3rd Meeting of IOBC-WPRS study group

"Benefits and risks of exotic biological control agents"

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Harmonia axyridis f. *succinea* (photo Mike Majerus)

Larvae of *Leucopis hennigrata* feeding on eggs and females of *Dreyfusia* (=*Adelges*) *nordmannianae* (photo Hans Peter Ravn)

Book of abstracts

3.4

Effect of insecticidal plants on early developmental stages of *Cleruchoides noackae* (Hymenoptera: Mymaridae)

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The experiment was conducted in order to verify the side-effect of aqueous extract of *Echinodorus grandiflorus*, *Maytenus ilicifolia* and *Matricaria chamomilla* on early developmental stages of *Cleruchoides noackae*, egg parasitoid of the bronze bug of *Eucalyptus*. Strips of paper towel containing 10 *Thaumastocoris peregrinus* eggs (<24 h old) were placed individually in plastic tubes with newly emerged *C. noackae* adults (one couple/tube) and kept for 24 hours with a piece of filter paper soaked with 50% honey solution to feed the adults. The exposed eggs were divided into two groups treated with 2µL/egg of 5% aqueous extract of the tested plants or distilled water for the control group, using a micropipette. The 1st and 2nd groups were treated one and seven days after parasitism, respectively. The egg-cards were kept inside the tubes for 20 days, then the biological parameters were evaluated (inviable eggs and emerged parasitoids). The experiment was designed as completely randomized with four treatments, each replicated 20 times. Data was analysed with Bayesian inference. Eggs treated with *M. chamomilla* and *E. grandiflorus* presented a higher number of inviable eggs on day one and seven, respectively. Regardless of this fact, there was no statistical difference regarding the number of emerged parasitoids. In conclusion, none of the insecticidal plants used in this experiment caused any side-effect on early developmental stages of *C. noackae*, which suggests that any of these extracts could be used simultaneously with the parasitoid to control *T. peregrinus*.