

First record of the genus *Kurtomathrips* (Thysanoptera: Thripidae) in Argentina with the description of a new species

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■ **ABSTRACT.** New specie of *Kurtomathrips* Moulton is described, excluding one diagnostic character of the genus given by Mound & Marullo. A key with known species of the genus is included in this work. The genus *Kurtomathrips* originally found in North and Central America has only three species. The new species, *Kurtomathrips desantisi* n. sp. was collected on *Parthenium hysterophorus* L. This host plant has a particular interest because is the same where *Kurtomathrips morilli* Moulton lives on. At the present, this weed and *K. morilli* have a worldwide distribution.

KEY WORDS. Thysanoptera. *Kurtomathrips desantisi* n.sp. *Parthenium hysterophorus*. Apterous.

■ **RESUMEN.** Primera cita del género *Kurtomathrips* (Thysanoptera: Thripidae) en la Argentina, con la descripción de una especie nueva. Una especie nueva de *Kurtomathrips* Moulton es descrita, excluyendo un carácter diagnóstico de los datos para el género por Mound & Marullo. Se incluye, en este trabajo, una clave para las especies conocidas del género. El género *Kurtomathrips*, encontrado originalmente en Norte y Centro América, tiene tres especies. La nueva especie, *Kurtomathrips desantisi* n. sp. fue recolectada sobre *Parthenium hysterophorus* L. Este huésped tiene particular interés porque es el mismo donde vive *Kurtomathrips morilli* Moulton. Actualmente, esta maleza y *K. morilli* tienen una distribución mundial.

PALABRAS CLAVE. Thysanoptera. *Kurtomathrips desantisi* n.sp. *Parthenium hysterophorus*. Áptero.

INTRODUCTION

The genus *Kurtomathrips* Moulton has been used for three species from North or Central America. Described by Moulton (1927), the originally included single species, *K. morilli*, is wingless with the body strongly sculptured, the head much smaller than the thorax, and the major setae broad and curved. A second species, *K. unicolor* Bailey (1961), was considered by O'Neill (1970) to be the same species as *K. brunneus* (Watson) that had been described in the genus *Prosopothrips* (Watson 1931). Johansen (1974) described a third species, *K. anahuacensis*, and indicated that this has a simple sense cone on the fourth antennal

segment, but Mound & Marullo (1996) suggested that the two known specimens might be large individuals of *K. brunneus*. The purpose of this paper is to describe a new species of *Kurtomathrips* Moulton from Mendoza that lacks one of the character states previously considered diagnostic of the genus (Mound & Marullo, 1996).

Bailey (1961) recorded *K. morilli* adults from many host plants, including several cultivated plants (bean, cotton, chrysanthemum, lantana, lotus, snapdragon, sugar beet) and weeds (*Datura stramonium* L., *Malva rotundifolia* L., *Wedelia* sp. and *Wisteria* sp.). The other two species, *K. brunneus* and *K. anahuacensis* were found originally

on grasses, and Bailey (1961) recorded *K. brunneus* from blue and yellow flowers of unidentified plants. However, since none of these records included larvae, there can be no conclusion regarding the identity of the true host plants of any of these species. In contrast, *K. morilli* has been found breeding in large number on *Parthenium hysterophorus* in India (pers comm. L. A. Mound).

Several females and one male of the new species described below were found on plants of *P. hysterophorus*, although this species was not found on other plants species at the same locality. This suggests that this weed might a breeding host of the new species, although, larvae were not found. *Parthenium hysterophorus* seems to be originate from Gulf of Mexico, but is widespread in the rest of America. Now it has a worldwide distribution and is a serious problem as a weed in India and Australia. In Argentina, there is a biotype of it less tall and with yellow flowers (Cabrera 1963, 1978; Correa 1971). There is an interesting relationship between the genus *Kurtomathrips* and this weed, and they may have had a long coexistence and coevolution. The biodiversity of Thysanoptera in Mendoza has been little studied. De Borbón *et al.* (1999) gave an updated list of the species of thrips presents on common weeds and some cultivated plants. Nevertheless, many uncommon weeds and native plants were excluded from this work and the relationships between host plants and species of thrips was not often clear. Although, common and polyphagous species were recorded, many monophagous and rare species from Argentina are not yet known.

MATERIAL AND METHODS

Plant host was identified by Dr. Arturo Ambrosetti (Facultad de Ciencias Agrarias, Universidad Nacional de Cuyo). The thrips were macerated in 5% NaOH solution to remove the body contents. They were dehydrated progressively through a series of alcohols and the body contents were fully cleared in clove oil. Then, individuals were mounted in canada balsam (Mound & Marullo, 1996). The characteristic of the species of this genus are difficult to study unless specimens are fully cleared.



Fig. 1. *Kurtomathrips morilli*: Tergites VI-X. Digital microphotographic taken by Dr. L. Mound.

RESULTS

Kurtomathrips Moulton 1927

Diagnosis. The new species described below has the major setae minute, except on tergites IX and X. The generic definition given by Mound & Marullo (1996) therefore needs to be revised as follows, to omit reference to the major setae with expanded apices that are found in the other species: Minute usually wingless species, macropterae very rare; body strongly sculptured; head smaller than trapezoidal pronotum; antenna 8-segmented, III smaller than II and without sense cone, IV with one simple sense cone; tergites with posteromarginal craspedum of small lobes; tergite I transverse with greatly enlarged spiracular area; sternites with marginal setae minute and a transverse row of similar discal setae; male with transverse glandular area on sternites III-VII.

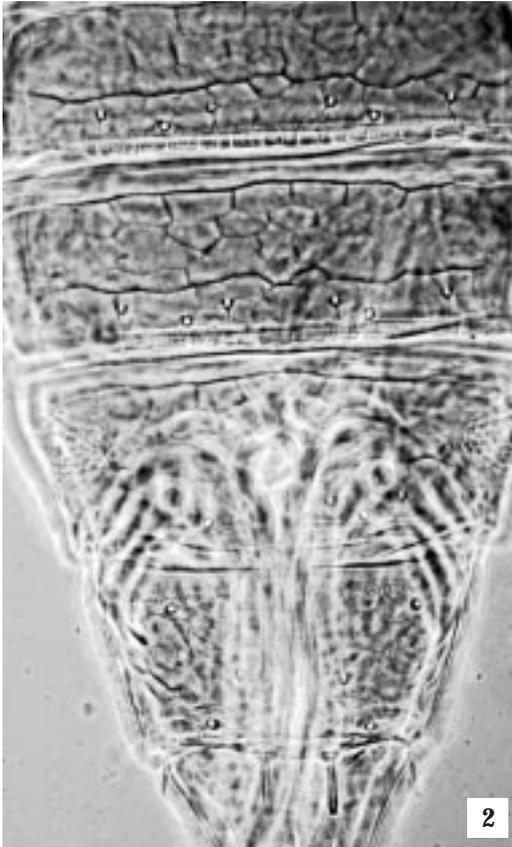


Fig.2. *Kurtomathrips desantisi* n.sp. Tergites VI-X. Digital microphotographic taken by Dr. L. Mound.

***Kurtomathrips desantisi* n.sp.**
(Figs 2-7)

Diagnosis: Major setae of thorax and abdominal tergites I - VIII all minute and finely setaceous, postermarginal setae on IX - X slightly thickened; tergites with postermarginal craspedum, lobes of craspedum wider than long.

Description of female apterous. *Colour,* body brownish yellow, antennal segments VI-VIII brown also tips of tarsi; pronotum with two pairs of brown spots, meso and metanota each with one pair of brown spots, pleurite sutures brown. *Structure,* major setae of head, thorax and abdominal segments I to VIII minute and finely setaceous; head small, wider than long with reticulation on collar, vertex sculptured with three pairs of minute setae; eyes prominent compared with rest of head, with few minute setae; ocelli absent. Antenna with eight segments; segment II spherical, larger than III and IV; segment III without sen-

se cone, IV and V with one simple sense cone arising ventrally; maxillary palps three segmented, labial palps two segmented. Pronotum trapezoidal. Legs with transverse striations on femora and tibiae, tarsi two segmented. Abdomen reticulated; posterior margin of tergites with narrow craspedum, lobes wider than long; tergites I and VIII with greatly enlarged spiracular area; tergites II to VII with one pair of campaniform sensilla and two pairs of minute setae on posterior margin; abdominal segments IX and X with setae pair S1 slightly thickened and blunt at tip; sternites III to VII with a row of 8 to 12 discal setae; pleurites reticulated with one pair of campaniform sensilla. Measurements in microns: body length 940, head length 78, width 102, tergite IX setae, S1 27, tergite X setae, S1 22.

Male apterous: colour and spots similar to female, but smaller and more slender; sternites III to VII each with a transverse glandular area.

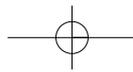
Examined material: ARGENTINA: Mendoza, Potrerillos, 14-XII-2002, ex. *P. hysterothorus*, (MLP), Luciana Torti coll., Holotype female and Paratypes: 14 females, 1 male.

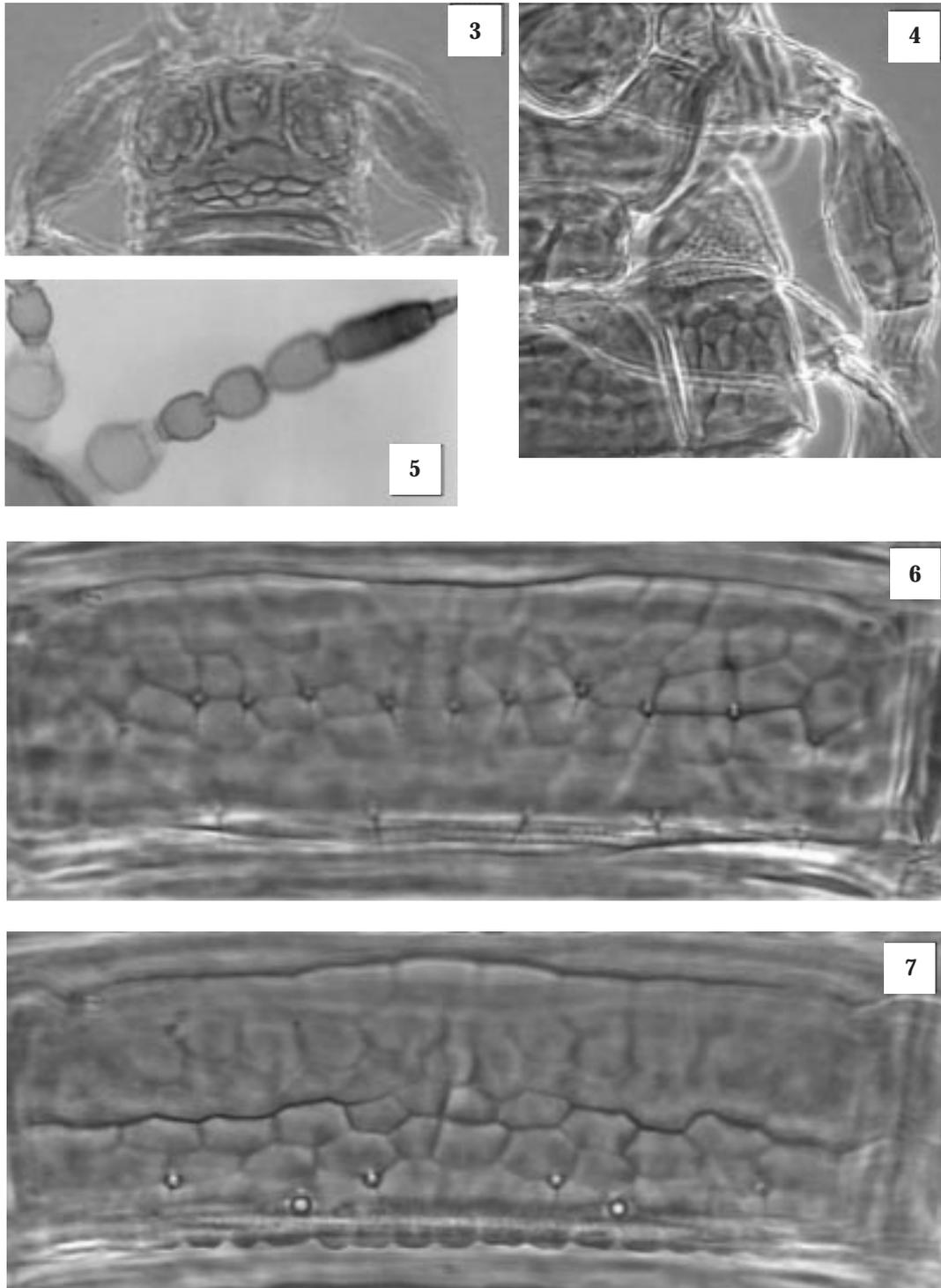
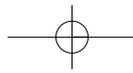
Key of *Kurtomathrips* species

1. Major setae of thorax and abdominal tergites I - VIII all minute and finely setaceous, postermarginal setae on IX - X slightly thickened; lobes of craspedum on posterior margins of tergites wider than long (Fig. 2-7).....
..... *Kurtomathrips desantisi* n.sp.
- Major setae on thorax and abdominal tergites flattened and usually asymmetric, on VI - VIII more than half the length of these tergites; lobes of craspedum on tergites all longer than wide, with equally large interval between each lobe 2
2. Body pale in colour; median tergites with only one setae immediately lateral to the submedian discal pore, tergites with 2 pairs of major setae (Fig. 1) *K. morilli*
- Body light brown in colour; median tergites with 2 setae immediately lateral to the submedian discal pore, tergites with 3 pairs of major setae *K. brunneus*

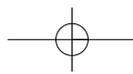
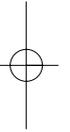
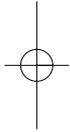
ACKNOWLEDGMENTS

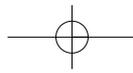
I am grateful to Dr. Laurence A. Mound for help in recognizing this new species, correction of my





Figs.3-7. *Kurtomathrips desantisi* n.sp.: 3, Head; 4, Spiracular area of tergite I; 5, Antenna; 6, Sternite VI, row of discal setae; 7 Tergite VI, minute setae, campaniform sensilla and craspedum. Digital microphotographics taken by the author.





de BORBON, C. M. First record of *Kurtomathrips* (Thysanoptera: Thripidae) in Argentina.

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