

Assessment of the Possible Effects of Biological Control Agents of *Lantana camara* and *Chromolaena odorata* in Davao City, Mindanao, Philippines

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Abstract : Invasive plants have an impact on global biodiversity and ecosystem function, and their management is a complex and formidable task. Two of these invasive plant species, *Lantana camara* and *Chromolaena odorata*, are found in the Philippines. *Lantana camara* has the ability to suppress the growth of and outcompete neighboring plants. *Chromolaena odorata* causes serious agricultural and economical damage and causes fire hazards during dry season. In addition, both species has been reported to poison livestock. One of the known global management strategies to control invasive plants is the introduction of biological control agents. These natural enemies of the invasive plants reduce population density and impacts of the invasive plants, resulting in the balance of the nature in their invasion. Through secondary data sources, interviews, and field validation (e.g. microhabitat searches, sweep netting, opportunistic sampling, photo-documentation), we investigated whether the biocontrol agents previously released by the Philippine Coconut Authority (PCA) in their Davao Research Center to control these invasive plants are still present and are affecting their respective host weeds. We confirm the presence of the biocontrol agent of *L. camara*, *Uroplata girardi*, which was introduced in 1985, and *Cecidochares connexa*, a biocontrol agent of *C. odorata* released in 2003. Four other biocontrol agents were found to affect *L. camara*. Signs of damage (e.g. stem galls in *C. odorata*, and leaf mines in *L. camara*) signify that these biocontrol agents have successfully established outside of their release site in Davao. Further investigating the extent of the spread of these biocontrol agents in the Philippines and their damage to the two weeds will contribute to the management of invasive plant species in the country.

Keywords : invasive alien species, biological control agent, entomology, worst weeds

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