (58.5 cm) in height (Ali 1927).

M 1932 March – 1970 August 30 †

Donated by the Countess of Willingdon. Died from cancer of the horn, caused by damage in 1968 after a fight with a female (Nandi and Deb 1972). It was said that the animal was 47 years old when it died.

F 1932 October – 1965 December 10 †

Donated by Lord Willingdon to mate with the 1932 male. Died of rabies.

M 1938 – 1939 June

Captured in Kaziranga in 1938. It was in transit to Washington, DC (arriving there on 7th July, 1939).

F 1961 June (?) – 1961 July 19

21-INDIA C

This animal was in transit to Tokyo (arriving there on 16th August, 1961). She delivered a calf while at the zoo (next entry), obviously wildbred.

F 1961 June 12 – 1982 August 14 †

'Sneha'

23-INDIA E

Born to female (21) in transit to Tokyo. The date of birth is recorded as 12th March by Lang *et al.* (1977), but 12th June is recorded by Das (1985). The animal was hand-reared, and was christened Sneha by Smt. Padmaja Naidu, then Governor of West Bengal.

M 1974 March 14 –

'Meghnad'

94-KAZ 19

From Gauhati. Indian studbook (Kanpur Zoo, 1993) No. NR-05 with arrival date 11th March, see Fig. 30.

F 1974 March 14 –

'Kadambini'

95-KAZ 20

From Gauhati. Indian studbook (Kanpur Zoo, 1993) No. NR-07.

F 1979 January 9 – 1986 March 10

'Gomoti'

97-CALC 1

Born to Meghnad (94) and Sneha (23), gestation 515 days, weight 55 kg at birth. It was christened 'Gomoti' by Shri Nripen Chakraborty, then chief minister of Tripura (Das 1985). To Cologne.

M 1984 June 4 –

'Debraj'

150-CALC 2

Born Meghnad (94) and Kadambini (95), gestation 456 days, weight 43 kg (Das 1985). Indian studbook (Kanpur Zoo 1993) No. NR-24, see Fig. 29.

2. Barrackpore Park

Barrackpore, 14 miles north of Calcutta, along the Hooghly River, was a military area. It became the country residence of the Governor Generals after Lord Wellesley in 1801 started to build a house there (see Losty 1990: 80 ff.). The grounds around the villa were referred to as Barrackpore Park and may have been one of the first 'zoos' in the Indian subcontinent, being in existence from 1800 to 1878 (Walker 1994).

1829

Jacquemont (1841: 169) visited Barrackpore in 1829, when Lord William Bentinck was Governor. He saw an adult single-horned rhinoceros, which was tied to a tree with a long chain and considered to be quite tame (also recorded by Loisel 1912, III: 21). There is no record as to what happened to this animal later.

M 1833 (?) – 1834

A specimen arrived in London in June 1834, where it was bought by Atkins for his zoo in Liverpool. It was about three years old on arrival. It is stated that it had lived for some time in Barrackpore prior to shipment (Rookmaaker 1993).

M 1856 – 1862 (?)

In his discussion of a female Indian rhinoceros skull, Blyth (1862: 155) said that the animal had been "one of a pair that lived about 45 years in captivity in Barrackpore Park. I have repeatedly seen the pair when alive, many years ago". Edward Blyth (1810-1873) was curator of the Museum of the Asiatic Society of Bengal in Calcutta from 1841 to 1863 (when

he returned to England). In a posthumously published paper, Blyth (1875: x) mentioned that when the Kingdom of Oudh was annexed to the rest of India in 1856, there was a sale of the Royal Menagerie and two rhinoceroses (of unidentified species) were sold to Calcutta. I think that this could explain the statement that the animal(s) had lived for 45 years in captivity, i.e., in Oudh from 1816 to 1856 and in Barrackpore from 1856 to 1861. However, in this scenario, it is not clear why Blyth would refer to seeing the animals "many years ago". The female is mentioned in the next entry. There is no evidence of what happened to the male. From Blyth's silence, the impression is given that it was still alive in 1862.

F 1856 - ca. 1860 †

This was one of a pair which may have been transferred from the collection of the King of Oudh in the present Lucknow (see previous entry). Apparently this female died before 1861, as Blyth (1862: 155) examined the skull and skeleton, preserved in the collection of the Calcutta Medical College (founded in 1835). The complete mounted skeleton of this animal was transferred in 1879 to the Indian Museum, Calcutta (W.L. Sclater 1891: 202, No. b). It is at present in the Zoological Survey of India at Calcutta, No. 19262 (Groves 1982: 255, Groves and Chakraborty 1983: 253).

1864 March

The animals (two males, one female) which arrived in Dublin and London in 1864 had been kept for some time in Barrackpore Park prior to shipment. In the expense account kept by Andrew Thompson, it shows that he went to Barrackpore on 17th and 21st March, and that he transported the animals from Barrackpore to the harbor on 1 April, 1864. It seems that the rhinoceroses had only been in the park for a short period.

3. Collection of the Nabab of Chittepour

1828/1830

Lamare Picquot (1835:61) mentions seeing a living rhinoceros several times ('plusieurs fois') in the possession of an Indian prince with whom he was acquainted, the Nabab of Chittepour, near Calcutta. Chittepour is the same as Chitpur, a locality within the present city of Calcutta. The collection of Raja Mallik (see

next entry) was in the same place, but the dates seem to show that these records refer to different animals and people, although possibly this 'Nabab of Chittepour' was a relative of Raja Mallik.

It should be noted that a three-year old Indian rhinoceros arriving in Boston, USA, in May 1830, was thought to have been kept by an Indian Rajah from August 1829 to January 1830. The exact date of Lamare Picquot's visit is not known (except that he set out for the Sunderbunds in November 1828), but it is just possible that he was referring to the same specimen.

4. Collection of Raja Rajendra Mallik

Raja Rajendra Mallik (1819-1897, also spelt Mullick) built his Marble Palace in the Chitpur area of Calcutta in the years 1835-1840. From 1854, in the gardens of this house, he usually kept a few animals, and this is sometimes said to have been the first menagerie in Calcutta.

F 1867 (?)

The Staatliches Museum für Naturkunde in Stuttgart, Germany, has the skull and mounted hide of an adult female *Rhinoceros unicornis* (No. 1218, Alte Katalog 1313). The old catalogue states that it was obtained from Gerrard "aus der Menagerie Babu ... [illegible word] Mullik in Calcutta, Indien" (F. Dieterlen, in litt. 24.2.1994). No other particulars about the animal are known.

F 1871 †

A female skull was presented by Rajah R. Mullick to the Indian Museum, Calcutta in 1871 after the animal had died in captivity.



Fig. 29. Calcutta, Indian rhinoceros, November 1987.



Fig. 30. Indian rhinoceros at Calcutta, February 1993, with the zoo's library on the right.

This skull is now in the Zoological Survey of India, No. 19240 (W.L. Sclater 1891: 202, No.1; Groves 1982: 255, Groves and Chakraborty 1983: 254). No other details are known.

5. Collection of the Maharajah of Burdwan

Burdwan is another spelling of Bardhaman, formerly a place near Calcutta, but now within its limits. The Maharajahs of Bardhaman were great patrons of the arts during the 19th and early 20th centuries. The exact place where they kept a collection of animals has not been discovered. In 1879, Calcutta Zoo in Alipore opened Burdwan House, dedicated to Maharajah Mahtab Chand Bahadur of Burdwan, a patron of the zoo.

1880 (?)

Buckland (1882) stated the presence, ca. 1880 (?), of a pair in the collection of the Maharajah of Burdwan. There are no further particulars.

6. Trading post at Hugli

F 1738 – 1740 November 30

'Clara'

The Dutch rhinoceros which toured through Europe from 1741 to 1759 (see Europe, Travelling Menageries) was caught in Assam in 1738 and kept as a pet at the trading post of the Dutch East India Company at Hougly or Hugli. It left Calcutta in November 1740.

7. Calcutta as a harbor of trade

Calcutta was the main trading center through which many of the rhinoceroses exported to Europe and the USA passed during the 19th and early 20th centuries. Many animals came

from 'Calcutta', while in fact they were caught in Assam or one of the other North-Eastern states of India, or in Nepal or Burma. It is often not clear where they were kept while in Calcutta. A short list of animals which are stated to have stayed in, or passed through, Calcutta in the 19th century may help to identify individual animals in some difficult cases.

1828/1830: A rhinoceros was present in the collection of the Nabab of Chitpur, in Calcutta (Lamare Picquot 1835).

1829: A rhinoceros was present in Barrackpore Park (Jacquemont 1841).

1830: A three-month old animal caught in Assam arrived in Boston in May 1830.

1830: A three-year old male rhinoceros was imported into the USA in October 1830.

1834: A ten-year old rhinoceros, born in Kathmandu (Nepal), went to Calcutta (Hodgson 1834).

1834: A female caught in Assam arrived in Philadelphia in December.

1834: Liverpool. A rhinoceros had been kept for some time in Barrackpore Park. It was three years old in 1834.

1856: A pair arrived in Barrackpore Park (Blyth 1862). One female had lived for about 45 years in captivity, probably in the menagerie of the King of Oudh, and died before 1861.

1864: Two specimens imported to London Zoo (female) and Dublin Zoo (male) had been kept in a menagerie in Barrackpore.

1867: Two rhinos were shipped to England by William Jamrach, but both died on the way (Buckland 1882).

1871: A female died in 1871 in the collection of Raja Rajendra Mallik in Calcutta.

1871: A male rhinoceros was imported by Mr. Scovill into the USA, via Liverpool. It was owned by Pogey O'Brien.

1874: Jamrach shipped two rhinos to Europe (Jamrach 1875). One died en route, the other was sold to Berlin.

1875: A rhinoceros from Bhutan was shipped by Jamrach to London, where it died in the stables of Mr. Rice (Sclater 1875).

1878: Female arrived in Alipore Zoo, after 45 years in a private menagerie (Sanyal 1892).

1880/1882: A pair was present in the collection of the Maharajah of Bardhaman, near Calcutta.

1887: Arrival of a specimen in Alipore Zoo, but record questionable.

Chandigarh, Punjab, India

M.C. Choudhery Zoological Park, Chattbir

M 1977 December 24 –
'Balaram' 215-KAZ 30
From Gauhati. Indian studbook (Kanpur Zoo 1993) No. NR-14.

F 1978 July 29 – 1986 May 25 †
'Shakuntala' 216-KAZ 31
From Gauhati. Indian studbook (Kanpur Zoo 1993) No. NR-15.

M 1986 May 9 –
Born to Balaram (215) and Shakuntala (216).
Indian studbook (Kanpur Zoo 1993) No. NR-27.

Chester, UK

North of England Zoological Society

M 1987 December 3 –
'Yodha' 132-WHIP 5
From Whipsnade.

Chiangmai, Thailand

Zoological Gardens

M 1986 April 22 – 1986 July 24 †
Imported from Nepal together with the following female. It was eight months old on arrival. Died of kidney failure, but the date is not definite.

F 1986 April 22 –
Caught in the Sanraha area of the Royal Chitwan National Park, Nepal. It was eight years old on arrival (Chiangmai Zoo, in litt. December 1993).

M 1994 December 12 –
'Nadir' 109-STUTT 5
From Singapore.

Chicago, IL, USA

Chicago Zoological Park, Brookfield

F 1948 May 16 – 1948 May 16 † 4-KAZ 3
This calf was born and died while the mother (02) was in transit from India to Chicago.

M 1948 June 24 – 1970 November 13 †
'Kashi-Ram' 3-KAZ 2
Caught in Kaziranga. This male and the following female were collected by Ralph Graham and presented to the zoo by the George B. Dryden expedition.

F 1948 June 24 – 1968 May 6 †
'Kamala-Rani' 2-KAZ 1
Caught in Kaziranga. Result of the George B. Dryden expedition.

Cincinnati, OH, USA

Cincinnati Zoo

F 1877 April 14 – 1878
Deposited by the John Robinson Circus. Robinson lent the animal to the zoo for one year as it could not be transported on a wagon. It returned to the circus in 1878 when they started travelling by train (Ehrlinger 1993: 19).

F 1923 April 9 – 1929 May †
'Ruby'
Imported from Nepal through Hagenbeck, and cost \$10,000 (Reynolds 1961a: 27, Rookmaaker and Reynolds 1985: 150, fig. 9). There is a photograph in Ehrlinger (1993: 58).

M 1989 October 24 –
'Jimmy' 147-PHIL 3
From Philadelphia.

F 1994 August 22 –
'Nikki' 189-TORO 1
From Toronto.

Cologne, Germany

Zoologischer Garten Köln

F 1872 April 26 – 1900 October 25 †
'Schöne Marie'
Imported by the dealer Jamrach, probably from

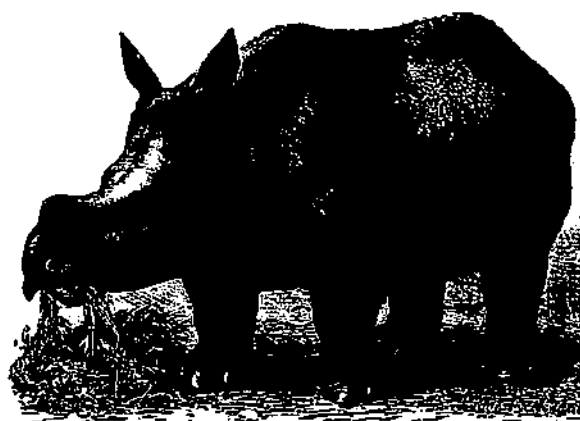


Fig. 31. Cologne's female rhinoceros 1872-1900, drawn by Ludwig Beckmann in 1873.

Assam. It was two to three years old on arrival. It lost its horn in 1881 and in 1891, but each time the horn grew again (Wunderlich 1892). It died after a long illness. Its hide and skeleton were mounted by H. Sander and exhibited at the natural history museum in the Stapelhaus of Cologne (destroyed during World War II). Details about its history (with references to local journals and newspapers) were given by Kohle (1981: 104-105). He also included an original drawing made in 1873 by Ludwig Beckmann (1822-1902), first published in the *Illustrierte Zeitung* of January 1873 (see Hässlin and Nogge 1985: 90, Kourist 1970: 150, fig. 9; see Fig. 31).

M 1978 November 2 – 1987 September 8 †
'Ypsilon' or 'Yamatari' 84-BASEL 15
From Gelsenkirchen. Euthanized in 1987 as it was suffering from a tumor in a nostril.

F 1986 March 10 –
'Gomati' 97-CALC 1
From Calcutta, bought for DM 150,000. A photograph taken at the time of its arrival can be seen in Nogge (1987: 10). It also appears together with 'Bruno' (123) on the front cover of *Zeitschrift des Kölner Zoo*, 31 (4), 1988.

M 1987 December 9 –
'Bruno' 123-STUTT 7
From Stuttgart.

Delhi, India

Zoological Gardens

Bhatia and Desai (1971, 1975) discussed the husbandry and enclosures of the rhinoceroses in Delhi.

M 1959 December 6 – (?)

'Mohan'

From Gauhati. Present in 1963 (Rookmaaker and Reynolds 1985: 150 after C. Jarvis). The dates of death or transfer are not recorded.

M 1965 December 1 – 1988 July 6 †

'Mohan'

33-KAZ 9

From Gauhati. It was 3.5 years old on arrival. It is illustrated in Bhatia and Desai (1975, fig. 1).

F 1968 March 28 – 1986 June 2 †

'Rengi'

43-KAZ 10

Caught in Assam. It was six years old on arrival. It is illustrated in Bhatia and Desai (1975, figs. 1, 2).

F 1971 January 27 – 1973 February 6

'Roopa'

51-DELH 1

Born to Mohan (33) and Rengi (43). Gestation period 484 days. It is illustrated in Bhatia and Desai (1975, fig. 2). Studbook 59-KAZ 12, female 'Rukmini' probably refers to the same specimen. To Whipsnade.

M 1983 February 3 –

'Dabbu' (= 'Agni')

151-ASSAM 18

From Gauhati. Indian studbook (Kanpur Zoo, 1993) No. NR-23, with arrival date 3rd March.

F 1990 December 12 –

'Mohini' = 'Ruby'

194-INDIA N

From Gauhati. Indian studbook (Kanpur Zoo, 1993) No. NR-37, with arrival date 20th December.

M 1992 December 27 –

202-DELH 2

Born to Dabbu (151) and Mohini (194). The date was recorded in Basel Zoo (1995) following a newspaper report and in *Zoos' Print*, 8 (2): 39, 1993.

Dhaka, Bangladesh*Private Collection*

ca. 1807

A Mr. Matthew Day of Dacca had a rhinoceros which he "kept in a park, into which it was not very safe to venture" (Williamson 1807: 45).

Dresden, Germany*Zoologischer Garten*

M 1873 February 4 – 1892 †
'Begum'

This animal was 1.5 years old on arrival and cost DM 12,000 (Knauer 1914: 23). It was illustrated, in the company of two dogs, by Heinrich Leutemann (1824-1905) in the *Gartenlaube* of 1875 (Kourist 1970: 149, fig. 10). Knauer (1914: 195) published a photograph taken in 1889. Exact date of death is not recorded.

Dublin, Ireland*Dublin Zoo*

M 1834 July – 1834 August

From Liverpool and returned there. This rhinoceros, owned by Thomas Atkins, was hired for one month for a short exhibition. The zoo paid £140, plus a young llama. A poor illustration was included in the *Dublin Penny Journal* of 1835 (Anon. 1835, see Rookmaaker 1993, fig. 1).

M 1864 August 3 – 1865 April 6 †

Purchased through Sir C. Trevelyan and Captain Lees for £165. It was first kept in Barrackpore Park, Calcutta and was then transported to Great Britain together with a consignment of animals for London Zoo. Headkeeper Andrew Thompson of London Zoo brought it to Plymouth, arriving in July 1864 (two other rhinos transported on the same ship arrived in London Zoo on 25th July, 1864). An account of the expenses incurred for the transport of the animal from Calcutta to London is present in the Archives of the Dublin Zoo. The total was £103 17s 10d, which was paid to the London Zoological Society on 1st

October 1864. After its death, the body of the rhinoceros was purchased by Trinity College, Dublin, where a post-mortem was performed. Its death was said to be due to fermentation of Indian corn in the stomach causing rectal prolapse (T. Murphy, History of Dublin Zoo, unpublished).

Dvur Kralove, Czech Republic*Zoological Gardens*

M 1980 August 12 – 1992 June 14
'Dvityia' 86-STUTT 3
From Stuttgart. To Singapore.

F 1981 July 22 –
'Numa' 93-STUTT 4
From Stuttgart.

F 1986 January 14 – 1986 February 27 †
'Nelly' 167-DVKR 1
Born to Dvitya (86) and Numa (93). Bottle-reared, but did not survive.

M 1987 November 4 – 1989 November 9
'Nim' 141-DVKR 2
Born to Dvitya (86) and Numa (93). Third zoo-generation. To Liberec.

M 1990 November 16 –
'Ropen' 145-WHIP 6
From Whipsnade.

Edinburgh, UK*Unknown collection*

M 1835

The so-called 'Liverpool Rhinoceros' belonging to Thomas Atkins and sometimes exhibited at a zoo at Liverpool was shown at an unknown locality in Edinburgh around 1835 or 1836 (Jardine 1843: 171-173, plates 8 and 9).

Europe*Travelling menageries*

F 1741 July 22 – 1758 April 14 †
'Clara', the Dutch Rhinoceros
In 1741 an Indian rhinoceros arrived in the

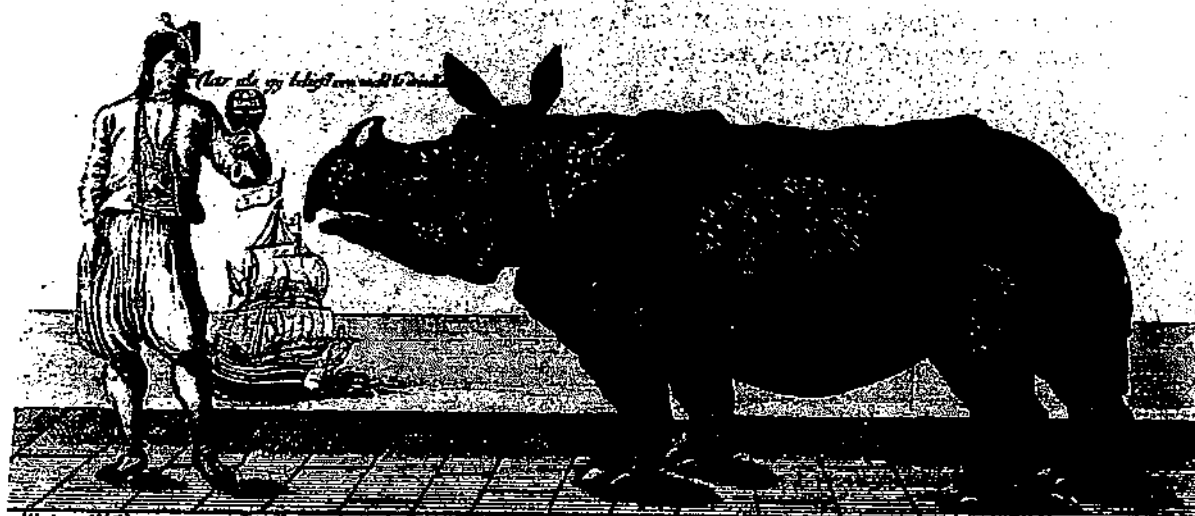


Fig. 32. 'Clara', the Dutch rhinoceros, being offered a glass of wine, on a poster distributed during the tour, around 1748.

Netherlands. The animal was taken to many cities around Europe between 1746 and 1758, thereby introducing the species to a large section of the then interested population. The first attempts to piece together the history and itinerary of this 'Dutch rhinoceros' (sometimes called 'Clara') were made, independently, by Clarke (1974) and Rookmaaker (1973b). Following this modest start, the iconographic research by Tim Clarke has added many details, as can be seen in his 1986 book. At the same time, additional facts were published by Heikamp (1980), describing material in Martin Sperlich's remarkable rhinoceros print collection in Berlin, and by Hubert Emmerig (1978) regarding coins and medals. An exposition at the Nature Museum in Rotterdam, commemorating the 250th year after Clara's arrival in the Netherlands, brought together some of the available material, with a catalogue (Verheij, 1992). The evidence is summarized here (see Figs. 32, 33, 70).

1738-1741

India
A female Indian rhinoceros was killed (with arrows?) in Assam, India in 1738. The baby rhinoceros was rescued and donated to Jan Albert Sichterman, director of the Dutch East India Company's (VOC) trading post at Hougly near the present Calcutta. The young rhinoceros was tame enough to be allowed to roam among the house guests. In 1740 it was bought by or given to a Dutch sea captain, Douwe Mout van der Meer (born 1705). They left Bengal on board the *Knappenhof* on 30th November, 1740, stopping in Cape Town in March, 1741, and reaching Rotterdam on 22nd July, 1741 (Verheij 1992: 11-12). A short transit stop in London between May and July, 1741, would not have been impossible (a vague reference in Parsons 1743).

1741-1742

Amsterdam and Leiden
In August 1741, Matthys Wylacker showed the rhinoceros in Nieuwendam near Amsterdam (advertisements in the *Amsterdamsche Cou-*

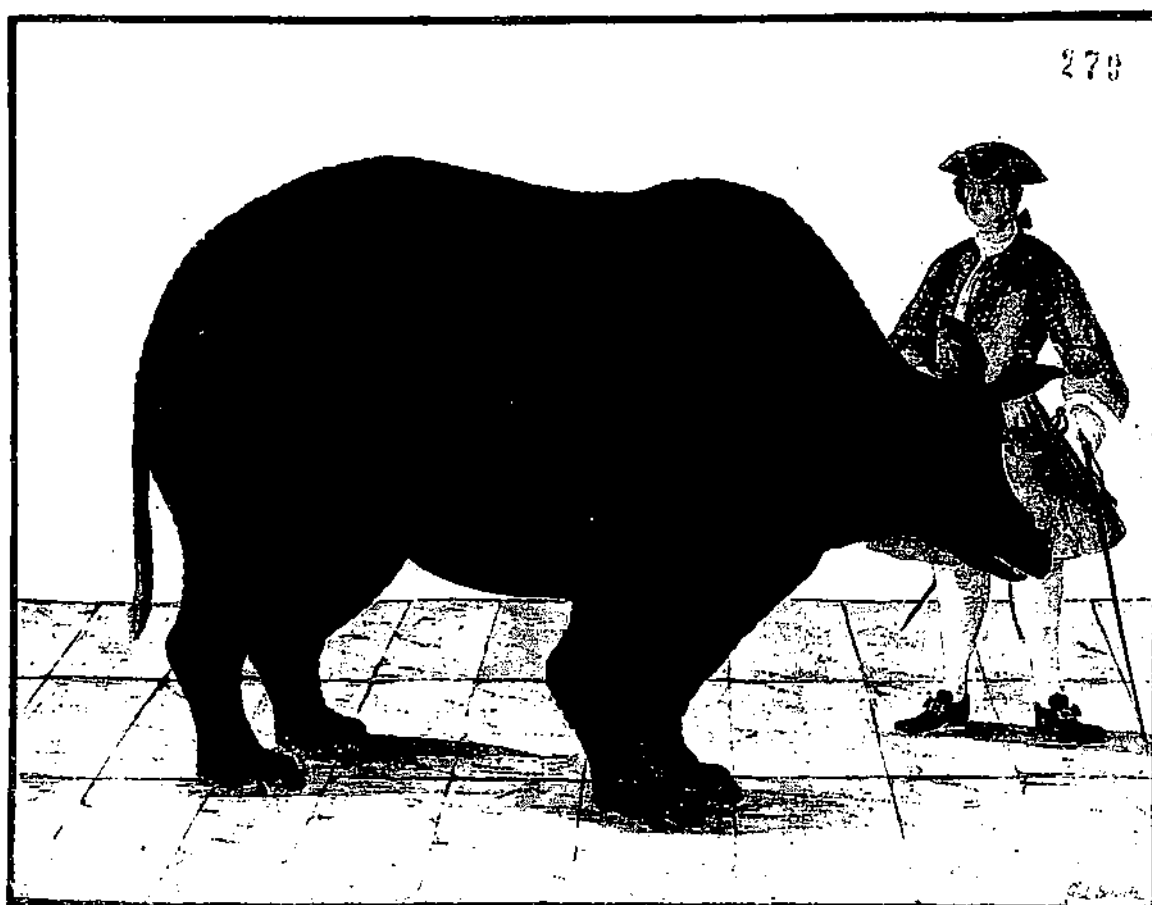


Fig. 33. The Dutch rhinoceros at Hannover, watercolour by J.L. Scheitz.

rant of 22nd, 24th and 26th August, 1741 and the *Leydsche Courant* of 21st August, 1741). In September, 1741, it was seen by Jacob Bicker Raye in Amsterdam (Raye 1935: 91). W. van Royen drew it on 25th September, 1741, while it was still in Amsterdam, but the whereabouts of this first depiction of the Dutch rhinoceros were lost after 1910 (Rookmaaker 1978a). Early in 1742, drawings were made by Jan Wandelaar (1690-1759) in Leiden or Amsterdam, which were used as a background in two plates in the anatomical atlas of B.S. Albinus (1747, pls. 4, 5; reproduced by Clarke 1986: 50).

1744 Hamburg
Two prints in the Staatsarchiv, Hamburg show a rhinoceros taken from Dürer's woodcut, and state that the animal was seen in Hamburg in 1744 (Heikamp 1980: 310-311, figs. 9, 10).

1746 Hanover
A watercolor was made by the Hanover artist

J.L. Scheitz in the 'Ballhof' in the summer of 1746 (Stadtarchiv Hanover, reproduced in Faust 1978 and Clarke 1986: 51; see Fig. 33).

1746 April Berlin
Exhibited on the Spittelmarkt. King Friedrich II took time to visit it and paid 12 ducats on 26th April, 1746, to which he added another six ducats the next day (Klôs 1969: 17).

1746 July Frankfurt a/d Oder
Seen on 16th July, 1746, by Johann Jacob Korn (Gleiss 1967: 42, following *Schlesischer Zeitung*). Bergen (1746) delivered an *Oratio de Rhinocerote* on 16th October, 1746, in this town.

1746 Glogau
Mentzel (1787: 237) stated that the animal was seen in this city in 1746.

- 1746 September** **Breslau**
[= Wroclaw, Poland]
Arrived on 3rd September, 1746 (Gleiss 1967: 42, following *Schlesischer Zeitung*). It may have left on 2nd October, 1746 (Clarke 1986: 51).
- 1746 October** **Vienna**
A poster signed by Elias Baeck (1649-1747) reported the arrival in Vienna on 30th October, 1746, at 11 am (reproduced in Faust, 1978, Heikamp 1980: 313, Clarke 1986: 48). On Saturday 5th November, 1746, the rhinoceros was visited by the Empress Maria Theresa (1717-1780) and other royal guests (Emmerig, 1978). There is a miniature showing her grandchild Karl Joseph (1745-1761) reading about a rhinoceros (Clarke 1986: 51, pl. V).
- 1746/1747** **Munich**
This town was mentioned on one of the posters sold during Clara's tour, but no independent confirmation has been found (Clarke 1986: 51).
- 1747 March** **Regensburg**
Barth (1747) published a letter to a good friend, dated 6th April, 1747, stating that he had observed the rhinoceros a few weeks earlier.
- 1747 April** **Freiberg or Freyberg, near Dresden**
Exhibited at the Wiesemann Inn of the Golden Star (Clarke 1986: 51).
- 1747 April** **Dresden**
Arrived on 5th or 7th April, 1747, and was shown at the Rothe Hirsch near the Pirna Gate (Emmerig 1978, according to local newspapers). It was taken to the royal court to be observed by the Elector of Saxony, August II, on 19th April 1747, after which it left the town (Petzsch 1935, Clarke 1986: 52). Hufnagel (1873) reproduced the text for one of the posters, published in Dresden.
- 1747 April** **Leipzig**
Exhibited during the Ostermesse, probably from 23rd April, 1747 (Petzsch 1935, Emmerig 1978). It may still have been there in May 1747, the date mentioned on a poster (Faust 1978).
- 1747 June** **Kassel**
Johann Ernst Grassmeder, a local gardener, mentioned that the rhinoceros was in Kassel from 25th June to 18th July, 1747 (Clarke 1986: 52).
- 1747 September** **Frankfurt am Main**
Arrived in the week before 12th September, 1747. It was shown in the 'Gast-Hauss zum Pfau' outside the Friedburger Thor until 30th September, 1747 (Hufnagel 1873, Emmerig 1978: 21).
- 1747 November** **Mannheim**
Exhibited at the 'Gasthof zum Pfau' owned by Georg Adam End (Emmerig 1978). On 20th November, 1747, it was seen by the Elector Palatine Carl Theodor with his sons. This visit was commemorated in a verse printed on some of the large-sized posters sold during the tour (Emmerig 1978, Clarke 1986: 52, pl. 28b, Rookmaaker 1973b, fig. 7). It would not appear to be true that the poem was made for a visit to Nuremberg (Rookmaaker 1973b: 50).
- 1748 February** **Bern**
Seen during the month of February 1748 (Emmerig 1978: 21), but may have arrived on 27th January (Clarke 1986: 52).
- 1748 March** **Zurich**
Exhibited during the first half of March 1748 (Emmerig 1978: 21). David Redinger sold two broadsheets with the rhinoceros, one of which also showed part of the wagon used to transport the animal (Clarke 1986: 49, fig. 28c).
- 1748 March** **Basel**
Seen after 18th March 1748 (Emmerig 1978: 21).
- 1748 March** **Schaffhausen**
Seen from the end of March 1748 (Emmerig 1978: 21).
- 1748 April** **Strasbourg**
Exhibition probably in this month (Clarke 1986: 52). There are three medals by Jean Daniel Kamm with German or French text (Emmerig 1978: 25).
- 1748 May** **Stuttgart**
The text on a medal states that the animal was weighed in Stuttgart on 6th May, 1748, and found to be 5000 pounds (Petzsch 1935,

Rookmaaker 1973b: 50). A silver medal was made while in Stuttgart by Veit Schrempf (Emmerig 1978: 24).

1748 May Augsburg
Arrived on 18th May and left on 16th June, 1748 (Emmerig 1978: 21 after *Augsburger Chronik*). On 16th June, 1748, six drawings of the rhinoceros were made by Johann Elias Ridinger (1698-1767), three of which are known today (Clarke 1984, figs. 31-33, 1986, pl. VI and figs. 31, 32). Ridinger later showed the rhinoceros in several engravings which had a wide distribution (Rookmaaker 1973b, fig. 8; Clarke 1986, figs. 33-34).

1748 July Nuremberg
Arrived on 22nd July and left on 20th August, 1748 (Emmerig 1978: 21 after *Nürnberger Chronik*). Several medals with texts in German, French and Italian were made by Peter Paul Werner (Emmerig 1978: 23).

1748 October Würzburg
Douwe Mout asked permission of the town council to show the rhinoceros in Würzburg (Brod 1958). It was seen and drawn on 3rd October, 1748, by Anton Clemens Lünenschloss (1768-1763), who for the first time stated that the animal was called 'Jungfer Clara' (Brod 1958, Clarke 1986, fig. 36).

1748 Ansbach
A medal was struck by Johann Gözinger in Ansbach in 1748 (Emmerig 1978: 23), but the dates of the visit have not been recorded.

1748 Leiden
The Dutch anatomist Petrus Camper (1722-1789) made three drawings in white chalk on blue paper and a clay model of this rhinoceros (the drawings are reproduced by Rookmaaker 1978a and Verheij 1992: 31-33, the model by Rookmaaker 1973b, fig. 9 and Verheij 1992, fig. 14). Camper (1782: 139, 147) stated twice in no uncertain terms that he saw the animal in Leiden in the year 1748. He added that he also made an oil painting, but this has not yet been found. The dates of the visit to Leiden in 1748 are not known.

1748 December Reims
Shown in Reims by a man called Louis Olivier, who had hired the animal for the occasion (Gandilhon 1980: 128). It had come from

Stuttgart. It left the town on 30th December, 1748 (Loisel 1912, II: 279).

1749 January Versailles and Paris
In Versailles, King Louis XV wanted to buy the rhinoceros for his menagerie but reconsidered when he heard that he would have to pay 100.000 écus d'or. The animal was in Versailles in January 1749 and was exhibited at various localities in Paris from 27th January until the end of April 1749. The people of Paris celebrated the presence of this rhinoceros in their fashions, plays and works of art (Clarke 1986: 58, Heikamp 1980: 313-314, Loisel 1912, II: 279). It was drawn and painted by Jean-Baptiste Oudry (1686-1755) while in Paris (Clarke 1984, 1986: 64-68). One of these drawings was engraved to illustrate the natural history of the rhinoceros in Buffon (1764, vol. 11, pl.7), which gave it a very wide distribution.

1749 France
Heikamp (1980: 314) quoted from the *Gazette d'Amsterdam* (25th February 1749) regarding the intended journey through France, naming cities such as Dijon, Genève, Lyons, Avignon, Aix and Marseilles. The details of the places visited after leaving Paris have not been discovered, except for the visits to Lyons and Marseilles.

1749 May Lyons
It was (falsely) rumored that the rhinoceros killed some people and died of love pains while in Lyons on 30th May, 1749 (Loisel 1912, II: 279).

1749 November Marseilles
A German newspaper reported that the rhinoceros upset a barge when it was transferred to a larger vessel (Clarke 1986: 59 after *Auszug der Neuesten Weltgeschichte*, No. 97, 1749).

1749 November Naples
From Marseilles, the rhinoceros was taken by ship to Naples (Heikamp 1980: 314). There is a painting by the Neapolitan school made around this date, showing the rhinoceros in a booth near Castelnuova, although the likeness is copied from the posters sold during the tour (Clarke 1986: 59, pl. VII).

1750 March Rome
During the first half of the Holy Year, the

rhinoceros was in Rome. It probably arrived on 14th March, 1750 (Heikamp 1980: 312). The exact length of stay is not recorded. A rumored visit to Florence seems not to have materialized (Clarke 1986: 60).

1750 August Rimini
Seen in Rimini by Johannes Antonius Battarra, who included a long description of the animal in Bonannius (1773: 16), which starts: "Anno Jubilaei MDCCL Rhinoceros visus est in Italia, & Kal. Augusti fuit Ariminum transvectus, eumque commode observare potui" [A rhinoceros was seen in Italy in 1750, and was brought to Rimini in Augustus, where I could see it easily].

1750 August Bologna
Exhibited from 24th August to 7th September, 1750, at a local inn (Clarke 1986: 60).

1750 Milan
The name of the city appears on a poster, but particulars have not been found (Clarke 1986: 60).

1751 January Verona
Recorded in January 1751. There is a drawing of the rhinoceros by Francesco Lorenzi (Heikamp 1980, fig. 15, Clarke 1986: 61, fig. 37).

1751 Venice
The dates of the visit have not been discovered, but it would have been at the beginning of the year. While in Venice, it was painted by Pietro Longhi (1702-1785). There are two versions of this famous painting, at Ca'Rezzonico, Venice, and the National Gallery, London (Rookmaaker 1973b, fig. 11, Clarke 1986, pl. VIII; see Fig. 70). Moreover, a drawing by Alessandro Longhi and a painting by an unknown artist date from the visit to Venice (Clarke 1986, fig. 38 and pl. IX).

1751 May Vienna
Arrived on 29th May, 1751, and stayed for only eight days (Emmerig 1978: 22 after *Wienerische Diarium*). The newspaper stated that it was intended to take the animal to Prague and Frankfurt am Main, but these visits have not been confirmed (Clarke 1986: 63).

1751 December London
Noticed in December 1751 (Clarke 1986: 63 after the *Gentleman's Magazine*, December 1751). In 1752, George Edwards drew a female rhinoceros and later published an engraving (Edwards 1758, fig. 221, see Rookmaaker 1973b, fig. 12).

1754 Danzig [Gdansk]
Seen during this year, but no dates are on record (Klein 1760: 32). It was engraved by Matthäus Deisch in three different positions on one print (Heikamp 1980, fig. 16, Clarke 1986, fig. 39). The print legend mentions that the rhinoceros had been shown in Poland and Prussen.

1754 November Warsaw
On 6th November, 1754, the rhinoceros was taken to the court to be seen by the sons of August III (Heikamp 1980: 315 according to archive records).

1755 June Copenhagen
On 12th June, 1755, Douwe Mout applied for permission to exhibit the rhinoceros. While in Copenhagen, it was drawn by Johanna Fosie (1726-1764) from life (Jorgensen 1986 with illustration).

1756 London
One of the usual posters available for sale during Clara's tour, but the only one with an English text, said that the animal was in London, "to be seen at the Horse and Groom in Lambeth Marsh", when it was 18 years of age. The presumed age of the animal is the only way to date the poster (Rookmaaker 1978b: 31).

1756 Haarlem
A rhinoceros was drawn by Cornelis van Noorde (1731-1795) at a fair in Haarlem (Sliggers 1982, fig. 95, Clarke 1986, fig. 40, Verheij 1992, fig. 19).

1758 The Netherlands
Johan Le Franq van Berkhey (1729-1812), professor of natural history at Leiden, had a drawing of the rhinoceros which he had made from life in 1758 (Berkhey 1784: 48). The whereabouts of the drawing are unknown.

1758 April 14

London

There is a large poster signed by Joh. Mich. Eben (1716-1761) with text in both German and French. The last sentence is a new addition: "Er ist alt geworden 21 Jar, in London crepirt 1758 den 14 Aprill" [It became 21 years old, and died in London on 14th April 1758]. There is no other confirmation of this event. Thus ended the life of Clara. It is not known whether her remains were preserved.

M 1810 - 1839 †

Tourniaire's Rhinoceros

This animal, called 'Tourniaire's Rhinoceros' here, after its principal owner, was taken around many European countries between its arrival in London in 1810 and its death in Germany in 1839. Many illustrations of it are mentioned in the course of the itinerary. Two plates cannot be exactly dated or localized. Schinz (1824) published a plate of an Indian rhinoceros drawn from life in Europe, and is probably this specimen (illustrated in Rookmaaker and Reynolds 1985, fig. 1; see Fig. 34). Kourist (1974: 544, fig. 2) documented and illustrated an undated aquarel by Christian Leopold Müller (b. 1810).

1810

London

The exact date of arrival and the provenance are unknown. However, it was present in 1810 at the Exeter 'Change in London. It was shown in Portsmouth in July 1811 (M. Sorrell, in litt. October 1996). Three drawings were made while the animal was in London. It is visible among a group of animals on a poster of the 'Royal Menagerie, Exeter Change, Strand, London. Drawn & engraved by S. Howitt. Published by L. Polito, Propietor, 1813' (illustrat-

ed in Rookmaaker 1983a, fig. 12). A drawing made in 1814 by Thomas Landseer (1795-1880) was published by Griffith (1827, III, plate opposite p. 425). Another rhinoceros plate by Landseer (Kourist 1970: 145, fig. 5) was published by Barrow (1832), who added that "the individual we are describing was brought into England in 1815, and afterwards removed to Paris, where it attained upwards of ten feet in length, and five feet in height". Barrow published a second plate of a rhinoceros attacking a tiger. In 1814 the rhinoceros was sold to the Royal Menagerie in Stuttgart, but never arrived there due to the sudden death of the King (Schreber 1835: 292). King Friedrich-Wilhelm of Wurtemberg maintained two menageries in the vicinity of Stuttgart. The King died in 1816, but his son lacked his interest for the parks. The last animals were sold in 1819 (Loisel 1912, III: 43).

1814

Amsterdam

Exhibited in Amsterdam at the show of A. Alpy (Keyser 1976: 146).

1814-1816

Paris

Seen in Paris in 1814 (Chenu and Desmarest 1858: 3), but the locality is not defined. Geoffroy and Cuvier (1820) published two lithographs of this specimen. They said that it was a young male, first imported into England, and seen in Paris in 1815 (Rookmaaker 1973a: 58, fig. 13). The English artist James Forbes (1749-1819) included the rhinoceros in a sepia drawing dated 1816 (Kourist 1970: 145, fig. 4).

1816

Frankfurt a/d Oder

Seen during a fair in Frankfurt a/d Oder (Hufnagel 1873).

1816-1817

Nuremberg

A drawing, made in 1816 by A. Gabler, was published by Wolf (1818, pl. XIX).

1817

Munich

Vogel (1817) analyzed the urine of a male rhinoceros exhibited in Munich in February and March 1817. It was said to be seven years old.

1818

Vienna

Shown in this year (Fitzinger 1860: 51).



Fig. 34. Tourniaire's rhinoceros, travelling around Europe 1810-1839, on a plate published by Heinrich Schinz in 1824.

- 1819 Leipzig
Exhibited during 'Ostermesse' or 'Jubilatemesse' from 22nd to 30th April 1819 (Rookmaaker 1973a: 59).
- 1819 Paris
Exhibited in Paris in 1819 (Chenu and Desmarest 1858: 3).
- 1820 Hamburg
C. Suhr made a drawing 'Nach dem Leben auf Stein' of a rhinoceros in Hamburg in 1820. It was a male, nine years old (Heikamp 1980: 319, fig. 20). The age does not quite fit in with the Tourniaire rhinoceros, but as the menagerie owners did not always give the true figures, this could have been an error.
- 1824 Amsterdam
Exhibited by Madame Tourniaire (Keyser 1976: 146).
- 1833 Paris
Shown in this year (Schreber 1835: 299, Fitzinger 1860: 51).
- 1834 Berlin
Shown in this year (Fitzinger 1860: 51).
- 1834 Munich
Shown during the Summer Fair (Schreber 1835: 299, Fitzinger 1860: 51).
- 1835 Dresden
Shown in this year (Fitzinger 1860: 51).
- 1836 Vienna
Exhibited by Tourniaire for a few weeks (Giese 1962: 137).
- 1838 Moscow
Shown in this year (Fitzinger 1860: 51).
- 1838 St. Petersburg
Shown in this year (Fitzinger 1860: 51).
- 1839 Königsberg
Died in the cold winter of 1839 in Königsberg (=Kaliningrad, Russia). Its hide was stuffed and preserved at the Royal Museum of Königsberg (Fitzinger 1860: 52). There is no record what happened to the specimen afterwards.

F 1840 - 1843 †

Schreyer's Rhinoceros

Heinrich Schreyer from Vienna was the owner of a travelling menagerie. He bought the rhinoceros in London in 1840, travelled throughout the continent and was in Stettin [Szczecin, Poland] in April 1843, where the animal died (Fitzinger 1860: 52). It was a female Indian rhinoceros. The hide and skeleton were sold (for Ngl. 600) in 1845 to the Natural History Museum in Vienna, where the remains are still preserved today (No. NMW 8199/St.316; Rookmaaker and Reynolds 1985: 131; see Fig. 35).

M 1841 - 1848 †

Huguet's Rhinoceros

In January 1848, G. von Martens (1850: 99, 107-110) visited a travelling show owned by Huguet in Stuttgart, Germany. Von Martens talked to the keeper of the rhinoceros, a Frenchman called Carrière, who told him the alleged story of the animal (pp. 107-108). Carrière said that he had gone to Sumatra and entered the service of the Governor General. This man died 18 months later and his menagerie was sold. Carrière then bought a rhinoceros, which had been captured 31 years previously in a swamp. On the way to Europe, he removed the animal's horn. On arrival, the animal was bought by the Jardin des Plantes in Paris for 140,000 francs, but Carrière was allowed to continue showing it for one month. They went to Brussels and then presumably to Stuttgart. The animal was named 'Riese Jotete'. See Fig. 36.

Von Martens (1850: 107) called it a *Rhinoceros javanus* [= *sondaicus*]. This would be the obvious identification, considering the provenance and its single horn. However, the few available illustrations of the animal seem to contradict this.

Carrière's story about the auction in Sumatra and the sale to the Jardin des Plantes in Paris seems rather far-fetched. It may be that the rhinoceros was imported in a different way around 1840 or 1841, since in 1841 a 35-year-old rhinoceros called 'Joyeté' was exhibited in Amsterdam.

Rookmaaker and Reynolds (1985: 132) tentatively identified the rhinoceros received in the Jardin des Plantes in 1850 with the one owned by Huguet. In fact, there is no evidence that this was actually the case. Perhaps

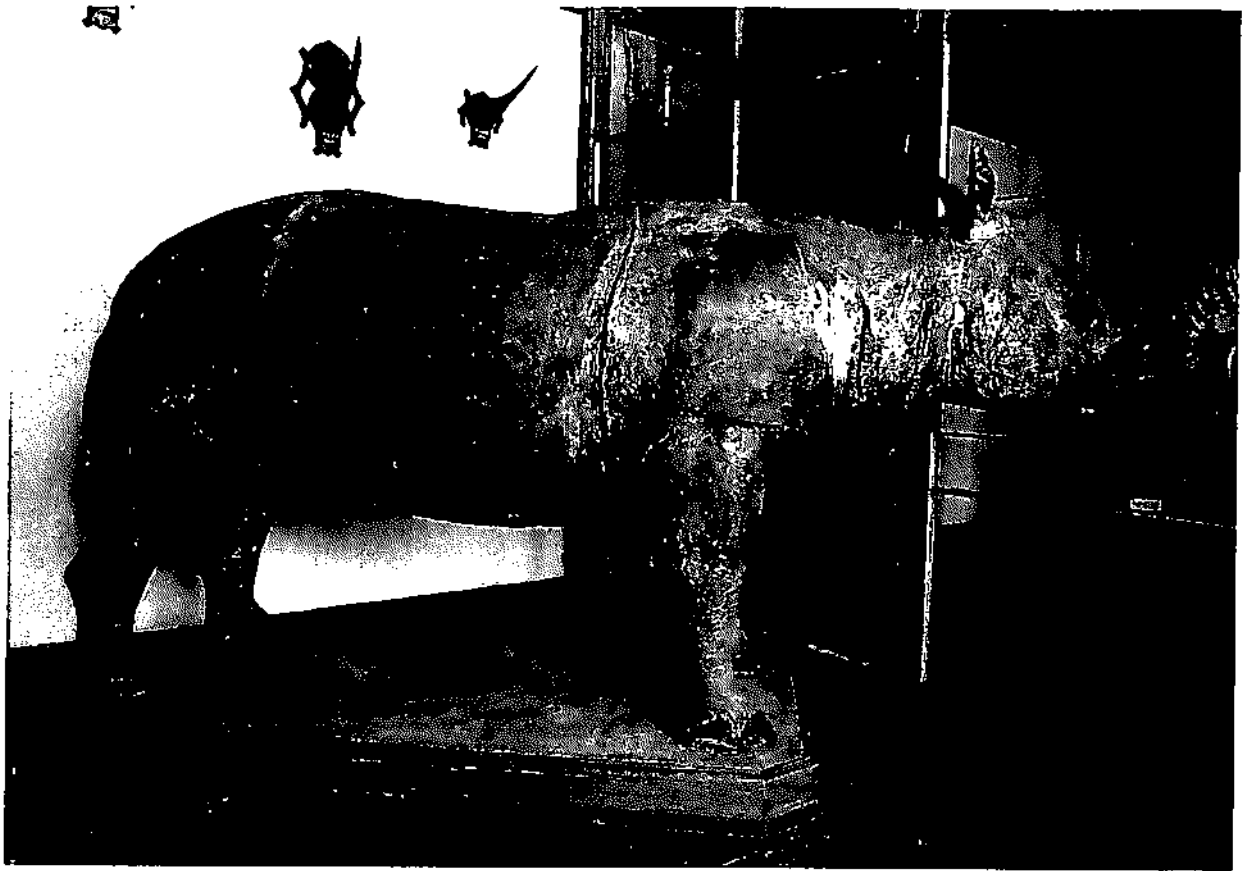


Fig. 35. Hide of Schreyer's rhinoceros, from 1845, at the Natural History Museum in Vienna. It was prepared to resemble an African species, but with one horn.

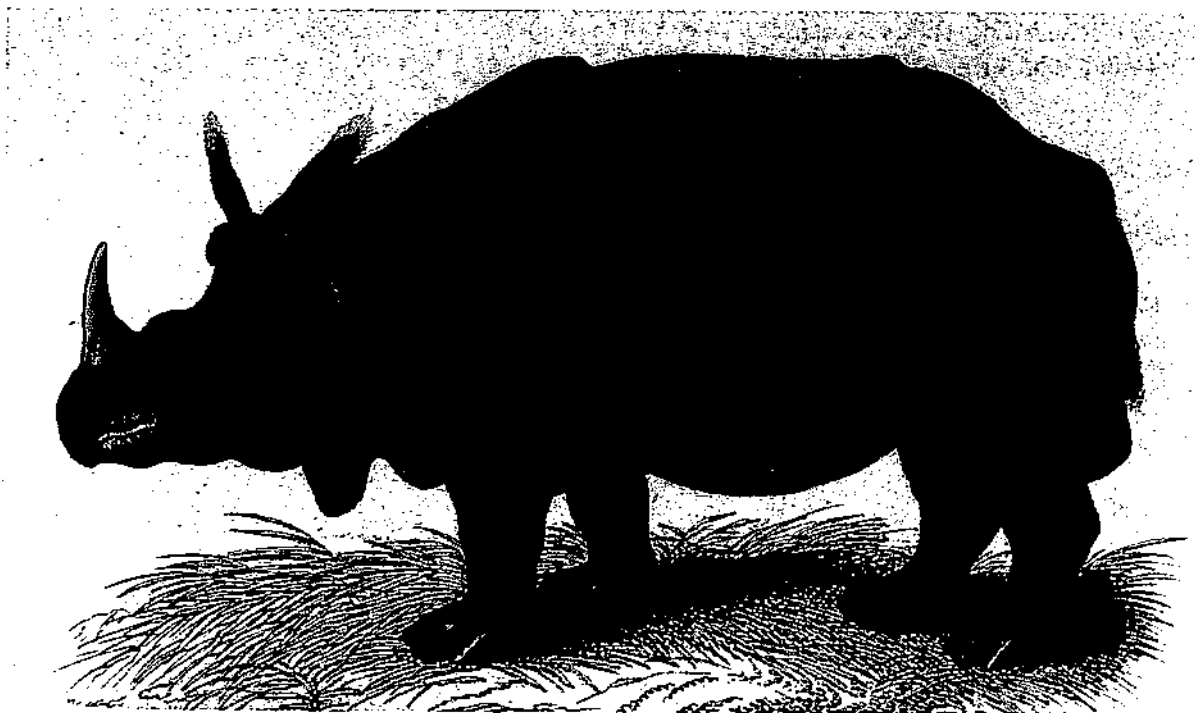


Fig. 36. Huguet's rhinoceros in Stuttgart, 1848, from a plate by Krauss (1851).

Huguet continued to show the animal, or it may have died around 1850.

1841 Amsterdam
Shown by Esperou and the Ouvrier Brothers. The animal was named 'Joyeté' and was said to be 35 years old (Keyser 1976: 146). This is thought to be the animal referred to as 'Huguet's Rhinoceros' here, due to resemblance in the age and name.

1846 Amsterdam
A rhinoceros was exhibited in Amsterdam in 1846 (Keyser 1976: 146).

1847 Paris
Exhibited in Paris and supposedly bought by the Jardin des Plantes (Von Martens 1850).

?1847 Brussels
Shown in Brussels after its visit to Paris and before arriving in Stuttgart. A grenadier went into the animal's cage, was mauled and died of his injuries (Von Martens 1850).

1847/1848 Stuttgart
Krauss (1851, pl. 26) illustrated the Indian rhinoceros which was seen alive in Stuttgart in 1847 (see Rookmaaker and Reynolds 1985, fig. 2). Von Martens (1850) saw the animal there in January 1848. There are no later records concerning this rhinoceros. It could have died soon after.

Fort Worth, TX, USA

Zoological Park

M 1990 May 10 –
'Arun' 190-INDIA L
A gift from the King of Nepal. About five months old on arrival. Picture published by McLaughlin (1990).

F 1990 May 10 –
'Arati' 191-INDIA M
Donated by the King of Nepal. About five months old on arrival.

Frankfurt am Main, Germany

Zoologischer Garten

F 1896 April 10 – 1909 August 24 †
From Berlin Zoo. It was transported by train; drawings of this journey and a photograph of the rhinoceros in its enclosure were published by Scherpner (1983: 79-80). Epstein (1897: 177) recorded that it was blind in one eye and had only a small horn. The animal collapsed in August 1909 and had to be euthanized using morphine by the veterinarian, Dr. E. Marx (see Scherpner 1983: 95 fig.). Its remains went to the Senckenberg Museum in Frankfurt am Main (Marx and Koch 1910, Schlawe 1969: 28).

Gauhati, Assam, India

Assam State Zoo

This zoo belonging to the Government of Assam frequently serves as a transit point for rhinoceroses caught in the Kaziranga National Park or other areas in Assam. The latest



Fig. 37. Entrance to Assam State Zoo, Gauhati.



Fig. 38. Indian rhinoceros mating at Gauhati.

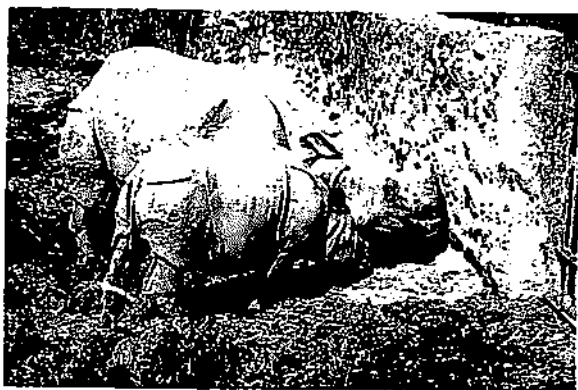


Fig. 39. Gauhati, female with young in February 1996.

records are taken from the studbook kept by Basel Zoo (1988), supplemented by an extract from the data available in Gauhati, listed by the Divisional Forest Officer on 22nd August, 1994. The records show different places of origin, most of which are not clearly identified, but all these localities are in the state of Assam, India. According to Martin and Martin (1982: 78), the zoo marketed rhinoceros urine for some time, until its two tame rhinos were sold in 1980. (See Figs. 37, 38, 39, 40, 41.)

M 1957 December 13 – 1959 December 6
'Mohan'

Caught in the Orang Forest Reserve, Darrang Division, when six years old. To Delhi.

F 1958 October 5 – 1964 October 28 †
'Padmini' 82-KAZ 18

Caught in Kaziranga, when about ten years old. It died of anthrax.



Fig. 40. Three Indian rhinoceroses at Gauhati, February 1996.



Fig. 41. Gauhati, Indian rhinoceros, February 1996.

M 1960 June 29 – 1965 November 24

'Mohan Jr.' 33-KAZ 9

Caught in Kaziranga, together with its mother 'Geeta' (following entry). It was born on 7th April, 1960. To Delhi.

F 1960 June 29 – 1963 May '25

'Geeta'

Caught in Kaziranga, when nine years old. To Paris Vincennes.

M 1960 September 24 – 1986 Sept. 23 †

'Shivaji' 24-INDIA F

Caught in Kaziranga, and was about five years old on arrival. Indian studbook (Kanpur Zoo, 1993) No. NR-01 (with date of death on 23rd September, 1984).

M 1962 August 28 – 1964 June 16

'Rajkumar' 76-KAZ 16

Caught in Dharamtul, Nagaon Division, at two months old. Indian studbook (Kanpur Zoo, 1993) No. NR-03. To Hyderabad.

- F* 1962 October 29 – 1963 November 15
'Deepali' 30-INDIA H
Caught in Kaziranga, when nine years old.
The animal was pregnant on arrival and delivered a baby in April 1963. To Washington.
- F* 1963 April 10 – 1963 November 15
'Deepali Jr.' 28-GAUH 1
Born to Deepali (30) who was wild bred. At birth, the baby was 22 inches high and weighed 73 lbs. It was sent with its mother to Washington (Chowdhury 1966).
- F* 1963 July 10 – 1965 February 11
'Japari' 29-GAUH 2
Born to Shivaji (24) and Padmini (82). Chowdhury (1966) wrongly stated that the animal was born on 10th October, 1963, and was sold on 2nd November, 1963. To San Diego.
- M* 1964 October 28 – 1964 November 13 †
'Kushal'
Caught in Kaziranga, when four months old. It died due to severe diarrhea.
- F* 1965 September 25 – 1982 October 19 †
'Padmini Jr.' 25-INDIA G
Caught in Kaziranga, when five years old. Indian studbook (Kanpur Zoo, 1993) No. NR-05. It died from acute tympanitis.
- F* 1967 December 23 – 1969 November 25
'Rukmini' 46-ASSAM 8
Caught in D.F.O. Nagaon, when eight months old. To Los Angeles.
- F* 1968 February 28 – 1970 March 23 †
'Larhimi'
Collected in D.F.O. Nagaon, when about 20 days old. It died of a reaction to an anthrax vaccination (Dutta 1991: 130, Rookmaaker and Reynolds 1985: 151).
- F* 1968 July 29 – 1970 January 23
'Goiangi' 48-ASSAM 9
Caught in Kaziranga, when two weeks old. It was sold to Omaha, but died in transit.
- F* 1968 August 1 – 1969 April 5
'Kalongmukhi'
Caught in Nagaon Division when five months old. To Vadodara.
- F* 1969 July 20 – 1970 July 24 †
'Kumari'
Caught in Nagaon Division, when ten days old. It died of hookworm infection.
- M* 1969 July 26 – 1969 November 27 †
'Bhisma'
Caught in D.F.O. Nagaon, when two months old.
- M* 1969 July 27 – 1970 March 23 †
'Kumar'
Caught in Nagaon Division, when one year old. It died of anthrax.
- M* 1970 July 30 – 1971 February 27
'Sasadev' 73-INDIA 1
Caught in Dharamtul, when 1.5 years old. To Antwerp.
- M* 1971 June 28 – 1973 August 29
'Santu' 81-ASSAM 13
Caught in Kaziranga, when 1.5 years old. To Brownsville.
- M* 1971 September 12 – 1974 September 25
'Krishna' 57-GAUH 3
Born to Shivaji (24) and Padmini (82). Gestation period 469 days. To Nagoya.
- F* 1973 June 21 – 1975 January 22
'Radha' 67-KAZ 15
Caught in Tezpur, when 15 days old. To New York Bronx.
- F* 1973 August 11 – 1977 March 1
'Usha' 128-ASSAM 17
Found in Ramdia Barsala, when about three months old. Indian studbook (Kanpur Zoo, 1993) No. NR-08. To Kanpur.
- F* 1973 August 14 – 1975 January 22
'Mayang Kumari' 66-KAZ 14
Caught in Mayang, when four months old. To New York Bronx.
- F* 1974 January 3 – 1974 September 25
'Jaya' 64-ASSAM 10
Found abandoned in Orang Reserved Forest, when it was about three months old. To Nagoya.
- F* 1974 January 22 – 1974 March 11
'Mayuri' or 'Kadambini' 95-KAZ 20

Caught in Kaziranga, when 2.5 months old. Indian studbook (Kanpur Zoo, 1993) No. NR-07. A letter from Gauhati Zoo dated 22.8.1994 noted the capture on 22nd October, 1974, and the transfer to Calcutta in 1979. These are probably typing errors, as no rhinoceros was received in Calcutta in 1979, while the transfer of the female Kadambini is not mentioned in Gauhati's letter. To Calcutta.

M 1974 February 12 – 1974 March 11
'Hihua' 94-KAZ 19
Caught in Kaziranga, when four years old. To Calcutta.

M 1974 May 23 – 1977 March 1
'Lachit' 70-GAUH 4
Born to Shivaji (24) and Padmini Jr. (25), gestation 477 days, weight 44 kg. Indian studbook (Kanpur Zoo, 1993) No. NR-10. To Kanpur.

F 1974 July 21 – 1979 May 25
'Caitralekha' 155-ASSAM 19
Caught in D.F.O. Tezpur, when six months old. Indian studbook (Kanpur Zoo, 1993) No. NR-11. To Patna.

F 1974 August 10 – 1977 August 20 †
'Ajali'
Caught in Kaziranga, when 1.5 months old.

F 1974 September 16 – 1976 April 4
'Numali' 153-KAZ 21
Caught in Kaziranga, when three months old. Indian studbook (Kanpur Zoo, 1993) No. NR-09. To Bhubaneswar.

M 1976 February 2 – 1976 August 7 †
'Ajit'
Caught in Kaziranga, when six months old.

M 1976 April 6 – 1976 April 22 †
'Nakul'
Caught in Kaziranga, when one month old.

M 1976 November 15 – 1979 October 19
'Sanjoy' 91-ASSAM 15
Caught in Lawkhowa Forest, when ten days old. To Lucknow.

M 1977 August 19 – 1979 May 25
'Vijay' 156-ASSAM 20
Caught in Singri Nagur, Mangaldoi, when six

months old. Indian studbook (Kanpur Zoo, 1993) No. NR-16. To Patna.

M 1977 August 22 – 1979 November 29
'Ganesh' 154-KAZ 22
Caught in Silghat, Nagaon Division, when seven months old. Indian studbook (Kanpur Zoo, 1993) No. NR-13. To Bhubaneswar.

M 1977 October 17 – 1977 December 14
'Balaram' 215-KAZ 30
Caught in Kaziranga, when one year and eight months old. Indian studbook (Kanpur Zoo, 1993) No. NR-14. To Chandigarh.

F 1978 January 9 –
'Padmini' 168-GAUH 5
Born to Shivaji (24) and Padmini Jr. (25), 461 gestation days. Indian studbook (Kanpur Zoo, 1993) No. NR-17.

M 1978 March 3 – 1987 January 18 †
'Rajesh'
Caught in Kaziranga, when said to be an unlikely 42 years old.

F 1978 April 24 – 1979 October 17
'Krishna Jr.' 92-ASSAM 16
Caught in Nagaon Division, when three days old. To Lucknow. The Lucknow zoo received a pair of Indian rhinos from Gauhati (Nos. 91 and 92). Although this animal was recorded to be a male in Gauhati, and even has a masculine name, there could possibly have been an error in the transmission of data.

F 1978 June 15 – 1978 July 29
'Shakuntala' 216-KAZ 31
Caught in Kaziranga, when seven years old. Indian studbook (Kanpur Zoo, 1993) No. NR-15. To Chandigarh.

M 1978 November 9 – 1978 November 24 †
'Prabhat'
Caught in D.F.O. Nagaon, when four months old.

M 1979 April 24 – 1985 February 25
'Shiva' 217-ASSAM 28
Caught in D.F.O. Nagaon, when one month old. Indian studbook (Kanpur Zoo, 1993) No. NR-18. To Bombay.

- F* 1980 January 20 – 1983 June 18 †
'Parbati'
Caught in Orang Forest Reserve, when six months old.
- M* 1980 January 24 – 1985 January 23
'Ram' 61-KAZ 13
Caught in Kuruwa, when five years old. Indian studbook (Kanpur Zoo, 1993) No. NR-26. To Mysore.
- M* 1980 January 27 –
'Lakshman' 169-ASSAM 21
Caught in Kuruwa, Assam, when four years old. Indian studbook (Kanpur Zoo, 1993) No. NR-12.
- M* 1980 February 27 – 1986 February 23 †
'Suchila'
Caught in Kaziranga, when two months old.
- M* 1980 August 23 –
'Jhon' 170-ASSAM 22
Collected from Dharamtul, Nagaon Division, when six months old. Indian studbook (Kanpur Zoo, 1993) No. NR-19.
- F* 1980 August 23 –
'Gini' 171-ASSAM 23
Collected from Dharamtul, when two months old. Indian studbook (Kanpur Zoo, 1993) No. NR-20.
- M* 1980 September 3 – 1985 April 17
'Ramu' 218-KAZ 32
Caught in Kaziranga, when four months old. To Madras.
- F* 1981 July 3 – 1981 October 11 †
'Rupa'
Caught in Kaziranga, when one month old.
- M* 1982 February 6 – 1982 February 7 †
'Kamal'
Caught in Kaklabari, when five years old.
- F* 1982 May 2 – 1982 October 27 †
'Dalimi'
Caught in Dharamtul, Mayang, when 20 days old.
- M* 1982 May 5 – 1983 January 27
'Agni' 151-ASSAM 18
Caught in Kaziranga, when 12 years old. Indian studbook (Kanpur Zoo, 1993) No. NR-23. To Delhi.
- F* 1982 June 4 – 1990 December 12
'Mohini' 194-INDIA N
Caught in Kaziranga, when 1.5 months old. Indian studbook (Kanpur Zoo, 1993) No. NR-37. To Delhi.
- M* 1982 June 9 – 1990 September 23 †
'Shyam Jr.'
Born to Shivaji (24) and Padmini Jr. (25).
- M* 1982 July 15 –
'Ganesh' 172-KAZ 23
Caught in Kaziranga, when ten years old. Indian studbook (Kanpur Zoo, 1993) No. NR-06. The animal has such an aggressive nature that it cannot be kept together with others (Singh *et al.* 1992).
- F* 1983 April 9 – 1983 April 30 †
'Sabitri'
Caught in Mayong, Nagaon Division, when one month old.
- M* 1987 May 11 –
'Bishnu' 173-GAUH 6
Born to Shivaji (24) and Padmini (168), 461 gestation days (Bhattacharyya and Goswami 1987). Indian studbook (Kanpur Zoo, 1993) No. NR-30.
- M* 1987 August 25 – 1995 October 17
'Ratul' 174-ASSAM 24
Collected from Jokhalabandha, Nagaon Division, Assam, when about eight months old. Indian studbook (Kanpur Zoo, 1993) No. NR-33. It was released into Jaldapara/Gorumara National Park in West Bengal (Vigne and Martin 1996).
- M* 1988 September 16 – 1988 Sept. 24 †
'Babul'
Caught in Dharamtul, Nagaon Division.
- M* 1988 September 24 – 1993 May 19
'Ramu' 175-ASSAM 25
Rescued from floods by Forestry Department at Dhakiajuli, when it was six months old. Indian studbook (Kanpur Zoo, 1993) No. NR-28. To Trivandrum.

M 1989 March 3 –
'Mohesh' 176-GAUH 7
Born to Lakhshaman (169) and Padmini (168).
Indian studbook (Kanpur Zoo, 1993) No. NR-24.

M 1989 June 25 – 1989 June 26 †
'Kanak'
Caught in Orang Forest Reserve, when one day old.

M 1989 July 26 – 1993 May 19
'Jadu' 177-KAZ 24
Rescued from floods by Forestry Department at Darrang in Kaziranga, when one year old. Indian studbook (Kanpur Zoo, 1993) No. NR-31. To Trivandrum.

M 1989 July 26 – 1989 September 4 †
'Dhan'
Rescued from floods by Forestry Department in Kaziranga, when one month old.

M 1989 July 26 – 1995 October 17
'Madhu' 178-KAZ 25
Rescued from floods by Forestry Department in Kaziranga, when one month old. Indian studbook (Kanpur Zoo, 1993) No. NR-35. It was released into Jaldapara/Gorumara National Park in West Bengal (Vigne and Martin 1996).

M 1990 April 7 – 1990 April 22 †
'Prakash'
Caught in Nagaon Division, when one month old.

M 1990 August 20 –
'Pradip' 179-KAZ 26
Collected from Baguri Range in Kaziranga, when three months old. Indian studbook (Kanpur Zoo, 1993) No. NR-38.

F 1991 August 6 – 1991 August 17 †
'Monomoti'
Caught in Kaziranga, when four months old. It died of gastroenteritis.

F 1991 August 10 – 1991 September 19 †
'Joymothi'
Caught in Kaziranga, when four months old.

F 1991 August 10 –
'Baghekhaiti' 192-KAZ 27
Caught in Kaziranga, when one year old. In-

dian studbook (Kanpur Zoo, 1993) No. NR-39. The animal had been attacked by a tiger who had mauled her right foreleg, which healed well (Singh *et al.* 1992).

Gelsenkirchen, Germany

Ruhr Zoo

This zoo is owned by Firma Ruhe (animal dealers).

M 1975 August 28 – 1976 June 12
'Vinu' 53-MYSO 2
From Mysore. To Toronto.

M 1976 November 23 – 1977 October 31
'Nabob' 71-STUTT 2
From Stuttgart. To Sao Paulo.

M 1977 November 2 – 1978 November 2
'Yamatari' 84-BASEL 15
From Basel. To Cologne.

Germany

Menagerie of J. Planet's widow

ca. 1880

There is a small guidebook (in the collection of Herman Reichenbach, Hamburg) entitled: "Grosse indische Menagerie von Wittwe J. Planet: Verzeichniss sämmtlicher in dieser Menagerie befindlichen Thiere nebst einer kurzen beschreibung der merkwürdigeren Exemplare und ihrer Lebensweise" (Large Indian menagerie of J. Planet's Widow: guide to all animals kept in this menagerie including a short description of the more noteworthy examples and their way of life). The guide is not dated. On pages 10-11, there is an abstract from Brehm's Thierleben (1877) on the rhinoceros with an illustration of a single-horned specimen. Neither the text nor, presumably, the figure refer to the animal actually seen in the menagerie. No further information could be found about either the owner of the show or this rhinoceros.



Fig. 42. Hamburg Zoo, drawn by H. Leutemann.

Gwalior, Madhya Pradesh, India

Collection of the Maharajah of Gwalior

1896

Count Josef Potocki visited the Maharajah in the 1890s and saw a young rhinoceros which was colored red (ready for battle?) at his court (cf. Loisel 1912, III: 18, referring to a Polish book by Potocki, 'Notes de chasses, I. Aux Indes', 1896, p. 18; not seen).

Hamburg, Germany

1. Zoologischer Garten

This zoo existed from 1860 to 1930 (Schlawe 1972).

M 1870 March 14 – 1900 June 12 †
'Begum'

Caught at the 'Bramaputra' [Assam], transported through the Suez Canal in 35 days to Marseilles, then by train to Hamburg (Noll 1873: 51). It was depicted by H. Leutemann in a drawing published by the *Gartenlaube* (see Fig. 42). Mohr (1957, fig. 8) showed a drawing of this animal by Emil Holst from the *Leipziger Illustrierte Zeitung* of 16th August 1900. It was killed in 1900 due to a wound on its head (Flower 1931: 202) and kidney disease (Bolau 1900). The remains were donated to the Natural History Museum in Hamburg (Bolau 1900). Reynolds (1961a: 24) recorded the date of death as July 1900, probably in error.

2. Zoo in Stellingen (from 1908)
Carl Hagenbeck (dealer)

F 1929 – 1955 June 15 †
'Nepali I'

Probably arrived in 1929, as recorded by Lang (1961: 371), Guggisberg (1966) and Blaszkiewicz (1980: 88). However, Rohr (1959) said that Carlo Hagenbeck bought it in Nepal in 1930 for £2000. Iles (1960: 19) saw it at the zoo in 1930, when Carl Hagenbeck (nephew of Heinrich Hagenbeck) rode it around the paddock.

F 1957 June 11 – 1968 April 16
'Nepali II' 16-KAZ 7

Caught in Kaziranga, about one year old on arrival. It went on breeding loan to Basel from 21st September 1962, to 28th May 1963, and from 3rd November 1965, to 13th April 1966. To Los Angeles.

M 1960 July 12 – 1961 June 20 †
'Arun'

Imported when about five years old (Rookmaaker and Reynolds 1985: 151 after C.H. Hagenbeck).

M 1964 August 11 – 1965 August 6
'Gauhati' 32-HAMB 1
Born to Basel's male Gadadhar (05) and Nepali II (16), gestation 462 days (Hagenbeck 1966). To Berlin Zoo.

F 1967 April 9 – 1994 January 8
'Shita' 38-HAMB 2
Born to Basel's male Arjun (18) and Nepali II (16), gestation 464 days. Sent on breeding loan to Berlin Zoo from 12th April, 1983, to 13th June, 1985. To Singapore.

M 1968 September 5 – 1994 January 8
'Pandur' 39-BASEL 7
From Basel. In December 1985, Pandur managed to break a bar of the fence around his enclosure and entered Shita's cage, which resulted in a fight (*Bild*, 30.12.1985). To Singapore.

Houston, TX, USA

Bush Gardens

M 1970 October 6 – 1971 February 9 †
'Ruedi' 44-BASEL 9
From Basel. Died of nephritis.

F 1970 October 6 – 1972 April 6
 'Randa' 45-BASEL 10
 From Basel. To Brownsville.

Hyderabad, Andhra Pradesh, India

Nehru Zoological Park

Khan and Choudhury (1987) presented some details about births occurring between 1971 and 1981.

M 1964 June 24 – 1983 August 19 †
 'Rajkumar' 76-KAZ 16
 From Gauhati. Indian studbook (Kanpur Zoo, 1993) No. NR-03. It died of viral infection.

F 1968 June 26 – 1983 August 19 †
 'Padma' 77-KAZ 17
 Caught in Kaziranga. Indian studbook (Kanpur Zoo, 1993) No. NR-04. It died of viral infection.

M 1971 November 25 – 1983 August 11 †
 'Rajesh' 58-HYDE 1
 Born to Rajkumar (76) and Padma (77), gestation 459 days.

1975 May 12 – 1975 May 12 †
 A six-month-old fetus was aborted by Padma (77), according to Khan and Choudhury (1987: 14).

M 1978 November 12 – 1983 June 17
 'Laddu' 96-HYDE 2
 Born to Rajkumar (76) and Padma (77), gestation 478 days. To San Diego Wild Animal Park (through H. Demmer). According to the studbook (Basel Zoo 1988) and the records kept in San Diego, the transferred animal transferred would have been studbook No. 106. However, the letters from Mr. K.N. Benarji, curator of the zoo in Hyderabad, confirm that this was a mistake.

M 1981 May 15 –
 'Srinivas' 106-HYDE 3
 Born to Rajkumar (76) and Padma (77), gestation 484 days. Indian studbook (Kanpur Zoo, 1993) No. NR-21.



Fig. 43. A chained rhinoceros drawn by unknown Indian artist in the 18th century.

India

There are several depictions of rhinoceros in miniatures and other art works produced in India between roughly 1500 and 1650. A few have been illustrated in recent works (see Ettinghausen 1950, pls. 30,32,33,36,37; Rookmaaker 1984b: 560). This may only show that the people from different parts of the Indian subcontinent knew about the rhinoceros, but they could have seen the animal in the wild. In addition to those listed earlier, I would like to draw attention to a depiction in the British Museum, London (Rawson 1977: 85). An 18th century drawing in Marquess Wellesley's Collection of Natural History Drawings (India Office Library and Records NHD 32, f.47) shows an Indian rhinoceros with a rope and a chain around its neck (see Fig. 43). This clearly indicates captive life, but it is not known where the animal was.

Another story may be quoted here for the sake of interest. Where it happened is not known, but it refers to the year 1857: "I recollect an amusing story of a soldier during the Indian Mutiny who was placed in the guardroom for shooting a tame rhinoceros which had been captured by his regiment. His defence was that he had read in a book that the hide of the animal was bullet-proof; and being of an inquiring mind, had determined to put the theory to the test! As the shot was well-directed, the unfortunate subject of the experiment fell dead" (Kinloch 1892: 84).

Various early reports

1409 January 4 in Delhi
 Timur (Timurlane) said that on this date the king had a parade with his elephants and 'les

Rhinocéros' (Petis de la Croix 1723: 106). No further particulars. I presume that Guggisberg (1966: 130) referred to this same occasion when he said that Timur was "greeted by King Mohamed Nassir ed Din's twelve tame rhino, all respectfully lowering their head", although I cannot find the 12 in my text.

1513, India

Gaspar Correa, in his *Lendas da India*, described a battle between Sultan Baber and King Cacander or Sikander, at an unknown time and place (Yule and Burnell 1886: 363). The King's army had many elephants, and there were "80 rhinoceroses (Gandas) like that which went to Portugal ... these on the horn which they have over the snout carried three-pronged iron weapons with which they fought very stoutly." This is the only reference to rhinos used for fighting, and if true, it must have been a terrifying sight.

1615 in Ajmer, Rajasthan

From July 1615 to September 1616, Thomas Coryat, the English traveller was at the court of the Mughal Emperor Jehangir (1605-1627), at that time in Ajmer. In his letters (Coryat 1616) he said that he saw two rhinoceroses from Bengal, besides many other animals at the court: Jehangir "keepeth abundance of wilde beasts, and that of divers sorts, as lions, elephants, leopards, beares, antlops, unicornes; whereof two I have seene at his court, the strangest beasts of the world. They were brought hither out of the cuntry of Bengala."

ca. 1660 in Delhi

François Bernier (1699: 42) visited the Mughal Empire in the years following 1657, during the reign of the Emperor Aurangzeb (1658-1707). In his book he mentioned that there were many 'rhinoceroses' in Dehli [sic] kept at the court.

In the collection of Christian V, King of Denmark, a double horn was recorded at the end of the 17th century (Jacobaeus 1696: 4). He stated that the animal had been killed at the court of the Indian Mogol. The horn is illustrated, certainly double, but no further details are available.

1665 December 2 in Gianabad

In 1665, Jean-Baptiste Tavernier (1676: 71, 1924, I: 93) travelled from Agra to Patna. At

a place called Gianabad (Kora, 50 km south of Kanpur, Uttar Pradesh) he saw "a rhinoceros eating stalks of this millet, which a small boy nine or ten years old presented to him. On my approaching he gave me some stalks of millet, and immediately the rhinoceros came to me, opening his mouth four or five times." The animal was seen in a field somewhere, not in any kind of enclosure, but its tameness would suggest some kind of captive life.

1671 in Kasimbazar

Jacobus Verburg was an officer of the Dutch East India Company in Bengal. One day in 1671, he returned to one of the permanent trading stations on the River Ganges, at Kasimbazar, near Mushidabad, Bihar. Hunters presented him with a young rhinoceros, the mother of which had been killed in the forest. The young one was said to be five feet high and showing the start of a horn. The fate is not known (de Graaff 1701: 131).

ca. 1800 in Bhagalpur

Williamson (1807: 45) told that a Mr. Cleaveland, a collector from Bhagulpore, was said to possess a rhinoceros. This was Augustus Cleveland, the District Officer at Bhagalpur, Bihar, India, at the end of the 18th century.

ca. 1807 in Patna

Mr. Young of Patna, Bihar had a rhinoceros which "used occasionally to walk the streets" (Williamson 1807: 45).

1852 near Allahabad

On 12 February 1852, Mr. R.H. Dunlop, Joint Magistrate, captured the dangerous outlaw Rundheer Singh, of Syfabad. This man had fled from his usual place in Oudh (Lucknow)



Fig. 44. Rundheer Singh's rhinoceros in 1852.

and was captured just south of the Yamuna River. In his camp, his captors found seven elephants and "an unusually large and intrac-table rhinoceros", which were "made over to the Lucknow authorities". The report on this event in the *Illustrated London News* of 15th May 1852 (pp. 387-388) was illustrated with a sketch of the rhinoceros made by F. Slinger, deputy collector from Allahabad (see Fig. 44).

Jaipur, Rajasthan, India

Zoological Gardens

This zoo was founded in 1875 by Raja Ram-singh of Jaipur.

F 1946 - ?

From Udaipur. It was alive in 1964 (Rook-maaker and Reynolds 1985: 153, according to the annual census in *International Zoo Year-book*, vol. 5).

Kanpur, Uttar Pradesh, India

Allen Forest Zoological Park

This is a new zoo on a 184-acre property, opened to the public in February 1974. Sab-harwal (1989) gives details of the births up to 1989.

M 1977 March 4 - 1992 August 8 †
'Lachit' 70-GAUH 4
From Gauhati. Indian studbook (Kanpur Zoo, 1993) No. NR-10.

F 1977 March 4 -
'Mayung Kumari' 128-ASSAM 17
From Gauhati. Indian studbook (Kanpur Zoo, 1993) No. NR-08.

F 1982 October 1 - 1985 December 4
'Rashmi' 122-KAN 1
Born to Lachit (70) and Mayung (128), gesta-tion 487 days. To Yokohama.

M 1984 December 6 -
'Lohit' 129-KAN 2
Born to Lachit (70) and Mayung (128), gesta-tion 486 days. Indian studbook (Kanpur Zoo, 1993) No. NR-25.

M 1987 June 17 -
'Mohit' 140-KAN 3
Born to Lachit (70) and Mayung (128), gesta-tion 471 days. Indian studbook (Kanpur Zoo, 1993) No. NR-29.

M 1989 June 23 -
'Rohit' 160-KAN 4
Born to Lachit (70) and Mayung (128), gesta-tion 474 days. Indian studbook (Kanpur Zoo, 1993) No. NR-36.

M 1991 July 5 -
'Mudit' 186-KAN 5
Born to Lachit (70) and Mayung (128). Indian studbook (Kanpur Zoo, 1993) No. NR-40.

Kathmandu, Nepal

1. Collection of King of Nepal

M+F 1823/1824
Parents of a calf born in May 1824. No further particulars. Hodgson (1834), referring to one of this pair or to another specimen, stated that a rhinoceros "taken mature, was kept at Kathmandu for 35 years without exhibiting any symptoms of approaching decline".

M 1824 May - 1834
Born. This was the first birth of an Indian rhinoceros in captivity. It was captive-bred, but no details are known about the parents. Its gestation period was estimated at 17-18 months. A drawing was made on 1 March, 1833, in Kathmandu, now in the Hodgson MSS. in the library of the Zoological Society of Lon-don (Rookmaaker 1979, fig. 1; Hodgson 1825, 1826). The animal was sold to Calcutta in 1834, but its final destiny is not recorded (see Fig. 16).

ca. 1905

Lydekker (1909) told about a hunt in the Ne-pal terai. On that occasion, 21 females were shot, while six males were captured alive. Three of these were sold to Hagenbeck, "while three were kept by the Nepal Government, having been now tamed and trained for rac-ing".

In 1907, Hagenbeck imported three Indian rhinoceroses destined for the zoos in Antwerp,

Manchester and New York. A fourth one lived from 1907 to 1926 with the Barnum and Bailey circus in the USA.

2. Zoological Gardens

M 1939 - ?

A male arrived in 1939, but its death is not recorded (Rookmaaker and Reynolds 1985: 152 after information received from K. Tobler in Basel).

1964/1965

Ullrich (1967: 61, fig. 8) published a photograph exhibiting two Indian rhinos in an enclosure in Kathmandu Zoo. No further details were given. Probably the same pair was seen by C. Jarvis in May 1964 (Rookmaaker and Reynolds 1985: 152).

F 1980 May 17 - 1990 January 27 †

114-NEPAL 12

Caught wild. The animal died from the effects of poison-containing zinc phosphide administered by gangsters who entered the enclosure to take the horns (Bhandary *et al.* 1990, Martin 1993: 5).

M 1984/85 (?) - 1990 January 27 †

When the previous female was poisoned, a six-year-old male rhinoceros underwent the same fate, and his horn was cut off (Martin 1993: 5). There is no other information about this specimen.

Liberec, Czech Republic

Severoceska Zoologicka Zahrada

M 1989 November 9 -

141-DVKR 2

From Dvur Kralove.

Lisbon, Portugal

1. Collection of King Manuel I

1515 May 20 - 1516 January †

First Lisbon or Dürer Rhinoceros

The first rhinoceros in post-medieval Europe. It was a present from the Indian Sultan Muzafer II of Cambaia (= Gujarat, Western India)

to Albuquerque, the Portuguese Governor in India. It was transported to Portugal on the ship *Nostra Senora da Ajuda*. In Lisbon, it was kept in the stables of King Dom Manuel I 'The Fortunate' (1495-1521). To test Pliny's assertion that rhinos and elephants are eternal enemies, a fight between the two species was arranged on Sunday, 3rd June, 1515: the elephant fled.

In December 1515, Manuel I decided to present the animal to Pope Leo X in Rome. On the way, the ship called at the port of Marseilles, France, where King Francis I went to visit it. Soon after, off the coast of Porto Venere in Italy, the ship was caught in a bad storm and the rhinoceros drowned. It could be that the body of the animal was later recovered and mounted, but these remains are not known to exist (Rookmaaker 1973b, Clarke 1986).

Hans Burgkmair made a woodcut of this first Lisbon rhinoceros in 1515 (Rookmaaker 1973a, fig. 3). Much more famous were the drawing and woodcuts by Albrecht Dürer dated 1515. Apparently, Dürer never saw the rhinoceros, but he relied on a report with a simple sketch of the animal by the German businessman, Valentim Fernandez. Dürer's unequalled rendering can easily be recognized by the small horn on the shoulders of the animal. It became the established portrait of the rhinoceros until at least the middle of the 18th century by means of countless copies in all sorts of art forms (Clarke 1986) (see Fig. 45).

2. Collection of King Philip II

1579 - 1583

The Madrid Rhinoceros

This animal arrived in Lisbon in the weeks before 15th February, 1579, when it was first mentioned. The Spanish King, Philip II, had temporarily moved the capital from Madrid to Lisbon for political reasons. However, in 1583, the court returned to Madrid, and the rhinoceros was moved at the same time (see Madrid).

The Madrid rhinoceros was immortalized in an engraving by Philippe Galle, printed in Antwerp in 1586. Although this depiction sometimes appears in later works of art, it was no rival to Dürer's supremacy. Recently, an un-

RHINOCERON 1515

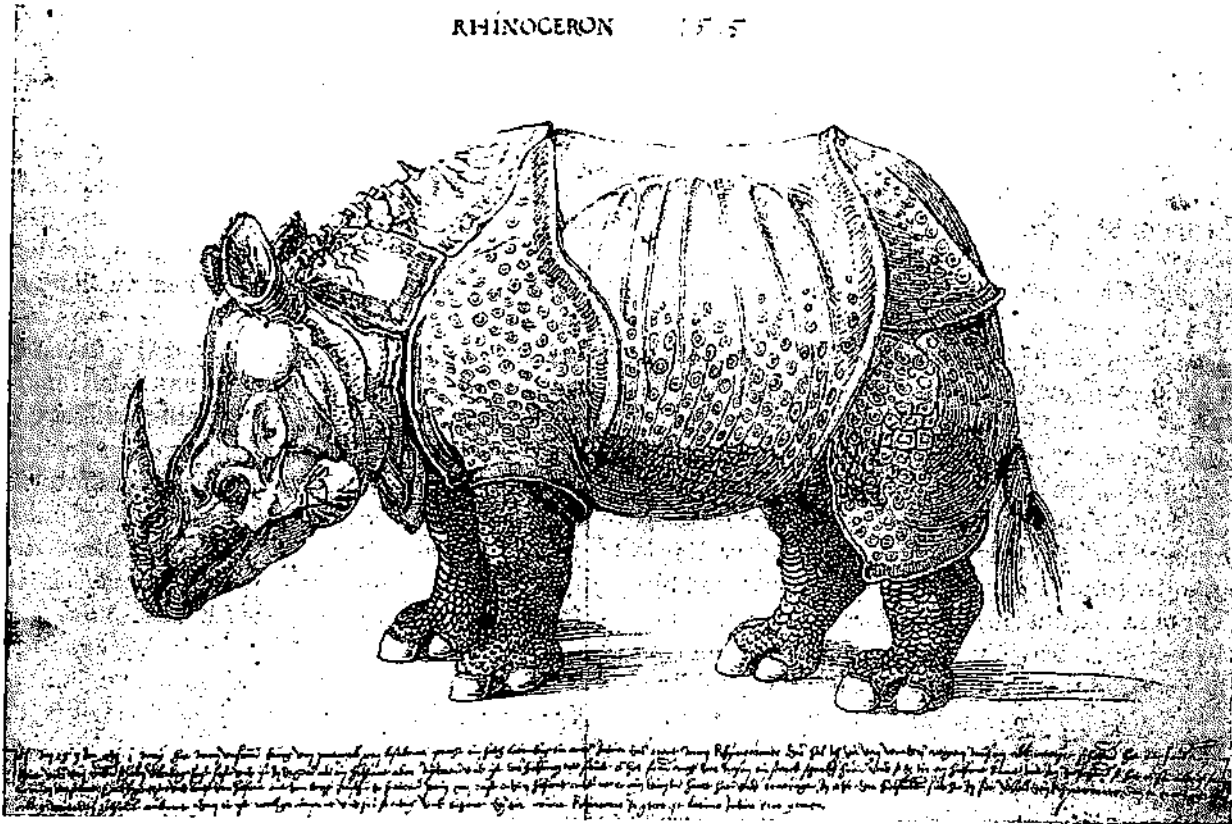
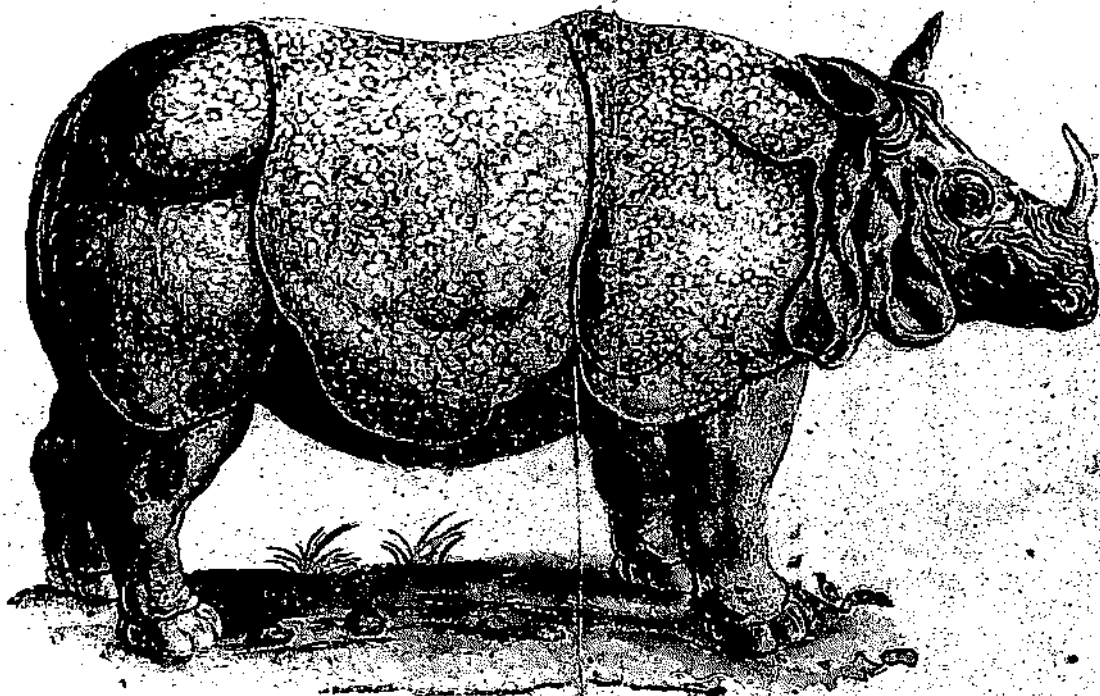


Fig. 45. First 'Lisbon rhinoceros' drawn by Albrecht Dürer in 1515.



RHINOCEROS ex India Vysiponam alled, inde Madritum in aulam addit, statim
animu agitur decemvnterum, Corp' totu' autu' a vultu ad clunium extenfu longitudinem duodecim
pedum continet. Higani tunc affada appellant. Cuiu' imagina ad vultum depingenda. Cravet leuue
Noftriuu' Philipp' II. Higaniu' regis Sacelloru'.

Fig. 46. The 'Madrid rhinoceros' drawn by Philippe Galle in 1586.

related watercolor of the rhinoceros was discovered, prepared for the Emperor Rudolf II of Prague between 1585 and 1590 (Clarke 1986: 28-34) (see Fig. 46).

Liverpool, UK

Zoological Gardens

This zoo existed from 1832 to 1863, and was owned by Thomas Atkins.

M 1834 June – 1841/1843 †

Shipped from Calcutta at the beginning of 1834, "by Captain Pope, ship *Duke of Northumberland*" (Atkins 1838). It arrived in England in June 1834, where it was purchased by Thomas Atkins for £1000. Atkins was the owner of a travelling menagerie and had a more permanent address at the Liverpool Zoological Gardens. The rhinoceros was kept in Liverpool when not on tour. It is recorded that it went to Dublin Zoo in July to August 1835, and to Edinburgh (and perhaps Glasgow) in 1835/1836 (Jardine 1843).

The date of death is not recorded. In 1841 it was still alive, while in 1843 its remains

were catalogued in the British Museum, London. It was later found (G. Griffiths, in litt. September 1996) that the zoo had advertized the presence of a rhinoceros in *Gore's Directory* published in Liverpool, not only in 1841, but also in the editions of 1843, 1845 and 1847, but not in 1849. The implications of this find are hard to assess at present as they conflict with the mounting of the specimen in London in 1843.

Rookmaaker (1993) discussed the full history of this specimen. There has been some debate about its identity. Reynolds (1961a: 31) listed it under *Rhinoceros sondaicus*, while Kourist (1970: 142-144) noted some differences from *Rhinoceros unicornis*. From an analysis of its history and information about its remains, Rookmaaker (1993) referred it to *Rhinoceros unicornis* (see Fig. 47).

London, UK

1. Early specimens

F 1684 August 23 – 1686 September 21 †

This Indian rhinoceros was brought on the East India Company's ship *Herbert*, command-

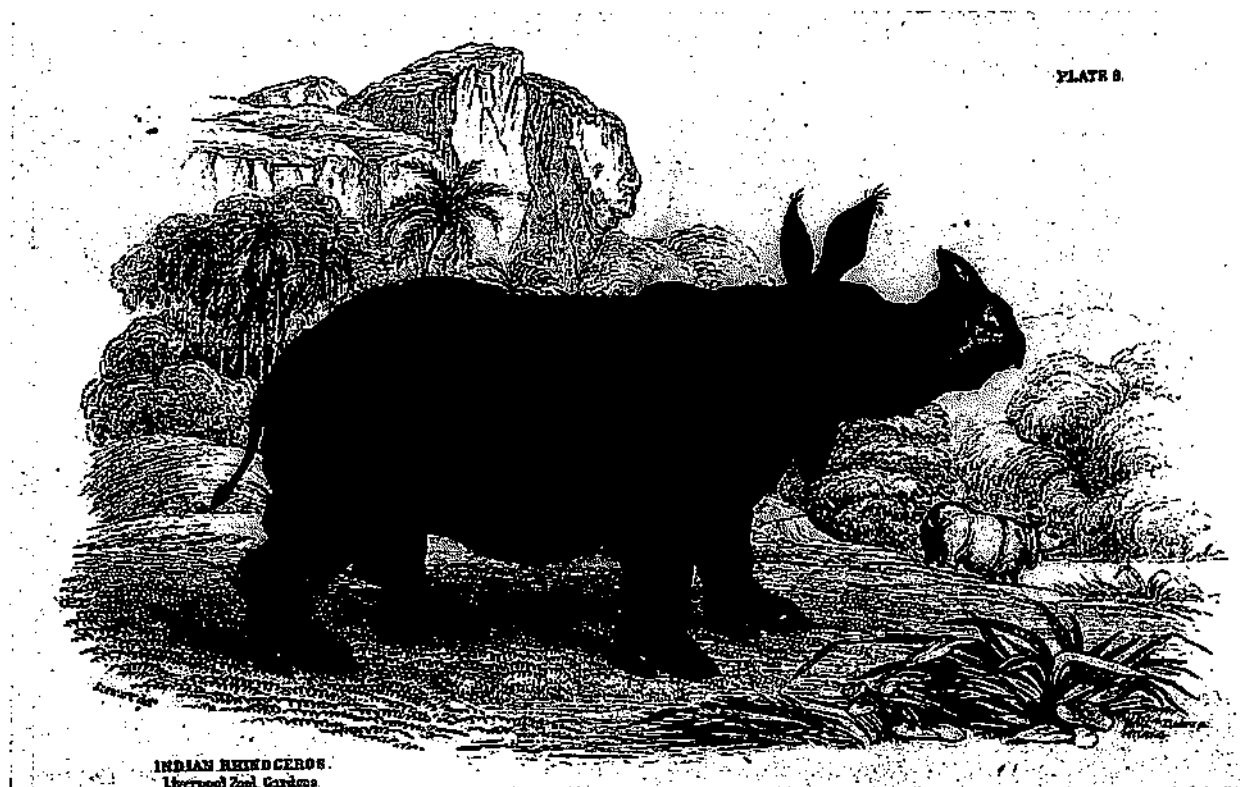


Fig. 47. The mysterious 'Liverpool rhinoceros' of 1834-1841, from Jardine's *Naturalist's Library*, 1843.

ed by Captain Udall, from the Court of Gulkindall (Rookmaaker 1978b: 23 after a contemporary engraving). Gulkindall was perhaps Golconda, the present Hyderabad. Its arrival was noted on 23rd August, 1684 (Clarke 1986: 38). The animal was auctioned on 25th August and bought by a certain Mr. Langley. However, Langley could not raise the price of £2320 and the animal was put up for sale again on 30th August, without a buyer coming forward (Clarke 1986: 38). It is not clear who later exhibited it, but it was first seen at the Bell Savage Inn on Ludgate Hill, London. It was visited by important people such as Guilford North, the Lord Keeper, and by the diarist John Evelyn (22nd October, 1684). The whereabouts of the animal after 1684 are not well documented. A newsletter dated 28 September, 1686, stated that it had died during the previous week. Only one engraving of this animal has been found (Rookmaaker 1978b: 23, Clarke 1986: 39).

M 1737

Captain Matthew Booke, commander of the East Indiaman *Shaftesbury*, transported a rhinoceros from India to London in 1737. It died on the way. Someone on the ship made a drawing after it had died, which was later copied by George Edwards (British Museum, London, Sloane Collection; see Clarke 1986: 42, fig. 21).

F 1737

In an undated newspaper advertisement, it is claimed that a female rhinoceros was to be seen at the George Inn on the Haymarket. It had arrived one month earlier on board the *Shaftesbury* (Rookmaaker 1997). It may have been a mate of the previous male, but no further evidence has yet come to light.

M 1739 June 1 – ca. 1744 †

James Parsons (1705–1770) saw this two-year-old male rhinoceros on 15th June, 1739, in Eagle Street, Red Lyon Square, London. He made at least 13 sketches and drawings in red chalk (preserved in the Hunterian Library, University of Glasgow). From these, he later made an oil painting, which hangs in the Natural History Museum, London (Mammal Section). An engraving 'published 10th October 1739' after one of Parsons' drawings stated that the animal was sent to England by Humffreyes Cole, Chief of the East India Com-

pany's station in Patna, Bihar, India. It arrived in London on 1st June, 1739. Parsons read a long letter about the rhinoceros at a meeting of the Royal Society on 9th June, 1743, and he illustrated his talk with his own drawings. He never mentioned anything about the death of the animal, which could mean that it lived beyond 1743, and a drawing of a rhinoceros made in June 1744 by William Twiddy in Norwich seems to support this. However, the lack of information about the life of the animal may indicate that it died soon after arrival. The various illustrations of this rhinoceros, by Parsons and others, were discussed and figured by Clarke (1986: 42–46) and Rookmaaker (1973b: 46, 1978b: 23–30) (see Figs. 2, 48).

2. Exeter 'Change on The Strand

In 1770, Thomas Clark took a long lease on the Exeter 'Change and the adjoining Lyceum in the Strand, London. He exhibited a variety of animals both on the first floor of the Exeter 'Change and in the Lyceum. In February 1793 the buildings and animals were taken over by Gilbert Pidcock (d. 1810). After Pidcock's death, the ownership of this 'menagerie' went to S. Polito. The show on the Strand was closed in 1828.

There were two rhinoceroses at the Exeter 'Change before 1800. Loisel (1912, II: 17) mentioned the dates 1770 and 1799. However, the first date must have been a clerical error for 1790 (Clarke 1986: 70).

M 1790 – 1793 June †

Bingley (1804: 487–489) stated that this rhinoceros was a present from the King of 'Laknaor' to Mr. Dundas, and was shipped on the *Melville Castle*. Laknaor probably was Lucknow, India, where the kings of Oudh were known to have had a menagerie with several rhinoceroses over the years. The Rt. Hon. Henry Dundas, President of the Board of Commissioners for the Affairs of India, had no space for a rhinoceros. On arrival in England, the animal was about five years old. It was purchased by Thomas Clark for £700, to be exhibited either in the Lyceum or the Exeter 'Change from 1790 onwards.

The rhinoceros dislocated one of its front legs in October 1792, and the resulting inflammation later led to its death (Jardine 1843: 171). On 3rd June, 1793, the rhinoceros was

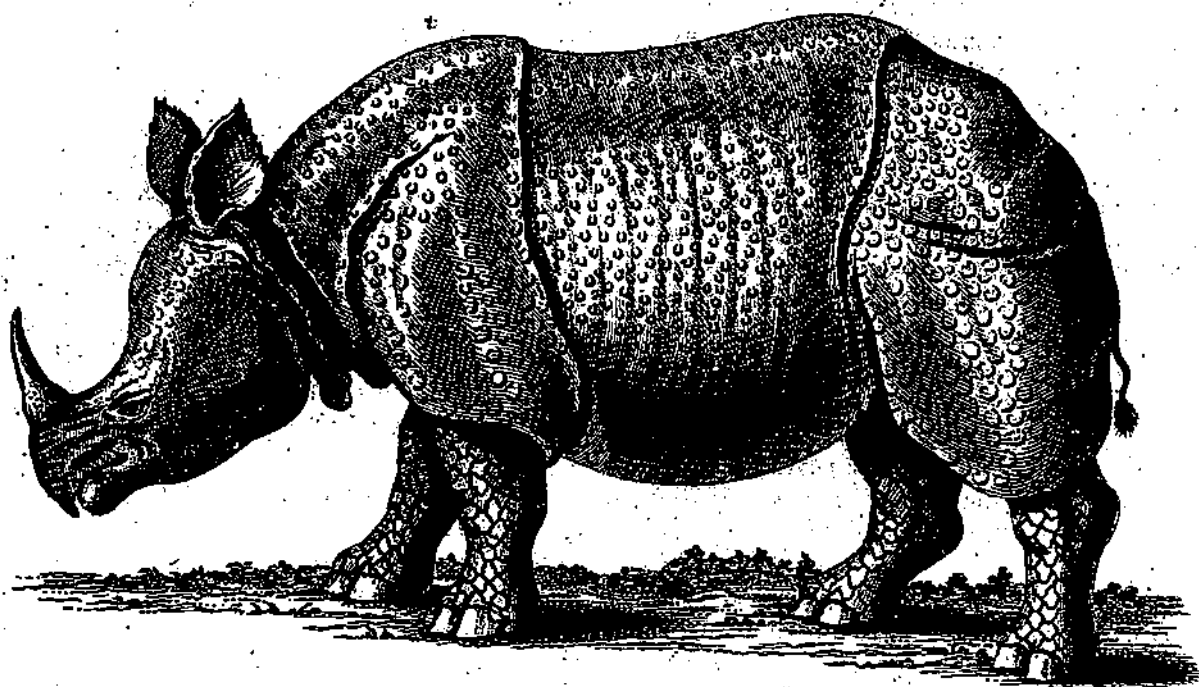
Philos. Trans. N° 470. TAB. I.*J. Parsons MD. del.**J. Stedman del.*

Fig. 48. Indian rhinoceros in London in 1739 depicted by James Parsons, shown here with added long horn.

taken to the residence of King George III, and it continued travelling to the races at Ascot Heath (Clarke 1986: 73). According to Bingley (1804), it "died in a Caravan at Corsham near Portsmouth", probably also in June 1793. The remains were buried, but the hide and some bones were dug up about 14 days later. Robert Jameson, professor in Edinburgh, visited London in 1793 and, on 6th September, 1793, at St. Bartholomew's Fair in West Smithfield he saw the hide of "Rhinoceros Unicornis, a young one preserved, it had been alive about three years in the Lyceum and died a short time before I came to London, which loss I much regretted" (Sweet 1965: 91).

The likeness of this rhinoceros is found on a number of token halfpennies (Clarke 1986: 74). The painting of the rhinoceros in the Museum of the Royal College of Surgeons represents this specimen in the Exeter 'Change.

It was painted by George Stubbs (1724-1806) presumably around 1790 (Clarke 1984, 1986: 75) (see Fig. 49).

M 1799 - 1800 †

Arrived in 1799 and lived for about 12 months (Bingley 1804: 489). It was exhibited by Pidcock, probably at the Exeter 'Change. Pidcock sold it for £1000 to the German Emperor, but it died before it could be shipped. It was dissected by H. Leigh Thomas (1801), who said that it had come from the East Indies destined for Vienna, that it had developed some difficulties in breathing a few days before its death, and that it had died before attaining its third year. Clarke (1986: 75-77) described sketches by Samuel Howitt and by Thomas Rowlandson, which may depict this rhinoceros.

M 1810 - 1814

Arrived in 1810 from an unrecorded place. In

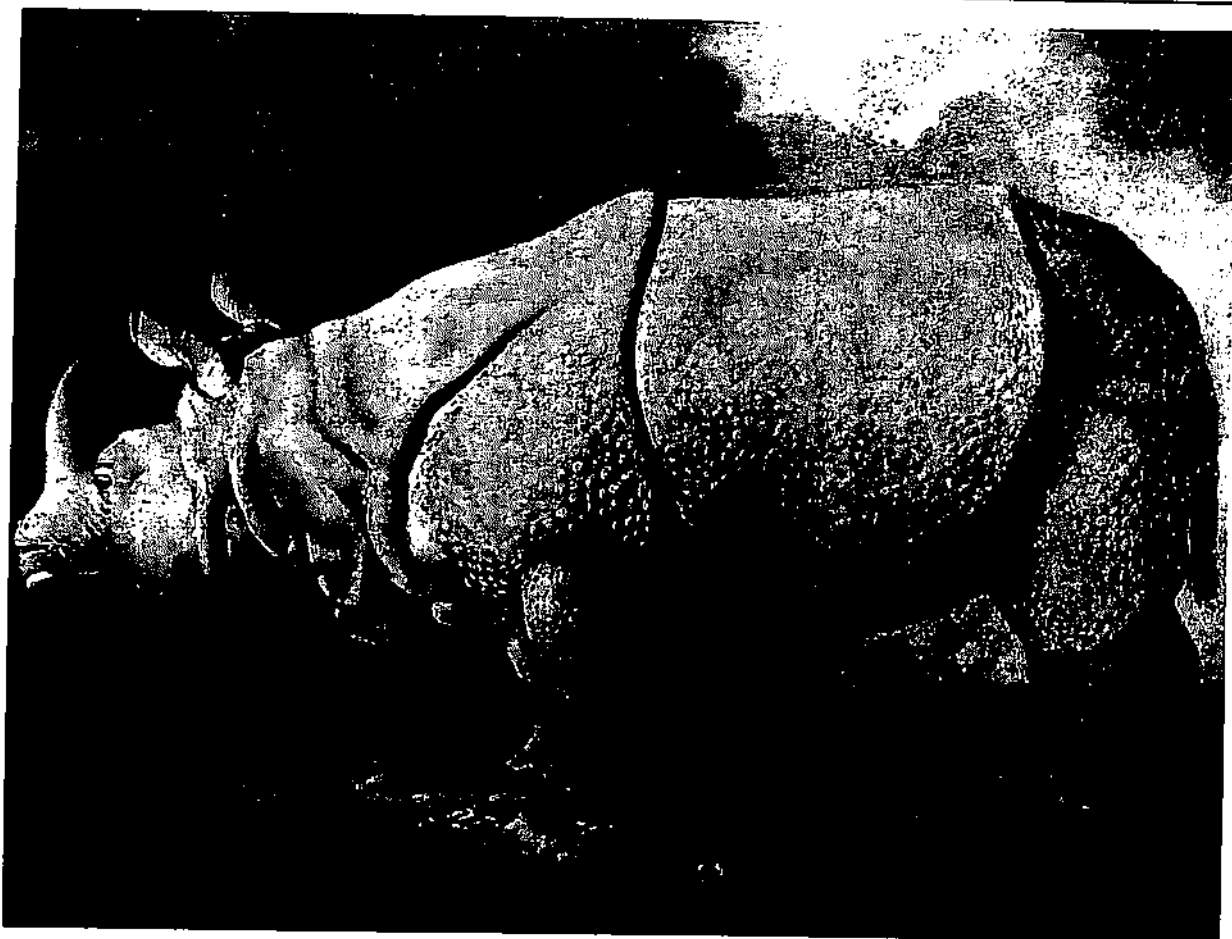


Fig. 49. Rhinoceros at London's Exeter 'Change in 1790-1793, painted by George Stubbs.

1814 it was sold to the Royal Zoological Garden in Stuttgart, Germany, but it never arrived there. Instead, it was taken around many European countries until its death in 1839. The full history of 'Tourniaire's rhinoceros' is presented above, cf. Europe – Traveling menageries.

3. Surrey Zoological Gardens

This zoo, owned by the animal dealer Edward Cross, opened its gates in 1831. It was located at the Manor House of Wandsworth, near London (Blunt 1976: 18). It was in part the successor of the exhibition at the Exeter 'Change. In 1829 this show had become the property of Cross, who moved it first to the Kings Mews in London, and then to Surrey.

1834

A zoo guidebook dated May 1834 (copy in the Natural History Museum, London) mentions a 'Rhino Pavillion' (exhibit No. 8) inhabited by an Indian rhinoceros (Keeling 1984: 19-20).

In November 1834, another guidebook was issued, but this includes no mention of a rhinoceros.

4. Zoological Society of London

M 1834 May 20 – 1849 September 19 †

Purchased for £1050 from Capt. Fergusson, who had imported it from India. Sclater (1876a: 645) gave 28th May, 1834, as the date of arrival. At that time, it was four years old and 10' 6" long. It was first exhibited in the Wapiti Deer House, and on 6th July, 1837, was transferred to the Elephant House (Verstraete 1992). The rhinoceros is depicted on a lithograph made by the German artist Georg Scharf (Kourist 1970: 146, no illustration). The skeleton is mounted at the Natural History Museum, London, No. 51.11. 10.2 (see Groves 1982: 253), while the hide was mounted over the hide of the Liverpool rhinoceros (Sclater 1876a: 650 note).

This rhinoceros became famous posthumously through the dissection by Richard

Owen (1804-1892), who published his classic memoir on its anatomy in 1862. Owen wrote to one of his sisters: "Amongst other matters time-devouring, and putting out of memory mundane relations, sisters included, has been the decease of my ponderous and respectable old friend and client the rhinoceros. I call him 'client' because fifteen years ago I patronised him, and took it upon my skill, in discerning through a pretty thick hide the internal constitution, to aver that he was worth the 1000 guineas demanded for him. The Council had faith, and bought him, and he has eaten their hay, oats, carrots and bread in Brobdignagian daily quantities ever since, and might have gone on digesting had he not, by some clumsy fall or otherwise inexplicable process, cracked a rib; said fracture injuring the adjacent lung and causing his demise. His anatomy will furnish forth an immortal 'Monograph'..." (R.S. Owen 1894: 347).

1850

There are two separate entries on rhinoceroses belonging to Jamrach in the Daily Occurrence Books of London Zoo, discovered by John Edwards, London: 20 March 1850: "Sent Rhinoceros belonging to Mr. Jamrach returned." 15th April 1850: "Rhinoceros belonging to Mr. Jamrach to be taken care of." These entries may refer to the animal which arrived in July 1850, or to other specimens.

F 1850 July 5 - 1873 December 14 † 'Miss Bet' or 'Betsey'

Purchased from Jamrach for £350. The date of arrival is usually stated as 17th July, but 5th July was recorded in the Daily Occurrence Books of the zoo. The horn grew in a forward direction: three-quarter was sewn off in Spring

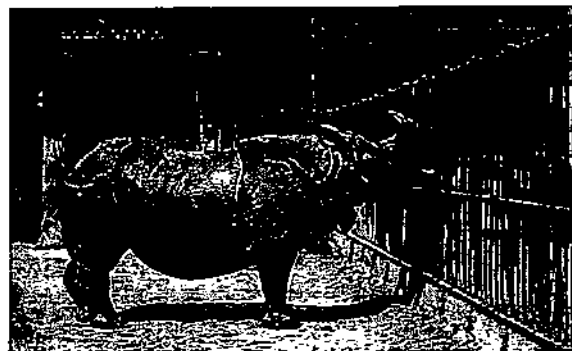


Fig. 50. Postcard of 'Jim', Indian rhinoceros in London 1864-1904.

1872 (Noll 1873: 50, Newman 1872, Sclater 1871, 1876a: 646, fig.1). In December 1870, the animal fell through the ice in the moat, which was covered with snow, and could only just be rescued by Bartlett and his helpers (Buckland 1870: 484). Two photographs taken by Frank Haes in 1864 and another by Frederick York can be seen in the collection of John Edwards, London (published in Edwards 1996a: 118, 119).

M 1864 July 25 - 1904 December 12 † 'Jim' or 'Jemmy'

Caught in Assam, presented by a Mr. A. Grote. It was purchased in Calcutta and brought from there by the headkeeper James Thompson, together with the following female. It may have lived for a short time prior to shipment in Barrackpore Park, Calcutta. In August 1870, it wrenched off its horn when it tried forcibly to open a gate. In November 1872, it severely injured two keepers, Andrew Thompson and Richard Godfrey, as told by Blunt (1976: 170-172, with an illustration from the *London Clipper*). Burne (1905) discussed its viscera. It is illustrated in Sclater (1876a, pl. XCV) after a drawing by J. Wolf. A photograph can be found in Anonymous (1896a: 21), while two others dated 1865 and 1900-1904 were illustrated by Edwards (1996a: 121-122) (see Fig. 50).

F 1864 July 25 - 1865 June 20

Caught in Assam and brought from Calcutta with the previous male. In 1865 it was sent to Paris in exchange for 'Jumbo', the famous African elephant.

M 1886 December 25 - 1911 December 30 † 'Tom' or 'Moses'

Presented by H.H. The Maharajah of Cooch Behar, through Dr. B. Simpton (Pocock 1912). Edwards (1996a: 130) includes a photograph taken around 1905.

M 1906 June 9 - 1924 January 4 † 'Carlo'

Presented by King George V (then Prince of Wales).

M 1912 May 21 - 1921 November 2 †

From Calcutta (see discussion under that heading). It had been caught in Nepal. Presented by King George V (then Prince of Wales). A photograph can be found in Edwards (1996a: 130).

F 1922 April 7 – 1926 April 28 †
'Bessie'

Caught in Chitawan, Nepal. King Edward VIII, then Prince of Wales, was invited to a shoot in the Chitawan area in December 1921, and his party shot eight rhinos and 17 tigers. On 18th December, 1921, at the shooting camp in Biknathori, the Maharajah of Nepal presented a group of animals to the prince, including a young Indian rhinoceros. The animals reached Bombay on 10th January, 1922, and were temporarily kept at the Victoria Gardens, where the rhinoceros was photographed, as shown by Ellison (1922: 691 and plate). It died of sarcoma of heart and lungs (Scott 1927).

M 1924 December 13 -1941 November 21 †
'Felix'

Gift from the King of Nepal. It was transported from Calcutta on the SS. *Merkara*. It was less than half-grown on arrival. The animal became extremely savage. In the summer of 1939 it was transferred from the Elephant House to the Tapir House. It died of tuberculosis (Hamerton 1943: 127). The skull is preserved at the Natural History Museum, London, No. 1950.10.18.4 (Groves 1982: 253).

M 1933 April 29 – 1935 June 6
'Hush'

Gift from King of Nepal to the British King, George V. It was about one year old on arrival. A photograph of this or the following rhinoceros, with a goat and a keeper, was published by Keeling (1995b: 70). To Whipsnade.

F 1933 July 3 – 1938 November 18 †
'Hash'

Caught in Nepal. Gift from King of Nepal to the British King, George V. It went to Whipsnade on 6th June, 1935, but returned on 16th November, 1938, after it had been badly injured by the male Hush. It was found that the pelvis was broken, and the animal had to be euthanized (Hamerton 1939: 290).

5. *Jamrach (animal dealer)*

Johann Christian Carl Jamrach (1815-1891), or Charles Jamrach, a German by birth but naturalized British, started an animal trading business in 1840, operating from Ratcliff Highway, now 180 St George Street (Blunt 1976: 52). He was probably assisted by his sons William and Albert E. Jamrach (names found

in Loisel 1912, III: 329). Many rhinos were imported from India to Europe by the Jamrach company, while several died before arrival. A list of animals imported by Jamrach is attempted here, but it is likely to be incomplete:

1850 London

1855 Two specimens advertized in Liverpool (see below)

1855 Vienna

1867 Two specimens died en route from Calcutta (see below)

1871 Berlin (traded back to Jamrach, destination unknown)

1872 Cologne

1872 Berlin (male and female)

1874 Berlin

1874 Died en route (see Jamrach 1875)

1875 Died in London, Rice

1855

The female Indian rhinoceros exported to Vienna in 1856, was supposedly one of four rhinoceroses imported by Jamrach in 1855, as recorded by L.J. Fitzinger in the zoo's files (Rookmaaker and Reynolds 1985: 152 after Marvin Jones). There are no other records of rhinos arriving at zoos or travelling shows in 1855, and so their fate is unknown. It could be surmised that two of them died on the way, as Jamrach had two skulls in 1867 (see next entry). However, Clin Keeling (in Rookmaaker and Reynolds 1985: 152) saw an advertisement in *The Daily Post* published in Liverpool on 11th June, 1855, in which a male and female rhinoceros from the wilds of Assam were offered for sale. They were to be sold at Lucas' Repository on 14th June, 1855. They were advertized again in Manchester Zoo in 1856 (qv). There is no clue as to their destination.

1867

Buckland (1882: 217) saw two rhinoceros skulls at the Jamrach collection in January 1867. The animals had been shipped from Calcutta, but both had died at sea due to starvation between St. Helena and the UK. The story mentions only two rhinos, and it appears unlikely that others accompanied them. Unfortunately, the dates of transport were not mentioned.

F 1872

Jamrach received a female Indian rhinoceros in 1872 from Berlin Zoo, in exchange for a

pair delivered on 19th September, 1872. The fate of the animal is not recorded. Schlawe (1969: 23) noted that on 19th September, 1872, there were three Indian rhinos in Berlin for one day only, suggesting that Jamrach delivered the new pair and returned with the single female. The only other Indian rhinoceros known to be imported by Jamrach into Germany was the female shown in Cologne from 26th April, 1872. This could have been the animal transferred from Berlin, but which was still seen in Berlin later.

1874

In April 1874, Jamrach's agents in Calcutta shipped two rhinoceroses to Europe, one of which later arrived at Berlin Zoo. The other specimen, "the largest of the two died during the voyage to England, and was cast into the sea" (Jamrach 1875).

6. Rice (animal dealer)

F 1875

William Jamrach wrote to P.L. Sclater in London (reported by Sclater on 16th February, 1875) that he was bringing from Calcutta a rhinoceros obtained in the Bhootan Terai. Jamrach thought that it was a new species, but on arrival it was proclaimed to belong to *Rhinoceros unicornis*. The animal died in Mr. Rice's establishment (Sclater 1875). The hide was not preserved, while the skull went to the Museum of the Royal College of Surgeons, London (Sclater 1876a: 648-649). In the catalogue of that collection, Flower and Garson (1884: 416) list as No. 2127 the skeleton of a young female Indian rhinoceros, "from an animal which died in captivity in this country".

7. Olympia

F 1898 - 1901 (?)

'Queen Elizabeth'

The American circus owner, James Bailey, bought a three-year-old Indian rhinoceros at Olympia in London during the first month of 1898. He toured with it in several European countries, but the animal was no longer with him when he returned home in 1902 (see USA: Travelling menageries).

Los Angeles, CA, USA

Los Angeles Zoo

Thomas (1982) presented the history of rhinoceroses at Los Angeles Zoo. There is confusion about the Indian rhinos in Los Angeles in the studbook of the species. No. 47-KAZ 11 has approximately the same date of arrival as Rhadha (46) and Nepali's (16) date of death. From correspondence with Mike Dee from 1972, it is clear that Los Angeles only imported three Indian rhinos in the 1960s: the male Herman (35) and the females Nepali (16) and Rhadha (46). Therefore, 47-KAZ 11 is an incorrect entry which should be deleted.

M 1966 March 8 -

'Herman'

35-ASSAM 7

Caught in Laokhawa, Assam (dealer George Munro, Calcutta). It was about one year old on arrival.

F 1968 May 28 - 1971 January 22 †

'Nepali II'

16-KAZ 7

Came from Hamburg-Stellingen. Date of arrival stated as 25th May, 1968, in the studbook (Basel Zoo 1988). On New Year's day 1971, it was attacked by cage-mate, Herman, and died of its injuries (Mike Dee, in litt. 1972).

F 1969 November 28 - 1988 November 10 †

'Rhadha'

46-ASSAM 8

From Gauhati. It was three years old on arrival (see Fig. 51).

F 1974 November 22 -

'Randa'

45-BASEL 10

From Brownsville.

F 1982 February 16 - 1985 June 18

'Meetha'

111-LOSAN 1

Born to Herman (35) and Rhadha (46), gestation 496 days. Baby was born at 5:39 am. A picture was published by Crotty (1982). To San Diego Wild Animal Park.

F 1982 August 9 - 1982 August 9 †

120-LOSAN 2

Stillborn to Herman (35) and Randa (45). Gestation 490 days, weight 56.7 kg.

M 1983 December 16 - 1983 December 16 †

121-LOSAN 3

Aborted calf to Herman (35) and Randa (45).

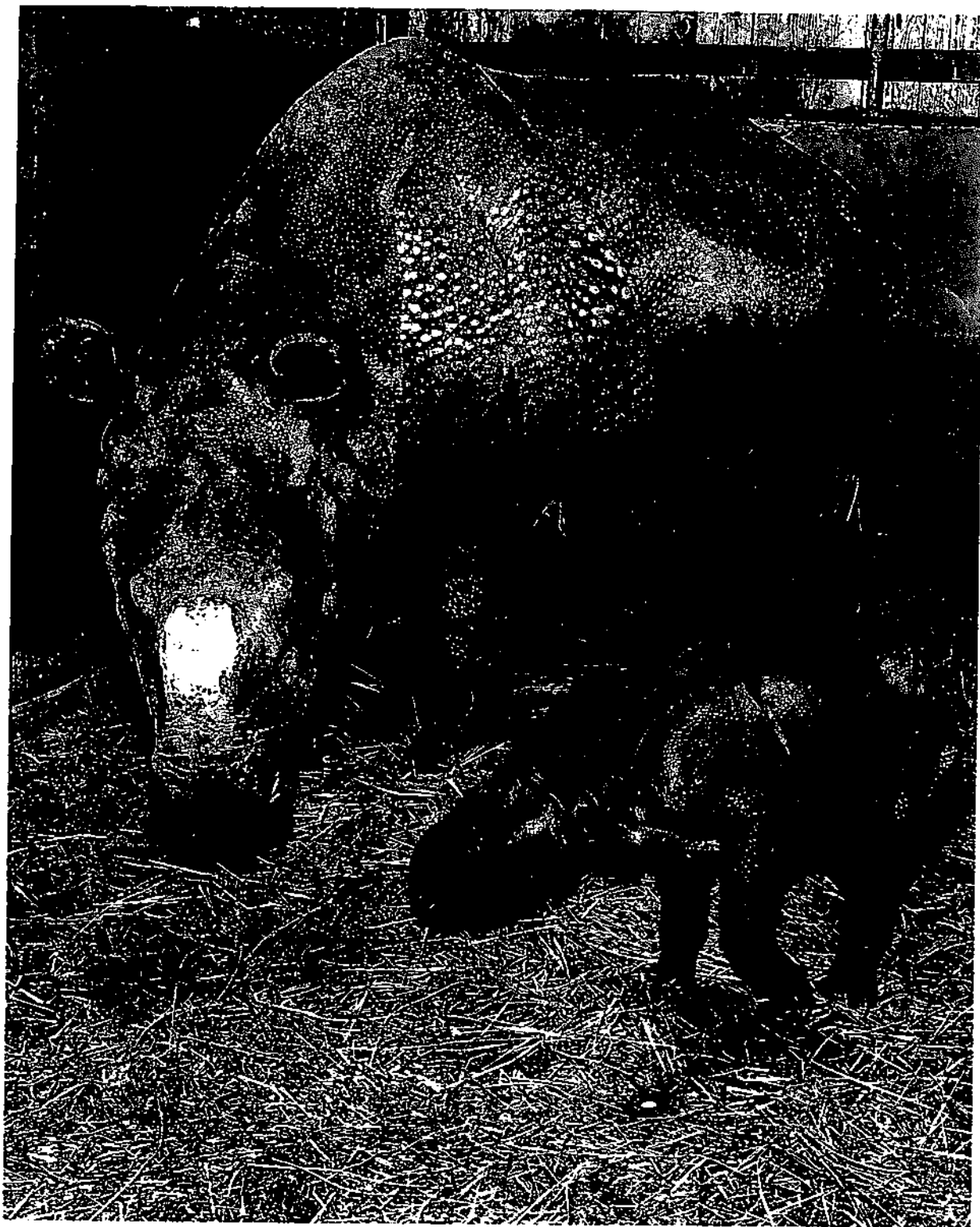


Fig. 51. Los Angeles, female 'Radha' with calf 'Meetha' on 18th February 1982.

M 1985 August 11 – 1990 November 13
 'Chandra' 125-LOSAN 4
 Born to Herman (35) and Rhadha (46). To
 Oklahoma.

F 1986 October 10 – 1986 October 10 †
 133-LOSAN 5
 Stillborn to Herman (35) and Randa (45).

F 1990 November 17 –
 'Terai' 89-BER W 3
 From Oklahoma.

Lucknow, Uttar Pradesh, India

1. Royal Menagerie of the King of Oudh

From 1732 to 1856, Lucknow was the capital of the province ruled by the Nawabs of Oudh (from 1814, the Kings of Oudh). In 1856, Oudh was annexed to the British Empire as a Chief Commissionership. There are several reports of a large number of rhinoceroses kept in the Royal menagerie, although exact details are elusive.

In 1790, Nawab Asaf-Ud-Daula (d. 1798) presented a rhinoceros to Mr. Henry Dundas, according to the history told at the time of its arrival at the Exeter Change, London.

Heber (1827, II: 58) visited Lucknow in 1825 and saw five or six very large rhinoceroses. He noted that "they seem to propagate in captivity without reluctance". Unfortunately, he did not elaborate.

Knighton (1833/34) served Nasir Ud-Din Haidar (d. 1837), the King of Oudh, in the years before the publication of his book. He reported that the Royal Menagerie situated in the 'open park around Chaungunge' [in Lucknow] had, throughout the years, contained about 15 to 20 rhinos. These were sometimes used in animal fights, in which rhinos were made to battle against elephants, tigers or other rhinos. Apparently, the animals in the menagerie were sold at the time of annexation in 1856, since Blyth (1875: x) reported that, at that time, two rhinoceroses were sold to people in Calcutta (see Calcutta, Barrackpore Park). Loisel (1912, III: 20 note) mentioned that, in 1857, the King of Oudh still had tigers and buffalos, but a rhinoceros was not listed. The King was imprisoned in Calcutta and continued to have a menagerie there (see *R. sondaicus* – Calcutta).

2. Zoological Gardens

F 1944 February 2 – 1973 April 2 †
 'Rosy' 105-NEPAL 10
 Died of dislocated hip joint.

M 1959 March 30 – 1979 May 6 †
 'Jai Singh' 90-ASSAM 14
 Died due to injuries.

M 1979 October 20 – 1980 January 18 †
 'Sanjoy' 91-ASSAM 15
 From Gauhati. Died of sand colic.

F 1979 October 20 – (?)
 92-ASSAM 16

From Gauhati. In the records provided by Gauhati Zoo, the animal is recorded as a male, probably erroneously. According to Basel Zoo (1995), no rhinos were present in Lucknow in 1987, nor is it listed in the Indian studbook (Kanpur Zoo, 1993) with all other specimens known in 1993. It may have died before that time.

Madras, Tamil Nadu, India

Zoological Gardens

Madras Zoo apparently closed in the late 1980s, after which a more modern safari park-type collection was opened in a suburb of Madras Town.

M 1953 June 9 – 1980 June 15 †
 'Kushal' 75-ASSAM 12
 About eight years old on arrival. It was alive in January 1978 when I saw it in Madras. The



Fig. 52. Indian rhinoceros male in Madras, January 1978.

hide is preserved at the Government Museum, Egmore, Madras (see Fig. 52).

M 1985 April 17 –
'Ramu'

218-KAZ 32

From Gauhati. This animal is recorded in the list of animals leaving Gauhati, but its stay in Madras has not been confirmed. It is not listed in the Indian studbook (Kanpur Zoo, 1993).

Madrid, Spain

Collection of King Philip II

1583 – ca. 1586 †

The Madrid Rhinoceros

Transferred from Lisbon, together with the court of the Spanish King Philip II. In Madrid it was seen in October 1583 and again in April 1584 (Clarke 1986: 28). It is likely that the animal died around 1586.

Magdeburg, Germany

Zoologischer Garten

M 1985 (?) – 1985 August 27

'Katgin'

117-STUTT 6

According to the studbook, this male, born in Stuttgart, was exhibited in Magdeburg before being sent to Yokohama on 27 August, 1985.

Manchester, UK

1. Zoological Garden

This zoo existed from 1838 to 1842.

F 1840 – 1842 November 25

In 1840, the Manchester Zoological Garden published a list of specimens, which included a female Indian rhinoceros (Rookmaaker and Reynolds 1985: 133 after C. Keeling, from a guidebook in the Manchester Reference Library). On 23rd-25th November, 1842, the animals from Manchester Zoo were auctioned. The sale included a rhinoceros, which was bought by Wombwell (see UK, Wombwell) for 265 guineas, according to the *Manchester & Salford Advertiser* of 26th November, 1842 (Barnaby 1995).



Fig. 53. *Rhinoceros sondaicus* skull at Manchester Museum, alleged to have been from a captive specimen.

2. Belle Vue Zoological Gardens

The older records about Belle Vue Zoo, which opened its gates in 1836, pose a few questions. One important enigma to be settled is the provenance of a *Rhinoceros sondaicus* skull in Manchester Museum, first recorded and described by Cave (1985). The skull belonged to "an old male animal which had lived long in captivity". The age and sex are obvious from the skull, while the captive life of the animal is "reflected in the presence of osteoarthritis of the temporo-mandibular joints and of generalized parodontal disease in the upper and lower jaws" (Cave 1985: 528). Unfortunately, there are no data available on the skull or its history in the museum files. It is known that it was on permanent exhibition in the museum from 1914 onwards, and Cave suggested that it arrived at the museum between 1890 and 1910. He also suggested that the animal might have come from Belle Vue Zoo. Keeling (1994) also examined and photographed the skull (see Fig. 53).

There were probably at least two (and maybe four) rhinos in Belle Vue prior to 1910 (see below). The record about the rhinoceros in the 1870s is puzzling, and it would seem hasty to assume that it had a long captive life. The male from 1876-1904 would clearly fit the bill much better. The hesitation to ascribe the skull to this specimen, exhibited as *R. unicornis*, is due to the fact that S.S. Flower saw it while it was alive (in 1906 he saw the skeleton, but he referred to an earlier visit). Flower had visited many zoos around the world and, while he was not a rhinoceros expert, he would have noticed if there was a clear misidentification. Rookmaaker and Keeling (1991), hesitatingly,

and lacking a better alternative, assumed that the skull belonged to the first specimen. I do not completely agree with Keeling's suggestion that the animal's tame nature would make it a Javan rhinoceros; there have also been quite a number of tame Indian rhinoceroses.

1856

An advertisement in the press for Belle Vue dated 1856 listed a pair of rhinoceroses (Keeling 1993: 36, after Robert Nicholls). I imagine that these might be the same as the pair advertised for sale in Liverpool in June 1855 (see London, Jamrach). Possibly, they had been temporarily deposited at Belle Vue gardens. No further details are available.

(?) 1870s

Peel (1903: 207) contrasted the male that lived from 1876 to 1904 with "the preceding rhinoceros which was allowed to roam the grounds". This is an enigmatic statement. No rhinoceros has definitely been recorded in Belle Vue before 1876. Peel's sentence suggests that his 'preceding' rhinoceros died or left the zoo before the arrival of the 1876 male. Jennison (1928: 149) also compares the temperament of two rhinos in Manchester: "The earliest rhino at Belle Vue had the run of the gardens, and did not resent being chased by a boat from his wallow in the lake when he was required for exhibition. He frightened no one, and only annoyed the laundry-maids by mumbling the clean linen on the lines. His successor was very wild, and in the mad fury of youth would charge the walls until the blood flowed."

M 1876 June 20 - 1904 †

Dates recorded by Flower (1931: 203). Flower (1906: 26) mentioned its death: "but I saw his skin, stuffed and mounted". In 1911, the first cage of the Camel House still contained the skeleton of this rhinoceros (Keeling 1983: 20-21).

M 1907 May - 1917 †

Imported from Nepal by Hagenbeck, together with three other males (Flower 1908: 32). Manchester's specimen was "almost the smallest, thirty inches high ... it was picked from the group as the most lively" (Jennison 1928: 148). It was still alive in 1911 (Keeling 1983: 34), but apparently died in 1917 as a result of swallowing a tennis ball, as suggested by the

daughter of the zoo's veterinarian (Keeling, in litt. 1993).

Marseilles, France

Jardin Zoologique

This small zoo was founded by Dr. Suguet in 1830. It remained a private institution until 1870, when it was nationalized (Loisel 1912, III: 113).

1861

This animal had previously lived for 11 years in a travelling menagerie (name unknown) touring throughout Europe. As it had been kept in a narrow cage, it could not move properly (Sacc. 1861: 37). Length of stay unknown (Noll 1873: 51), but it must have died before 1870, as no rhinos were recorded at that time (Loisel 1912, III: 113).

Miami, FL, USA

Crandon Park Zoo (until 1981) Miami Metro Zoo

M 1970 April 23 -

'Mohan'

49-NEPAL 3

Caught in Chitwan National Park, Nepal, by Ralph S. Scott (see Scott 1971). It was about one year old on arrival.

F 1970 June 12 -

'Shanti'

50-NEPAL 4

Caught in Chitwan National Park, Nepal, by R.S. Scott (see Scott 1971). It was in Philadelphia on breeding loan from 10th April, 1987, to 22nd November, 1988, and in New York from then until 27th March, 1990.

M 1987 April 6 -

'Akbar'

126-PHIL 2

From Philadelphia.

Milan, Italy

Gee (1952), writing about the capture of a female Indian rhinoceros destined for Whipsnade, stated that the Forestry Department had first caught six males. One of those went to Basel, another to Milan. Basel's first male arrived in

May 1951, so the Milan animal was perhaps in fact the male to reach Rome in September 1951.

Milwaukee, WN, USA

Milwaukee County Zoological Park

M 1959 July 20 – 1987 February 6 †
 'Rudra' 14-BASEL 1
 From Basel. Died of weight loss and foot lesions. Schaffer *et al.* (1990) subjected it to a study on semen collection.

F 1959 July 20 – 1975 June 24 †
 'Mohinja' 15-WHIP 1
 From Whipsnade.

F 1967 January 30 – 1967 January 30 †
 52-MILW 1
 Stillborn to Rudra (14) and Mohinja (15).

M 1991 October 29 –
 'Assam' 87-BASEL 16
 From New York Bronx.

Moscow, Russia

Moscovskii Zoologicheskii Park

1865/1866

Its presence was recorded either in 1865 (Reynolds 1961a: 23) or in 1866 (Rookmaaker and Reynolds 1985: 152). Count Alexis Bobrensky of Moscow sent information to Edward Blyth (1868/69) that the rhinoceros had shed its horn.

Munich, Germany

Tierpark Hellabrunn

F 1990 April 15 –
 'Rapti' 193-NEPAL 20
 Imported from Nepal.

M 1990 June 12 –
 'Nikolaus' 152-STUTT 9
 From Stuttgart.

F 1990 July 11 –
 'Nasi' 148-BASEL 21
 From Basel.

Mysore, Karnataka, India

Sri Chamarajendra Zoological Gardens

F 1956 July 3 – died before 1992 †
 'Ranni' 11-ASSAM 6
 Caught in Assam. Krishne Gowda (1975, figs. 1,2) shows two photographs of the animal. Valandikar and Raju (1996) mentioned that, in 1992, Mysore Zoo had only one Indian rhino, which must have been Muniya (61) below. This animal is also absent from the Indian stud-book (Kanpur Zoo, 1993) (see Fig. 55).

M 1965 April 29 – 1979 April 30 †
 'Kasi' 1-ASSAM 1
 Born ca. 1941 (see Fig. 54).

M 1968 February 13 – 1971 April 24
 'Mysore' 42-MYSO 1
 Born to Kasi (1) and Ranni (11), gestation 486

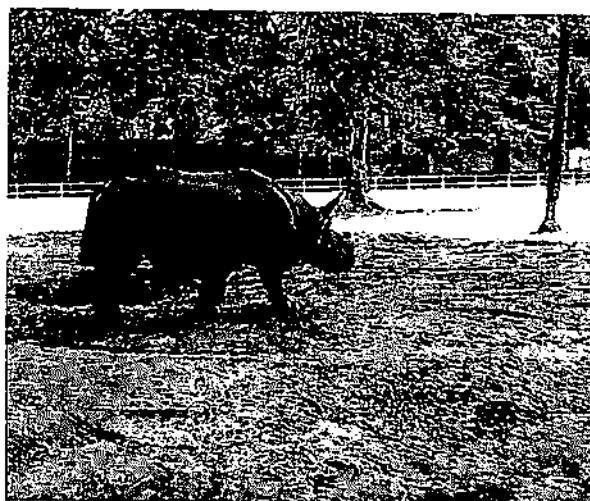


Fig. 54. Male Indian rhinoceros 'Kasi' in Mysore, August 1972.



Fig. 55. Mysore's female 'Ranni' with calf 'Mysore' in August 1972.

days. Krishne Gowda (1975, figs. 1,2) published photographs. To Berlin Tierpark.

M 1971 April 16 – 1975 August 28

'Vinu' 53-MYSO 2

Born to Kasi (1) and Ranni (11), gestation 484 days. To Gelsenkirchen.

F 1975 July 19 – 1979 April 27

'Indira' 79-MYSO 3

Born to Kasi (1) and Ranni (11). To Toronto.

M 1985 January 29 –

'Muniya' 61-KAZ 13

From Gauhati. Indian studbook (Kanpur Zoo, 1993) No. NR-26. Venugopal *et al.* (1994) studied its activity pattern.

F 1990 – (?)

From Vadodara (Anonymous 1990). It seems that the animal was no longer present in 1992 (Valandikar and Raju 1996, Kanpur Zoo 1993).

Nagoya, Japan

Higashiyama Zoo

M 1974 October 2 –

'Samber' or 'Krishna' 57-GAUH 3

From Gauhati.

F 1974 October 2 –

'Jaya' 64-ASSAM 10

From Gauhati.

M 1991 December 1 –

'Nandi' 181-BASEL 23

From Basel.

F 1991 December 1 –

'Nilgiri' 183-BASEL 24

From Basel.

New York, NY, USA

1. Bronx Zoo

Pitman (1991: 2) published an undated photograph of rhinos at the Bronx Zoo.

M 1907 July 23 – 1918 August 27 †

'Mogul'

Caught in Nepal, imported by Hagenbeck. A

photograph was published by Hornaday (1918: 95). The animal suffered from an eye complaint and was operated on in 1907 and 1909, which together cost about \$10,000 (Blaszkiewicz 1980: 72). An autopsy was performed in 1918 (Anon. 1918). Hide and skeleton are preserved at the American Museum of Natural History, New York.

F 1923 May 24 – 1962 January 25 †

'Bessie'

Captured in Nepal by Frank Buck. The story of the capture and transport to America is told by Buck (1930). Hediger (1970, fig.1) illustrated a rhinoceros with a small second hornlet in the Bronx Zoo in 1953. Other photographs can be found in Anon. (1924), Crandall (1966: 175) and Lang (1961, fig. 3). Reynolds (1962b) reported its death.

F 1975 January 30 –

'Pinky' 66-KAZ 14

From Gauhati. It was just over two years old on arrival.

F 1975 January 30 –

'Radha' 67-KAZ 15

From Gauhati.

M 1975 October 30 – 1989 June 15

'Patrick' 69-WASH 1

From Washington. Dixon and MacNamara (1981) studied the behavior of the rhinos in New York in the 1970s. To Toronto.

M 1981 April 2 – 1983 December 16

'Tarun' 19-INDIA B

From Washington. To Oklahoma.

M 1982 October 14 – 1991 October 29

'Assam' 87-BASEL 16

From Philadelphia. To Milwaukee.

M 1983 December 23 –

'Heiner' 83-BER W 2

From Oklahoma.

F 1986 April 9 –

'Pinky' 131-NEYO 1

Born to Heiner (83) and Pinky (66).

F 1988 November 22 – 1990 March 27

'Shanti' 50-NEPAL 4

From Philadelphia. To Miami.

F 1989 September 5 – 1993 November 5
'Mary' 161-OKLA 1
Born to Heiner (83) and Pinky (66). To Oklahoma.

M 1990 May 31 –
53-MYSO 2
From Toronto.

M 1994 March 22 – 1994 March 22 †
221-NEYO 3
Stillborn to Heiner (83) and Pinky (66).

2. Central Park Zoo

This zoo opened in 1864.

1871 March 16
Deposited, probably by P.T. Barnum, who loaned an animal to be exhibited for 80 days.

1872 January
Deposited for permanent display. It probably was a circus rhinoceros.

1874 August 24 – 1874 October 28 †
No further particulars (John Edwards, information from Reports of the Central Park Menagerie).

1876 December 11 – ?
No further particulars (John Edwards, information from Reports of the Central Park Menagerie).

Nuremberg, Germany

Tiergarten der Stadt Nürnberg

M 1989 December –
'Noel' 135-STUTT 8
From Stuttgart.

F 1993 July 8 –
'Purana' 195-BASEL 23
From Basel.

Oklahoma City, OK, USA

Oklahoma City Zoo

M 1981 July 10 – 1983 December 23
'Heiner' 83-BER W 2
From Berlin Zoo. To New York Bronx.

F 1981 July 10 – 1990 November 17
'Terai' 89-BER W 3
From Berlin Zoo. To Los Angeles.

M 1983 December 16 – 1989 September 5 †
'Tarun' 19-INDIA B
From New York Bronx. Died of gastritis.

M 1990 November 13 –
'Chandra' 125-LOSAN 4
From Los Angeles.

F 1993 November 5 –
'Mary' 161-OKLA 1
From New York Bronx.

Omaha, NA, USA

Henry Doorly Zoo

M 1966 September 9 – 1975 February 24 †
'Tiny' 63-NEPAL 5
From Portland. The zoo records do not state its temporary exhibition in Portland. It was caught in Nepal, after the mother had been killed by poachers in 1962. The remains are kept at the N.E. State Museum.

F 1970 January – 1970 January 31 †
'Goiangi' 48-ASSAM 9
From Gauhati. This immature female never arrived at the zoo, but died during transport from India to the USA.

Pakistan

Indus Valley civilization, ca. 3000 BC

In the excavations at Mohenjo Daro (Indus Valley, Pakistan), some seals and pottery objects were found, dating from around 3000 BC, showing a rhinoceros. In some cases, the animal is depicted standing in front of a manger. This may indicate captive life, but possibly there may have been another significance for this kind of representation (references in Rookmaaker 1984b: 556) (see Fig. 56).

Paris, France

1. *Royal Menagerie at Versailles*

M 1770 September 11 – 1793 September 23 †
Gift to King Louis XV from Mr. Chevalier,



Fig. 56. Seal with rhinoceros from Mohenjo Daro, Pakistan, 3rd millennium B.C.

Governor of the French trading post at Chandernagor, near Calcutta. It left Calcutta on board the *Duc de Praslin* on 22nd December, 1769, and arrived in Lorient, France on 11th June, 1770. It was transported by road from the harbor to Versailles. The total cost of its transport amounted to 5388 livres, 10 sous, 10 deniers (Lacroix 1977: 13-19). It was about two to three years old on arrival (Buffon 1778: 133). It was drawn by Petrus Camper on 28th July, 1777 (Rookmaaker 1983c, fig.3; see Fig. 57) and described in 1779 by Sander (1779). It lived in an enclosure 23.4 x 19.5 m with a small pool. The animal survived the French Revolution of 1789. Cuvier (1804: 5, pl.33) published a plate engraved by Simon-Charles Miger after a drawing by Nicolas Maréchal. He mentioned that the animal killed two young people who jumped into its enclosure, and that it drowned in the pool in July 1793. This date seems to be incorrect, since a report about its dissection stated its death as being in September 1793. Schinz (1845: 347) mentioned the same story about the death of two people, but with a probably erroneous date, 1800. It was dissected in Paris by Felix Vicq d'Azyr. At that time, 38 vélins were made showing details of its internal organs, none of which were published at the time (Rookmaaker 1983c: 311-315, Saban 1983). The hide and skeleton are preserved at the Muséum Na-

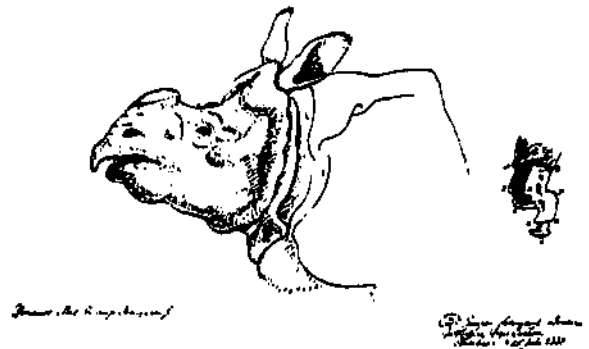


Fig. 57. Petrus Camper's sketch of the male Indian rhinoceros at Versailles, dated 28th July 1777.

tional d'Histoire Naturelle in Paris (see Fig. 58).

Loisel (1912, II: 143) said that this was a two-horned rhinoceros: "En 1770, la ménagerie de Versailles reçut un rhinocéros bicorné que M. Bertin, ministre d'État, avait fait venir du Cap [de Bonne-Espérance]." ("In 1770, the menagerie of Versailles received a double-horned rhinoceros which Mr. Bertin, minister of state, had sent from the Cape of Good Hope".) The same sentence can be found in Loisel's source, the journal kept by the Duc de Croij (1906: 486). The latter stated that the animal had one horn, but that it was supposed to have another one on the shoulders: "il sera curieux de voir si elle pousse!" ("it will be curious to see if it will grow!"). I feel sure that this animal was not double-horned, and that it did not originate from the Cape of Good Hope. Lacroix (1977) quoted from the archival log-book of 22 December, 1769, that in the afternoon of that day the rhinoceros was taken on board at a place near Calcutta, India. The drawing by Petrus Camper of 1777 and the descriptions by Buffon also help to remove any doubt that it was an Indian rhinoceros.

1788 - (?)

Loisel (1912, II: 151) asserts that the Menagerie of Versailles had two rhinoceroses simultaneously, the previous animal (which he called double-horned) and a single-horned rhinoceros which was brought from India in 1787 or 1788. In the next sentence, Loisel implies that the rhinoceros came together with other animals as a donation from the Indian ruler Tippoo-Saib. Tipu Sultan (1750-1799) was the ruler of Mysore, India, from 1781, who fought bitterly against the French and English in the second Mysore War. In August 1788, three ambassa-

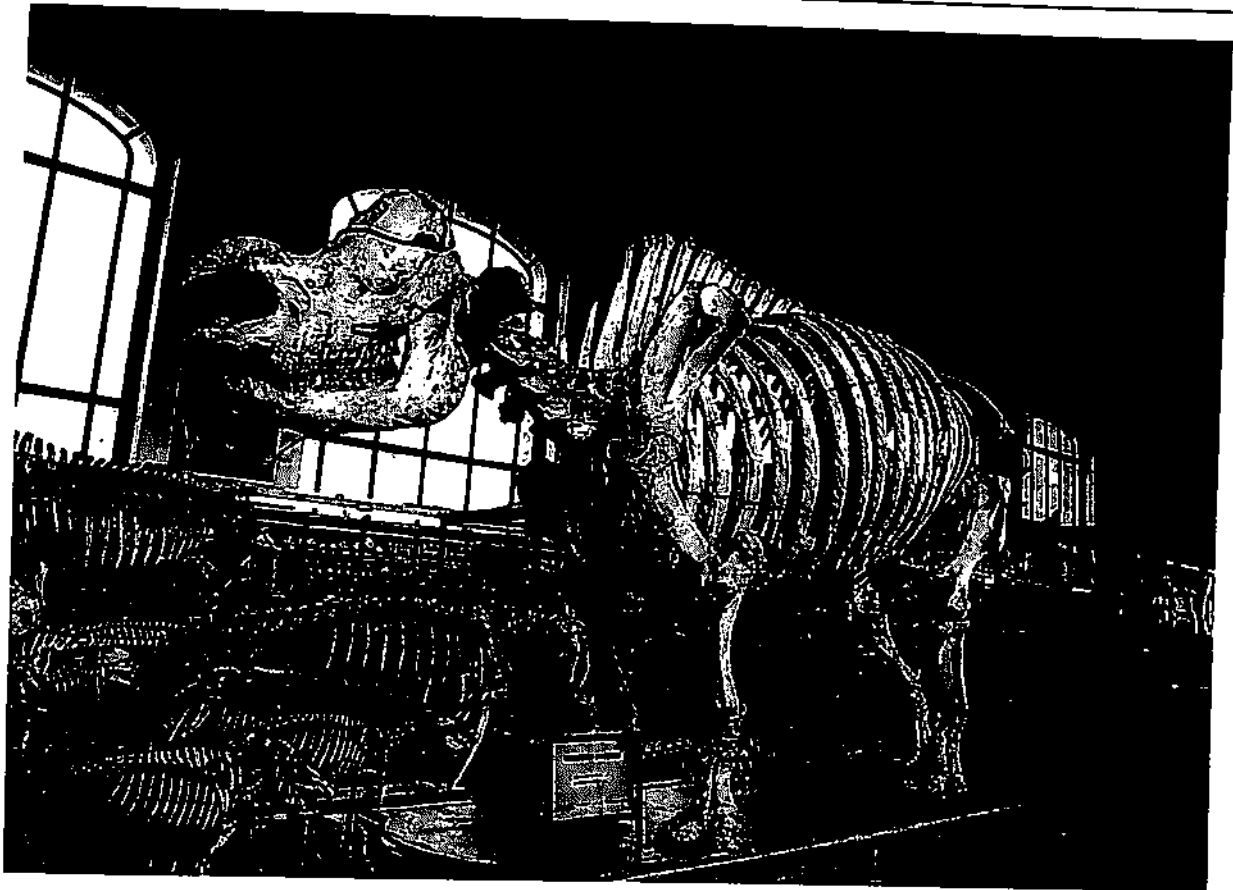


Fig. 58. Mounted skeleton of the Versailles rhinoceros at the Galerie d'Anatomie Comparée of the Natural History Museum in Paris.

dors sent to France by Tipu Sultan were welcomed at the Palace in Versailles. It would be possible that a rhinoceros and other animals were donated at that time. I have been unable to find any collaboration of Loisel's rather recent statement, and he does not appear to have provided any references.

2. Jardin des Plantes

1850 March 22 – 1854 January 29 †

These dates were found in the zoo's ledgers by Marvin Jones. However, Chenu and Desmarest (1858: 4) recorded the stay as being from May 1850 to 27th December, 1854. Rookmaaker and Reynolds (1985: 132) suggested that this animal had first travelled with Huguët's Menagerie throughout Europe from 1840 onwards (see Europe: Huguët). This may be incorrect. A print of a 'young rhinoceros' in the Muséum National d'Histoire Naturelle of Paris was published in the *Magasin Pittoresque*, 1851, p. 149 (see Fig. 59). It has a short horn, and seems to be much younger than Huguët's rhinoceros depicted in Stutt-

gart in 1847 in Krauss (1851). Chenu and Desmarest never actually made any connection with a travelling menagerie. It now appears that the Paris rhinoceros was a different specimen.

F 1865 June 20 – 1874 September 19 †

From London Zoo, traded for the African elephant 'Jumbo'. This specimen is shown on a drawing by Auguste Lançon (1836-1887), kept in the library at the Museum National d'Histoire Naturelle in Paris (Vezin 1990: 92). After its death, it was dissected by Gervais and Gervais (1875) (see Fig. 60).

3. Parc Zoologique, Vincennes

M 1934 April 7 – 1960 April 4 †

Caught in Nepal, brought by Jean Delacour. Lang (1961: 371) said that it arrived in 1933. Pictured by Mohr (1957, fig. 4) with abraded horn.

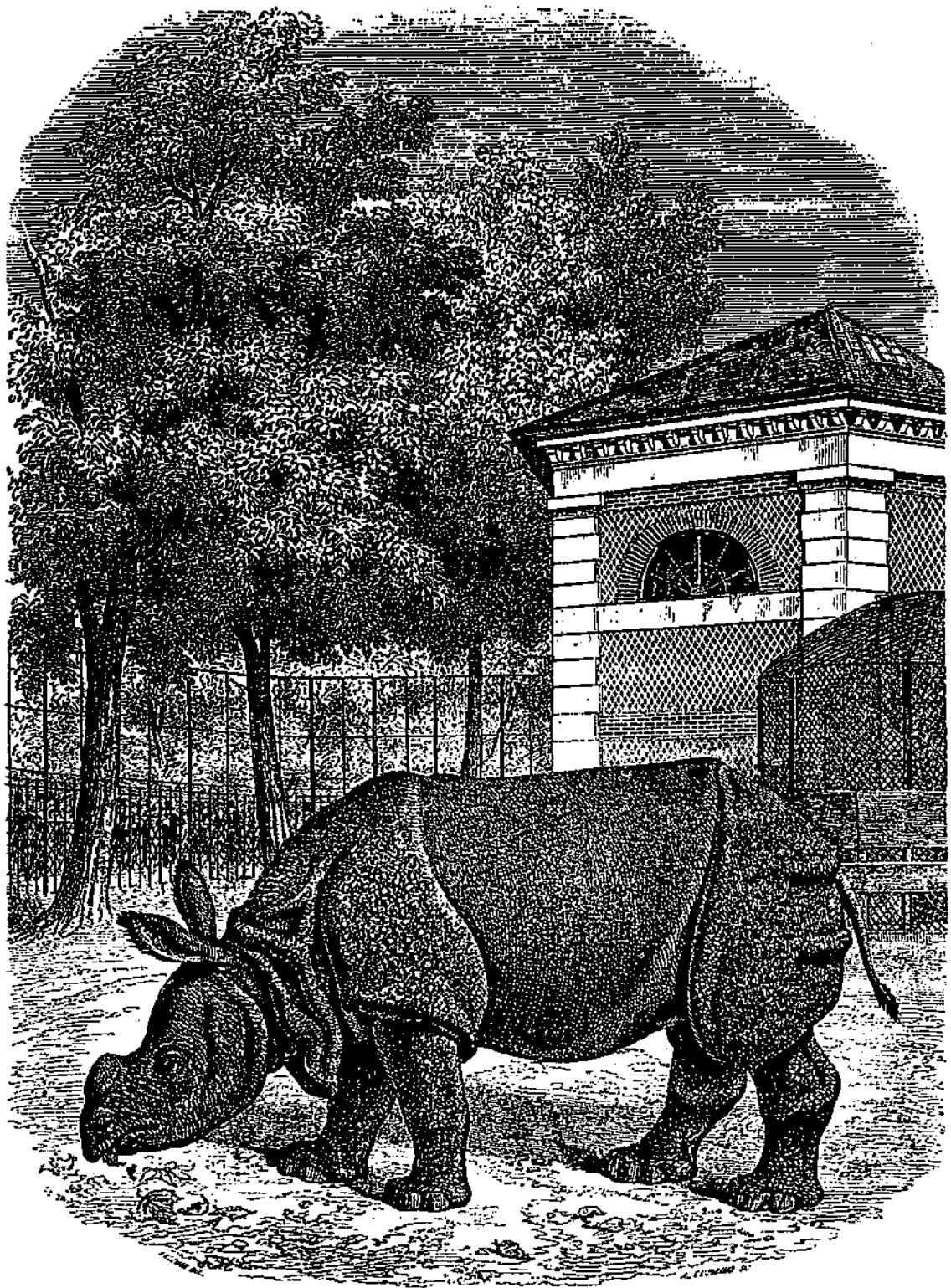


Fig. 59. Indian rhinoceros in Paris, drawn by Freeman for the Magasin Pittoresque of 1851.



Fig. 60. Stereographic postcard probably showing the 1865-1874 female in Paris.

F 1963 May 25 – 1967 April 3 †
'Geetah'

From Gauhati, about five years old on arrival. It cost 50,000 francs. A photograph can be seen in Heckly (1963).

M 1964 September 29 – 1976 February 26 †
'Khunlai' 27-BASEL 4
From Basel.

Patna, Bihar, India

Sanjay Gandhi Biological Park

M 1979 May 28 –
'Kancha' 156-ASSAM 20
From Gauhati. Indian studbook (Kanpur Zoo, 1993) No. NR-16.

F 1979 May 28 –
'Kanchhi' 155-ASSAM 19
From Gauhati. There is a photograph of the male chasing the female in courtship in *Zoo's Print*, vol. 5 (8): 2, 1990. Indian studbook (Kanpur Zoo, 1993) No. NR-11.

M 1982 March 28 –
'Raju' 157-INDIA K
Found and captured in Champaran Forest, a remarkable locality. Champaran is a district in North-East Bihar near Raxaul. There are no reports of a resident rhinoceros population in the region. It may have been a stray from the bordering areas of southern Nepal. Indian studbook (Kanpur Zoo, 1993) No. NR-22.

F 1986 October 25 – 1986 October 25 †
158-PATNA 1
Stillborn to Raju (157) and Kanchhi (155), reported by Jha *et al.* (1987).

F 1988 July 8 –
'Hartali' 159-PATNA 2
Born to Raju (157) and Kanchhi (155), described by Mishra (1994) with photographs. Indian studbook (Kanpur Zoo, 1993) No. NR-32.

F 1991 July 6 –
'Chhotaki' 203-PATNA 3
Born to Raju (157) and Kanchhi (155). Indian studbook (Kanpur Zoo, 1993) No. NR-41. The birth occurred after a gestation of 466 days and was described by Mishra and Jha (1993).

Philadelphia, PA, USA

Zoological Gardens

M 1875 March 13 – 1901 January 3 †
'Pete' 231-INDIA O
Purchased from John O'Brien, who had exhibited the animal at P.T. Barnum's World Fair Circus, which O'Brien leased from Barnum. O'Brien had his base in Frankford, Pennsylvania, now part of Philadelphia town. Dates from Flower (1931: 202). The hide was mounted and preserved at the Academy of Natural Sciences, Philadelphia (Ulmer 1959: 6).

F 1923 May 24 – 1943 April 14 †
'Peggy' 232-INDIA P
It was caught in Nepal by Frank Buck and arrived together with the female in New York, as told by Buck (1930). It was purchased for \$8000 (Ulmer 1941). On arrival it was two years old and weighed 640 lbs.

F 1953 June 17 – 1976 December 6
'Kanaklota' 9-ASSAM 4
Caught in Kaziranga (dealer Peter Ryhiner), about three years old on arrival (Ulmer 1956). To San Diego Wild Animal Park.

M 1955 September 14 – 1996 January 7 †
'Kanakbala' or 'Billy' 10-ASSAM 5
Caught in Kaziranga (dealer Peter Ryhiner) (Anonymous 1955, and Ulmer 1956). A photograph of the male and female (9) can be found in Ulmer (1958: 6).

M 1979 November 7 – 1982 October 14
'Assam' 87-BASEL 16
From Basel. To New York Bronx.

F 1979 November 7 –
'Xavira' 80-BASEL 14
From Basel.

F 1984 February 25 – 1984 February 26 †
118-PHIL 1
Born to Billy (10) and Xavira (80). The animal weighed 56.25 kg at birth. It did not survive due to bacterial encephalitis.

M 1985 November 3 – 1987 April 6
'Akbar' = 'BJ' (= Billy Jr.) 126-PHIL 2
Born to Billy (10) and Xavira (80). To Miami.

F 1987 April 10 – 1988 November 22
'Shanti' 50-NEPAL 4
From Miami. To New York Bronx.

M 1988 August 14 – 1989 October 24
'Jimmy' 147-PHIL 3
Born to Billy (10) and Xavira (80). To Cincinnati.

M 1991 July 24 – 1992 July 21
'Dhaulagiri' 187-PHIL 4
Born to Billy (10) and Xavira (80). To Buffalo.

F 1994 May 10 – 1994 October 20
'Mechi' 138-NEPAL 15
From Washington, returned there after a short stay.

F 1994 October 6 –
'Penny' 223-PHIL 5
Born to Billy (10) and Xavira (80).

Portland, OR, USA

Portland Zoological Gardens

M 1964 May 3 – 1966 September 9
'KAllen' 63-NEPAL 5
Imported from Nepal by Morgan Berry. To Omaha.

Pune, Maharashtra, India

Royal Menagerie of Mudarao Narrian Peshwa

M 1790 November
There is a drawing commissioned by Sir Charles Warre Malet, Resident in Poona from 1786 to 1796, by the local artist Gangaram

Chintaman Tambat. Malet added an inscription to the illustration of an Indian rhinoceros: "This drawing and wax figure [not known] of a Rhinoceros belonging to Mudarao Narrian Peshwa was taken from the life with great Fidelity at Poona in November 1790 by Gangaram Chintaman Tambat, the Age of the Rhinoceros was supposed to be about 25 years. ... Poona, 28th October 1790. CWM." The drawing is described and illustrated in a sales catalogue from Hobhouse Ltd., London, "Indian painting during the British Period: Tuesday, 9th September – Saturday, 27th September 1986."

Rome, Italy

Giardino Zoologico

M 1951 September 5 – 1983 February 28 †
'Tomy' 6-ASSAM 2
Caught in Kaziranga (by dealer Molinar). Picture from 1977 in Blaszkiewicz (1980: 101, fig. 5). Died of pulmonary emphysema, peritoneal pouring with hepatic adhesion.

Rotterdam, The Netherlands

Zoo Blijdorp

M 1983 April 13 – 1990 May 29
'Nadir' 109-STUTT 5
From Stuttgart. To Singapore.

M 1990 October 9 –
134-ANTW 3
From Antwerp.

F 1993 June 16 –
'Namaste' 185-STUTT 10
From Stuttgart.

San Diego, CA, USA

1. San Diego Zoo

Dolan *et al.* (1990) reviewed the history of the rhinoceroses kept in San Diego.

M 1963 October 12 – 1972 April 29
'Lasai' 26-BASEL 3
From Basel. To San Diego Wild Animal Park.

F 1965 February 28 – 1972 April 26
'Jaypuri' 29-GAUH 2
From Gauhati (dealer George Munro). Picture in Dolan *et al.* (1990, fig. 7). To San Diego Wild Animal Park.

M 1982 November 4 – 1985 June 25
'Pandu' 101-SDWAP 4
From San Diego Wild Animal Park. To Washington.

M 1983 July 5 – 1983 October 27
'Tezpur' 112-SDWAP 5
From San Diego Wild Animal Park. To Seoul.

M 1983 November 30 – 1985 May 29
'Rabha' 96-HYDE 2
From San Diego Wild Animal Park and returned there.

M 1985 June 5 – 1988 September 17
'Jorhat' 116-SDWAP 6
From San Diego Wild Animal Park. To Tampa.

M 1988 November 21 – 1989 October 24
'Gurkha' 124-SDWAP 7
From San Diego Wild Animal Park. To Singapore.

M 1990 September 13 –
'Joya' 146-SDWAP 10
From San Diego Wild Animal Park.

2. San Diego Wild Animal Park

Joseph (1989), Dolan *et al.* (1990), Jones (1991) and Rieches (1993) reviewed the rhinoceros collection at this park with large enclosures.

F 1972 April 26 –
'Jaypuri' 29-GAUH 2
From San Diego.

M 1972 April 29 –
'Lasai' 26-BASEL 3
From San Diego.

M 1975 March 24 – 1975 March 25 †
78-SDWAP 1
Born to Lasai (26) and Jaypuri (29). Survived for only one day.

M 1976 October 18 – 1976 October 20 †
'Maharajah' 85-SDWAP 2

Born to Lasai (26) and Jaypuri (29). Died of acute necrotic colitis, enteritis and peritonitis.

F 1976 December 7 – 1977 May 12 †
'Kanakbala' 9-ASSAM 4
From Philadelphia. Died due to uterine leiomyoma.

F 1978 March 19 –
'Gaiinda' 99-SDWAP 3
Born to Lasai (26) and Jaypuri (29). Picture in Dolan *et al.* (1990, fig. 7).

M 1980 August 8 – 1982 November 4
'Pandu' 101-SDWAP 4
Born to Lasai (26) and Jaypuri (29). Metzler (1981) presented several pictures of this baby. To San Diego.

M 1982 July 26 – 1983 July 5
'Tezpur' 112-SDWAP 5
Born to Lasai (26) and Gaiinda (99). To San Diego.

M 1983 May 1 – 1985 June 5
'Jorhat' 116-SDWAP 6
Born to Lasai (26) and Jaypuri (29). To San Diego.

M 1983 September 10 –
'Rabha' (Srinivasa) 96-HYDE 2
From Hyderabad, as a donation from William Grunerwald. Exhibited at San Diego Zoo from 30th November, 1983, to 29th May, 1985. The studbook number is not 106-Hyde 3, see discussion under Hyderabad.

F 1984 July 31 – 1984 July 31 †
225-SDWAP 22
Stillborn to Lasai (26) and Jaypuri (29).

F 1985 June 18 – 1985 July 3 †
'Meetha' 111-LOSAN 1
From Los Angeles. After being attacked by a male (Jaypuri 29), it was euthanized (Joseph 1989: 9).

M 1985 June 25 – 1988 November 21
'Gurkha' 124-SDWAP 7
Born to Lasai (26) and Gaiinda (99). To San Diego Zoo.

F 1986 January 18 –
'Jumia' 130-SDWAP 8
Born to Lasai (26) and Jaypuri (29).

M 1987 January 7 – 1987 January 7 †
142-SDWAP –
Calf was aborted; parents Lasai (26) and Jay-
puri (29).

F 1987 May 28 –
'Goalpara' 143-SDWAP 9
Born to Lasai (26) and Gaiinda (99). Date of
birth incorrectly recorded as 26th May in stud-
book.

M 1988 May 22 – 1990 September 13
'Joya' 146-SDWAP 10
Born to Lasai (26) and Jaypuri (29). To San
Diego.

F 1989 April 20 – 1989 April 20 †
163-SDWAP 11
Stillborn to Rabha (106) and Gaiinda (99).

M 1990 January 27 –
'Jaunpur' 180-SDWAP 12
Born to Lasai (26) and Jaypuri (29). Weight at
birth 157 lbs.

F 1990 July 20 – 1994 October 9
'Jhansi' 182-SDWAP 13
Born to Rabha (96) and Jumia (130). Weight at
birth 142 lbs. To Stuttgart.

M 1990 December 28 –
'Gujrat' 184-SDWAP 14
Born to Rabha (96) and Gaiinda (99).

M 1991 December 22 –
'Gangtok' 188-SDWAP 15
Born to Rabha (96) and Goalpara (143).

M 1992 February 26 – 1992 February 26 †
197-SDWAP 16
Stillborn to Rabha (96) and Jumia (130).

F 1992 July 21 – 1992 July 21 †
198-SDWAP 17
Stillborn to Lasai (26) and Jaypuri (29).

M 1992 November 6 – 1992 November 6 †
200-SDWAP 18
Stillborn to Rabha (26) and Gaiinda (99).

F 1993 September 7 –
'Godavari' 209-SDWAP 19
Born to Lasai (26) and Goalpara (143), men-
tioned (with photograph) in *Zoonooz*, San Di-
ego, 67 (1): 5, January 1994.

M 1994 March 13 –
'Jaffna' 220-SDWAP 20
Born to Rabha (96) and Jumia (130).

M 1994 November 26 –
'Jafar' 224-SDWAP 21
Born to Lasai (26) and Jaypuri (29). Picture in
Anonymous (1995). Birth weight 147 lbs.

San Francisco, CA, USA

Zoological Gardens

M 1987 June 22 – 1996 September 6 †
'Chettra' 136-NEPAL 13
Caught in Nepal. This male and the following
female were a gift from King Birendra of Ne-
pal, being presented by Prince Gayendra on
22nd June, 1987.

F 1987 June 22 –
'Shanti' 137-NEPAL 14
Caught in Nepal (see previous entry).

Sao Paulo, Brazil

Fundacao Parque Zoologico

M 1977 October 31 –
'Nabob' 71-STUTT 2
From Gelsenkirchen.

Seoul, South Korea

Grand Park Zoo

M 1983 October 27 – 1990 †
'Tezpur' 112-SDWAP 5
From San Diego. Died of respiratory obstruc-
tion due to acute indigestion and abdominal
pressure.

Singapore

Zoological Gardens

M 1989 October 26 –
'Gurkha' 124-SDWAP 7
From San Diego.

M 1990 May 7 –
'Karnak' 164-NEPAL 18
Caught in Chitwan National Park, Nepal. It was about seven months old on arrival.

F 1990 May 7 – 1991 November 2 †
'Kanchan' 165-NEPAL 19
Caught in Chitwan National Park, Nepal. It was about seven months old on arrival. It died of an impacted gut.

M 1990 May 29 – 1994 December 12
'Nadir' 109-STUTT 5
From Rotterdam. To Chiangmai.

M 1992 June 14 – 1992 July 8 †
'Dvitya' 86-STUTT 3
From Dvur Kralove. Died of an impacted gut. The skull is preserved at the education department of the zoo.

M 1994 January 8 – 1994 February 4 †
'Pandur' 39-HAMB 2
From Hamburg.

F 1994 January 8 –
'Shita' 38-HAMB 1
From Hamburg.

M 1995 April 28 –
'Quilon' 206-BASEL 26
From Basel.

St Louis, MO, USA

Saint Louis Zoo

M 1934 January 19 – 1961 December 31 †
'Harry' 74-INDIA J
Caught in Nepal through Frank Buck (Reynolds 1962b: 99). Buck showed the capture of this rhinoceros in his movie *Wild Cargo*, released in March 1934.

St Petersburg, Russia

Zoological Gardens

1882 – 1884/1885 (?)
Present in 1882 (Lukin 1883: 280). Dates recorded by Dennis Levy (in Rookmaaker and Reynolds 1985: 152).

1911 – 1918 (?)

Dates recorded by Dennis Levy (in Rookmaaker and Reynolds 1985: 152).

Stuttgart, Germany

Wilhelma Zoo

F 1968 May 29 – 1992 †
'Nanda' 34-BASEL 6
From Basel. To Basel on breeding loan from 3rd June, 1969 to 9th June, 1970 and again from 19th July, 1973 to 24th October, 1973.

M 1969 June 3 –
'Puri' 41-BASEL 8
From Basel.

F 1971 July 16 – 1971 July 16 †
54-STUTT 1
Born to Basel's male Arjun (18) and Nanda (34), gestation 470 days, weight 55.7 kg. It was killed by the mother on the same day.

M 1974 December 5 – 1976 November 23
'Nabob' 71-STUTT 2
Born to Basel's male Arjun (18) and Nanda (34), gestation 479 days. Its photograph was published in *Int. Zoo News*, 21 (1), December 1974, p. 46. The name of the animal was the result of a public appeal bringing in over 2000 suggestions. It was 'baptized' with Stuttgart red wine by the former zoo director, Mr. Schöchle (*Int. Zoo News*, 22 (3), June 1975, pp 42-43 with photo). To Gelsenkirchen.

M 1977 September 21 – 1980 August 12
'Dvityi' 86-STUTT 3
Born to Puri (41) and Nanda (34), gestation 490 days. To Dvur Kralove.

F 1979 September 13 – 1981 July 22
'Numa' 93-STUTT 4
Born to Puri (41) and Nanda (34). To Dvur Kralove.

M 1981 August 30 – 1983 April 13
'Nadir' 109-STUTT 5
Born to Puri (41) and Nanda (34). To Rotterdam.

M 1983 July 12 – 1985

'Katgin' 117-STUTT 6
Born to Puri (41) and Nanda (34). To Magdeburg (date not recorded in studbook), later to Yokohama.

M 1985 January 29 – 1987 December 9

'Bruno' 123-STUTT 7
Born to Puri (41) and Nanda (34). To Cologne.

M 1986 December 24 – 1989 December

'Noel' 135-STUTT 8
Born to Puri (41) and Nanda (34). To Nuremberg.

M 1988 November 27 – 1990 June 12

'Nikolaus' 152-STUTT 9
Born to Puri (41) and Nanda (34). To Munich.

F 1991 February 11 – 1993 June 16

'Namaste' 185-STUTT 10
Born to Puri (41) and Nanda (34). To Rotterdam.

F 1993 June 30 –

'Sani' 204-NEPAL 21
Imported from Nepal.

F 1994 October 9 – 1994 October 11

'Jansi' 182-SDWAP 13
From San Diego Wild Animal Park. To Berlin Tierpark.

Tampa, FL, USA

Lowry Park Zoo

M 1988 September 17 –

'Jorhat' 116-SDWAP 6
From San Diego.

Tokyo, Japan

Tama Zoological Park

M 1958 November 10 – 1995 July 16 †

'Tamaoh' [King of Tama] 22-INDIA D
Caught in Kaziranga, costing 6.250.000 yen. Aritake (1959) described its transport to Japan. It was the first specimen of *Rhinoceros unicornis* to be shown in Japan.

F 1961 August 16 – 1991 December 3 †

'Lanny' 21-INDIA C
Caught in Assam, as gift from Indian prime minister Nehru (Hayashi 1963). While in transit at Calcutta Zoo, this female delivered a baby which remained in Calcutta. It was about 15 years old on arrival. Died of senility (Hosoda 1991).

1966 June 20 – 1966 June 20 †

'Herman' 36-TOKYO 1
Stillborn to Tamao (22) and Lanny (21). This date is recorded in the studbook. The zoo records do not list a birth on this date, but mention the stillbirth of a male specimen on 11th June 1967.

M 1973 December 20 – 1978 December 12

'Saitaro' 65-TOKYO 2
Born to Tamao (22) and Lanny (21), weight 62.2 kg on ninth day. To Amsterdam.

Toronto, Ontario, Canada

Metro Toronto Zoo

M 1976 June 12 – 1990 May 31

'Vinu' 53-MYSO 2
From Gelsenkirchen. To New York Bronx.

F 1979 April 27 –

'Indira' 79-MYSO 3
From Mysore.

M 1989 June 15 –

'Patrick' 69-WASH 1
From Washington.

F 1991 December 25 – 1994 August 22

189-TORO 1
Born to Patrick (69) and Indira (79). Carnio (1992) includes a photograph. To Cincinnati.

M 1994 September 11 –

222-WASH 4
Born to Patrick (69) and Indira (79).

Trivandrum, Kerala, India

Zoological Gardens

1878 March – 1900 June 16 †

Dates recorded by Flower (1931: 202, accord-



Fig. 61. Trivandrum's male 'Moni' in January 1984.

ing to the *Annual Report* of Trivandrum Zoo 1899/1900, p. 18; not seen).

M 1956 May 29 – 1987 February 16 †
'Moni' 12-KAZ 6
(see Fig. 61)

M 1993 May 19 –
175-ASSAM 25
From Gauhati. Indian studbook (Kanpur Zoo, 1993) No. NR-28.

M 1993 May 19 –
177-KAZ 24
From Gauhati. Indian studbook (Kanpur Zoo, 1993) No. NR-31.

Udaipur, Rajasthan, India

Zoological Gardens

F 1941 – 1946
It was three years old on arrival. To Jaipur.

United Kingdom

1. Wombwell's Menagerie

George Wombwell (1778-1850) started his travelling menagerie at the beginning of the 19th century. It was a profitable business and, at the time of his death, there were three Wombwell menageries on the road, called Number One, Number Two and Number Three. Wombwell himself travelled with the first one, also called the Royal Menagerie (Barnaby 1988). One of the other menageries was operated by his nephew, James Edmonds.

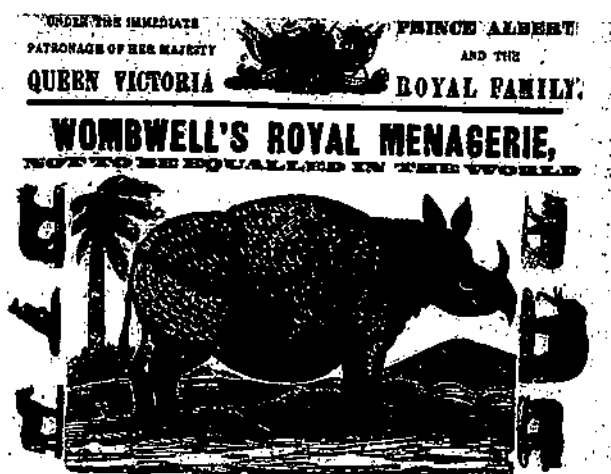


Fig. 62. Poster for Wombwell's Royal Menagerie, undated.

After Wombwell's death in 1850, the menageries were inherited by his relatives. The Number One menagerie was run by his widow until 1865, when it was taken over by a nephew, Alexander Fairgrieve. It was sold in Edinburgh in 1872 (see Barnaby 1988 with a list of the animals included in the sale: no rhinoceros). Number Two was left to a niece called Mrs. Edmonds (probably Edmonds' widow), who later merged with Bostock management and this business survived into the 20th century. The Number Three menagerie was sold off soon after 1850.

Wombwell or his associates and successors kept several rhinoceroses. Ritvo (1990: 216), unfortunately without a date, stated that Wombwell advertized a pair of rhinoceroses. This may refer to animals shown in 1838 to 1841 or in 1870 (see Fig. 62).

1816 – 1820 (?)

George Wombwell bought the animal from a racehorse owner named Thomas Hornby Morland, who was in financial difficulties. In 1819 it was said to be four years old, from Bengal, weighing two tons (Mark Sorrell, in litt, October 1996). It was seen at Boughton Green Fair in 1818 (Keeling 1985: 38).

1836 June – 1836 July †

According to the *Cambridge Chronicle* of 18th November, 1836 (Keeling 1993: 15), Wombwell purchased a rhinoceros in June 1836 'at enormous expense' but it died within a month. The specimen was stuffed and the bones articulated by 'Mr. Cashmore of Birmingham'. The animal apparently was displayed at the me-

nagerie as a stuffed rhinoceros and this should account for references to a rhinoceros in Wombwell's Royal Menagerie between at least 1836 and 1842. For example, a rhinoceros was shown in Plymouth on 15 November, 1838. The *Plymouth & Devonport Weekly Journal* for that date carried an advertisement: "Now exhibiting in the market place, Plymouth, Wombwell's Royal National Menagerie owned by G. Wombwell" (Moiser 1990). The advertisement included the information that there was a specimen of "The Great one-horned Rhinoceros, or Unicorn of Scripture", adding that "it was purchased by Mr. Wombwell at an immense expense, and must be considered a great curiosity, as there has not been one exhibited in any collection for the last twenty years". [That last statement is a curious exaggeration, as surely the English public would have known about the rhinoceros at London Zoo since 1834?].

F 1842 November – 1850 June †

George Wombwell bought the animal at the sale of the Manchester Zoological Gardens in November 1842 for 265 guineas (*Manchester & Salford Advertiser*, 26th November, 1842, reported in the *Bartlett Society Journal*, 6 (1995): 24). During its stay at the menagerie, a few witnesses saw a rhinoceros:

Exeter, 6th March 1845 (Moiser 1994).

Bolton, 1st January 1848 (*Bolton Chronicle*, reported by Keeling 1993: 16).

Somerset, September 1848 (Poster in Somerset Record Office, DD?SAS C/909 167/16).

The logbook of Wombwell's Number One menagerie survived and was published recently (Percival *et al.* 1989). It shows the succession of towns through which it passed, sometimes accompanied by a date, and very few additional comments. One such entry was when the menagerie was in Falkirk, near Edinburgh, on an unknown date but after May 1850, stating that the 'Rhinoceros died' (Percival *et al.* 1989: 23).

1851

In 1851, G.C. Quick & Co.'s Menagerie, exhibiting in Harrisburg, Pennsylvania, USA, included a rhinoceros purchased from Wombwell. There are no details about this transaction. Perhaps it was the stuffed specimen from 1836?

1858

A confusing remark was made by Buckland (1858, and repeated in 1882: 217–218) visiting a zoological collection "under the direction of Mr. Edmonds, late Wombwell", when he was in Windsor in November 1858. He found that "Mr. Edmonds had a very fine one-horned rhinoceros which has been in the show twenty-one years, and which cost £1400 at the sale of the animals at the Manchester Zoological Gardens; he always rides in his van, being a valuable animal and worth his carriage."

There are a few inconsistencies with the known facts. Bartlett stated that the animal had been with Wombwell for 21 years, *i.e.*, since 1837, and that it was purchased from Manchester Zoo. However, that zoo sold a rhinoceros in November 1842 and did not even exist in 1837. Such inconclusive dates aside, it still would appear that Bartlett saw a living specimen, since it would not make sense to provide a carriage for a stuffed animal. When did Edmonds purchase it and how long did it live? It could have been one of the animals imported by Jamrach in 1855 (London, Jamrach) and advertised for sale in Liverpool on 11th June, 1855, and in Manchester in 1856. However, no connection between those animals and Edmonds has been found.

M 1870 May 20 – (?)

The *Journal of the Bartlett Society* (No. 4, 1993, inside back cover) showed an advertisement from a Colchester newspaper, dated June 1870. Here Edmonds, or "late Wombwell's Royal ... Menagerie", exhibited two Indian rhinoceroses: "male and female, brought over in the ship *Alumburg*, and landed in London May 20, 1870". The same information on the arrival of a pair of Indian rhinos, priced at £3000, is contained in a catalogue entitled "Visitors Guide to Edmonds' Late Wombwell's Royal Windsor Castle Menagerie, exhibited at Windsor Castle & at the Crystal Palace, Newcastle Upon Tyne", 1870. In a printed guide to Mrs. Edmonds Menagerie in Scotland dated 1876 (p.11), there was still "one of those Rare and Wonderful animals" brought over in the ship *Alumbagh* (sic) and priced at £2000. It is not clear from the text which of the pair this was. Mrs. Edmonds's show was disbanded at auction in Liverpool in 1884 (Keeling 1995a: 13–14), but no rhinoceros was included.

F 1870 May 20 - (?)

Brought to London together with the previous male. Only one still survived in 1876, either the male or this female. In 1872, Mr. Ferguson bought a rhinoceros in the British Isles which he transported to the USA. It was described as a 'Black two-horned rhinoceros', and shown at the Van Amburgh Circus (see *Diceros bicornis*, USA). The information available is not clear enough to speculate further.

2. Manders' Royal Menagerie

1864

The catalogue or guidebook of a travelling menagerie operated by Manders dated 1864, listed the 'Rhinoceros (*Rhinoceros unicornis*)' among its inmates (Keeling 1997). No further information.

United States of America

Travelling Menageries and Circuses

The dates and information given below are based on the research by Reynolds, partly recorded earlier in his major paper from 1967. The identity of some of the early rhinos in American shows is open to doubt. All those specimens which cannot be definitely allocated and which were exhibited in the 19th century are included in this chapter.

M 1830 May 9 - 1835 †

This male rhinoceros was captured in Assam when about three months old. From August 1829, it had been kept by a Rajah in Calcutta [no particulars known], who sold it in January 1830. It landed in Boston on 9th May, 1830. It was the first rhinoceros to set foot in the USA. It belonged to the Flatfoots Association, with permanent quarters at 37 Bowery, New York City. It was assigned to the menagerie owned by June, Titus and Angevin. Considering its origin, the animal probably was an Indian rhinoceros. The following details have been discovered on its travels.

1830, 14th May, Boston, MA.

Exhibited in Washington Gardens, Tremont Street.

1830, June/July, New York, NY.

Exhibited in 350 Broadway, New York City [the date 1829 recorded in Reynolds (1968) is not correct].

1830, September/October, Philadelphia, PA. Shown by the American National Caravan, owned by June, Titus & Angevin.

1830, December, Washington, DC.

Shown by the American National Caravan.

1831, on tour with American National Caravan.

1832-1833, on tour with American National Caravan or Grand National Menagerie. On 27th January 1832 it was in Boston. The Grand National Menagerie was owned by James M. June, John J. June, Stebbins B. June and Lewis B. Titus. The route followed in 1833 is listed in Thayer (1986: 182).

1834, April, Albany, NY. Exhibited with the National Menagerie owned by James J. June, John J. June, S.B. June, L.B. Titus and Caleb S. Angevine. 1834 route listed in Thayer (1986: 182-183).

1834/1835, New York, NY. In New York City, in permanent quarters.

1835, on tour with the Zoological Institute's "The Association's Celebrated and Extensive Menagerie and Aviary" (route in Thayer 1986: 189-190). The animal died in 1835.

M 1830 October - 1836 (?)

This male rhinoceros was imported from Calcutta in October 1830 on board the *Georgian*. It was three years old on arrival and weighed 1590 lbs. It was imported by one Dr. Burrow or Burrough from Philadelphia. The animal belonged to the Flatfoots Association and was assigned to the show of Raymond & Ogden. Considering its origin, the animal probably was an Indian rhinoceros. It is not known when it died. The following dates and places have been recorded:

1830 December 9 - 1831 January 3, Philadelphia, PA. Shown in Philadelphia, 48 South Fifth Street. In January 1831 it was sold at auction.

1831 March, Philadelphia, PA. Exhibited by a show called the "New and Rare Collection of Living Animals" [not by the American Menagerie].

1831 July 27, Painesville, OH. Shown in Raymond & Ogden's "New and Rare Collection of Living Animals".

1832, 1833, on tour with Raymond & Ogden.

1834 October 11, Marietta, OH. Exhibited by Raymond & Ogden.

1835 August 11, Pittsburgh, PA.

1835, August, Ohio and Pennsylvania.

1836, Piqua, OH.

F 1834 December - 1837 (?)

Caught in Assam. The animal (probably a female) arrived in Philadelphia in December 1834. The following dates and owners have been recorded:

1835, Philadelphia, PA. Exhibited by the Zoological Institute of Purdy, Welch & Co.

1837, travelling with the Zoological Institute's Collection of Purdy, Welch and Macomber. The animal weighed 5628 lbs.

1837, 22nd-23rd August, a female rhinoceros was auctioned at the Zoological Institute.

M 1835 May 19 - 1836 †

A large male rhinoceros arrived in Boston on board the ship *Susan* from the Cape of Good Hope. The shipment included both Asian and African animals, some of which had been sent to Cape Town from different Asian countries (*Boston Investigator*, 12th June, 1835). It seems quite likely, therefore, that the rhinoceros was Indian, even though it was sometimes called two-horned (Newport *Rhode Island Republican*, 8th July, 1835). In fact, Macomber's circus had engaged a party to travel into the South African interior in search of rhinos and giraffes. They were returning with four giraffes, the hide of a two-horned white rhinoceros and two living rhinoceroses, when they were attacked by some people who took the animals and all the baggage (*Boston Investigator*, 12th June, 1835).

The rhinoceros belonged to the Flatfoots Association. From 1st June to 13th July, 1834, it was exhibited at 45 Union Street, Boston, in the Entire New Menagerie. Then it went to the June, Titus & Angevine Unit. It probably died in 1836.

1848 October - 1853 March 13 †

An Asiatic rhinoceros (sex unknown) was shown by Raymond & Waring in New London, CT, on 9th October, 1848. The same animal is found in advertisements from 1849. During 1849 it was transferred to the unit operated by Jacob Driesbach. The Raymond & Driesbach Menagerie showed a rhinoceros in Massachusetts in June 1851. The same animal appeared on 21st October, 1853, in Middletown, CT, in the Driesbach, Rivers and Devious' Menagerie & Circus. In *Gleason's Pictorial* of 4th April, 1854, there is the news that a rhinoceros in Driesbach's Menagerie from New York had died on 13th March, 1853.

M 1851 - 1861 August 18 †

'Putnam' or 'Old Put'

Thought to be an Indian rhinoceros, the animal was advertized by G.C. Quick & Co.'s Circus and Menagerie at Harrisburg, PA, in 1851. It was probably the same animal that was with Sands and Quick at Dedham, MA, in 1852. It was claimed that the animals then travelling with the Quick and Sands circuses (including, by implication, their rhinoceros) were obtained in England at auctions of the Wombwell Menagerie and the Estates of the late Earl of Derby (Thayer, in litt. 30th March 1993). The purchases must have been made in late 1850 or early 1851.

This rhinoceros was with Quick, Sands, and Avery Smith's circus in 1853. In 1854 it toured with P.T. Barnum's Asiatic Caravan, Museum, and Menagerie, owned by Barnum in partnership with Seth B. Howes, the latter known to have been Sands' partner in other ventures. Howes may have owned the rhinoceros by himself because, when his partnership with Barnum was dissolved in November 1854, the properties and animals did not include the rhinoceros. Instead, in 1855, it went with the Howes, Myers & Madigan Menagerie and Circus. Howes sold the rhinoceros in November 1855 for \$575. There is some confusion over the identity of the purchaser. *Ballou's Weekly* reported that Barnum bought it. If so, he immediately loaned it to Joseph Cushing, who exhibited it on Bayard and Bowery Streets in New York in December 1855. Shortly thereafter, the animal was said to have killed one of its keepers, and was taken to a farm in Putnam County, New York, from whence it got its name. The farm was owned or used by the so-called 'Flatfoot' group of showmen. In 1856, one of them, Avery Smith, a sometime partner of Howes and Sands, negotiated the sale of 'Putnam' to Dan Rice for \$700.

Rice had the rhinoceros sent to his winter quarters in Girard, PA, where it was trained by Frank Rosston. Rice presented the animal in the ring with his circus from 1857. It toured with Rice until it died on 18th August, 1861, on the Mississippi River when its cage disappeared into the river after a boat accident.

This was the first performing rhinoceros in history. Reynolds (1967) described Old Put's routine in the arena and published a photograph. Although the animal in the picture is clearly an Indian rhinoceros, Reynolds (in litt. May 1996) now believes that the photograph

in fact depicts a performing rhinoceros with a ring in its nose owned by John O'Brien in 1871-1874 and described below. The dates of 'Old Put' are rather early and the photograph was more likely to have been taken in the 1870s.

1853

A rhinoceros (identity unknown) was shown by Robinson & Eldred's Great Combined Circus & Menagerie in Macon, GA, on 11th and 12th February, 1853.

1868 - 1874

George F. Bailey had a rhinoceros during the seasons from 1868 to 1870, and again in 1874 (photograph in Reynolds 1970: 4).

1868 July 4 - 1870 (?)

The Van Amburgh Circus (owned by Hyatt Frost) received a rhinoceros, possibly Indian, on 4th July, 1868, in Boston. It was seen on 8th July, 1868, in Newburyport, MA, and in October 1870 in Fostoria, OH.

M 1870 - 1875 March 13

'Pete'

231-INDIA O

John V. 'Pogey' O'Brien, the Philadelphia-based circus proprietor, received a rhinoceros in 1870. He acquired a second specimen in 1871, and a third one in 1875 (see following entry). The records are too confused to be certain which specimen was shown where.

A rhinoceros was first advertized with the O'Brien Circus in 1870, suggesting that it was newly acquired for that tour. O'Brien's menagerie superintendent from 1867 was George Conklin. In his autobiography, Conklin mentioned that a rhinoceros called 'Big Pete' was loaned to Colonel Wood's Museum in Philadelphia during the winter of 1870 when the circus was not touring (Conklin 1921: 193). However, its rambunctious movements shook the building so much that it frightened the people, and Col. Wood returned the rhinoceros to O'Brien's winterquarters in Frankford. Conklin described another incident when, during an overland journey, a bridge over a Pennsylvania canal collapsed under the combined weight of Pete and his wagon. The rear of the van dropped into the water, and Conklin opened the back door releasing the rhinoceros into the canal. The animal was maneuvered into a nearby farm yard, while the cage was brought up. Tempted by carrots, the rhinoceros was induced back into the cage.

It is probably this animal called 'Pete' which was sold to the zoo in Philadelphia on 13th March, 1875, as its fondness for swaying in his cage caused the wagon to wrench the horses out of their harness (Ulmer 1941). The zoo said that the animal came from 'Barnum'. There were two circuses using that name in 1875, one of which, 'Barnum's World Fair' was in fact owned by O'Brien in partnership with P.T. Barnum.

M 1871 March - 1875 July 5 †

Scovill, an animal dealer, was said to have left Liverpool on 16th August, 1869, on his way to India. He captured a male rhinoceros in Assam. This rhinoceros arrived in Liverpool, where it was offered to the Zoological Society of London for £4000. This high price was not acceptable to the Society, after which the animal was shipped to New York, arriving on 1st March, 1871. It was then transported to Philadelphia. It was owned by John V. 'Pogey' O'Brien.

Despite this account of its capture and journey, it is not certain whether it was in fact an Indian rhinoceros. A certain George 'Punch' Irving wrote in *Billboard* (7th March 1925, p.79) about the tour of the Ben Maginley Show in 1874: "I was with the show. It was a large show for those days. The management carried 200 head of stock, a menagerie and featured a two-horned rhinoceros, which was brought into the ring attached to a pole and led by its keeper." In a letter presumably written in 1914 (published in the *Jamesville Gazette*), Frank Melville wrote that he saw a 'black rhinoceros' in O'Brien's buildings in Frankford, PA: "He was a double-horned fellow, but they had sawed his horn off short." This introduces doubt about the animal's identity, which can never be resolved now.

In 1871, there was a rhinoceros at a circus called "John O'Brien's Caravan, Monster Menagerie and National Caravan" and another specimen (one of these being the previous entry) with O'Brien's "Sheldenberger's European Menagerie and Grecian Circus". The second of these animals was apparently trained to perform in the ring. In 1873, this rhinoceros was assigned to the Dan Rice circus, in which O'Brien had an interest.

In 1874, a trained rhinoceros was included in Maginley & Co.'s Circus and Menagerie (owned by O'Brien). On 16th July, 1874, the animal was seen while it was being ridden by 'a native' in Brunswick, MN. C.G. Sturtevant

('Circus Menageries', *Billboard* 13, June 1925, p.76) said that it was handled with a long pole attached to a ring in its nose. Apparently, this trained rhinoceros died on 5th July, 1875, in Bradford, PA, when touring with the circus of A.B. Rothchilds & Co. (owned by O'Brien).

F 1872 November - 1876/1877 (?)

John Robinson came to Atlanta, GA, in November 1872 with his "Old John Robinson's Great Zoological Exposition and World's Fair of Wonders". There he showed a 'black Sumatran rhinoceros' which was said to have been caught in Sumatra in 1869. This animal was present in his shows in 1873 and 1876. Robinson deposited a rhinoceros at the Cincinnati Zoo in April 1877. This was a female Indian rhinoceros, not a Sumatran one. It returned to the circus in 1878, but no further particulars are known.

1872 December - 1873 September 29 †

P.T. Barnum bought a rhinoceros during the winter of 1872-1873. It may have been Indian. It died of a fit while in Philadelphia on 29th September, 1873.

1873 January - 1875

P.T. Barnum had a rhinoceros while in New York in January 1873. In September of that year there was a rhinoceros at his winter-quarters in Bridgeport, CT. This animal may have been the same as 'Pete', which arrived at Philadelphia Zoo on 3rd September, 1875, from Barnum (it died in 1900).

1875 July - 1882 (?)

This is the third rhinoceros owned by O'Brien in the 1870s. It was acquired by A.B. Rothchilds to replace the trained one that died in early July 1875 (*Clipper*, 24th July 1875). The identity of this animal is not exactly known. However, in 1876, a rhinoceros called 'Himalaya' toured with A.B. Rothchild & Co., pointing to an Asian origin.

In 1878, there was a rhinoceros with Campbell's New York and Philadelphia Zoological & Equestrian Institute (owned by O'Brien). In 1878, Campbell's Institute was sold to George Batcheller and John B. Doris. In 1882, a rhinoceros was mentioned in a herald as owned by Batcheller and Doris. It is not known when it died.

1876 - 1877 †

James A. Bailey went on an Australian tour with the Cooper, Bailey's & Co. International Allied Shows. He left San Francisco in 1876. It is rumored that a rhinoceros was present at that time, but it is not included in the advertisements. Murray (1956: 240) stated that a rhinoceros died in a storm near Indonesia and that the animal's remains were thrown overboard.

1877 - 1879 July 30 †

After the loss of a rhinoceros in 1877 (see previous entry), James A. Bailey purchased another specimen. It is not clear how he could have found one in Australia at that time, but it is just possible that he obtained it in Java, Indonesia, where he also exhibited the show. Later, this International Allied Show visited South America in 1878 and returned to New York in December of that year. One rhinoceros died on 30th July, 1879, while Bailey was in Ottawa, KS.

1878

P.T. Barnum had a rhinoceros of unknown identity in his show during the 1878 season.

1879 - 1887

Burr Robins first had a rhinoceros (identity unknown) in 1879. It was again listed in his show in 1884, 1885 and, for the last time, in 1887.

1883 - 1886

P.T. Barnum and James A. Bailey had two rhinoceroses during 1883-1886. One was double-horned (see *D. sumatrensis*), but no particulars about the second one are known.

1884 - 1888

Adam Forepaugh had a rhinoceros (of unknown identity) in the Great Forepaugh Show of 1884. In 1884, only a rhino enclosure is found in the advertisements.

1898 - 1902

James Bailey went on a European tour in 1897. He had no rhinoceros upon his departure from the USA. However, he purchased a rhinoceros of about three years of age early in 1898 at Olympia in London, for £800. This was an Indian rhinoceros called 'Queen Elizabeth', imported in the winter of 1897/1898. The circus toured the continent, visiting the Nether-

lands in 1901, and France and Switzerland in 1902. It returned to New York in November 1902, but at that time there is no mention of a rhinoceros.

M 1907 – 1926 September 28 †
'Old Bill'

Widely travelled and seen by millions across the US, this was the last Indian rhinoceros in an American Circus (Reynolds 1967: 287-290, 292, figs. 2-4). Although its whereabouts from 1910 onwards are now well established, its earliest years in captivity are clouded with uncertainty. However, it is known that it was purchased by the Ringlings somewhere between 1905 and 1910, and first toured either with the Ringling Brothers Circus or its affiliate, the Adam Forepaugh & Sells Bros. Circus. Reynolds (1967) suggested that it was one of four imported from Nepal by Hagenbeck, because he offered one to the Ringlings. However, no proof of its arrival in the circus has been found. This is perplexing, because circuses usually publicized any acquisitions of such great rarity and value. From 1910, its itinerary was as follows:

1910-1911: on tour with Adam Forepaugh & Sells Bros. Circus.

1912-1913: on tour with Ringling Brothers. On 5 July, 1913: it was sent to the Barnum & Bailey Circus (Reynolds 1993: 28, according to a ledger at Circus World Museum, Baraboo, WI).

1913-1918: on tour with Barnum & Bailey Circus.

1919-1926: on tour with Ringling Bros., Barnum & Bailey Circus.

In 1926, it died on the road while in Fort Worth, TX. Its remains went to the Peabody Museum of Natural History, Yale University, New Haven, CT, where its hide was mounted and later put on display.

Vadodara, Gujarat, India

1. Collection of the Maharajah of Baroda

1825

Heber (1827, III: 5) visited the court at Baroda, and "in passing through the city I saw ... a rhinoceros (the present from Lord Amherst to the Guicwar) which is so tame as to be ridden by a mohout, quite as patiently as an elephant".



Fig. 63. Rousselet's depiction of a rhinoceros fight at Baroda, 1864.

1864 June

When the French traveller Louis Rousselet visited Baroda in June 1864, he witnessed a fight between two rhinoceroses, as described in his book of 1877 (p. 123-124). The graphic account is illustrated by an engraving made from a drawing by E. Bayard, in which the animals each have two nasal horns (see Fig. 63). This could be artistic license or actual fact, in which case the animals were of Sumatran or African origin.

1875

On the occasion of the visit of the Prince of Wales to Baroda, two rhinoceroses were made to fight each other. They could have been the same specimens that were present in 1864, or different ones. The event is commemorated in *The Illustrated London News* for 25th December, 1875, in a sketch showing two single-horned rhinos both tied with a chain around the two front legs.

2. Zoological Gardens

F 1969 April 5 – 1990

From Gauhati. The stay in Baroda Zoo has not been confirmed, but the animal's transfer to Mysore was mentioned in *Zoo's Print*, June 1990. To Mysore.

Vienna, Austria*Schönbrunner Tiergarten**F 1856 May 24 - 1894 October 23*

Arrived in Europe in 1855 (Knauer 1914: 61), when it was two years old. It was bought from Jamrach for 4106.45 guilders. A photograph taken by A. Pichler around 1880 was used by Antonius (1937: 19). Kourist (1970: 146, fig. 6) discussed a plate made by H. Leutemann in 1858, probably depicting this specimen. To Wrocław (Breslau), together with two elephants, when the pachyderm house was renovated.

Washington, DC, USA*National Zoological Gardens**M 1939 July 7 - 1959 January 9 †**'Gunda'**233-INDIA Q*

Caught in Assam.

*M 1960 May 26 - 1981 April 1**'Tarun'**19-INDIA B*

Caught in Assam. It was 2.5 years old on arrival. To New York Bronx.

*F 1963 December 16 - 1980 September 9 †**'Rajkumari'**28-GAUH 1*

From Gauhati (born in transit in 1963). The mother (30) died soon after arrival in Washington. Rajkumari was then hand-fed for about six months (see Fig. 64).

*F 1963 December 16 - 1963 December 28 †**'Deepali'**30-INDIA H*

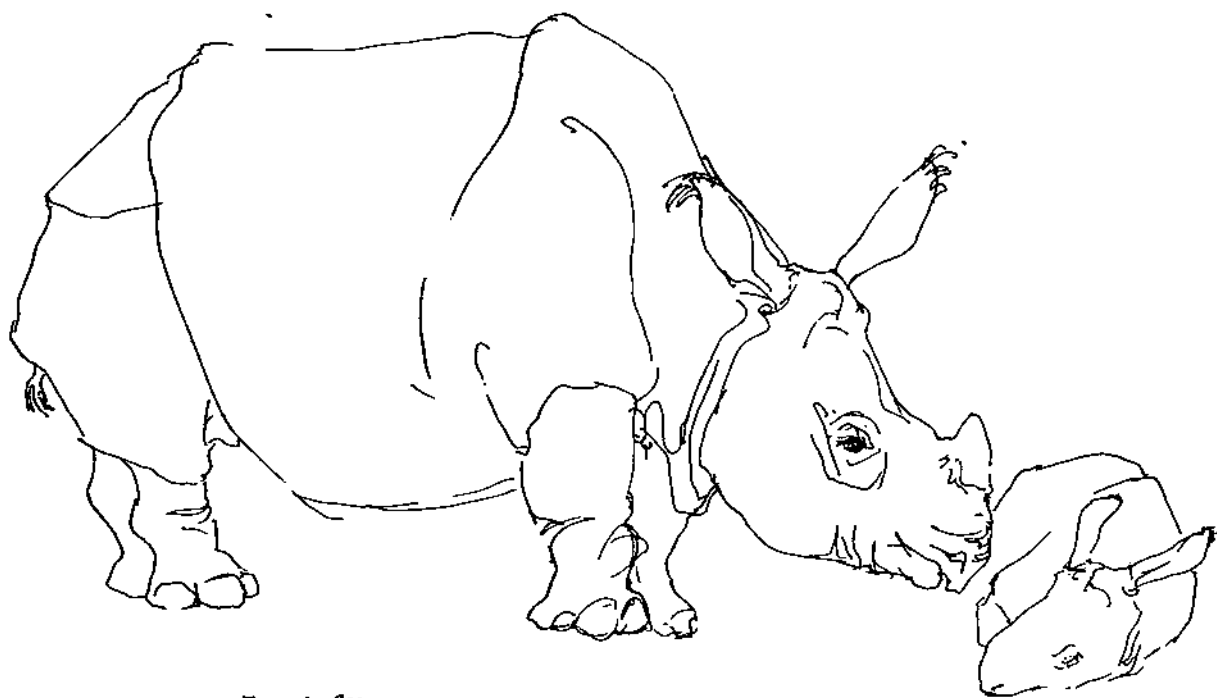
Caught in Assam when it was 15 years old. Died of gastro-enteritis, infestation with tapeworm and hookworm.

*M 1974 January 30 - 1975 October 30**'Patrick'**69-WASH 1*

Born to Tarun (19) and Rajkumari (28), gestation 487 days, weight 56.6 kg. It was named after Patrick Moynihan, the American Ambassador to India. The first rhinoceros born in the USA. The birth was announced, with photographs, in Anon. (1974), while many details about the breeding behavior and growth of Patrick were provided by Buechner *et al.* (1975), Buechner & Mackler (1978), and Mackler & Buechner (1978). To New York Bronx.

*M 1985 July 1 -**'Pandu'**101-SDWAP 4*

From San Diego.



Margaret Brown 1974

Fig. 64. Mother 'Rajkumari' and calf 'Patrick' drawn in Washington by Margaret Brown in 1974.

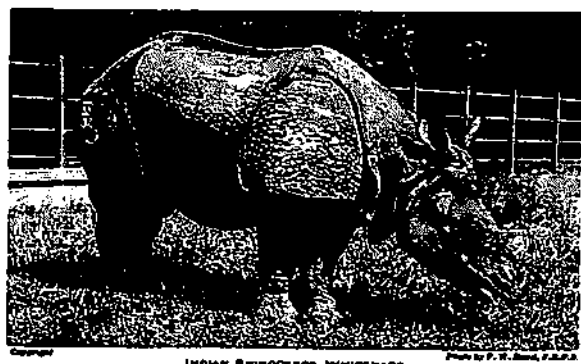


Fig. 65. Postcard of Indian rhinoceros at Whipsnade, August 1936.

F 1987 May 27 –
'Mechi'

138-NEPAL 15

Captured in Chitwan National Park, Nepal. Gift from the King of Nepal to President Ronald Reagan and the people of the USA. It was about one year old on arrival. Exhibited in Philadelphia from 10th May, 1994 to 20th October, 1994.

F 1987 May 27 –
'Kali'

139-NEPAL 16

Captured in Chitwan National Park, Nepal. Gift from the King of Nepal to President Reagan and the people of the USA. It was six months old on arrival.

M 1992 July 30 – 1992 July 30 †

199-WASH 2

Stillborn to Pandu (101) and Mechi (138).

M 1993 January 15 – 1993 January 15 †

205-WASH 3

Premature birth to Pandu (101) and Kali (139).

Whipsnade, UK

Zoological Society of London
Whipsnade Park

M 1935 June 6 – 1945 March 15 †
'Hush'

From London. The skull is preserved at the



Fig. 66. Urine collection from an Indian rhinoceros in Rangoon, January 1981.

Natural History Museum, London, No. 1951.10.8.4 (Groves 1982: 253) (see Fig. 65).

M 1947 August 7 – 1961 March 7 †
'Mohan' 13-INDIA A
Caught in Kaziranga, Assam in February 1947. A female, caught at the same time, died of blood poisoning before it was shipped (Street 1953: 76). Skull preserved at the Natural History Museum, London, No. 1961.5.10.1 (Groves 1982: 253).

F 1952 July 16 – 1976 April 26
'Mohini' 8-ASSAM 3
Caught in Kaziranga on 12th February, 1952, when about two years old (Gee 1952 with pictures; Street 1953: 77). To Amsterdam.

F 1957 October 29 – 1959 June 23
'Mohinja' 15-WHIP 1
Born to Mohan (13) and Mohini (8), gestation 488 days. To Milwaukee.

M 1960 August 18 – 1975 April 25 †
'Manik' 20-WHIP 2
Born to Mohan (13) and Mohini (8), gestation 488 days.

F 1973 February 6 –
'Roopa' 51-DELH 1
From Delhi.

M 1976 March 26 –
'Kumar' 60-BER W 1
From Amsterdam. It first came on breeding loan, but it was acquired on 31st December, 1979.

F 1981 May 21 – 1981 May 21 †
107-WHIP 3
Stillborn to Kumar (60) and Roopa (51).

M 1983 March 9 – 1985 October 2
'Bheema' 115-WHIP 4
Born to Kumar (60) and Roopa (51), birth weight 8 stone 8 lbs. To Antwerp.

M 1986 August 9 – 1987 December 2
'Rama' 132-WHIP 5
Born to Kumar (60) and Roopa (51). To Chester.

M 1988 May 8 – 1990 November 16
'Ropen' 145-WHIP 6
Born to Kumar (60) and Roopa (51). To Dvur Kralove.

M 1989 October 2 –
'Bardia' 162-WHIP 7
Born to Kumar (60) and Roopa (51).

F 1991 October 19 – 1991 October 19 †
234-WHIP 9
Stillborn to Kumar (60) and Roopa (51).

F 1993 May 1 – 1993 May 1 †
207-WHIP
Born to Kumar (60) and Roopa (51). It survived, only for 36 hours.

Wroclaw, Poland

1. Kallenberg's Menagerie

1874

No details are known, except that Kallenberg showed a rhinoceros in Breslau in August 1874 (Gleiss 1967: 43).

2. Miejski Ogród Zoologiczny

F 1894 October 23 – 1895 November 14 †
From Vienna (where it had lived since 1856). Postmortem reported in Anonymous (1896b: 280). It was said to have lived 42 years, of which 39 years were spent in captivity (Gleiss 1967: 241).

Yangon, Myanmar

Zoological Gardens

F 1938 – 1942 March †
'Rosie'
Presented by the Prime Minister of Nepal when Sir Harcourt Butler was Governor of Burma. It was killed by the invading Japanese army (Tun Yin 1967: 153).

F 1962 January – before 1964 †
'Khin Way Way' [=Miss Affection]
Caught in Nepal (Reynolds 1962a: 54). Date of death not clear (Rookmaaker and Reynolds 1985: 153).

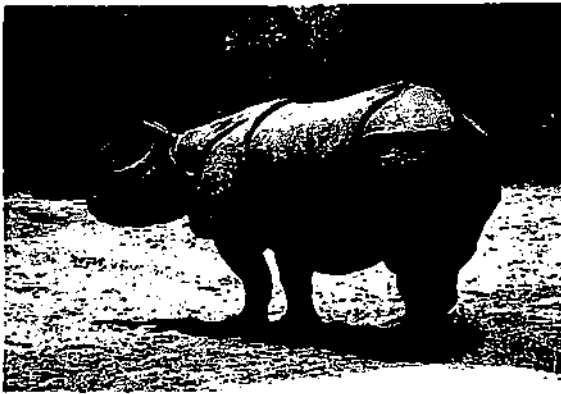


Fig. 67. Female Indian rhinoceros 'Sawako' at Yokohama, 1993.

M 1980 August 27 – 1993 June †
 'Bhunte' 103-NEPAL 8
 Caught in Nepal, when eight months old. Martin and Martin (1982: 87) showed a photograph of this animal in the zoo, together with two keepers waiting with a bottle to catch the urine. It died due to equine viral encephalitis caused by a virus (see Fig. 66).

F 1980 August 27 – 1993 June †
 'Lorie' 104-NEPAL 9
 Caught in Nepal, when ten months old (Martin and Martin 1982: 79). Died of the same cause as the male (103).

Yokohama, Japan

Kanazawa Zoo

This park was opened in 1982. In 1993, it housed 23 endangered species of mammal.

M 1985 August 27 –
 'Kintaro' = 'Katgin' 117-STUTT 6
 From Magdeburg.

F 1985 December 4 – 1995 January †
 'Sawako' 122-KAN 1
 From Kanpur (see Fig. 67).