

# REVISTA NICARAGUENSE DE ENTOMOLOGIA

N° 280

Septiembre 2022

NEW RECORD TO *CALAYOTLUS DISCICOLLIS*  
(BURMEISTER, 1838) (BLABEROIDEA: BLATTELLIDAE).

Julio Cesar Estrada-Álvarez & Carlo G. Sormani H.



PUBLICACIÓN DEL MUSEO ENTOMOLÓGICO  
LEÓN - - - NICARAGUA

# Revista Nicaragüense de Entomología. Número 280. 2022.

---

*La Revista Nicaragüense de Entomología* (ISSN 1021-0296) es una publicación reconocida en la Red de Revistas Científicas de América Latina y el Caribe, España y Portugal (Red ALyC). Todos los artículos que en ella se publican son sometidos a un sistema de doble arbitraje por especialistas en el tema.

*The Revista Nicaragüense de Entomología* (ISSN 1021-0296) is a journal listed in the Latin-American Index of Scientific Journals. Two independent specialists referee all published papers.

## Consejo Editorial

**Jean Michel Maes**  
Editor General  
Museo Entomológico  
Nicaragua

**José Clavijo Alberto**  
Universidad Central de  
Venezuela

**Weston Opitz**  
Kansas Wesleyan University  
United States of America

**Fernando Fernández**  
Universidad Nacional de  
Colombia

**Julieta Ledezma**  
Museo de Historia Natural “Noel  
Kempf”  
Bolivia

**Fernando Hernández-Baz**  
Editor Asociado  
Universidad Veracruzana  
México

**Silvia A. Mazzucconi**  
Universidad de Buenos Aires  
Argentina

**Don Windsor**  
Smithsonian Tropical Research  
Institute, Panama

**Jack Schuster**  
Universidad del Valle de  
Guatemala

**Olaf Hermann Hendrik  
Mielke**  
Universidade Federal do  
Paraná, Brasil

---

**Foto de la portada:** *Calayotlus discicollis* (Burmeister, 1838), female (photo by Yuichiro Yoshino).

**NEW RECORD TO *CALAYOTLUS DISCICOLLIS*  
(BURMEISTER, 1838) (BLABEROIDEA: BLATTELLIDAE).**

**Julio Cesar Estrada-Álvarez<sup>1, 2</sup> & Carlo G. Sormani H.<sup>2, 3</sup>**

**RESUMEN**

**Nuevo registro para *Calayotlus discicollis* (Burmeister, 1838) (Blaberoidea: Blattellidae).**

Reportamos nuevos datos para *Calayotlus discicollis* (Burmeister, 1838); adicionalmente enmendamos localidades presentadas en Estrada-Álvarez & Sormani, 2018, resultado de la revisión de material del Muséum d'histoire naturelle de Genève.

**Palabras clave:** Endémica, Saussure, Localidades, México, Biogeografía.

**DOI:** 10.5281/zenodo.7473563

**ABSTRACT**

We report new data about *Calayotlus discicollis* (Burmeister, 1838); additionally, we amended locations presented in Estrada-Álvarez & Sormani, 2018, as a result of revision of material from the Muséum d'histoire naturelle de Genève.

**Keywords:** Endemic, Saussure, localities, México, Biogeography.

<sup>1</sup>Museo Universitario de Historia Natural Dr. Manuel M. Villada UAEMex, Inst. Literario 100, Colonia Centro, Toluca, Estado México C.P. 50000. micraten@yahoo.com.mx; orcid.org/0000-0002-3097-0599

<sup>2</sup> Entomological Research A.C., Metepec, Estado México.

<sup>3</sup> Instituto de Ecología, A.C., Ap. Postal 63, 91000, Xalapa, Veracruz, México.  
sormanihc@gmail.com;

## INTRODUCTION

Specimens of the cockroach *Calayotlus discicollis* (Burmeister, 1838) are scarce in collections, its bionomy is unknown to date and only adults are known, its distribution is within to the province of the Balsas Basin in the central part of Mexico.

On July 7, 2019, a specimen of *C. discicollis* was collected in the state of Guerrero, Mexico, this being a new record, a new altitudinal record and a more southern record of the species; greatly expanding what was reported in Estrada-Álvarez & Sormani, 2018, which justifies this note.

In this paper we report a new locality for the species and make corrections to Estrada-Álvarez & Sormani, 2018.

## METHODOLOGY

**Collections referred to in this work:** CNIN=Colección Nacional de Insectos, Instituto de Biología, UNAM. CDMX, México. MHNG=Muséum d'histoire naturelle de Genève. Genève, Suisse. IEZA=Colección Entomológica “Dr. Miguel Ángel Morón”, Instituto de Ecología; Xalapa, Veracruz. YYC=Personal Collection Yuichiro Yoshino.

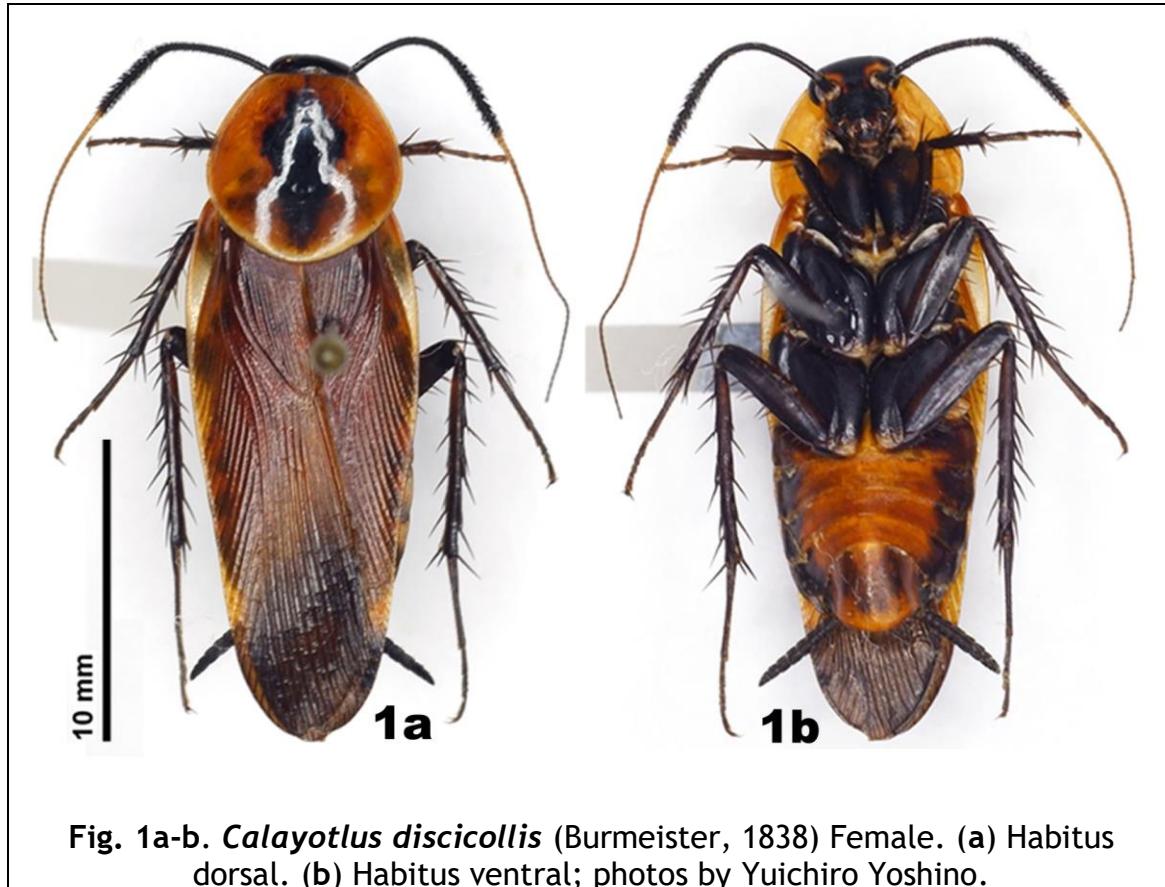
## RESULTS

### *Calayotlus discicollis* (Burmeister, 1838) (Figs. 1a, b)

**Brief diagnosis:** Large and robust species (17.5-19 mm), without accentuated sexual dimorphism, only evident in antennae; Coloration black dark or reddish, with pronotum with red macules on the lateral edges, being able to extend to the disk; Antennae black basally hirsute, (mostly in females) and the rest lightened. Tegmen with a white spot on the discal area.

Note: the female shows variation in the color pattern; pronotum with reduced black disc spot and redder tegminas, part of these variations were found in revised material from Estado de México and Morelos, México.

**New Record:** 1♀ MEXICO: State Guerrero, Municipality General Heliodoro Castillo, Tetela del Rio [100° 4' 42.24" W, 17° 58' 52.82" N; 374 m]; 07/VII/2018; Y. Araki col. (YYC). (Fig. 1a-b).



**Fig. 1a-b.** *Calayotlus discicollis* (Burmeister, 1838) Female. (a) Habitus dorsal. (b) Habitus ventral; photos by Yuichiro Yoshino.

### Corrections and amendments to Estrada-Álvarez & Sormani, 2018

In addition to this new record, amendments wrong determination by Saussure in MHNG collection presented in Estrada-Álvarez & Sormani, 2018:

1) *Blatta discicollis* in Saussure, 1864: 114; *Thrysocera laticornis* [part] in Saussure & Zehntner, 1893: 32; *Thrysocera discicollis* [part] in Saussure & Zehntner, 1893: 32, are incorrect determinations being exemplars of *Pseudomops cinctus* Burmeister, 1838 [MHNG revised material].

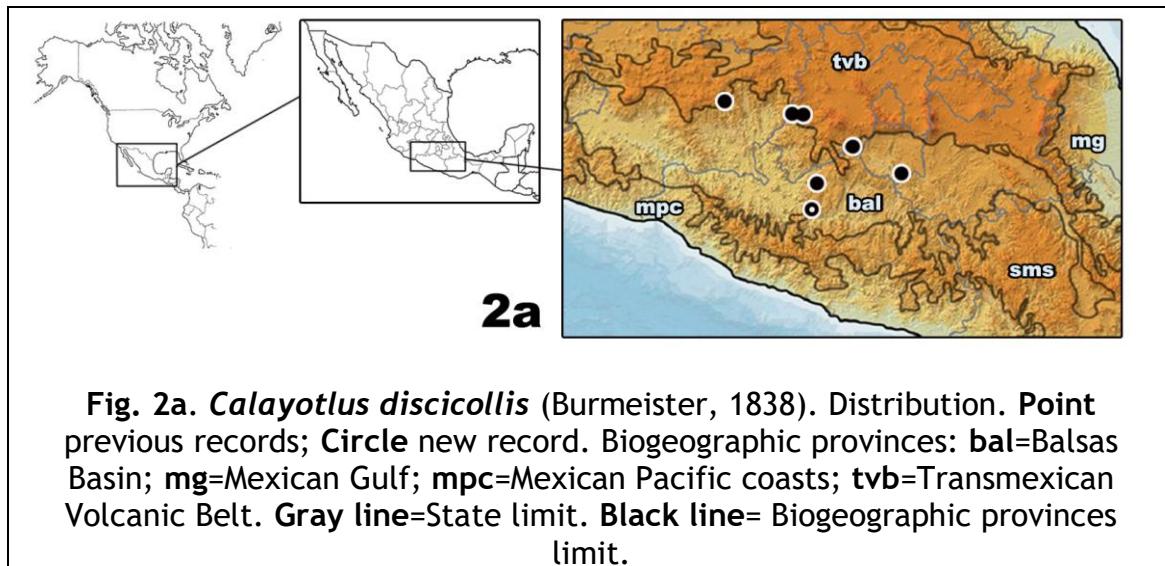
So the localities of *Veracruz*, *Ixtaczoquitlán*, Moyoapan ( $97^{\circ} 2' 49.52''$  W,  $18^{\circ} 54' 54.28''$  N, 1172 m); *Orizaba*, Orizaba ( $97^{\circ} 9' 18.36''$  W,  $18^{\circ} 51' 49.39''$  N, 2140 m), in Estrada-Álvarez & Sormani, 2018, correspond to *Pseudomops cinctus*.

2) *Calayotlus discicollis* (Burmeister, 1838) was transferred of *Pseudomops* Serville, 1831 in Estrada-Álvarez & Sormani, 2018, to the establishment of a new genus into Ectobiidae: Blattinae (sic) (Blattellinae, currently revalidated at family level Blattellidae in Djernæs et al. 2020).

The taxonomic level Ectobiidae: Blattinae (*sic*) in Estrada-Álvarez & Sormani, 2018; it's a mistake (*lapsus calami*), Blattinae it's in Blattoidea: Blattoidae: Blattidae.

So *Calayotlus* Estrada-Álvarez & Sormani, 2018, must be included in Blaberoidea: Ectobiidae: Blattellinae, like in Beccaloni, 2014.

Based on the foregoing, *C. discicollis*, it is endemic to the biogeographic province of the Balsas Basin (Fig. 2a), in an altitude range between 374 and 2318 m.



### Supplementary material revised.

*Calayotlus discicollis* (Burmeister, 1838). 1♂ México, Michoacán, Pedernales, Arr. Frio; 10/XI/87; D. Barrera coll. (CNIN). 1♂ México, Guerrero, 10 Km. O of Teloloapan; 23/VI/1990; H. Brailovsky & E. Barrera colls. (CNIN). 1♂ Valle de Bravo, Edo. de México, 1600; 12/VIII/69; Anonymous coll. (CNIN). 3♂♂ México, Morelos, Loc. 2.5 Km. N 4 km. O Huautla, Estación CEAMISH; 06-10/VIII/1996, 940 m, daytime collection; S. Zaragoza coll. (CNIN).

*Pseudomops cinctus* (Burmeister, 1838) 1♀ Guatemala; M. H de Saussure coll. (MHNG) [Det. Saussure *P. cincta* = *mexicana*]. 3♂♂ la Vera Crux (*sic*); M. H de Saussure coll. (MHNG) [Det. Saussure *P. cincta* = *mexicana*]. 2♂♂, 7♀♀ Mexique; Sumichrast coll. (MHNG) [Det. Saussure *P. cincta* = *mexicana*]. 1♀ Mexique M. H. de Saussure col (MHNG) [Det. Saussure *P. cincta* = *mexicana*]. 1♂ Mexique; coll. anonymous (MHNG). [Det. Saussure *P. cincta* = *mexicana*].

1♂, 4♀♀ Moyoapam (*sic*), Mexique; Sumichrast coll. (MHNG) [Det. Saussure *P. cincta* = *mexicana*]. 4♀♀ Moyoapam (*sic*), Mexique; Sumichrast coll. (MHNG) [ID err. Saussure *P. discicollis*]. 1♀ S. Geronimo, Guatemala; Champion coll. (MHNG) [ID Saussure *P. Oblongata* = *tolteca*]. 1♀ Soledad, Guerrero, 5000 ft.; July; H. H. Smith coll. (MHNG) [ID Saussure *P. oblongata* = *tolteca*]. 1 Nicaragua: Nueva Segovia: Ocotal, on soil, 16-XI-1985, Julia Ventura coll. [det. F. Fisk 1987] (MEL). 1♂ Nicaragua: Nueva Segovia: Dipilto, XII-1986, coll. J.M. Maes (MEL). 2♂♂, 1♀ Xalapa Enriquez, Coapexpan. pasture and acahuall, manual collection; Mayo 2004; Sormani, H.C.G. coll. (IEXA). 1♂, 1♀ Xalapa Enriquez, Santuario del Bosque de Niebla, Reserva Estatal-INECOL. mesophyll forest of Mountain, in a creek, manual collection; Mayo 2005; Sormani, H.C.G. & Ángeles, V.J.A. colls. (IEXA). 4♀♀ Xalapa Enriquez, Coapexpan. Acahuall - swamp, flying over bushes (Solanaceae), manual collection; October 2003; Sormani, H.C.G. & Ángeles, V.J.A. colls. (IEXA). 1♀ Xalapa Enriquez, Santuario del Bosque de Niebla, Reserva Estatal-INECOL., mesophyll mountain forest, in a creek, manual collection; Sormani, H.C.G. & Ángeles, V.J.A. colls. (IEXA).

## ACKNOWLEDGMENT

To Dr. Alejandro Zaldívar R. and M. Sc. María Cristina Mayorga M. (CNIN-IBUNAM, UNAM, CDMX, México); to Dr. Peter Schwendinger and Dr. John Hollier (MHNG, Genève, Suisse) for the facilities granted for the review of material deposited in their respective institutions included in this study. Dr. Viridiana Vega Badillo (Colección entomológica IEXA-INECOL) for their understanding of the delays for this project. Yuichiro Yoshino (Graduate School of Science in Tokyo Metropolitan University, Tokyo, Japan) for photos (Fig. 1a, b) and permission to use.

## BIBLIOGRAPHY

- Beccaloni, G.W. 2014.** *Cockroach Species File Online*. Version 5.0/5.0. World Wide Web electronic publication. <<http://Cockroach.SpeciesFile.org>> [last visited 07 julio 2020].
- Djernæs, M., Z.K. Varadínová, M. Kotyk, U. Eulitz, K.-D. Klass 2020.** Phylogeny and life history evolution of Blaberoidea (Blattodea). *Arthropod Systematics and Phylogeny*, **78**(1): 29-67.
- Estrada-Álvarez, J. C. & C. G. H. Sormani 2018.** Descripción de un nuevo género de cucaracha (Blattodea: Ectobiidae: Blattellinae) de México. *Boletín de la Sociedad Entomológica Aragonesa*, **63**: 177- 181.
- Saussure, H. 1864.** *Orthoptères de L'Amérique Moyenne, Mémoires pour servir à l'Histoire naturelle du Mexique, des Antilles et des Etats-Unis. Quinque memoria*, Ginebra, 276 pp.

**Saussure, H. & L. Zehntner 1893.** Fam. Blattidae, Pp. 1-112. In Porter ed. *Biologia Centrali-Americanana, Insecta-Orthoptera*. Vol. I, Londres, 468 pp.

**La Revista Nicaragüense de Entomología** (ISSN 1021-0296) es una publicación del Museo Entomológico de León, aperiódica, con numeración consecutiva. Publica trabajos de investigación originales e inéditos, síntesis o ensayos, notas científicas y revisiones de libros que traten sobre cualquier aspecto de la Entomología, Acarología y Aracnología en América, aunque también se aceptan trabajos comparativos con la fauna de otras partes del mundo. No tiene límites de extensión de páginas y puede incluir cuantas ilustraciones sean necesarias para el entendimiento más fácil del trabajo.

**The Revista Nicaragüense de Entomología** (ISSN 1021-0296) is a journal published by the Entomological Museum of Leon, in consecutive numeration, but not periodical. RNE publishes original research, monographs, and taxonomic revisions, of any length. RNE publishes original scientific research, review articles, brief communications, and book reviews on all matters of Entomology, Acarology and Arachnology in the Americas. Comparative faunistic works with fauna from other parts of the world are also considered. Color illustrations are welcome as a better way to understand the publication.

**Todo manuscrito para RNE debe enviarse en versión electrónica a:**  
*(Manuscripts must be submitted in electronic version to RNE editor):*

Dr. Jean Michel Maes (Editor General, RNE)  
Museo Entomológico de León  
Apartado Postal 527, 21000 León, NICARAGUA  
Teléfono (505) 2319-9327 / (505) 7791-2686  
[jmmaes@bio-nica.info](mailto:jmmaes@bio-nica.info)  
[jmmaes@yahoo.com](mailto:jmmaes@yahoo.com)

#### **Costos de publicación y sobretiros.**

La publicación de un artículo es completamente gratis.

Los autores recibirán una versión pdf de su publicación para distribución.