

## Taxonomic status of *Aphidius colemani* species group (Hymenoptera: Braconidae) in southern Brazil

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Parasitoid wasps (Hymenoptera: Braconidae) are efficient natural enemies of aphids. Twelve micro-hymenopteran species from Eurasia were introduced in South America to control aphid populations in winter cereals, which in the 1970's were in severe imbalance. From 1978 to 1990, during Biological Control Program of Wheat Aphids (BCPWA), parasitoids were reared and released on crops in southern Brazil. Some species have been established and reduced aphid populations. *Aphidius colemani* (Viereck) was reported in Brazil before the BPCWA, when Mediterranean genotypes were introduced from France and Israel. Nowadays, with development of integrative taxonomy of Hymenoptera, this species was re-described as a complex called *Aphidius colemani* group being composed by three species including *A. colemani*, *Aphidius transcaspicus* Telenga, and *Aphidius platensis* (Brüthes). Consequently, there is no certainty which one of the group are occurring in southern Brazil. The aim of this study was to re-examine the species status of *A. colemani* group collected during the introduction period of parasitoids in Brazil (1979 -1980) and from 10 years (2009-2018) of monitoring program by Moericke traps in wheat fields in Coxilha, in the north of Rio Grande do Sul, Brazil. There were examined 116 specimens of Entomological Collection of Embrapa Trigo, and those collected in Moericke traps. All the parasitoids of the *A. colemani* group from BCPWA period were identified as *A. platensis*. In the traps, of 6,541 parasitoids collected, 61.9% (n = 4,047) were of the *A. colemani* group, and all of them identified as *A. platensis*. So, this species was already here before the BCPWA, was the most collected species, early in the program, and is still the most abundant species. It remains a mystery, which species of *A. colemani* group was introduced in Brazil and if the introduced species have been established and even contributed genetically to the current population of the *A. platensis*.

**Palavras-Chave:** parasitoids; taxonomy; cryptic tax

**Apoio Institucional:** CAPES, CNPq e Embrapa Trigo