

**P178***Microsatellite analysis of nesting aggregation in *Xylocopa nasalis****Natapot Warrit, Watcharapong Hongjamrassilp**

Individual discrimination among social insects is one of the most important characteristics of eusociality. In bees (superfamily Apoidea), the ability to discriminate between nest-mates and non nest-mates has paved way to other advance social behaviors that are apparent in some halictine and corbiculate bees. However, little is known regarding other group of primitive social bees such as the carpenter bees (Apidae; Xylocopinini); how individual discrimination and tolerance have evolved. While genetic relatedness among individuals has played a central role in explaining why such traits originated and maintained in nature, ecological constraints and other factors might as well influence social behaviors to evolve. In this study, we attempt to explain our finding of a nesting aggregation of more than 80 bamboo nests of an Oriental carpenter bee, *Xylocopa nasalis* Westwood, 1838, located in the province of Ratchaburi in central Thailand. We are testing whether the genetic factor can contribute to the aggregation behavior of this subsocial bee by collecting 27 nests of *X. nasalis* from the site for microsatellite analyses. Genomic DNA of the founding female of each nest along with other adult nest mates (if present) and her progenies were extracted, whereas 14 microsatellites primers based on *X. frontalis* genome were used to analyse the intra- and internidal genetic relationships among individuals within and among nests. Mating frequencies and paternity analyses were also performed to assess the mating system of *X. nasalis*. Our finding will answer the question whether the aggregation behaviors (including individual discrimination and tolerance repertoires) occur as a result from the genetic perspective or other ecological factors.