

VOLUME 102 PART 3

OCTOBER 1992

ISSN 0303-2515

# ANNALS

## OF THE SOUTH AFRICAN MUSEUM

CAPE TOWN



ANNALS OF THE SOUTH AFRICAN MUSEUM  
ANNALE VAN DIE SUID-AFRIKAANSE MUSEUM

Volume 102 Band  
October 1992 Oktober  
Part 3 Deel



ADDITIONS AND REVISIONS TO THE  
LIST OF SPECIMENS OF THE  
EXTINCT BLUE ANTELOPE  
(*HIPPOTRAGUS LEUCOPHAEUS*)

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(With 6 figures)

[MS accepted 29 April 1991]

ABSTRACT

Very little material of the extinct blue antelope (*Hippotragus leucophaeus*) is known to exist. Until now, four mounted skins, two pairs of horns and one skull have been documented and their history is summarized. Three further specimens are now added: a hitherto unknown pair of horns discovered in Cape Town; a skull in the Zoological Museum of Amsterdam; and a now unavailable skin brought to Holland in 1805 by J. A. Uytendage de Mist. This specimen was donated to the museum of the Hollandsche Maatschappij der Wetenschappen in Haarlem; it is supposedly the second blue antelope skin once present in this collection.

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INTRODUCTION

The blue antelope, *Hippotragus leucophaeus* (Pallas, 1766), became extinct as early as the year 1800. The only evidence regarding its existence consists of a few short descriptions written in the seventeenth and eighteenth centuries, four mounted specimens in museums, as well as some horns and skulls, and three drawings. The available information was comprehensively treated by Mohr (1967) in her classic monograph on the species. Some additional material was reported by Klein (1974, 1987).

The blue antelope was a close relative of both the sable, *Hippotragus niger* (Harris, 1838) and the roan, *Hippotragus equinus* (Desmarest, 1804). It has been stated that the species was mentioned for the first time in 1719 in the book on the Cape of Good Hope by Peter Kolb. Earlier, however, its name appeared in a list of South African animals by Johann Schreyer (1681): 'Auch lauffen auff den hohen Bergen von vielerley Arten der wilden Böcke, und Ziegen, als Gerns-Böcke, *blaue Böcke*, bundte Böcke, Rehe-Böcke, Klippsteiger, Steinböcke, wilde Böcke' [*italics added*]. The blue antelope, with its assumed shoulder height of 1–1.2 m, was some-

what smaller than the sable and the roan; its teeth too were smaller and the horn cores more compressed on the sides. It had a faint blue to grey colour, whitish underparts, a brown forehead and top of the muzzle, and a lighter coloured patch in front of the eyes. The blue antelope was a grazer that lived in groups of up to 20 animals. In historic times, it was recorded only from a small region in the south-western Cape Province, roughly between Caledon and Swellendam. Rookmaaker (1989) gave details of the three known drawings of the blue antelope made during the eighteenth century, i.e. one by Robert Jacob Gordon presently in the Rijksmuseum, Amsterdam, and two almost identical drawings connected with the work of François Levallant preserved in the Library of Parliament, Cape Town, and in the Library of the University of Leiden (Fig. 1).

#### LIST OF KNOWN SPECIMENS OF THE BLUE ANTELOPE

Mohr (1967) gave a reliable and detailed list of the known specimens of the blue antelope. She enumerated four mounted skins, two pairs of horns, and four skulls. The history of these specimens will be summarized here, with the addition of a few historical points discovered since 1967. In this paper, I give some additional remarks about three specimens: a pair of horns recently discovered in the South African Museum in Cape Town; a skull found in the Zoological Museum of Amsterdam; and a missing mounted skin in the (former) Museum of the Dutch Society of Sciences in Haarlem.

The identification of the skulls has been debated. Mohr's list (1967: 44) included two skulls in the Zoological Museum in Berlin, but she concluded that these were incorrectly referred to *Hippotragus leucophaeus*. Another skull in her list had been reported in the museum of the Royal College of Surgeons in London, but it was destroyed in an air attack in 1941. Although it had been attributed to the blue antelope by Renshaw (1921), Mohr showed that this skull also more probably belonged to a roan. The identity of the fourth skull is still inconclusive (see no. 7 below).

Mohr (1967: 43) mentioned uncertain evidence concerning a pair of horns in the Albany Museum in Grahamstown. This refers to a note in that museum's annual report for 1901, where director S. Schönland (1902: 3) stated that he 'came across a pair of horns, which I take to be identical with a pair of horns identified in one of our old catalogues as belonging to the Blaauwbok (*Hippotragus leucophaeus*).' It was suggested that this specimen was destroyed in a fire in the early 1940s, an opinion that is confirmed by W. H. Holleman, deputy director of the Albany Museum (in litt. 18 March 1991); he informed me that the only pair of horns in that museum which could fit the description was recently identified as belonging to *Hippotragus equinus*.

We can thus confine our list to the four mounted specimens, the horns and one skull.

1. The Zoological Museum in Stockholm has a mounted skin of a young male. Its provenance is not known, except that it was in the private collection of Adolf Ulrich Grill (1752–1797) before its accession in the museum in 1829.
2. The Zoological Museum in Vienna preserves the mounted skin of an adult female. Nothing is known about the history of the specimen. It was first recorded in Vienna by Kohl (1886: 84).

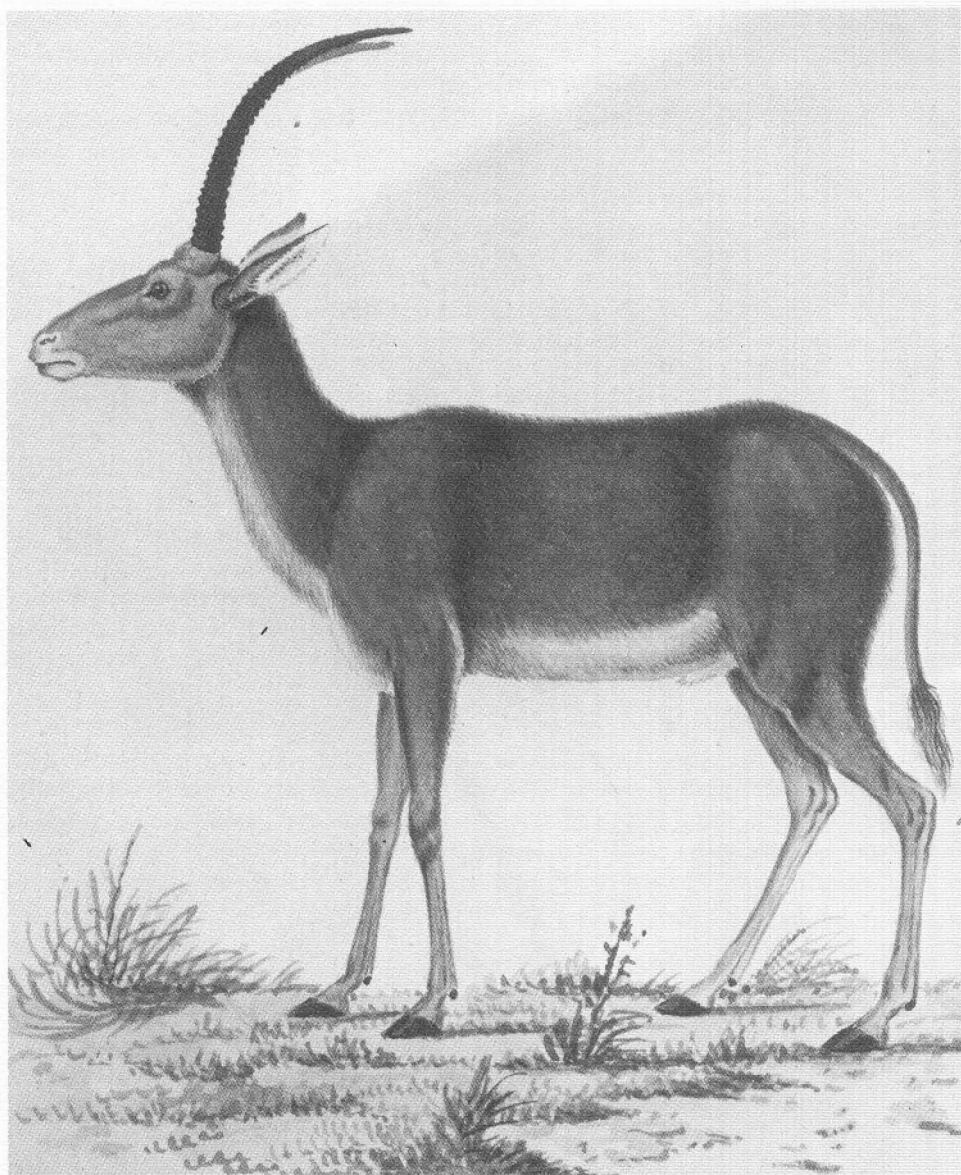


Fig. 1. The blue antelope in a collection made by François Levaillant around 1780, preserved in the library of the University of Leiden (UBL 13 in Rookmaaker 1989).

3. The Rijksmuseum van Natuurlijke Historie in Leiden has the mounted skin of an adult male, now the lectotype of *Hippotragus leucophaeus* (Pallas, 1766). The specimen was discovered by J. C. Klöckner in a shop in Amsterdam before 1776. Klöckner mounted it and then gave (or sold) it to Jacob Cornelis Sylvius van Lennep (1746–1776). On Van Lennep's death, his entire collection, including the blue antelope skin, was bequeathed to the Hollandsche Maatschappij der Wetenschappen

(Dutch Society of Sciences) in Haarlem, Holland. It was listed in the Society's catalogue of 1803 (Van Marum 1803: x). In 1842, the Society moved its collection from one building to another and decided to sell a number of its mammals and exotic birds. As detailed by Husson & Holthuis (1969: 150–151), these specimens were auctioned on 15 April 1842 by A. Engesmet in Haarlem, including 'a very large and clean specimen of *Antilope Strepsicheros* (the kudu), a similar one of *Antilope leucophas* (the blaauwbok)', etc. (No other antelopes are mentioned.) This blue antelope was bought by H. Schlegel for the museum in Leiden.

4. The Muséum National d'Histoire Naturelle in Paris has the mounted skin of an adult male. Mohr (1967: 37–40) suggested that this skin was transferred in 1795 from the collection of Willem V in The Hague, Holland. She recognized a certain similarity between the mounted skin and the animal shown on a drawing made in South Africa by Robert Jacob Gordon (1743–1795). Mohr did not know that Gordon had sent a blue antelope specimen to Holland. J. N. S. Allamand (1778) wrote about the 'tzeiran' (the blue antelope) without any indication that he had received one from South Africa. However, in the next volume of this Holland edition of Buffon's *Histoire Naturelle*, Allamand (1781: 38) added a footnote to the article about the bontebok with information concerning the 'pasan' [= *Oryx gazella*] and the 'tzeiran': 'M. Gordon m'a envoyé les peaux de l'un & de l'autre, qu'il a tués au Cap de Bonne Esperance'. This short passage corroborates Mohr's suggestion that the Paris blue antelope came from Holland, and it is likely that it was forwarded from the Cape of Good Hope by R. J. Gordon (Rookmaaker 1989: 301).

5. The Zoological Museum in Uppsala has a pair of horns that are the only remainder of a complete mounted skin. Although C. P. Thunberg did not carry it from the Cape of Good Hope, he received one in 1781 through the assistance of D. F. Immelman (Rookmaaker 1989: 161, 300). The skin was present in 1846, but it seems probable that it was destroyed later in the nineteenth century.

6. The Natural History Museum in London has a pair of horns of unknown provenance. It has been suggested that these horns might have been bought by Thomas Pennant in Amsterdam before 1781 (cf. Mohr 1967: 43). I would also like to record here that there is the following item in the catalogue of the auction of Bullock's Museum in London, 10th day's sale, Friday, May 14, 1819: '89 Blue Antelope, *A. Leucophaea*.' William Bullock (fl. 1795–1840) was the owner of a large Museum of Natural Curiosities, started in Sheffield around 1795, moved to Liverpool in 1801, to London in 1809, and exhibited from 1812 onwards in the Egyptian Temple on Piccadilly (Sweet 1970). The entire collection was auctioned between 29 April and 11 June 1819. The sale was attended by representatives from the major British and continental museums, such as Walter Adam from Edinburgh, Coenraad Jacob Temminck from Leiden, and Heinrich Lichtenstein from Berlin. There is an annotated copy of the sales catalogue in the Natural History Museum, London, which shows that the blue antelope mentioned above was bought by Dr Leach for £1–1–0. William Elford Leach (1790–1836) bought animals for the British Museum, where he was in charge of the zoological collections from 1813 to 1822. It is debatable whether the animal sold was in fact a blue antelope if one considers its rather low price and the fact that people like Lichtenstein apparently showed no interest in what they would have known to be a rare exhibit. It is possible that the specimen was in a poor state.

7. The Hunterian Museum in Glasgow preserves a complete skull with horns attached. It is not known how the specimen came to Glasgow. Klein (1974: 110) suggested that it was, in fact, a skull of a sable antelope, *Hippotragus niger*.

#### ADDITIONS TO THE LIST OF SPECIMENS

##### HORNS IN CAPE TOWN

Ozinsky (1989) reported that a pair of horns was donated to the South African Museum in Cape Town. It came from the family collection of Mr J. Piek of Observatory in Cape Town, but the earlier history is not known. It is likely that the horns belonged to the blue antelope. The horns are registered as catalogue number SAM-ZM40759 (Fig. 2). The distance from tip to tip has been measured as 150 mm, and the front length over the curvature of the right hand side is 611 mm (D. Drinkrow, Collection Manager, South African Museum, in litt. November 1990).

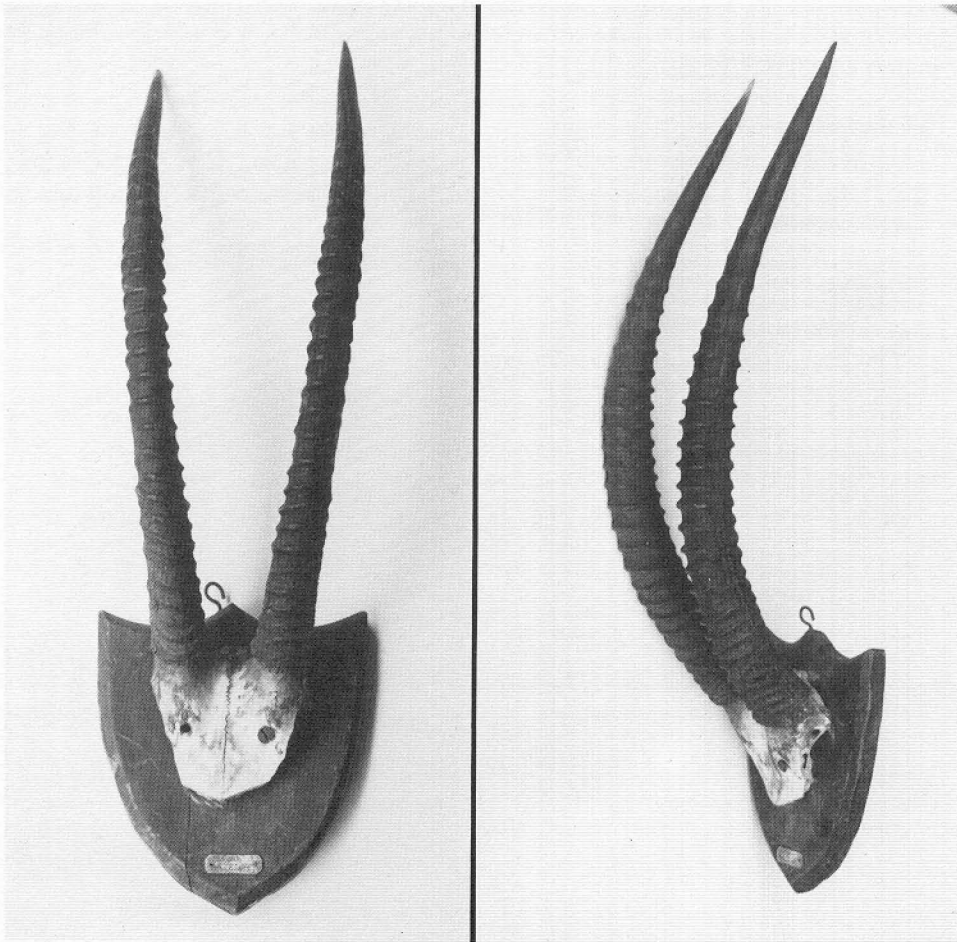


Fig. 2. Two views of the horns recently acquired by the South African Museum, Cape Town (SAM-ZM40759). Length 611 mm.



## A SKULL IN AMSTERDAM

During a recent review of the collections of the Zoological Museum of Amsterdam, Holland, Dr P. J. H. van Bree, Curator of Mammals, found a hippotragine skull with attached horns without data (ZMA 18.623). The specimen was examined in detail by Erdbrink (1988: 144–146, pls 10–12) and cautiously identified as '*Hippotragus* cf. *leucophaeus* (Pallas, 1766); (?) ♂, ad.' (Figs 3–6). The caution is necessary, because there are no other recent skulls of the blue antelope with which it could be compared. The right horn is 505 mm long over the curvature and has 31 rings, the left horn measures 495 mm and has 29–30 rings. The skull's width over the orbit is 154 mm, the left lower premolar row is 44 mm, the left lower molar row 72 mm (see Erdbrink 1988 for these and other measurements).

It is rather disconcerting that there is no information about the provenance of this specimen. One possibility is that the skull was among other unidentified specimens from the Haarlem Cabinet in 1866 (see below), and that the skin has since been discarded, leaving the skull, which has remained unattended ever since. If, in fact, the specimen does belong to the blue antelope, which seems likely, it would be difficult to establish an alternative source.

## EVIDENCE OF A SKIN ONCE IN HAARLEM

On 23 July 1805, Martinus van Marum (1750–1836), supervisor of the collections of the Hollandsche Maatschappij der Wetenschappen in Haarlem, wrote a letter to

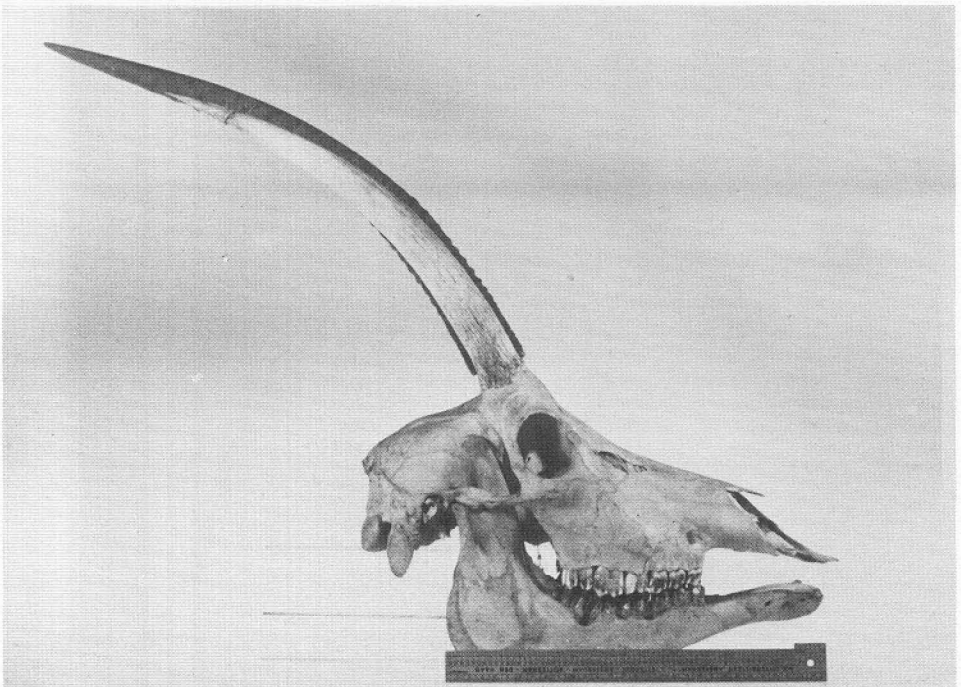


Fig. 3. Blue antelope skull in the Zoological Museum in Amsterdam, Holland (ZMA 18.623): right lateral aspect.



J. A. de Mist acknowledging receipt of a small collection of Cape specimens: 'I was pleasantly surprised to-day by some items of natural history, consisting of six bottles of snakes in spirit, a box with planks of African woods and the skin, together with the horns, of the Blue Buck, which your Honour sent to me for the Natural History Cabinet of our Society' (translated by Lefebvre & De Bruyn 1976: 239).

Jacob Abraham Uytenhage de Mist (1749–1823) was one of three secretaries of the Dutch town Kampen from 1766, and was elected a member of the National Convention in 1796. In 1802, he was sent as Commissioner General to the Cape of Good Hope. He stayed three years in the southern part of Africa. From 9 October to the end of November 1803 he travelled northwards from the Cape into the interior, accompanied by a large group of people. Among them was Martin Heinrich Carl Lichtenstein (1780–1853), from 1813 director of the Zoological Museum in Berlin, who published an account of his stay in South Africa in 1811–1812. Lichtenstein kept the journal of De Mist's expedition, which included only a few zoological details and nothing about the blue antelope (as summarized by Molsbergen 1922: 167–189).

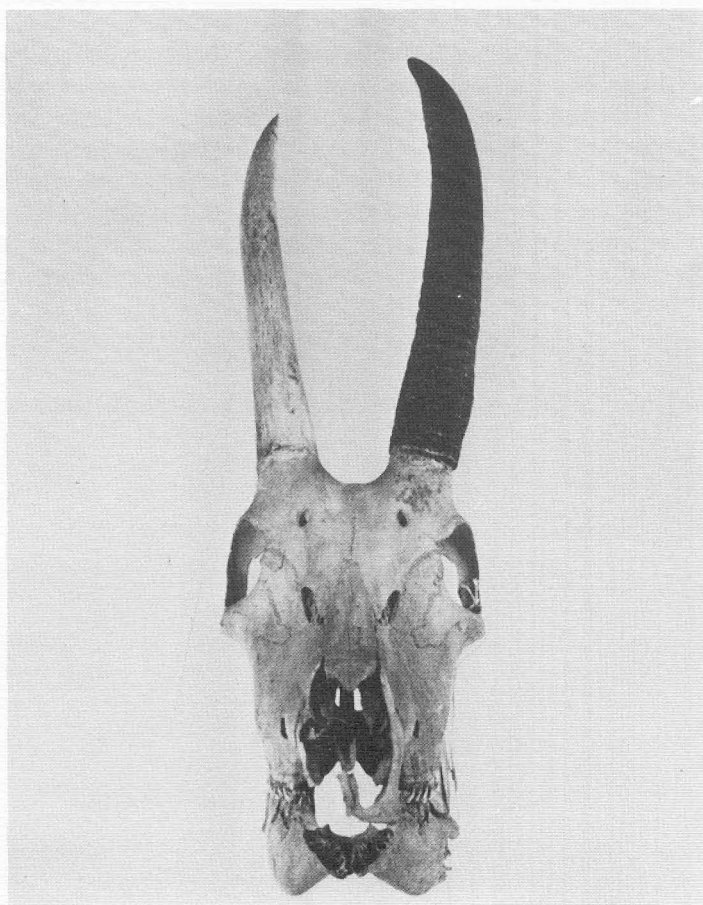


Fig. 4. Blue antelope skull in the Zoological Museum in Amsterdam, Holland (ZMA 18.623): frontal aspect. Width over the orbit 154 mm.

When De Mist returned to Holland, he took with him a small collection of natural history specimens and some ethnographical material. Van Marum (1812) gave a report on these specimens, the preparation of which was delayed because he had hoped to receive their descriptions from Lichtenstein. De Mist's gift consisted of 333 species of insects (put in order by Lichtenstein in South Africa), and besides it included: 'De Huiden van een Leeuw, van een Tyger, en van een Blaauwe Bok (*Antilope Leucophaea*), alsmede de Horens van verscheidene soorten van Antilopen en van een Rhinoceros' (Van Marum 1812: 166). [Translated: The skins of a lion, a leopard, and a blue antelope (*Antilope Leucophaea*), as well as the horns of several species of antelopes and those of a rhinoceros.]

One wonders how much Lichtenstein knew about the specimen brought home by De Mist. Considering his understanding of the blue antelope's extinction in South Africa and his personal acquaintance with De Mist, it is almost impossible that he would not have heard about it, and may even have examined it. In his travel book, Lichtenstein (1811: 265) said that 'Im Jahre 1800 war noch einer geschossen, dessen Fell jetzt in Leyden aufbewahrt wird; seitdem aber hat man keine mehr gesehen.' In a paper about antelopes written just a few years later, Lichtenstein (1814: 160) clearly described a skin of the blue antelope that he had examined personally: 'Das Fell, nach welchem ich beschreibe, war leider das letzte das gesehen worden ist. Man hat seit 1799, wo dieses Thier geschossen ward, keine wieder eingetroffen.' He did not say where he saw the animal. However, it is very tempting to assume that Lichtenstein was talking about De Mist's specimen of the blue antelope. Why did Lichtenstein write, in 1811, that the animal was 'now in Leiden'? He returned to Europe in June 1806 and he may have heard that De Mist took his specimen to Holland. Still, Leiden does not fit the facts, because the collection was given to Haarlem in 1805 and De Mist is not known to have lived in Leiden. Maybe further research can clarify these statements.

Considering the above references, I suggest the following history for De Mist's blue antelope. The specimen probably was killed just before 1800, since which time it

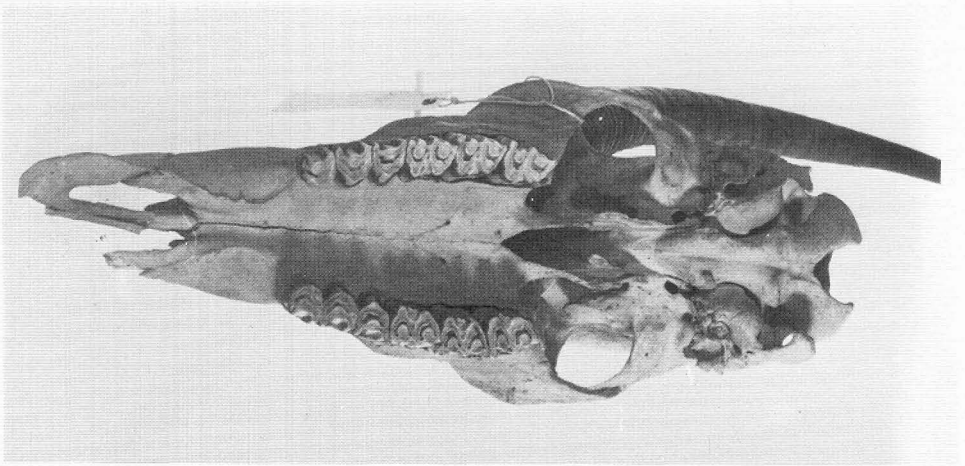


Fig. 5. Blue antelope skull in the Zoological Museum in Amsterdam, Holland (ZMA 18.623): ventral aspect with upper tooth row.

was kept in a private collection or in a shop of natural history specimens; it was given to De Mist or he may have bought it. He took the skin to Holland arriving on 8 July 1805, after which he donated it to the society in Haarlem. From 1812 onwards, the history of the skin becomes obscure.

We need to consider the possibility that the animal was a roan (*Hippotragus equinus*) rather than a blue antelope. In the absence of any evidence, it is useless to speculate. However, since it is likely that Lichtenstein's description was drawn up after De Mist's specimen, it is almost certain that it was in fact a blue antelope and not a roan. If this conclusion is correct, it appears that the Dutch Society of Sciences in Haarlem possessed two mounted skins of this rare species from 1805 onwards, i.e. specimen number 3 mentioned in the list of known specimens (see p. 133) and the one brought by De Mist. Tuijn (1971) mentioned both animals in passing, without giving further details. As stated above, the Haarlem society auctioned one blue antelope in April 1842 and that one passed to the Rijksmuseum van Natuurlijke Historie in Leiden.

It is, of course, important to establish which specimen of the blue antelope was bought by the Leiden Museum: the one bequeathed by Van Lennep or the one received in 1805. It is probable that Mohr (1967: 35) gave the correct clue when she said that the specimen still in the Leiden Museum 'hat mit dem ursprünglichen Bild bei Buffon [= Allamand] 1778—und *nur* mit diesem—derart viele Ähnlichkeiten, daß sie sich gegenseitig beeinflußt haben müssen.' This can be safely followed and justifies the conclusion of Husson & Holthuis (1969) that the Leiden blue antelope was one of the syntypes of *Antilope leucophaea* Pallas, 1766.

Surprisingly, the second Haarlem blue antelope, the one donated by De Mist, has disappeared from the records. In fact, there is not a single clue as to what happened to

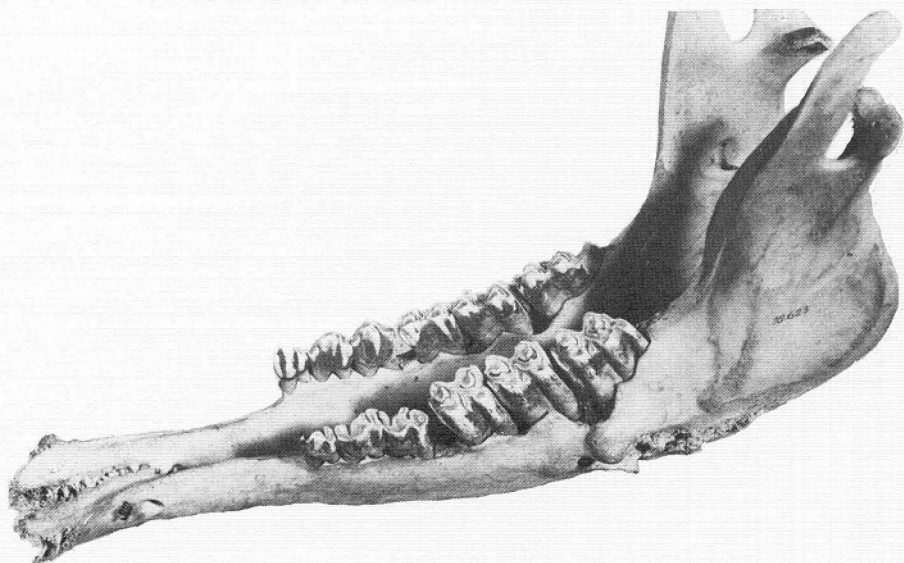


Fig. 6. Blue antelope skull in the Zoological Museum in Amsterdam, Holland (ZMA 18.623): mandible. Left premolar row 44 mm, molar row 72 mm.

this skin with horns; a skeleton or skull were never mentioned. One reason for this must be that interest in the Cabinet of the Society in Haarlem dwindled after the death of Van Marum. The history of the Society and the Cabinet, written by Bierens de Haan (1941, 1952), shows that Van Marum's successors, J. G. S. van Breda (secretary 1838–1864) and E. H. von Baumhauer (secretary 1864–1885) did not care properly for the zoological specimens of the museum. In 1866, a committee of investigation reported that a large part of the collection had lost its value due to age and lack of maintenance. Obviously, nobody was interested in keeping records about the collection. In November 1866, the largest part of the Haarlem Cabinet was transferred to the Museum of the Zoological Gardens in Amsterdam; much was bought by the Amsterdam Zoo but some of the more valuable specimens were only given on loan, like the Duchassaing & Michelotti collection of sponges (Wiedenmayer 1977: 252). An inventory was made at that time, but it only included 'all sorts of lower animals' (Smit 1986: 108) and birds or mammals were not mentioned during the transactions (Bierens de Haan 1952: 266). It is unlikely that a complete stuffed blue antelope was included.

### ACKNOWLEDGEMENTS

I am grateful to Dr P. J. H. van Bree for sharing the information of his discovery of the blue antelope skull in the Zoological Museum of Amsterdam and for general encouragement. Dr D. P. Bosscha Erdbrink kindly helped by supplying photographs of the skull in Amsterdam. An earlier version of this paper was read by Dr C. Smeenk, Dr L. B. Holthuis, Dr R. G. Klein and Mr R. Rau and I am thankful for their comments. Mr W. H. Holleman provided information about the horns in the Albany Museum.

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