

A preliminary study on insect floral visitors of three selected invasive alien plant species in two locations in the wet zone of Sri Lanka

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Invasive plant species are known to have profound negative effects on natural communities including the demography of plant populations and the genetic structure of communities. This study focused on the identification of floral visitors and comparison of insect visitation rates for three IA plant species: *Clidemia hirta* (Melastomataceae), *Dillenia suffruticosa* (Dilleniaceae), *Sphagneticola trilobata* (Asteraceae), growing along with a native plant, *Melastoma malabathricum* (Melastomataceae), along borders of Yagirala Forest Reserve (YFR) and Seethawaka Wet Zone Botanical Gardens (SWBG). Field studies were carried out from August to November 2016, employing the time constant sampling method. Insect specimens were identified to the lowest possible taxon using keys and the visitation percentage was calculated.

Bees were the major floral visitors for each IAS. The visitation percentages were as follows: *D. suffruticosa* 84%(252/300) in SWBG for 202 floral units and 85%(373/440) in YFR for 266 floral units; *S. trilobata* 91%(231/251) in SWBG for 231 floral units, 71% (121/170) in YFR for 486 floral units; and *M. malabathricum* 62%(360/577) in SWBG for 420 floral units and 52%(205/396) in YFR for 277 floral units. A total of 11 species of bees were identified, out of which two, (*Amegilla comberi* and *Patellapis kalutarae*) were recorded only in native species while others were common to both the invasive *Dillenia suffruticosa*, and the native *M. malabathricum*. No bees were recorded from *C.hirta*. Among nectar robbing species, *Xylocopa spp.* were more abundant in *M.malabathricum* compared to *D. suffruticosa* and their sonication is known to contribute to release of pollen. The other insect recorded were beetles (Coleoptera), butterflies (Lepidoptera), flies (Diptera), wasps (Hymenoptera), ants (Hymenoptera), grasshoppers (Orthoptera), bugs (Hemiptera). Bees are reported to be effective pollinators for the invasive *D. suffruticosa*, and *S. trilobata*, and the native *M. malabathricum*. Our study indicates that the IAS are important foraging plants for the recorded bee species.

Key words: *Dillenia suffruticosa*, *Melastoma malabathricum*, *Sphagneticola trilobata*, floral visitors, bees.