

REQUEST FOR THE DETERMINATION OF THE GENERIC NAMES OF THE  
BABOON AND THE MANDRILL (MAMMALIA: PRIMATES,  
CERCOPITHECIDAE). Z.N. (S.) 2093.

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For nearly thirty years, since 1947 to be precise, the names of the common or "savannah" baboons and of the mandrill and drill (or "forest" baboons) have been in doubt. In the thirty years immediately prior to 1947, *Papio* Erxleben, 1777 was in general use for the savannah baboons and *Mandrillus* Ritgen, 1824 for the drill and mandrill, while during the preceding 20 years or so the two genera were usually united under the earlier name, *Papio*. Then in 1947 Hopwood (*Proc. zool. Soc. Lond.* vol.117: 533-6) drew attention to the generic name *Papio* Müller, 1776, used in combination with the specific name *sphinx* Linnaeus, 1758, usually considered a mandrill. From that time onwards it has been clear that the next available generic name for the savannah baboon (considered as a genus apart from the drill and mandrill) is *Chaeropithecus* Gervais, 1839. Nevertheless many authors have been loath to use the prior names valid under the International Code of Zoological Nomenclature, i.e. *Papio* for the drill and mandrill, and *Chaeropithecus* for the savannah baboons. They have continued to use invalid names in the interests of stability, on the grounds that they were more familiar both to primatologists and to general zoologists. It is to solve this problem - to weigh the claims of priority and usage - that two alternative proposals are submitted to the Commission with a request for a ruling.

2. The extant large terrestrial cercopithecoid monkeys of Africa can be divided into three groups, the gelada of the Ethiopian highlands; the forest-living mandrill and drill of equatorial West Africa; and the common or savannah baboon which ranges over most of sub-Saharan Africa and into Arabia in a wide spectrum of environments. Each of these animals has at one time or another been called a "baboon" in the vernacular; all have been studied from the viewpoints of systematics, ethology and palaeontology, and the savannah baboon in particular has been used extensively in medical research. It is generally agreed that the gelada is the most distinct of these forms, and most authors place it in the genus *Theropithecus* I. Geoffroy, 1843, a genus monotypic in the modern fauna. There is some doubt, however, about the savannah baboon and the mandrill, but discussion of this problem is hampered by lack of agreement on the correct scientific names for these animals. The history will be reviewed here as part of this request for a ruling from the Commission to provide a stable nomenclature.

3. *Simia sphinx* Linnaeus (1758: 25) was one of two forms included in his section of short-tailed *Simiae*, or *Papiones*. The description: "*Simia semicaudata, ore vibrissato, unguibus acuminatis*" was followed by references to the *Papio* of Gesner, Aldrovandus, Jonstonus and Ray. Linnaeus cited Gesner's page numbers incorrectly but on p.15 of the appendix to the latter's *Historia animalium de quadrupedibus viviparis*, vol.1 (1554) appears the figure of a large-headed stump-tailed animal, the *Papio*, that was exhibited in Augsburg in 1551. The description is almost non-existent, but Gesner mentions that it has digits on its four feet like those of the human hand. Contrary to the statements of Elliot (1909: 417) and Hill (1970: pl.16), it is not necessarily a mandrill since the most important diagnostic character of the mandrill, the longitudinally furrowed muzzle, is not mentioned in any of the descriptions of either Gesner (1606, *Thierbuch*: 157), Aldrovandus (1637, *Quad. digit. vivip*: 260), Jonstonus (1657, *Hist. nat. Quad*: 145) or Ray (1639, *Syn. meth. anim. Quad*: 158), nor is it discernible in the figure. On the other hand, in the 12th edition of 1766, after an amplified description of *Simia sphinx* and the addition of a reference to the *Papio* of Brisson (1756: 192) Linnaeus immediately goes on (p.35) to describe a new monkey, *Simia maimon*, undoubtedly a mandrill on account of its blue furrowed cheeks ("*genis caeruleis striatis*"). This suggests that the animal on which *Simia sphinx* is based could well have been a drill. Therefore if *Simia sphinx* is to be the type-species of either *Papio* Müller or *Mandrillus* Ritgen, its identity must be established once and for all by designating a neotype which, in the interests of stability, must be a mandrill.

4. Brisson's *Regnum Animale* of 1762, in which the name *Papio* also occurs (p.136), is virtually a reprint of his Latin text of 1756. In 1945, Tate (p.112) noted that Brisson's mammalian names had never been ruled upon by the International Commission on Zoological Nomenclature. Since the generic names from Brisson's *Ornithologia* (1760) had been accepted by the Commission (Opinion 37, replaced by Direction 16, 1955, *Opin. Decl. int. Commn zool. Nom.* vol.1C(C6): 81-8), there appeared to be a good case for the acceptance of the mammalian names from a basically similar work, and he requested that the matter be submitted to the Commission. Tate's application lapsed in 1963, when the Commission decided to close the files of all unpublished cases (*Bull. zool. Nomencl.* vol.20(2):81), and as no further application has since been made, the validity of the mammalian names from Brisson remains in doubt. *Papio* Brisson (1756, 1762) is based on *Simia sphinx* Linnaeus (1748: 3); on references to the *Papio* of Gesner, Jonstonus and Ray (either a drill or a mandrill, see para. 3), and on Kolbe's "Babouin" - the Chacma, a savannah baboon, *P. ursinus* (1719, *Caput. Bonae Spei hodiernum*, vol.3: 138).

5. Although Buffon and Daubenton (1766) did not use the binominal system of nomenclature, they added to the prevailing confusion in their chapters on

the "*Papion ou Babouin proprement dit.*" Buffon (p.133) cited references to the *Papio* of Gesner, Jonstonus and Brisson, to Linnaeus' *Simia sphinx*, and (p.136-7) to the Chacma Baboon of Kolbe; and Daubenton added descriptions of savannah baboons— the reddish-brown "*Grand Papion*" (p.139-140, pl.13), the Guinea baboon; and the greenish-yellow "*Petit Papion*" (p.147, pl.14), probably the olive baboon, *Papio anubis*. Buffon did not recognise Gesner's *Papio* as either a drill or a mandrill, but rather as a savannah baboon to which whiskers had been added in error (footnote, p.133).

6. In 1773, Müller published the first volume (Säugenden Thiere) of his *Vollständiges Natursystem* which was based on Linnaeus's 12th edition (1766) and Houttuyn's *Natuurlyke Historie* (1761). Following Linnaeus he divided the genus *Simia* into three "subgenera": der Affen (*Simia*), Baviane (*Papio*) and Meerkatzen (*Cercopithecus*). In the subgenus *Papio*, Müller included the same group of short-tailed monkeys as Linnaeus in his group *Papiones*, namely *S. nemestrina*, the pig-tailed macaque; *S. apedia*, only recently identified as a squirrel monkey by Fooden (1966: 507-8); and *S. sphinx*. In the latter Müller included references to the *Papio* of Jonstonus and Ray (i.e. Gesner's *Papio* - either a drill or a mandrill, see para. 3). He also described its muzzle as ruffled or wrinkled ("Das Maul ist gleichsam gekräuselt oder runzlicht"), indicating that he took *S. sphinx* L., 1758, to be a mandrill. Hopwood (1947: 533) doubted the availability of *Papio* from Volume 1 (p.119) of Müller, 1773, but it satisfies the conditions of Articles 12 and 16 a (i) and (v) of the *International Code of Zoological Nomenclature*. On the other hand, he considered that the citation from the supplementary volume of 1776 was so phrased as to designate *S. sphinx* as the type-species of *Papio*, but since it does not comply with Article 69, no type-species was in fact designated.

7. Then Erxleben (1777, *Syst. regni. anim.*, vol.1:15) divided Linnaeus's genus *Simia* into five genera. The third genus, *Papio*, included five species: *P. sphinx* (Linnaeus, 1758); *P. maimon* (L., 1766) and *P. mormon* (Alströmer, 1776) (both mandrills); and *P. nemestrina* (L., 1766) and *P. apedia* (L., 1758) (a pig-tailed macaque and a squirrel monkey, as previously stated). None was selected as type. The first, *P. sphinx*, was based on a long list of references, beginning with Pliny. Of importance are citations of Gesner, Aldrovandus, Jonstonus, Ray and Linnaeus (1758 and 1766), all of which refer either to the drill or the mandrill. Erxleben also included references to savannah baboons, e.g. Kolbe's Chacma baboon (1719) as well as to the "Grand Papion" and "Petit Papion" of Buffon and Daubenton (1766), the Guinea and olive baboons respectively. Erxleben's description, however, is unequivocally of a Guinea baboon, the dark-reddish colour of the fur excluding any other savannah baboon; it appears to be taken mainly from that of the "Grand Papion" of Buffon and Daubenton (pp.137, 139-140), even down to his comment on the lack of whiskers ("*Os non vibrissatum*

*secundum Buffonium uti Linneo.*”). In other words Erxleben's *Papio sphinx* L., 1758, is a composite; the references are to Gesner's doubtful drill/mandrill and to the savannah baboons, Chacma, Olive and Guinea, of Kolbe and Buffon, while the description indicates the Guinea baboon. In *Papio sphinx* L., 1758, as interpreted by E. Geoffroy (1812: 103), slightly different ingredients produce the same result. Here the description is not completely conclusive and the type locality is given as “l' Afrique”, but three of the six references are to the Guinea baboon (Schreber, ?1811: fig.13B; Audebert, 1799: 7; and Brongniart, 1792: 402-6, pl.21); two to both the Olive and Guinea baboons (Buffon and Daubenton, 1766, and Schreber, 1775: fig. 6) and the sixth is to *Simia sphinx* Linnaeus, 1766, i.e. to Gesner's drill/mandrill plus Kolbe's Chacma baboon (see paragraphs 3 and 4). Thus Erxleben's and Geoffroy's *Papio sphinx* are virtually identical.

8. After Geoffroy (1812) the use of the name *Papio* for the baboons seems to have lapsed temporarily. With the exception of Jardine (1833: pl.16) and Temminck (1853: 39), most 19th century authors employed *Cynocephalus* Geoffroy & Cuvier (1795, *Mag. encycl.* vol.3: 462), not realising that the name was preoccupied by *Cynocephalus* Boddaert (1768: 8, footnote), the Colugo or “Flying Lemur”, and *Cynocephalus* Walbaum (1792: 579) a genus of fishes. It was not until 1893 that Thomas called attention to *Papio* as the earliest available name for the genus, and it was probably because of this that Forbes (1894: 253) used *Papio* Erxleben, 1777 for the baboons, drill and mandrill, designating as type-species “*P. sphinx* (Geoffr.)”, the Guinea baboon. Unaccountably, however, neither *P. sphinx* (Linnaeus) Erxleben nor *S. sphinx* Linnaeus appears in Forbes' synonymy of this or any other species of baboon. In 1904, Palmer (p.511) cited Forbes as having fixed the type of *Papio* as *Papio sphinx* Erxleben, 1777 [sic] which suggests that he considered Geoffroy's usage to be merely a duplication of Erxleben's, as indeed it is (see para. 7). In this he was followed by Elliot (1913: 115) who gave the type of *Papio* as “*Papio sphinx* Erxleben (nec Linn.) = *Papio papio* Desmarest” (1820: 69). Desmarest's description is more precise than Geoffroy's, the type locality is given as “La côte de Guinée” and all six references are to the Guinea baboon. J.A. Allen (1925: 307) accepted this identification, but on the following page in his formal synonymy he inadvertently grouped *Papio sphinx* Erxleben with *Simia cynocephalus* Linnaeus (= *Cynocephalus babouin* Desmarest, the yellow baboon) rather than with *Cynocephalus papio*. Unfortunately this error was followed by G.M. Allen (1939: 160) and Hill (1970: 260).

9. After *Papio* Erxleben, the next available generic name for the savannah baboons is *Chaeropithecus* Gervais (1839: 90) which, as Ellerman & Morrison-Scott have shown (1951: 201), antedates that of Blainville, also in 1839. Thus under the present Code, *Chaeropithecus* Gervais is the earliest available name for the savannah baboons, with type designated by J.A. Allen (1925: 307) *Simia cynocephalus* Linnaeus, 1766, the yellow baboon.

10. Matschie & Zukowsky (1917: 470) appear to have been the first "modern" authors to separate the drill and mandrill from the savannah baboons under the generic name *Mandrillus* Ritgen, 1824. This was followed by J.A. Allen (1925: 311), Pocock (1926: 1408), G.M. Allen (1939: 157) and Hill (1970: 390), and today *Mandrillus* is the generally accepted generic name. The type-species, *Simia sphinx* Linnaeus, 1758, was not fixed in the original publication, and its subsequent designation dates from G.M. Allen (1939: 157). Apart from *Papio* Müller, 1773, it is antedated only by vernacular names, and by a misspelling: *Paphio* Gray (1821: 298).

11. This was the situation to which Hopwood drew attention in 1947, but since that time few authors have adopted the generic names he suggested. Ellermann, Morrison-Scott & Hayman (1953: 101), Fiedler (1956: 185), Kuhn (1967: 32), Jolly & Brett (1973: 85-99) and Delson (1975: 170, 213) have ranked *Chaeropithecus* as a subgenus of *Papio* Müller whereas only Booth (1958: 589, 606) has employed *Chaeropithecus* as a full genus. Several authors have avoided the issue by considering the mandrill and baboon as congeneric, without infrageneric subdivision within *Papio* Müller, e.g. Thorington & Groves (1970: 634) and Buettner-Janusch (1966: 288), the latter including *Theropithecus* as well. On the other hand, many others have chosen knowingly to disregard the Code, using *Papio* Erxleben for the baboon and *Mandrillus* Ritgen for the drill and mandrill, e.g. Freedman (1957: 180); Grubb (1973: 161); Hill (1967, 1968, 1970); Jolly (1966, 1967, 1970, 1972); Maier (1970); Napier & Napier (1967); and Piveteau (1957). Furthermore, a committee formed by the late Dr. W.C. Osman Hill immediately following the First International Symposium on the Baboon in 1963 unanimously concluded that the customary usage of *Papio* Erxleben, 1777 for the savannah baboons and *Mandrillus* Ritgen, 1824 for the drill and mandrill should be adopted in order to avoid unnecessary nomenclatural confusion, pending a decision on the matter by the International Commission on Zoological Nomenclature (Hill, 1967). Unfortunately no request was made to the Commission at that time, and the situation is still unresolved. It should, however, be pointed out that at least one member of the Committee has since changed his mind (Jolly & Brett, 1973). Yet another usage is that of Walker et al (1964: 454-456) who employ *Chaeropithecus* for the baboon and *Mandrillus* for the drill and mandrill, *Papio* not being recognised at all. This terminology may have been the result of confusion rather than an intentional rejection of *Papio*. The latter is a possible step but one that we would strongly oppose.

12. To review, the major goals of interested taxonomists appear to be: (1) to retain the specific name *Simia sphinx* Linnaeus, 1758 for the mandrills; (2) to retain the generic name *Papio auctorum* for at least some of the baboons; and (3) to clarify the formal nomenclature of the group as a whole. There are two alternatives:-

(A) *Papio* Müller, 1773 for mandrills and drills, with type-species *Simia*

*sphinx* Linnaeus, 1758, and *Chaeropithecus* Gervais, 1839 for savannah baboons, with type-species *Simia cynocephalus* Linnaeus, 1766; or (B) *Mandrillus* Ritgen, 1824 for mandrills and drills, with type-species *Simia sphinx* Linnaeus, 1758, and *Papio* Erxleben, 1777 for the savannah baboons. In either case (A or B) it would be necessary to establish the identity of *Simia sphinx* as a mandrill by the designation of a neotype (see para. 3 and Appendix). With regard to the type-species of *Papio* Erxleben, Forbes designated *Papio sphinx* Geoffroy which is also based *inter alia* on *Simia sphinx* Linnaeus, the drill/mandrill. Thus in order to preserve *Papio* for the savannah baboons, it will be necessary for the Commission to use its plenary powers to designate *Cynocephalus papio* Desmarest, 1820 (the Guinea baboon) as the type-species. The choice between the two potential uses of *Papio* auctorum is, of course, the primary concern of this application, and the arguments for each view as well as the implications of both will now be considered.

13. Under alternative A, *Papio* Müller is retained for the mandrills while *Chaeropithecus* Gervais, the next available name, is used for the savannah baboons. This alternative upholds priority at the expense of the loss of what may be the more widely accepted current usage. In order to give effect to this alternative, it will only be necessary to invoke the plenary powers of the Commission to suppress *Papio* Brisson, 1762 (required in both alternatives A and B) and to rule on the type-species of *Papio* Müller, 1773. It is requested that *Simia sphinx* Linnaeus, 1758, as defined by reference to the neotype (see Appendix) be designated as the type-species of *Papio* Müller. No other use of the plenary powers would be required to establish the correct nomenclature for the taxa involved, and the rule of priority would not be contravened. Alternative A is supported by one of us (E.D.) in the belief that priority should be upheld in all but the most extreme cases, and that this does not qualify as such.

14. Alternative B is supported by the other author (P.H.N.) on the grounds that it is the declared purpose of the Code to promote stability of nomenclature. In order to retain the widely used terminology of *Papio* for the savannah baboons and *Mandrillus* for mandrills and drills, it will be necessary to invoke the plenary powers of the Commission to suppress not only *Papio* Brisson, 1762 (as in alternative A) but also *Papio* Müller, 1773, thus giving *Papio* Erxleben, 1777 and *Mandrillus* Ritgen, 1824 priority for the two groups. The plenary powers will also be needed to designate *Cynocephalus papio* Desmarest, 1820, as type-species of *Papio* Erxleben, 1777. *Papio* Erxleben, 1777 and *Mandrillus* Ritgen, 1824 were used by Simpson in his classification of mammals (1945) which has been widely followed. They have been used in publications devoted to medical and veterinary research (e.g., Fiennes, 1967, 1972); the care of zoo animals (e.g. Crandall, 1964; *International Zoo Yearbooks*, 1962-1975), and in the United Nations Food and Agriculture Organization's *Code List of Vertebrate*

*Animals* (1970) and its associated data retrieval system. This inter-disciplinary usage increases the need for stability which is of fundamental importance in scientific communication.

15. The International Commission is therefore requested to:

- (1) use its plenary powers to suppress the generic name *Papio* Brisson, 1762 for the purposes of both the Law of Priority and the Law of Homonymy; and to
- (2) place this name on the Official Index of Rejected and Invalid Generic Names in Zoology; and to
- (3) choose between the following two alternatives:

*Alternative A:* to uphold priority and thus:

- (a) to use its plenary powers to set aside all designations of type-species prior to the ruling here requested for the nominal genus *Papio* Müller, 1773, and having done so to designate *Simia sphinx* Linnaeus, 1758, as defined by reference to the neotype designated by Delson & Napier, 1976 (see Appendix), to be the type-species of that genus; and
- (b) to place the following generic names on the Official List of Generic Names in Zoology:
  - (i) *Papio* Müller, 1773 (gender: masculine), type-species under the plenary powers in A (a) above, *Simia sphinx* Linnaeus, 1758, and:
  - (ii) *Chaeropithecus* Gervais, 1839 (gender: masculine), type-species by subsequent designation (J.A. Allen, 1925: 307) *Simia cynocephalus* Linnaeus, 1766, and:
- (c) to place the following specific names on the Official List of Specific Names in Zoology:
  - (i) *sphinx* Linnaeus, 1758, as published in the binomen *Simia sphinx* (the specific name of the type-species of *Papio* Müller, 1773) as defined by reference to the neotype designated by Delson & Napier, 1976 (see Appendix), and:
  - (ii) *cynocephalus* Linnaeus, 1766, as published in the binomen *Simia cynocephalus* (the specific name of the type-species of *Chaeropithecus* Gervais, 1839); or

*Alternative B:* to uphold widespread current usage and thus:

- (a) to use its plenary powers:
  - (i) to suppress the generic name *Papio* Müller, 1773, for the purposes of both the Law of Priority and the Law of Homonymy; and
  - (ii) to set aside all designations of type-species prior to the Ruling here requested for the nominal genus *Papio* Erxleben, 1777, and having done so to designate *Cynocephalus papio* Desmarest, 1820 as the type-species of that genus; and
- (b) to place the following generic names on the Official List of Generic Names in Zoology:
  - (i) *Papio* Erxleben, 1777 (gender: masculine), type-species by

- designation under the plenary powers in B (a) (ii) above, *Cynocephalus papio* Desmarest, 1820 and
- (ii) *Mandrillus* Ritgen, 1824 (gender: masculine), type-species by subsequent designation (G.M. Allen, 1939: 157) *Simia sphinx* Linnaeus, 1758; and
- (c) to place the following specific names on the Official List of Specific Names in Zoology:
- (i) *papio* Desmarest, 1820, as published in the binomen *Cynocephalus papio* (the specific name of the type-species of *Papio* Erxleben, 1777), and
  - (ii) *sphinx* Linnaeus, 1758, as published in the binomen *Simia sphinx* (the specific name of the type-species of *Mandrillus* Ritgen, 1824) as defined by reference to the neotype designated by Delson & Napier, 1976 (see Appendix); and
- (d) to place the generic name *Papio* Müller, 1773, as suppressed under the plenary powers in B (a) (i) above, on the Official Index of Rejected and Invalid Generic Names in Zoology.

## APPENDIX

*Simia sphinx* Linnaeus, 1758. Designation of a neotype

Whether *Simia sphinx* Linnaeus, 1758 is to be the type-species of either *Papio* Müller, 1773 or *Mandrillus* Ritgen, 1824, it is necessary to fix its identity as a mandrill (see para. 3), and we therefore designate the following specimen as a neotype: *Maimon burlacei* Rothschild, 1922, British Museum (Natural History) Registered number: 1922.12.19. 7.

## Selection of neotype:

In selecting a neotype, it was necessary first of all to investigate the basis, if any, of the recognised subspecies. Some authors, notably Dobroruka (1966: 155-8) and Hill (1970: 509-518) have recognized three :- *M. s. sphinx*, the nominate subspecies, supposedly from north of the River Sanaga in Cameroon; *M. s. madarogaster* Zimmermann (1780: 176) from south of the R. Sanaga, and *M. s. insularis* Zukowsky (1926: 132-6) from Fernando Po. After a careful study of the literature, including the early descriptions of Bartholinus (1671), Tyson (1706), Bradley (1721), Pennant (1771, 1781), Kerr (1792), Schreber (1774-1811) and Cuvier (1818, 1819) and the later revisions of Matschie (1917) and Matschie & Zukowsky (1917), it appears that no subspecies of mandrill has ever been described from north of the River Sanaga. Only one museum specimen of a mandrill (a skull without skin from Bafia (American Museum of Natural History No. 170364) has so far been traced from north of the R. Sanaga (Grubb, 1973: 167). Thus there is no basis in the literature for a northern subspecies. The numerous species and subspecies recognized and described by Matschie & Zukowsky in 1917 and Rothschild in 1922 (*sphinx*, *suilla*, *schreberi*, *hagenbecki*, *madarogaster*, *planirostris*, *tessmanni*, *escherichi*, *zenkeri* and *burlacei*) cannot at present be regarded as more than individual variations. Without a proper revision of the taxon, these names are best synonymized with the earliest, *M. sphinx*.

Likewise the sole representative of *Mandrillus insularis* Zukowsky was a subadult male sent from Fernando Po to Hagenbeck's Zoo in Stellingen (1926: 132, pl. on p.134). The fate of the specimen is not known; it may have been deposited in the Hamburg Museum and destroyed during the Second World War (Dobroruka, 1966). There is no other record of a mandrill from Fernando Po, nor was it listed by Krumbiegel (1942) in his list of mammals from the island. Recently Eisentraut (1973: 69) has gone further, removing it from his list of Fernando Po mammals for the present. The name *M. insularis* is therefore synonymized with *M. sphinx*.

## Description of neotype.

The specimen described here is in the collections of the Department of Zoology, British Museum (Natural History), London, registered number 1922.12.19. 7, a mounted skin and separate skull collected at Bitye, River Ja (= Dja), S.E. Cameroon (c. 3° 01' N 12° 22' E), and presented by the Rowland Ward Trustees.

Labels: Skin: (1) Wooden label: Burlace's Mandrill, *Maimon burlacei* (Male).

Bitye, Ja River, Cameroons. Presented by the Rowland Ward Trustees, 1922. 22.12.19.7. (2) Red 'type' label: *Mandrillus burlacei* W. Rothschild, 1922, *Ann. Mag. nat. Hist.* (9) vol.10:232, Aug. 1922. We have added a third label: *Simia sphinx* Linnaeus, 1758 NEOTYPE designated by Delson & Napier, 1976.

Skull: (1) Type of *Maimon burlacei* Rothschild. Sex: Male. *BM No.*: 22.12.19.7 *Mandrillus sphinx* Linnaeus. *Loc.*: Bitye, River Ja, S.E. Cameroon. *Coll.*: Rowland Ward Trustees (P). (2) Red 'type' label: *Maimon burlacei* Rothschild, 1922, *Ann. Mag. nat. Hist.* (9) vol.10: 232. (3) Cardboard label with N.515 in pencil. We have added a fourth label: *Simia sphinx* Linnaeus, 1758 NEOTYPE designated by Delson & Napier, 1976. *Status.*: Holotype of *Maimon burlacei* Rothschild, 1922 (*Ann. Mag. nat. Hist.* (9) vol.10: 232).

*Description.*: Mounted skin of a male mandrill in quadrupedal stance, adult but not yet fully mature. The skull has all teeth erupted and in occlusion, but with very little wear on molars, and canines not yet fully grown. The coat is very dark brown, almost black, and lacks the yellowish tinge typical of the mandrill. The beard is yellowish-brown and rather sparse, and the long hairs of the pectoral tuft are buff and not yet fully developed. The skin of the neotype, measured over the curves from nose to tail, has a total length of 890 mm; head and body 810 mm, [tail 80 mm]. The skull measurements are as follows: length (prosthion/opisthocranium): 209.2 mm; zygomatic breadth: 118.2 mm; muzzle length (prosthion/nasion): 120.7 mm. The lower right P3 has three roots, an obvious anomaly, of interest for identification purposes.

Although *Maimon burlacei* was described by Rothschild as being "somewhat intermediate between the drill and mandrill" there is no justification for this statement as it is clearly differentiated from the drill by the longitudinally furrowed muzzle. This character is present in females and even in the newborn, as shown in the following key:

	Mandrill ( <i>Simia sphinx</i> Linnaeus, 1758)	Drill ( <i>Simia leucophaea</i> F. Cuvier, 1807)
Adult Males	Middle of face, nose and lips bright scarlet; maxillary ridges broad, light cobalt blue, longitudinally furrowed; prominent orange or yellowish beard and ruff <i>Skull</i> (of adult male): Broad maxillary ridges; distance between temporal crests at level of bregma is less than that between maxillary ridges at rhinion	Whole face shiny black, lower lip scarlet; maxillary ridges narrow, unfurrowed; short whitish beard, black face surrounded by ring of whitish hairs <i>Skull</i> (of adult male): Narrow maxillary ridges; distance between temporal crests at level of bregma is greater than that between maxillary ridges at rhinion

Adult Females	Whole face dusky with reddish tinge on nose; sides of muzzle light blue, longitudinally furrowed	Whole face black, sides of muzzle unfurrowed
Young (at birth)	Muzzle flesh-pink, already furrowed	Muzzle flesh-pink, unfurrowed
Adult coat	General colour of coat dark brown with a distinct yellowish tinge; hairs have numerous bands of black and reddish-yellow (as many as 7 yellow bands on each hair)  <i>RANGE:</i> Cameroon, Rio Muni, Gabon and Congo (Brazzaville) from R. Sanaga to R. Kouilou [3° 12' S 13° 20' E]	General colour of coat dark brown with a greyish tinge; hairs are brown, generally with only a single light band and black tip  <i>RANGE:</i> Nigeria and Cameroon, from R. Cross to R. Sanaga; Fernando Po.

Linnaeus cited "Borneo" as the habitat of *Simia sphinx* but this was clearly an error. The specimen on which the taxon was based, Gesner's *Papio*, was exhibited in Augsburg in 1551, and must be presumed lost.

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