

Aphid parasitoids (Hymenoptera: Braconidae), still defending cereal crops after forty years of its introducing in Passo Fundo

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In the late 1970s, during the Biological Control Program of Wheat Aphids (BCPWA), twelve species of hymenopteran (Aphelinidae and Braconidae) were introduced in southern Brazil. Four Braconidae species have been established in Rio Grande do Sul (RS): Aphidius ervi Haliday, Aphidius uzbekistanicus Luzhetzki, Aphidius rhopalosiphi De Stefani, and Praon volucre (Haliday). Around forty years after the BCPWA, changes occurred in the agricultural landscape and in the dominance of aphid species: Rhopalosiphum padi (Linnaeus) has became the most frequent cereal aphid, followed by Sitobion avenae (Fabricius), Schizaphis graminum (Rondani), and Metopolophium dirhodum (Walker). This work aims to monitor the occurrence of established aphids parasitoids species throughout the wheat (winter) and corn (summer) crop cycle. The work was conducted at Embrapa Trigo, Passo Fundo, RS, from July 2018 to March 2019. Sixteen pots, containing 10 wheat plants, were infested with aphids, and exposed to parasitism on the field in screen cages for 7 days in biweekly exposure cycle of each crop. After, the pots were maintained in climatized chambers. After one week, the mummies were collected, and emerged parasitoids, identified. During wheat crop season (2018), it was collected A. uzbekistanicus parasitizing R. padi, S. graminum, and S. avenae; Aphidius platensis (Brethes) and A. rhopalosiphi were collected parasitizing the four aphid species; and Aphidius ervi Haliday over R. padi, S. graminum, and S. avenae. During corn season (2019), A. platensis was recorded parasitizing R. padi and S. graminum. As well, Lysiphlebus testaceipes (Cresson) was collected in S. avenae, R. padi and S. graminum. Praon species were not sampled. We emphasize that A. platensis and L. testaceipes had already been reported in Brazil before BCPWA. Therefore, some species, introduced during BCPWA, are still occurring on and protecting cereal fields in Passo Fundo, RS.

Palavras-Chave: monitoring; natural enemies; wheat

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