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## BATS FROM THE PACIFIC ISLANDS, INCLUDING A NEW FRUIT BAT FROM GUAM

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Since Sanborn<sup>1</sup> published his paper on Pacific Island bats, a number of additional specimens of Chiroptera have been received at the American Museum, chiefly from the Whitney South Sea Expedition. The present paper deals only with those from deep-sea islands outside the New Guinea-Solomon Islands area. The latter region will be handled separately.

Although the collections now to be reported upon comprise only a few more than thirty specimens, they include two specimens of an apparently new species.

#### **Pteropus ualanus** Peters

Pteropus ualanus PETERS, 1883, Sitzungsber. Ges. Naturf. Freunde, p. 1.

Caroline Islands (east): Kusaie (=Ualan) Island (A. M. N. H. Nos. 87181–87184), 3 males, 1 female. Nos. 87181–87182 without skulls.

### Pteropus mariannus Desmarest

Pteropus mariannus DESMAREST, 1822, 'Mammalogie ou Description des Espèces de Mammifères,' II, Suppl., p. 547.

Marianne Islands: Guam (A. M. N. H. Nos. 87113-87116, 87119), 1 male, 4 females. No. 87119 without skull.

#### Pteropus pelewensis K. Andersen

Pteropus pelewensis K. ANDERSEN, 1908, Ann. Mag. Nat. Hist., (8) II, p. 364.

Caroline Islands (west): Pelew (=Palau) Island (A. M. N. H. Nos. 87204-87209), two males, 4 females.

#### Pteropus molossinus Temminck

Pteropus molossinus TEMMINCK, 1853, 'Esquisses Zool.,' p. 62.

Caroline Islands: Ponape (A. M. N. H. Nos. 87166-87180), 7 males, 8 females.

#### Pteropus tokudae, new species

TYPE.—No. 87117, Amer. Mus. Nat. Hist.; 3<sup>a</sup> ad.; Guam, Marianne Islands; August 10, 1931; collector, W. F. Coultas; Whitney South Sea Expedition. Skin and skull in good condition.

Sanborn, C. C. 1931, 'Bats from Polynesia, Melanesia, and Maylasia,' Field Mus. Nat. Hist., Zool. Ser., XVIII, No. 2, pp. 7-29.

GENERAL CHARACTERS.—The shortened rostrum, unreduced i<sub>1</sub>, and broad canine cingulum combine to place *tokudae* in the *pselaphon* group. Its small size and naked tibia ally it with *insularis* and *phaeocephalus*.

DESCRIPTION.—Length of pelage of back 9–11 mm., of mantle 12–14 mm., of belly 9–11 mm. Tibia nearly naked. Color of back near mummy brown, lightening to Vandyke brown posteriorly, and almost lacking the sprinkling of whitish hairs to be noted in *molossinus*. Mantle near Mars brown, becoming paler anteriorly and merging with the mottled bister and gray of the head. Sides of mantle near russet. Sides of neck cinnamon buff, the modified hairs of the neck tufts warm buff. Color beneath mummy brown in abdominal region paling through Prout's brown on the chest to cinnamon buff on the neck, and darkening again to mummy brown on throat and chin.

Ears prominent, with tips rounded. (For comparison, those of P. molossinus are short, partly hidden in the fur, and have the tips rather acutely pointed.)

Skull with shortened rostrum and "heavy" (Andersen, pp. 68–69) type of dentition. Coronoid sloping as in *molossinus*. Contrasted with *molossinus*, the following distinctions stand out.

|               | tokudae  | molossinus  |
|---------------|--|---|
| Basal flexure |  |   |
| of skull      | Moderate   | Pronounced  |
| Zygomata      | Moderately broadened   | Widely flaring posteriorly  |
| Upper canines | Short; evenly rounded on<br>outer face; with large basal<br>cingulum | Very long; with longitudinal<br>ridge on outer face; cingulum<br>small, but base of canine very<br>wide anteroposteriorly |

#### MEASUREMENTS

Pteropus tokudae from Guam, compared with measurements of P. insularis (from Andersen, 1912)

|                         | No. 87117<br>♂ type | No. 87118<br>♂ paratype | insularis<br>(from Andersen) |
|-------------------------|---------------------|-------------------------|------------------------------|
|                         | mm.                 | mm.                     | mm                           |
| Forearm                 |                     | 95                      | 101–109                      |
| Zygomatic breadth       | 23.2                | 23.4                    | 25.5-26                      |
| Width across canines    | 9.2                 | 8.7                     | 11-11.5                      |
| Orbital diameter        | 8.1                 | 8.3                     | 9-9.3                        |
| Mandibular length       | 30.4                | 29.5                    | 34.8-35                      |
| C-m <sup>2</sup>        | 13.9                | 13.6                    | 15.8-16                      |
| C-m <sub>3</sub>        | 15.4                | 14.6                    | 17.7-18                      |
| Length p <sup>4</sup>   | 2.2                 | 2.3                     | 2.8-3                        |
| " m <sup>1</sup>        | 2.8                 | 2.8                     | 3.3-3.7                      |
| " m <sup>2</sup>        | 1.2                 | 1.2                     | 1.7-1.9                      |
| " <b>m</b> <sub>1</sub> | 2.2                 | 2.6                     | 3.0-3.2                      |
| " m <sub>2</sub>        | 1.9                 | 1.8                     | 2.2-2.6                      |
| " m <sub>3</sub>        | 1.1                 | 0.8                     | 1.2-1.7                      |

Pteropus tokudae is based upon two males, the type and a second specimen collected the same day. Its affinities appear to be with P. *insularis* from Ruck and Uala, from which it is distinguished chiefly by its consistently smaller size. It may well be merely a race of *insularis*.

I take pleasure in naming this bat for Dr. M. Tokuda of the Kyoto Imperial University, who is at present engaged in work upon the mammals of the South Sea Islands.

#### Emballonura sulcata Miller

Emballonura sulcata MILLER, 1911, Proc. Biol. Soc. Washington, XXIV, pp. 161-162.

Caroline Islands: Ponape (A. M. N. H. No. 87188), 1 male.

| Amer. Mus. No. 87188 J | Forearm                             | 49.5 |
|------------------------|-------------------------------------|------|
|                        | Greatest length of skull            | 16.1 |
|                        | Condylobasal length                 | 15.0 |
|                        | Zygomatic breadth                   | 9.8  |
|                        | Postorbital constriction            | 2.9  |
|                        | Breadth of brain case               | 7.3  |
|                        | Mandible                            | 12.2 |
|                        | Maxillary toothrow (excl. incisors) | 5.0  |

It will be seen that the above measurements, except that of the forearm, are rather less than those given by Miller for *sulcata*. Particularly, our specimen agrees with Miller's in possessing the definite sulcus from nares to sagittal crest completely separating the inflated lateral areas.

Ponape is distant from the Truk group (type locality of *sulcata*) about six and one-half degrees of longitude, but other islands intervene.