

## Biology of *Stethynium* sp. nov. (Hymenoptera: Mymaridae) an egg parasitoid of *Zygina* sp. (Hemiptera: Cicadellidae)

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**Summary** An egg parasitoid identified as *Stethynium* sp. nov. (Hymenoptera: Mymaridae) was found to be parasitising the eggs of *Zygina* sp. (Hemiptera: Cicadellidae), an important biological control agent of the Australian weed bridal creeper, *Asparagus asparagoides*. Up to 95% of leafhopper eggs have been parasitised in the field and the parasite has also been detected in leafhopper rearing colonies. As nothing is known about this parasite we examined the biology of this wasp focusing on its oviposition preference, developmental period and longevity, to ascertain its impact on the biocontrol of bridal creeper. Female wasps are capable of parasitising host eggs at all stages of development, with no preference for host eggs of a particular age. The average life span for *Stethynium*

sp. nov. adults provided with food was significantly greater than those without food. The average life span and the developmental period of *Stethynium* sp. nov. decreased with increased temperature. The results of this study contribute to the formulation of a plan to reduce the impact of *Stethynium* sp. nov. on the biological agent *Zygina* sp.

**Keywords** Biological control, non-target impacts, longevity, oviposition.

### ACKNOWLEDGMENTS

This work has been supported by a Summer Studentship and Honours scholarship from the CRC for Australian Weed Management.

## Progress towards successful biological control of Paterson's curse, *Echium plantagineum*, in north east Victoria

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**Summary** The Paterson's curse crown weevil, *Mogulones larvatus* was first released in Victoria in 1993 and has successfully established on *Echium plantagineum*. At Euroa, in north east Victoria, an insecticidal exclusion technique was used protect *E. plantagineum* from attack by *M. larvatus* in control plots enabling assessment of the weevil's biological control impacts. In one trial in 2001, *M. larvatus* appeared to reduce the projected cover of *E. plantagineum* by as much

as 36%, with concurrent increases in the projected cover of grass and clover. Lower *E. plantagineum* plant density and smaller plant size in insecticidally unprotected compared to protected plots also support the suggestion that *M. larvatus* is having a positive effect as a biological control agent.

**Keywords** Biological control, Paterson's curse, *Mogulones larvatus*.