# NOTES ON RATTUS RATTUS JALORENSIS AND R. R. ROQUEI, AND ON SOME FRUGIVOROUS BATS 

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Rattus rattus jalorensis (Bonh.) and R. r. roquei Sody.
We have to thank Dammerman (Treubia, 16, 1938, p. 423-436) for giving us a very fine new series of measurements of the (nearly) white-bellied Rattus rattus rats from Malaya (jalorensis) and from Java (roquei). To my mind these new figures once more confirm my opinion that the Javan form differs from the Malayan one, and even so much that separation is absolutely necessary.

Firstly Dammerman's figures confirm my contention that the Javanese are larger than the Malayese:

| Malay Peninsula | $347-362 \mathrm{~mm}(10)$ | $6.6-7.1 \mathrm{~mm}(10)$ |
| :--- | :--- | :--- |
| Java | $379-416 \mathrm{~mm}(31)$ | $7.0-7.5 \mathrm{~mm}(29)$ |

Especially the total length (of the whole animal) seems very convincing: here the average of roquei largely surpasses the maximum of jalorensis: 24 of the 31 Javanese, measured by Dammerman, being larger than the maximum in jalorensis. And I may add here that Mr. C. Boden Kloss wrote me about this Malayan figure of 362 mm that it was not only the maximum of 10 specimens, but the maximum of the whole series of 100 examples preserved in the Raffles Museum.

A second difference lies in the relative length of the tail. Again confining us wholly to the figures given by Dammerman, we find for it: in jalorensis (average and maximum): 107-115 \%, in roquei: 118-132 \% of the length of head and body.

If further we add the (small) existing differences in the colours, then it seems difficult to understand why Dammerman continues calling my separation of roquei "an unwise procedure" (p. 428).

And when, finally (p. 428), he pretends that roquei is founded on nothing but "a difference of only 2 percent. in length in the largest examples" (sic), then I can only suppose that he did not at all see my figures (Zool. Meded. Leiden, XIII, 1930, p. 94-98), no more than he
seems to have studied those given by himself（in reality the average of roquei surpasses the maximum of jalorensis with 5 percent！）．

Cynopterus sphinx terminus subsp． n ．
Type：+ ad．，Niki Niki，Central S．Timor， 750 m，coll．Mrs．M．E．Walsh， 3 April 1929．In Buitenzorg Museum，No． 2208.

Specimens examined：6，all in Buitenzorg Museum．
Diagnosis：Externally quite like C．sphinx titthaecheilus of Java（same size and colours）but skull markedly shorter：greatest length of skull in 5 spe－ cimens of terminus： $32.5-33.9 \mathrm{~mm}$ ，against $35.1-38.5 \mathrm{~mm}$ in 33 specimens of titthaecheilus．

Measurements of type：Head and body 99 ；tail 8；hind foot 13 ；ear 18； forearm 83 ；skull：greatest length 33.9 ；occipitonasal length 32.4 ；condylobasal length 32.2 ；basal length 30.2 ；palatal length 17.1 ；zygomatic breadth 21.9 ； cranial width 14.1 ；interorbital constriction 6.9 ；postorbital processes，tip to tip， 13．0；postorbital constriction 7.1 ；upper teeth， $\mathrm{c}-\mathrm{m}^{1}$ ， 10.8 ；upper teeth， $\mathrm{p}^{3}-\mathrm{m}^{1}$ ， 7.7 ；length of $\mathrm{p}^{4}, 2.7$ ；of $\mathrm{m}^{1} 2.5$ ；lower teeth， $\mathrm{c}-\mathrm{m}_{2}, 12.2 \mathrm{~mm}$ ．

Cynopterus brachyotis brachyotis（S．Mull．）．
2 Specimens，Talaud，coll．Eri， 7 June 1926．In Buitenzorg Museum．
2 Specimens，Bawean，coll．P．F．Franck， 13 May 1928．In Buitenzorg Museum．

Both localities are not mentioned in Andersen＇s Catalogue，though already in 1899 A．B．Meyer recorded the species from Talaud（AB．Mus．Dresden，VII， 7，1899，p．7）．

Measurements：

|  | $\begin{aligned} & \text { む } \\ & \text { 鍺 } \\ & \text { ¿ } \end{aligned}$ |  |  | F | เึ10 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Talaud | 1483 | （\％） | 190 | － | 15 | （67） | 43.5 | 28.6 |
|  | 1484 | imm． | 90 | － | 15 | （64） | 41 | 27.7 |
| Bawean | 1860 | （ $0^{*}$ ） | － | － | － | （63） | 41.5 | 29.4 |
| ． | 1861 | imm | － | － | － | （58） | 38.5 | － |
|  | $\begin{aligned} & \bar{\sim} \\ & \underset{\sim}{5} \\ & \underset{\infty}{5} \\ & = \end{aligned}$ |  |  |  | 픋 |  |  | 岂 |
| 27.7 | 255 | 19.2 | 6.9 | 11.9 | 12.5 | 9.2 | 6.3 | 10.3 |
| 26.4 | 24.4 | 18.2 | 6.1 | 10.4 | 12.9 | 8.6 | 6.1 | 9.6 |
| 284 | 263 | 19.2 | 6.1 | 11.7 | 12.3 | 9.3 | 6.5 | 10.5 |
| － | － | 17.9 | 6.2 | 12.2 | 12.4 | 9.0 | 6.3 | 10.1 |

The Talaud specimens in colour and measurements sufficiently agree with typical brachyotis of Borneo to allow a provisional insertion into the typical
race, though it must be said that the measurements of the arm surpass the maximum of 75 brachyotis, in this respect the adult Talaud animal showing an approach to insularum (Kangean, Mata Siri).

For the Bawean specimens a choice had to be done between brachyotis and javanicus. The small measurements (especially of the teeth) only slightly justify the choice of the Borneo form. With certainty, however, it may be said that there is no approach to angulatus (to which a Krakatau series was brought by Dammerman) or to insularum (Kangean, Mata Siri).

