

Grey colour; body covered with small round black spots, forming several transverse black transversal bands, one below the eye, one in front of the pectorals, and the third behind these; fins of a fine bright yellow; the front of the head is covered with five longitudinal dark lines.

NOTE.—The nasal tentacles are bifid. Like Steindachner, I cannot see any nasal openings. It is certain that this is the species mentioned by that author.

CONTRIBUTIONS TO THE ZOOLOGY OF NEW GUINEA.

PART III.

Description of a *new marsupial* allied to the genus *PERAMELES*, *Geoff.*

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PERAMELES BROADBENTII, *sp. nov.*

Pl. 27.

In. $\frac{5-5}{3-3}$; can. $\frac{1-1}{1-1}$; premol. $\frac{3-3}{3-3}$; mol. $\frac{4-4}{4-4}$.

Mr. Kendall Broadbent was fortunate enough to obtain a single specimen of this fine species, at a considerable distance inland from Port Moresby, in some of the dense mountain scrubs on the banks of the Goldie River. It is, without doubt, the largest species of the genus yet made known, and, although departing somewhat from *Perameles* proper (chiefly in the form of the skull and tail), I prefer, for the present, to keep it in this genus, than to create a new one for its reception. The tail, in which only a few of the vertebræ at the tip have been left, appears to have been, to some extent, prehensile, and, in its peculiar scaly under surface, differs from that of any other species of the genus (*Perameles*).

The hair is comparatively smooth, not so harsh to the touch as in *P. nasuta*; some of the longer black hairs are slightly flattened, stiff, but not spiny, the longest about an inch in length; the under fur is soft and wavy.

The general color is of a blackish brown; the throat, sides, and all the under surface and fore legs, fawn color, a little brighter on

the sides and chest. The head above is of an ashy tint pencilled with blackish hairs; the hairs on the back are dark brown tipped with fawn, and mixed with them are longer hairs of a jet black color slightly stiffer than the rest; the feet are clothed with very short, light brown, or fawn-coloured hair; the hands almost naked; no hair on the fingers; the toes and hind feet are covered with similar short light fawn-coloured hair; there are also a few long straggling hairs on the chest, throat, and under side of the arms of the same colour; the bristles on the snout are long and black. The ears blackish without, light fawn-colour within, almost naked, sparingly clothed with minute fawn-coloured hairs; they are rather small for the size of the animal; the inner margin is rounded at the base, the outer rather straight to the tips, which are slightly rounded; in the hollow of the ear are two transverse naked parallel folds with a narrow deep fissure between them (fig. 2 and 8). Palate with eight transverse ridges; on the outer margin near the base a well defined lateral fold. Feet roughened below with flattish scales. Tail about one-third the length of the body, scaly above, covered with transverse flattish scaly tubercles below, to the very tip, blackish above for about two-thirds of its length, from thence fawn-color to the tip, sparingly clothed with short hair. The snout naked and marked with parallel longitudinal lines at the tip; the median fissure distinct.

Nails on three fingers only; first and fifth finger almost rudimentary, and without nails; on the second and third the nails are well developed, long, pointed, of a light horn color, with the base black. Nails of the hind feet on four toes, horn color, darker at the base, rather short, thick, and strong; those on the conjoined toes curved, and diverging.

Teeth. Incisors $\frac{5-5}{3-3}$, canines $\frac{1-1}{1-1}$, premolars $\frac{3-3}{3-3}$, molars $\frac{4-4}{4-4}$. The third incisor of the lower jaw very much hooked laterally. (Fig. 6, i.)

The last of the premolars, and the third of the molars, are the largest in both jaws. The canines are comparatively small and much worn down.

Measurements from skin preserved in spirits. Adult male:—

Total length from anus to tip of snout, 20 inches; with the tail, 27·9; circumference of tail at base, 1·6; at half an inch from the tip, 0·7; length of hand, 2·1; of the foot, 3·9; radius, 2·9; tibia from malleolus, 4·4; from tip of snout to base of the ear, 4·5; from tip of snout to eye, 2·5.

Skull. Length, 4·5 inches; across zygomatic arches posteriorly 1·7; anteriorly, 1·4; breadth at the base of posterior limb of zygomatic arch, 1·2 in.; breadth opposite centre of arch, 0·55 in.; greatest width between orbit, 0·8 in. Occipital crest very prominent, deeply concave and expanding behind laterally; greatest width posteriorly, 1·2 in.; occipital foramen, height 0·4 in.; greatest width, 0·5 in.; auditory bullæ small (apparently broken away). Nasal bones: length, 2·02 inches, width anteriorly, 0·25, width behind, 0·3. Length of zygomatic arch outside, 1·7; inside, 1·25; width of zygomatic arch inside, 0·5. Height of skull from upper margin of *foramen magnum* to vertex, 0·85; greatest width behind, 1·2; length of anterior palatal suture, 0·4; posterior ditto, 0·5 × 0·2; distance from incisor tooth to posterior margin of the palate, 2·55; distance from 1st incisors to posterior margin of canine, 0·8; to the anterior margin of canine, 0·6; width of canine, 0·2; distance from anterior margin of incisor to posterior margin of last molar, 2·35; from anterior margin of 1st premolar to the posterior margin of 3rd, 0·72; distance from 1st incisor to posterior margin of 5th, 0·5; distance between 5th incisor and canine, 0·09; between canine and 1st premolar, 0·15; between 1st and 2nd premolar, 0·1; between 2nd and 3rd premolars, 0·05; width of 3rd premolar, 0·2; whole range of the premolars, 0·75; range of the four molars, 0·7; width of the canine at base, 0·2; height of the canine, 0·2.

The very exact and carefully drawn figures, so kindly sketched for me by my friend Baron Miklouho Maclay, will give a better idea of the parts than a verbal description.

EXPLANATION OF PLATE.

All the figures (with the exception of fig. 1) are of the natural size.

Fig. 1.—*Perameles broadbentii*, Rams. Ad. ♂ from a photograph of the stuffed specimen in the Australian Museum, Sydney; about one-ninth of the natural size.

Fig. 2.—Head of the same, in profile, from a skin preserved in spirits. The long bristles of the face were somewhat broken at the point, and, on that account, somewhat shorter than in the living state. (After the process of stuffing and drying the length of these hairs is still further reduced).

Fig. 3. End of the snout *from above*.

Fig. 4. End of the head (nose and mouth) *from below*.

Figs. 5, 6, 7. Before the specimen was stuffed the skull was taken out, and replaced by a plaster cast, in order that it might be available for further investigation and comparison. ‡ It has thus become possible to give a correct drawing of the jaws, with the teeth in situ, and of the hard palate, with the characteristic transverse ridges.

Fig. 5. Both jaws in profile.

i. Incisors $\frac{5}{3}$

c. Canines $\frac{1}{1}$

p. Premolars $\frac{3}{3}$

m. Molars $\frac{4}{4}$

Fig. 6. Lower jaw, from above.

Fig. 7. Upper jaw, from below, shewing the characteristic palatal ridges.

Fig. 8. Inner surface of the pinna, somewhat extended by the aid of needles, in order to render visible the two transverse folds.

Fig. 9. Extremity of the tail, from the spirit specimen; the upper surface hairy, the lower with thick transverse epidermal scales.

Figs. 10, 11, 12. Anterior extremity.

Fig. 10. From above.

„ 11. „ the side.

„ 12. „ below.

Figs. 13, 14, 15. Posterior extremity, from above, from the side, and from below.

The small numbers indicate the fingers and toes.

‡ Baron Macleay has kindly undertaken to give, in a future paper, some anatomical details, with remarks on the comparative anatomy of the skull, &c.



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