

The parasitoid *Psyllaephagus blastopsyllae* (Hymenoptera: Encyrtidae), as potential control of the eucalypt psyllid *Blastopsylla occidentalis* (Hemiptera: Psylloidea), in Brazil

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In view of future release for the control of the eucalypt pest *Blastopsylla occidentalis* Taylor, the parasitoid *Psyllaephagus blastopsyllae* Tamesse et al. was imported from South Africa into Brazil in 2015, where the specimens were kept in quarantine for preliminary bioecological studies. Within a few months, the specimens died and the establishment of a viable culture failed. While planning another introduction, the parasitoid was found in eucalypt plantations in Minas Gerais. The focus of the project was hence changed to monitor the population in the plantations in Minas Gerais and to search for the parasitoid in other areas in Brazil with eucalypt plantations. The monitoring of the parasitoid showed that the pest is associated with various eucalypt clones, especially those of *Eucalyptus camaldulensis*. The occurrence of the parasitoid was positively correlated with the pest population but indifferent to the type of clone. The percentage of parasitism was higher between June and August, the dry season, coinciding with the population peak of the pest. Besides Minas Gerais, the parasitoid was also found in São Paulo and Mato Grosso do Sul. In a survey in SP in October 2018, the observed percentage of parasitism was around 9%. A similar survey in Três Lagoas, MS, in August, yielded a parasitism of about 11%. Our data represent a small sampling in terms of total eucalypt plantations in Brazil. For promoting biological control, we suggest to increase the number of areas to be surveyed for the occurrence of the parasitoid and to study its control potential.



Blastopsylla occidentalis



Inspection and monitoring with sticky traps



Colony of *Blastopsylla occidentalis*



Psyllaephagus blastopsyllae female



Psyllaephagus blastopsyllae

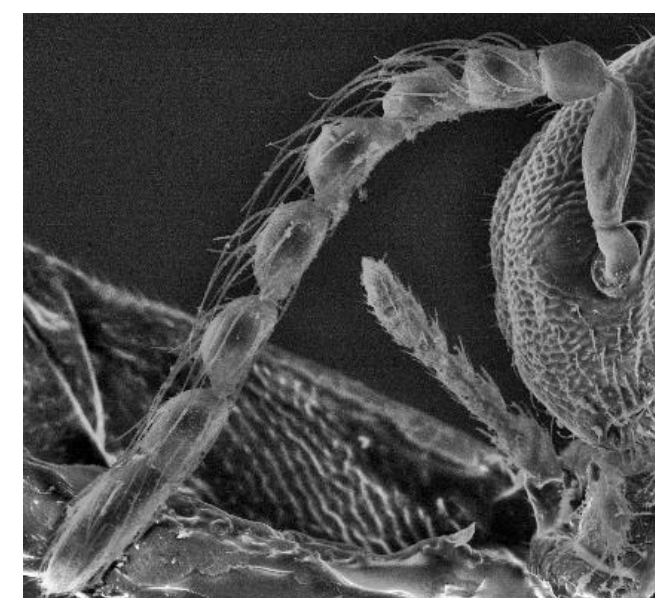
Psyllaephagus blastopsyllae



male



female



male antenna