This article was downloaded by: [University of Oklahoma Libraries]
On: 17 January 2015, At: 22:07
Publisher: Taylor & Francis
Informa Ltd Registered in England and Wales Registered Number:
1072954 Registered office: Mortimer House, 37-41 Mortimer Street,
London W1T 3JH, UK

Annals and Magazine of Natural History: Series 8

Publication details, including instructions for authors and subscription information:
<http://www.tandfonline.com/loi/tnah14>

VIII.—On some rare Amazonian mammals from the collection of the Para Museum

Oldfield Thomas

Published online: 08 Sep 2009.

To cite this article: Oldfield Thomas (1913) VIII.—On some rare Amazonian mammals from the collection of the Para Museum , Annals and Magazine of Natural History: Series 8, 11:61, 130-136, DOI: [10.1080/00222931308693297](https://doi.org/10.1080/00222931308693297)

To link to this article: <http://dx.doi.org/10.1080/00222931308693297>

PLEASE SCROLL DOWN FOR ARTICLE

Taylor & Francis makes every effort to ensure the accuracy of all the information (the "Content") contained in the publications on our platform. However, Taylor & Francis, our agents, and our licensors make no representations or warranties whatsoever as to the accuracy, completeness, or suitability for any purpose of the Content. Any opinions and views expressed in this publication are the opinions and views of the authors, and are not the views of or endorsed by Taylor & Francis. The accuracy of the Content should not be relied upon and should be independently verified with primary sources of information. Taylor and Francis shall not be liable for any losses, actions, claims, proceedings, demands, costs, expenses, damages, and other liabilities whatsoever or howsoever caused arising directly

or indirectly in connection with, in relation to or arising out of the use of the Content.

This article may be used for research, teaching, and private study purposes. Any substantial or systematic reproduction, redistribution, reselling, loan, sub-licensing, systematic supply, or distribution in any form to anyone is expressly forbidden. Terms & Conditions of access and use can be found at <http://www.tandfonline.com/page/terms-and-conditions>

- Fig. 6.* Funnel of the foregoing viewed laterally.
Fig. 7. Internal aspect of the same. Enlarged under a lens.
Fig. 8. Lateral aspect of the anterior end of *Nicomache lumbricalis* from the 'Valorous' Expedition to Greenland in 1875.
Fig. 9. Anterior end of *Pravillella gracilis*, with protruded proboscis, from Canada. Enlarged.

PLATE III.

- Fig. 1.* Bristle of the first foot of *Maldane sarsi*. × Zeiss oc. 2, obj. D.
Fig. 2. Winged bristle of the second foot with peculiar curvature. × Zeiss oc. 4, obj. D.
Fig. 3. Spiked bristle of the same annelid. × Zeiss oc. 2, obj. D, with draw-tube.
Fig. 4. Hook of the foregoing. × Zeiss oc. 2, obj. D.
Fig. 5. Hook of *Heterochymene robusta*. Norway. × Zeiss oc. 4, obj. D.
Fig. 6. Hook of *Nicomache*? *canadensis*. × Zeiss oc. 2, obj. A.
Fig. 7. Hook of the first bristled segment of *Pravillella collaris*. × Zeiss oc. 2, obj. D, with draw-tube.
Fig. 8. Typical hook of the foregoing (no gular bristles). × Zeiss oc. 4, obj. D, with draw-tube.
Fig. 9. Spine from the third segment of *Nicomache*? *canadensis*. × about 30 diam.
Fig. 10. Bristle from the second foot of the same form. × Zeiss oc. 4, obj. D.

VIII.—On some rare Amazonian Mammals from the
 Collection of the Para Museum. By OLDFIELD THOMAS.

(Published by permission of the Trustees of the British Museum.)

By the kindness of the authorities of the Para Museum I have again been permitted to examine some rare mammals which have come into the possession of that institution either from their collectors or from the Para Zoological Gardens, which are kept in conjunction with the Museum.

Notable among these latter is the truly remarkable form, intermediate between the monkeys and marmosets, described as *Callimico snethlagerei* by Ribeiro, and referred to below under the heading of *Callimico goeldii*.

The new genus of bats—*Cyttarops*—is also a most interesting discovery.

1. *Callicebus remulus*, Thos.

♂. 1. Cussary, south bank of Amazon between mouths of Xingu and Tapajoz. Coll. O. Martins.

network which not only extends throughout the ventral part of the medullary parenchyme, but also penetrates on to the dorsal side. The dorsal longitudinal vessels are not in direct communication, like the ventral vessels, with this system, but, if connected with it at all, are only indirectly so connected (v. Janicki, 1910, p. 394). In *Inermicapsifer hyracis* (which is removed by Dr. Beddard to *Zschokkeella*) there is, according to v. Janicki's account (1910, p. 378), an indirect connection of this kind between the dorsal vessels and the capillary network, and also a very slender vessel running parallel with and external to each main dorsal vessel, and connected with it at frequent intervals by little cross-vessels like the rungs of a ladder (1910, pl. xiii. fig. 16).

Von Janicki's figures of the excretory network in this species do not give the impression of a series of almost regular longitudinal vessels, connected by a single transverse vessel for each segment, as observed in the species which forms the subject of this paper. On the contrary, the vessels composing the network in *Z. hyracis* seem to be much more numerous and irregular.

In my species there is no distinct pair of ventral longitudinal vessels of large diameter. The capillary network, which appears to take their place, extends into the middle of the medullary parenchyme, but the dorsal vessels are situated at the extreme dorsal limit of the latter, and are, I believe, entirely distinct from the network. I have not observed any appearance resembling the ladder-like structure described for *Z. hyracis*, nor even any lateral offshoots whatever from the dorsal vessels.

Taking into consideration all the above-mentioned morphological points, I have decided to place the present species in the genus *Zschokkeella*. It may be defined as follows:—

Zschokkeella muricola, sp. n.

Length 9–12 cm. Breadth 3·5 mm. Number of segments 230. Scolex wider than neck. Segments all broader than long. The excretory system consists of a distinct pair of dorsal longitudinal vessels and a ventral network arranged on a regular plan, with a transverse vessel in each segment. Genital organs begin to appear in the neck before the segments become clearly defined. Genital pores unilateral, on the left side, near the anterior end of the proglottids; not situated on a prominent papilla. No genital cloaca. Testes in two unequal groups, the larger group on the side remote from the genital

teeth in each jaw, exactly as in the Cebidæ, while the invariable formula of the Callitrichidæ is PM. $\frac{3}{3}$, M. $\frac{2}{2}$.

In its general shape the skull resembles that of a small *Saimiri*, the brain-case being high and rounded and the upper profile, from tip of nasals to occiput, evenly convex, with no resemblance to the flattened forehead and prominent brow-ridges of the marmosets. The orbits are not as slanting as in *Saimiri*, more so than in *Callithrix*. Malar part of zygoma broadly expanded vertically. Anterior part of base of skull deeply concave between the pterygoids, with a narrow mesial septum. Pterygoids shaped quite as in marmosets, the ectopterygoid not so broadened as in most Cebidæ. Lower jaw with the well-marked chin and comparatively vertical incisors of the Cebidæ instead of the slanted symphysis and incisors of the marmosets. Coronoid and condylar processes nearer together than in either of the related forms.

Molars, although less narrow, essentially of the triangular type of those of marmosets, the internal cingulum well developed, but with no distinct hypocone, the development of this cusp being what causes the characteristic square form of the molars of the Cebidæ and other monkeys, including man. In *Saimiri* the cusp is less developed than in other Cebidæ, but is nevertheless always present. Lower incisors and canines of normal relative proportions, not specialized as in the genus *Callithrix*.

Callimico thus proves to be almost exactly intermediate between the otherwise well-defined families Cebidæ and Callitrichidæ, and it is quite a doubtful question as to which of them it should be referred to. On the whole, in spite of its marmoset-like claws and the structure of its molars, I am inclined to place it with the Cebidæ, of which it would form a special subfamily.

We should thus get the following arrangement of the New-World monkeys:—

A. Molars $\frac{3}{3}$. Skull rounded, forehead not flattened.	Fam. Cebidæ.
a. Molars with hypocones. Digits with shortened nails (often compressed)	Subfam. Cebinæ.
b. Molars triangular, without hypocones. Digits with long claws	Subfam. Callimiconinæ.
B. Molars $\frac{2}{2}$. Skull with flattened forehead. Molars triangular, without hypocones. Digits with long claws	Fam. Callitrichidæ.

It is to be noted that the difference in structure between molars with hypocones and those without is not so abrupt as

it sounds, for there is almost a perfect series of gradations from (1) the marmosets, which have no trace of hypocones, through (2) *Callimico*, which has a slight rise in the cingulum that might be called a potential hypocone, to (3) *Saimiri*, which has small and simple hypocones, and is itself again separated from (4) *Callicebus* and other monkeys which have complicated square molars with large hypocones and connecting commissures.

3. *Centronycteris maximiliani*, Fisch.

♀. Utingu, near Para.

This is the first example of the typical Brazilian *C. maximiliani* (*Vespertilio calcarata*, Wied, nec Raf.; *C. wiedi*, Palmer) which I have had the opportunity of examining, as the only specimen of *Centronycteris* that the British Museum possessed, one from Panama, now proves to be separable (see 'Annals,' December 1912, p. 638).

Members of the genus *Centronycteris* seem to be exceedingly rare in collections, Wied's type from Espirito Santo, a female from Peru in Berlin, and the above-mentioned specimens from Para and Panama being the only ones of which I can find any record.

4. *Cormura brevirostris*, Wagn.

Myropteryx pullus, Miller.

♂. 4; ♀. 5. Ananindena, near Para.

I am not prepared to accept Mr. Miller's separation * of the Surinam bats collected by Kappler from Wagner's *Cormura brevirostris*, to which Peters, the author of the genus *Cormura*, himself referred them.

By the great kindness of the authorities of the Berlin and Vienna Museums I have been allowed to examine (1) two (adult and immature) of the four specimens from Surinam typical of *Myropteryx pullus*; (2) the original type of *Cormura brevirostris*, unfortunately now without skull; and (3) the specimen from Baraneiva, Matto Grosso, referred by Miller also to his *Myropteryx pullus*.

Although the loss of the skull of the type of *Cormura brevirostris* makes it impossible to be absolutely certain in the matter, I have come to the conclusion that, at least for the present, these various specimens should all be referred to a single form.

Miller's chief reason for distinguishing *Myropteryx* was its

* P. Biol. Soc. Wash. xix. p. 59 (1906).

asserted want of a hypocone to the molars; but although the hypocone is low it appears to me fully as much developed as it is in many specimens of *Peropteryx*, or, if it is smaller, the difference is only in degree and not in kind. Perhaps Mr. Miller's examination was made before the skulls were as completely cleaned as is now the case.

The only difference between *Myropteryx* and *Cormura* that might result in the resuscitation of the former is in the shape of the posterior palate, a point in which none of the specimens I have seen really agree with Peters's plate of *Cormura*. But the slightest damage to the most delicate part of the tiny skull, or even insufficient cleaning and consequent inexact drawing*, might have resulted in such a figure as is published by Peters, and I am therefore not prepared to consider this point as of sufficient importance to counterbalance the other evidences of identity.

A specimen of this same bat was obtained on the Rio Inambari, Peru, by the late P. O. Simons, and two others at Para by A. Robert.

While all the adult specimens of this bat have no basisphenoid septum, as figured by Peters, it is worthy of remark that the immature example received from Berlin has a well-marked septum. Whether this is due to youth or is an individual abnormality I am not at present able to say.

5. *Cyttarops alecto*, gen. et sp. nn.

♂. 10. Mocajatuba, near Para, 10th May, 1912. Coll. F. Lima. B.M. no. 12. 11. 4. 5. *Type*.
 "Caught in garden."

CYTTAROPS, gen. nov. (*Emballonuridæ*—*Diclidurinae*.)

Colour normal. Tail without terminal modification, its tip just projecting on the upper surface of the interfemoral. Skull not so highly modified as in *Diclidurus*, the muzzle not bent upwards; a frontal cup present, but its boundaries and the junction of its floor and walls less sharply angular. Slender postorbital processes present. Palate ending opposite last molar. Basisphenoid pit barely defined, practically continuous with roof of mesopterygoid fossa, not divided by a mesial septum. Tibia grooved on plantar aspect, as in *Diclidurus*.

Dentition practically as in *Diclidurus*. Canines without, but incisors with, a supplementary terminal posterior cusp.

* Possibly worked up from a specimen of *Peropteryx*.

Posterior lower premolar * contracted antero-posteriorly, the two premolars crushed between the canine and first molar.

Type :—

Cyttarops alecto, sp. n.

General appearance that of a medium-sized *Saccopteryx* or *Peropteryx*.

Fur rather long, thin and loose; hairs of back about 6 mm. in length. Colour above and below uniform dull smoky grey, a little browner than Ridgway's "mouse-grey"; the bases of the hairs inconspicuously paler than the tips on the fore-back, darker on the hind-back. Membranes naked, except that the median proximal portion of the interfemoral is more or less hairy. Ears of medium length, broadly rounded, a hair-covered ridge running up the thin anterior surface to the tip, cutting off their anterior third; front edge strongly convex, tip rounded, outer margin convex. Tragus very remarkable in shape, its inner edge of medium length, straight, inner terminal corner angular, outer rounded; lower half of outer margin occupied by a proportionally enormous angular lobe, no such lobe being known in any other bat, the most similar being that on the inner side of the tragus in *Megaderma*. Wings to the outer side of the tarsus. Calcar long, without postcalcareal lobule.

Skull and teeth as defined above.

Dimensions of the type (the starred measurements taken in the flesh by the collector) :—

Forearm 46 mm.

Head and body *50; tail *20; hind foot *8; ear 10; tragus on inner edge 2·8; third finger, metacarpal 4·5, first phalanx 9·5; lower leg and foot (c. u.) 27; calcar 15.

Skull: greatest length 12·6; basi-sinual length 10·1; zygomatic breadth 8; interorbital breadth 4·5; length of postorbital process 2·5; intertemporal breadth 3·7; breadth of brain-case 7; height of brain-case from between bullæ 5·6; palato-sinual length 3·1; breadth between outer corners of m^2 6; front of canine to back of m^3 5·5.

Hab. of type as above. Another specimen from British Guiana.

This bat forms a most remarkable and interesting discovery, owing to its relationship to the aberrant *Diclidurus*, which it tends to connect with the ordinary members of the Emballonuridæ. In appearance it is just like an average sac-wing

* This tooth is peculiarly abnormal on both sides in the type, the above description being based on Mr. McConnell's specimen.

bat, such as *Peropteryx*, but closer study shows that it is unquestionably related to *Diclidurus*, with which it shares the peculiar frontal cup and grooved tibia. I have been able to find no trace of an antebrachial sac, nor of any caudal modification, but spirit-specimens will be necessary before the absence of these or other analogous characters can be verified.

The first discovery of this bat is to be credited to Mr. F. V. McConnell, who presented in 1908 an example obtained on the Mazaruni River, British Guiana, by his collector Cozier. Owing, however, to the specimen being an imperfect skin, with just the front of the jaws dried in it, it was put away in the collection as a "*Saccopteryx*," to some members of which group *Cyttarops* has so strong a resemblance.

Imperfect as it is, this specimen, which was recognized by the unique shape of its tragus, has, however, now been useful in checking some of the characters observed in the Para example, and notably in its indication that the lower premolars of the latter are abnormal in structure.

It is to be noticed that in his description of "*Vespertilio caninus*" Wied states that "Der Schadel hat zwischen den Augen einen tiefen Eindruck," which suggests the frontal cup of *Cyttarops*. But, besides the fact that Peters examined the type, the figure of the tragus in the 'Abbildungen' is sufficient to prove that Wied's bat was really a *Peropteryx*.

6. *Holochilus nanus*, Thos.

♀. Para.

This rare dwarf species of *Holochilus* was described in 1897 on a specimen from the island of Marajó sent to me by Dr. Goeldi.

IX.—*On small Mammals collected in Jujuy by Señor E. Budin.* By OLDFIELD THOMAS.

(Published by permission of the Trustees of the British Museum.)

By the kind assistance of the Hon. N. Charles Rothschild, the British Museum has received as a donation a collection of small mammals made by Señor E. Budin during March and April 1912 in Central Jujuy, North Argentina, a region from which but few mammals had previously been obtained.

Unfortunately Señor Budin's notes on the localities have