Benjakhun Sangtongpraow 2007: Relationships Between Fig Wasp Species and *Ficus benjamina* Linn., *F. microcarpa* L.f. and *F. concinna* Miq. in Kasetsart University, Bangkhen Campus. Master of Science (Entomology), Major Field: Entomology, Department of Entomology. Thesis Advisor: Associate Professor Kosol Charernsom, M.S. 147 pages.

The results from the study on the relationships between fig wasp species and some *Ficus* species in Kasetsart University, Bangkhen Campus, Bangkok, showed that there were 6 genera 9 species in *Ficus benjamina* as follows: ***Eupristina koningsbergeri***, ***Sycobia*** sp.1, ***Walkerella temeraria***, ***Walkerella*** sp.1, ***Philotrypesis*** sp.1, ***Philotrypesis*** sp.2, ***Sycoscapter*** sp.1, ***Sycoscapter*** sp.2 and ***Sycophila*** sp.1. It was also found 8 genera 15 species in *F. microcarpa* as follows: ***E. verticillata***, ***Odontofroggatia corneri***, ***O. galili***, ***Micranisa*** sp.1, ***W. kurandensis***, ***Philotrypesis*** sp.1, ***Philotrypesis*** sp.2, ***Sycoscapter*** sp.1, ***Sycoscapter*** sp.2, ***Sycophila*** sp.2, ***Sycophila*** sp.3, Agaonid1, ***Eurytoma*** sp.1, ***Sycophila*** sp.4 and Torymid1. In *F. concinna*, 9 genera and 11 species were found: ***Platyscapa*** sp.1, ***Acophila*** sp.1, ***Camarothorax*** sp.1, ***Otitesella*** sp.1, ***Philotrypesis*** sp.3, ***Sycoscapter*** sp.3, ***Aprostocetus*** sp.1, ***Sycophila*** sp.2, ***Sycophila*** sp.5, ***Ormyrus*** sp.1 and ***Ormyrus*** sp.2. The fig wasps in family Eulophidae, genus ***Aprostocetus***, were first found in *Ficus* fruits in this study which had no report elsewhere.

The results also showed that 5 species, 10 species, and 10 species of fig wasps were specifically related to *F. benjamina*, *F. microcarpa*, and *F. concinna*, respectively. The pollinating wasps were also specific to host. One fig wasp species was the pollinator of one *Ficus* species only. The numbers of individuals of pollinating wasps in *Ficus benjamina* and *F. microcarpa* were lesser than the numbers of non-pollinating wasps. The proportion between the numbers of pollinating and non – pollinating wasps in fruits of those two *Ficus* species could be used to indicate the levels of environmental imbalance in *Ficus* areas. The body sizes and numbers of individuals of pollinators, gallers and parasitoids had tendency to relate to fruit sizes and nutrition values of the three *Ficus* fruits (especially N and protein), while the ovipositor lengths of parasitoids were related to the thicks of syconium walls. The ripe fruits of *F. benjamina*, *F. microcarpa* and *F. concinna* were consumed by birds and other urban animals. The ripe fruits of those *Ficus* species had potassium and carbohydrate contents of 1.63-1.69% and 40.04-48.11%, respectively. Some of their nutrition values were similar to or higher than those of other fruits. So they might be used to produce feedstuff. The fig wasps and *Ficus* species had mutual relationships. The fig wasps could survive if the *Ficus* species were alive. The benefits from *Ficus* planting were the enhancement of urban green areas and urban ecosystem.

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