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XLVII.—On some Australasian Mammals.

By OLDFIELD THOMAS.

The Nomenclature of the Two Bats of New Zealand.

IN 1889*, taking Dobson's synonymies and identifications of the two bats found in New Zealand as correct, I amended, on a purely nomenclatural point, the names he gave to them in his Catalogue, showing that on his data *tuberculatus* was to be used for the *Mystacops* and *morio* for the *Chalinolobus*.

But it has been pointed out to me by my American friends Messrs. Palmer and Miller that there is an earlier work, most pertinent to the subject, not quoted by Dobson at all, and therefore ignored by me, and this upsets the conclusions I came to. Moreover, Dobson's identification of the New Zealand *Chalinolobus* with one from Australia proves to be quite incorrect, the former being perfectly distinct from any occurring on the mainland. This frees the New Zealand bat from the competition of the earliest name of all, *morio*, Gray, 1841 (type locality Tasmania †).

The relations to *C. morio* of the respective owners of the names *microdon*, Tomes, 1859 (South Australia), and *signifer*, Dobson (Queensland), may be left for further material to elucidate, but all three are different from the New Zealand *Chalinolobus*, whose skull has a much longer and heavier muzzle than any of them.

* Ann. & Mag. Nat. Hist. (6) iv. p. 462.

† In Grey's 'Journals of Expeditions,' Appendix, ii. p. 405. The confusion in Gray's account of his three species of "*Scotophilus*" (*S. morio*, *Gouldi*, and *australis*) is very great and almost defies elucidation, though the fault may have been as much the printer's as the author's. Among other things the measurements given as those of *S. morio* are evidently those properly belonging to *S. Gouldi*. As a preliminary step towards clearing the matter up, I have gone carefully over the specimens which were before Gray at the time, over his notes in the registers and in his MS. list of bats, the basis of the published list of 1843. In this way I have identified no. 37. 4. 8. 118 ("90. a") (Dobson's *Chalinolobus tuberculatus*, *e*, not *f* as he stated), from Tasmania, coll. Sir W. J. Hooker, as the type of *S. morio*, while no. 41. 1516 ("118. a") *e* of Dobson's *C. Gouldi* should be taken as the type of the latter species. It was from Launceston, Tasmania, Gould collection, not, as Dobson says, from Lieut. A. Smith, whose specimens came in twenty years later.

Dobson's "R. Maitland, Esq.," the donor of specimen *h*, also proves to be the River Maitland, New South Wales, its locality.

I can identify no individual type of *S. australis*, which is, however, evidently a synonym of *morio*.

The point about the double usage of the name *tuberculatus* has hitherto been that, as Forster's description of the *Chalinolobus* was not published till 1844, Gray's description of the *Mystacops* in 1843 (Voy. 'Sulphur,' Mamm. p. 23) had absolute priority, whether he thought it was Forster's *tuberculatus* or not.

But in the work to which my attention has been drawn, Dieffenbach's 'New Zealand,' 1843, Gray, by publishing in the Appendix (ii. p. 181) five words of description of Forster's plate, then unpublished, not only cut him out with regard to the *Chalinolobus*, but invalidated his own *tuberculatus* for the *Mystacops*, which he first used on p. 296 of the same work, distinctly stating his opinion that it was the same bat. As a result, *tuberculatus* being invalidated for the *Mystacops*, Hutton's *velutinus* will come into force, and the names and chief synonymy of the two species will be as follows:—

Chalinolobus tuberculatus, Gray.

Short-eared Bat.

Vespertilio tuberculatus, Gray (ex Forst.), Dieffenb. N. Zealand, ii. p. 181 (1843); Forst. Descr. Anim. (ed. Licht.) p. 62 (1814).

Scotophilus tuberculatus, Tomes, P. Z. S. 1857, p. 135; Hutton, Trans. N. Z. Inst. iv. p. 185 (1871).

Chalinolobus tuberculatus, Peters, MB. Ak. Berl. 1866, p. 680, and 1867, p. 480; Dobson, Cat. Chir. B. M. p. 248 (1878) (the New Zealand specimens only).

Chalinolobus morio, Theob. Ann. & Mag. Nat. Hist. (6) iv. p. 462 (1839) (in part.).

Mystacops velutinus, Hutton.

Long-eared Bat.

Mystacina tuberculata, Gray, Dieffenb. N. Zealand, ii. p. 296 (1843), nec *Vespertilio tuberculatus*, id. tom. cit. p. 181; Dobs., Cat. Chir. B. M. p. 442 (1878).

Mystacina velutina, Hutton, Tr. N. Z. Inst. iv. p. 185 (1871).

Mystacops tuberculatus, Lydekker, in Flow. & Lyd. Mamm. p. 671 (1891).

Dobsonia magna, sp. n.

Similar in all essential respects to *D. paliata*, Geoff.*, but very much larger, the skull especially being conspicuously larger in all dimensions.

* *Cephalotes Peronii*, Dobs. et nuct. nl.

Colour about as in *D. paliata*, the head similarly dark bistre-brown and the nape drab-brown; under surface dull isabella-brown. Back more entirely naked than usual, absolutely hairless everywhere except just over the base of the tail.

Skull very similar in its proportions to that of *D. paliata*, but very much larger, the difference corresponding with that found in *Nyctymene aello* as compared with *N. major*, while Dobson's *Dobsonia minor* may similarly rank with the smallest species, *Nyctymene cephalotes*, of the allied genus. These differences may best be seen by the dimensions given below. Teeth on the whole broader in proportion to their length than in *D. paliata*, but there is a good deal of variation in this respect in the latter species.

Measurements of the type (those marked with an asterisk taken by the collector in the flesh):—

Forearm 145 mm.

Head and body 200 *; tail 26 *; ear 27 *. Third finger: metacarpus 93, first phalanx 68, second phalanx 103; fifth finger 188. Lower leg and foot (c. u.) 107.

Skull (measures in brackets those of an adult male skull from Sumba): greatest length 62 (51); basal length 55·5 (46); muzzle, from tip of nasals to hinder side of postorbital processes 28·5 (22·5); interorbital breadth 10·7 (9·8); intertemporal breadth 9 (8·3); palate length in middle line 29 (23); front of canine to back of *m*² 26·5 (21·5); length of canine on hinder edge from cingulum 8·8 (5·2). Lower jaw, condyle to front of canines 50 (40); front of canines to back of *m*₃ 28 (22·5).

Hab. Tamata, Northern British New Guinea, near German frontier. Alt. 100 feet.

Type. Male. Original number 65. Collected 9th September, 1904, by W. Stalker.

Dr. Matschie considers the members of this genus so variable in size that he unites them all in one species, even including the little *D. minor*, Dobs. But none of the dimensions he gives at all approach those of this Papuan example, and a comparison of the skulls shows such an immense disproportion between it and those representing true *D. paliata*, that it seems necessary to separate it.

No other species has been described from this part of the Papuan region.

Petrogale lateralis Hacketti, subsp. n.

Closely similar to true *P. lateralis* in external and cranial characters, including both colour and pattern of markings, but larger and with larger teeth, especially with larger anterior premolar or "secator" * (p^4 of the Catalogue of Marsupials).

Dimensions of the type (measured in skin) :—

Head and body 660 mm.; tail 540; hind foot (s. u.) 139; ear 55.

Skull: greatest length 107; basal length 93; greatest breadth 50; front of orbit to back of skull 62; nasals, length 47, greatest breadth 14.3; interorbital breadth 18.3; diastema 20; palatal foramen 8; large secant premolar 8.3 × 4.1; combined length of three anterior molariform teeth 18.5.

Hab. Mondrain Island, off the coast of S.E. Western Australia.

Type. Adult male. B.M. no. 5. 4. 1. 5. Original number 7161. Collected 1st November, 1904, by J. T. Tunney. Presented by the Western Australian Museum, Perth. Fourteen specimens examined.

While in colour and other external characters I can find no difference between the Mondrain-Island rock-wallabies and the typical specimens of *P. lateralis* described and figured by Gould, there is so marked a distinction in the size of the skulls and teeth, especially of the large secant premolar, that it is clear that the former cannot be referred to Gould's animal.

Among five skulls of *P. lateralis* none exceed 95 mm. in total length, the front of the orbit about 56 mm. from the back of the skull, and the upper secator 6.8 mm. in length by 3.1 mm. in breadth, the tooth markedly narrowing forwards, while in *Hacketti* it is a long and comparatively broad oval, nearly as broad in front as behind. Below, the

* This tooth, the most important for systematic work in the Marsupials, might conveniently be called the "secator," thus avoiding altogether the confusing question of its serial homology. It is the " P^1 " of the Catalogue of Marsupials, but is now more usually believed to be homologous with p^3 , or, more probably, mp^3 , of Placental mammals. This change of opinion, even if it were accepted universally—and the question is still under discussion,—renders the use of a numerical symbol exceedingly inconvenient for ordinary systematic descriptions; and it is hoped that a special name for the tooth will be of as much value to workers on marsupials as "carnassial" has proved to writers on Carnivora.

corresponding tooth is also conspicuously broader and heavier in *Hacketti* than in true *lateralis*.

I think it probable that *P. l. Hacketti* is not a true insular form, but that it will be found to occur in suitable localities on the mainland of S.E. West Australia, diminishing in size and strength of dentition northwards.

In accordance with a suggestion of Mr. B. H. Woodward's, I have named this handsome rock-wallaby in honour of Dr. Hackett, Chairman of the Western Australian Museum Committee.

Thalacomys $\mp$ *sagitta*, sp. n.

In the Catalogue of Marsupials all the specimens of *Thalacomys*—there called *Peragale*—were referred to a single species, *Th. lagotis*, without distinction between the West-Australian and South-Australian examples. But the recent presentation of a fine specimen from South Australia by Mr. Hillier has drawn my attention to the fact that the form found in that district is so considerably smaller than the West-Australian one that the two ought certainly to be separated. The difference is mainly in the skulls, and may be readily appreciated by comparing the measurements given below of the South-Australian animal with those of the typical West-Australian form published in the Catalogue.

Externally, apart from the corresponding difference in size, there is little to distinguish the two forms. On the whole *Th. sagitta* is a little paler in tone, the black band on the tail is slightly shorter, being shorter instead of longer than the white end, and the feet are paler below, the black only extending about a third of their length underneath the heel.

Dimensions in the flesh (measured by Mr. Hillier):—

Head and body 316 mm.; tail 215; hind foot 91; ear 79.

Skull: greatest length 85; basal length 76.5; greatest breadth 38; nasals, length 40, greatest breadth 7.5; inter-temporal breadth 13; palate length 50; basicranial axis 22.5; basifacial axis 54; front of canine to back of last molar 36; combined length of three anterior molariform teeth 12.5.

Hab. South Australia. Type from Killalpanima, east of Lake Eyre.

Type. Adult male. B.M. no. 3. 5. 21. 2. Collected 6th April, 1903, and presented by H. J. Hillier, Esq.

• Cf. Ann. & Mag. Nat. Hist. (7) v. p. 223 (1900).

Five skulls of this species are in the Museum collection all of practically the same dimensions, while two from West Australia are both of the larger size indicated by the Catalogue measurements.

Th. sagitta is clearly the "common species or 'Urgarta,' *Peragale lagotis*," of Prof. Baldwin Spencer's description * of a new species of this genus from Central Australia, *Th. minor*, which he distinguishes, no doubt rightly, by its still smaller dimensions and its different habits.

Mr. Hillier gives the local name for this animal, as used by the Diari natives, as "Kapita."

Phascogale Hillieri, sp. n.

Near *Ph. cristicauda*, but conspicuously paler in colour throughout.

Size about as in *Ph. cristicauda*. Fur soft and fine; hairs of back about 9 mm. in length. General colour above a beautiful soft drab-colour, similar to but decidedly paler than Ridgway's "ceru-drab"; a few fine longer hairs black, contrasting curiously with the general pale colour. Sides more whitish drab, passing without sharp line of demarcation into the pure white under surface, on which region, from chin to anus, the hairs are pure white to their bases. Top of head like back, but rather more fawn. Cheeks and lips pure white. Ears thinly clothed with whitish hairs, an inconspicuous whitish patch behind their posterior bases. Upper surface of hands and feet snowy white; structure of feet apparently as in *Ph. cristicauda*. Tail slightly incrassated basally; crested above for its terminal two inches, the hairs attaining a length of 16 mm.; nothing that can be called a crest below, though some of the hairs towards the end are slightly longer than on the proximal part. In colour the main part of the tail is rather more rufous than the general body-colour, though nothing like the corresponding part in *Ph. cristicauda*; under surface indistinctly darker, not black; crest glossy black.

Skull unfortunately lost.

Dimensions of the type (measured in the flesh):—

Head and body 150 mm.; tail 100; hind foot 30; ear 27.

Hab. Killalpanima, Lake Eyre East, South Australia.

Type. Male. B.M. no. 5. 3. 28. 1. Collected 13th February, 1905, and presented by H. J. Hillier, Esq.

* P. Roy. Soc. Victoria, ix. p. 6, pl. ii. (1897).

This beautiful *Phascogale* differs so conspicuously from the *Ph. cristicauda*, Kufft, as identified by Baldwin Spencer after comparison with the type, that I have no alternative but to describe it as distinct, though I have little doubt that its skull will show it to be closely allied to that animal. I have much pleasure in naming it after its donor, to whom the National Museum owes a number of interesting specimens from the same locality.

XLVIII.—*Notes on the Distribution of some Species of Terrestrial Isopoda introduced into Australasia.* By CHARLES CHILTON, M.A., D.Sc., F.L.S., Professor of Biology, Canterbury Collège, New Zealand.

IN this short paper I give a few notes on the distribution, so far as it is at present known, of some species of terrestrial Isopoda that appear to have been introduced into Australasia, most probably by the unconscious action of man. I have already pointed out elsewhere* that the terrestrial Isopoda are well worthy of study from the point of view of the geographical distribution of animals, and it is therefore desirable to place on record any facts illustrating the spread of different species at the present time. Two or three of the species introduced into Australasia have been described as new local species, and until these are reduced to the rank of synonyms lists of the species inhabiting any part of Australasia are apt to be misleading.

Only references necessary for workers in Australasia have been given; full references and synonyms can be found in the works by Dr. Budde-Lund and Professor G. O. Sars.

My collections from Australia are as yet rather meagre, but Messrs. Helms and Sayce have sent me specimens from various localities in New South Wales and Victoria, and Messrs. W. and R. M. Laing from Norfolk Island. To these gentlemen my thanks are due, and also to Monsieur V. Bouge, who has taken considerable trouble to send me specimens from New Caledonia.

* See Trans. Linn. Soc. ser. 2, Zool. viii. p. 100; and 'New Zealand Journal of Science,' ii. (1884) p. 155.