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## RESULTS OF THE ARCHBOLD EXPEDITIONS. NO. 46

### A NEW GENUS AND SPECIES OF FRUIT BATS, ALLIED TO *NYCTIMENE*

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In going over the extensive collections of *Nyctimene celaeno* and *N. papuanus* obtained by the Archbold Expedition to the Fly River, western Papua, my attention was drawn by a specimen of *Nyctimene*-like appearance and with similar tubular nostrils, which was both decidedly smaller in size than *papuanus* and lacked all trace of the dorsal stripe on the skin.

Examination of the skull of this animal showed peculiarities of dentition so remarkable that it seemed needful to segregate the bat generically.

*Nyctimene*, represented in the Indo-Australian fauna by approximately thirteen forms, is an isolated and in many ways highly specialized genus remotely allied to *Cynopterus*. As shown in Andersen's key<sup>1</sup> the characters separating its species from each other are relatively slight. It is of great interest therefore to note the existence of a second genus belonging to a group which Miller<sup>2</sup> elevated to subfamily rank.

#### PARANYCTIMENE, NEW GENUS

Distinguished from *Nyctimene* by the extreme height and slenderness of the upper and lower canines and premolars, by elongation of the post-dental palate, and by the absence of the dorsal stripe.

The canines, both upper and lower, are exceptionally long, slender and dagger-like with apparently highly developed grappling or seizing function. The lower canines are in contact with each other, and as in *Nyctimene* the lower incisors are absent. The upper and lower first premolars are smaller proportionally than in *Nyctimene*. The third and fourth premolars, upper and lower, have high compound blades whose function no doubt supplements that of the canines. In  $p^{3-4}$  the blades are compounded of two cusps, a shorter inner and a longer outer cusp, apparently homologous with those of *Nyctimene*. The pos-

terior part of each tooth by contrast remains a low talon at the level of the cingulum. In the lower jaw each blade of  $p_{2-4}$  results from the association anteriorly of three cusps, a high extero-anterior cusp, a slightly lower (weak) extero-posterior cusp and a still lower intero-posterior cusp. These are the homologues of low diffuse cusps seen in *Nyctimene*. The posterior moiety of each tooth is preserved as a broad flat talonid at the level of the cingulum. The anterior true lower molar, though not so tall, is developed in almost identical fashion to  $p_4$ . The second lower molar lacks elevated cusps. Its surface area is very much less than the surface area of  $m_1$  (compare *N. cyclotis* and *N. draconilla*). Both upper first molars are lost from our unique specimen, but the alveoli show that the teeth were 2-rooted.

#### *Paranyctimene raptor*, new species

TYPE.—No. 105165, Amer. Mus. Nat. Hist.; ♀ ad.; Oroville Camp, Fly River (about four miles below mouth of Elevala River), Papua; August 11, 1936; collector, G. H. H. Tate. The type is a skin with skull in fair condition (some teeth lost).

GENERAL CHARACTERS.—Very similar to small *Nyctimene* such as *minutus* and *draconilla* but with the dorsal stripe completely suppressed (or undeveloped?).

DESCRIPTION OF TYPE.—Skin dorsally grayish brown, with paler gray bases, darker on the nape, sides and rump, where the color taken as a whole resembles Bister.<sup>3</sup> Face pale brownish gray. Underparts dull, yellowish buff near Clay Color, the sides and the pelage of the humeri darkening to Tawny Olive. An area of skin on the throat, relatively hairless, appears to be glandular.

The tubular nostrils and yellowish-spotted ears and membranes agree closely with those of *Nyctimene*. The wing is attached to the second pedal digit.

MEASUREMENTS.—Head and body, 79 mm.<sup>4</sup>; tail, 132; hind foot (s.u.), 102; height of ear above crown (dry), 11; forearm, 47. Skull: lambda to gnathion, 24.4; rostrum, orbit to nares, 4.4; zygomatic width, 16.0; interorbital width, 4.6; width braincase, 10.5; palatal

<sup>1</sup> 1912, Cat. Chiroptera Brit. Mus., 2nd ed., pp. 696-697.

<sup>2</sup> Miller, 1907, Bull. U. S. Nat. Mus., LVII, p. 45.

<sup>3</sup> Colors printed in capitals are those of Ridgway, 1912, Color Standards and Nomenclature.

<sup>4</sup> Measured in flesh.

length, 12.0;  $c-m^1$  (alveoli), 8.0; length of upper canine from alveolus, 4.7; width of upper canine at cingulum, 1.3; cingulum length of  $p^3$ , 1.6; height of  $p^3$  above alveolus, 2.2; cingulum length of  $p^4$ , 1.6; height of  $p^4$  above alveolus, 1.8; height of lower canine above alveolus, 3.7; width of lower canine at cingulum, 1.3; height of  $p_3$  above alveolus, 2.6; cingulum length of  $p_3$ , 1.6; height  $p_4$  above alveolus, 2.0; cingulum length of  $p_4$ , 1.6; height  $m_1$  above alveolus, 1.7; cingulum length of  $m_1$ , 1.6; height  $m_2$  above alveolus, 0.7; crown area of  $m_2$ , 1.0 by 0.9. In  $p_3$  heights of cusps above alveolus are, respectively, 2.6, 2.3, 2.0; height of talonid of  $p_3$  above alveolus, 0.7.

*Paranyctimene raptor* will bear closer comparison with *Nyctimene draconilla*. The forearm lengths are the same. In a rather poor photograph of the type of *draconilla* the premolar blades appear a little higher than in other species of *Nyctimene*, and  $\frac{m^1}{m^2}$  are both notably smaller

than the teeth immediately anterior to them. *Draconilla*, from Lorentz River, southwest Netherlands New Guinea, was described as having the dorsal stripe "just perceptible on the nape, its posterior half narrow and fairly well defined." As stated, no dorsal stripe is visible in *raptor*. Despite these points and the more massive canines (visible in my picture of *draconilla*), it is possible that the male type specimen of *draconilla* is old and its canines and premolars have been worn down, making their description impossible. If such can be demonstrated, *draconilla* may later be referred as a second form of *Paranyctimene* instead of to *Nyctimene*.

The type of *Paranyctimene raptor* was an adult, carrying with it a nursing young one. We have no other specimens.



