

NOTES ON INDO-AUSTRALIAN MAMMALS (1-2)

by

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1. A note on *Lutrogale perspicillata* (I. GEOFFROY) (*Mustelidae*)

Only a few records concerning the occurrence in Java of a large species of Otter, together with the Small-clawed Otter, *Amblonyx cinerea* (ILL.), appeared in literature up till now (SPENNEMANN 1927, BARTELS 1937). Determination of the material is mostly preliminary or limited to the indication: *Lutra* spec. Most authors, relying on the undoubtedly incorrect type-locality of CUVIER's *Lutra barang*, considered the large Otter from Java to belong to this species. Why DAMMERMAN (1929) used the name *Lutra sumatrana* is quite incomprehensible to me. CHASEN (1940) included Java in the area of *Lutra lutra barang*, and so did CARTER, HILL and TATE (1945) and SIMPSON (Bull. Am. Mus. N.H. 85, p. 115, 1945).

Apparently, material in the famous BARTELS collection has never been critically examined and the same holds good for the material in the Buitenzorg Zoological Museum. An enormous confusion existed concerning the nomenclature of East Asiatic Otters and this is undoubtedly the reason why nobody ventured a critical revision of the scanty material. POCKOCK (1941) published the last word on this puzzle, which in my opinion should be considered as definitely solved. An examination of the material in the Buitenzorg collection, I recently made, revealed the rather surprising fact that all three specimens from Java in our collection belonged to *Lutrogale perspicillata* (I. GEOFFR.). This species is represented also in our collection by a skull from Sumatra and a skull from N. E. Borneo. The distributional area of this species therefore proved to be larger than has been generally assumed so far. Java has never been mentioned as habitat of this species. S. MÜLLER (1839-1844) recorded the species, as *Lutra simung*, from Borneo, but this record has curiously enough been overlooked by several authors.

Some observations on the material may follow here. For the sake of completeness a list of synonyms has been included.

Lutrogale perspicillata (I. GEOFFROY)

Lutra perspicillata I. GEOFFROY: Dict. Class. d'Hist. Nat. 9, p. 519 (1826); CHASEN: Bull. Raffles Mus. 15, p. 93 (1940); CARTER, HILL & TATE: Mamm. Pac. World, p. 84 (1945) — nec *Amblonyx cinerea perspicillata* RÖHLE: Arch. f. Naturg. 85, A, pt. 9, p. 130 (1920).

Lutra simung LESSON: Man. Mamm. p. 156 (1827); S. MÜLLER: Verh. Nat. Gesch. Ned. Overz. Bez. Zoöl., p. 27, p. 51 note 10 (1839-1844); ROBINSON & KLOSS: Journ. F. M. S. Mus. 7, pp. 306-307 (1919); ibidem 8, p. 14 (1918) — nec *Lutra simung* HORSFIELD: Cat. Mamm. E. I. Comp. p. 116 (1851) = *L. barang* CUVIER.

Lutra tarayensis HODGSON: Journ. As. Soc. Beng. 8, p. 319 (1839); Ann. Mag. N. H. (1), 5, p. 28 (1840); THOMAS & WROUGHTON: Journ. Bombay N. H. Soc. 26, p. 348 (1919); G. M. ALLEN: N. H. Central Asia 11, Mamm. China & Mongolia pt. 1, p. 413 (1938); G. H. H. TATE: Mamm. E. Asia, p. 156 (1947).

Lutra macrodus J. E. GRAY: P. Z. S. 1865, p. 128 (1865); BLANFORD: Mamm. Brit. Ind. App., p. 602 (1891).

Lutra ellioti ANDERSON: Zool. Res. Yunnan, p. 212 (1878); BLANFORD: Mamm. Brit. Ind. p. 185 (1888).

Lutra barang THOMAS: P. Z. S. 1889, p. 190 (1889); H. J. V. SODY: Tectona 31, pp. 761-762 (1938) — nec *L. barang* CUVIER, vide POCOCK: Mamm. Brit. Ind. 2, p. 286 (1941).

Lutra barang barang H. J. V. SODY: Natuurk. Tijdschr. N. I. 89, p. 165 (1929); ibidem 90, p. 282 (1930); — nec *L. barang* CUV.

Lutra lutra CARTER, HILL & TATE: Mamm. Pac. World p. 84 (1945) Part!

Lutra lutra barang CHASEN: Bull. Raffles Mus. 15, p. 92 (1940) Part!

Lutra sumatrana DAMMERMAN: Treubia 11, p. 35 (1929) — nec *Barangia sumatrana* J. E. GRAY.

Lutra (Lutrogale) monticola J. E. GRAY: P. Z. S. 1865, p. 127 (1865) — nec *Lutra monticola* HODGSON.

Lutrogale barang PÖHLE: Arch. f. Naturgesch. 85, A, pt. 9, p. 108 (1920); POCOCK: P. Z. S. 1921, p. 542 (1921); HINTON & FRY: Journ. Bomb. N. H. Soc. 29, p. 416 (1923) nec *Lutra barang* CUVIER.

Lutrogale perspicillata POCOCK: Journ. Bomb. N. H. Soc. 41, p. 515 (1940); Mamm. Brit. Ind. 2, pp. 293-298 (1941); G. H. H. TATE: Mamm. E. Asia, p. 157 (1947).

Lutra spec. A. W. SPENNEMANN: De Trop. Natuur, 16, pp. 208-209 (1927); M. BARTELS: Treubia 16, pp. 161-163 (1937).

Material. — W. Java: 1 ♂, skin & skull, vicinity of Batavia town, leg. A. H. G. VAN HALLE, 5.III.1921, Cat. nr. 68; 1 ♂, skin & skull, Muara Angke near Batavia, purchased, 10.VIII.1935, Cat. nr. 3783; 1 ♂, skin & skull, Kali Tjilintjing, Tg. Priok Harbour, purchased, 17.I.1936, Cat. nr. 3784; Sumatra: 1 ♂, skull, Banding Agung, Ranau Lake, Benkulen, leg. W. F. RUDIN, VII.1930, Cat. nr. 3785; N. E. Borneo: 1, unsexed, Badang, Bahau river, Bulungan Distr. leg. V. VON PLESSEN, VI.1935, Cat. nr. 3786.

Description of Javanese material. — Upper side and tail deep brownish drab with a faint, much scattered grizzling. In Nr. 3784 this grizzling is somewhat more obvious than in the other two skins where it is nearly absent. Ventral side ochraceous tawny with a golden tinge. Lips, cheeks and throat lighter, more ochraceous buff. In

Nr. 3782 lips, throat and cheeks much lighter, approaching pale ochraceous buff.

Measurements (vide Table). — Measurements do not seem to be different from those of material from the Asiatic mainland. According to G. M. ALLEN (1938), only the toothrow of animals in Burma is longer. Our skull from Borneo is unsexed, but most probably belonged to a female. Of course there is a possibility that Bornean animals will prove to be smaller.

Lutrogale perspicillata (I. GEOFFROY)

Table of measurements (in mm)

| Cat. Nr. Btzg. Museum | Locality | Sex | Greatest length of skull | Oral border of foramen magnum to tip of premaxillaries | Palatal length | Zygomatic width | Mastoid width | Interorbital constriction | Upper cheek teeth | Lower cheek teeth | Head and body | Tail | Ear | Hindfoot | Weight in kilograms |
|-----------------------|------------------------------|-----|--------------------------|--|----------------|-----------------|---------------|---------------------------|-------------------|-------------------|---------------|------|-----|----------|---------------------|
| 68 | Batavia, W. Java | ♂ | 129.2 | 120 | 61.5 | 83.6 | 71.9 | 23.3 | 37.5 | 43.0 | 790 | 500 | — | — | — |
| 3783 | Muara Angke, W. Java | ♂ | 131.7 | 121.9 | 64.0 | 81.8 | 72.0 | 22.8 | 38.8 | 45.1 | 770 | 445 | 25 | 145 | 8.9 |
| 3784 | Tg. Priok, „ „ | ♂ | 131.0 | 120.5 | 62.8 | 83.4 | 72.7 | 23.7 | 39.1 | 45.0 | 788 | 505 | 31 | 165 | 11.17 |
| 3785 | Banding Agung, S. W. Sumatra | ♂ | 128.0 | 120.9 | 62.0 | 80.1 | 69.8 | 24.0 | 37.4 | 43.2 | — | — | — | — | — |
| 3786 | Bahau river, N. E. Borneo | (♀) | 120.0 | 112.7 | 57.8 | 76.9 | 66.0 | 19.6 | 36.3 | 38.0 | — | — | — | — | — |

Racial identity. — No material from outside Indonesia was available to me for comparison. POCKOCK (1941) could distinguish two races of the species and admitted the possibility that a third race might prove to be valid.

For the time being I should prefer not to draw a conclusion concerning the racial identity of the Indonesian animals.

Biology. — A most interesting account on the biology is given by SPENNEMANN (1927) and BARTELS (1937).

Distribution of the species. — India from the Himalayas and Sind to the Madras Presidency (excluding Ceylon), Burma, Indo-China, Lower Yunnan, Malay Peninsula, Sumatra, Borneo, Java.

Note. — *Lutra lutra barang* F. CUV. should be omitted from the list of Javanese mammals, as there is no proof that this species occurs in Java together with *Lutrogale perspicillata* (GEOFFR.).

2. On the meaning of the name *Cervus javanicus* OSBECK 1765
(*Tragulidae*)

W. STONE & J. A. G. REHN (Proc. Ac. Sc. Philad. 54, pp. 128-129, 1902) introduced the name *Cervus javanicus* OSBECK for the Larger Mouse-Deer, said to occur in Java. These authors made an analysis of the original description, considered it fit to be applied to the "Napu" and this opinion has since been accepted by nearly every author. In the revision by C. BODEN KLOSS (Journ. F. M. S. Mus. 7, p. 245, 1918) all Malaysian Mouse-Deer were put in two species only, the Larger Mouse-Deer or Napu, and the Smaller Mouse-Deer or Pelandok. The Larger Mouse-Deer were united under the name *Tragulus javanicus* (OSBECK), the Smaller Mouse-Deer under the name *Tragulus kanchil* (RAFFLES). Only some difficulties remained as to the specific status of some of the smaller island-forms. Curiously enough nearly every author accepted without doubt the occurrence of both species in Java. Only H. J. V. SODY (Natuurk. Tijdschr. N. I. 89, p. 165, 1929) and K. W. DAMMERMAN (Treubia 11, p. 34, 1929) listed the representative of the Larger Mouse-Deer with a question-mark in their faunal lists. In his latest handlist H. J. V. SODY (Tectona, 31, p. 762, 1928) omitted the species altogether from the Javan fauna. On the other hand F. N. CHASEN (Bull. Raffl. Mus. 15, p. 193, 1940) listed the Larger Mouse-Deer in Java as a separate race, but at the same time expressed his doubt as to whether the species really occurred there!

In my opinion it seems appropriate to state that in Java only one species of Chevrotain occurs i.e. the Smaller Mouse-Deer. In fact, the Larger Mouse-Deer has never been observed in Java and not a single specimen with reliable locality is present in any collection. So it seems rather absurd to retain a non-existing subspecies in the faunal list for the sake of convention, as was done by CHASEN (l.c.). Now concerning the name *Cervus javanicus* OSBECK it seems necessary to investigate anew to which species this name is applicable if it is to be used at all.

The description of *Cervus javanicus* in "Reise nach Ostindien und China etc", p. 357, 1765 is not the original description by P. OSBECK, but a translation by J. G. GEORGI from the latin description in "Dagbok öfver en ostindisk resa åren 1750, 1751, 1752 etc.", pp. 273-274, 1757. This original description has no validity as it was issued before 1758. Nevertheless it seems worth while to take it into consideration because it can add to the better understanding of OSBECK's intention. I shall copy this description here at full length:

"Jawanska Rådjur (*Cervus javanicus*) Descr. *Dentes primores superiores nulli, inferiorum 8, duo medii apice triplo latiores; lateralium 3 utrinque acutorum. Dentium canin. superiorum unus utrinque acutus, longitudine primorum E. non Capra perpusilla Mus. Reg. Sv. p. 12. Et Feminam & Marem vidi, sed sine cornibus, quibus tamen gaudent, ut*

nautae nostrae asseruerunt. *Dentes molures superiores 9, quorum inferiores 6, duplicati, exteriores 3 lobati. Magnitudine hujus Cervi agni recens nati. Color fuscus. Mas major striis longitudinalibus laterum albis, cujus cranium jam descripsi. Vixerunt foliis recentibus Oryzae, quam in ollis serere curavimus*".

If we make a survey of this description it is in my opinion rather clear that OSBECK really had specimens of a Chevrotain at hand. The mistake of 9 cheekteeth instead of 6 has been cleared already by STONE & REHN (l.c. p. 129, note 1). OSBECK evidently took the ridges of the posterior molars for separate teeth.

The description of the incisiform teeth is clear. The description of the upper canines gave rise to some confusion, because OSBECK stated that their length was equal to that of the incisiform teeth. Therefore STONE & REHN drew the conclusion that the "large male" from OSBECK's description was in fact the female of the larger species. This conclusion started all the trouble, because it was used as a proof of the occurrence of the larger Mouse-Deer in Java. It becomes clear from OSBECK's description and his narrative that he bought the animals alive from natives at the coast of Udjon Kulon Peninsula, West Java. ¹⁾ It seems utterly impossible that OSBECK could not distinguish a living male from a female! The most plausible solution here seems to be that the canines had been filed down, as is often done with male Mouse-Deer in captivity, because they try to attack both their comrades and their keeper. The fact that the female was smaller than the male can be due to the former not yet being adult. Only the skull of the obvious adult male has been described! STONE & REHN laid stress on the description of the white sideline. They tried to explain this by accepting that OSBECK had only a wrinkled dry skin at hand. But OSBECK himself mentioned that he kept the animals alive and even fed them with young rice shoots! I do not know if STONE & REHN ever saw a Mouse-Deer alive, but in the living animal the white stripes on both sides of the neck are most striking. Nothing has been said in the description about the extension of the stripes.

Concluding I think that the description by OSBECK is applicable to the Smaller Mouse-Deer just as well as to the Larger Mouse-Deer. The type-locality is very well indicated and doubtlessly is Udjon Kulon Peninsula, West Java. So, in my opinion there is no reason at all not to accept the description by OSBECK as valid or as not applying to the Smaller Mouse-Deer found in Java, since this is the only species occurring in that island.

¹⁾ The locality Nieu Bay, given by OSBECK, today is known as Meeuwenbaai and the island mentioned as Nieu-Eyland is now called Meeuwen Eiland or Pulau Peutjang = Mouse-Deer Island! (vide F. VALENTIJN: Beschrijvinge van Groot-Java 4, p. 3, 1726). In 1751 there was a well-known anchorage and watering place here. In later times Governor-General DAENDELS even planned to build a naval base on Meeuwen Eiland. The village where OSBECK bought his animals was called Jankolan. It does not exist any more. I wish to thank Dr A. N. J. THOMASSEN à THUESSINK van der HOOP (Secretary of the Kon. Bat. Genootsch., Batavia) and Prof. Dr W. PH. COOLHAAS (Director Landsarchief, Batavia) for much interesting information on this subject.

In consequence a rather disagreeable change of nomenclature has to be proposed. The Smaller Mouse-Deer should be called *Tragulus javanicus* (OSBECK) 1765 (= *Moschus kanchil* RAFFLES 1821). The race of Smaller Mouse-Deer occurring in Java should be named *Tragulus javanicus javanicus* (OSBECK) (= *Tragulus focalinus* MILLER 1905). The name *kanchil* RAFFLES should be applied to the W. Sumatran race of the Smaller Mouse-Deer. The Larger Mouse-Deer deserves the name *Tragulus napu* F. CUVIER 1822 (= *Tragulus javanicus* auct. nec OSBECK).

I want to avail myself of this opportunity to thank Dr K. G. WINGSTRAND (Lund, Sweden) for his kind assistance in obtaining all information needed about OSBECK's works. Dr WINGSTRAND drew my attention to the fact that LINNÉ did not mention the species described by OSBECK even in the last issue of *Systema Naturae* (1767), which was edited by LINNÉ himself. As he referred to OSBECK's voyage in East India in this paper it seems probable that he had completely rejected the description of *Cervus javanicus*. The reason why he did so is not easy to understand (WINGSTRAND in litt.).
