

Tipsurang Peungnim 2010: Hair Morphology of Sciurids in Thailand. Master of Science (Zoology), Major Field: Zoology, Department of Zoology. Thesis Advisor: Assistant Professor Surapol Ardsungnoen, Ph.D. 407 pages.

Hair characteristics were based on 23 collection voucher squirrels species and 2 living squirrels species appeared 6 patterns of cuticular scales including narrow diamond petal, diamond petal, broad petal, regular wave, irregular wave and simple coronal and 6 patterns of medulla including fragmental, uniserial ladder, narrow aeriform lattice, wide aeriform lattice, narrow medulla lattice and wide medulla lattice. The cross-sectional shapes at the thickest part of the hair were oval large medulla and circular large medulla. Hair length and width of squirrels were 3-94.20 millimeters and 7.50-155.50 microns respectively. The analysis of hair samples taken from different squirrels species in the same genus shown that both cuticular scales and medulla patterns and the cross-sectional shapes at the thickest part were similar and different appearance. In addition, different genera of specimens were similar appearance.

Hair characteristics from all different places on animal body of variable and grey-bellied squirrels in Sakaerat Environmental Research Station (SERS) appeared both the average length and width in dry season more than in rainy season. However, the hairs with white and black bands on the back of grey-bellied squirrel in dry season had the average length and width less than in rainy season.

The use of 300 millimeters in length and 101.6 millimeters in diameter of PVC piping tubes were demonstrated as an indirect means of surveying variable and grey-bellied squirrel from 3,271 hair tubes in 15 survey transect lines in different habitat types in SERS from August 2007 to February 2008. The results suggested that hair tubes detected both squirrel's hairs in different habitat types. The percentage of tubes visited by variable and grey-bellied squirrel were 13.97 and 8.71, respectively.

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Student's signature

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Thesis Advisor's signature