

CATALOGUE
OF
CARNIVOROUS, PACHYDERMATOUS,
AND
EDENTATE MAMMALIA
IN THE
BRITISH MUSEUM.

BY
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1869.

28. *Felis wagati*. (The Wagati.) B.M.

Fur fulvous; nose, chin, throat, and underside of body, and streak on forehead and cheek, pale yellow. Spots of body few, large, irregular-shaped; of withers large, elongate, broad; of loins elongate, narrow, more or less confluent. Tail with round spots.

Felis wagati, Elliot (fide Blyth); Gray, *P. Z. S.* 1867, p. 400.

Hab. India.

Differs from *F. pardochroa* and *F. minuta* in the large size of the spots.

+++++ Clouded or marbled African Cats. Orbits of skull very large.

29. *Felis caligata*. B.M.

Lynx, Bruce, *Voy.* viii. no. 30.

"*Felis caligata*, Bruce," Temm. *Monogr.* p. 123; I. Geoff. Jacq. *Voy.* t. 3. f. 1, 2 (skull).

? *Felis libycus*, Olivier, *Voy.* p. 41.

Felis caffra, Desm. *Suppl.* p. 540, 1822; Gray, *P. Z. S.* 1867, p. 273.

Felis nigripes, Burchell, *Travels*, 1822; Blainv. *Ostéogr.* f. 6.

Felis maniculata, Rüppell, *Zool. Atlas*, i. t. 19 (pale variety); Gray, *P. Z. S.* 1867, p. 274.

?? Chat aux oreilles rouges ou Chat botté (*F. caligata*), *F. Cuvier*, *Mamm. Lithogr.* t. (pale variety).

Felis pulchella, Gray, *Mag. N. H.* (very pale variety).

Felis chaus, Rüppell, *Atlas*, i. t. 140.

? *Chaus*, *F. Cuvier*, *Mamm. Lithogr.* t.

Felis obscura, Desm. *Mamm.* p. 250 (black variety).

The "Chat noir du Cap," *F. Cuvier*, *Mamm. Lithogr.*, and *F. caligata*, β , Fischer, *Synopsis*, p. 208 (from *F. Cuvier*'s figure), is only a melanism.

Felis dongolensis, Hemp.

Felis Rüppelli, Brandt.

Felis marginata, Loch, *Rev. Zool.* 1858.

Hab. Africa, North, South, Central, and East.

Var. Hybrid with *F. domestica*.

Skull of *Felis caffra* 4 inches 5 lines long, 3 inches 2 lines wide. Orbits subquadrangular, $1\frac{1}{6}$ inch high, incomplete behind.

Skull of *Felis maniculata* $3\frac{1}{2}$ inches long, $2\frac{1}{2}$ inches wide. Face short, broad; orbits large, rather oblong, nearly complete behind.

This species varies from pale fulvous to grey, which is the *Felis maniculata* of Rüppell (*Zool. Atlas*, i. t. 140). There are several specimens of this species in the British Museum. The largest and darkest, being grey with darker bands, is a specimen from Tangiers, received from M. Verreaux, the body and head 24, and the tail 14 inches long; the darker bands are very indistinct. There is a second example, not quite so large, with bands darker, that lived several years in the Zoological Gardens, and was sent from Tunis by Sir Thomas Reade—and a smaller one, similar in colour, also from the Zoological Gardens, but without any special habitat attached, and a dark grey kitten from Kordofan.

Two other specimens are pale yellowish, slightly grizzled, with the

streak and spot of the body rather darker yellow, and the rings on the end of the tail are black. One of these, brought from Macassar by Mr. Wallace, is rather darker than the other, and has the bands on the legs nearly black, like the Tunisian specimen. The other, from Kordofan, is rather paler, and the bands on the legs, like those on the body, are yellow.

Very nearly allied to these, and probably only a variety, is a small nearly white Cat, marked with pale yellow stripes, sent from Egypt by Mr. Christie, which I described in the 'Magazine of Natural History' for 1837 under the name of *Felis pulchella*. It differs greatly from all the other specimens of *F. maniculata* in the very large size of the ears; but it resembles them so closely that I am almost inclined to believe that it may be only a very pale variety of that species. The size of the ears may have been produced by the negligence of the stuffer; but that can only be decided by the examination of fresh specimens. Mr. Blyth thinks that this specimen is only "an Egyptian variety of the Common Cat" (P. Z. S. 1863, p. 184, note); but I cannot agree with that theory.

The three large specimens in the British Museum of these Cats come from South Africa. The largest was received from M. Verreaux, the next largest from the Zoological Society's Museum under the name of *Felis caffra* (*Felis nigripes* of Burchell), the other from Dr. Andrew Smith as *Felis caffra*.

The first two of these are dark grey, with distinct dark, blackish bands and spots. Dr. Smith's specimen is much paler, yellow, with very indistinct rather darker yellow bands and spots, and very broad black bands on the legs.

The large specimens (*Felis marginata*) from Tunis and Tangiers are very like the largest dark one from the Cape.

A rather small specimen, received from Mr. Brandt of Hamburg as *F. caligata* from Africa, is only obscurely banded, is peculiar in the tail being black at the tip for about an inch, and in only having three or four very obscure narrow cross bands across the upper surface of the hinder two-thirds of the length of the tail.

A small specimen, very obscurely banded and having a redder fur with darker red streaks on the back, was received from Capt. Speke, marked "Menessá."

I suspect that what have been called the African *F. chaus* may be only pale varieties of *F. caligata*; at least I have not seen any specimens of the true *F. chaus* from Africa. M. F. Cuvier's figures of *F. chaus* from Egypt are doubtful; for he describes the body and head as being 2 feet 4 inches long, and the tail 9 inches long; but the figure represents the tail as two-fifths, while the description represents it as being only one-fourth of the entire length. In the same manner the *Chat aux oreilles rouges*, figured by M. F. Cuvier, Mamm. Lithogr., from a specimen from India, is said to measure 24 inches from the end of the nose to the base of the tail, and its tail to measure 10 inches; and in the figure the tail is very nearly half the length of the head and body. Can both or either of these figures represent *F. chaus*, which is known by its short tail?

The largest Cape specimen measures, body and head 30, tail 15 inches.

Most of the specimens of *Felis caligata* from Africa, like *Felis domesticata*, *F. indica*, and *F. torquata* and many other species, have the hinder part of the feet black; but this is not a permanent character; for some of the smaller paler specimens of *F. caligata* have the hind feet paler than the back of the animal, and some of these have the heels more or less brown or blackish on the outer edges.

+++++ *Smaller clouded Asiatic Cats.*

30. *Felis inconspicua*.

B.M.

Leopardus inconspicuus, Gray, 1844.

Felis torquata (Chat de Nepaul), *F. Cuvier*, *Mamm. Lithogr.* ii. t.

? *Felis bengalensis*, *Desm.* (from *F. Cuvier*?).

Felis inconspicua, Gray, *P. Z. S.* 1867, p. 273.

Hab. India (domesticated, or perhaps a hybrid).

Skull, length 3 inches 2 lines, width 2 inches 1 line.

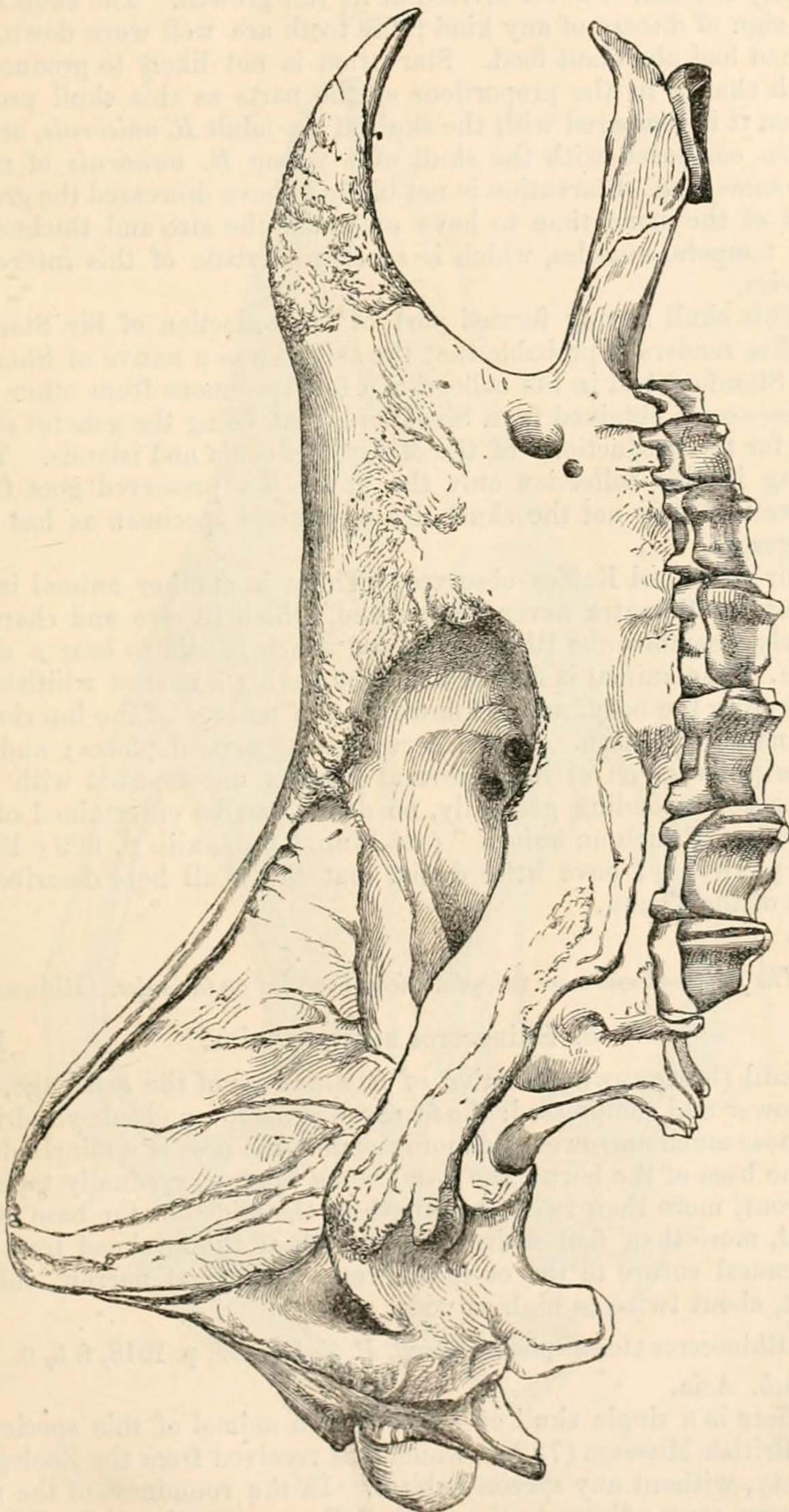
Face moderate, broad, rather concave in front of orbits; orbits large, rather oblong, incomplete behind; forehead slightly convex, rhombic. Like skull of *Chaus libycus*, but smaller, and the forehead not so convex.

This Cat comes from India. There is a single specimen of it in the British Museum, which in the 'List of Mammalia,' published in 1842, I named the Waved Cat (*Leopardus inconspicuus*), p. 42, referring it to the *Felis torquata* (*Chat de Nepaul*, *F. Cuvier*, *Mamm. Lithogr.* ii. t.) with doubt, because the tail of that species is represented as of the same colour as the back, with a series of triangular spots forming half bands on the lower surface for the whole length, and there is only one streak (the upper one) on the cheek, while our specimen, like almost all the species of Cats, has two well-marked streaks. As no specimen like the figure has been received from India, I am now inclined to believe that it is intended to represent the Cat in the Museum, and that the differences are perhaps the errors of the artist. Indeed it is doubtful if the figure is not a copy of an Indian drawing, like several of the animals figured in that work, said to have been received from M. Duvaucel. I cannot agree with Mr. Blyth in thinking that *F. torquata* is the same as *F. ornata*.

Mr. Hodgson sent from Nepaul a very large specimen, which agrees with the typical specimen of *F. inconspicua* in its most essential characters, but is much larger, and the waved bands are more broken into spots; these spots are all nearly of the same form. The head and body of the stuffed specimen is 25 inches, and the tail 11 inches long. In the list of Mr. Hodgson's specimens he asks "Is it a tame Cat?" p. 6. Mr. Hodgson, in his MS. list, called it *Felis viverriceps*. There is a third, smaller specimen in the British Museum, received through Capt. Boys from India.

This Cat, like *F. caligata* of Africa, is peculiar in having the

Fig. 37.



Rhinoceros Floweri.

Indian Rhinoceros that had been kept in a menagerie, and so very poorly fed that it never arrived at its full growth. The skull shows no sign of disease of any kind; the teeth are well worn down, as if it had had abundant food. Starvation is not likely to produce any such change in the proportions of the parts as this skull presents when it is compared with the skull of the adult *R. unicornis*, or even when compared with the skull of a young *R. unicornis* of nearly the same size. Starvation is not likely to have decreased the growth, and at the same time to have extended the size and thickness of the temporal muscles, which is so characteristic of this interesting species.

This skull having formed part of the collection of Sir Stamford Raffles renders it probable that the animal was a native of Sumatra. Sir Stamford had in his collection a few specimens from other localities—some obtained from Singapore, that being the general entrepôt for the productions of the Malay peninsula and islands. There being in this collection only the upper jaw preserved goes far to prove that it is not the skull of a menagerie specimen as has been suggested.

Sir Stamford Raffles observes, "There is another animal in the forests of Sumatra never yet noticed, which in size and character nearly resembles the Rhinoceros, and which is said to bear a single horn. The animal is distinguished by having a narrow whitish belt encircling the body, and is known to the natives of the interior by the name of Tenu. It has been seen at several places; and, the description given of it by several persons unconnected with each other corresponding generally, no doubt can be entertained of the existence of such an animal" (see Linn. Trans. xiii. p. 269; Blyth, *l. c.* p. 164). I have little doubt that the skull here described is that of the Tenu.

B. *The forehead and nose subcylindrical, rounded on the sides.* Rhinoceros.

5. *Rhinoceros stenocephalus.*

B.M.

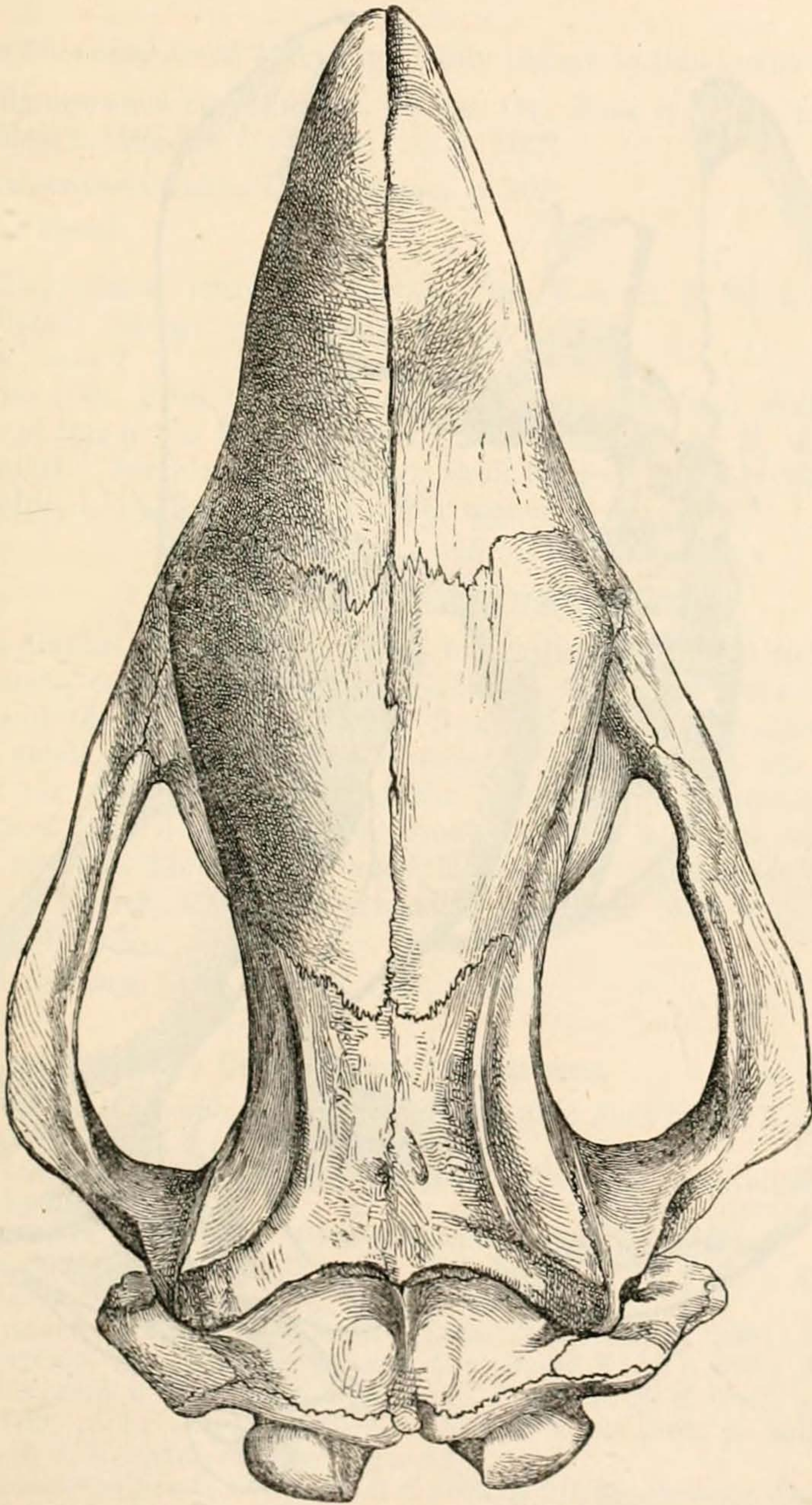
Skull (half-grown) like that of *R. unicornis* of the same age, but narrower and compressed: the forehead is narrow and subcylindrical; the nose much narrower and more slender; the nose is semicylindrical at the base of the horn; the nasal bones narrow, gradually tapering in front, more than twice the length of the width at the base of the nasal, more than four-fifths of the length of the forehead from the internasal suture to the occipital crest; lachrymal narrow, oblong, erect, about twice as high as wide.

Rhinoceros stenocephalus, Gray, *P. Z. S.* 1867, p. 1018, f. 5, 6.

Hab. Asia.

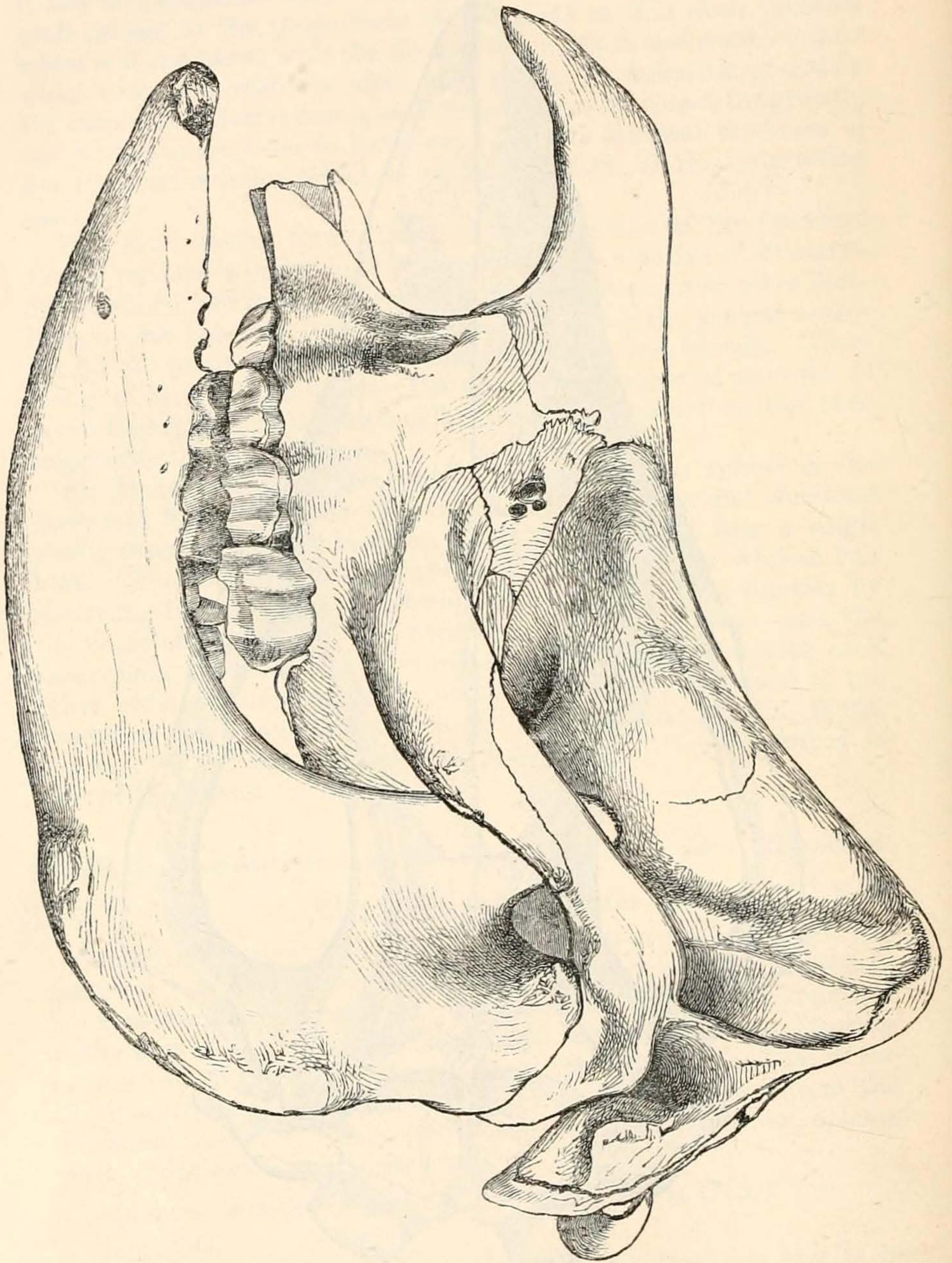
There is a single skull of a half-grown animal of this species in the British Museum (722 e), which was received from the Zoological Society, without any special habitat. In the roundness of the nose it shows some affinity to the skull of *R. sumatrensis*; it is different from that species in many particulars, in the prominence of the

Fig. 38.



Rhinoceros stenocephalus.

Fig. 39.

*Rhinoceros stenocephalis.*

- a. Wild Swine. *The ears erect, hairy. Colour of fur uniform or more or less grizzled. Young yellow, streaked. Skull elongate; facial line straight; forehead convex.*—Gray, *l. c.* p. 22.

1. SUS.

Face conical, simple, or with two or three small warts on each cheek. Ears ovate, hairy. Tail moderate, tufted at the end. Skull elongate; the forehead and upper part of nose rounded on the sides; upper part of the intermaxillary bone smooth; nose very long, tapering, convex, rounded and smooth on the sides above; concavity on the cheek deep, continued nearly to the orbit behind. Canines well developed, of upper jaw recurved; the sheath of the upper canine (of the males at least) with a longitudinal ridge across the upper part of the base.

Hab. Europe, Asia, and the Malay Islands.

Sus, *Linn.*; *Gray*, *P. Z. S.* 1852, p. 130, 1868, p. 22; *Owen*, *Odont.* p. 534, t. 140. f. 1; *Fitz. Sitz. Akad. der Wiss.* 1864, p. 384; *F. Cuv. Dent. Mamm.* p. 208, t. 85.

The head and skull lengthened absolutely, and as compared with its width, as the animal increases in age, and especially as it reaches adult and old age. The nasal bones of the skull elongated as the animal increases in age. In the young they seldom extend beyond a line even with the larger foramen on the side of the face; but in the adult they are generally much produced behind it (*P. Z. S.* 1852, p. 131).

The descriptions and the figures of the two jaws in *F. Cuvier's* 'Dent. Mamm.' p. 208, do not agree; he says there are 14 grinders in each jaw, and divides them into 6 false molars and 8 molars in the upper, and 2 false and 6 molars in the lower; the 2 is perhaps a mistake for 8. The front lower premolar is far from the canine and second premolar; three upper and four lower premolars compressed; the last grinder elongate, longer than broad.

Fitzinger, in his monograph, divides the Pigs thus, according to the presence or absence of warts on the face:—

Warts none:—*Sus leucomystax*, *S. timorensis*, *S. vittatus*, *S. barbatus*, *S. cristatus*, *S. sennaariensis*.

Warts small, under eyes:—*S. scrofa*.

Warts three—one large, on the mandible, covered with long bristles, and a small one under the eye, and the other above the canines:—*S. verrucosus*, *S. celebensis*.

The Pigs may be divided geographically:—Europe, *S. scrofa*; Asia Minor, *S. libycus*; India, *S. cristatus*, *S. andamanensis*; Africa, *S. sennaariensis*; Malay Islands, *S. verrucosus*, *S. celebensis*, *S. barbatus*, *S. vittatus*, *S. timorensis*; Japan and Formosa, *S. leucomystax*.

† *Head moderate, with three small warts, and one at the back angle of lower jaw. Skull with the lower jaw above half as long again as the height at the occiput; concavity in front of orbit deep, and narrow behind. Nape erect.*—Gray, *l. c.* p. 23.

1. *Sus verrucosus*.

B.M.

Ears moderate, nakedish. Fur with scattered bristles; yellowish or blackish brown, beneath yellowish white; bristles above the mandibular wart white. Warts three:—one on the cheek, large, covered with long bristles; another below the eye, smaller; a third above the canine teeth, small.

Sus verrucosus, Boie, *MS.*; *S. Müller*, *Verhand.* i. 42. p. 175, t. 28 (adult), t. 32. f. 1–4 (skull); *Gerrard*, *Cat. Bones B. M.* p. 278; *Gray*, *P. Z. S.* 1868, p. 23.

Sus scrofa, var., *Giebel*, *Säugeth.* p. 225.

Hab. Java; Borneo; Ceram.

The skulls in the British Museum are:—

No. 712 *c.* An adult skull from Java. Length 16 inches, height at occiput $8\frac{3}{4}$ inches (see Müller, *Verh.* t. 32. f. 3, 4). Nose rather broad behind, tapering from the orbits, more compressed in front; concavity on cheek very deep; forehead convex; zygomatic arch very large, swollen, convex externally. The side of the lower jaw much swollen and prominent. The nose of this skull is much wider than that of the skull from Ceram (712 *d*).

No. 1362 *a.* An adult skull, without cutting-teeth and canines, and rather broken on the nose, received from Mr. Wallace as the skull of *S. vittatus* from Borneo, is very similar to no. 712 *c* from Java, $14\frac{1}{2}$ inches long, $8\frac{3}{4}$ inches high at the occiput. The forehead not quite so convex; but in almost all other respects they agree, except that the sides of the lower jaw are not so much swollen and convex. These skulls are known from those of *S. vittatus* by the concavity in the front of the orbit being very deep, ovate, and narrow behind, instead of broad and square (that is, ending in a nearly straight line).

Three other adult skulls, apparently belonging to the same species, were received without any habitat (but probably from Java or some other Dutch colony) from the Utrecht Museum. One is 15 inches long, $9\frac{1}{2}$ inches high at the occiput; the second 16 inches long, $9\frac{3}{4}$ inches high at the occiput; the third, length 15, height at the occiput $8\frac{1}{2}$ inches.

Var. *ceramica*. No. 712 *d.* Skull, adult. A Wild Boar from Ceram, collected by Mr. Wallace. Length 15 inches, height at occiput 8 inches. Nose tapering, very narrow, compressed and deeply concave on each side in front of the orbits; the zygomatic arch large, swollen, and convex externally; the crest on the sheath of the upper canine is narrow and short.

No. 712 *f.* An adult skull, obtained from the Utrecht Museum, named "*Sus larvatus*," without any habitat, which is very like 712 *d* from Ceram, but considerably larger, being $16\frac{1}{2}$ inches long

and $8\frac{3}{4}$ inches high; the nose is broader and rather wider in front over the canines; the crest on the hinder part of the sheath of the upper canine is similar, smaller, but thicker.

In both skulls the crest on the canine is much shorter and less marked, and the sides of the lower jaw are swollen, but not so swollen and convex as in 712 *c* from Java.

The specimen from Ceram (712 *d*) differs from all the others in the nose being much narrower, more compressed, and apparently longer compared with the length of the brain-case.

Otherwise the four skulls from the Utrecht Museum and the one from Java (712 *c*) are all very much alike.

Mr. Blyth considers his *Sus ceylonensis* (Journ. Asiat. Soc. Beng. xx. p. 173; *Sus zeylanensis*, Blyth, MS. fotogr.) a variety of *S. barbatus*, which he says has been introduced from Borneo to Ceylon. Judging from the photograph of the skull, which has *Sus zeylanensis* written on it, it is much shorter and thicker than the skull of *S. barbatus*. The photograph is much more like that of *Sus verrucosus*.

†† *Head moderate, and without warts. Skull with the lower jaw about half as long again as high at the occiput; concavity on cheek in front of the orbit wide behind.*—Gray, l. c. p. 25.

a. *Skull—concavity on cheek in front of the orbit deep behind, and separated from the orbit by a well-marked ridge.*

2. *Sus celebensis*.

B.M.

Black-brown above and below; bristles on upper mandibular wart white. Ears moderate, nakedish; fur with scattered bristles. "Head with three warts; the wart on the upper jaw large; the one under the eye and the other over the canine-teeth very small, indistinct."

Sus celebensis, S. Müller, *Verhandl.* i. pp. 172, 177, t. 28* (animal and skull); Gerrard, *Cat. Bones B. M.* p. 278; Gray, *P. Z. S.* 1868, p. 23.

Sus verrucosus β, Wagner, *Schreb. Säugeth. Suppl.* iv. p. 299.

Sus scrofa, var., Giebel, *Säugeth.* p. 235.

Hab. Celebes (S. Müller).

B.M.

Skull rather more than half as long again as high; concavity on the cheek in front of the orbit very deep behind, separated from the orbit by a high narrow ridge; sheath of upper canine with large light crest-like ridges (see Müller, *Verh.* t. 28*. f. 2, 3).

3. *Sus vitattus*.

B.M.

Yellowish or brown-black, with a white streak from the end of the nose to the angle of the mandible. Ears moderate, nakedish; fur with scattered bristles. Head without any warts. Skull short; concavity in front of orbit broad and deep, near the orbit, but separated from it by a broad ridge.

- 46 *Sus vittatus*, Boie, MS.; S. Müller, *Verhand.* i. 42. pp. 172, 173, t. 29 (animal), t. 32. f. 5 (skull); Blainv. *Ostéogr. Onguligr.* t. 5 (skull); P. Z. S. 1860, pp. 442, 443; Gerrard, *Cat. Bones B. M.* p. 277; Gray, P. Z. S. 1868, p. 25.
Sus scrofa, var., Giebel, *Säugeth.* p. 225.

Hab. Java; Borneo; Amboyna; Macassar; Banka.

A skeleton (712 e) of a Pig, received from the Zoological Society under the name of the Javan Pig (*Sus verrucosus*), seems to belong to this species; but the concavity in front of the eye is scarcely as deep as usual, perhaps arising from its having been long in confinement.

No 1362 c. Skull of an adult male of *Sus vittatus* from Amboyna, from Mr. Wallace. Nose rather wide before in front of the orbit, and then with parallel sides; concavity in front of orbit deep and large, separated from the front of the orbit by a narrow raised convex edge. Canines thick; crest at base strong. Length $12\frac{1}{2}$, height at occiput 8 inches. The processes of the sheaths of the upper canines are curved back, sharp-edged above, and straight and truncated at the end.

No. 1362 d. Skull of adult, very like 1362 c, also from Amboyna, from Mr. Wallace's collection. Length 12, height $8\frac{1}{2}$ inches. The concavity in the front of the orbit is deeper and the ridge separating it from the cavity of the orbit more marked. The process of the sheath of the upper canine is similar, but rather larger, the upper edge is sharp-edged at the end, longer, more ovate, convex, and rugose.

No. 1362 h. Skull of an old male from Batchian, from Mr. Wallace's collection. Length 13, height at occiput $8\frac{1}{4}$ inches. Very like 1362 d from Amboyna; but the forehead is narrower and flatter, and the nose broader, being rather wider in front over the canines than in front of orbits; the concavity in front of the orbit similar and deep, and with well-marked outer orbital ridges. The process of the sheath of the upper canine is shorter, thicker, blunter, with a rounded end, and without any distinctly sharp-crested front edge.

No 1362 b. Skull of an adult, with well-worn grinders, a "Wild Boar from Java," from Mr. Wallace's collection. Length $13\frac{1}{2}$, height $8\frac{1}{2}$ inches. Very similar to *S. vittatus* from Amboyna (1362 c and 1362 d); but the nose of the skull is rather broader, especially in front, and the sheath of the upper canine is only furnished with a well-marked ridge behind. The concavity on the cheeks is very deep and wide in front, but not so well marked and deep on the hinder edge, where it is separated from the orbit by a wide flattish space.

No. 1362 f. Skull of an animal developing the hinder molar; the concavity in front of the orbit not so deep and well marked, as usual behind; zygomatic arch and lower jaw swollen on the sides; the ridge of the sheath of the canine slight and sharp-edged. From the Utrecht Museum; probably from Java or some of the Dutch colonies. Length 13, height 7 inches.

No. 1362 g. A skull of an adult, received from the Utrecht Mu-

seum without any habitat, but most probably from Java, is very like the preceding; it is $12\frac{1}{4}$ inches long and $7\frac{3}{4}$ inches high at the occiput.

4. *Sus leucomystax*. (Japanese Pig.) B.M.

Blackish brown; fur dense, bristly; streak on lower jaw and underside of body white. Ears rather large, densely pilose. Head without any wart.

Sus leucomystax, Temm. *Fauna Japon. Mamm.* p. 6, t. 20; Fitzinger, *Setigera*, p. 387; Swinhoe, *P. Z. S.* 1865, p. 466; Gray, *P. Z. S.* 1868, p. 26.

Sus scrofa, var., Giebel, *Säugeth.* p. 226.

Sus taivanus, Swinhoe, *P. Z. S.* 1864, p. 382, 1866, p. 419.

Porcula taivana, Swinhoe, *P. Z. S.* 1862, p. 360, 1864, p. 381.

Hab. Japan; Formosa (Swinhoe); Nagasaki (Swinhoe).

Mr. Swinhoe gave an account of the habits of the Pig in Formosa (*P. Z. S.* 1862, p. 361). It is a *Sus*, and not a *Porcula*.

Mr. Swinhoe (*P. Z. S.* 1862, p. 361) thinks this is a Wild Pig, the original stock of the Chinese Domestic Pig.

Mr. Blyth says this is the animal from which the Chinese Domestic Pig is supposed to be derived. There are three animals in the Zoological Gardens (Feb. 1867) which appear to be a domestic race from Formosa, although not much altered save in colouring from the wild animals (Blyth, *Land and Water*, Feb. 16, 1867, p. 84).

"Mr. Fraser has just received from the Island of Formosa, per the 'Maitland,' one Boar and one Sow of a red variety, and one Sow in pig, black variety, of a new species of Pig (*Sus taëvanus*, Swinhoe, *Proc. Zool. Soc. Lond.*) supposed to be the wild origin of the well-known Chinese Pig (Dec. 1867)." — *P. Z. S.* 1868, p. 27.

5. *Sus cristatus*. B.M.

Bristles of forehead, occiput, and back elongate, forming a mane; cheeks with a beard. Yellowish brown, black-varied; beneath dirty white. Nose and extremity brownish. Ears moderate, nakedish, covered with scattered bristles. Head without any warts. Hoofs white.

Sus scrofa, Elliot, *Madras Journ.* x. p. 216, 1839, 1; Adams, *P. Z. S.* 1860, p. 531.

Sus scrofa, var. *indicus*, Horsfield, *Cat. Mamm. M. E. I. C.* p. 193; Blainv. *Ostéogr.* t. 5.

Sus indicus, Gray, *List of Mamm. B. M.* p. 185, 1840; Horsfield, *P. Z. S.* 1852, p. 130, 1856, p. 406; Cantor, *Journ. Asiat. Soc.* xv. p. 261; Schinz, *Syn. Mamm.* ii. p. 350; Blainv. *Ostéogr.* *Onguligr.* t. 5 (skull); *P. Z. S.* 1848, p. 73, 1850, p. 158, 1852, p. 130, 1860, p. 181; Gerrard, *Cat. Bones, B. M.* p. 277. *Blyth Cat. p. 140*

Sus bengalensis, Blyth, *Journ. A. S. Bengal*, xxix. p. 304.

Sus cristatus, Wagner, *Münch. gel. Anzeig.* lx. p. 535, 1839; Fitz. *Sitz. Akad. d. Wiss.* xlix. pp. 389, 417, 1864; Gray, *P. Z. S.* 1868, p. 27.

Sus aper, Hodgson, *J. A. S. Beng.* x. p. 911.

Sus affinis, Gray, Cat. Osteol. B. M. p. 71, 1847.

Sus scrofa, var. *isonotus*, Hodgson, Icon. B. M. t. p. 216.

Hab. India; Malabar (*Blainv.*); Nepal, Tarai and mountains (*Hodgson*); Banks of Punjab (*Adams*); Penang, Singapore, and Lanedy Island (*Fitzinger*).

Mr. Bryan Hodgson describes two varieties (see Journ. A. S. Bengal, i. pp. 245 & 911) as inhabiting the Tarai and mountains of Nepal:—1. *aipomus*: tusk large; forequarters high. 2. *isonotus*: tusk small; back nearly horizontal. There is a figure of the latter variety in his drawings in the British Museum (t. 216): the nape and back are much crested.

716 *u.* Skull of adult male. Length 15, height $9\frac{1}{2}$ inches. “Marquis.” Nepal; B. H. Hodgson, Esq.

716 *p.* Skull of adult male. Length 14, height $8\frac{3}{4}$ inches. Marked “Bilmareeah, *S. indicus*.”

716 *k.* Skull of adult male. Length $15\frac{1}{2}$, height $9\frac{1}{4}$ inches. Marked “*Sus babirusa*.” Malabar (see *Blainv. Ostéog. t. .*).

716 *n.* Skull of adult male. Length $14\frac{1}{2}$, height $8\frac{3}{4}$ inches.

716 *g.* Skull of adult male. Length 14, height 9 inches. “Marquis.” Nepal; B. H. Hodgson.

716 *o.* Skull of adult male. Length $15\frac{1}{2}$, height $9\frac{1}{4}$ inches. India; Sir John Boileau.

716 *f.* Skull of adult male. Length 15, height $8\frac{1}{2}$ inches. Nepal; B. H. Hodgson, Esq.

716 *b.* Skull of adult male. Length 13, height $8\frac{3}{4}$ inches. India; General Hardwicke.

716 *y.* Skull of adult male. Length 14, height 9 inches. India; G. H. Money, Esq.

716 *x.* Skull of adult male, broken. India Museum, Zoological Society.

716 *l.* Skull of adult male. Length 13, height 9 inches. Nepal; Tarai; Professor Oldham.

716. *e.* Skull of adult male. Length $13\frac{1}{2}$, height 8 inches. “Wild Boar of the plains.” Nepal; B. H. Hodgson, Esq. Forehead nearly flat.

716 *d.* Skull of adult male. Length 14, height $8\frac{3}{4}$ inches. “Wild Boar of the plains.” Nepal; B. H. Hodgson.

716 *n.* Skull of adult female. Length $14\frac{3}{4}$, height $8\frac{1}{2}$ inches. India. Professor Oldham.

716 *v.* Skull of nearly adult female. Length $12\frac{1}{2}$, height $7\frac{1}{2}$ inches. Neilgherries. *Sus affinis*, Gray, Cat. Osteol. p. 71, 1847.

716 *c.* Skull of young male? Length 13, height $7\frac{1}{4}$ inches. Tarai, Nepal; B. H. Hodgson, Esq.

716 *w.* Skull of young male. Length 10, height $6\frac{3}{4}$ inches. Tarai, Nepal; B. H. Hodgson, Esq. *Sus bengalensis*, Blyth (type).

716 *m.* Skull of young female. Length $10\frac{1}{4}$, height $7\frac{1}{2}$ inches. Tarai, Nepal; Dr. Oldham.

716 *q.* Skull of young female. Length , height inches. Nepal; B. H. Hodgson. Nose much narrower and contracted behind in

Indian varieties 1. *bengalensis* 2. *indicus* 3. *Thomson*

front of the orbit, perhaps the character of the female sex. The skulls of female exotic Pigs are very rare in collections.

This series of skulls differ in the depth of the concavity on the hinder part of the cheeks in front of the orbit. It is very deep, and with a well-defined wide ridge behind in 716 *o*, 716 *v*, and 716 *k*. It is less marked in the others, in different degrees of distinctness and depth.

In the skulls of the younger animals the concavity is very shallow behind, and gradually shelving off to the orbit, as in 716 *c*, 716 *w*, 716 *m*, 716 *q*, 716 *x*. It is one of these skulls (716 *w*) that Mr. Blyth marked as like his type of *S. bengalensis*.

The skull of this species is like that of *Sus verrucosus* from the Malay Islands; but all the skulls differ from the skulls of *S. verrucosus* in the flatness of the zygomatic arch, compared with the thick swollen form of the zygoma in all the skulls of that species. The sides of the lower jaw are convex and swollen, but not so much so as the lower jaw of *S. verrucosus*.

b. *Concavity on the cheeks of the skull in front of the orbit shallow behind, only separated from the orbit by a narrow ridge.*

6. *Sus timorensis*.

B.M.

Yellowish or blackish brown, generally with a white streak from the nose to the angle of the jaw. Ears moderate, nakedish; fur with scattered bristles, maned. "Head without any warts." Skull (young)—the concavity in front of the orbit shallow behind, and only separated from the orbit by a slight ridge.

Sus timorensis, *S. Müller*, *Verhand.* i. pp. 42, 173, 178, t. 31. f. 1-3; *animal 45*

Gerrard, *Cat. Bones B. M.* p. 278; *Gray*, *P. Z. S.* 1868, p. 28.

Sus vittatus β , *Wagner*, *Schreb. Säugeth. Suppl.* iv.

Sus scrofa, var., *Giebel*, *Säugeth.* p. 225.

Sus, sp., from Dampier Straits, *Sclater*, *List of Vert. Animals Zool. Gard.* ed. 3. p. 37. n. 235.

Hab. Timor and Rottie.

Like *S. vittatus*, but smaller.

1501 *a*. A skull of a young animal, very like the one figured by Müller (*Verhand.* t. 32. f. 2, 3); it is marked "young female *Babirussa*," from Mr. Wallace's collection. It is certainly not a *Babirussa*, having six upper cutting-teeth and short intermaxillaries, but is more probably a young female of the preceding. It has the concavity in front of the orbit shallow, and only separated from the orbit by a narrow ridge.

1501 *c*. Skull with the last grinder being developed (on one side only), perhaps young male? Inscribed "a Wild Pig, Makassar." Length $10\frac{1}{2}$, height at occiput 6 inches. Nose broad behind, tapering in front from orbit; concavity in front of orbit large, not deep, and extending close up to the edge of the cavity; the hinder suture of the parietal bone is produced and angular behind.

1501 *b*. A rather larger skull, also developing the last molar, and

probably a young male. A Wild Pig, Ternate, from Mr. Wallace's collection. Length $12\frac{1}{2}$, height $5\frac{1}{2}$ inches. It is very similar to the above in all particulars, particularly in the shallowness of the concavity in front of the orbits, and in the crest-like form of the ridge behind the base of the sheath of the upper canines; hinder suture of the parietal produced and rounded behind.

The shallowness of the concavity on the cheeks of these specimens may depend on the youth of the animal, as it is to be found in the skull of the young *Sus indicus*. It is not always a character of youth, as it is found shallow and shelving off behind in the skull of the very old *Sus andamanensis* and *S. scrofa*.

There is the skin and skeleton (1501 d) of a "Wild Pig from Dampier Straits, in the Eastern archipelago," that was brought to the Museum by Mr. Swinhoe. It does not appear to differ from *S. timorensis* of S. Müller; and the skull is very like the skull from Ternate (1501 b). A specimen was living in the Society's Gardens. Mr. Bartlett thinks that the latter is "a domestic Pig running wild, because he has seen two specimens of them, both of which had white markings about the legs in a very irregular manner and other characters of the domestic Pig."

7. *Sus andamanensis*. (Andaman Pig.)

B.M.

The concavity of the cheeks in front of the orbit deeply concave, shallower behind, shelving off to the orbit, and only separated from the orbit by a narrow ridge; in the male the sheaths of the upper canines with a well-marked ridge; the concavity in front of the orbit very wide; in the female the concavity narrower, and sheaths of the canines not developed.

Sus andamanensis, Blyth, *photogr. MS.*; Sclater, *List of Vert. Anim.* 267, 271, 281.
Zool. Gard. ed. 3. p. 37; Gray, *P. Z. S.* 1868, p. 30.

Hab. Andaman Islands.

Living in the Gardens of the Society. Also a hybrid between the female Andaman Pig and the male Wild Pig from Dampier Straits.

A skull of an adult male in the British Museum, without lower jaw (no. 1497 a):—The four front upper cutting-teeth very large, entire, square; the hinder lateral one very small, early deciduous. Lower cutting-teeth six, subequal, close together; upper canines very large, recurved, with a deep central ridge on the upper edge; concavity in front of the orbits very wide and deep; sheath produced, with a well-marked longitudinal crest on the upper reflexed edges.

A complete skull of an adult female (no. 1497 b) very similar to preceding, but concavity in front of the orbit narrower behind:—Upper canine small, compressed, without any developed sheath; no ridge above its root. Lower canines very large, subtrigonal; the first, two-rooted premolar on the hinder part of its base separated a short distance from the second premolar. Upper cutting-teeth three, the first very large; the second on the right side, and both the hinder ones have fallen out, and the cavity left is filled up.

The skull of this species is more nearly allied to the *Babirussa* than any others of the Pigs (*Sus*), the part in front of the canines being rather more produced than in other species, but not nearly so much so as in *Babirussa*; and the two hinder upper cutting-teeth are very small and often deciduous. In the skull of the adult male, for example, they were very small, but the pits they filled are present; in the adult female, the pits they filled are entirely obliterated. By a curious coincidence, the second upper cutting-teeth on the right side of the jaws of the skulls of both the male and female animals are wanting, and the pits they filled are obliterated; but this may be only an accidental circumstance, as the tooth on the other side is well developed.

8. *Sus scrofa*.

Ears large, densely hairy. Fur blackish brown, densely bristly. Wart under the eye small. Skull elongate, slender; the concavity on the cheek in front of the orbit wide, shallow behind, shelving towards the orbit, and only separated from it by a narrow ridge.

Sus aper, *Brisson*; *Gray*, *P. Z. S.* 1852, p. 130, 1856, p. 406.

Sus scrofa, *Linn.*; *Giebel*, *Säugeth.* p. 225; *P. Z. S.* 1856, p. 158, 1858, p. 531, 1860, pp. 183, 448; *Blainv. Ostéogr. Onguligr.* t. 1. f. 4-6; *Fitz. Setigera*, p. 348; *Gray*, *P. Z. S.* 1868, p. 30.

Sus setosus aper, *Bodd. Elench. Anim.* i. p. 157.

Sus scrofa aper, *Erxl. Syst. R. A.* i. p. 176.

Sus fasciatus, *Gray*, *List Mamm. B. M.* p. 184. *John*

Sus scrofa fasciatus, *Schreb. S.* p. 322 (jun.).

Sus scrofa ferus, *Gmel. Syst. Nat.* p. 217; *Gray*, *P. Z. S.* 1862, p. 13, f. 1, 2, 3 (skull and palate); *Blainv. Ostéogr.* t. 4 (skull, ♂).

Sanglier, *Buffon, H. N.* v. p. 176, t. 24. f. 1 (skull).

Hab. Europe.

Var. Domesticated. Head short, slender. Ears erect, pointed. Limbs short, slender. Hair of body rather crisp, ferruginous or blackish brown. *Junior* fasciated.

Cochon ture, *F. Cuvier, Dict. Sci. Nat.* ix. p. 512.

Cochon ture ou de Mongolitz, *Desm. Mamm.* p. 391.

Sus scrofa domestica turcica, *Fischer, Syn.* p. 422.

? *Sus scrofa*, var. (Maltese Pig), *Sclater, P. Z. S.* 1862, p. 139.

Hab. European Turkey; Hungary; Vienna; Borneo.

Skull of adult (713 c), with diseased teeth and alveoli. Length 14, height 9 inches. From the Zoological Gardens; probably from Germany. The concavity on the cheeks wide, shallow behind, and gradually shelving off to the orbit. The sheaths of the upper canines with a well-marked elevated ridge behind.

Skull of adult (713 m). Length 15, height 8 inches. From Germany.

Skull of adult (713 f). Length 15, height $7\frac{1}{2}$ inches. From the Museum of the Zoological Society.

Skull of adult (713 j). Length 14, height $7\frac{3}{4}$ inches. Germany, from Dr. Günther.