

CATALOGUE
OF THE
UNGULATE MAMMALS
IN THE
BRITISH MUSEUM (NATURAL HISTORY).

VOL. V.

PERISSODACTYLA
(HORSES, TAPIRS, RHINOCEROSES),

HYRACOIDEA
(HYRAXES),

PROBOSCIDEA
(ELEPHANTS).

WITH ADDENDA TO THE EARLIER VOLUMES.

BY THE LATE RICHARD LYDEKKER, F.R.S.

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V. TAPIRUS (TAPIRELLA) DOWI.

Elasmognathus dowi, Gill, *Amer. J. Sci.* vol. 1, p. 142, 1870; Alston, *Proc. Zool. Soc.* 1879, p. 666, *Biol. Centr.-Amer.*, Mamm. p. 104, pl. viii, figs. 3-5 and ix; Hatcher, *Amer. J. Sci.* 1896, vol. i, p. 175.

Tapirus dowi, Sclater, *Proc. Zool. Soc.* 1882, p. 391, pl. xxiii; Flower, *The Horse*, p. 46, 1891; Flower and Lydekker, *Study of Mammals*, p. 371, 1891; Lydekker, *Great and Small Game of Europe, etc.* p. 391, 1901; Beddard, *Cambridge Nat. Hist.*, Mamm. p. 251, 1902.

Tapirella dowi, Palmer, *Science*, ser. 2, vol. xvii, p. 873, 1903; Elliot, *Mamm. Mid. Amer. (Field Mus. Zool. Pub. vol. iv)* p. 88, 1904.

DOW'S TAPIR.

Typical locality Guatemala: the range also includes Nicaragua.

67. 6. 24. 2 (1500, a). Skull. Volcan Viejo, Nicaragua. Collected by Capt. J. Dow.

Presented by Dr. P. L. Sclater, 1867.

72. 7. 26. 1 (1500, e). Immature, mounted. Corinto, west coast of Nicaragua.

Purchased (Zoological Society), 1872.

FAMILY III.—RHINOCEROTIDÆ.

Genus RHINOCEROS.

Rhinoceros, Linn., *Syst. Nat.* ed. 10, vol. i, p. 56, 1758, ed. 12, vol. i, p. 104, 1766; Flower, *Proc. Zool. Soc.* 1876, p. 454, *The Horse*, p. 56, 1891; Thomas, *Proc. Zool. Soc.* 1901, vol. ii, p. 157.

1. SUBGENUS RHINOCEROS.

Rhinoceros, Linn., *op. cit.*, *partim*; Flower, *Proc. Zool. Soc.* 1876, p. 454, *The Horse*, p. 56, 1891; Flower and Garson, *Cat. Osteol. Mus. R. Coll. Surg.* pt. ii, p. 416, 1884; Osborn, *Bull. Amer. Mus. Nat. Hist.* vol. xiii, p. 265, 1900; Thomas, *Proc. Zool. Soc.* 1901, vol. ii, p. 157.

Eurhinoceros, Gray, *Proc. Zool. Soc.* 1867, p. 1009.

Skin thrown into heavy folds; one horn; * front teeth fully developed; skull short, with the occipital plane much

* The alleged existence of a two-horned species allied to *R. unicornis* in the Singpho district, east of Assam, is noticed in *Game Animals of India*, p. 32.

inclined forwards, and the auditory meatus closed inferiorly by the fusion of the post-tympanic with the post-glenoid process.

Asiatic.

I. RHINOCEROS UNICORNIS (Fig. 17).

Rhinoceros unicornis, *Linn.*, *Syst. Nat.* ed. 10, vol. i, p. 56, 1758, ed. 12, vol. i, p. 104, 1766; *Hodgson*, *Proc. Zool. Soc.* 1834, p. 98;



FIG. 17.—HEAD OF A GREAT INDIAN RHINOCEROS
(*Rhinoceros unicornis*).

Shot by H.M. King George V. in Nepal in 1911, and presented by His Majesty in 1913 (13. 10. 19. 1).

Gray, *List Mamm. Brit. Mus.* p. 186, 1843, *Proc. Zool. Soc.* 1867, p. 1010, *Cat. Carnivora, etc. Brit. Mus.* 302, 1869, *Hand-List Thick-skinned Mamm. Brit. Mus.* p. 46, pls. xiv and xv, 1873;

Gerrard, Cat. Bones Mamm. Brit. Mus. p. 281, 1862; *Sclater, Proc. Zool. Soc.* 1871, p. 8, *Trans. Zool. Soc.* vol. ix, p. 645, pl. xiv, 1876; *Flower, Proc. Zool. Soc.* 1876, p. 454, *The Horse*, p. 56, 1891; *Flower and Garson, Cat. Osteol. Mus. R. Coll. Surg.* pt. ii, p. 416, 1884; *Flower and Lydekker, Study of Mammals*, p. 404, 1891; *W. L. Sclater, Cat. Mamm. Ind. Mus.* p. 202, 1891; *Blanford, Fauna Brit. India*, p. 472, 1891; *Lydekker, Horns and Hoofs*, p. 378, 1893, *Great and Small Game of India, etc.* p. 18, 1909, *Game Animals of India, etc.* p. 26, 1907, *Suppl.* p. 2, 1911, *Cat. Hume Bequest Brit. Mus.* p. 41, 1913; *Thomas, Proc. Zool. Soc.* 1901, vol. ii, p. 157; *Ward, Records of Big Game*, ed. 6, p. 463, 1910, ed. 7, p. 462, 1914; *Marx and Koch, Ber. Senckenberg. Ges.* vol. xli, p. 161, 1910.

Rhinoceros indicus, *Cuvier, Menag. Mus. Hist. Nat. Paris*, 1801, *Règne Animal*, vol. i, p. 237, 1817, *Griffith, Animal Kingdom*, vol. iii, p. 336, vol. v, p. 290, 1827; *Jardine, Naturalist's Libr., Mamm.* vol. v, p. 164, pls. viii and ix, 1837; *Schinz, Synop. Mamm.* p. 333, 1844; *Blyth, Journ. Asiat. Soc. Bengal*, vol. xxx, p. 194, 1861, vol. xxxi, p. 151, 1862, *Cat. Mamm. Mus. Asiat. Soc. Bengal*, p. 136, 1863; *Jerdon, Mamm. India*, p. 232, 1867; *Lydekker, Journ. Asiat. Soc. Bengal*, vol. xlix, p. 135, pl. vii, 1880; *Sterndale, Mamm. India*, p. 407, 1884; *Percy, Big Game Shooting (Badminton Libr.)*, vol. ii, p. 234, 1894; *Osborn, Bull. Amer. Mus. Nat. Hist.* vol. xiii, p. 265, 1900; *Beddard, Cambridge Nat. Hist., Mamm.* p. 255, 1902.

Rhinoceros asiaticus, *Blumenbach, Handbuch Naturgesch.* ed. 12, p. 107, 1830.

Rhinoceros (Eurhinoceros) unicornis, *Gray, Proc. Zool. Soc.* 1867, p. 1009.

Rhinoceros stenocephalus, *Gray, Proc. Zool. Soc.* 1867, p. 1018, *Cat. Carnivora, etc. Brit. Mus.* p. 310, 1869.

GREAT INDIAN RHINOCEROS; GAINDA.

Type of genus and of *Eurhinoceros*.

Typical locality probably the sub-Himalayan Tarai of Assam.

II. RHINOCEROS SONDAICUS.

Rhinoceros sondaicus, *Desmarest, Mammalogie*, vol. ii, p. 399, 1822; *Horsfield, Zool. Research. Java*, 1824, with pl.; *Griffith, Animal Kingdom*, vol. v, p. 291, 1827; *Jardine, Naturalist's Libr., Mamm.* vol. v, p. 174, pl. x, 1837; *Müller and Schlegel, Verh. Nat. Gesch. Nederland. Ind.* vol. i, p. 184, pl. xxxiii, 1844; *Blyth, Journ. Asiat. Soc. Bengal*, vol. xxxi, p. 151, 1862; *Cat. Mamm. Mus. Asiat. Soc. Bengal*, p. 137, 1863, *List Mamm. Birds Burma*, p. 50, 1875; *Jerdon, Mamm. India*, p. 234, 1867; *Sclater, Proc. Zool. Soc.* 1874, p. 182, pl. xxviii, *Trans. Zool. Soc.* vol. ix, p. 649, pl. xcvi, 1876; *Fraser, Journ. Asiat. Soc. Bengal*, vol. xliv, p. 10, pl. v, 1875; *Flower, Proc. Zool. Soc.* 1876, p. 454, *The Horse*, p. 58, 1891; *Ball, Proc. Asiat. Soc. Bengal*, 1877, p. 170; *Rainey, ibid*, 1878, p. 139; *Flower and Garson, Cat. Osteol. Mus. R. Coll. Surg.* pt. ii, p. 418, 1884;

Sterndale, Mamm. India, p. 410, 1885; *Flower and Lydekker, Study of Mammals*, p. 405, 1891; *W. L. Sclater, Cat. Mamm. Ind. Mus.* pt. ii, p. 202, 1891; *Blanford, Fauna Brit. India, Mamm.* p. 475, 1891; *Lydekker, Horns and Hoofs*, p. 381, 1893, *Great and Small Game of India, etc.* p. 25, 1900, *Game Animals of India, etc.* p. 34, 1907; *Percy, Big Game Shooting (Badminton Libr.)*, vol. ii, p. 234, 1894; *Jentink, Notes Leyden Mus.* vol. xvi, p. 231, 1894; *Osborn, Bull. Amer. Mus. Nat. Hist.* vol. xiii, p. 265, 1900; *Thomas, Proc. Zool. Soc.* 1901, vol. ii, p. 157; *Beddard, Cambridge Nat. Hist., Mamm.* p. 256, 1902; *Ward, Records of Big Game*, ed. 6, p. 65, 1913, ed. 7, p. 64, 1914.

Rhinoceros javanicus, *F. Cuvier, Hist. Nat. Mamm.* vol. iv, livr. 45, pl. 309, 1824; *Gray, Proc. Zool. Soc.* 1867, p. 1009, *Cat. Carnivora, etc. Brit. Mus.* p. 300, 1869, *Hand-List Thick-skinned Mamm. Brit. Mus.* p. 45, 1873; *Gerrard, Cat. Bones Mamm. Brit. Mus.* p. 281, 1862.

Rhinoceros inermis, *Lesson, Hist. Nat. Anim.* vol. i, p. 514, 1848; *Peters, Monatsber. Ak. Berlin*, 1877, p. 68, pls. i-iii.

Rhinoceros nasalis, *Gray, Proc. Zool. Soc.* 1867, p. 1012, *Cat. Carnivora, etc. Brit. Mus.* p. 304, 1869, *Hand-List Thick-skinned Mamm. Brit. Mus.* p. 47, 1873.

Rhinoceros floweri, *Gray, Proc. Zool. Soc.* 1867, p. 1015, *Cat. Carnivora, etc. Brit. Mus.* p. 304, 1869.

2. SUBGENUS DICERORHINUS.

Dicerorhinus, *Gloger, Handbuch Naturgesch.* p. 125, 1841; *Thomas, Proc. Zool. Soc.* 1901, vol. ii, p. 157.

Ceratorhinus, *Gray, Proc. Zool. Soc.* 1867, p. 1021; *Flower, Proc. Zool. Soc.* 1876, p. 443, *The Horse*, p. 58, 1891; *Flower and Garson, Cat. Osteol. Mus. R. Coll. Surg.* pt. ii, p. 421, 1884; *Osborn, Bull. Amer. Mus. Nat. Hist.* vol. xiii, p. 365, 1900.

Skin with heavy folds; front teeth fully developed; skull generally as in typical subgenus, but with an open groove below the auditory meatus, due to the wide separation of the post-tympanic from the post-glenoid process. Asiatic.

III. RHINOCEROS (DICERORHINUS) SUMATRENSIS.

Rhinoceros sumatrensis, *Cuvier, Règne Animal*, vol. i, p. 240, 1817; *Griffith, Animal Kingdom*, vol. iii, p. 336, 1827; *Sclater, Proc. Zool. Soc.* 1872, p. 700, pl. lxxvii, *Trans. Zool. Soc.* vol. ix, p. 650, pl. xcvi, 1876; *Anderson, Proc. Zool. Soc.* 1872, p. 120; *Bartlett, ibid.* 1873, p. 104, pl. xi; *Flower and Garson, Cat. Osteol. Mus. R. Coll. Surg.* pt. ii, p. 418, 1884; *Beddard and Treves, Proc. Zool. Soc.* 1889, p. 7; *Flower, The Horse*, p. 58, 1891; *Flower and Lydekker, Study of Mammals*, p. 406, 1891; *W. L. Sclater,*

- Cat. Mamm. Ind. Mus.* pt. ii, p. 204, 1891; *Blanford, Fauna Brit. India, Mamm.* p. 476, 1891; *Lydekker, Horns and Hoofs*, p. 382, 1893, *Great and Small Game of India, etc.* p. 27, 1900, *Game Animals of India, etc.* p. 36, 1907; *Beddard, Cambridge Nat. Hist., Mamm.* p. 256, 1902; *Elliot, Cat. Mamm. Field Mus. (Field Mus. Zool. Pub. vol. viii)* p. 105, 1907; *Cabrera, Bol. Soc. españ. Hist. Nat.* 1911, p. 141.
- Rhinoceros sumatranus*, *Raffles, Trans. Linn. Soc.* vol. xiii, p. 268, 1820; *Desmarest, Mammalogie*, vol. ii, p. 401, 1822; *Jardine, Naturalist's Libr., Mamm.* vol. v, p. 179, pl. xi, 1837; *Müller and Schlegel, Verh. Nat. Gesch. Nederland. Ind.* vol. i, p. 190, pl. xxxiv, 1840; *Blyth, Journ. Asiat. Soc. Bengal*, vol. xxxi, p. 151, 1862, *Cat. Mamm. Mus. Asiat. Soc. Bengal*, p. 137, 1863; *Gerrard, Cat. Bones Mamm. Brit. Mus.* p. 282, 1862; *Gray, Ann. Mag. Nat. Hist.* ser. 4, vol. x, p. 208, 1872.
- Rhinoceros sondaicus*, *F. Cuvier, Hist. Nat. Mamm.* livr. 47, pl. cccviii, 1825, nec *Desmarest*, 1822.
- Rhinoceros bicornis sumatrensis*, *Griffith, Animal Kingdom*, vol. v, p. 291, 1827.
- Dicerorhinus sumatrensis*, *Gloger, Handbuch Naturgesch.* p. 125, 1841; *Thomas, Proc. Zool. Soc.* 1901, vol. ii, p. 157.
- Ceratorhinus sumatranus*, *Gray, Proc. Zool. Soc.* 1867, p. 1021, *Cat. Carnivora, etc. Brit. Mus.* p. 313, 1867, *Ann. Mag. Nat. Hist.* ser. 4, vol. xi, p. 357, 1873, *Hand-List Thick-skinned Mamm. Brit. Mus.* p. 47, 1873.
- Ceratorhinus sumatrensis*, *Garrod, Proc. Zool. Soc.* 1873, p. 92; *Blyth, Cat. Mamm. and Birds Burma*, p. 52, 1875; *Flower, Proc. Zool. Soc.* 1876, p. 455, 1880, p. 69; *Osborn, Bull. Amer. Mus. Nat. Hist.* vol. xiii, p. 365, 1900.
- Rhinoceros, vel Ceratorhinus, sumatrensis*, *Sterndale, Mamm. India*, p. 412, 1885.
- Rhinoceros (Ceratorhinus) sumatrensis*, *Ward, Records of Big Game*, ed. 6, p. 466, 1910, ed. 7, p. 465, 1914.
- Typical locality Sumatra.

A.—*Rhinoceros sumatrensis sumatrensis*.

- Rhinoceros sumatrensis typicus*, *Lydekker, Great and Small Game of India, etc.* p. 28, 1900.

B.—*Rhinoceros sumatrensis blythi*.

- Ceratorhinus niger*, *Gray, Ann. Mag. Nat. Hist.* ser. 4, vol. xi, p. 357, 1873, *Hand-List Thick-skinned Mamm. Brit. Mus.* p. 48, 1873, nec *Rhinoceros niger*, *Schinz*, 1845.
- Ceratorhinus crossii*, *Gray, Ann. Mag. Nat. Hist.* ser. 4, vol. x, p. 209, 1872, nec 1854.
- Ceratorhinus blythi*, *Gray, Ann. Mag. Nat. Hist.* ser. 4, vol. xi, p. 360, 1873, *Hand-List Mamm. Brit. Mus.* p. 50, 1873.
- Rhinoceros sumatrensis niger*, *Lydekker, Game Animals of India, etc.* p. 39, 1907.

Typical locality Tenasserim.

Type in Indian Museum, Calcutta.

C. niger is typified by a specimen from the Malay Peninsula referred to below; *C. blythi* by skulls from Tenasserim figured by Blyth, *Journ. Asiat. Soc. Bengal*, vol. xxxi, pl. iii, figs. 2 and 3, as *R. sumatranus*, and now in the Indian Museum. These skulls, together with a third one from the same district (figured by Blyth *op. cit.*, fig. 1, and identified by Gray with his *C. niger*), are entered in W. L. Sclater's *Catalogue*, without mention of their being types.

C.—*Rhinoceros sumatrensis lasiotis*.

(?) *Rhinoceros crossei*, Gray, *Proc. Zool. Soc.* 1854, p. 251; Blyth, *Proc. Zool. Soc.* 1861, p. 307, *Journ. Asiat. Soc. Bengal*, vol. xxxi, p. 156, 1862; Gerrard, *Cat. Bones Mamm. Brit. Mus.* p. 282, 1862.

(?) *Ceratorhinus crossei*, Blyth, *Ann. Mag. Nat. Hist.* ser. 4, vol. x, p. 399, 1872, *Cat. Mamm. Birds Burma*, p. 52, 1875, *partim*.

Rhinoceros lasiotis, Sclater, *Proc. Zool. Soc.* 1872, p. 493, pl. xxiii, *Trans. Zool. Soc.* vol. ix, p. 652, pl. xcviii, 1876; Flower, *Proc. Zool. Soc.* 1878, p. 634; Flower and Lydekker, *Study of Mammals*, p. 406, 1891; W. L. Sclater, *Cat. Mamm. Ind. Mus.* pt. ii, p. 204, 1891; Lydekker, *Horns and Hoofs*, p. 384, 1893.

Ceratorhinus lasiotis, Flower, *Proc. Zool. Soc.* 1876, p. 455.

Rhinoceros, vel Ceratorhinus (crossi ?) lasiotis, Sterndale, *Mamm. India*, p. 411, 1885.

Rhinoceros sumatrensis lasiotis, Lydekker, *Great and Small Game of India, etc.* p. 27, 1900, *Game Animals of India, etc.* p. 38, 1907; Ward, *Records of Big Game*, ed. 6, p. 466, 1910, ed. 7, p. 465, 1914.

Dicerorhinus sumatrensis lasiotis, Thomas, *Proc. Zool. Soc.* 1901, vol. ii, p. 157.

Typical locality Chittagong.

3. SUBGENUS DICEROS.

Diceros, Gray, *Med. Repository*, vol. xv, p. 306, 1821; Thomas, *Proc. Zool. Soc.* 1901, p. 157; Heller, *Smithson. Misc. Collect.* vol. lxi, no. 1, p. 19, 1913.

Coelodonta, Bronn, *Neues Jahrb. Min.* 1831, p. 51.

Opsiceros, Gloger, *Handbuch Naturgesch.* p. 125, 1841.

Atelodus, Pomel, *Ann. Sci. Lit. Auvergne*, vol. xxvi, p. 114, 1853, *Cat. Méth. Vert. Foss. Loire*, p. 78, 1854; Flower, *Proc. Zool. Soc.* 1876, 455; Flower and Garson, *Cat. Osteol. Mus. R. Coll. Surg.* pt. ii, p. 423, 1884; Osborn, *Bull. Amer. Mus. Nat. Hist.*

vol. xiii, p. 264, 1900 ; *W. L. Sclater, Fauna S. Africa, Mamm.* vol. i, p. 297, 1900.

Rhinaster, *Gerrard, Cat. Bones Mamm. Brit. Mus.* p. 282, 1862 ; *Gray, Cat. Carnivora, etc. Brit. Mus.* p. 316, 1869.

Keitloa, *Gray, Proc. Zool. Soc.* 1867, p. 1025.

Ceratotherium, *Gray, Proc. Zool. Soc.* 1867, p. 1027, *Cat. Carnivora, etc. Brit. Mus.* p. 319, 1869 ; *W. L. Sclater, Fauna S. Africa, Mamm.* vol. i, p. 297, 1900 ; *Heller, Smithson. Misc. Collect.* vol. lxi, no. 1, p. 19, 1913.

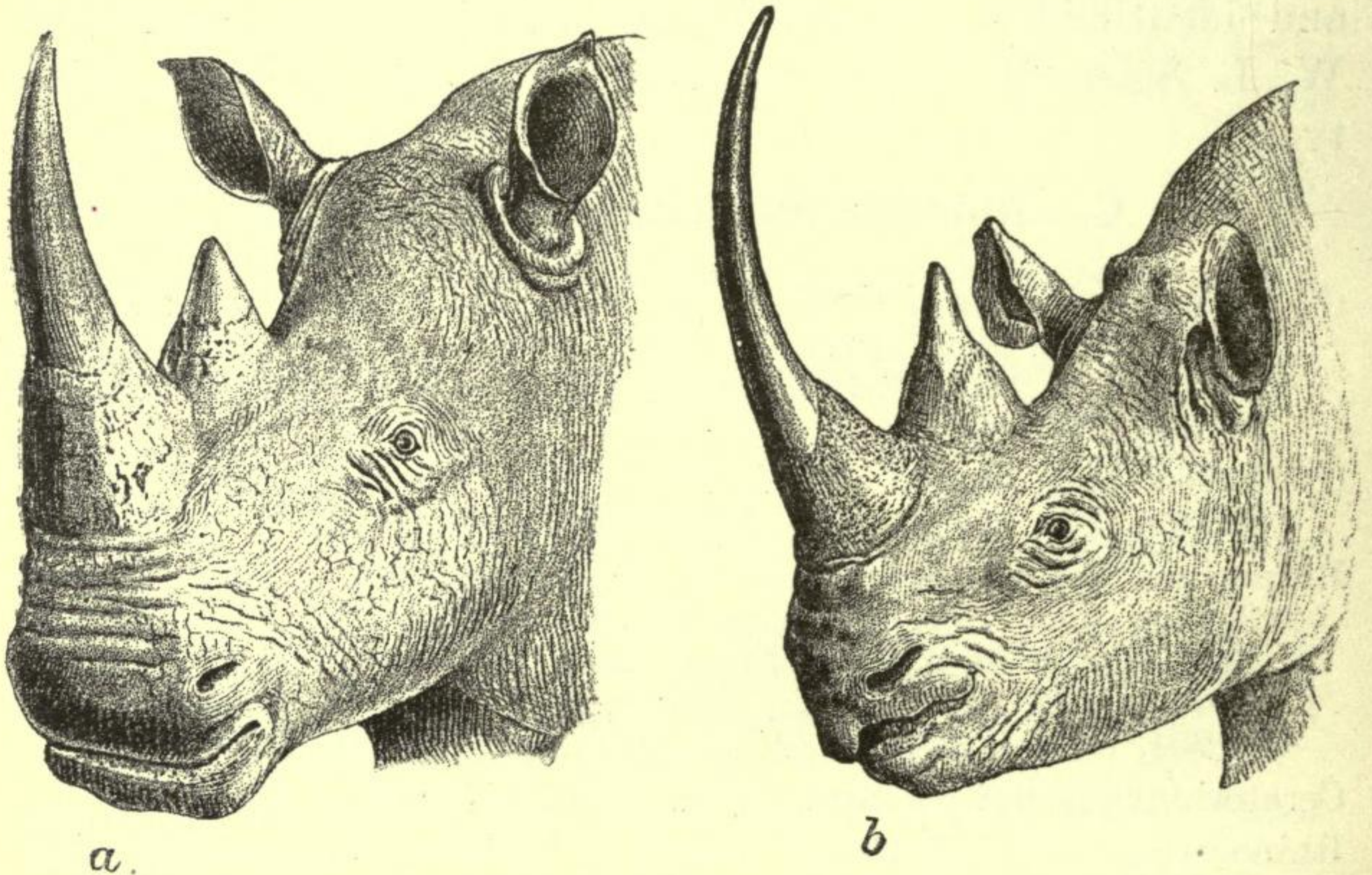


FIG. 18.—HEADS OF (a) WHITE RHINOCEROS (*Rhinoceros [Diceros] simus*), and (b) BLACK RHINOCEROS (*R. [D.] bicornis*).

Skin more or less completely devoid of heavy folds ; front teeth rudimentary or wanting ; skull more or less elongated, with the occipital plane inclined backwards, and the auditory meatus open inferiorly. African.

IV. RHINOCEROS (DICEROS) BICORNIS (Figs. 18 b, 19).

Rhinoceros bicornis, *Linn. Syst. Nat.* ed. 10, vol. i, p. 56, 1758, ed. 12, vol. i, p. 104, 1766 ; *Sparrman, K. Svenska Vet.-Ak. Handl.* 1778, pl. ix ; *Gmelin, Linn.'s Syst. Nat.* vol. i, p. 57, 1788 ; *A. Smith, Illustr. S. African Zool.* vol. i, pl. ii, 1838 ; *Sclater, Proc. Zool. Soc.* 1868, p. 529, pl. xli, 1886, p. 144, pl. xvi, *Trans. Zool. Soc.* vol. ix, p. 655, pl. xcix, 1876 ; *Selous, Proc. Zool. Soc.* 1881, p. 725, *A Hunter's Wanderings in S. Africa*, ed. 18, 1890 ; *Flower and Garson, Cat. Osteol. Mus. R. Coll. Surg.* pt. ii, p. 423, 1884 ; *Bocage, J. Sci. Lisboa*, vol. v, p. 23, 1890 ; *Flower and Lydekker, Study of Mammals*, p. 408, 1891 ; *W. L. Sclater, Cat. Mamm.*

Ind. Mus. pt. ii, p. 205, 1891, *Fauna S. Africa*, Mamm. p. 303, 1900; *Flower*, *The Horse*, p. 59, 1901; *Nicholls and Eglington*, *Sportsman in S. Africa*, p. 62, 1892; *Lydekker*, *Horns and Hoofs*, p. 386, 1893, *Game Animals of Africa*, p. 25, 1908, *Proc. Zool. Soc.* 1911, p. 958; *Jackson*, *Big Game Shooting* (*Badminton Libr.*), vol. i, p. 25, 1894; *Matschie*, *Säugeth. Deutsch-Ost-Afrika*, p. 97, 1895; *Bryden*, *Nature and Sport in S. Africa*,

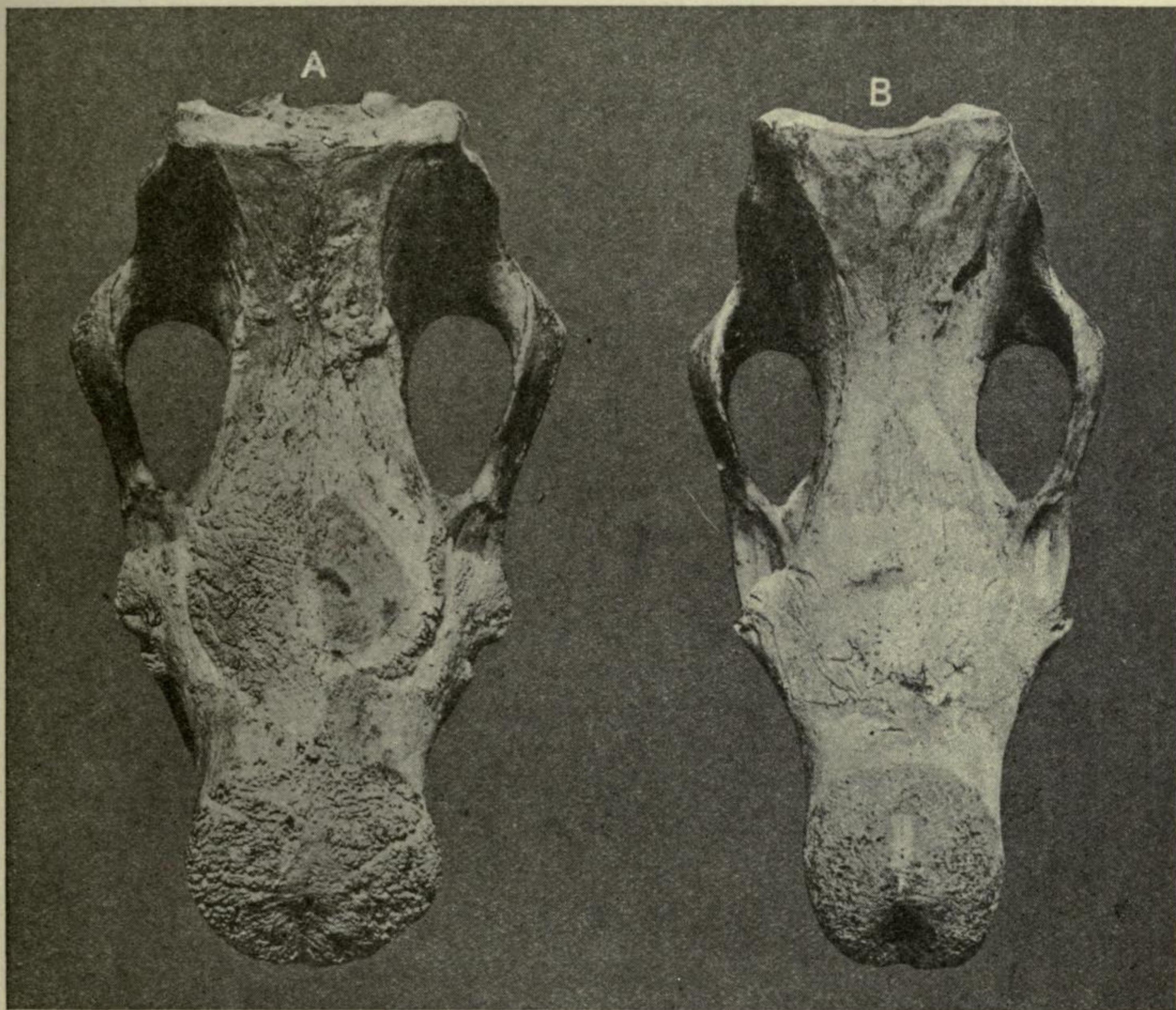


FIG. 19.—UPPER ASPECT OF SKULL OF A, *Rhinoceros bicornis*, from East Africa (7. 2. 26. 1); and B, *R. bicornis somaliensis*, from Bulhar, Somaliland (11. 8. 2. 20).

From Lydekker, *Proc. Zool. Soc.* 1911, p. 958.

p. 187, 1897; *Kirby*, *Great and Small Game of Africa*, p. 85, 1899; *Beddard*, *Cambridge Nat. Hist. Mamm.* p. 257, 1902; *Drake-Brockman*, *Mamm. Somali.* p. 106, 1910.

Rhinoceros bicornis capensis, *Camper*, *Acta Ac. Petrop.* 1777, pt. 2, p. 193, pls. iii-v.

Rhinoceros africanus, *Desmarest*, *Mammalogie*, vol. ii, p. 400, 1822; *Griffith*, *Animal Kingdom*, vol. iii, p. 337, vol. v, p. 2911, 1827; *Jardine*, *Naturalist's Libr.*, Mamm. vol. v, p. 182, pl. xii, 1837; *Harris*, *Wild Anim. S. Africa*, pl. xi, 1840; *Peters*, *Reise*

- Mossambique, Säugeth.* p. 180, 1852; *Heuglin, Faun. Rothen Meeres, Peterm. Mittheil.* 1861, p. 15; *Duvernoy, Arch. Mus. Paris*, vol. vii, pl. viii, 1854; *Gaudry, Enchainements, Mamm. Test.* p. 53, 1878.
- Diceros bicornis*, *Gray, Med. Repository*, vol. xv, p. 306, 1821; *Thomas, Proc. Zool. Soc.* 1901, vol. ii, p. 137; *Rothschild, Powell-Cotton's Abyssinia*, p. 482, 1902; *Roosevelt, African Game Trails*, p. 486, 1910; *Cabrera, Cat. Met. Mam. Mus. Madrid*, p. 134, 1912; *Heller, Smithson. Misc. Collect.* vol. lxi, no. 1, p. 19, 1913; *Allen, Bull. Mus. Harvard*, vol. lviii, p. 324, 1914.
- Rhinoceros keitloa* (or *ketloa*), *A. Smith, Cat. Mamm. S. African Mus.* p. 7, 1837; *Illustr. Zool. S. Africa*, pl. i, 1838; *Schinz, Synop. Mamm.* p. 337, 1845; *Blanford, Geol. and Zool. Abyssinia*, p. 243, 1870.
- Opsiceros bicornis*, *Gloger, Handbuch Naturgesch.* p. 121, 1841.
- Rhinoceros niger*, *Schinz, Synop. Mamm.* vol. ii, p. 335, 1845.
- Rhinoceros camperi*, *Schinz, Synop. Mamm.* vol. ii, p. 335, 1845, *Monogr. Säugeth.* pl. i, 1848.
- Atelodus bicornis*, *Pomel, Ann. Sci. Lit. Auvergne*, vol. xxvi, p. 114, 1853; *Flower, Proc. Zool. Soc.* 1876, p. 455; *Osborn, Bull. Amer. Mus. Nat. Hist.* vol. xiii, p. 264, 1900.
- Rhinaster bicornis*, *Gerrard, Cat. Bones Mamm. Brit. Mus.* p. 282, 1862; *Gray, Cat. Carnivora, etc. Brit. Mus.* p. 316, 1869, *Hand-List Thick-skinned Mamm. Brit. Mus.* p. 51, 1873.
- Rhinaster keitloa* (with vars. *k. keitloa* and *k. camperi*), *Gray, Proc. Zool. Soc.* 1867, p. 1025, *Cat. Carnivora, etc. Brit. Mus.* p. 317, 1867, *Hand-List Thick-skinned Mamm. Brit. Mus.* p. 51, 1873.
- Keitloa bicornis*, *Gray, Proc. Zool. Soc.* 1867, p. 1025.
- Atelodus keitloa*, *Flower, Proc. Zool. Soc.* 1876, p. 455.
- Rhinoceros (Diceros) bicornis*, *Ward, Records of Big Game*, ed. 6, p. 467, 1910, ed. 7, p. 466, 1914.
- Biceros bicornis*, *Virchow, Sitzber. k. Ak. Wiss. Berl.* 1910, p. 848.

BLACK RHINOCEROS; ZWAART RHINASTER; KEITLOA.

Typical locality Cape Colony.

Type of *Diceros*, *Opsiceros*, *Atelodus*, and *Rhinaster*.

A.—*Rhinoceros bicornis bicornis*.

Typical locality Cape Colony.

B.—*Rhinoceros bicornis holmwoodi*.

Rhinoceros holmwoodi, *Sclater, Proc. Zool. Soc.* 1893, p. 517; *Bryden, Great and Small Game of Africa*, p. 67, 1899.

Rhinoceros bicornis holmwoodi, *Lydekker, Game Animals of Africa*, p. 27, 1908; *Ward, Records of Big Game*, ed. 6, p. 467, 1910, ed. 7, p. 466, 1914.

Typical locality some part of East Africa inland of Zanzibar.

Type in collection.

C.—Rhinoceros bicornis somaliensis (Fig. 19 B).

Rhinoceros bicornis somaliensis, Potocki, *Sport in Somaliland*, p. 82, 1900; Lydekker, *Game Animals of Africa*, p. 27, 1908, *Proc. Zool. Soc.* 1911, p. 960.

Diceros bicornis somaliensis, Allen, *Bull. Amer. Mus. Nat. Hist.* vol. xxxiii, p. 340, 1914.

Typical locality Somaliland.

Type, the figure in Count Potocki's work.

D.—Rhinoceros bicornis cucullatus.

Rhinoceros cucullatus, Wagner, *Schreber's Säugthiere*, vol. vi, p. 317, pl. cccxvii, F, 1835; Heuglin, *Fauna Rothen Meeres*, *Peterm. Mittheil.* 1861, p. 15; Fitzinger, *Sitzber. k. Ak. Wiss. Wien*, 1867, p. 584.

Typical locality Abyssinia.

V. RHINOCEROS (DICEROS) SIMUS (Figs. 18 a, 20).

Rhinoceros simus, Burchell, *Bull. Soc. Philom.* 1817, p. 96, *Travels in S. Africa*, vol. ii, p. 75, 1824; Jardine, *Naturalist's Libr., Mamm.* vol. v, p. 186, pl. xiii, 1837; A. Smith, *Illustr. Zool. S. Africa*, vol. i, pl. xix, 1838; Duvernoy, *Arch. Mus. Paris*, vol. vii, pls. ii, iii, viii, 1854; Sclater, *Proc. Zool. Soc.* 1864, p. 100, 1886, p. 143, pl. xvi, fig. 1, 1903, vol. ii, p. 194; Peters, *Säugeth. Mossambique*, p. 180, 1852; Heuglin, *Fauna Rothen Meeres*, *Peterm. Mittheil.* 1861, p. 15; Fitzinger, *Sitzber. k. Ak. Wiss. Wien*, 1867, p. 583; Hartmann, *Zeitschr. Ges. Erdkunde*, vol. iii, p. 365, 1868; Selous, *Proc. Zool. Soc.* 1881, p. 725, pl. lx, *A Hunter's Wanderings in S. Africa*, p. 190, 1890, *Great and Small Game of Africa*, p. 52, 1899; Flower and Garson, *Cat. Osteol. Mus. R. Coll. Surg.* pt. ii, p. 424, 1884; Jentink, *Notes Leyden Mus.* vol. xii, p. 241, 1890, *C.-R. Congrès Zool. Moscou*, vol. ii, p. 92, 1893; Flower, *The Horse*, p. 60, 1891; Flower and Lydekker, *Study of Mammals*, p. 409, 1891; W. L. Sclater, *Cat. Mamm. Ind. Mus.* pt. 2, p. 206, 1891, *Fauna S. Africa*, *Mamm.* vol. i, p. 299, 1900; Nicolls and Eglinton, *Sportsman in S. Africa*, p. 64, 1892; Millais, *Proc. Zool. Soc.* 1893, p. 614; Coryndon, *ibid.* 1894, p. 329, pl. xviii; Lydekker, *Horns and Hoofs*, p. 388, 1894, *Game Animals of Africa*, p. 35, 1908; Bryden, *Nature and Sport in S. Africa*, p. 182, 1897; Beddard, *Cambridge Nat. Hist., Mamm.* p. 257, 1902; Gibbons, *Africa from South to North*, vol. ii, p. 221, 1904; Schouteden, *Rev. Zool. Africaine*, vol. i, p. 118, 1911.

- Rhinoceros burchellii, *Desmarest, Mammalogie*, vol. ii, p. 401, 1822.
 Rhinoceros camus, *Griffith, Animal Kingdom*, vol. v, p. 746, 1827.
 Opsiceros simus, *Gloger, Handbuch Naturgesch.* p. 125, 1841.
 Rhinoceros oswellii, *Gray, Proc. Zool. Soc.* 1853, p. 46, *Ann. Mag. Nat. Hist.* ser. 2, vol. xv, p. 142, 1855; *Andersson, Lake Ngami*, p. 386, 1856.
 Atelodus simus, *Pomel, Act. Soc. Lit. Auvergne*, vol. xxvi, p. 114, 1853; *Flower, Proc. Zool. Soc.* 1876, p. 455; *Osborn, Bull. Amer. Mus. Nat. Hist.* vol. xiii, p. 264, 1900.
 Rhinaster simus, *Gerrard, Cat. Bones Mamm. Brit. Mus.* p. 282, 1862.
 Rhinaster oswellii, *Gerrard, Cat. Bones Mamm. Brit. Mus.* p. 283, 1862.
 Ceratotherium simum, *Gray, Proc. Zool. Soc.* 1867, p. 1027, *Cat. Carnivora, etc. Brit. Mus.* p. 319, 1869, *Hand-List Thick-skinned Mamm. Brit. Mus.* p. 52, 1873; *Heller, Smithsonian. Misc. Collect.* vol. lxi, no. 1, p. 19, 1913.
 Ceratotherium oswellii, *Gray, Proc. Zool. Soc.* 1867, p. 1029, *Cat. Carnivora, etc. Brit. Mus.* p. 322, 1869, *Hand-List Thick-skinned Mamm. Brit. Mus.* p. 52, 1873.
 Atelodus oswelli, *Flower, Proc. Zool. Soc.* 1876, p. 556.
 Dicerus simus, *Thomas, Nature*, vol. lxii, p. 509, 1900, *Proc. Zool. Soc.* 1901, vol. ii, p. 158.
 Coelodonta (?) simus, *Thomas, Proc. Zool. Soc.* 1901, vol. ii, p. 158.
 Rhinoceros (Dicerus) simus, *Ward, Records of Big Game*, ed. 6, p. 473, 1910, ed. 7, p. 472, 1914.

WHITE RHINOCEROS; BURCHELL'S RHINOCEROS; SQUARE-MOUTHED RHINOCEROS; WHITE RHINASTER.

Typical locality Cape Colony.
 The type of *Ceratotherium*.

A.—*Rhinoceros simus simus*.

Typical locality Cape Colony: the range extends as far north as the Zambesi; with the exception of a few individuals which still survive, under Government protection in Zululand, this race is extinct.

General characters those of the species.

B.—*Rhinoceros simus cottoni* (Fig. 20).

- Rhinoceros simus cottoni*, *Lydekker, Field*, vol. cxi, p. 317, 1908, *Game Animals of Africa*, p. 38, 1908; *Trouessart, C.-R. Ac. Sci. Paris*, vol. cxlvii, p. 1352, 1908, *Proc. Zool. Soc.* 1909, p. 198, pl. xxix; *Berger, Sitzber. Ges. nat. Freunde*, 1910, p. 344, *In Afrikas Wildkammern*, p. 430, 1910; *Ward, Records of Big Game*, ed. 6, p. 473, 1910, ed. 7, p. 472, 1914.

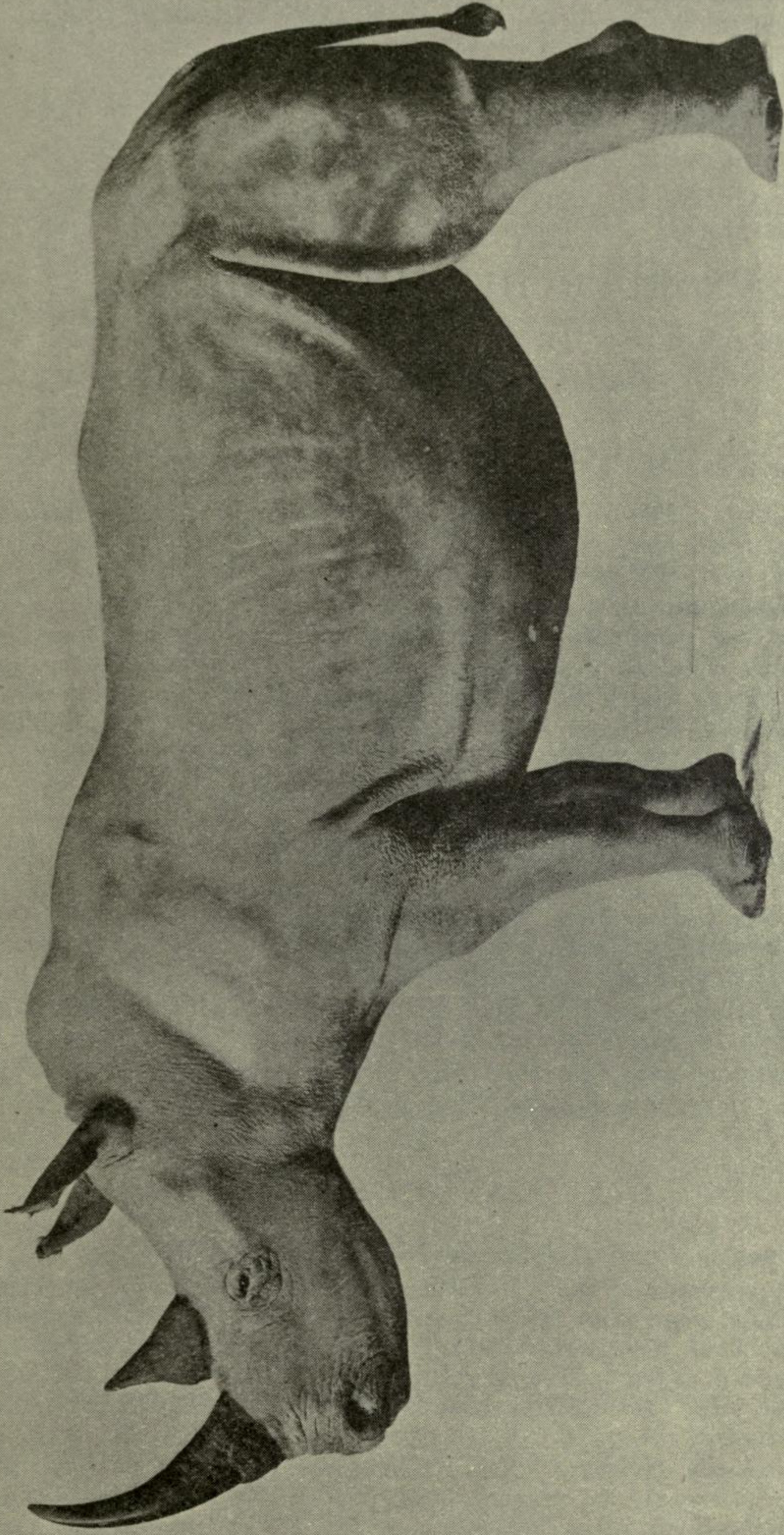


FIG. 20.—MALE NILE WHITE RHINOCEROS (*Rhinoceros simus cottoni*).
Shot by Col. Theodore Roosevelt in the Lado Enclave, now in the U.S. National Museum, Washington.
From Heller, *Smithson. Misc. Coll.* vol. 61, No. 1, 1913.

Diceros simus cottoni, *Roosevelt, African Game Trails*, p. 486, 1910.
Ceratotherium simum cottoni, *Heller, Smithsonian Misc. Collect.* vol. lxi,
 no. 1, p. 19, 1913.

Typical locality Lado.

Type in collection.

SUBORDER III.—HYRACOIDEA.

FAMILY PROCAVIIDÆ.

Genus PROCAVIA.

Procavia, *Storr, Prodromus Meth. Mamm.* p. 40, pl. B, 1780; *Lataste, Ann. Mus. Genova*, ser. 2, vol. iv, p. 5, 1886; *Thomas, Proc. Zool. Soc.* 1892, p. 51.

Hyrax, *Hermann, Tab. Affin. Anim.* p. 115, 1783; *Gray, Cat. Carnivora, etc. Brit. Mus.* p. 283, 1869; *Flower and Garson, Cat. Osteol. Mus. R. Coll. Surg.* pt. ii, p. 438, 1884; *Flower and Lydekker, Study of Mammals*, p. 416, 1891; *Beddard, Proc. Biol. Soc.* 1909, p. 162; *Christy, ibid.* 1911, p. 672 (habits); *Lubosch, Arch. mikr. Anat.* vol. lxxviii, p. 353, 1911.

1. SUBGENUS PROCAVIA.

Hyrax, *Gray, Ann. Mag. Nat. Hist.* ser. 4, vol. i, p. 40, 1868, *Cat. Carnivora, etc. Brit. Mus.* p. 283, 1869; *Flower and Garson, Cat. Osteol. Mus. R. Coll. Surg.* pt. ii, p. 438, 1884.

Euhyrax, *Gray, Ann. Mag. Nat. Hist.* ser. 4, vol. i, p. 46, 1868, *Cat. Carnivora, etc. Brit. Mus.* p. 289, 1869.

Heterohyrax, *Gray, Ann. Mag. Nat. Hist.* ser. 4, vol. i, p. 50, 1868, *Cat. Carnivora, etc. Brit. Mus.* p. 294, 1869.

I. PROCAVIA CAPENSIS.

Cavia capensis, *Pallas, Spicil. Zool.* fasc. ii, p. 32, 1767.

Procavia capensis, *Storr, Prodromus Meth. Mamm.* p. 40, 1780; *Lataste, Ann. Mus. Genova*, ser. 2, vol. i, p. 5, 1886; *Woodward, Proc. Zool. Soc.* 1892, p. 50; *Thomas, ibid.* p. 60; *W. L. Sclater, Fauna S. Africa, Mamm.* vol. i, p. 310, 1900; *Cabrera, Cat. Met. Mam. Mus. Madrid*, p. 135, 1912; *Brauer, Sitzber. Ges. nat. Freunde*, 1914, p. 35.

Hyrax capensis, *Hermann, Tab. Affin. Anim.* p. 115, 1783; *Schreber, Säugthiere*, vol. iv, pl. ccxl, 1784, p. 920, 1792; *Griffith, Animal Kingdom*, vol. iii, p. 338, vol. v, p. 292, 1827; *Owen, Proc. Zool. Soc.* 1832, p. 202; *Reid, ibid.* 1835, p. 13; *Gray, List Mamm. Brit. Mus.* p. 187, 1843, *Ann. Mag. Nat. Hist.* ser. 4, vol. i, p. 42,