

The fig wasps of ex-situ concervation areas of Depok and Bogor : symbiosis revisited

Nugroho Ponco Sumanto, author

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Abstrak

A research to know the fig wasps of the Universitas Indonesia (UI) and Kebun Raya Bogor (KRB) has been done from January 2010 until December 2010. This research was aimed to record the pollinating and non-pollinating fig wasps of UI and KRB, to later compare the result with reports from previous researches. This research would also confirm whether symbiotic breakdown occurs in the research areas. A total of 56 fig trees and shrubs (from 9 species of fig) in UI and 34 fig trees and shrubs (from 34 species of fig) were chosen to be sampled. From those trees and shrubs, 10 sycone were taken. The wasps were then reared inside the sycone to later be preserved using the method of Noyes (1982). After identification, 7 wasp species were found. *Ceratosolen marchali* Mayr, *Ceratosolen fusciceps* Mayr, *Liporrhopalum tentacularis* Grandi, *Philotrypesis pilosa* Mayr, *Boueka percaudata* Bouek, *Apocryptophagus testaceus* Mayr, and *Apocrypta bakeri* Joseph were found. From those wasps, 3 species are pollinators and the rest are non-pollinating fig wasps (NPFW). The wasps were found from *Ficus hispida* var. *hispida*, *Ficus hispida* var. *badiostrigosa*, *Ficus septica*, *Ficus montana* and *Ficus glomerata*. Some differences between the specimens of this research with the descriptions from other research were explained. Using Krukal- Wallis analysis, this research discovered that the head width (HW) and front femur length (FFL) of *Ceratosolen marchali* that were found in *Ficus glomerata* were smaller than the ones found in other fig species (p HW same = 0.0002; p FFL same = 0.0002), while the ovipositor length (OvL) were the same (p OvL same = 1). Though still statistically smaller, the HW and FFL value of the *Ceratosolen marchali* found in *Ficus glomerata* were closer to that of *Ceratosolen fusciceps*. The result of the research also shows that the one-to-one symbiosis between *Ceratosolen marchali* and its host (*Ficus hispida*) has been broken. In this research, *Ceratosolen marchali* were found pollinating *Ficus hispida* var. *hispida*, *Ficus hispida* var. *badiostrigosa*, *Ficus septica*, and even *Ficus glomerata*. For *Ficus montana* and *Ficus glomerata*, it seems that their symbiosis with their pollinators were still maintained.