

facilitate the recognition of skulls of *Kogia simus* we hereby reproduce a series of drawings of a skull present in the Amsterdam collection.

Both authors of this note gratefully acknowledge the help received from the authorities of the Sultanate of Oman.

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Observations on reproduction in *Mus musculus* L. in Rangoon¹

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In Rangoon, *Mus musculus* is of the commensal, dark bellied type within the *castaneus* group as defined by MARSHALL (1977). As part of the commensal small mammal fauna of Rangoon, it occurs with several other species: *Rattus exulans*, *R. rattus*, *R. norvegicus*, *Bandicota bengalensis*, *B. indica* and *Suncus murinus*. During a survey of urban small mammals in Rangoon specimens of this species were captured, primarily from houses, shops and grain storage warehouses. The survey was conducted by the Rodent Control Demonstration Unit of the World Health Organization in cooperation with the Ministry of Health, Burma.

Animals were captured in locally-made wooden live traps, wire mesh traps and by break-back traps. Generally the wooden live traps were too large to be effectively operated by the small mice, so the majority of captures were by means of the other two trap types. Whether alive or dead at capture, the mice

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Table 1

Size/Weight distribution

HBL	No. of Males	Wt. \pm 1 SD	No. of Females (non-preg.)	Wt. \pm 1 SD
45-49	0	—	1	8.0
50-54	3	6.7 \pm 2.9	2	6.0
55-59	4	7.5 \pm 1.0	6	7.2 \pm 1.0
60-64	15	9.1 \pm 1.4	12	8.6 \pm 1.6
65-69	20	12.0 \pm 2.4	14	11.3 \pm 2.9
70-74	39	14.7 \pm 2.1	15	13.8 \pm 1.7
75-79	18	15.6 \pm 2.2	20	16.8 \pm 2.2
80-84	13	18.2 \pm 3.4	10	17.3 \pm 2.9
85-89	3	15.7 \pm 5.1	6	17.0 \pm 2.8
Totals	115	13.6 \pm 3.0	86	13.3 \pm 3.7
Sample \bar{x} = 71.1 \pm 7.5 mm		Sample \bar{x} = 71.4 \pm 9.1 mm		

Table 2

Pregnancy, litter size and lactation by head and body length

[illegible]

Table 3

Pregnancy and placental scar observations by head and body length

HBL	Number Examined	Not Pregnant No scars	Pregnant No scars	Not Pregnant 1 set scars	Pregnant 1 set scar	Not Pregnant 2 set scars	Pregnant 2 set scars
45-49	1	1	—	—	—	—	—
50-54	2	2	—	—	—	—	—
55-59	4	4	—	—	—	—	—
60-64	11	10	—	1	—	—	—
65-69	13	10	2	1	—	—	—
70-74	19	9	0	6	3	—	1
75-79	22	5	2	13	2	—	—
80-84	16	1	7	7	—	1	—
85-89	7	0	2	2	1	1	1
Totals	95	42	13	30	6	2	2

At a HBL of 76.3, 50% were either pregnant or had at least 1 set of scars. Primiparous \bar{x} = 77.8mm \pm 5.8, n = 43; Multiparous \bar{x} = 78.5 mm \pm 6.7, n = 10.

were checked for ectoparasites, sexed, measured and weighed. All measurements are given in millimetres. Body weight (wt.) was obtained by means of a Pesola spring scale and is expressed in grams. Reproductive condition was noted on all females: perforation of the vaginal orifice, location and number of visible mammarys, lactation, visible pregnancy and number and size of embryos. A sample was examined for placental scars.

A total of 265 *M. musculus* was examined, females comprising 150 (57 %) of the total sample. Length and weight distribution of these animals by sex is presented in Table 1. An earlier study of size of *M. musculus* in Rangoon (HARRISON and WOODVILLE 1949) did not separate the data by sex. No significant sexual dimorphism in size and weight was detected. Examination of the size distribution of the sample revealed no skewness i.e., the distribution is essentially symmetrical. Visibly pregnant females were omitted from those data shown in Table 1.

A summary of the distribution of pregnant or lactating females and litter size (number of embryos) is shown in Table 2. Based on these data, the point at which 50 % of the females were pregnant occurred at a head and body length (HBL) of 79.9 mm and the point at which 50 % of the females (pregnancy and lactation) were reproductively active occurred at a head and body length of 76.3 mm. The average number of embryos counted per pregnant female was 4.5 ± 1.3 . The percentage of females examined which were visibly pregnant was 42.7 %.

Observations on pregnancy and placental scars are presented in Table 3. From these data, the point at which 50 % of the females examined had at least one set of placental scars or were pregnant was at a head and body length of 76.3 mm.

Of the 150 females examined, 42.7 % were visibly pregnant. BROOKS (1973) notes that visible pregnancies constitute approximately 71 % of the true pregnancies. The corrected value of actual pregnancy rate among the 150 females examined should approximate 60 %. The number of embryos per pregnant female averaged 4.5 ± 1.3 , a rather modest count when compared to those from some areas (BROOKS 1973) but closely comparable with that reported by HARRISON (1955) from Malaysia ($x = 4.3$). HARRISON and WOODVILLE (1949) presented embryo counts (5 each) in only two pregnant females captured in Rangoon. Our observations show that the embryo count increased with HBL. Yet the mean HBLs of primiparous and multiparous females are quite similar (Table 3). The correlation between embryo count and increased HBL is, however, significant.

Pregnancy and presence of placental scars were first observed among females in the HBL class of 60–64 mm. The HBL at which 50 % of those examined for placental scars were either pregnant or had at least one set of scars was 76.3. This agrees precisely with the similar estimate of reproductive activity determined from pregnancy and lactation.

The high reproductive effort in *Mus musculus* as reflected in those data presented herein are consistent with the high reproductive efforts reported among other commensal small mammals in Rangoon (WALTON et al. 1977; BROOKS et al. 1978; WALTON et al. 1978; WALTON et al. 1979; BROOKS et al. 1979).

Although the traps generally employed in our survey of commensal small mammals in Rangoon were less than ideal for capturing *Mus musculus* we feel that MARSHALL's (1977) observations on the abundance of *M. m. castaneus* in Thailand apply equally to Rangoon. His application of the name "warehouse mouse" is equally appropriate for only in grain storage warehouses were extensive numbers of this mouse observed in Rangoon. HARRISON and WOODVILLE (1948) had found that while *M. musculus* was present in Rangoon, nowhere was it abundant. As in Thailand, houses in Rangoon are also occupied by *Rattus exulans*, the little Burmese house rat, which may serve as a competitor to *Mus musculus*, excluding them from the house-hold environment.

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BEKANNTMACHUNG

Einladung

Die 54. Hauptversammlung der Deutschen Gesellschaft für Säugetierkunde e. V. findet von Montag, den 22. September, bis Freitag, den 26. September 1980, in Tübingen statt.

Vorläufiges Programm

- Montag, 22. September: Anreisetag
ab 19.00 Uhr Begrüßungsabend im Hotel Stadt Tübingen
- Dienstag, 23. September: Hörsaalzentrum Morgenstelle
9.00 Uhr Begrüßung
Eröffnung durch den 1. Vorsitzenden
anschließend Vorträge
19.00 Uhr Empfang durch den Präsidenten der Universität Tübingen
- Mittwoch, 24. September: Hörsaalzentrum Morgenstelle, Vorträge
- Donnerstag, 25. September: Hörsaalzentrum Morgenstelle, Vorträge
Abend: Gemeinsames Abendessen
- Freitag, 26. September: Ganztägige Exkursion

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