Environmental risk assessment of the egg parasitoid *Anaphes inexpectatus* for classical biological control of the *Eucalyptus* snout beetle, *Gonipterus platensis*

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Abstract

Classical biological control is a valuable tool against invasive pests, but concerns about non-target effects requires risk assessment studies. Potential non-target effects of *Anaphes inexpectatus* Huber and Prinsloo (Hymenoptera: Mymaridae) were assessed for a classical biological control programme against the *Eucalyptus* snout beetle, *Gonipterus platensis* (Marelli) (Coleoptera: Curculionidae). No-choice tests were conducted with 17 non-target species to assess host specificity, including 11 curculionids. In behavioural observations, A. *inexpectatus* showed no interest in any of the non-target species, but two weevil species were parasitised within five days of exposure, although at significantly lower rates than *G. platensis*. In choice tests, only one non-target, *Hypera postica* (Gyllenhal) (Coleoptera: Curculionidae), was parasitised, at a rate of 0.6%, while 50.0% of *G. platensis* eggs were parasitised. Based on the host specificity test results and the potential host fauna found in the target area, the likelihood of non-target effects resulting from the release of *A. inexpectatus* is considered to be negligible.