

# Parasitoid Wasps Associated with *Liriomyza trifolii* Mortality in Pepper at Baja California Sur, Mexico

Ramón Jaime Holguín-Peña, María de Lourdes Ramírez-Ahuja, Diana Medina-Hernández, Rogelio Enrique Palacios Torres, Rosalía Servín-Villegas

[Author Affiliations +](#)

Ramón Jaime Holguín-Peña,<sup>1</sup> María de Lourdes Ramírez-Ahuja,<sup>2</sup> Diana Medina-Hernández,<sup>1</sup> Rogelio Enrique Palacios Torres,<sup>3</sup> Rosalía Servín-Villegas<sup>1,\*</sup>

<sup>1</sup>Centro de Investigaciones Biológicas del Noroeste. Instituto Politécnico Nacional 195, Colonia Playa

<sup>2</sup>Laboratorio de Fisiología Molecular y Estructural. Facultad de Ciencias Biológicas, Universidad Aut

<sup>3</sup>Universidad del Papaloapan. Instituto de Agroingeniería. Av. Ferrocarril S/N. Col. Ciudad Universit

\*Corresponding author: [rservin04@cibnor.mx](mailto:rservin04@cibnor.mx)

*Southwestern Entomologist*, 44(4):867-875 (2019). <https://doi.org/10.3958/059.044.0402>

## Abstract

The study provided information, for the first time, on parasitoid species associated with the American serpentine leafminer, *Liriomyza trifolii* (Burgess) (Diptera: Agromyzidae), in the State of Baja California Sur, Mexico. During 2017, in the agricultural area of El Comitán (24° 07' 30" N, 110° 18' 15" W), leafminers were abundant during two consecutive cycles of bell and habanero peppers, *Capsicum annuum* L. and *Capsicum chinense* Jacq., protected with mesh-shadow systems. The average was 42.2 adults per trap-week and 3.8 mines per leaf, with peaks of 56 adults per trap and 5.2 mines per leaf at 90 days after transplanting. Fifty percent of plants were mined by 45 days after transplanting. Three species of Hymenoptera in Braconidae and Eulophidae families were parasitoids of *L. trifolii*. *Closterocerus cinctipennis* Ashmead (Eulophidae: Entedoninae) appeared first, followed by *Chrysocharis* sp. Forster (Eulophidae: Entedoninae). The last species was *Opius dissitus* Muesebeck (Braconidae: Opiinae). The parasitism rate was 29% (~40 insects per week) by eulophids and 9% (~12 insects per week) by braconids. New knowledge was provided on the presence and dispersion of *L. trifolii* at Baja California Sur, and the three species of associated parasitoids.

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Ramón Jaime Holguín-Peña, María de Lourdes Ramírez-Ahuja, Diana Medina-Hernández, Rogelio Enrique Palacios Torres, and Rosalía Servín-Villegas "Parasitoid Wasps Associated with *Liriomyza trifolii* Mortality in Pepper at Baja California Sur, Mexico," *Southwestern Entomologist* 44(4), 867-875, (3 December 2019). <https://doi.org/10.3958/059.044.0402>

Published: 3 December 2019

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