

### Notes on Some Small Mammals from Chiang Mai Province, Including Two Species New to Thailand

Information concerning Thai mammals has been recently summarised by LEKAGUL & MCNEELY (1977). Few species are well known and much remains to be learned regarding the distribution and habits of many species. During ornithological studies in Chiang Mai Province, northwest Thailand, the opportunity was taken to make a small collection of bats and Murid rodents. Field work was conducted on Doi Inthanon (approximately 60 km southwest of Chiang Mai) and on Doi Pha Hom Pok (approximately 150 km north) during the winter of 1980/81. The more interesting results, including two species of tube-nosed bats not previously recorded from Thailand, are noted below. Measurements are given in mm and weights in g. Nomenclature follows LEKAGUL & MCNEELY (1977); however, I shall follow MUSSER'S (1981) elevation of all the subgenera of *Rattus* to full generic stature.

#### *Cynopterus sphinx angulatus*

Eleven adult males, five adult females and one immature female from 1160m - 1650 m on Doi Inthanon, and two adult males and three adult females from 1400-1700m on Doi Pha Hom Pok, between 28 December 1980 and 1 February 1981. Males: Forearm 67-72, av. 69.8; ear 19-22, av. 20.38; hindfoot 16-18, av. 17.46; weight 35.6-47.2, av. 42.26. Adult females: forearm 68-72, av. 69.6; ear 19.5-20.5, av. 20.06; hindfoot 17-18, av. 17.5; weight 37.7-46.7, av. 41.38. The forearm and ear measurements fall fairly well within the middle of the range of values shown by HILL & THONGLONGYA (1972, Fig. 2) for other specimens of this form from Thailand, Burma, Tenasserim and Indo-China.

#### *Sphaerius blanfordi*

One adult female from ca. 1650 m on Doi Inthanon, 30 December 1980. Forearm 56.5; ear 18; hindfoot 14; weight 27.2. The forearm and hindfoot measurements are greater than the maxima recorded by LEKAGUL & MCNEELY (1977): 52 and 11 respectively.

#### *Rousettus amplexicaudatus*

Three adult males from a banana (*Musa* sp.) plantation at ca. 1160 m on Doi Inthanon, 29 December 1980. Forearm 72.5, 76.0, 77.0; Ear 20, 20, 21; hindfoot 22, 22, 22; weight 71.5, 74.0, 72.5. Forearm measurements are smaller than those given by LEKAGUL & MCNEELY (1977); range 79-87.

*Murina aurata*

An adult male from the cloud forest at the summit of Doi Inthanon, ca. 2550 m, on 16 December 1980 is the first record of this small, attractive species from Thailand. Forearm 29; ear 11; hindfoot 6; weight 4.8. The specimen was identified by Mr. J.E. Hill of the British Museum (Natural History), who writes (in litt.) "This very small species is rare in collections, only eleven specimens having been recorded until now, although it is quite widely distributed from North India and Nepal to Szechwan and Yunnan in southern China. Although not before recorded from Thailand specimens have been obtained in Burma and the Linkiang Mountains in Yunnan, so its appearance in North Thailand is not entirely unexpected". The specimen is in the collection of the British Museum (Natural History), (BM (NH) 82.162).

*Murina tubinaris*

An adult male from an area of secondary forest and scrub at 1650 m on Doi Inthanon, on 23 December 1980, is the first record of this species from Thailand. Forearm 30.5; ear 10.5; hindfoot 4; weight 6.5. This specimen was also identified by Mr. Hill, who writes (in litt.) "This species has also not been reported hitherto from Thailand, but occurs in North Burma and has been reported as far east as Vietnam". This specimen is in the British Museum (BM (NH) 82.163).

In addition to these two species of *Murina*, two specimens of *Murina cyclotis cyclotis* were collected, one from 1650 m on Doi Inthanon, 22 December 1980 (BMNH 82.164) and one from 1650 m on Doi Pha Hom Pok, 4 April 1981 (BMNH 82.165). The first confirmed record of this species for Thailand was a young adult male from Tham Tab Tao, Fang, Chiang Mai (HILL & THONGLONGYA, 1972). Four species of *Murina* are now known from Thailand, the fourth being *M. huttoni*, known from one specimen collected from Chiang Mai (LEKAGUL & MCNEELY, 1977). HILL (1983) gives details of measurements and pelage colouration for all four species.

*Chiromyscus chiropus*

An immature male was collected at 1400 m on Doi Pu Mun, Doi Pha Hom Pok on the night of 30/31 January 1981. This is the fourth record of the species from Thailand, the previous records being of two from Chiang Mai Province (Doi Angka = Doi Inthanon, and Mt. Nongkao), and one from Loei Province (MARSHALL 1977). Head+body (nose-vent) 131; tail from vent 199; ear 19; hindfoot 30; weight 47.3; skull length 36.7; interorbital breadth 6.4; toothrow 6.6. There were weak bristles among the thick fur but they were not spiny to the touch, and the belly was very pale creamy-orange, not white (cf. ELLERMAN 1961, MARSHALL 1977). The blackish mask



Figure 1. *Chiromyscus chiropus*, immature male from Doi Pha Hom Pok. Note indistinct 'eye mask'.



Figure 2. Left foot of *Chiromyscus chiropus*, Showing 6 plantar pads and reflexed claws except on hallux, which is reduced.



around the eye was not as obvious as indicated in the figure in MARSHALL (1977); see Fig. 1. There were 6 plantar pads, as suggested by ELLERMAN (1961) (Fig. 2). This specimen is in the collection of Dr. Boonsong Lekagul.

Nothing appears to be known of the ecology of this species, but the short hallucal claw and long tail suggest that it may be arboreal. It is noteworthy that one chigger was collected from the ear of the above specimen, as MARSHALL (1977) states that "Ectoparasites have never been found upon tree rats and mice in Thailand". The above specimen was caught on the ground, using banana bait, near a horizontal bamboo about 50 cm above the ground, on which I had found a rat dropping on 30 January. Additional trapping was conducted in the same area on the nights of 31 January/1 February and 9/10 February, with 1/3 to 1/2 of the traps being placed up to 3 m above ground level, but only 2 rats were caught (*Berylmys bowersi*, *Niviventer huang*), both on the ground.

The collection locality was a wet stream valley, well vegetated with secondary evergreen forest on sandy soil with some peat. Ground cover was sparse, trees and bamboos growing to 10–15 m and forming a fairly closed canopy. Lianas were common.

#### *Leopoldamys edwardsi*

One adult female caught at 2250 m on Doi Hua Mae Rang, Doi Pha Hom Pok on 6 February 1981 is the fourth record of this species from Thailand, the three previous records being from Phukadeung National Park at ca. 1200 m (MARSHALL 1977). Head + body 275; tail 316; ear 33; hindfoot 50; weight 452. This specimen, which was pregnant with 4 fetuses (1 left, 3 right), is in the collection of Dr. Boonsong Lekagul.

MARSHALL (1977) notes that the previous Thai specimens were taken in evergreen forest, as was this specimen. Eight other rats caught in the same area on Doi Hua Mae Rang were 6 *Niviventer fulvescens*, 1 *Niviventer huang*, and 1 *Niviventer confucianus*. One *Mus cookii* was caught in grassland at the same altitude.

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