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: GYNAIKOTHIRPS UZELI, ANDROTHRIPS RAMANCHANDRAI (THYSANOPTERA: PHLAEOTHRIPIDAE) AND MONTANDONIOLA CONFUSA (HEMIPTERA: ANTHOCORIDAE)

JHONATHAN CAMBERO-CAMPOS1, RITA VALENZUELA-GARCÍA1, CARLOS CARVAJAL-CAZOLA2, CLAUDIO RIOS-Velasco1 AND OSWALDO GARCÍA-MARTÍNEZ1

1Department of Parasitology, Universidad Autónoma Agraria Antonio Narro, 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 southeastern 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 Autónoma de Mexico.

TABLE 1. COUNTIES OF NAYARIT MÉXICO WHERE GYNAIKOTHIRPS UZELI, MONTANDONIOLA CONFUSA AND ANDROTHRIPS RAMANCHANDRAI WERE COLLECTED.

<table>
<thead>
<tr>
<th>Counties</th>
<th>G. uzeli</th>
<th>M. confusa</th>
<th>A. ramanchandrai</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Eggs</td>
<td>Immature*</td>
<td>Adults</td>
</tr>
<tr>
<td>Santiago</td>
<td>100</td>
<td>152</td>
<td>139</td>
</tr>
<tr>
<td>San Blas</td>
<td>700</td>
<td>9268</td>
<td>7479</td>
</tr>
<tr>
<td>Tepic</td>
<td>300</td>
<td>1820</td>
<td>2069</td>
</tr>
<tr>
<td>Total</td>
<td>1100</td>
<td>11240</td>
<td>9687</td>
</tr>
</tbody>
</table>

*Number 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 Poulit-Sigwalt for support in the identification of the anthocorid.

REFERENCED CITED


