



Host susceptibility to *Gonipterus platensis* (Coleoptera: Curculionidae) of *Eucalyptus* species

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Abstract

- **Key message** *Gonipterus platensis* is an important insect pest of eucalypt plantations. Despite biological control by the egg parasitoid *Anaphes nitens*, economic losses remain high in several areas outside its native range where susceptible eucalypt species are grown in commercial plantations. The susceptibility to *G. platensis* of 17 *Eucalyptus* species was evaluated and possible alternatives for reforestation in high pest incidence areas were identified.
- **Context** *Gonipterus platensis* is an important pest of *Eucalyptus* worldwide. Despite biological control, it causes significant losses to *Eucalyptus* plantations in several areas, requiring alternative management options.
- **Aims** We analysed host preference of *G. platensis* towards 17 *Eucalyptus* species to identify less susceptible plant materials that could be used in areas of high pest incidence.
- **Methods** Feeding damage was assessed in field trials in three consecutive years. No-choice and choice tests were conducted with *Eucalyptus* species of contrasting susceptibility.
- **Results** Within subgenus *Symphyomyrtus*, all species from section *Maidenaria* were used by *G. platensis* for feeding. Within this section, *E. globulus* was always the preferred species, while *E. nitens* was the least preferred. Differences in susceptibility were less pronounced at high attack intensity by *G. platensis*. *Eucalyptus saligna* (section *Latoangulatae*) was the least preferred species among *Symphyomyrtus*. All species from subgenus *Eucalyptus* had low susceptibility to *G. platensis*, particularly *E. regnans*, which was never attacked

under field conditions. The results were confirmed by choice and no-choice laboratory and semi-field tests.

- **Conclusion** Significant differences in susceptibility to *G. platensis* were found between the 17 *Eucalyptus* species tested, which could be explored for reforestation with less susceptible plant materials.