



## The *Heterothrips* species of Argentina, with two new species and biological notes (Thysanoptera, Heterothripidae)

CARLOS MANUEL DE BORBÓN

EEA Mendoza INTA, San Martín 3853, (5507) Luján de Cuyo, Mendoza, ARGENTINA. E-mail: cborbon@mendoza.inta.gov.ar

### Abstract

Two new species of *Heterothrips* are described from Mendoza, Argentina: *H. pilarae* from flowers of *Tricomaria usillo* (*Malpighiaceae*), and *H. stellae* from *Prosopis alpataco* (*Fabaceae*). These species share several morphological characters with *H. araucaniae* and *H. johanseni* from Chile. A key is provided to species of *Heterothrips* from Argentina, with notes on the biology of some species.

**Key words:** Taxonomy, thrips, *Heterothrips* key

### Introduction

A total of 65 valid species are currently listed in *Heterothrips* genus (Mound, 2010), all from the American continent. The most recent review of the genus (Mound & Marullo, 1996) provided a key for almost all known species at that time. In Argentina, seven species are mentioned by De Santis *et al.* (1980), these being *cacti* Hood, *flavitibia* Moulton, *marginatus* Hood, *myrceugenellae* Gallego, *moestus* De Santis, *pastranai* Tapia, and *sensibilis* De Santis. However, *sensibilis* is considered a synonym of *cacti* by Mound & Marullo (1996), and *myrceugenellae* is not distinguished satisfactorily from *clusiae*, although these are possibly different species.

The aim of this work is to describe two new species of *Heterothrips* together with information on the biology of one of these, and to provide a key to distinguish the species present in Argentina. Previous studies on this genus that were consulted include Bailey & Cott (1954); De Santis (1953, 1963, 1969, 1980); Mound & Marullo (1996) and Moulton (1932). Specimens from the De Santis collection at La Plata Museum were also studied.

**Collecting and preparation.** Flowers of *Tricomaria usillo* (*Malpighiaceae*) (Fig. 38) and *Prosopis alpataco* (*Fabaceae*) were shaken over a white plate and thrips were picked up with a fine brush. The insects were preserved in a mixture of ethyl alcohol 10%, acetic acid 5%, Triton X - 100 0.1 % (J.S. Bhatti, personal communication). Thrips were macerated in a 5% solution of NaOH to remove the body contents, and dehydrated progressively in a series of alcohols, finally being cleared in clove oil and mounted in Canada Balsam (Mound & Marullo, 1996). In order to identify correctly the species of *Prosopis*, samples were taken of branches with leaves and mature fruits (Fig. 39), two months after flowering at the same site where samples of thrips had been taken.

**Life history studies.** Flowers of *Tricomaria usillo* containing second instar larvae were placed into vials (100 mm of height by 40 mm of diameter) with about 60 mm depth of dry soil. Pieces of paper were placed between the soil and the flowers to simulate litter as a pupation site. The vials were closed with Parafilm and were maintained in a growth chamber at  $25 \pm 2$  °C, 16 hrs of light. After one week, the flowers were removed from the vials with soil, and a week later the pieces of paper were removed. These were examined under a stereo microscope for the presence of pupae, and were then maintained in a Petri dish closed with adhesive film to retain humidity until adults hatch from the cocoons. Thirty flowers were taken weekly from