

New Records for Mexico: *Gynaikothrips uzeli*, *Androthrips ramachandrai* (Thysanoptera: Phlaeothripidae) and *Montandoniola confusa* (Hemiptera: Anthocoridae)

Authors: Jhonathan Cambero-Campos, Rita Valenzuela-García, Carlos Carvajal-Cazola, Claudio Rios-Velasco, and Oswaldo García-Martínez

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NEW RECORDS FOR MEXICO: *GYNAIKOTHRIPS UZELI*, *ANDROTHRIPS RAMACHANDRAI* (THYSANOPTERA: PHLAEOTHRIPIDAE) AND *MONTANDONIOLA CONFUSA* (HEMIPTERA: ANTHOCORIDAE)

JHONATHAN CAMBERO-CAMPOS¹, RITA VALENZUELA-GARCÍA¹, CARLOS CARVAJAL-CAZOLA², CLAUDIO RIOS-VELASCO¹ AND OSWALDO GARCÍA-MARTÍNEZ¹

¹Departament of Parasitology, Universidad Autónoma Agraria Antonio Narro, Calzada Antonio Narro 1923, Buenavista, Saltillo, Coahuila, México, C.P. 25315

²Unidad Académica de Agricultura, Universidad Autónoma de Nayarit, Tepic-Compostela Km 9, Xalisco, Nayarit, México

Gynaikothrips uzeli Zimmerman is almost exclusively associated with the weeping fig, *Ficus benjamina* L. (Moraceae) and it has been reported as such in Trinidad and Tobago, Belize, the south-eastern United States, and Puerto Rico (Boyd & Held 2006; Dobbs & Boyd 2006; Held et al. 2005; Held & Boyd 2008; Malcom & Van Savers 2005). Adults and immatures damage young leaves by causing them to fold along the main vein (Held 2005). In galls of *Ficus benjamina* L., several natural enemies have been associated with *G. uzeli*; e.g., *Chrysoperla* sp. (Chrysopidae) (Held et al. 2005), *Montandoniola moraguesi* Puton (Anthocoridae) (Dobbs & Boyd 2006; Held et al. 2005), *Thripastichus gentilei* (Del Guercio) (Eulophidae) (La Salle 1993), and the predaceous thrips *Androthrips* spp. (Mound et al. 1995).

In Dec 2009, 1110 galls of *F. benjamina* (Fig. 1) were collected in 3 different counties of the State of Nayarit, Santiago Ixcuintla (21°49'16.55"N, 105°12'06.08"W), San Blas (21°32'28.7"N, 105°17'10.2"W), and Tepic (21°30'14.14"N, 104°53'40.27"W). Specimens of thrips and anthocorids (Table 1) were collected from these galls. The thrips were identified by M. S. Octavio J. Cambero Campos at Universidad Autonoma Agraria Antonio Narro (UAAAN) and confirmed by M. S. Axel P. Retana Salazar at Universidad de Costa Rica. For the identification of the anthocorid *M. confusa*, dissections of female and male genitalia were made and the redefinitions of Plout-Sigwalt et al. (2009) were followed; a further confirmation was made by Dominique Plout-

Sigwalt del Muséum National d' Histoire Naturelle, Département Systématique & Evolution (Entomologie).

Altogether 7808 adults, 9687 immatures, and 11240 eggs of *G. uzeli* and 632 adults of *A. ramanchandrai* were recorded from field collected galls of *F. benjamina*. In the same galls, 43 adults and 126 nymphs of *M. confusa* were found (Table 1). Mound et al. (1995) and Retana (2006) mention that the relative length of the pronotal posterolateral setae is the only characteristic to distinguish *G. uzeli* from *G. ficorum*. A practical but less accurate way to distinguish these 2 species is by their host association. Mound et al. (1995) suggest that *G. uzeli* is the main builder of galls in *F. benjamina*, while *G. ficorum* is associated with *F. microcarpa*. Boyd & Held (2006) and Held & Boyd (2008) noted that the thrips *A. ramanchandrai* is a gall inhabitant and a predator of these thrips.

Until 2008, the predator *M. moraguesi* was considered to be the only species within the genus. Plout-Sigwalt et al. (2009) concluded that the genus *Montandoniola* is actually a complex of species that includes *M. moraguesi* (Puton 1896), *M. thripodes* Bergroth 1916, *M. pictipennis* (Esaki 1931), and *M. confusa* Streito & Matocq. Plout-Sigwalt et al. (2009) contend that many of the earlier reports of *M. moraguesi* associated with *Ficus* in the New World actually refer to a newly described species, *M. confusa*.

Specimens of both species of thrips, as well as the anthocorid, were deposited in the National Insect Collection of the Universidad Nacional Au-

TABLE 1. COUNTIES OF NAYARIT MÉXICO WHERE *GYNAIKOTHRIPS UZELI*, *MONTANDONIOLA CONFUSA* AND *ANDROTHRIPS RAMACHANDRAI* WERE COLLECTED.

Counties	N ¹	<i>G. uzeli</i>			<i>M. confusa</i>		<i>A. ramanchandrai</i>
		Eggs	Immature*	Adults	Nymphs	Adults	Adults
Santiago	100	152	139	479	13	7	11
San Blas	700	9268	7479	4488	102	30	387
Tepic	300	1820	2069	2841	11	6	234
Total	1100	11240	9687	7808	126	43	632

¹Number of galls collected; *1st and 2nd instars, propupa, pupae 1 & 2.

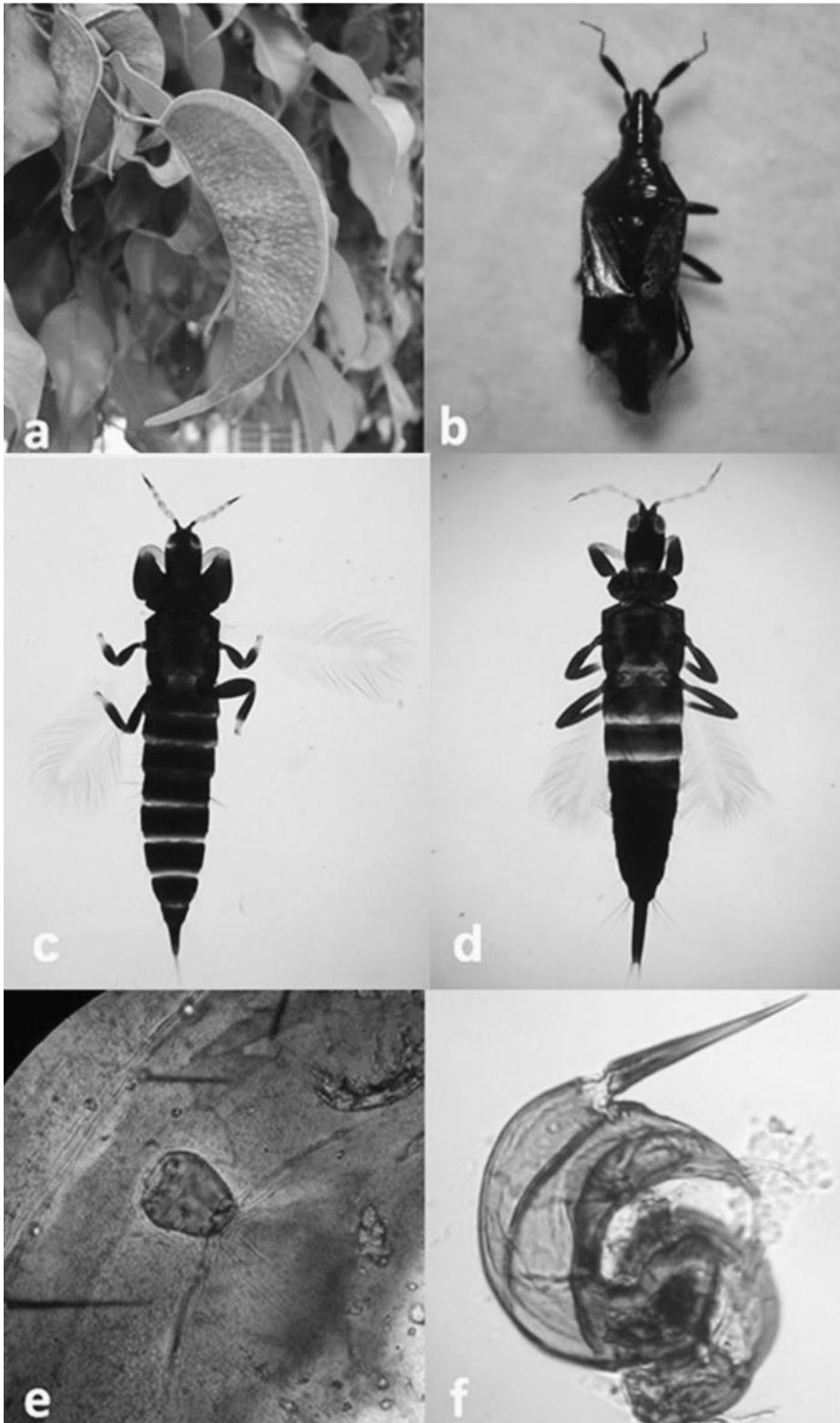


Fig. 1. (a) Galls of *Ficus benjamina*; (b) *Montandoniola confusa* ♀; (c) *Androthrips ramanchandrai* ♀; (d) *Gynaikothrips uzeli* ♀; (e) Female copulatory tube (*M. confusa*) and (f) Male paramere, dorsal view (*M. confusa*).

tonoma de México, at the Research Center in Microscopic Structures (CIEMic), Research City, Universidad de Costa Rica 2060 and at the Insect Collection of the Parasitology Department at UAAAN, Buenavista, Saltillo, Coahuila, México.

SUMMARY

The presence of the thrips *Gynaikothrips uzeli* Zimmerman, *Androthrips ramachandrai* Karny, and the anthocorid *Montandoniola confusa* Streito & Matocq are reported for the first time associated with galls of *Ficus benjamina* in San Blas, Santiago Ixcuintla, and Tepic of Nayarit, México.

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