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# The hornless rhinoceros (*Rhinoceros sondaicus inermis* Lesson, 1836) discovered by Lamare-Picquot in the Sundarbans of Bangladesh in 1828, with notes on the history of his Asian collections

<https://doi.org/10.1515/mammalia-2018-0200>

Received December 5, 2018; accepted February 5, 2019

**Abstract:** The French pharmacist and explorer Christoph-Augustin Lamare-Picquot (1785–1873) was in South Asia during 1826–1829 to collect ethnographical, anthropological, zoological and botanical specimens. He made an excursion to the Sundarbans (the Ganges-Brahmaputra delta) of Bangladesh, where on 17 November 1828 his team shot a female rhinoceros and caught her young one the next day, just south of Khulna. Both animals were completely hornless. He returned to France in the spring of 1830, where his zoological specimens were assessed by Georges Cuvier, and his other collections relating to ethnography by other scholars. All recommended purchase by the French Government, but circumstances did not allow this. A few animals were described by scientists connected with the Natural History Museum in Paris. After Lamare-Picquot published an account of the hunting expedition in 1835, the rhinoceros was described as a new species *Rhinoceros inermis*, by René-Primivère Lesson, first in a supplement to Buffon dated 1836, and not, as accepted until now, in restatements dating from 1838 or later. The main part of the zoological collection was bought by the Prussian King Friedrich Wilhelm III in 1836 and integrated in museums in Berlin. Other collections were exhibited as a “Panthéon Indien” in Vienna and Bratislava from 1838, until they were purchased by the Bavarian King Ludwig in 1841, and added to a museum in Munich. The type specimens of *R. inermis* are still preserved in the Museum für Naturkunde in Berlin. The adult female (ZMB\_Mam\_1957) was selected as the lectotype.

**Keywords:** Berlin Museum für Naturkunde; exploration; hunting; King of Bavaria; King of Prussia; Peters; Sclater.

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## Introduction

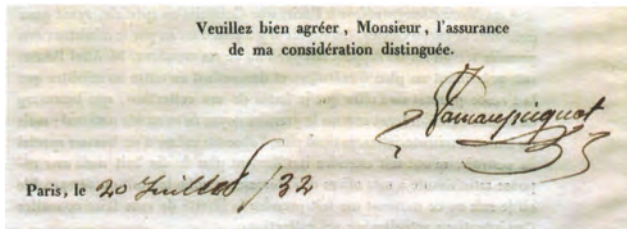
One of the earliest zoological collectors in the Ganges delta was a French pharmacist called Christoph-Augustin Lamare-Picquot (1785–1873). He traveled in this partly unexplored region during 1828–1829 and returned to France with a large collection of zoological and ethnographical specimens in 1831. Despite favorable evaluations by French high-ranking scientists, the French state was unable to fund its purchase. Lamare-Picquot sold the zoological specimens to the King of Prussia for the museums in Berlin in 1836. The remainder he exhibited as the “Panthéon Indien” in Vienna in 1838, where the sale to the King of Bavaria was successfully negotiated. The proceeds of the sales were lost when an Austrian bank collapsed. Lamare-Picquot made further journeys to Turkey and North America before settling down in his hometown Bayeux in France.

The life of Lamare-Picquot has been explored from different angles by Louvet (1862), Daon (1960) and Chaigneau (1982) (Figure 1). The history and contents of his anthropological and ethnological collections were investigated by Lommel (1960), Lobligeois (2001), Appel (2006, 2007), Stein (2007) and Ruth (2007). There is no comprehensive treatment of his zoological specimens except a few contemporary accounts which are mentioned later. All research into the life and work of Lamare-Picquot has been hampered by the fact that he consistently only used his last name in all his dealings, which has also been spelled Lamare Picquot, Lamarre Piquot, Lamare Picot or Lamarepicquot, in various combinations (Figure 2). In publications and catalogues, he is often confused with his brother François-Victor (1787–1865), a mistake I followed (Rookmaaker 1997) and needs to be corrected.

The Ganges-Brahmaputra delta is now divided over the Indian state of West Bengal and the southern parts of Bangladesh. All three Asian species of rhinoceros have been recorded in present-day Bangladesh. The Sumatran rhinoceros *Dicerorhinus sumatrensis* (Fischer) was found in the south-east, the Indian rhinoceros *Rhinoceros unicornis* Linnaeus in the north-west, and the Javan rhinoceros *Rhinoceros sondaicus* Desmarest in the south-west



**Figure 1:** Portrait of Christoph-Augustin Lamare-Picquot (Musée d'Art et d'Histoire Baron Gérard, Bayeux).



**Figure 2:** Signature of Lamare-Picquot found in his *Lettre avec extraits et conclusions de différents rapports* dated 20 July 1832 (Bibliothèque Nationale, Paris, O2 K 155).

and central districts. It is likely that all three species have been extinct in the country for at least a century (Sarker and Sarker 1984, Akonda et al. 2000). Most available records pertain to the presence of the single-horned rhinoceros in the Sundarbans, where it was seen up to 1892 and where at least 11 museum specimens were obtained (Rookmaaker 1997).

Lamare-Picquot obtained two rhinoceros specimens in the Sundarbans in 1828. After he published an account of the hunting expedition in an obscure work of 1835 (Lamare-Picquot 1835), the animals were described as a new species *Rhinoceros inermis* by René-Primivère Lesson (1794–1849), not in 1838 or 1840 as has been assumed, but in Lesson (1836), as shown later. After transfer to Berlin, they were again examined by Wilhelm Peters, who upheld the validity of the species as a rhinoceros without horns (Peters 1877).

Some questions remain about the exact locality where the rhinos were shot, about the evaluation of them while in Paris in 1831–1836, about the date of publication of Lesson's new name, about the possibility of their exhibition in Vienna as part of the Indian Pantheon and about its current status as a separate taxon. The available evidence is explored in the following sections.

## Travels in the Sundarbans

Although Lamare-Picquot is said to have traveled extensively in India during 1821–1823 and again in 1826–1829 (Jomard et al. 1832), there are few details of his itinerary. It is likely that much of the time he was based at the French factory of Chandernagor near Calcutta (Kolkata). As he only encountered the rhinoceros in the Sundarbans, it is sufficient to follow his route to that region described in Lamare-Picquot (1835). At first glance, his account looks quite promising, but in fact there are few place names, and those provided are almost unintelligible. While Jomard et al. (1832:24), probably following information supplied by Lamare-Picquot, state that he traveled to the “Sundries” or Sundarbans from December 1828 to January 1829, Lamare-Picquot (1835:54, 63) has a start date of 2 November 1828 and a duration of 42 days (to 13 December).

Lamare-Picquot took the necessary precautions to enter a district notorious for dangers of fever, man-eating tigers and armed robbers. He had hired two large boats each with five local sailors to accommodate his two domestic servants and nine hunters said to be Portuguese, Indian and Muslim. He left the Hooghly River just south of Calcutta at Keedreepoor (Khidirpur) to travel along the “canals” or waterways, largely natural and partly artificial, which run in a west-east direction through the Sundarbans for travel to Dacca and beyond (O'Malley 1914:157). When he first reached the region where wildlife was expected after 5 days (6 November 1828), his crew feared the environment and he made his way to Kulna (Khulna, Bangladesh). Here he engaged an additional six hunters experienced with the local situation, added a third boat and on 15 November set out again southward toward the islands of the Sundarbans. Lamare-Picquot was vague about the exact locality of the rhinoceros hunt, stating that it was over 60 miles (“plus de soixante lieues”) from Calcutta, but we may assume that he went south of Khulna for some 20–40 km to the area around Mongla (22°50' N, 89°60' E).

I suggest that this may be taken as the locality for all animals obtained in the Sundarbans by Lamare-Picquot in 1828. A few other localities are associated with

Lamare-Picquot's travels, but many are irretrievable on modern maps (Roberts 2006). In Lesson's (1831) list of reptiles, all localities are very general, except the snake *Bungaris annulatus* recorded from "Le Chankeney au Bengale", probably in the Sundarbans. In the report by Jomard et al. (1832), there are some place names which must have been supplied by Lamare-Picquot, suggesting the existence of some kind of diary which is now unknown. The report states that Lamare-Picquot visited Dacca, Culna (Khulna), Satalury (Sutalary, 22°40' N, 90°19' E), Backergange (Bakergonj, 22°54' N, 90°33' E) and some places south of Khulna called Tchampye, Coëlha and Campour, which the writers of the report were unable to locate.

On his way south from Khulna, Lamare-Picquot found a group of woodcutters from Jessore, whose headman advised him that his men had seen a rhinoceros recently. After Lamare-Picquot had traveled to the place indicated, news was brought to him around 1 pm on (probably) Monday 17 November 1828 that two rhinos had been spotted. He soon reached the place and found a large female rhinoceros with her young one. Although his hunters urged him to fire, he was afraid of the consequences as the animal's temper was notorious and he knew what happened to his countryman Alfred Duvaucel (1793–1824) who died from wounds inflicted by a rhinoceros in January 1823 (Rookmaaker in press). Lamare-Picquot retreated to the boat, admiring the bravery of his head-hunter called Sobol, who soon shot the mother – gaining a reward of 30 rupees (75 francs).

When Lamare-Picquot (1835:59) first examined the dead animal, he was surprised by the absence of a horn: was this just an anomaly, or had he discovered a new species? With the help of the woodcutters, in exchange for the meat, he was able to preserve the head, skin and bones of the animal. The total weight was estimated to be about 3400 pounds ("livres"). He also sent some men out to look for the young rhinoceros, which had run away, to try to capture it. This proved impossible due to the terrain, and as it would not survive on its own in this tiger territory, it was shot: a female of about 4 months old, weighing 300 pounds. The experience allowed him to taste the milk of a rhinoceros, sweeter than cow's milk (p. 61), and to try the meat of the young animal prepared as a steak and the liver of the mother, all said to be tasty (p. 63).

Lamare-Picquot must have remained in the area for about another 3 weeks. His zoological collections at the end included (p. 63) two rhinos, one tiger, three axis deer, five crocodiles (two species), four tigers (two species), one Ganges dolphin, two pigs, six monkeys (two species), 10 monitor lizards (two species) and a variety of other reptiles, molluscs, 133 birds-of-prey and herons. In 1829, he

had already made a little catalogue which he sent from Calcutta to Paris, where it was decided to wait for the arrival of the boxes before taking any decisions (Lamare-Picquot 1829, cf. Dias 2018).

## Evaluation of the collections in Paris

Lamare-Picquot reached Le Havre (France) in the spring of 1830, with his Indian and African collection packed in some hundred boxes (Lebrun 1849, Daon 1960). Apparently, all the items were exhibited in a large room in the Sorbonne, where they could be visited by the public (Lenoir 1833, Lebrun 1849). There is no information when the exhibition opened, but it must have taken at least some months to unpack and arrange all the specimens and antiquities. Sadly, there appears to be no contemporary account by a visitor or a sketch by an artist. Lamare-Picquot (1832) was glad with the public response.

The exhibition at the Sorbonne was probably temporary and may have been dismantled after maybe a year. Possibly the zoological collections were then kept at the Museum of Natural History, but I have found no confirmation. Galignani (1838:81), in a general guide to Paris, mentioned the existence of a Cabinet of Lamare-Picquot among sights "more rarely visited and to which it is extremely difficult to obtain admission." In a manuscript biography, Denis (undated) said that the collection was part of the Musée Dupuytren, formed by the anatomist Guillaume Dupuytren (1777–1835), but only made public after his death. In truth, in the absence of any written reports, the collection was probably not publicly accessible for a while.

Lamare-Picquot had assembled the collection to sell it to the French state and help in the formation of a new ethnological museum. In order to effect a sale, the usefulness and value had to be assessed. This was done by constituent bodies of the Académie de France, and the results were announced in their meetings as discussed by Chaigneau (1982). Five separate reports were written, all of which were extracted in Lamare-Picquot (1832) and then printed together in one volume (Anonymous 1833a).

The first report on Archaeology and Indian Religions to the Académie des Inscriptions et Belles-Lettres, dated 8 April 1831, was prepared by the sinologist Jean-Pierre Abel-Rémusat (1788–1832), together with the archaeologists Antoine-Chrysostome Quatremère de Quincy (1755–1849) and Jean-Baptiste Félix Lajard. It was first partly printed in Abel-Rémusat et al. (1831).



The second report on Indian Antiquities to the Société Asiatique, dated 4 May 1831, was prepared by the orientalist Eugène Burnouf (1801–1852), Jules Mohl (1800–1876) and Charles-Auguste Stahl. This also appeared in the society's journal (Burnouf et al. 1831).

The third report on Ethnology to the Société de Géographie, dated 25 February 1832, was signed by the geographers Edme-François Jomard (1777–1862), Thomas Xavier Bianchi (1783–1864) and Jean-Baptiste Benoît Eyriès (1767–1846). It was also printed in the society's bulletin (Jomard et al. 1832).

The fourth report on Indian Antiquities to the Société Libre des Beaux-Arts, dated 18 June 1833, was prepared by the archaeologist Marie Alexandre Lenoir (1761–1839). Despite the title of the published version (Lenoir 1833) referring to zoological items, the author did not actually comment on these.

The zoological and botanical components were described in a report made to Académie Royale des Sciences, dated 9 May 1831, by Georges Cuvier (1769–1832), Etienne Geoffroy-Saint-Hilaire (1772–1844) and André Marie Constant Duméril (1774–1860). Their assessment was based on catalogues made by “Aides-naturalistes” of the Natural History Museum: Isidore Geoffroy-Saint Hilaire (1805–1861), Achille Valenciennes (1794–1865), Jean Victor Audouin (1797–1841) and Aldolphe-Théodore Brogniart (1801–1876). It was printed in Cuvier (1831a,b,c).

Despite the favorable assessments of the collections, the government did not commit to a purchase. Maybe the price was too high, maybe the fact that a whole new museum would have to be constructed for the ethnographical and anthropological elements, maybe the general political situations were among the deciding factors. According to de Kératry (1837), the initial combined price of 60,000 francs was lowered to a one-time payment of 1500 francs and a life annuity of 3000 francs per annum, but without effect. Lamare-Picquot waited for about 8 years, continually pressing the authorities for an answer, but in the end he gave up hope. He decided to take the collections to Vienna as he had been told that he might get a favorable outcome there (Chaigneau 1982, Dias 2018).

## Lamare-Picquot's mammal collections

According to the assessment by Cuvier in 1831, the zoological collections consisted of 53 species of mammals, 115 birds, 30 reptiles, 123 fishes, over 200 molluscs, 52 crustaceans, over 150 insects, about 40 zoophytes (seastars,

corals) and over 150 plants. This relatively short report could not provide a full catalogue, while it is unlikely that all species had been individually identified. Most animals had been obtained in India (“Bengale”, “Gange”), supplemented by species from Mauritius and the Cape of Good Hope, the latter probably bought when the ship passed on its way home. I present the details about the sale of mammals to the Berlin museums in 1836 and the exhibition of the collection in Vienna during 1838–1841. The scientific names in square brackets represent my interpretation of the evidence.

The mammals were examined by Isidore Geoffroy Saint-Hilaire in 1831: there were 53 species, listed with French names only in the original. These included seven new species of bats (one of new subgenus), a new otter (*Lutra*), a new cat (*Felis*), the Protèle De Lalande (*Proteles cristatus* Sparrman), Musaraigne géante or *Sorex giganteus* (*Suncus murinus* Linnaeus), Ratel (*Mellivora capensis* Schreber), Dauphin du Gange (*Platanista gangetica*) and Rhinocéros sans corne (*Rhinoceros sondaicus* (Roxburgh)). When the collection was being sold in Vienna in 1838, the small catalogue (Lamare-Picquot 1838a) stated that there were 55 specimens of 10–12 mammalian species, of which eight were enumerated: Tenrec soyeux de Madagascar (*Tenrec ecaudatus* Schreber), Roussette (*Rousettus*), Musaraigne géante (*Suncus murinus*), Genette (*Viverra indica* Geoffroy Saint-Hilaire), Mangouste de l'Inde (*Herpestes*), Chacal du Gange (*Canis aureus* Linnaeus), Corsac (*Canis corsac*, *Vulpes corsac* Linnaeus) and *Sciurus palmarum* (*Funambulus palmarum* Linnaeus). Besides, there was a variety of horns of mammals, wild fruits, nests and eggs of birds and reptiles. Despite the presence of possibly new species, I am unable to retrieve their description either in Paris or in Berlin.

There are nine eponyms honoring Lamare-Picquot in various classes (Sherborn 1922). In Paris, following Cuvier's report, the scientists always used the surname Lamarre Piquot (note the double rr), which was Latinized as *lamarrei*, but other spellings also appeared. The only eponym among the mammals is *Otaria Lamarii* (without locality), described in Berlin by Müller (1841:334).

## The description of *Rhinoceros inermis*

When Lamare-Picquot first saw the rhinoceros mother and calf in November 1828, he immediately noticed the absence of horns. He was satisfied that his hunters or the woodcutters had not removed the horns for a quick profit. His question was whether this was common to all rhinos

in that region, or to the females, or that it was an anomaly (later put in words in Lamare-Picquot 1835).

The report assessing the zoological collections by Georges Cuvier and his co-workers was dated 9 May 1831. Cuvier et al. (1831b:181) noted the presence of the mother and young rhinoceros without horn, and suggested that one could believe that this characterized at least a race or a hereditary variety (“en sorte que l’on peut croire que c’est au moins un caractère de race ou une variété héréditaire”). However, the tubercles on the skin, the number and direction of skin-folds, and the nasal bones exactly resembled the species described as “Rhinocéros de Java” by G. Cuvier. Cuvier (1822:26) was in fact one of the first to suggest the specific difference of the Javan rhinoceros, but he was not the first to give it a scientific name (Rookmaaker and Visser 1982, Rookmaaker 2015).

After the publication of the report, Lamare-Picquot wrote a memoir about the rhinoceros (“relatif à une classe de Rhinocéros”) which was received by the Académie des Sciences on 23 May 1831 and was handed over to Henri Marie Ducrotay de Blainville and Frédéric Cuvier for comment (Anonymous 1831, Lobligeois 2001:156). This Memoir was not mentioned again in the proceedings (Chaigneau 1982:10). It is quite likely, however, that the contents were very similar to the account of the rhinoceros hunt in the Sundarbans published by Lamare-Picquot (1835).

The rhinoceros of “Lamarre Picot” was mentioned again on 5 October 1833 in an anonymous discussion of rhino species in the newspaper *Le Temps*, as follows:

“On en pouvait de même supposer deux pour le continent de l’Inde, puisque M. Lamarre Picot a tué près de l’embouchure du Gange un rhinocéros femelle sans cornes; le petit qui fut tué en même temps, et dont les dépouilles, ainsi que celles de la mère, ont été apportées en France, n’en présentait non plus aucun germe. Etait-ce une nouvelle espèce, ou seulement une variété de l’ancienne, c’est ce que l’on ne peut jusqu’à présent décider” (Anonymous 1833b, reprinted in Anonymous 1842).

This is all text about Lamare-Picquot. The writer states that scientists are still undecided if this hornless animal is a new species, or just a variety of the known ones. The passage was noted in a German publication by Meyer (1834:63).

Lamare-Picquot’s (1835) own account of the Sundarbans hunt was hidden in an appendix to his debate with the Academy scientists on the effect of serpent venom (see Chaigneau 1982). This memoir was available before 4 March 1835 (Duméril 1835). The rhinoceros is not mentioned on the title page, but Lamare-Picquot was clear enough at the start of the appendix: it was about the

hornless rhinoceros, which should be recognized, if not as a new species, at least as a variety (“lequel constitue, sinon une espèce nouvelle, au moins une variété”). The animals were killed during his expedition to the southern part of Bengal, called in French “Sunderbunds ou Sundries”.

So far, both Lamare-Picquot and the naturalists who examined his material were remarkably cautious in naming the animal as a new species. In an age when new species were described with often little evidence, this is remarkable. I would suggest that the established scientific community was regrouping after the death of Georges Cuvier on 13 May 1832, who had been the person first in line to have the honor of establishing the new species after he reported on the collection to the Academy in 1831. Andreas Johann Wagner (1797–1861), the editor of a new edition of Schreber’s *Säugethiere*, had seen information of the hornless animals in a manuscript catalogue by Isidore Geoffroy-St. Hilaire when working on his text around 1835, but he decided to include it in a list of dubious new species and also left it unnamed (Wagner 1835:342).

After the publication of Lamare-Picquot’s account of 1835, the first to comment was Rene-Primivère Lesson (1794–1847), who had moved from Paris to Rochefort in 1831. Lesson was editing one of the new editions of Buffon’s *Histoire Naturelle*, a title which in those days was often a disguise for almost entirely new works. As animals were discovered after Buffon’s death, these species needed to find a new place. Lesson (1830) had already written one volume containing some new discoveries made since 1788, not to name new taxa but to document the latest science. And in 1836, he issued an update, with a very similar title, which was to form part of a new edition called *Compléments de Buffon* published by Pourrat Frères et Roret in Paris. Lesson (1836) is a book with two title pages, which probably meant that the publishers hoped that it could be used both as part of the larger series and as a stand-alone volume. In the course of the listings of mammals, Lesson (1836:238) said that he had already dealt with the rhinoceros family in a previous volume, but regretted not to have included there an unpublished species (“espèce inédite”) discovered by “Lamare-Picquot” on the banks of the Indus (sic), of which he saw the remains in Paris. He left it at that, but maybe this was just a reference to the fuller description which he included as part of the “Additions” at the end of the volume. This later addition (Lesson 1836:399–402), hitherto overlooked (see the following text), contains the description of the hornless rhinoceros or Gairdar “Rhinocéros sans cornes ou Gairdar”, which he named *Rhinoceros inermis* with reference to Lamare-Picquot (1835). He never said that this was a new name, but he gave a rather

full description of the animal over four pages. As this first description has been overlooked until now, the full text can be reproduced here (Lesson 1836:399–402):

DESCRIPTION DU RHINOCÉROS SANS CORNES OU GAINDAR.

(Rhinoceros inermis.)

Dans ce volume, p. 238, nous avons exprimé le regret de ne pouvoir faire connoître une espèce nouvelle de rhinocéros découverte par M. Lamare-Picquot (*Réponse pour servir de réfutation*, etc. etc. Paris, 1835, brochure in-8). Aujourd'hui nous pouvons faire disparaître cette lacune, ayant reçu de ce voyageur le mémoire qu'il a publié au sujet de ce rare et précieux quadrupède. Le Gaindar des Hindous du Bengale habite les Sundries, ou îles à demi submergées, couvertes de profondes forêts que baignent à la fois les eaux du Gange et la mer du golfe du Bengale. Ces îles malsaines, où règnent des fièvres intermittentes graves, ne sont visitées que par les pirates malais, et sont peuplées de tigres, de gigantesques pythons, et d'une foule d'animaux nuisibles. M. Lamare-Picquot raconte avec détails les précautions qu'il dut prendre pour exécuter, dans l'intérêt de l'histoire naturelle, des chasses dans cette partie peu connue des Indes orientales. Le gaindar, complètement adulte, se distingue des espèces de rhinocéros déjà connues par le manque total de corne ou même de plaque cornée sur le chaufrein. L'individu tué dans la chasse dirigée par M. Picquot étoit femelle, et avoit 11 pieds 7 pouces de longueur sur 5 pieds 3 pouces de hauteur, mesurée du garrot à la partie inférieure du sabot. Son cuir présentoit une épaisseur de 7 à 8 lignes, et la dureté des écailles tuberculeuses de l'épiderme étoit extrême. Ces écailles ont une forme aplatie, et de 8 à 15 lignes de diamètre, suivant les parties du corps. La région dorsale offroit quelques poils courts, roides; le tissu cellulaire graisseux n'est pas abondant, et les mamelles, remplies d'un lait fort sucré et agréable au goût, ont deux mamelons alongés, en partie cachés par un profond sillon de la mamelle. La queue n'avoit qu'un pied environ de longueur, en affectant une forme aplatie, élargie au sommet, rétrécie à son attache, et garnie sur ses bords de poils noirs, épais et courts. L'oeil, relativement aux autres organes, est très petit: sa pupille est noire, et parfaitement arrondie. La conque auriculaire est large, et à demi dressée. La lèvre supérieure, plus longue que l'inférieure, recouvre cette dernière. Les lèvres, bien que dures, jouissent d'une grande mobilité, d'une rare puissance de préhension et de beaucoup d'adresse pour saisir les

matières végétales qui doivent servir à l'alimentation. Le gandar ou gaindar est farouche comme ses congénères, doué d'une force prodigieuse qui le rend redoutable. Il vit dans la solitude, et ne recherche point la compagnie de ses semblables. C'est dans les parties les plus inaccessibles des forêts qu'il se retire, là où il trouve les feuilles et les jeunes pousses d'arbres qui entrent dans son régime. Comme les buffles, dit M. Lamare-Picquot, il aime se vautrer dans la fange des lieux inondés, et à l'époque du rut il va d'une île à une autre en traversant à la nage les bouches du Gange ou les bras de mer qui les séparent. Les Indiens assurent qu'il est toujours vainqueur dans les combats qu'il livre au tigre royal, au buffle et à l'éléphant. Sa chasse est d'autant plus dangereuse, qu'on ne peut avoir des chances de le tuer roide que lorsqu'on l'approche assez près, et en se servant de balles de fer, et quand il n'est que blessé, il se précipite sur les chasseurs, brise tous les obstacles qui le séparent d'eux, et manifeste sa puissance par des ravages et des beuglements effroyables. M. Lamare-Picquot estime à 3,400 livres environ le poids de l'individu dont il est ici question. Les Musulmans regardent comme un régal sa chair, qui ne déplaît pas non plus aux Européens. "Quant au foie, dit M. Picquot, il est d'une finesse de goût qui surpasse de beaucoup celle du meilleur foie de veau." Les Brahmes font des amulettes, qu'ils vendent aux fidèles, avec la corne des ongles, et certains os de ce grand quadrupède, et c'est avec ces talismans que les Hindous croient éviter la lèpre, les tigres et le venin des serpents.

Ce rhinocéros femelle avoit un petit, aussi de même sexe, que M. Lamare-Picquot parvint à faire tuer, et dont la dépouille, conjointement avec celle de sa mère, est en ce moment à Paris. Ce jeune animal n'étoit âgé que de quatre mois environ, et pouvoit peser 300 livres. Du reste, il n'offroit aucune dissemblance.

The same descriptive text with the name *Rhinoceros inermis* was reprinted in volume 10 of a revised second edition of the *Compléments* to Buffon printed by the same publishers (Pourrat Frères) and dated 1838. Here Lesson (1838:514) listed five living species of rhinoceros, two with double horns (*Rhinoceros africanus* and *Rhinoceros sumatranus*), one without horns (*Rhinoceros inermis*) and two with a single horn (*Rhinoceros indicus* and *Rhinoceros javanicus*), where noticeably no mention is made of Burchell's *Rhinoceros simus*. A few years later, Lesson (1842:159) again listed the species, without, however, any further reference except a locality.

*Rhinoceros inermis* was rarely mentioned in the course of the 19th century. de Blainville (1846:73) listed it, but provided a rather elusive reference: “Le rhinoceros sans corne (*R. inermis*) de M. Lamarre Picot, (no. 1448, 5 Octobre 1833 du journal *le Temps*)”. He does not refer to Lesson, and a more casual reader could be forgiven to think that Lamare-Picquot himself had named the animal in *Le Temps*. Peters (1877:69) corrected this, although he mistakenly stated that Lamare-Picquot was not mentioned at all in the newspaper. Peters in his turn was followed by Brandt (1878).

Otherwise, the few times that *Rhinoceros inermis* was mentioned in the 19th century, it was taken as a synonym, not of the Javan rhinoceros (*Rhinoceros sondaicus*), but of the other single-horned Indian species *Rhinoceros unicornis*. We find this in the catalogue by Gray (1843:186), followed by Cantor (1846:262) and Brehm (1877:514). *Rhinoceros inermis* of the Sundarbans as synonym of *R. unicornis* was maybe logical in the 1840s, when the presence of *R. sondaicus* in that region was still unrecognized, and neither Lamare-Picquot nor Lesson were very clear in the matter. The report by Cuvier which did make the comparison was probably too obscure to be seen by authors outside France.

## The correct date of the first description of *Rhinoceros inermis*

It is a rather unexpected fact that the first description of *Rhinoceros inermis* by Lesson (1836) has never been referred to in print. Only four authors (Boitard 1849, Chenu 1858, Peters 1877, Brandt 1878) agreed with Lesson that this was a distinct species (Table 1). It has often been incorrectly synonymized with *Rhinoceros unicornis* on the mistaken assumption that the latter species occurred in the Sundarbans, and even thought to be a close relative of *Dicerorhinus sumatrensis*. Recently, the name *inermis* was resurrected by Groves (1967) for the subspecies of *Rhinoceros sondaicus* living from India to Malaysia, in the new combination *Rhinoceros sondaicus inermis*. This classification is generally followed nowadays, but references are few because the species is now extinct in the region. Groves (1971) discussed the absence of a horn in *R. sondaicus* and found that there is evidence of geographic variation, because all reports from the Sundarbans confirm this characteristic, certainly in females.

Wilhelm Karl Hartwich Peters (1815–1883), curator of the Zoologische Museum in Berlin (now Museum für Naturkunde), was the first to wonder where *Rhinoceros*

*inermis* was first described when he was writing about the specimens bought from Lamare-Picquot. As he frequently exchanged letters with Philip Lutley Sclater (1829–1913), the Secretary of the Zoological Society in London, he asked for help, as apparently there was no information associated with the specimens. The letters from Sclater to Peters are preserved in the archives of the Berlin museum and give an insight into international cooperation during that period. Two of these show where Peters obtained the information printed in his paper of 1877.

1. Sclater to Peters, 25 January 1877 [p. 394] – “I have found Cuvier’s report on Lamare-Picquot’s collections in Ferussac’s Bulletin t. XXVI [=Cuvier et al. 1831b]. But when did Lesson describe his *Rhinoceros inermis* – if anywhere?”
2. Sclater to Peters, 9 Feb 1877 [p. 397] – “I have now found out all about *Rhinoceros inermis* Lesson. It is described in the “Complément aux oeuvres de Buffon” 2nd edition 1838, p. 514. See also Ferussac’s Bulletin vol. XXVI of which I send you extract. By “Lesson, Cat.” Gray [1843] means his *Nouv. Tableau du Règne Animal* (1842), where the name is also given. We shall be very glad to have your notes on this animal and figures. I shall send you my *Rhinoceros* paper very soon.”

Sclater was quite correct that Lesson gave a description of *Rhinoceros inermis* in this book of 1838. However, the date has remained controversial. It will always remain difficult to make sense of the multiple editions of Buffon’s *Histoire Naturelle*, which were revised, edited and expanded by various authors for over half a century. It may suffice to point out that Lesson (1838) was completely overlooked by the greatest taxonomic bibliographer Charles Davies Sherborn (1861–1942), who correctly stated that the listing of *R. inermis* in the work by Lesson (1842) was a *nomen nudum* and therefore unavailable for purposes of nomenclature (Sherborn 1922:3180).

In the new edition of Buffon (“Compléments de Buffon”) revised by Lesson, the first volume described man and mammals (Lesson 1838). Although Sclater had advised Peters that it was published in 1838, Blanford (1891) mentioned it as 1848 and Pocock (1946:311) explicitly stated that the copy of this work in the library of the Zoological Society of London was dated 1848. Earlier, I also verified the reference and found a copy of this volume dated 1838 (Rookmaaker 1983:45), hence this appeared to be correct (Figure 3). It is quite likely that the book actually exists in more than one version, with title pages for 1838, 1840 and 1848, but there is no doubt that it was first available in 1838.



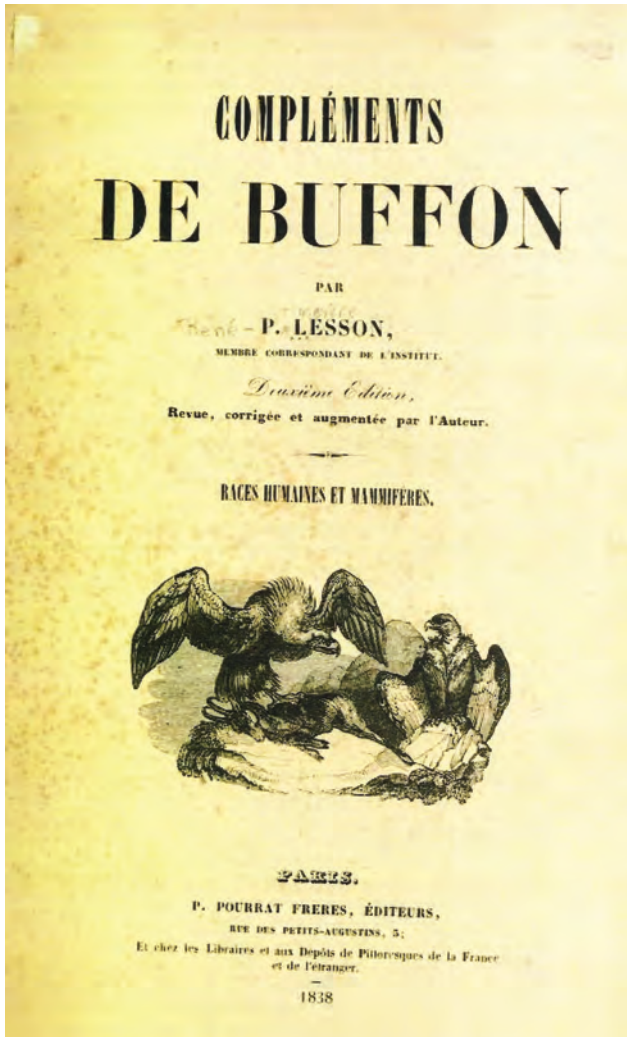
**Table 1:** Details of status and source provided for *Rhinoceros inermis* in primary literature.

Source	Status	Reference of first description	Date
Cuvier et al. 1831a,b,c	Rhino of Lamare-Picquot, near <i>R. sondaicus</i>	(Specimen)	
Anonymous 1833b (Temps)	Possible variety	No reference	
Lamare-Picquot 1835	Variety of rhinoceros	(Specimen)	
Wagner 1835:342	Rhino of Lamare-Picquot, doubtful species	(From manuscript catalogue)	
Lesson 1836:399	<i>R. inermis</i> , new species	First description	1836
Lesson 1838:514	<i>R. inermis</i>	Lesson, no detail	
Lesson 1842:159	<i>R. inermis</i>	Lesson, no detail	
Gray 1843:186	Synonym of <i>R. unicornis</i>	Lesson, catalogue [=1842?]	1842
Cantor 1846:262	Synonym of <i>R. unicornis</i>	Lesson, catalogue [=1842?]	1842
Boitard 1849:9	<i>R. inermis</i>	Catalogue of Lesson [=1842?]	1842
Gervais 1855:164	Doubtful species	Lesson, no detail	
Chenu 1858:9	Species close to <i>R. sumatranus</i>	No reference	
Blyth 1863:136	Synonym of <i>R. unicornis</i>	Lesson, no detail	
Jerdon 1867:233	Synonym of <i>R. unicornis</i>	Lesson, no detail	
Gray 1868:1010	Synonym of <i>R. unicornis</i>	Lesson, catalogue [=1842?]	1842
Jerdon 1874:233	Synonym of <i>R. unicornis</i>	Lesson, no detail	
Peters 1877	Species different from <i>R. sondaicus</i>	Lesson, <i>Compléments</i> 1838:514	1838
Brehm 1877:514	Synonym of <i>R. unicornis</i>	No reference	
Brandt 1878:34	Species different from <i>R. sondaicus</i>	Lesson, no detail	
Brehm 1891:102	Possible synonym of <i>R. sondaicus</i>	No reference	
Blanford 1891:475	Synonym of <i>R. sondaicus</i>	Lesson, <i>Compléments</i> 1848:514	1848
Lydekker 1916:49	Synonym of <i>R. sondaicus</i>	Lesson, <i>Compléments</i> 1848:514	1848
Sherborn 1922	<i>R. inermis</i> is a <i>nomen nudum</i>	Lesson, <i>Nov.Tabl.</i> 1842	1842
Sody 1941:83	<i>R. inermis</i> , unknown status	Lesson, <i>Compléments</i> 1848:514	1848
Pocock 1946:311	<i>R. inermis</i> , unknown status	Lesson, <i>Compléments</i> 1848:514 [1838 is a mistake by Sclater in Peters]	1848
Hooijer 1946:37	Synonym of <i>R. sondaicus</i>	Lesson, <i>Compléments</i> 1838:514 (after Peters)	1838
Ellerman and Morrison-Scott 1951:340	Synonym of <i>R. sondaicus</i>	Lesson, <i>Compléments</i> 1840:514	1840
Groves 1967:234	<i>Rhinoceros sondaicus inermis</i> (new combination)	Lesson, <i>Compléments</i> 1840:514	1840
Groves 1971:243	<i>R.s. inermis</i> (length of horn discussed)	Lesson, <i>Histoire Naturelle des Mammifères</i> , 1836 (no page)	1836
Groves and Guérin 1980:206	<i>R.s. inermis</i>	Lesson, <i>Compléments</i> 1840:514	1840
Rookmaaker 1983:45	<i>R. inermis</i> named by Lesson	Lesson, <i>Compléments</i> 1838:514	1838
Corbet and Hill 1992:242	Synonym of <i>R. sondaicus</i>	Lesson, <i>Compléments</i> 1838:514	1838
Grubb 1993:372	Synonym of <i>R. sondaicus</i>	Lesson, no detail, 1838	1838
Grubb 2005:636	Synonym of <i>R. sondaicus</i>	Lesson, no detail, 1838	1838
Groves and Grubb 2011	<i>Rhinoceros sondaicus inermis</i>	Lesson, no detail, 1838	1838
Groves and Leslie 2011	<i>Rhinoceros sondaicus inermis</i>	Lesson, <i>Compléments</i> 1838:514	1838
This study	<i>Rhinoceros sondaicus inermis</i>	Lesson, <i>Complément</i> vol. 10, 1836	1836

This was, however, not the first time that Lesson published a description of *Rhinoceros inermis*. Overlooked by Sclater, myself, as well as all other authors, the name first appeared in a work by Lesson dated 1836 (Lesson 1836). Possibly Groves (1971:243) had seen this, listing a book entitled “Histoire Naturelle des Mammifères” by Lesson in 1836, but he did not again use this title or date

for the name in later publications. The book was part of an earlier new edition of Buffon, also edited by Lesson, stated to be volume 10 for birds and mammals. To make life hard for librarians, the same volume had a second title to say that it contained animals discovered since the death of Buffon (*Histoire naturelle générale et particulière des mammifères et oiseaux découverts depuis la mort de*





**Figure 3:** Title page of R.P. Lesson, 1838, *Compléments de Buffon: Races humaines et mammifères*, 2nd ed. Paris.

Buffon). To make things even more complicated, Lesson (1830) had published a volume with a very similar title in 1830, but of course the contents were not identical. The 1836 volume, part 10 of a series of *Complément des oeuvres de Buffon*, had a title *Histoire naturelle générale et particulière des mammifères et oiseaux découverts depuis la mort de Buffon: Oiseaux et mammifères*, and was published by Pourrat Frères, Editeurs, Rue des Petits-Augustins, 5 and Roret, Libraire, Rue Hautefeuille, Paris (Figure 4).

This set of the *Complément* consisted of 10 volumes published from 1828 to 1837. The sequence of appearance was irregular. Fortunately, a book review of volumes 5 and 10 in Germany in October 1836 ensures their date of publication. Anonymous (1836) states that there was a gap between volumes 1, 2, 3, 4 and 6 dating 1828–1830, probably due to the political unrest in France, and volumes 5 and 10 were issued together in 1836. The reviewer

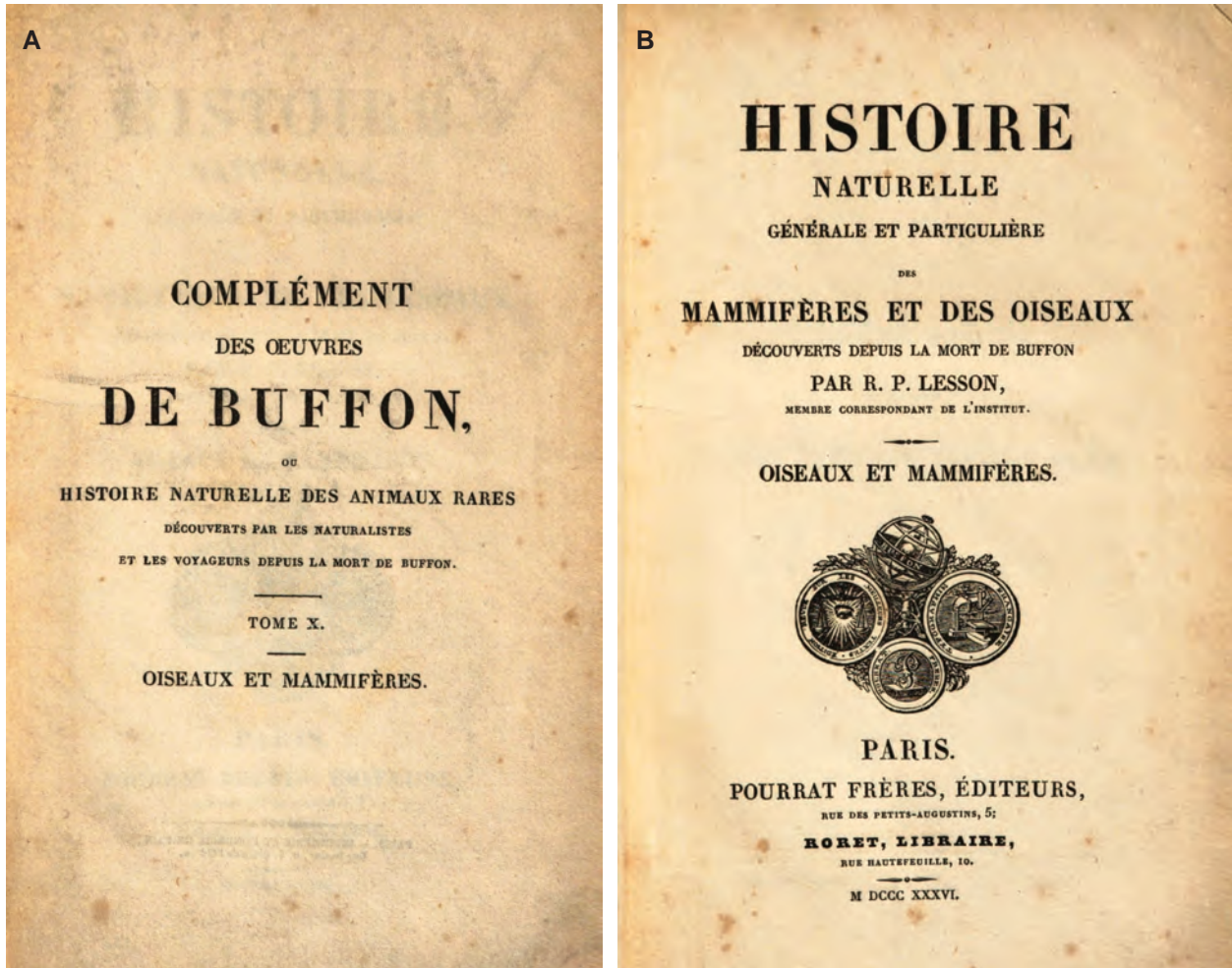
mentions text about the rhinoceros, which again strengthens the evidence.

It is certain, therefore, that the correct citation is: *Rhinoceros inermis* Lesson, 1836 (*Complément des Oeuvres de Buffon*, vol. 10, p. 399).

## Exhibition in Vienna

When Lamare-Picquot had exhausted all possibilities to find a buyer for his collections in France, he turned his attention abroad. Encouraged by the orientalist Baron Joseph von Hammer Purgstall (1774–1856), he decided to look for possibilities in Vienna, Austria (Dias 2018, after a report by Villers of 1866). Here he found space in the Kaisershaus, a building owned by King Ferdinand I located at Nr. 349 in the Ungergasse [Ungargasse] of the district Landstrasse from February 1838 (Ritter 1838:57). A small auction catalogue dated 1 May 1838 signed by Lamare-Picquot providing a summary of the *Pantheon Indien* may have been issued mainly to explore possible interests of purchase by the Austrian government rather than to actually proceed to auction (Lamare-Picquot 1838a). However that may be, the contents still included many animals: a dozen small mammals, 50 species of birds, 55 species of fish, 25 species of reptiles, also butterflies and insects, crustacea, corals, molluscs, as well as horns of Asian and African mammals, nests and eggs of birds and reptiles, and few plants. No rhinoceros or any other large species were mentioned.

A contemporary visit to this “Indisches Pantheon” provided an account in a local daily newspaper *Der Wanderer* edited by Joseph Ritter von Seyfried (1780–1849) at the end of May 1838 (Anonymous 1838). Noticeably, the correspondent noticed the presence of a hornless rhinoceros (“Was das Merkwürdigste unter der Classe der Säugethiere ist, ist ein Rhinoceros ohne Horn” p. 511). And maybe to confirm this, the newspaper had printed, hitherto overlooked, a full German translation of the hunt of the rhinoceros (Lamare-Picquot 1838b). Although this appears to suggest that the rhinoceros, as well as some other animals, were present in Vienna in 1838, this is actually questionable. The text in both pieces of the *Wanderer* is really no more than an exact translation of publications and reports issued in Paris. Although some animals might have been exhibited, the majority would be packed in boxes, inaccessible to the Austrian journalist, and in fact the rhinoceros and a large part of the natural history collections must have been shipped to Berlin at least 2 years earlier.



**Figure 4:** First (a) and second (b) title pages of R.P. Lesson, 1836, *Complément des oeuvres de Buffon*, containing the first description of *Rhinoceros inermis*.

A year later, there were rumors in the *Gazette de France* that the Imperial Government had purchased the “Panthéon Indien” from Lamare-Picquot on 15 April 1839 (Anonymous 1839). Apparently, this was incorrect. The Kaisershaus was requisitioned by the King in 1840 to become the new home of the Imperial Bodyguards, and all its contents had to be rehoused (Fitzinger 1868:69). Lamare-Picquot moved to a palace owned by Graf Anton Karl Pálffy von Erdöd (1793–1879) in Bratislava, Slovakia (then Presbourg, Preßburg), and apparently his exhibition was again open to the public, or to invited guests, whose signatures were assembled in a rather curious document later given to the library of his hometown Bayeux (Lamare-Picquot 1841, listed in Anonymous 1889:228).

He worked here on a new inventory of the collection, preserved in manuscript (Lamare-Picquot 1840 in Ruth 2007, see also Lommel 1960). At this time, there were about 1100 items of ethnographical interest, including 600 from

India, 111 from Burma and two from Thailand (Stein 2007). King Ludwig I of Bavaria sent the orientalist Othmar Frank (1770–1840) to Vienna to negotiate the purchase of the collection, who after his unexpected death was succeeded by Markus Joseph Müller (1809–1874). Finally, the collections of ethnographical objects were purchased for King Ludwig on 7 March 1841 for 27,000 Gulden, and transported to Munich, where they were exhibited as the “Indische Sammlung” in the Museum für Völkerkunde (now Museum Five Continents) from 1844 (Hamy 1892, Appel 2007).

## Zoological collections in Berlin

The natural history components of the collections brought back to France by Lamare-Picquot and evaluated in Paris were bought on 28 July 1836 by representatives of the





**Figure 5:** Peters 1877, plate 1, showing three aspects of the skull of the adult female *Rhinoceros inermis* (no. 10603) in the Museum für Naturkunde in Berlin.

Prussian King Friedrich Wilhelm III. Details about this transaction are scant in the literature. A manuscript deed (Geheimes Staatsarchiv Preußischer Kulturbesitz, Berlin, I. HA Rep. 162, Nr. 99) confirms this date and lists a total price of 7000 Thaler (Peters 1877 stated 6000 Thaler). Apparently, the famous geographer Alexander von Humboldt (1769–1858) had recommended the deal (Lebrun 1849). Louvet 1862 (followed by Lommel 1960:115) must be mistaken in claiming that Lamare-Picquot's specimens were bought in 1830 by King William IV of England for the British Museum. The specimens were divided between the Zoological Museum under Martin Hinrich Carl Lichtenstein (1780–1857) and the Anatomical-Zootomical Museum under Johannes Peter Müller (1801–1858).

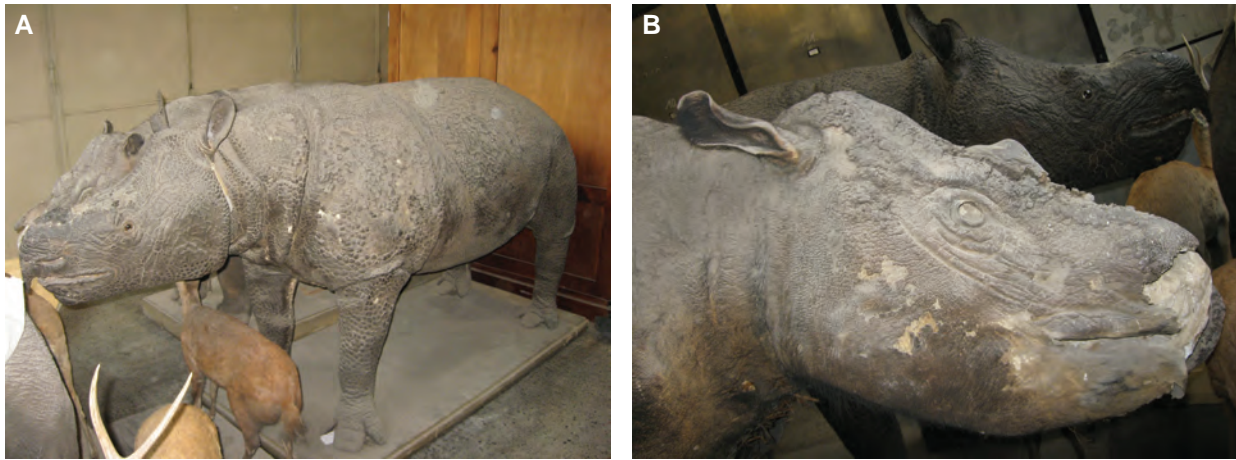


**Figure 6:** Peters 1877, plate 2, showing three aspects of the skull and a piece of skin of the young female *Rhinoceros inermis* (no. 10602) in the Museum für Naturkunde in Berlin.

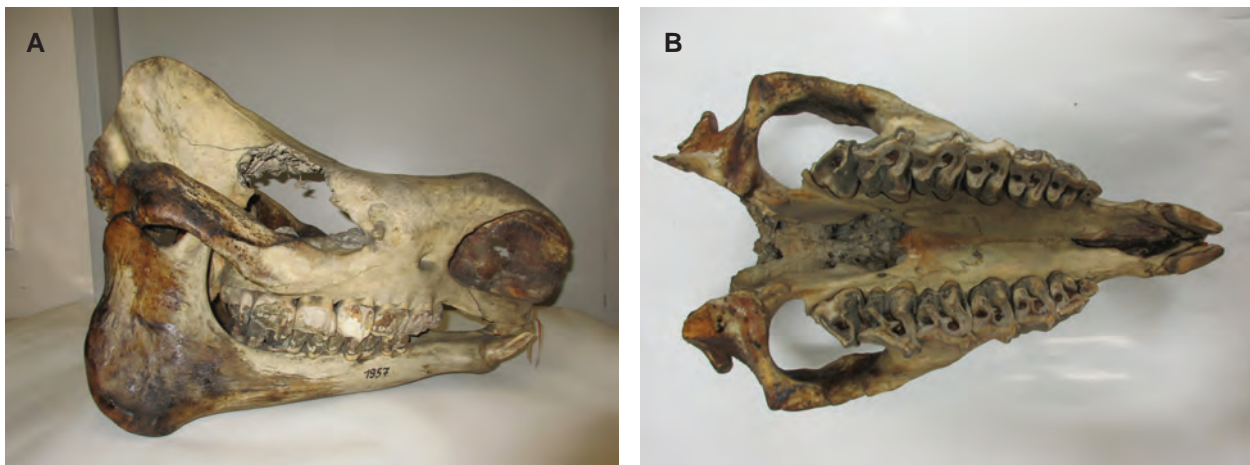
Although it is hard to find any precise evidence, it seems that some part of the collection was retained in Paris, possibly because there were so many duplicates that it would make no difference. Duméril and Bibron (1834:xxi) mentioned that Lamare-Picquot had allowed the scientists of the Natural History Museum to choose some specimens from the large number of species with multiple specimens. The reports from Vienna also still listed some zoological specimens in 1838, and their fate has not been recorded.

When the mother and her young *Rhinoceros inermis* arrived in Berlin, the two mounted specimens were exhibited in the Zoological Museum as *Rhinoceros javanicus*,





**Figure 7:** The mounted hides of *Rhinoceros inermis* in the storeroom of the Museum für Naturkunde in Berlin (photo by Jan Robovský, October 2018).



**Figure 8:** The adult skull of *Rhinoceros inermis* (ZMB\_Mam\_1957) in the Museum für Naturkunde in Berlin, designated as the lectotype (photo by Jan Robovský, October 2018).



**Figure 9:** The juvenile skull of *Rhinoceros inermis* (ZMB\_Mam\_1958) in the Museum für Naturkunde in Berlin, now the paralectotype (photo by Jan Robovský, October 2018).



while the two skulls were similarly identified by J.P. Müller in the Anatomical Museum (Peters 1877). The paper confirming their distinction as a separate species by Peters was illustrated by two plates engraved by the artist Johann Daniel Leberecht Franz Wagner (1819–1883) at the Kunstanstalt C. Bohm. Plate 1 has three views of the adult skull at 1/3 the original size, and plate 2 has three similar views of the young skull, together with a piece of skin showing eight tubercles (Figures 5 and 6). When the Zoological Museum was consolidated in a new building on the Invalidenstrasse on 2 December 1889, the two rhinoceros hides were exhibited in the large hall called the “Lichthof” (Matschie 1895:313). Later on, they were moved from there to the storerooms in the same building, where they are kept as important type-specimens.

The mounted hides were registered in the Zoological Museum under numbers An. 10603 (adult female) and An. 10602 (young), on the label attributed to Lamare Piquot with locality “ex continente Indiae”. The skulls in the Anatomical Museum were given numbers 1957 (adult) and 1958 (young). The hides and skulls are now all preserved in the Museum für Naturkunde of Berlin under numbers ZMB\_Mam\_1957 (adult female) and ZMB\_Mam\_1958 (young female). A photograph of the mounted skin of the mother was published by Groves (1971, fig. 11) and one of both specimens by Rookmaaker (1997:43). The specimens are still preserved in the museum, and new photographs of the two mounted skins (Figure 7), the adult skull (Figure 8) and the young skull (Figure 9) were taken by Jan Robovský in October 2018. To streamline future taxonomic work, the remains (skull and mounted hide) belonging to the adult female (ZMB\_Mam\_1957) are designated as the lectotype. The remains of the young female (ZMB\_Mam\_1958) become the paralectotype.

## Aftermath

There is no doubt that the varied collection brought to France by Lamare-Picquot from India in 1831 were important enough to be sold, even to form the starting point of a new ethnographical museum in Paris as he had hoped. It is known that he lost the money from the sale to the Bavarian King Ludwig when the bank holding these assets collapsed in Vienna (Louvet 1862). There is no word about the amount paid by King Friedrich Wilhelm in 1836. He only heard about his great financial loss while traveling to the Carpathian Mountains and Turkey in 1841, causing him to return to France.

Lamare-Picquot made two further explorations. In 1842–1847, he traveled through Canada and the southern

USA (Anonymous 1925, Chaigneau 1982). He returned in 1848 especially in search of the Breadroot or Prairie Turnip (*Psoralea esculenta* Pursh), which he hoped could be a substitute for the potato (Warner 1947). The Academy of Sciences called the plant in the vernacular the Picquotiane, to honor Lamare-Picquot. The virtues of the plant were discussed by Lamare-Picquot (1850, 1851), but despite some interests by the agricultural sector, the plants did not do very well in Europe.

After his return to France in November 1848, Lamare-Picquot settled in his hometown of Bayeux. Here he remained an acknowledged citizen known for his explorations in Asia, Africa and North America.

**Acknowledgments:** As can be seen from the list of references, there are only few recent contributions about the life and work of Lamare-Picquot, and most deal with his extensive and important ethnographical collections. Many of the older sources can be found online through the combined efforts of museums and libraries. For the manuscript sources, I am greatly indebted to the staff of the Geheimes Staatsarchiv Preußischer Kulturbesitz, Berlin, and especially to the archivists Sandra Miehlsbradt and Mara Grehl of the Historische Arbeitsstelle, Museum für Naturkunde Berlin, for the help with the Sclater-Peters correspondence. In the same museum, Christiane Funk, Collection Manager Mammals, provided access to the rhinoceros specimens to Jan Robovský, whose new photographs are an important document of the type-specimens of *Rhinoceros inermis*. I thank Nélia Dias for sharing her research on Lamare-Picquot.

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