

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

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

Source: Florida Entomologist, 93(3) : 470-472

Published By: Florida Entomological Society

URL: <https://doi.org/10.1653/024.093.0328>

BioOne Complete (complete.BioOne.org) is a full-text database of 200 subscribed and open-access titles in the biological, ecological, and environmental sciences published by nonprofit societies, associations, museums, institutions, and presses.

Your use of this PDF, the BioOne Complete website, and all posted and associated content indicates your acceptance of BioOne's Terms of Use, available at www.bioone.org/terms-of-use.

Usage of BioOne Complete content is strictly limited to personal, educational, and non - commercial use. Commercial inquiries or rights and permissions requests should be directed to the individual publisher as copyright holder.

BioOne sees sustainable scholarly publishing as an inherently collaborative enterprise connecting authors, nonprofit publishers, academic institutions, research libraries, and research funders in the common goal of maximizing access to critical research.

NEW RECORDS FOR MEXICO: *GYNAIKOTHRIPS UZELI*, *ANDROTHRIPS RAMACHANDRAI* (THYSANOPTERA: PHLAEOTHIRIPIDAE) 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 Pluot-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 RAMANCHANDRAI* 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.

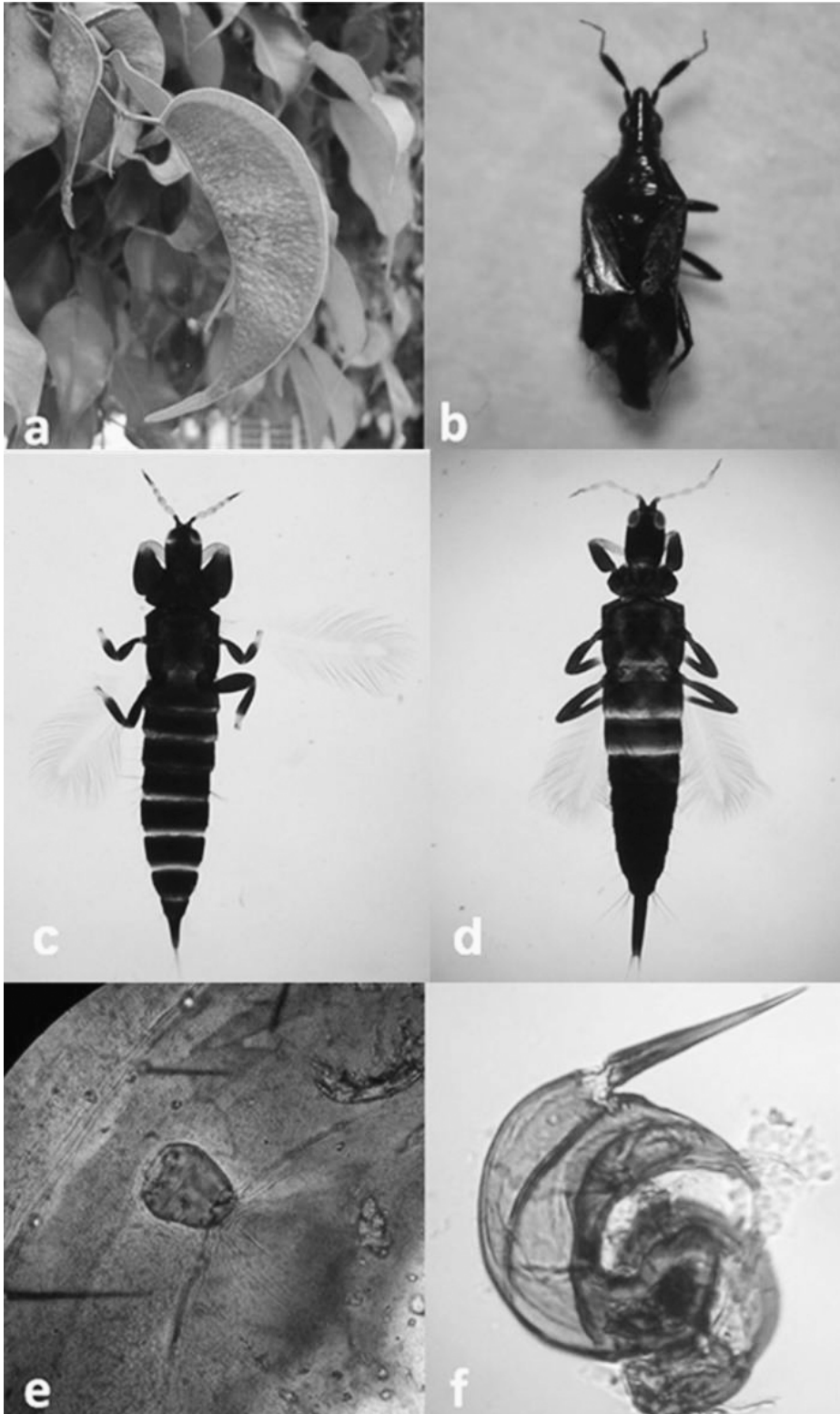


Fig. 1. (a) Galls of *Ficus benjamina*; (b) *Montandoniola confusa* ♀; (c) *Androthrips ramanchandrai* ♀; (d) *Gynaikothrips uzeli* ♀; (e) Female copulatory tube (*M. confusa*) and (f) Male paramere, dorsal view (*M. confusa*).

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.

ACKNOWLEDGMENTS

Thanks to Axel Retana Salazar for confirmation of the thrips and review of the manuscript and to Dominique Poult-Sigwalt for support in the identification of the anthocorid.

REFERENCED CITED

- BOYD, JR., D. W., AND HELD, D. W. 2006. *Androthrips ramachandrai* (Thysanoptera: Phlaeothripidae): an introduced thrips in the United States. Florida Entomol. 89: 455-458.
- DOBBS, T. T., AND BOYD, D. W. 2006. Status and distribution of *Montandoniola moraguesi* (Hemiptera: Anthocoridae) in the continental United State. Florida Entomol. 89: 41-46.
- HELD, D., AND BOYD, JR., D. W. 2008. New records of *Gynaikothrips uzeli* (Zimmerman) (Thysanoptera: Phlaeothripidae) on *Ficus benjamina* in Texas and O'ahu, Hawaii, USA. Pan-Pacific Entomol. 84: 77-80.
- HELD, D. W., BOYD, D., LOCKLEY, T., AND EDWARDS, G. B. 2005. *Gynaikothrips uzeli* Zimmerman (Thysanoptera: Phlaeothripidae) in the Southeastern United States: distribution and review of biology. Florida Entomol. 88: 538-540.
- LASALLE, J. 1993. North American genera of Tetrastichinae (Hymenoptera: Eulophidae). J. Nat Hist. 28: 109-236.
- MALCOM, B. R., AND VAN SAVERS, M. A. 2005. CariPest, Pest Alert System. *Gynaikothrips uzeli*. 20th January 2010 [Online] http://www.caripestnetwork.org/vtt/docs/datacheets/thysanoptera/gynaikothrips_uzeli.pdf
- MOUND, L. A., WANG, C. L., AND KAJIMA, S. O. 1995. Observations in Taiwan on the identity of the Cuban laurel thrips (Thysanoptera, Phlaeothripidae). J. New York Entomol. Soc. 103: 185-190.
- PLUOT-SIGWALT, D., CLAUDE, S. J., AND MATOCQ, A. 2009. Is *Montandoniola moraguesi* (Puton, 1896) a mixture of different species? (Hemiptera: Heteroptera: Anthocoridae). Zootaxa. 2208: 25-43.
- RETANA, S. A. P. 2006. Variación morfológica del complejo *Gynaikothrips uzeli-ficorum* (Phlaeothripidae: Tubulifera). MES. 1:1-9.