

Sirikorn Sripho 2010: Diversity and Craniodental Characteristics of Murid Rodents (Mammalia/ Rodentia) in Doi Tung Development Project under Royal Initiative, Chiang Rai Province. Master of Science (Zoology), Major Field: Zoology, Department of Zoology. Thesis Advisor: Assistant Professor Surapol Ardsungnoen, Ph.D. 102 pages.

The study on diversity and craniodental characteristics of small mammal (Family Muridae) in Doi Tung development project under royal initiative, Chiang Rai province by used live traps in coffee plantation under pine forest plantation; macadamia plantation and pine forest plantation mixed with native species. Between April 2008 and March 2009. Five genus of murid rodents with six species were found; *Rattus rattus*, *Rattus andamanensis*, *Maxomys surifer*, *Niviventer fulvescens*, *Berylmys berdmorei* and *Mus cookii*. Diversity index in macadamia plantation, coffee plantation under pine forest plantation and pine forest plantation mixed with native species were 1.23, 0.94 and 0.69 respectively. *Rattus* spp. was highest in numbers in all study area (73.87%). Another five species was low in number. The population dynamics was changed related with habitat types, food supply and rodent control activity.

The results of some morphological and morphometrics studies of cranial and dental characters in murid population showed discrimination in species and genera level. The edge of palatine were curve and straight. Angular process of mandible were wide. Fronto-parietal suture were V and U shapes. The upper incisor types were pro-odont, orthodont, semi-orthodont and ophistodont. The length of upper molar row in *Rattus* were particularly distinctive from the rest of species in the same body size ($p < 0.01$). The occlusal surface patterns of upper molar were linked to the murid community in the study areas. Finally, anteroposterior diameter and radius of upper incisor are particularly distinctive within the murid genera with significance difference at 99% and 95% confidence, respectively.

Student's signature

Thesis Advisor's signature