

The nomenclature of the African wild ass

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The 19th-century reports on the occurrence and identity of wild asses in North-East Africa are reviewed, as well as the names applied in various publications by Fitzinger and von Heuglin, respectively. The first published name for the African wild ass, *Asinus africanus* Fitzinger, 1858, is a nomen nudum. The name *Equus taeniopus* von Heuglin, 1861 is rejected as indeterminable, as it is based on an animal that cannot be identified and may have been a hybrid between a domestic donkey and a Somali wild ass; the type has not been preserved. The first available name thus becomes *Asinus africanus* von Heuglin & Fitzinger, 1866. A lectotype is designated: a skull of an adult female collected by von Heuglin near Atbara River, Sudan, and present in the Museum für Naturkunde in Stuttgart, MNS 32026. A review of taxonomic and nomenclature actions by later authors is given. The two subspecies recognized are the Nubian wild ass *Equus a. africanus* (von Heuglin & Fitzinger, 1866), and the Somali wild ass *E. a. somaliensis* (Noack, 1884).

Introduction

In an earlier review, Groves (1966) called the African wild ass *Equus africanus* (Fitzinger, 1857), as this seemed to be the earliest available name for a true wild ass. He recognized two living subspecies: the Nubian ass *E. a. africanus* and the Somali ass *E. a. somaliensis* Noack, 1884. He rejected the name *E. taeniopus* von Heuglin, 1861, which has been used intermittently for various populations of wild ass, as this name probably refers to a hybrid between a wild animal and a domestic donkey. For none of these names is there a well-defined type locality.

Schlawe (1980) examined these early references and tried to stabilize the situation by restricting type localities. While to some extent any such restrictions must be arbitrary, Schlawe's arguments deserve to be taken seriously. Again, while such restrictions are not legally binding in the meaning of the Code, they follow the spirit of the Code in reducing confusion and should be accepted if validly made. In this paper, we retrace the sources and once more try to clarify the recurring confusion.

The sources: Fitzinger and von Heuglin

The literature

Fitzinger (1858, not 1857) gave the name *Asinus africanus* to the "Afrikanischen Wildesel", which he said had contributed to the ancestry of "*Asinus vulgaris*", the domestic donkey (p. 434) and might in fact contain more than one species (p. 471). No

description was appended to this new name. It was based on information from von Heuglin (1858: 371), who had reported on the presence of large numbers of game, among which wild asses ("Wilder Esel"), in the "Habab-Länder" at about 16°-19°N 36°30'-38°30'E [in present-day Eritrea and Sudan], but had not described them either. It is therefore difficult to see why Schlawe (1980: 103) says of Fitzinger's name: "Dennoch liegt kein Nomen nudum vor." Van Bemmelen (1972: 267) who, like Schlawe and ourselves, had looked up Fitzinger's work (albeit the unchanged 1860 edition), was of the opinion that *A. africanus* is indeed a nomen nudum, a conclusion to which we agree.

Two years after publication of his travel account on Habab, von Heuglin (1860: 428) again reported on wild asses, which he had seen on 1 November 1857 in the surroundings of "Klein-Dobár" (about 10°N 45°E), south of Berbera in northern Somalia. He spoke of "...Fährten von Straussen und von (2 Species?) wilden Eseln, deren eine Art wohl neu sein dürfte. Sie sind isabellgelb mit Übergang ins Graue, mit schwarzer Mähne und Rückenstreif, der bis zur Schwanzspitze fortsetzt, schwarzem Kreuz über die Schultern, eben solchen Fesseln und Querstreifen längs der Aussenseite der Füße bis über das Kniegelenk herauf." However, no scientific name was appended to this description.

In the following year, von Heuglin (1861a: 15, 19) formally described the two species of wild ass he tentatively recognized. The northern form he called (p. 15) "*Equus Asinus*, Linn.?", about which he wrote on p. 19: "Der eine, der der Provinzen Taka und Berber [the present Northern Kassala, Sudan], scheint unbedingt der Species *Equus Asinus* anzugehören und heisst auf Arabisch Hamár el Wadi. Ich traf diese Art häufig um die Ruinen von Wadi Sáfra, dann am Atbara und auf der Strasse von Taka gegen Sauakin zu und sie erscheint während der Regenzeit auch nordwärts bis in die Wüste von Korosko". This paragraph is followed by a brief description of the animals. The other form he named (p. 15) "*Equus taeniopus*, Heugl.", about which he continued on p. 19: "Die andere Art, die angeblich noch in Arabien vorkommt und zu der wohl die Wildesel Schoa's [NE Ethiopia] und der Somáli-Küste gehören, beschreibe ich nach einem lebenden Exemplar, einem zweijährigen Hengst." Again a description follows, to which he added: "Das beschriebene Exemplar stammt vom Rothen Meere, doch war die Heimath nicht genauer zu ermitteln"; and further: "Ähnlich gefärbt war ein Exemplar, das ich vor etwa 9 Jahren im Besitz des Französischen Konsuls Degoutin von Massaua [Eritrea] sah, und eben so schienen mir einige an der Somáli-Küste gesehene Exemplare hierher zu gehören; ihre Farbe ist nach Angabe der Eingebornen immer gelb." But apparently, von Heuglin was not absolutely sure about the existence of two species of wild ass, since he added: "Ob diese eben beschriebene eine Varietät einer bereits bekannten oder eine neue Art sei, wage ich nicht zu entscheiden; auch bedarf der *Equus Asinus* vom südlichen Nubien [Sudan] noch immer einer genaueren Untersuchung. Ich führe den ersteren [i.e. the southern form just described] als *E. taeniopus*, mihi, den zweiten [i.e. the northern, Nubian form] als *E. Asinus* im Verzeichniss auf". P. 48 of the same issue of "Petermann's Geographische Mittheilungen", concluding Heft 1 of 1861, reads: "Geschlossen am 10. Januar 1861"; p. 88, concluding Heft 2, says: "Geschlossen am 9. Februar 1861", so von Heuglin's publication almost certainly appeared between these two dates.

Later the same year, von Heuglin (1861b) published a number of brief Latin diagnoses of new species discovered by him; the text of this paper was offered for publication by Fitzinger. The first species in this list is *Asinus taeniopus*; the diagnosis is in fact a transla-

tion (albeit in different order) of his earlier German description of the species. No reference to specimens or localities is given here, but the paper is accompanied by a coloured plate (Tab. 1, reproduced here in fig. 1), of a male ass, which by inference can only represent the captive animal from the "Red Sea" (exact origin unknown) on which the description was based, hence the holotype of *Equus taeniopus* von Heuglin, 1861. On the front cover of the reprint of this paper, present in the library of the National Museum of Natural History, Leiden, it says: "Eingegangen bei der Akademie am 23. Januar 1861"; on the back cover is printed: "Geschlossen den 22. April 1861". This publication therefore appeared by the end of April 1861 at the earliest, so the German description has priority.

The plate of this "Red Sea" animal has caused considerable trouble. It reads "Heuglin del." and is evidently based upon a sketch now in the Staatliches Museum für Naturkunde in Stuttgart and reproduced by Schlawe (1980: Abb. 4). The animal does not look like any known ass, domestic or wild (contra Van Bemmelen, 1972: 267). In the plate published by von Heuglin it is greyish isabelline; the tip of the muzzle, the belly and the front sides of the legs are paler, more whitish. The animal shows a complete black dorsal stripe, a long and thick, sharply marked black shoulder cross, and numerous black leg stripes. The plate agrees with von Heuglin's descriptions; this probably applies even more to the original drawing, in which the paler parts of the body appear even more whitish, though this is difficult to deduce from Schlawe's black-and-white reproduction. Groves (1966) already noted that the shoulder stripe is like that seen in domestic asses, not in any kind of wild ass, a point that has been lost on subsequent commentators, but which remains valid today. It may well have been a hybrid between a wild ass and a domestic donkey as suggested by Groves (1966). Some earlier authors too, had expressed their doubts. Menges (1885: 454-455), who collected animals in northern Somalia, remarked that the Somali wild ass did not agree with von Heuglin's description of *E. taeniopus*; he was of the opinion that the "wild asses" shown in Europe under that name were in fact hybrids between wild animals and domestic donkeys. But at the same time he emphasized (p. 455) that the leg-stripes of such animals were weakly developed. Later, Menges (1887: 261) assumed that the name *E. taeniopus* referred to the Nubian wild ass and suspected (p. 267) that a hybrid between a Somali domestic donkey and a wild ass could have led to erroneous descriptions of *E. taeniopus*, though he admitted that this would be hard to assess for want of reliable material. A similar doubt was expressed by Antonius (1937: 561), who regarded von Heuglin's plate as "the work of an incompetent painter from the description of an inexact recollection". He regarded the "Heuglin's Wild asses" shown in many European zoos as "very doubtful beasts, at the utmost feral, but certainly not of true, wild origin".

It cannot be excluded that the sketch was indeed made from memory and that von Heuglin, in drawing the shoulder cross, was led astray by the domestic donkeys he must have seen so often. Another possibility is that, despite his informants' assurances, the animal was not a wild ass at all: the Abyssinian and Etbai breeds of domestic donkeys in Eritrea bear some resemblance to a Somali wild ass, but with a shoulder cross (Epstein & Mason, 1971: 384-385). Menges (1887: 267) postulated that the domestic donkeys in Somalia may be direct descendants from wild Somali asses: "Man findet nämlich bei den Somalis sehr häufig eine Sorte von Hauseseln, welche den wilden sehr ähnlich sind, dadurch daß die Füße die charakteristischen Querbinden haben, wenn auch viel schwächer gezeichnet, während der Rückenstreifen und das Schulterkreuz

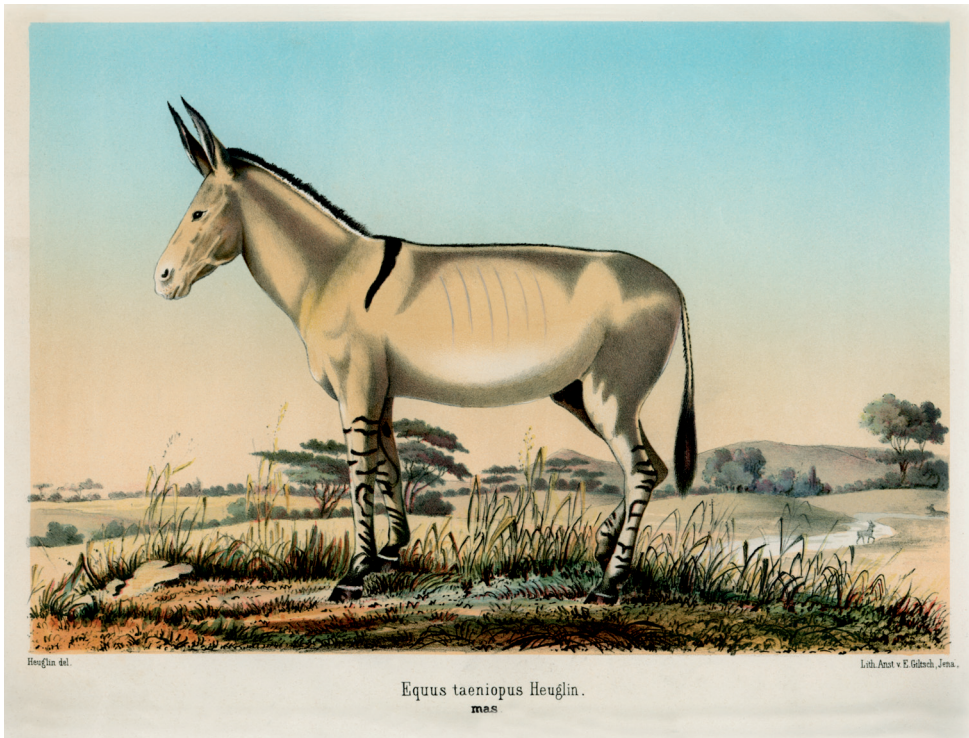


Fig. 1. Von Heuglin's "Red Sea" ass, stallion, holotype of *Equus taeniopus* von Heuglin, 1861. After an original by Th. von Heuglin. From von Heuglin, 1861b: Tab. 1.

sehr stark und scharf ausgeprägt ist." That a shoulder cross of some kind did indeed occur in von Heuglin's two captive *Equus taeniopus* is clearly emphasized by his descriptions: "schwarzem Kreuz über die Schultern" (1860: 428), "das Kreuz auf den Schultern ebenfalls sehr dunkelschwarz und scharf begrenzt" (1861a: 19) and "stria longitudinali in dorso ad caudae floccum setosum nigrum excurrente alteraque transversali supra humeros ducta intense nigra" (1861b).

The other animal, the one that von Heuglin (1861a: 19) had earlier seen in Massawa (and which may be regarded as the paratype of *Equus taeniopus* von Heuglin, 1861), found its way, via the French Consul General in Cairo, to the Paris menagerie (Jardin des Plantes) in 1851, where it was seen by a.o. Sclater (1862: 164) and Milne-Edwards (1869: 40-41, pl. 5, reproduced here in fig. 2). The latter briefly described and figured it under the name "l'âne sauvage ou Onagre d'Abyssinie". He obviously was unaware that the self-same animal had been seen and mentioned by von Heuglin (1861a); he nonetheless compared it to von Heuglin's (1861b) description and plate of the "Red Sea" specimen, noting that its colour differed "notablement... L'âne sauvage observé par M. Heuglin est isabelle, celui de la ménagerie du Muséum était ardoisé; et cependant je n'hésite pas à le considérer comme appartenant à la même espèce". Milne-Edwards's plate indeed shows a much darker animal, reddish grey with a whitish muzzle and whitish patch below the ear, a long, bold but thin shoulder stripe (much longer and

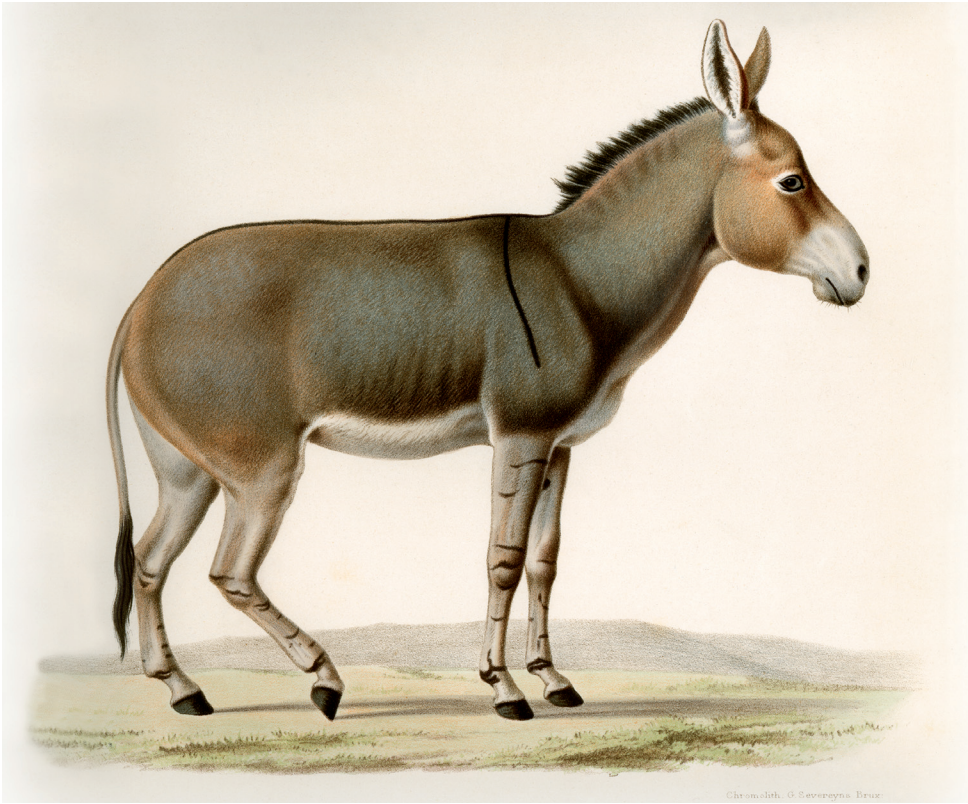


Fig. 2. Von Heuglin's "Massawa" ass in the Jardin des Plantes, Paris, sex not recorded, paratype of *Equus taeniopus* von Heuglin, 1861. Lithograph by G. Severeijns, after an original by J.Ch. Werner. From Milne-Edwards, 1869: pl. 5.

thinner than in von Heuglin's plate of the Red Sea animal), a complete dorsal stripe, legs slightly paler than the rest of the body, a pale grey belly, and sparse leg stripes. A drawing by von Heuglin kept in the Museum für Naturkunde in Stuttgart showing four asses, one of which undoubtedly this same animal, has been reproduced by Schlawe (1980: Abb. 2). There is in this case no doubt of the basic accuracy of the depiction; but, as with von Heuglin's Red Sea specimen, a doubt whether the animal was really a wild ass (as opposed to a domestic donkey, or a hybrid) must persist.

What is reputed to be the skull of the Paris specimen, labeled "Onagre d'Abyssinie", is in the Laboratoire d'Anatomie Comparée, Muséum National d'Histoire Naturelle; but the skull is problematical, having the characters of both true asses and onagers, and may therefore not in fact belong with the animal in question (V. Eisenmann, pers. comm.).

Schlawe (1980: 106, 121) correctly recognized the "Red Sea" animal as the type of *Equus taeniopus* von Heuglin, 1861, the original sketch as the iconotype. At the same time, he obviously merged von Heuglin's publications from 1860 (p. 428) and 1861a, as he wrote (p. 106): "Vor allem machte Heuglin als speziellen Locus typicus eine Gegend um Berbera (etwa 10,0°N/45,0°O) deutlich" [i.e., "Klein-Dobár"], which he consequent-

ly designated “Locus typicus restrictus” (p. 121). In his description of *taeniopus*, however, von Heuglin (1861a: 19) did not refer to any specific locality. Of the Red Sea animal he said: “...doch war die Heimath nicht genauer zu ermitteln”. And of the wild asses seen by him and ascribed to *E. taeniopus* he wrote: “Die andere Art, die angeblich noch in Arabien vorkommt und zu der wohl die Wildesel Schoa’s und der Somáli-Küste gehören,...” and: “...und eben so schienen mir einige an der Somáli-Küste gesehene Exemplare hierher zu gehören;...” In both phrases the author expressed some doubt (“wohl”, “schiene”) about the identity of these wild asses with the captive animals he had seen; Schlawe’s restriction of the type locality therefore is unwise and confusing. This leaves us with two captive asses lying at the base of *Equus taeniopus*: the holotype from the “Red Sea” and the paratype seen in Massawa, with the supposed skull of the latter surrounded by uncertainty.

As we have seen above, von Heuglin (1861a: 15, 19) distinguished the northern (Nubian) wild ass from his new *Equus taeniopus*, and tentatively included it in *Equus asinus* L., 1758. Von Heuglin & Fitzinger (1866: 588-589) revised the nomenclature and distribution of the two species of wild ass which they recognized. Here, they used the name “*Asinus* (Gray) *africanus* Fitz.” for the northern form and, though no description was given, the reference to von Heuglin (1861a: 15, 19) makes the name available. The southern form they called “*Asinus taeniopus* Heugl.”, again with reference to von Heuglin (1861a, b) and followed by a very brief additional description: “Abgesehen von der Farbe und Zeichnung, unterscheidet sich dieselbe von der vorhergehenden schlanken und mehr hochbeinigen Art, durch die viel gedrungene Form”. The domestic donkey they called “*Asinus africanus aegyptiacus* Fitz.”, of which they said: “Wird nicht selten auch mit *Asinus taeniopus* bastardirt.” Formally, the author of the name may be Fitzinger, as the introduction and running title of the paper would suggest, but p. 538 reads modestly: “Ich [Fitzinger] wiederhole,... daß ich an dieser Arbeit kein anderes Verdienst habe, als die Richtigstellung der Bestimmungen nach dem vom Herrn Verfasser [von Heuglin] gesammelten... Original-Exemplaren, die Sichtung der Synonymie und die Einschaltung der von ihm zugekommenen brieflichen Mittheilungen,...” Consequently, Sclater (1884: 542) and De Winton in Anderson (1902: 330) ascribe the name *africanus* to Fitzinger, 1866. Below, we will cite both authors as being equally responsible for this paper.

Schlawe (1980: 121) proposed to restrict the type locality of “*Asinus africanus* Fitzinger, 1858” to “Ain Saba, ca. 16,0°N/38,0°O”, on account of von Heuglin (1858: 371). In that travel report, however, von Heuglin did not mention this locality in any special connection with the wild asses seen by him. After a general description of the “Habab-Länder”, three paragraphs were dedicated to the three rivers flowing through this area: the Mareb, Barka and Ain Saba. He then continued about the country in general: “Natürlich wird unter obgenannten physischen Verhältnissen des Landes dieses an Naturprodukten aller Art dem benachbarten Abessinien nicht nachstehen, und die mir gemachten Beschreibungen der grünen Hochebenen, grasreichen Triften, herrlichen Kaskaden und Piks, deren Gipfel von ewigem Wolkenschleier umhüllt sind, der ungemaine Überfluss von Heerden und edlem Wild (Elephant... Wilder Esel,... u.s.w.)...” This is the only reference to the wild ass in this paper. Schlawe’s restriction therefore does not agree with the range of this form as delineated by von Heuglin & Fitzinger (1866: 588-589), which is further to the north, and therefore does not bring clarity.

Gentry et al. (2004) proposed that nomenclaturally, wild/domestic species pairs

should be treated as different species. This proposal has been adopted by the Commission (Opinion 2027); see Gentry (2006), who specifically refers to the situation regarding the domestic donkey and wild ass. Thus, we are left with the choice between two names for the African wild ass: *Equus taeniopus* von Heuglin, 1861 and *Equus africanus* (von Heuglin & Fitzinger, 1866). If the “Red Sea” specimen is indeed a hybrid between a domestic donkey and a wild ass, this would affect the availability of the name *taeniopus* for the wild parent form (Code, 4th edition, 1999, Art. 23.8). The next available name will then be *Equus africanus* (von Heuglin & Fitzinger, 1866). That the “Red Sea” specimen could indeed have been a hybrid is supported by the remark von Heuglin & Fitzinger made under their *Asinus africanus aegyptiacus* and cited above. As we have seen, there are other reports or assumptions of hybridization between (Somali) wild asses and domestic donkeys (Menges, 1885: 455; Antonius, 1937: 561; Denzau & Denzau, 1999: 178), though on the other hand Epstein & Mason (1971: 386) wrote: “The Somali have never attempted to cross the domestic with the wild ass of their own country...” In any case, von Heuglin’s (1861a: 19) statement: “Bezüglich der Grösse, die ich wegen der Wildheit des Thieres nicht genau zu messen im Stande bin,” does in itself not point to a pure wild ass, but may also refer to a newly caught hybrid. An absolute proof for either view cannot, however, be given, as in our opinion will be the case for almost any similar situation.

We have also suggested, above, that von Heuglin’s “wild ass” could have been a domestic donkey, of a breed such as the Etbai, which has leg-stripes. In such a case the name *taeniopus* could not, of course, be used for any wild ass. We therefore propose to reject the name *Equus taeniopus* von Heuglin, 1861 as indeterminable, an action that would restore the name *Equus africanus* (von Heuglin & Fitzinger, 1866) as the prior name for the African wild ass.

Designation of a lectotype of *Asinus africanus* von Heuglin & Fitzinger, 1866

There is in the Museum für Naturkunde, Stuttgart, the skull of a wild ass from Atbara River in present-day Sudan, presented by von Heuglin (MNS 32026). There is unfortunately no associated skin; but the skull, that of an adult female, 485 mm in greatest length, is without doubt that of a genuine Nubian wild ass. The date of collection is unknown, but there is no reason to doubt that it belonged to a specimen which for von Heuglin was tangible evidence of wild-living *Equus asinus*. As the only known Nubian wild ass specimen that passed through von Heuglin’s hands and that originated from the range reported for this form by von Heuglin & Fitzinger (1866), it is here designated the lectotype of *Asinus africanus* von Heuglin & Fitzinger, 1866.

Subsequent taxonomic actions

In the winter of 1882/83 (years inferred), the German collector Joseph Menges obtained a foal of a wild ass, estimated to be two weeks old, near Berbera in northern Somalia, for the animal dealer Carl Hagenbeck in Hamburg. He raised it for five months and in 1883 took it to Hamburg, where it lived for about a year (Menges, 1887: 267-268). Here the animal was studied by Noack, who described it as *A[sinus] taeniopus* var. *Somaliensis* (see Noack, 1884: 101-102); his paper appeared in April. In August 1884 the

young stallion was sold to the Zoological Society of London. In the same year, Sclater (1884: 540-542, pl. 50 fig. 1) described it as *Equus asinus somalicus*; his article appeared in November. Apart from this live animal, Sclater had before him a flat skin, also received from Hagenbeck. This may have been the female collected by Menges on the Hekebo Plateau on 24 December 1884, or one of the skins bought by him in the market of Berbera (Menges, 1885: 454-455, Taf. 20). All three authors - Noack, Sclater and Menges (1887: 262) - mentioned the greyish coloration of the coat, the presence of leg-stripes and the absence of a shoulder cross as important distinguishing features of the Somali wild ass.

There are two pictures that are supposed to represent the animal caught by Menges and thus the holotype of *Asinus taeniopus somaliensis* Noack, 1884, and a syntype of *Equus asinus somalicus* Sclater, 1884. One is an unpublished drawing by H. Leutemann of a young Somali ass in Hamburg; it is preserved in the Artis Library in Amsterdam and has been reproduced by Schlawe (1980: Abb. 8), here given as fig. 3. The other is the coloured lithograph in Sclater's paper, drawn by Joseph Smit in London (Sclater, 1884: pl. 50 fig. 1), here reproduced as fig. 4. In the background of the latter, a Nubian ass is shown: brown, with a narrow shoulder cross and no leg-stripes. Strangely, however, the two plates of what should be the same animal do not agree, as the pattern of the leg-stripes (which does not change with age) is quite different. The hand-written caption to



Fig. 3. Somali wild ass in Hamburg, young stallion, holotype of *Asinus taeniopus somaliensis* Noack, 1884 and syntype of *Equus africanus somalicus* Sclater, 1884, caught as a foal by J. Menges near Berbera, Somalia. Drawing by H. Leutemann; courtesy of Artis Library, Amsterdam.

Leutemann's drawing (added later) seems to read: "Octob. 1885. Hamburg", but the cipher "5" seems ambiguous and Schlawe (1980: 110-111) has read "1883", which would agree with the time the young stallion was in Hamburg. Menges (1887: 268) emphasized that the Hamburg/London foal was the only live Somali ass he ever obtained and that he knew of no other animals in European zoos. We therefore assume that 1883 is correct and that there was no other live Somali ass in London, leaving the differences between Leutemann's and Smit's pictures unexplained (the latter perhaps influenced by the other London skin?). Sclater extensively discussed von Heuglin's name *tæniopus* and concluded "that the animal designated by this name is clearly not that of the Somali Coast, as it possesses a well-marked dorsal stripe and a strongly defined cross-line over the shoulders. Moreover, Heuglin himself tells us that the specimen from which the description of *A. tæniopus* was taken was a living animal of which he did not certainly know the locality. Under these circumstances we cannot apply the term *tæniopus* to the Somali form of Wild Ass. Nor can we apply it to the Nubian form, which Heuglin himself termed *Equus asinus*." Later, Sclater (1892) described a skin of a Somali wild ass shot "about fifty miles from Berbera", which "differs from that previously described and figured (P.Z.S. 1884, p. 542, pl. 50) in having slight shoulder-stripes, as well as a dorsal stripe. The shoulder-stripe on the off side is the more distinct of the two."

Matschie (1894: 72-74) treated the two forms of wild ass as separate species: *Equus somaliensis* and *E. africanus*. He summarized the range of *somaliensis* as the "Nord-Somali-Küste und Südostrand von Abessinien nördlich bis Massaua", that of *africanus* as



Fig. 4. Somali wild ass in London Zoo, stallion, supposed holotype of *A. t. somaliensis* Noack, 1884 and syntype of *E. a. somalicus* Sclater, 1884, though apparently different from the animal shown in fig. 3; a Nubian ass in the background. Lithograph by J. Smit. From Sclater, 1884: pl. 50.

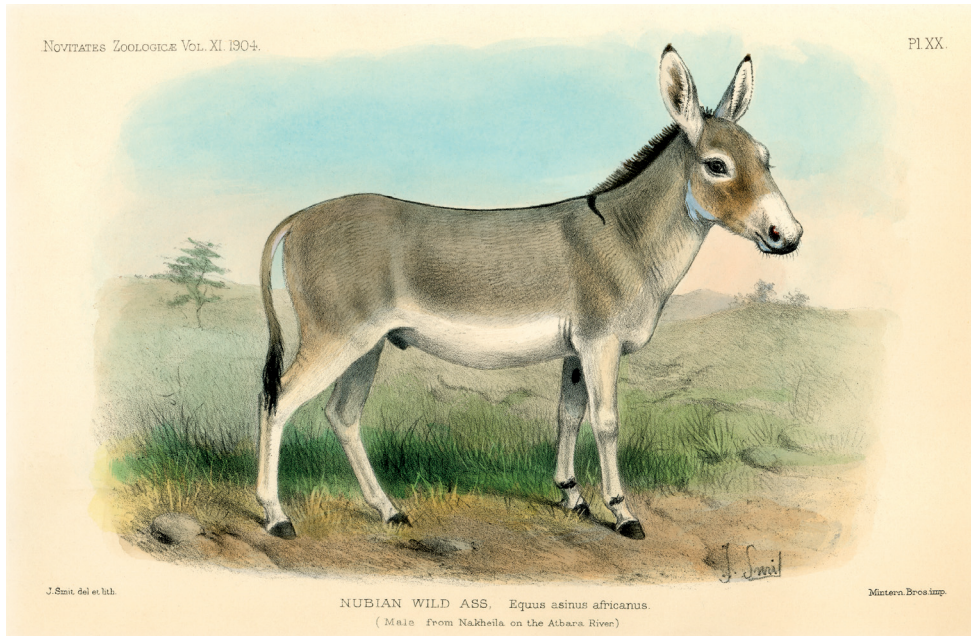


Fig. 5. Nubian wild ass, stallion, collected at Nakheila on Atbara River, Sudan, skin in the Natural History Museum, London. Lithograph by J. Smit. From Lydekker, 1904: pl. 20.

“Zwischen Massaua, dem Atbara und 18° nördl. Breite.” He too, rejected von Heuglin’s *taeniopus*: “Ich verwerfe, ebenso wie es Sclater gethan hat, Heuglins Namen, *E. taeniopus*, weil mir der Nachweis schwer zu erbringen erscheint, daß Heuglin’s Original ein wild lebendes Tier gewesen ist.” Later, however, Matschie (1909) seemed to recognize this species, at least tentatively, where he said (p. 306) of African wild asses: “Nachgewiesen sind sie an der Berberaküste als *Asinus somalicus*, im Hawaschgebiet als *A. taeniopus*, in der Erythraea als *A. africanus*”.

De Winton, in Anderson & De Winton (1902: 329-331), included the African wild asses in *Equus asinus*. For the rest, he caused considerable confusion when he wrote: “Baron Theodor von Heuglin has described the wild ass from the provinces of Taka and Berber under the name of *Equus taeniopus*.... Heuglin met with another form.... the locality for this is said to be the Somali Coast. To this form, with narrow shoulder-stripe and unbarred legs, Fitzinger applied the name *Asinus africanus* (SB. Wiss. Wien, liv. i. 1866, p. 588), a name which he had used a few years previously in ‘Naturg. Säug.’ iii. 1860, p. 434, without publishing any description of the species. It seems to me possible that Heuglin may have transposed the localities of the two forms, but nothing further can be said with our present knowledge.” From what we have written, it will be clear that De Winton had made this “transposition” himself, by misreading von Heuglin (1861a) and von Heuglin & Fitzinger (1866).

We could have ignored De Winton’s remarks, had they not been repeated and partly misquoted in their turn by Lydekker (1904: 593-596), the next author to survey the taxonomy of wild asses. Lydekker, too, included the African forms in *Equus asinus*, rec-

ognizing two subspecies: *Equus asinus africanus* and *E. a. somaliensis*. He referred von Heuglin's *taeniopus* in part to *africanus*, in part to *somaliensis*, with an extensive comment: "Both in Mr. Sclater's paper on the Somali wild ass and in the notice of the Nubian race in Anderson's *Mammals of Egypt*, reference is made to the impossibility of employing Baron Heuglin's *Equus taeniopus* for either. According to Heuglin, it is the Nubian wild ass that has barred legs and no shoulder-stripe, and the Somali animal in which these conditions are reversed; and it would accordingly seem that he transposed the localities of his specimens." Lydekker's paper is illustrated with a coloured plate (pl. 20, reproduced here as fig. 5) of a Nubian wild ass. It represents a male collected at Nakheila on the south bank of Atbara River and presented to the British Museum (Natural History), showing a tiny shoulder-cross. Later, Lydekker (1916: 38) treated *E. a. taeniopus* as a valid subspecies, giving as its "Typical locality Hawash district of Abyssinia", obviously based on Matschie (1909) who, however, had indicated the assumed ranges of the various forms, not the type localities. Similarly, Lydekker referred to Matschie for nominating "Erythræa" as the type locality for *africanus*.

De Beaux (1928) recognized only two subspecies of wild ass as valid: "... il nubiano, dell' interno, ... ed il somalo, prevalentemente costiero, ..." He dealt extensively with von Heuglin's *taeniopus* and, though admitting (p. 10) that the shoulder cross in the plate is "molto larga ed intensa" which could point to the animal being a hybrid, he still was convinced that von Heuglin's plate represented an ordinary Somali wild ass. De Beaux had examined seven wild asses from Danakil, which according to him proved that von Heuglin's diagnosis and plate were fairly exact and represented in all probability a wild-caught animal; thus, he regarded the name *taeniopus* as the earliest available name for the Somali subspecies. Shoulder-stripes differ strongly, however, between wild and domestic asses (see Groves, 1966, 1986), a fact that De Beaux did not realize sufficiently. Indeed, the skins from Danakil examined by De Beaux (preserved in the Museo Civico di Storia Naturale in Genova) show short and thin shoulder stripes, quite different from the one in von Heuglin's plate. Lang & von Lehmann (1972) and Van Bemmelen (1972) went over much the same ground as De Beaux, again without appreciation of the differences between shoulder stripes in wild and domestic asses, and reached much the same conclusions, except that neither applied the name *taeniopus* to the living Somali wild ass. Lang & von Lehmann ascribed it to a race in part ancestral to domestic donkeys and now extinct, Van Bemmelen used it to refer to a putative "intermediate" form (between Nubian and Somali) still supposed to exist in the Eritrea and Danakil regions. Finally, Denzau & Denzau (1999: 164-180) recapitulated the taxonomic history and distribution of African wild asses and adopted the taxonomy proposed by Groves (1986). Their book contains several photographs of Somali wild asses in their natural habitat, none of them showing a shoulder cross.

Two further names have been given to African wild asses. Dollman (1935) described *Asinus asinus dianaë* from the hills near Tokar, Sudan, close to the Red Sea near the Eritrean border, as a kind of intermediate between *africanus* (from Nubia) and *somaliensis* (from Somaliland). Van Bemmelen (1972) placed this name in the synonymy of *taeniopus*; but the syntypes of *dianaë*: one in the Natural History Museum, London (BM 35.5.7.1), the other in the Powel Cotton Museum, Birchington (S.II.54), are actually very close to *E. a. africanus* from Atbara River and do not resemble the iconotype of *taeniopus* in any meaningful way.

The only other name that has been proposed for an African Wild Ass is *Equus asinus africanus sahariensis* Dupuy, 1966, from Wadi Iter in the central Sahara, about 200 km south of Hoggar, Algeria. This name is unavailable on two counts: it is a nomen nudum and a quadrinomial.

Finally, it should be noted that two further names have been applied, apparently inadvertently. The first of these is *Equus asinus hippagrus* Schomber, 1963 ("Sahara" wild ass). Smith (1841: 294, pl. 16) had described as *Equus hippagrus* the "koomrah", a small horse from northern Africa, judging from the description and plate most likely a feral Togo pony. Tristram (1860) was shown a wild ass captured near Ghadames, in the northern Sahara; its appearance surprised him, as he had expected to see the same *E. hippagrus*. It was perhaps a careless reading of Tristram that led Schomber to apply the name *hippagrus* to the Saharan wild ass. The problem of the Saharan wild ass was most recently discussed by Groves (1986), who concluded that a valid wild form may well be involved, for which, however, no name is available.

The other name, *E[quus] a[sinus] aethiopicus* Denman, 1957 (Danakil, Ethiopia), had a description associated with it (p. 116): "the Somali race [has]... white on the nose and a ring round the eyes which does not exist in the Ethiopian race", so is in principle available, but there is no indication that the author intended to describe a new race and the name may have been applied inadvertently.

If, therefore, the classification of Groves (1986) is followed, the synonymy of the two accepted subspecies is as follows:

1. *Equus (Asinus) africanus africanus* (von Heuglin & Fitzinger, 1866), Nubian Wild Ass (fig. 6). Lectotype from Atbara River, Sudan. Synonym: *dianae* (Dollman, 1935): Tokar, Sudan.

Known range in historical times: eastern Sudan and northern Eritrea.

2. *Equus (Asinus) africanus somaliensis* (Noack, 1884), Somali Wild Ass (figs 7, 8). Holotype from (the surroundings of Berbera, Somalia. Synonyms: *somalicus* Sclater, 1884: Berbera; *aethiopicus* Denman, 1957: Danakil, Ethiopia.

Known range in historical times: southern Eritrea, north-eastern Ethiopia, Djibouti and northern Somalia.

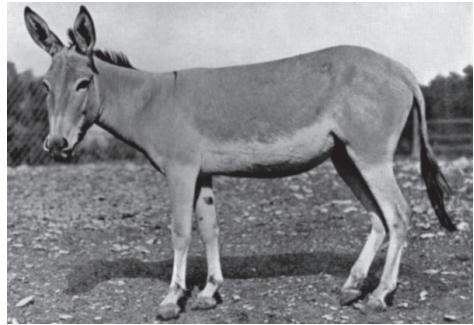


Fig. 6. Nubian wild ass *E. a. africanus* captured at "Barka" (probably = Baraka River), Eritrea, in the zoo of Rome, early 20th century. Photo: Zammarrano.

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Fig. 7. Somali wild ass *E. a. somaliensis* originating from Eritrea, in Hai Bar Yotvata wildlife park, Israel, April 1980. Photo: C. Smeenk.



Fig. 8. Somali wild ass *E. a. somaliensis* originating from Nogal Valley, Somalia, in the zoo of Basle, c. 1980. Photo: P. Steinemann. From a post card available in Basle Zoo.

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