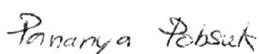


Pananya Pobsuk 2006: Biology of Stingless Bees (Apidae: *Trigona* spp., *Hypotrigona* spp.) in Golden Jubilee Thong Pha Phum Project, Thong Pha Phum District, Kanchanaburi Province. Master of Science (Agriculture), Major Field: Entomology, Department of Entomology. Thesis Advisor: Associate Professor Savitree Malaipan, Ph.D. 136 pages. ISBN 974-16-2075-6

The biological study of stingless bees (*Trigona* spp. and *Hypotrigona* spp.) in the Golden Jubilee Thong Pha Phum Project, Huai Khayeng Subdistrict Thong Pha Phum District, Kanchanaburi Province during January 2004 to January 2006 found 126 nests of stingless bees. The bees were identified and were put into 2 genera and 8 species. Two species were anticipated as the new ones. These were *Trigona thoracica* Smith, *T. apicalis* Smith, *T. melanoleuca* Cockerell, *T. terminata* Smith, *T. collina* Smith, *T. iridipennis* Smith, *T. pagdeni* Schwarz, *Hypotrigona scintillans* variety 1, *H. scintillans* var.2, *H. scintillans* var.3. The stingless bees which preferred to nest in hollow tree trunks always chose the plant in *Ficus* group. They were Banyan (*Ficus* sp.), Banyan (*Ficus religiosa* Bl) and Bodh (*Ficus gibbosa* Bl.) *T. collina* which nests in soil close to termite hill, would choose the location to build nest around the tree base in the west at the most. The arrangement of brood cells inside the nest; horizontal comb builder such as *T. apicalis*, *T. terminata* and *T. pagdeni*; cluster builder such as *T. collina*, *T. iridipennis*, *H. scintillans* var.2 and *H. scintillans* var.3. Life cycle of *T. apicalis*, *T. collina* and *T. pagdeni* from eggs to adults lasted 35, 39 and 48 days respectively. The stingless bees had most flight in pollen collecting during 09.00-11.00, in nectar collecting during 08.00-12.00 and in resin collecting during 14.00-17.00. Temperature and body size of the bees had positive correlation but frequency of raining showed negative correlation with the distance of flight for garbage dumping outside the nest. The greatest of male congregation was found in the summer about 3-4 days, and with greatest number during 11.00-12.00. The amount of male congregation could be used in the estimation of the number of bee nest in the locality. In the human-made hive of *T. pagdeni* it was also found that the quantity of reserved food had positive correlation with the amount of young cells when there was full food supply outside the nest.



Student's signature



Thesis Advisor's signature

