



New species of *Tetradiplosis* (Diptera: Cecidomyiidae) inducing galls on *Prosopis caldenia* (Fabaceae) in Argentina

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Abstract

Two new species of *Tetradiplosis* inducing galls on *Prosopis caldenia* are described from Argentina: *Tetradiplosis panghitruz* Martínez n. sp. and *Tetradiplosis rayen* Martínez n. sp. *Tetradiplosis panghitruz* induces multilocular galls on vegetative stems, whereas *T. rayen* induces unilocular galls containing multiple larvae on the rachis of the developing inflorescences. The adult male, female, pupa and larva are described and illustrated for both species. A key to the known species of the genus is provided.

Key words. *Caldén*, Gall midges, Neotropical, Taxonomy

Introduction

The *caldén* (*Prosopis caldenia* Burkart) (Fabaceae) is a deciduous tree endemic to the central semiarid plains of Argentina. Its dominance defines the *caldén* district within the *espinal* biogeographical province, as defined by Cabrera & Willink (1973). Despite its economic, cultural and ecological importance, very little is known about the insect species associated with the numerous galls which develop on this legume species.

According to Gagné (1994), species of four cecidomyiid (Diptera) genera are known to induce galls on species of *Prosopis* L.: *Hemiasphondylia* Möhn, *Rhopalomyia* Rübsaamen, *Liebeliola* Kieffer & Jörgensen and *Tetradiplosis* Kieffer & Jörgensen. Apart from *Hemiasphondylia*, all of them are known to occur in Argentina. Species of *Rhopalomyia* induce bud galls on *P. alba* Griseb., *P. alpataco* Philippi, *P. campestris* Griseb., and *P. flexuosa* De Candolle; *Liebeliola* induces stem galls on *P. strombullifera* (Lam.) Benth; and representatives of *Tetradiplosis* are known to induce stem galls on *P. alpataco* and *P. campestris* (Gagné 1994). However, there are no records of cecidomyiid species associated with *P. caldenia*.

The genus *Tetradiplosis* Kieffer & Jörgensen 1910 was erected to include one species, *T. sexdentata* Kieffer & Jörgensen, which was reared from stem galls on *P. alpataco* in western Argentina. No other species have been formally described in the genus, but undescribed species have been mentioned from NW Argentina (Gagné 1994).

As a part of an ongoing study of the galls on *P. caldenia*, two undescribed species of Cecidomyiidae were reared from stem galls on this plant species in central Argentina. Both species are considered to be members of the genus *Tetradiplosis* based on the wing venation, male and female antennal morphology, acropod morphology and male and female postabdomen.

Material and methods

Galls containing mature larvae were collected from three sites in suburban areas of Santa Rosa, La Pampa, Argentina: Laguna Don Tomás (36°37'03"S, 64°19'29"W), Facultad de Agronomía (36°38'47"S, 64°18'16"W) and Inti Hué (36°38'28"S, 64°19'39"W). Some galls were dissected to obtain mature larvae, while others were kept in jars covered with commercial tissue paper until adult emergence.