



UNIVERSIDAD NACIONAL AUTÓNOMA DE MÉXICO

POSGRADO EN CIENCIAS BIOLÓGICAS

INSTITUTO DE BIOLOGÍA

Revisión del género *Stenotarsus*
Perty, 1832 (Coleoptera: Endomychidae)
de México, Guatemala y Belice

T E S I S

QUE PARA OBTENER EL GRADO ACADÉMICO DE
MAESTRO EN CIENCIAS BIOLÓGICAS
(SISTEMÁTICA)

P R E S E N T A

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MÉXICO, D.F.

SEPTIEMBRE, 2012



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Presente

Me permito informar a usted que en la reunión ordinaria del Comité Académico del Posgrado en Ciencias Biológicas, celebrada el día 14 de junio de 2010, se aprobó el siguiente jurado para el examen de grado de **MAESTRO EN CIENCIAS BIOLÓGICAS (SISTEMÁTICA)** del alumno **ARRIAGA VARELA EMMANUEL** con número de cuenta **509015093** con la tesis titulada **"Revisión del género *Stenotarsus* Perty, 1832 (Coleoptera: Endomychidae) de México, Guatemala y Belice"**, realizada bajo la dirección del **DR. SANTIAGO ZARAGOZA CABALLERO**:

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Sin otro particular, me es grato enviarle un cordial saludo.

ATENTAMENTE
"POR MI RAZA HABLARA EL ESPIRITU"
Cd. Universitaria, D.F., a 30 de julio de 2012.

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AGRADECIMIENTOS

Al posgrado en ciencias Biológicas de la Universidad Autónoma de México.

A la Consejo Nacional de Ciencia y Tecnología por la beca número 262108 otorgada para la realización de los estudios de maestría.

A mi tutor el Dr. Santiago Zaragoza Caballero por su confianza, paciencia y enseñanzas.

A los miembros del comité tutorial, los doctores Atilano Contreras Ramos y Juan José Morrone Lupi por su apoyo y consejos.

AGRADECIMIENTOS

A los miembros del jurado Dra. Rosa Gabriela Castaño Meneses y Dr. José Luis Navarrete Heredia por sus valiosas aportaciones.

A la Dra. Wioletta Tomaszewska (Muzeum i Instytut Zoologii Polskiej Akademii Nauk) por compartir sus conocimientos sobre Endomychidae durante la realización de este trabajo.

Al Dr. Paul Skelley (Florida State Collections of Arthropods) por sus invaluable comentarios que ayudaron a mejorar el manuscrito.

Los curadores de las colecciones entomológicas que permitieron el estudio del material depositado en sus instituciones.

A la biol. Susana Guzmán Gómez (UNIBIO) por la ayuda para la toma de fotografías con el microscopio Leica Z16 APO A.

Al Dr. Fernando Ortega Gutiérrez y Margarita Reyes Salas (Instituto de Geología, UNAM) por la ayuda con el uso del microscopio electrónico de barrido.

Al personal de la Colección Nacional de Insectos del Instituto de Biología, por su apoyo.

Al biol. Jesús Cortés Aguilar por permitir el uso de sus fotografías para ilustrar los hábitos de los ejemplares de *Stenotarsus*.

.....

Agradezco a mi familia por ser todo.

A la familia Ortega-Varela, mis tíos y primos, por toda su paciencia.

Agradezco a mis amigos todos. En especial, gracias a mis compañeros de la colección entomológica: Martín, Cisteil, Paulina, Andrés, Helga, Beatriz, David, Mariza, Marilyn, Enrique, Cristina y Guillermina.

Gracias muy especiales para Sandra, Carolina y Orestes.

Agradezco a mis maestros y mentores por todo.

DEDICATORIA

A mis padres y hermanos.

A Ana.

A los seres con los que compartimos el Planeta Tierra.

Al tiempo. Tiempo invertido, tiempo perdido, tiempo ganado.

Al universo y todo lo que le rodea.

La libertad consiste en poder decir que dos más dos son cuatro
George Orwell, 1984.

*El premio se lo llevó un sabio del norte, quien demostró por A, más B,
menos C, dividido por Z, que el carnero era rojo porque sí y que moriría de moquillo.*
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RESUMEN

Se presenta una revisión preliminar de las especies del género *Stenotarsus* distribuidas en México, Guatemala y Belice. Se registran 27 especies para dicha región. Doce especies nuevas son propuestas: *Stenotarsus cortesí* **sp. nov.** (Jalisco), *S. incisus* **sp. nov.** (Quetzaltenango, Chiapas, Oaxaca, Veracruz), *S. kafkai* **sp. nov.** (Veracruz), *S. mesoamericanus* **sp. nov.** (Chiapas, Puebla), *S. mexicanus* **sp. nov.** (Veracruz), *S. molgorae* **sp. nov.** (Jalisco), *S. monterrosoi* **sp. nov.** (Izabal), *S. parallelicornis* **sp. nov.** (Veracruz), *S. raramuri* **sp. nov.** (Durango, Jalisco), *S. rulfoi* **sp. nov.** (Jalisco), *S. shockleyi* **sp. nov.** (Veracruz), *S. spiropenis* **sp. nov.** (Jalisco). *Stenotarsus circumdatus* Gerstaecker, *S. discipennis* Gorham y *S. tarsalis* Gorham son sinónimos de *S. globosus* Guérin-Ménéville. *Stenotarsus distinguendus* Arrow es sinónimo de *S. sallaei* Gorham, mientras que *S. pilatei* Gorham es un sinónimo de *S. militaris* Gerstaecker. Fueron designados lectotipos para las siguientes especies: *S. circumdatus* Gerstaecker, *S. distinguendus* Arrow, *S. exiguus* Gorham, *S. globosus* Guérin-Ménéville, *S. guatemalae* Arrow, *S. discipennis* Gorham, *S. lemniscatus* Gorham, *S. militaris* Gerstaecker, *S. rubrocinctus* Gerstaecker, *S. sallaei* Gorham, *S. tarsalis* Gorham y *S. thoracicus* Gorham. Se proporciona una clave dicotómica para la identificación de las especies. Todas las especies son descritas en detalle e ilustradas. Se proporcionan los datos disponibles sobre los hábitos y hábitats de las especies.

ABSTRACT

A preliminary review of the species of *Stenotarsus* Perty from México, Guatemala and Belize is presented. Twenty seven species are recorded from the region including 12 new species described here: *Stenotarsus cortesi* **sp. nov.** (Jalisco), *S. incisus* **sp. nov.** (Quetzaltenango, Chiapas, Oaxaca, Veracruz), *S. kafkai* **sp. nov.** (Veracruz), *S. mesoamericanus* **sp. nov.** (Chiapas, Puebla), *S. mexicanus* **sp. nov.** (Veracruz), *S. molgorae* **sp. nov.** (Jalisco), *S. monterrosoi* **sp. nov.** (Izabal), *S. parallelicornis* **sp. nov.** (Veracruz), *S. raramuri* **sp. nov.** (Durango, Jalisco), *S. rulfoi* **sp. nov.** (Jalisco), *S. shockleyi* **sp. nov.** (Veracruz), *S. spiropenis* **sp. nov.** (Jalisco). *Stenotarsus circumdatus* Gerstaecker, *S. discipennis* Gorham and *S. tarsalis* Gorham are synonymized with *S. globosus* Guérin–Méneville. *Stenotarsus distinguendus* Arrow is synonymized with *S. sallaei* Gorham, while *S. pilatei* Gorham is synonymized with *S. militaris* Gerstaecker. The lectotypes are designated for: *Stenotarsus circumdatus* Gerstaecker, *Stenotarsus distinguendus* Arrow, *Stenotarsus exiguus* Gorham, *Stenotarsus globosus* Guérin–Méneville, *Stenotarsus guatemalae* Arrow, *Stenotarsus discipennis* Gorham, *Stenotarsus lemniscatus* Gorham, *Stenotarsus militaris* Gerstaecker, *Stenotarsus rubrocinctus* Gerstaecker, *Stenotarsus sallaei* Gorham, *Stenotarsus tarsalis* Gorham, *Stenotarsus thoracicus* Gorham. A dichotomous key for the identification of the species is provided. Species are described in detail and illustrated. Data on the habits and habitats of species are given when available.

INTRODUCCIÓN

El género *Stenotarsus* Perty (1832) sobresale como el más diverso de Endomychidae, una familia heterogénea y moderadamente diversa de escarabajos micófagos. Hasta la fecha 256 especies de *Stenotarsus* han sido descritas, Estas se distribuyen en las regiones tropicales y subtropicales del planeta, con la mayor diversidad en las regiones Indomalaya y Neotropical (Shockley *et al.* 2009).

Los miembros de *Stenotarsus* presentan tallas que van de los 3 a los 12 mm de longitud. La mayoría presentan colores rojo a castaño o negro, generalmente con marcas contrastantes. Sin embargo, muestran una gran diversidad morfológica, junto con una gran similitud externa entre algunas especies y una considerable variación intraespecífica. Por esto, *Stenotarsus* ha ganado el título del género de Endomychidae más difícil en términos de trabajo taxonómico (Gorham 1890; Strohecker 1957).

Las especies de la subfamilia Stenotarsinae se distribuyen en todas las regiones biogeográficas excepto en Europa (Tomaszewska 2000). *Stenotarsus* es el único género de esta subfamilia presente en el neotrópico, con 89 especies conocidas. Este número parece ser altamente subestimado, especialmente en México y América Central, donde el trabajo taxonómico ha sido notoriamente abandonado.

La referencia más completa de esta fauna se publicó hace más de un siglo, en la Biología Centrali-Americana (Gorham 1890). Por desgracia, ese trabajo carece de claves para la determinación y las descripciones específicas son muy poco informativas, limitadas a unas pocas líneas y carentes de diagnosis diferenciales claras. Esta situación impide la determinación taxonómica precisa de los especímenes sin una comparación directa con el material tipo. Un ejemplo ilustrativo de la dificultad de la determinación de las especies de *Stenotarsus* de México y América Central es la especie panameña *S. subtilis* Arrow, la cual fue estudiada a fondo debido a su peculiar comportamiento gregario, pero que fue determinada erróneamente y referida en muchas publicaciones con un nombre equivocado: *S. rotundus* Arrow (Roubik y Skelley 2001).

El presente trabajo es una revisión taxonómica de las especies de *Stenotarsus* de México, Guatemala y Belice basada en la morfología de los especímenes adultos. Se describen cuidadosa y detalladamente las doce especies nuevas y redescubren las quince especies conocidas.

HISTORIA TAXONÓMICA

Perty (1832) estableció el género *Stenotarsus* para acomodar su nueva especie de Brasil: *S. brevicollis*. La primera especie conocida para nuestra región, *S. globosus*, fue descrita brevemente por Guérin-Méneville (1857). Gerstaecker (1858), en la primer síntesis general de la familia a nivel mundial incluyó *Stenotarsus* dentro de la tribu Dapsini y describió *S. orbicularis* de Guatemala y tres especies de México: *S. circumdatus*, *S. militaris* y *S. rubrocinctus*. Subsecuentemente, Gorham (1873) añadió a las especies mexicanas *S. pilatei* y *S. sallaei*. Esta última especie fue originalmente atribuida erróneamente al país de Colombia.

Gorham (1890), en la magna obra *Biologia Centrali–Americana*, hizo un sumario de todas las especies de la región. Ahí se incluyeron las descripciones de nueve especies de México, Guatemala y Belice, y dos de Panamá. A la vez, cinco especies de América del sur fueron reportadas para la zona. La fauna centroamericana de *Stenotarsus* fue dividida en dos secciones con base en la proporción de los artejos del flagelo antenal. En esa obra Gorham (1890) propuso el nombre genérico *Systaechea* para acomodar dos nuevas especies de Panamá con presumible afinidad con *Stenotarsus*. Ese trabajo había permanecido hasta la fecha como el más completo tratado de *Stenotarsus* de México y América Central.

Arrow (1920) aclaró algunos errores de identificación hechos por Gorham (1890), y describió siete nuevas especies de la región. Ahí *Stenotarsus cordatus* Gorham (1890) fue sinonimizado con *S. globosus*. *Stenotarsus tarsalis* Gorham (1890) fue propuesto como una variedad cromática de *S. circumdatus* Gerstaecker (1858). Los géneros *Systaechea* Gorham y *Stenostarsoides*, un nombre propuesto por Csiki (1900) para las especies asiáticas de *Stenotarsus*, fueron sinonimizadas bajo *Stenotarsus*.

En el catálogo mundial de Endomychidae (Strohecker 1953), el más importante trabajo sobre esta familia en el siglo XX, *Stenotarsus* fue incluido en una pobremente definida subfamilia Stenotarsinae. La especie mexicana *S. tarsalis* fue enlistada como una variedad cromática de *S. circumdatus*. Vale la pena subrayar que H. F. Strohecker, el principal estudioso de la familia Endomychidae en el siglo XX, no contribuyó con la descripción de ninguna especie de México y América Central, como lo hizo con la fauna de América Central, África, Asia and Oceanía (e.g. Strohecker 1957, 1974, 1979).

Varias reorganizaciones de los taxones supragenéricos de Endomychidae y otros miembros de la serie Cerylonida de Cucujoidea ocurrieron particularmente en las últimas décadas (ver Pakaluk *et al.* 1994; Ślipiński & Pakaluk 1992). Siguiendo estos acomodos, Lawrence & Newton (1995), en su clasificación general de las familias y subfamilias de Coleoptera, incluyeron a *Stenotarsus* dentro de la subfamilia Epipocinae.

El primer análisis filogenético de la familia fue hecho por Tomaszewska (2000). Ahí *Stenotarsus* fue encontrado como parte de una subfamilia Stenotarsinae redefinida. A la vez se incluyó una detallada descripción genérica de *Stenotarsus*.

Roubik & Skelley (2001) revisaron las especies conocidas de *Stenotarsus* de Panamá con el objetivo de conocer la identidad real del escarabajo gregario referido en numerosas publicaciones como *S. rotundus* Arrow (por ejemplo, Denlinger 1994, 1996, Nedved 1996, Nedved y Windsor 1994a, 1994b; Tanaka 1986, Wolda y Denlinger 1984). Basados en el estudio del material tipo y así como material adicional descubrieron que *S. subtilis* Arrow es el nombre válido de esta especie. Además, se encontró que *S. rotundus* era conespecífica con *S. ovalis* Arrow, y fue sinonimizada bajo ésta. En ese trabajo fue señalada la gran necesidad de una revisión taxonómica de las especies centroamericanas, y a pesar de que se reconoció la existencia de especies no descritas en la fauna panameña no se propuso ningún taxón nuevo, dejando la cuenta en 28 especies para México y América Central, 21 de ellas registradas en nuestra área de estudio: México, Guatemala y Belice.

Como parte del trabajo realizado para la preparación de la sinopsis de Endomychidae de México (Arriaga–Varela *et al.* 2007) fue encontrada una considerable diversidad de especies de *Stenotarsus*, pero debido a la falta de una referencia taxonómica adecuada la mayoría quedaron sin determinación. Por lo tanto, la meta de esta contribución es corregir dicha situación a través del estudio detallado del material tipo y adicional, proveyendo así un marco de referencia taxonómico que sirva como base para futuros trabajos de toda índole sobre *Stenotarsus* de la región.

OBJETIVOS

Objetivo general

- Revisar taxonómicamente las especies del género *Stenotarsus* presentes en México, Guatemala y Belice.

Objetivos particulares

- Describir detalladamente las especies resultantes de la revisión, tanto las nuevas, como las previamente nombradas.

- Encontrar los caracteres morfológicos determinantes para la segregación específica.

- Aportar una clave dicotómica para la identificación de las especies de *Stenotarsus* distribuidas en la región.

- Proporcionar datos relevantes sobre la distribución e historia natural de los organismos.

RESULTADOS

Artículo: Preliminary review of the genus *Stenotarsus* Perty (Coleoptera: Endomychidae) from México, Guatemala and Belize, with the descriptions of twelve new species

(Artículo sometido a la revista Zootaxa en abril de 2012)

Preliminary review of the genus *Stenotarsus* Perty (Coleoptera: Endomychidae) from México, Guatemala and Belize, with the descriptions of twelve new species

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Abstract

A preliminary review of the species of *Stenotarsus* Perty from México, Guatemala and Belize is presented. Twenty seven species are recorded from the region including 12 new species described here: *Stenotarsus cortesi* **sp. nov.** (Jalisco), *S. incisus* **sp. nov.** (Quetzaltenango, Chiapas, Oaxaca, Veracruz), *S. kafkai* **sp. nov.** (Veracruz), *S. mesoamericanus* **sp. nov.** (Chiapas, Puebla), *S. mexicanus* **sp. nov.** (Veracruz), *S. molgorae* **sp. nov.** (Jalisco), *S. monterrosoi* **sp. nov.** (Izabal), *S. parallelicornis* **sp. nov.** (Veracruz), *S. raramuri* **sp. nov.** (Durango, Jalisco), *S. rulfoi* **sp. nov.** (Jalisco), *S. shockleyi* **sp. nov.** (Veracruz), *S. spiropenis* **sp. nov.** (Jalisco). *Stenotarsus circumdatus* Gerstaecker, *S. discipennis* Gorham and *S. tarsalis* Gorham are synonymized with *S. globosus* Guérin-Méneville. *Stenotarsus distinguendus* Arrow is synonymized with *S. sallaei* Gorham, while *S. pilatei* Gorham is synonymized with *S. militaris* Gerstaecker. The lectotypes are designated for: *Stenotarsus circumdatus* Gerstaecker, *Stenotarsus distinguendus* Arrow, *Stenotarsus exiguus* Gorham, *Stenotarsus globosus* Guérin-Méneville, *Stenotarsus guatemalae* Arrow, *Stenotarsus discipennis* Gorham, *Stenotarsus lemniscatus* Gorham, *Stenotarsus militaris* Gerstaecker, *Stenotarsus rubrocinctus* Gerstaecker, *Stenotarsus sallaei* Gorham, *Stenotarsus tarsalis* Gorham, *Stenotarsus thoracicus* Gorham. A dichotomous key for the identification of the species is provided. Species are described in detail and illustrated. Data on the habits and habitats of species are given when available.

Key words: Taxonomy, Endomychidae, Stenotarsinae, *Stenotarsus*, México, Guatemala, Belize, mycophagous beetles.

Resumen

Se presenta una revisión preliminar de las especies del género *Stenotarsus* distribuidas en México, Guatemala y Belice. Se registran 27 especies para dicha región. Doce especies nuevas son propuestas: *Stenotarsus cortesi* **sp. nov.** (Jalisco), *S. incisus* **sp. nov.** (Quetzaltenango, Chiapas, Oaxaca, Veracruz), *S. karkai* **sp. nov.** (Veracruz), *S. mesoamericanus* **sp. nov.** (Chiapas, Puebla), *S. mexicanus* **sp. nov.** (Veracruz), *S. molgorae* **sp. nov.** (Jalisco), *S. monterrosoi* **sp. nov.** (Izabal), *S. parallelicornis* **sp. nov.** (Veracruz), *S. raramuri* **sp. nov.** (Durango, Jalisco), *S. rufi* **sp. nov.** (Jalisco), *S. shockleyi* **sp. nov.** (Veracruz), *S. spiropenis* **sp. nov.** (Jalisco). *Stenotarsus circumdatus* Gerstaecker, *S. discipennis* Gorham y *S. tarsalis* Gorham son sinónimos de *S. globosus* Guérin-Méneville. *Stenotarsus distinguendus* Arrow es sinónimo de *S. sallaei* Gorham, mientras que *S. pilatei* Gorham es un sinónimo de *S. militaris* Gerstaecker. Fueron designados lectotipos para las siguientes especies: *S. circumdatus* Gerstaecker, *S. distinguendus* Arrow, *S. exiguus* Gorham, *S. globosus* Guérin-Méneville, *S. guatemalae* Arrow, *S. discipennis* Gorham, *S. lemniscatus* Gorham, *S. militaris* Gerstaecker, *S. rubrocinctus* Gerstaecker, *S. sallaei* Gorham, *S. tarsalis* Gorham y *S. thoracicus* Gorham. Se proporciona una clave dicotómica para la identificación de las especies. Todas las especies son descritas en detalle e ilustradas. Se proporcionan los datos disponibles sobre los hábitos y hábitats de las especies.

Palabras clave: Taxonomía, Endomychidae, Stenotarsinae, *Stenotarsus*, México, Guatemala, Belice, escarabajos micófagos.

Introduction

Stenotarsus Perty (1832) stands as the most diverse genus among all Endomychidae, a heterogeneous and moderately diverse family of mycophagous cucujoid beetles. So far, 256 species of this genus are known from the tropical and subtropical regions of the globe, with the highest diversity in the Indomalayan and Neotropical regions (Shockley *et al.* 2009a).

Stenotarsus species range from 3 to 12 mm in length. Most of them have a body that is globose and densely pubescent, frequently red–brown colored, sometimes with contrasting markings. However, they display a wide range of morphological variation, along with a strong external similarity among some species and considerable intraspecific variation. *Stenotarsus* has won, therefore, the title of the most difficult endomychid genus in terms of taxonomical work (Gorham 1890; Strohecker 1957).

Members of the subfamily Stenotarsinae are distributed in all main biogeographical regions except Europe (Tomaszewska 2000). *Stenotarsus* is the only stenotarsine genus present in the Neotropics, with 89 species recorded so far. This number seems greatly underestimated, especially in México and Central America, where taxonomic work has been notoriously neglected.

The most complete taxonomic treatment of this fauna was published more than century ago, in the *Biologia Centrali–Americana* (Gorham 1890).

Unfortunately, that work lacks identification keys and specific descriptions are uninformative, limited to a few lines and missing clear differential diagnoses. This situation prevents accurate taxonomic identification of specimens without direct comparison with type material. An illustrative example of the difficulty of making proper identifications of *Stenotarsus* from México and Central America is the Panamanian species *S. subtilis* Arrow, which was thoroughly studied due to its peculiar aggregating behavior, but misidentified and referred in many publications with a wrong name: *S. rotundus* Arrow (Roubik & Skelley 2001).

The present contribution is a preliminary taxonomic review of the *Stenotarsus* species from México, Guatemala and Belize, based on the morphology of types and additional material. We carefully describe new and redescribe already known species.

Taxonomic history

Perty (1832) established the genus *Stenotarsus* to accommodate his new species from Brazil: *S. brevicollis*. The first species known from our region, *S. globosus*, was briefly described from México by Guérin-Méneville (1857). Gerstaecker (1858), in the first general synthesis of the family, included *Stenotarsus* within his tribe Dapsini, and described *S. orbicularis* from Guatemala and other three species from México: *S. circumdatus*, *S. militaris* and *S. rubrocinctus*. Subsequently, Gorham (1873) added *S. pilatei* and *S. sallaei* from México. This last one, originally erroneously attributed to Colombia.

Gorham (1890), in the *Biologia Centrali-Americana*, made a summary of all known *Stenotarsus* species from the region, including the description of nine species from México, Guatemala and Belize, and two from Panama. Five South American species were recorded from the region. The Central American fauna was divided in two sections based on the length of the flagellomeres. Gorham (1890) also, introduced the name *Systaechea* for two new species from Panama, with allegedly high affinity with *Stenotarsus*. This has remained to date the most comprehensive work on *Stenotarsus* from México and Central America.

Arrow (1920) clarified some misidentifications made by Gorham (1890), and described seven new species from the region. In his work, Arrow (1920) synonymized *S. cordatus* Gorham (1890) under *S. globosus*. *Stenotarsus tarsalis* Gorham (1890) was proposed as a color variety of *S. circumdatus* Gerstaecker (1858). The genera *Systaechea* Gorham and *Stenotarsoides*, a name proposed by Csiki (1900) for the Asian species of *Stenotarsus*, were synonymized under *Stenotarsus*.

In the world catalogue of Endomychidae by Strohecker (1953), the main work on the family in the 20th century, *Stenotarsus* was listed in an inclusive, poorly defined subfamily Stenotarsinae. The Mexican species *S. tarsalis* was listed there as valid, instead of as a variety of *S. circumdatus*. It is worth noting that H. F. Strohecker, the principal scholar of the family Endomychidae in the 20th century, did not contribute to the description of any new species of *Stenotarsus* from México and Central America, as he did so with the fauna from South America, Africa, Asia and Oceania (e.g. Strohecker 1957, 1974, 1979).

Various taxonomic organizations of the suprageneric taxa of Endomychidae and other members of the Cerylonid Series of Cucujoidea occurred particularly in the last decades of the 20th century (see Pakaluk *et al.* 1994; Ślipiński & Pakaluk 1992). Following these, Lawrence & Newton (1995), in their general classification

of families and subfamilies of Coleoptera, included *Stenotarsus* within the subfamily Epipocinae.

A detailed generic description of the genus was given in the first phylogenetic analysis for the Endomychidae (Tomaszewska 2000). In that work, *Stenotarsus* was rendered as a part of a redefined Stenotarsinae.

Roubik & Skelley (2001) reviewed the known species from Panama in order to assess the real identity of the gregarious beetle referred in many publications as *S. rotundus* Arrow (e.g. Denlinger 1994, 1996; Nedved 1996; Nedved & Windsor 1994a, 1994b; Tanaka 1986, Wolda & Denlinger 1984). Based on the study of type specimens and other material, they discovered that *S. subtilis* Arrow was the real identity. Moreover, *Stenotarsus rotundus* was found to be conspecific with the Guatemalan species *S. ovalis* Arrow. A key for the described Panamanian species was given, including *S. lemniscatus* Gorham, a species distributed also in Guatemala. The great need for a review of the Central American fauna of *Stenotarsus* was noted. Although the existence of undescribed species was acknowledged, no new species were proposed, leaving a count of 28 species from Central America, 21 of these recorded from our study region: México, Guatemala and Belize.

As part of the work done during preparation of the synopsis of the Mexican Endomychidae (Arriaga–Varela *et al.* 2007) a considerable diversity of *Stenotarsus* species was found among the studied material. But due a lack of adequate taxonomic reference for the region most of them remained unidentified. The goal of this paper is to correct this situation through the detailed study of type and additional material, and to provide a taxonomical framework for future works on the *Stenotarsus* fauna from the region.

Material and Methods

This review is based on the examination of types and additional material from the following institutions:

CNIN	Colección Nacional de Insectos, Instituto de Biología, UNAM, Distrito Federal, México (Santiago Zaragoza Caballero).
CZUG	Colección Entomológica, Centro de Estudios en Zoología, UdeG, Zapopan, México (José Luis Navarrete–Heredia).
ENCB	Colección Entomológica, Escuela Nacional de Ciencias Biológicas, IPN, Distrito Federal, México (Socorro Cuevas Correa).
IEXA	Colección Entomológica, Instituto de Ecología A.C, Xalapa, México (Leonardo Delgado Castillo).
INBIO	Instituto Nacional de Biodiversidad, Heredia, Costa Rica (Ángel Solís).
MIZ	Muzeum i Instytut Zoologii PAN, Warszawa, Poland (Dominika Mierzwa, Wioletta Tomaszewska).
MNHN	Muséum National d'Histoire Naturelle, Paris, France (Azadeh Tagavian).
MNB	Museum für Naturkunde, Berlin, Germany (Bernd Jaeger).

MZFC	Museo de Zoología Alfonso L. Herrera, Facultad de Ciencias, UNAM. Distrito Federal, México (Juan J. Morrone, Roxana Acosta Gutiérrez)
NHM	The Natural History Museum, London, United Kingdom (Maxwell Barclay, Roger Booth).
NMNH	National Museum of Natural History, Washington D.C. United States of America (Natalia Vandenberg).
CC-UAEH	Colección Entomológica, Universidad Autónoma del Estado de Hidalgo, México (Juan Márquez Luna).

Measurements were made using an ocular micrometer as follows: body length - from apical margin of clypeus to apex of elytra; width - across elytra at widest point, height - at highest point of elytra, length of each antennomere - at mid-line, width of each antennomere - at widest point, pronotal width - at widest point, length of elytra - from base near scutellum to apex of elytra. Aedeagus is described as disposed in abdomen.

For the study of genitalia, at least one male and one female specimen (when available) were relaxed in warm water. The abdomen was detached from the body and cleared in cold 10% KOH. Genitalia were dissected and studied on a glycerin slide mount under a dissecting microscope. Photographs of habitus and other diagnostic features were generated using a Leica Z16 APO A microscope. Composite images were generated using the Automontage software in Leica Application Suite 2.8.1. Drawings were made using a camera lucida attached to an Olympus SZH10 dissecting microscope. Scanning electron microscope photographs were made using a JEOL 35C.

This review is based on morphological characters of adult specimens. Basic morphological terminology agrees with Lawrence *et al.* (2010) and Tomaszewska (2000, 2010). Specific terms and criteria follow Roubik & Skelley (2001), Shockley (2007), and those of the authors. The species concept used in this work is the phylogenetic species concept (Eldredge & Cracraft 1980; Nelson & Platnick 1981), which could be simply stated as “the smallest aggregation of populations (sexual) or lineages (asexual) diagnosable by a unique combination of character states in comparable individuals (semaphoronts)” (Nixon & Wheeler 1990).

Species are listed in alphabetical order. For each species, males are described in detail first, followed by the description of females. In the description of females, only the main morphological measurements and proportions, and sexually dimorphic characters are given. Other features not mentioned agree with the male description.

Materials studied are listed with label information transcribed verbatim. Each individual label is separated by a “/”. Notes on special characteristics of the label are given within brackets “[]” for type specimens. Handwritten labels are noted by a “[h]”. Lectotypes are designated when necessary.

Specific data for localities cited in literature and on specimen labels, were obtained from INEGI Nomenclator (Instituto Nacional de Geografía e Informática 2000), and Selander & Vaurie (1962). Maps were made using Google Earth (Google Inc.). Two or more species are included in each individual map without necessarily implying affinity.

Results

***Stenotarsus* Perty, 1832**

Stenotarsus Perty, 1832: 112. Type species, by monotypy: *S. brevicollis* Perty, 1832.

Quirinus Thomson, 1857: 157. Type species, by monotypy: *Q. sulcithorax* Thomson, 1857.

Systaechea Gorham, 1890: 132. Type species, by subsequent designation of Arrow (1920: 53): *S. cyanoptera* Gorham, 1890.

Stenotarsoides Csiki, 1900: 401. Type species, by subsequent designation of Tomaszewska (2000: 475): *S. quadrimaculatus* Csiki, 1900.

Description. Length 3–12 mm. Body short to long oval, moderately (Fig. F7) to strongly convex (Fig. F6), somewhat shiny, rather densely pubescent, hairs variable in length. Colors red, brown and black, most commonly reddish–brown; often with contrasting markings on pronotum and elytra and/ or ventrites (Figs. C1–E5).

Head rather deeply retracted in prothorax, almost as long as wide. Gular sutures, moderately long, subparallel, widely separated. Eyes large, oval, prominent, finely to coarsely faceted (Fig. A1). Antennal grooves absent; antennal sockets visible from above. Antenna remarkably variable in structure and length (Figs. H1–I7); usually longer than head and pronotum together, 11–segmented; club 3–segmented, comparatively narrow, loose, somewhat flattened. Fronto–clypeal suture linear. Clypeus transverse, rectangular, flat. Labrum shortly setose, with narrow submembranous, emarginate apex; tormae elongate, with mesal arms recurved posteriorly; labral rods sclerotized, weakly divergent anteriorly. Mandible slightly asymmetrical (Fig. B2–3), with two apical teeth and one, small subapical tooth; mola transversely ridged; prostheca covered with short setae; submola small, setose, membranous. Maxilla (Fig. B4) with terminal palpomere almost as long as 2 and 3 combined, cylindrical, narrowly rounded at apex. Galea large, weakly expanded apically, densely but shortly setose apically; about twice as wide as lacinia. Lacinia almost as long as galea, of equal width throughout, with obliquely truncate apex, covered with a few, long spines apically, and with dense setae on inner edge; digitus absent. Labium (Fig. B5) with palpi comparatively slender, distinctly separated at base; terminal palpomere subcylindrical, narrow and subtruncate apically, or broad and widely truncate at apex (Fig. B5–6). Mentum transverse, punctate, covered densely with short setae. Prementum transverse, sclerotized, densely and coarsely punctate, setose; ligula distinctly lobed at sides and antero–medially. Tentorium with anterior arms fused medially, and widely divergent anteriorly; corpotentorium linear, without median process.

Prothorax. Pronotum (Figs. J1–5; K1–L0) widest at base, comparatively transverse; front and hind angles right–angled to moderately acute; anterior margin narrow; lateral margins narrow to distinctly broad, almost flat to raised; disc weakly to moderately convex; longitudinal sulci short, rarely reaching half of pronotal length, with a pore of variable shape and size at base of each sulcus; basal sulcus distinct to hardly visible or absent. Prosternal process (Figs. N1–8) comparatively broad, flat, with apex weakly rounded, subto truncate; extending posteriorly beyond

front coxae. Procoxa circular in outline, its cavity externally open, internally closed; trochantin concealed.

Pterothorax. Mesonotum with scutellum small to moderately large, rather transverse, triangular, subpentagonal to semicircular. Mesoventrite (Figs. N12–13) with an excavation on its front margin to receive the apex of prosternal process, with a pair of pores at sides, near anterior margin; intercoxal process transverse; not extends beyond mesocoxae, sometimes with figures formed by carinae. Mesocoxa circular to slightly oblong in outline, its cavity outwardly open; trochantin exposed. Meso–metaventral junction of straight–line type, without internal knobs. Elytra short to long oval, sometimes nearly parallel sided, moderately to strongly convex; with fine setiferous punctures and foveolate punctures rather sparse and irregular (Figs. M1–8, 10) or arranged in longitudinal rows (Figs. M9, 11); foveolate punctures usually 2–6 x larger than the setiferous ones; epipleura moderately broad, incomplete apically. Metaventrite transverse, weakly narrowing anteriorly, with one or two setose pores below each mesocoxa (Fig. N16–18); sometimes with a pair of weakly impressed, short longitudinal median lines near posterior margin; with depressions or incisions near anterior margin in males of some species. Metacoxae transverse, widely separated. Metapleuron with one setose pore at anterior part of metepisternum (Fig. N14–15). Metendosternite with rather short stalk and widely separated anterior arms and tendons.

Hind wing (Fig. B7). Anal anterior vein (AA) fused with cubital anterior (CuA) extends as single vein (AA+CuA) towards the back of medial field, where it is connected with cubital anterior 2 (CuA 2); media posterior (MP 1+2) long, sclerotized, connected with partially reduced radius posterior (RP). Mp–CuA cross vein incomplete near MP; medial bridge present; medial fleck indistinctly divided; radial cell reduced.

Legs (Figs. O1–6, P1–16, Q1–12). Trochanterofemoral attachment oblique. Trochanters simple or armed with small acute tooth. Femur widest near middle of its length, or near apex, about or less than twice as wide as tibia, and as long or slightly longer, specially in males; unarmed or with a tooth on base of inner margin in males of some species (Fig. O7–10). Tibia rather slender, usually gradually widening distally, almost linear or curved, rarely sinuate; with row of tubercles on inner margin in males of some species; without apical spurs. Tarsal formula 4–4–4 in both sexes; first and second tarsomeres flattened and ventrally lobed (Fig. A11; O11–14); tarsomere 3 about six times shorter than tarsomere 4 (tarsi pseudotrimerous). Claws simple. Empodium distinct, bisetose.

Abdomen with six freely articulated ventrites; ventrite I about as long as three following together, sometimes with a conical protuberance in males (Fig. R1); ventrites III–IV subequal in length, ventrite V 1–2 x as long as IV (Fig. R2–6).

Aedeagus slender to stout (Figs. S1–4). Penis (Figs. T1–U20), comparatively long, sclerotized, curved, sometimes coiled resting on its side when retracted; with weakly sclerotized gonopore at apex. Tegmen reduced; tegminal plate rather short, submembranous; parameres fused; tegminal strut long, membranous.

Female genitalia (Figs. V1–13). Ovipositor weakly sclerotized, with separated, elongate coxites (usually deeply divided basally); with or without terminal stylus. Spermatheca moderately large, oval, membranous; sperm duct rather short, slender; attached to connection between spermatheca and accessory gland; accessory gland about as large as spermatheca, submembranous.

Distribution. Tropical and subtropical regions of the world.

Diagnosis and Comment. *Stenotarsus* is the only Stenotarsinae genus in the neotropical region. It can be distinguished from members of other six endomychid subfamilies known from the region, by the following combination of characters: tarsi pseudotrimerous (simple, 3 or 4-segmented in members of Anamorphinae, Eupsilobiinae, Merophysiinae and Pleganophorinae), head without occipital file (occipital file present in members of Lycoperdininae), pronotum with lateral margins distinctly widened and raised (hardly widened and raised in Epipocinae and Lycoperdininae).

Among the genera of Stenotarsinae, *Stenotarsus* seems to be most similar to *Ectomychus* Gorham and *Chondria* Gorham (Strohecker 1953, Arrow 1920). *Ectomychus* species are distributed mainly in Africa, while some are found in Oriental and eastern Palaearctic regions. They differ from *Stenotarsus* by having the antennal stalk very slender and short with antennomeres 3–6 each longer than wide but progressively shorter; the club is abruptly wider with articles 9–10 triangularly produced inward. *Ectomychus* species are also usually elongate and parallel sided, and with prosternal process comparatively short and truncate at apex. On the other hand, species of *Chondria*, which are distributed in the Oriental region, are distinguished from those of *Stenotarsus* by the second tarsomere not produced and not lobed laterally. Characters proposed to separate these genera from *Stenotarsus* are highly variable within *Stenotarsus*, and intermediate states are known (Strohecker 1975, 1978, 1983). Moreover, the morphology of *Ectomychus* and *Chondria* has not been thoroughly studied.

The first attempt to elucidate the phylogenetic relationships within Endomychidae through cladistic analysis of was made by Tomaszewska (2000) based on adult morphology of selected genera. In that work four Stenotarsinae genera were included: *Danae* Reiche, *Perrisina* Strand, *Saula* Gerstaecker and *Stenotarsus*. Unfortunately the putatively closest genera of *Stenotarsus*, *Ectomychus* and *Chondria*, were not included in the data set. In that work the ovipositor of *Stenotarsus* was described as having terminal styli on coxites.

Our study shows that the vast majority of species treated here lack the styli in the gonocoxites. Only two of 27 species known from our zone show this character: *Stenotarsus rulfoi* and *S. spiropenis* spp. nov. These species show other characters like a widely truncate terminal labial palpomere, pronotum with long and deep longitudinal sulci, elytra with foveolate punctures arranged in longitudinal striae, mesoventrite with carina outlining subtriangular areas and penis curved and twisted. The only species from the neotropic that shows affinity in that combination of characters are *S. nigrivestis* Shockley and an undescribed species from Costa Rica. Unfortunately, the female genitalia of *S. nigrivestis* was not studied in the original description (Shockley, 2007), and the presence of the styli yet must be confirmed.

Biology. Few is known about the habits and habitat of the members of this genus. As almost all endomychids, *Stenotarsus* members feed on hyphae and spores of fungi (Shockley *et al.* 2009b). Based on specimens from Australia and Peru, McHugh & Pakaluk (1997) described the larvae of two *Stenotarsus* species and gave information about their habitats and host mushrooms.

By far, the most exhaustively studied species of *Stenotarsus* is *S. subtilis* Arrow, from Panama. This species forms aggregations of hundreds of specimens. One of these aggregations is found year after year on the base of the same palm tree, and remain there, for months during the dry season (Roubik & Skelley 2001). Such congregations of specimens has allowed entomologist to study various aspects of the biology of this species such biochemistry, genetics, and allometry (Denlinger 1994; Laurent *et al.* 2005; Nedved 1996; Nedved & Windsor 1994a, 1994b; Roubik & Skelley 2001; Tanaka 2000; Wolda & Denlinger 1984). However, its complete life cycle and food habits remain unknown.

In our zone, specimens have been collected in tropical, temperate and cloud forests. At least five species were found feeding on sporophores of Russulaceae fungi (*Lactarius* and *Russula*) (Fig. G3). Others have been collected frequently in rotting logs, sometimes infested by lignicolous fungus like *Sirobasidium sanguineum* (Sirobasidiaceae) or *Polyporus tenuiculus* (Polyporaceae) (Fig. G4). The copulation and oviposition take place on fungous logs at the beginning of rainy season (Fig. G2). There, the larvae grow, feeding on persistent fungi. Pupation occurs in tight clusters (Fig. G1), as has been reported for other endomychids (Erwin & Erwin 1976).

Checklist of the species of *Stenotarsus* from México, Guatemala and Belize

1. *Stenotarsus cortesi* **sp. nov.** México: Jalisco.
2. *Stenotarsus exiguus* Gorham, 1890. Belize: Corozal; Guatemala: Alta Verapaz; México: Veracruz
- 3.. *Stenotarsus globosus* Guérin–Méneville, 1857. Guatemala: Alta Verapaz, Quetzaltenango; México: Chiapas, Oaxaca, Veracruz.
Stenotarsus circumdatus Gerstaecker, 1858. **New synonym.**
Stenotarsus cordatus Gorham, 1890.
Stenotarsus discipennis Gorham, 1890. **New synonym.**
Stenotarsus tarsalis Gorham, 1890. **New synonym.**
4. *Stenotarsus guatemalae* Arrow, 1920. Costa Rica: San Jose; Guatemala: Alta Verapaz.
5. *Stenotarsus incisus* **sp. nov.** Guatemala: Quetzaltenango; México: Chiapas, Oaxaca, Veracruz.
6. *Stenotarsus kafkai* **sp. nov.** México: Veracruz.
7. *Stenotarsus latipes* Arrow, 1920. Guatemala: Baja Verapaz, Sacatepequez; México: Chihuahua, Guerrero, Durango, Jalisco, Morelos, Oaxaca, Veracruz.
8. *Stenotarsus lemniscatus* Gorham, 1890. Costa Rica: Limon, Puntarenas; Honduras: Atlantida; Guatemala: Quetzaltenango; México: Veracruz.
9. *Stenotarsus marginalis* Arrow, 1920. Guatemala: Quetzaltenango.
10. *Stenotarsus mesoamericanus* **sp. nov.** México: Chiapas, Puebla.
11. *Stenotarsus mexicanus* **sp. nov.** México: Veracruz.
12. *Stenotarsus militaris* Gerstaecker, 1858. Guatemala: Izabal; México: Chiapas, Quintana Roo, San Luis Potosí, Veracruz, Yucatán.
Stenotarsus pilatei Gorham, 1873. **New synonym.**
13. *Stenotarsus molgorae* **sp. nov.** México: Jalisco.
14. *Stenotarsus monterrosoi* **sp. nov.** Guatemala: Izabal (?).
15. *Stenotarsus nigricans* Gorham, 1890. Guatemala: Alta Verapaz; México: Jalisco.

16. *Stenotarsus oblongulus* Gorham, 1890. Guatemala: Alta Verapaz, Quetzaltenango; México: Chiapas, Oaxaca, Veracruz.
17. *Stenotarsus orbicularis* Gerstaecker, 1858. Guatemala.
18. *Stenotarsus ovalis* Arrow, 1920. Costa Rica: Puntarenas; Guatemala: Alta Verapaz; México; Panama: Panama.
Stenotarsus rotundus Arrow, 1920.
19. *Stenotarsus parallelicornis* **sp. nov.** México: Veracruz.
20. *Stenotarsus raramuri* **sp. nov.** México: Durango, Jalisco.
21. *Stenotarsus rubrocinctus* Gerstaecker, 1858. México: Hidalgo, Queretaro, Veracruz.
22. *Stenotarsus rulfoi* **sp. nov.** México: Jalisco.
23. *Stenotarsus sallaei* Gorham, 1873, Guatemala: Baja Verapaz; México: Veracruz.
Stenotarsus distinguendus Arrow, 1920. **New synonym.**
24. *Stenotarsus shockleyi* **sp. nov.** México: Veracruz.
25. *Stenotarsus smithi* Gorham, 1890. México: Tabasco.
26. *Stenotarsus spiropenis* **sp. nov.** México: Jalisco.
27. *Stenotarsus thoracicus* Gorham, 1890. México: Hidalgo, Veracruz.

Key to the species of *Stenotarsus* from México, Guatemala and Belize

[Remarks. *Stenotarsus orbicularis* Gerstaecker is not included in the key since we could not find the type or any other specimen unambiguously identified as this species.]

1. Elytra with foveolate punctures arranged in longitudinal striae (Figs. M9, M11), lacking in apical third, ; pronotum with longitudinal sulci rather deeply and widely excavated, long, reaching almost middle of pronotum (Figs. L5, L9); mesoventrite with carinae defining three subtriangular areas (Fig. N13); penis curved and twisted (Figs. U11–12, 17–18)**2**
– Elytra with foveolate punctures sparse, not forming longitudinal striae (Figs. M1–8, M10); pronotum with longitudinal sulci moderately impressed, narrow, short, hardly reaching middle of pronotum, sometimes greatly reduced or almost absent (Figs. K1–15; L1–4, L6–8, L10); mesoventrite without carinae (Fig. N12); penis curved in ventral view, linear or weakly sinuate in lateral view (Figs. T1–24, U1–10, U13–16, U19–20).....**3**
2. Foveolate punctures of elytra small, their diameter about 2 x the diameter of the setiferous punctures (Fig. M9); antennae black, with scape light brown; pronotum (Fig. L5) with lateral margins moderately wide (width slightly less than 1/4 of the distance between basal pore and hind angle), front angles moderately produced; longitudinal sulci moderately wide.....***Stenotarsus rulfoi* sp. nov.**
– Foveolate punctures of elytra large, their diameter about 4 x the diameter of the setiferous punctures (Fig. M11); antennae black, with first three or four antennomeres light brown; pronotum (Fig. L9) with lateral margins wide (width slightly less than 1/3 of the distance between basal pore and hind angle), front angles markedly produced; longitudinal sulci distinctly wide.....***S. spiropenis* sp. nov.**

3. Basal pores of pronotum large, oblique (Figs. J1, K9); metaventrite with only one large setose pore below each mesocoxa, its width almost half of width of mesocoxa (Fig. N16)..... **S. marginalis Arrow**
 – Basal pores of pronotum small to moderately large, variable in shape (Figs. J2–5, K2–8, K11–15, L1, L3–4, L6–8, L10); metaventrite with a pair of small setose pores below each mesocoxa, their width about or less than a third of width of mesocoxa (Fig. N17)..... **4**
4. Antennomeres 2–8 moniliform, about as long as wide; club slightly longer than rest of antenna, with its articles elongate, almost parallel sided (Figs. H1, H10; H18)..... **5**
 – Antennomeres 2–8 elongate, rarely about as long as wide (Figs. H2–9, 11–17; I1–7); club clearly shorter than rest of antenna, its articles widened apically **7**
5. Pronotum (Fig. K1) with lateral edges without a tooth at mid-length, and with longitudinal sulci comparatively long and marked; penis distinctly broadened preapically in ventral view (Fig. T2)..... **S. cortesi sp. nov.**
 – Pronotum (Fig. K10, L2) with lateral edges with a small tooth at mid-length, and with longitudinal sulci comparatively short and feeble; penis weakly widened apically in ventral view (Figs. T20–U10)..... **6**
6. Pronotum and elytra red, each with a large, central, black macula (Fig. C11); penis strongly widened close to apex in lateral view (Fig. T19)..... **S. mesoamericanus sp. nov.**
 – Pronotum and elytra wholly reddish brown (Figs. D9); penis weakly widened apically in lateral view (Fig. U9) **S. parallelicornis sp. nov.**
7. Metatrochanter and metafemur unusually with long and sparse hairs, length of hairs about 0.3–0.5 x length of the metafemur (Fig. O1); metatibia stout and slightly sinuate, more conspicuously in males (Figs. O1, P2, Q11); body size 3.4–3.9 mm, completely dark brown except black antennal club (Fig. C2)..... **S. exiguus Gorham**
 – Metatrochanter and metafemur densely covered with normal, comparatively short, decumbent hairs, length of hairs much smaller than 0.3 x length of metafemur (Figs. C2–6); metatibia linear or rarely slightly curved or bent inwardly and rather narrow (e.g. Figs. O2– 6); body size and color variable..... **8**
8. Scutellum semicircular (Fig. N10); elytral epipleuron distinctly wide at base, 1.2 x wider than anterior border of the intercoxal process of metaventrite; male metatrochanter with a small sharp spine (Figs. O6, Q1); penis with an accessory process (Figs. U8)..... **S. ovalis Arrow**
 – Scutellum triangular (Figs. N9); elytral epipleuron narrow to moderately wide at base, about as wide or narrower than anterior border of the intercoxal process of metaventrite; metatrochanters unarmed in both sexes; penis without accessory process..... **9**
9. Pronotum with lateral margins scarcely raised, very narrow, its width about a sixth of distance between basal pore and hind angle, (Fig. K7); meso and metatibia wide, flattened, clearly arched in males (Figs. O3, P9, P13); body brown with antennae black except scape, or scape and pedicel brown, legs wholly brown or with femur brown and tibia and tarsi black (Figs. C8, D3)..... **10**
 – Pronotum with lateral margins raised, comparatively wide, its width about or larger than a fifth of distance between basal pore and hind angle (Figs. K3–6, K8, K11–15, L3–4, L6–8); mesotibia always linear, metatibia most often linear (Figs.

- P4–6, P11–12, P14–16, Q5, Q8–10), or weakly bent or curved in males of some species (Figs. P3, P8); body coloration variable; if body completely brown, then antennae have at least first four articles brown.....11
- 10.** Tibiae and tarsi reddish brown (Fig. C8); metatibia broad, markedly curved (Fig. O3), with inner row of tubercles in male (Fig. P7); penis widened at basal third in ventral view (Figs. T14).....***S. latipes Arrow***
 – Tibiae and tarsi dark fuscous or black (Fig. D3); metatibia moderately wide and curved, without tubercles on inner face (Fig. P13); penis (Figs. T14) narrow at basal third in ventral view.....***S. molgorae sp. nov.***
- 11.** Pronotum with basal pores moderately large, reniform, markedly oblique; basal sulcus present, complete or lacking medially (Figs. K3, K6, K11–12, K14, L3–4, L7, L10);.....12
 – Pronotum with basal pores comparatively small, rounded or elongate, rarely oblique; basal sulcus indistinct or absent (Figs. K4, K5, K8; K13, K15, L6, L8).....**20**
- 12.** Flagellomeres thin; articles 4–7 about 2 x as long as wide, 9 about 2.2 x wider than 8 (Fig. H6); pronotum with lateral margins comparatively narrow and basal pores small (Fig. H6); elytra with setae distinctly short and decumbent; head black.....***S. kfkai sp. nov.***
 – Flagellomeres comparatively stout; articles 4–7 about 1.7 x as long as wide or shorter, 9 about 1.8 x wider than 8 or less (H3, H11–12, H15, I1, I4, I7); elytra with setae comparatively long and suberect, head red or brown.....13
- 13.** Ventricle V of females markedly emarginate medially (Fig. R4); pronotum with basal sulcus complete (Fig. K12); antenna with terminal antennomere short, subovate (Fig. H12) 1.4 x as long as wide, 3.5 x as long as pedicel; penis constricted near apex in lateral view (Fig. T21).....***S. militaris Gerstaecker***
 – Ventricle V of females truncate (Figs. R2, R6); pronotum with basal sulcus complete, vanishing medially or impressed only close to basal pores (Figs. K3, K11, K14, L3–4, L7); antenna with terminal antennomere rather elongate oval or subrectangular (Figs. H3, H11, H15, I1, I4, I7), about or longer than 1.4 x as long as wide and 3.5 as long as pedicel; penis not distinctly constricted near apex in lateral view (Fig. T21).....14
- 14.** Legs long and slender, (Figs. O2, P3; Q3–4) slightly less pronounced in females (Fig. Q12); male metafemur with a tooth at base (Figs. O7–10), and metatibia slightly bent inwardly at apical third, with a row of small tubercles; metaventricle of males with transverse concavity, more densely punctate between mesocoxae (Figs. J10–11); penis continuously widening apically in lateral view (Fig. T5), continuously narrowing apically in ventral view, slightly bent outwardly and with a small apical crest (Fig. T6).....15
 – Legs moderately long and slender, unarmed (Figs. P11–15, Q10), metatibia linear; metaventricle without cavities or other modifications near anterior margin in both sexes; penis not as above: wider before apex or slightly sinuate in lateral view (T11–12, U3–4, U19–20)18
- 15.** Prosternal process narrow at base, scarcely widened apically (Fig. N6); body size 5.1–5.4 mm (Fig. E2); tooth of male metafemur scarcely developed (Fig. O10).....***S. shockleyi sp. nov.***

- Prosternal process moderately narrow at base, strongly widened apically (Fig. N2); body size 5.4–7.9 mm; tooth on male metafemur moderately to well developed (Fig. O7–9).....16
- 16.** Tooth on male metafemur widely truncate (Fig. O8); foveolate punctures on elytra comparatively large and deep (Fig. M8); body size 6.9–7.9 mm, 1.80–1.83 x as long as wide; elytra completely reddish brown (Figs. D10).....***S. raramuri* sp. nov.**
- Tooth on male metafemur with apex narrowly blunt, rounded or acute (Fig. O7, O9); foveolate punctures on elytra rather small and shallow (Fig. M3); body size 5.4–7.4 mm, 1.56–1.75 x as long as wide; elytron red with large central black macula, or completely brown (Figs. C3–4, D11).....**17**
- 17.** Tooth on male metafemur large, pointed (Fig. O9); body size 5.4–6.6 mm (Fig. D11); antenna red with antennomeres 7–11 black; legs red; pronotum red with large triangular macula not surpassing basal pores.....
-***S. rubrocinctus* Gerstaecker**
- Tooth on male metafemur moderately large, blunt or rounded apically (Fig. O7); body size 6.4–7.4 mm (Fig. C3); antenna black or with antennomeres 1–6 red, brown or infusate; legs black, brown or red; body completely brown or contrastly colored: pronotum wholly black or with angles red, black part sometimes subtriangular, surpassing basal pores at base; elytron red with large, central, black macula, sometimes hardly reaching apical third.....
-***S. globosus* Guérin–Méneville**
- 18.** Terminal antennomere elongate: 1.7 x as long as wide, 4.4 x longer than pedicel (Fig. H11); penis thin (Figs. T11–12)***S. mexicanus* sp. nov.**
- Terminal antennomere moderately elongate: 1.4–1.5 as long as wide, 3.5–3.7 x longer than pedicel (Figs. H15, I7); penis moderately wide (Figs. U3–4, U19–20)....
-**19**
- 19.** Pronotum with basal sulcus incomplete, basal pores small, lateral margins markedly wide: width about 1/3 of distance between basal pore and hind angle (Fig. L10); penis rather linear, narrowing close to apex in lateral view (Fig. U19); pronotum and elytra contrastly colored (Fig. E5).....***S. thoracicus* Gorham**
- Pronotum with basal sulcus complete, basal pores moderately large, lateral margins narrow, accentuating at base: width about 1/4 of the distance between basal pores and hind angle (Fig. K14); penis sinuate, about same width throughout (Fig. U3) pronotum and elytra brown (Fig. D5).....***S. nigricans* Gorham**
- 20.** Tarsomere 2 of all legs narrow, not widened distally: about or less than 1.3 x wider than tarsomere 4 at mid-length (Fig. O12); Body short to moderately long oval, 1.60–1.85 x as long as wide, with elytra rather ovoid (Figs. C6, C9, D4).....**21**
- Tarsomere 2 of all legs widened distally: about 2.0 x or wider at apex than tarsomere 4 at mid length (Figs. O14); body long oval, 1.75–2.10 x as long as wide, with elytra subparallel in basal 2/3 (Figs. C5, D6–7, E1), or, if body about 3.0 mm, then it is short oval, 1.7 x as long as wide, with elytra ovoid (Fig. E3).....**23**
- 21.** Base of pronotum clearly emarginate over scutellum (Fig. K8); antenna distinctly long: 0.40–0.45 x as long as body in females, 0.45–0.50 x in males, terminal antennomere elongate (Fig. H8); penis strongly widened apically in lateral view (Fig. T15).....***S. lemniscatus* Gorham**
- Base of pronotum rounded or truncate over scutellum (Figs. K5, K13); antenna short: 0.33–0.38 x as long as body in both sexes, terminal antennomere short to

- moderately long oval (Figs. H5, H14); penis about same width throughout in lateral view (Fig. U1) or slightly narrowing apically (Figs. T9)**22**
- 22.** Base of pronotum rounded (Fig. K5); terminal antennomere parallel sided (Fig. H5); pronotum and elytra contrastly colored (Fig. C6); metaventrite of males with a deep longitudinal incision or pit near anterior margin (Fig. J6); penis moderately broad in ventral view, somewhat constricted after mid-length (Fig. T10).....
.....**S. incisus sp. nov.**
- Base of pronotum truncate over scutellum (Fig. K13); terminal antennomere oval (Fig. H14); pronotum and elytra brown (Fig. D4); metaventrite of males without an incision near anterior margin (Fig. J7); penis very narrow throughout its length in ventral view.....**S. monterrosoi sp. nov.**
- 23.** Body small (3.0 mm), short oval (Fig. E3): 1.7 x longer than wide; elytra ovoid; lateral margins of pronotum wide (Fig. L8); penis of same width throughout in lateral view (Fig. U15).....**S. smithi Gorham**
- Body moderately large (3.60–5.05 mm), long oval (Figs. C5, D6–7, E1); lateral margins of pronotum narrow (Figs. K4, K15, L5); penis of different width throughout its length in lateral view (Figs. T7, U5, U13)**24**
- 24.** Terminal antennomere with small protuberance on lateral margin near mid-length (Fig. H16); pronotum and elytra uniformly brown (Fig. D7) or red–orange, each with large, black macula (Fig. D6); penis moderately wide in ventral view (Fig. U6).....**S. oblongulus Gorham**
- Terminal antennomere without protuberance on lateral margin (Figs. H4, I3); pronotum and elytra uniformly brown (Figs. C5, E1); penis narrow in ventral view (Figs. T8, U14).....**25**
- 25.** Metatibia slightly curved, almost parallel in basal half, then widened at 3/4 (Fig. O6); ventrite I of male abdomen with small, rounded at tip, conical protuberance (Fig. R1).....**S. sallaei Gorham**
- Metatibia gradually widened apically (Fig. P4); ventrite I of male abdomen without protuberance..... **S. guatemalae Arrow**

Species descriptions and redescriptions

***Stenotarsus cortesi* sp. nov.**

(Figs. C1, H1, G1, K1, M1, N1, P1, T1–2, V2, W1)

Diagnosis. This species is most similar to *S. mesoamericanus* and *S. parallelicornis* spp. nov., sharing similar antennal structure, with flagellomeres about as long as wide, and club slightly longer than the rest of antenna, with its antennomeres elongate and scarcely widened apically (Figs. H1, H11; I1).

Stenotarsus cortesi is distinguished by having the pronotum without a tooth or angle at mid-length of lateral margins (Fig. K1), metatibia distinctly widening apically (Fig. P1), and penis strongly widened preapically in ventral view (Fig. T2).

Description of males. Body 5.85–6.00 mm long, short oval, moderately convex (Fig. C1); 1.65–1.70 x as long as wide, 2.7–2.8 x as long as high. Wholly brown except antennal club which is black with apex of terminal antennomere infuscate. Densely covered with long, suberect, coppery setae.

Head: Clypeus transverse, 1.9 x wider than long. Terminal labial palpomere narrow, acuminate, narrowly truncate at apex. Interocular distance 0.7 x as wide as

head including eyes. Antenna moderately long and distinctly stout (Fig. H1), 0.37–0.39 x as long as body; scape as long as wide, 1.7 x longer than pedicel; pedicel 0.7 x longer than wide; third antennomere 0.9 x as long as wide, 1.1 x as long as pedicel; fourth 0.9 x as long as wide, 1.2 x as long as pedicel; fifth to seventh subequal to fourth; eighth 0.7 x as long as wide, 1.3 x longer than pedicel; antennal club about 0.55 x as long as total antennal length, with segments almost symmetrical; ninth antennomere scarcely widened apically, 2.9 x as long as wide, 3.2 x as long as pedicel; tenth scarcely widened apically, 2.3 x as long as wide, 3.3 x as long as pedicel; terminal antennomere markedly elongate, nearly parallel sided, 2.3 x as long as wide, 5.4 x as long as pedicel.

Prothorax: Pronotum (Fig. K1) widest at base; transverse: 2.25–2.30 x wider than long; 2.25–2.30 x wider at base than in front angles; 2.5–2.6 x wider than head. Sides continuously rounded to front angles. Front angles produced, right angled, rounded at tip. Hind angles right-angled. Anterior margin narrow, scarcely acuminate at middle. Lateral margins flat to slightly concave, markedly raised, wide; width of margin at base about 1/3 distance between basal pore and hind angle; area between marginal line and pronotal edge flat. Disc moderately convex, finely and closely punctate, slightly depressed around longitudinal sulci; longitudinal sulci comparatively deep and long, convergent. Basal pores large, elongate and oblique. Basal sulcus impressed only near pores. Pronotal base rounded. Prosternal process narrow at base, widened posteriorly; at apex as wide as longitudinal procoxal diameter (Fig. N1).

Pterothorax: Scutellum triangular, small, 1.25 x wider than long, 0.14 x as wide as pronotum. Elytra length 3.9–4.1 mm; 1.10–1.15 x longer than wide; 3.55–3.70 x longer and 1.4 x wider than pronotum; ovoid, widest near basal third, then roundly converging to the moderately acuminate apex; densely punctate with foveolate punctures large and deep, separated by 2.0–3.5 diameters (Fig. M1), being slightly sparser and shallower at apex, and coarser between humeri and scutellum. Humerus moderately prominent; area between humerus and scutellum depressed. Epipleuron at base about 0.85 x as wide as intermesocoxal process of metaventrite. Mesoventrite deeply excavated in front; setose pores on sides small; mesoventral process slightly wider than longitudinal coxal diameter, without inner carinae. Metaventrite markedly convex, without modifications near anterior margin; with a pair of small setose pores of approximately same diameter below each mesocoxa. Metanepisternum with setose pore small.

Legs moderately long and rather stout (Fig. P1). Trochanter simple. Meso and metafemur moderately stout, widest at mid-length, unarmed; metafemur slightly longer than mesofemur, bearing moderately long decumbent setae. Meso and metatibia moderately stout; metatibia about as long as metafemur, 0.33 x as long as elytra; strongly widened in apical third, linear, unarmed. Metatarsus about 0.56 x as long as metatibia; second tarsomere produced and narrow, about 1.2 x wider at apex than fourth tarsomere at middle length.

Abdomen: Ventrite I slightly longer than metaventrite and as long as ventrites II–V, with moderately large foveolate punctation below metacoxae, without protuberances. Ventrite V almost 2 x longer than IV, with apex briefly truncate. Ventrite VI rounded at apex. Tergite VIII truncate. Penis moderately large, curved, narrow, widened before apex in ventral view (Fig. T2); slightly widened before apex in inner view (Fig. T1). Tegmen with moderately large submembranous tegminal plate.

Description of females. Body: length 5.9–6.2 mm; 1.57–1.65 x as long as wide, 2.65–2.80 x as long as high. Antenna: 0.38 x as long as body. Pronotum: 2.35–2.47 x wider than long; 2.34–2.38 x wider at base than in front angles; 2.56–2.63 x wider than head. Elytra: length 3.95–4.25 mm; 1.05–1.13 x longer than wide; 3.65–3.90 x as long as pronotum; 1.4 x wider than pronotum. Metatibia: 0.32–0.33 x as long as elytra. Metatarsus: about 0.56 x as long as metatibia. Ovipositor with proctiger acuminate, rounded at tip; coxites narrow, without styli (Fig. V2).

Sexual dimorphism. The elytra are slightly longer and broader in females.

Variation. No significant variation was found.

Material examined. Types. Holotype, male: México: Jalisco, Tomatlán, Carretera Talpa–Tomatlán, 7 Km de Macuautlán, Rancho Potrero Grande, 19° 58' 14.55'' N, 105° 01' 30.34'' W, 550 MSNM, BTSC, ex Tronco con hongos, 18 de julio de 2009. J. Cortés–Aguilar y I. Novoa cols. (CZUG); **Paratypes**: same data as holotype (3 males, 3 females: CZUG; 1 female: CNIN; 1 male BMNH; 1 female: MNB).

Distribution. México: Jalisco (Fig. W1).

Habits and habitats. *Altitudinal range*: 550 m.a.s.l., *Vegetation*: tropical subdeciduous forest. *Habits*: adults and pupae were found together under a fungusy log (Fig. G1).

Etymology. This species is dedicated to biologist Jesús Cortés–Aguilar, collector of the type series of this species.

***Stenotarsus exiguus* Gorham**

(Figs. C2, H2, K2, M2, O1, P2, Q11, T3–4, V3, W2)

Stenotarsus exiguus Gorham, 1890: 141. Blackwelder 1945: 439; Strohecker 1953: 52; Shockley *et al.* 2009a: 81.

Diagnosis. This species is easily distinguished by its small body: 3.25–3.90 mm, and homogeneous dark brown colouration (Fig. C2), metatrochanters weakly lobed distally, metafemur with very long setae (of almost half length of metafemur), and by the metatibia stout and sinuate in males (Fig. P2), less sinuate in females (Fig. Q11).

Description of males. Body: 3.40–3.92 mm long, distinctly small, short oval, moderately convex (Fig. C2); length, 1.66–1.75 x as long as wide; length 2.83–3.00 x as long as high. Wholly dark brown, except antennomeres 8–11 which are black. Moderately densely covered with rather long, suberect, golden setae.

Head: Clypeus transverse, about 2.0 x wider than long. Terminal labial palpomere narrow, acuminate, narrowly truncate at apex. Interocular distance 0.62–0.68 x as wide as head including eyes. Antenna rather short and slender (Fig. H2), 0.37 x as long as body; scape 1.5 x as long as wide, 1.5 x longer than pedicel; pedicel 0.1 x longer than wide; third antennomere 1.5 x as long as wide, 0.9 x as long as pedicel; fourth to seventh subequal to third; eighth as long as wide, as long as pedicel; antennal club 0.45 x as long as total antennal length, with segments almost symmetrical; ninth antennomere widening apically, 1.1 x as long as wide, 1.7 x as long as pedicel; tenth widening apically, as long as wide, 1.8 x as long as pedicel; terminal antennomere subrectangular, 1.5 x as long as wide, 3 x as long as pedicel.

Prothorax: Pronotum (Fig. K2) widest at base, transverse, 2.0–2.1 x wider than long; 1.78–1.84 x wider at base than at front angles; 2.07–2.20 x wider than the head. Sides weakly convergent in basal half then rounded to front angles. Front angles produced, right-angled, slightly rounded at tip. Hind angles weakly acute. Anterior margin narrow, acuminate at middle. Lateral margins raised, wide, narrowing posteriorly in basal half: width of margin at base about 1/4 of the distance between basal pore and hind angle; area between marginal line and pronotal edge flat. Disc moderately convex, finely and moderately closely punctate; lateral sulci rather deep, short, slightly convergent. Basal pores small, somewhat elongate. Basal sulcus absent at middle. Pronotal base slightly rounded. Prosternal process narrow at base, slightly widened posteriorly; at apex slightly narrower than longitudinal procoxal diameter.

Pterothorax: Scutellum triangular, small, 1.35–1.45 x wider than long, about 0.13 x as wide as pronotum. Elytra length 2.25–2.60 mm; 1.09–1.16 x longer than wide; 2.93–3.20 x longer and 1.30 x wider than pronotum; ovoid, widest at basal third, then roundly convergent to moderately acuminate apex. Moderately densely punctate with foveolate punctures moderately large and deep, separated by 1.5–4.0 diameters (Fig. M2), being sparser and shallower at apex of elytra and near scutellum. Humerus rather prominent. Epipleuron at base about 0.85 x as wide as intermesocoxal process of metaventrite. Mesoventrite deeply excavated in front; with a small setose pore on each side near anterior margin; mesoventral process slightly wider than longitudinal coxal diameter, without inner carinae. Metaventrite moderately convex, without modifications on anterior margin; with a pair of small setose pores of approximately same diameter below each mesocoxa. Metanepisternum with a small setose pore.

Legs short and distinctly stout (Figs. O1, P2). Trochanter unarmed, metatrochanter with posterior margin softly lobed distally. Meso and metafemur moderately widened at mid-length; unarmed; metafemur about as long as mesofemur, bearing distinctly long hairs, which are about 0.3–0.5 x as long as femur. Meso and metatibia markedly stout; metatibia scarcely shorter than metafemur, 0.29–0.32 x as long as elytra, weakly widening apically, sinuate, unarmed. Metatarsus 0.57–0.62 x as long as metatibia; second tarsomere about 2.5 x wider at apex as fourth tarsomere at mid-length.

Abdomen: Ventrite I slightly shorter than metaventrite and distinctly shorter than ventrites II–V, with sparse coarse foveolate punctation, without protuberances. Ventrite V almost 2 x longer than IV, with apex briefly truncate. Ventrite VI rounded at apex. Tergite VIII slightly truncate. Penis short and stout, curved, weakly constricted in apical third in ventral view (Fig. T4), narrowing towards apex in lateral view (Fig. T3). Tegmen with tegminal plate moderately large.

Description of females. Body: length 3.25–3.90 mm; 1.70–1.75 x as long as wide; 2.57–2.60 x as long as high. Antenna: 0.35–0.37 x as long as body. Pronotum: 2.13–2.20 x wider than long; 1.91–1.95 x wider at base than in front angles; 2.25–2.30 x wider than head. Elytra: length 2.1–2.5 mm; 1.07–1.13 x longer than wide; 2.9–3.1 x longer and 1.22–1.31 x wider than pronotum. Metatrochanter: scarcely lobed distally. Metatibia: 0.29–0.30 x as long as elytra; stout, scarcely sinuate (Fig. Q11). Metatarsus: about 0.6 x as long as metatibia. Ovipositor with proctiger acuminate; coxites markedly wide, without styli (Fig. V3).

Sexual dimorphism. Female metatibiae are narrower and less sinuate (Fig. Q11).

Variation. No significant variation was found.

Material examined. Types. Lectotype (present designation), male: Syntype [round, blue bordered label] / San Juan, Vera Paz, Champion / *St. exiguus* Gorh [h] / B.C.A., VII, *Stenotarsus* [p] *exiguus* Gorh. [h] (NHM); **Paralectotype,** female: Syntype [round, blue bordered label] / Rio Hondo, Br. Honduras, Blancaneaux / *St. exiguus* Gorh [h] / B.C.A., VII, *Stenotarsus* [p] *exiguus* Gorh. [h] (NHM).

Other material. 15.4, Cacao, Trece Aguas / Alta V. Paz, Guatemala / Schwarz & Barber coll. / *adumbratus* dt. Stroh. (1 male: NMNH); 25.4, Cacao, Trece Aguas / Alta V. Paz, Guatemala / Schwarz & Barber coll. / *S. sp.* (1 female: NMNH); MEXICO: Motzorongo (1 female, 1 male: MNB); [same data except] *Stenotarsus* sp. indesct, det. H.F. Strohecker (1 male: MNB).

Distribution. Belize: Corozal, Guatemala: Alta Verapaz, México: Veracruz (Fig. W2).

Habits and habitats. *Altitudinal range:* 10–1500 m.a.s.l.

Remarks. The lobed male metatrochanter, the comparatively long setae on metafemur and the stout and sinuate metatibia make this species unique among the *Stenotarsus* fauna of the region. These characters make it hard to elucidate a possible relationship with any other species. This species is recorded from México for the first time.

***Stenotarsus globosus* Guérin–Méneville**

(Figs. A1, C3–4, H3, K3, M3, N2, N9, O2, O7, O11, P3, Q12, R2, S1, T5–6, V4, W3)

Stenotarsus globosus Guérin–Méneville, 1857: 270. Gorham 1890: 136; Arrow 1920: 50; Blackwelder 1945: 439; Strohecker 1953: 52; Roubik & Skelley 2001: 255; Arriaga–Varela *et al.* 2007: 14; Shockley *et al.* 2009a: 82.

Stenotarsus circumdatus Gerstaecker, 1858: 323. Gorham 1890: 136; Arrow 1920: 50; Blackwelder 1945: 439; Strohecker 1953: 51; Arriaga–Varela *et al.* 2007: 14; Shockley *et al.* 2009a: 81. **New synonym.**

Stenotarsus cordatus Gorham, 1890: 134. Synonymized by Arrow 1920: 50.

Stenotarsus discipennis Gorham, 1890: 136. Blackwelder 1945: 439; Strohecker 1953: 52; Arriaga–Varela *et al.* 2007: 14; Shockley *et al.* 2009a: 81. **New synonym.**

Stenotarsus tarsalis Gorham, 1890: 137. Strohecker 1953: 57; Arriaga–Varela *et al.* 2007: 16; Shockley *et al.* 2009a: 85; *Stenotarsus circumdatus* var. *tarsalis* Arrow, 1920: 50; Blackwelder 1945: 439. **New synonym.**

Diagnosis. This species is most similar to *S. raramuri* sp. nov., *S. rubrocinctus* Gerstaecker and *S. shockleyi* sp. nov., sharing a similar antennal structure (Figs. H3; I1, I4), genitalia of both sexes (Fig. T5–6, V4), and the sexually dimorphic characters of male: metaventrite with a concavity between mesocoxae (Figs. J10–11), metatibia with a row of small tubercles on inner margin (Figs. P3, Q3–4, Q7), and metafemur with a tooth on inner margin near trochanter (Figs. O7–10).

Stenotarsus globosus is distinguished by the following set of characters: large size (length 6.4–7.4 mm); body wholly dark brown except last 5–6 antennomeres (Fig. C3), or contrasty colored (Fig. C4): antenna wholly black or with antennomeres 1–7

red or gradually infusate, pronotum black or margined by red; elytra with foveolate punctures rather small (Fig. M3); metafemur with tooth moderately large, curved and narrowly rounded at tip (Fig. O7).

Description of males. Body: 6.0–7.0 mm long, short oval, markedly convex, (Figs. C3–4); length; 1.56–1.75 x as long as wide; 2.60–2.87 x as long as high.

Completely dark ferruginous brown, except last five or six antennomeres (Fig. C4) or contrasty colored (Figs. A1, C3); head dark–red; antenna wholly black or with antennomeres 1–7 red or gradually infusate; pronotum black (Fig. A1) or with lateral margins red sometimes leaving only a subtriangular mark on disc; hypomeron red to infusate; prosternum red to sometimes infusate; scutellum red or black; elytra red, each elytron with a large, oval, black macula; epipleura red; pterothorax black with mesoventrite infusate red at least at center; legs black to orange–red; first ventrite black with lateral and posterior margins orange, ventrites II–VI orange. Densely covered with long, suberect, golden setae; with darker setae in the black parts of elytra and pronotum.

Head: Clypeus transverse 1.8–2.2 x wider than long. Terminal labial palpomere narrow, acuminate, narrowly truncate at apex. Interocular distance 0.63–0.68 x as wide as head including eyes. Antenna moderately long and slender (Fig. H3), 0.43–0.44 x as long as body; scape 1.4 x as long as wide, 1.8 x longer than pedicel; pedicel 1.1 x longer than wide; third antennomere 1.6 x as long as wide, 1.4 x as long as pedicel; fourth subequal to third; fifth 2 x as long as wide, 1.7 x as long as pedicel; sixth 1.8 x as long as wide, 1.6 x as long as pedicel; seventh subequal to sixth; eighth 1.3 x as long as wide, 1.5 x longer than pedicel; antennal club 0.4 x as long as total antennal length; ninth antennomere symmetrical, widened apically, 1.3 x as long as wide at apical side, 2 x as long as pedicel; tenth widened apically, 1.2 x as long as wide, 2.2 x as long as pedicel; terminal antennomere slightly asymmetrical, subrectangular, slightly widening apically, 1.6 x as long as wide, 3.6 x as long as pedicel.

Prothorax: Pronotum (Fig. K3) widest at base; markedly transverse: 2.11–2.45 x wider than long; 2.25–2.45 x wider than head; 1.95–2.15 x wider at base than in front angles. Sides weakly convergent in posterior half, then weakly rounded to front angles. Front angles produced, right–angled to briefly acute or narrowly rounded at tip. Hind angles slightly acute. Anterior margin narrow, slightly acuminate at middle. Lateral margins moderately raised and wide, weakly narrowing posteriorly, accentuating near base; width of margin at base about 1/4 of the distance between basal pore and hind angle; area between marginal line and pronotal edge weakly concave. Disc moderately convex, finely and closely punctate. Longitudinal sulci moderately deep, lacking anteriorly, short, weakly curved inwardly. Basal pores large, curved, oblique. Basal sulcus only impressed close to pores. Pronotal base rounded. Prosternal process (Fig. N2) narrow at base, widened posteriorly; apex scarcely narrower than longitudinal procoxal diameter.

Pterothorax: Scutellum triangular (Fig. N9), moderately large, 1.65–1.80 x wider than long, 0.18 x as wide as pronotum. Elytra length 4.1–5.0 mm; 1.02–1.30 x longer than wide; 3.40–3.62 x longer and 1.40–1.52 x wider than pronotum; ovoid, widest near basal third, then roundly converging to acuminate apex, densely punctate (Fig. M3) with foveolate punctures rather small and shallow, separated by 1.5–6.0 diameters, being sparser and shallower at apex. Humerus moderately prominent. Epipleuron at base about 0.8 x as wide as intermesocoxal process of

metaventrite. Mesoventrite deeply excavated in front; setose pores on sides small; mesoventral process about as wide as longitudinal coxal diameter, without inner carinae. Metaventrite weakly convex, with transverse, more densely pubescent concavity on intercoxal process between mesocoxae; with a pair of small setose pores of approximately same diameter below each mesocoxa. Metanepisternum with setose pore small.

Legs long and slender (Figs. O2, P3). Trochanter simple. Meso and metafemur rather slender, widest barely before mid-length; mesofemur unarmed; metafemur slightly longer than mesofemur, bearing moderately long decumbent setae, with a well developed, moderately large and rounded at apex tooth in the base of inner margin (Fig. O7). Meso and metatibia very slender; metatibia as long as metafemur, 0.34–0.41 x as long as elytra, very weakly and gradually widened apically, slightly bent in apical third, with a row of small tubercles on inner margin. Metatarsus (Fig. O11) about 0.42–0.54 x as long as metatibia; second tarsomere produced and lobed, about 2 x wider at apex than fourth tarsomere at middle length.

Abdomen: Ventrite I almost as long as metaventrite and slightly shorter than ventrites II–V, with sparse foveolate punctation below metacoxae, without protuberances. Ventrite V scarcely longer than IV, with apex truncate; ventrite VI rounded at apex. Tergite VIII truncate. Penis slender, curved, continuously narrowed and with apical crest in ventral view (Fig. T6), widened near apex in lateral view (Fig. T5). Tegmen with moderately large submembranous tegminal plate (Fig. S1).

Description of females. Body: length 6.1–7.4 mm; 1.57–1.75 x as long as wide; 2.50–2.80 x as long as high. Antenna: 0.35–0.38 x as long as body. Pronotum: 2.07–2.20 x wider than long; 1.90–2.15 x wider at base than in front angles; 2.2–2.4 x as wide as head: Elytra: length 4.15–5.20 mm; 1.07–1.30 x longer than wide; 3.5–4.0 x longer and 1.5–1.7 x wider than pronotum. Metaventrite: moderately convex, without concavity or other modification on the anterior margin. Metafemur: unarmed. Metatibia: 0.30–0.33 x as long as elytra, linear, unarmed, as long as metafemur (Fig. Q12). Metatarsus: about 0.5–0.6 x as long as metatibia. Ovipositor with proctiger rounded, coxites wide, without styli (Fig. V4).

Sexual dimorphism. Males have a concavity on metaventrite, metatibia with a row of small tubercles and metafemur with a tooth on base. Females have proportionally larger elytra and shorter antennae and legs.

Variation. This species is very variable in proportions and coloration. There are two main color forms: the uniformly dark brown form (Fig. C4), distributed in the Sierra Madre del Sur of Oaxaca, México, and contrastly colored form (Fig. A1, C3), distributed from central eastern México to Guatemala. The darker contrastly colored specimens have antennae, pronotum and legs completely black (Fig. A1).

Material examined. Types. Lectotype of *Stenotarsus globosus* Guérin–Méneville (present designation), female: Syntype [round, blue bordered label] / Type H.T. [round, red bordered label] / Gorham 91–50 [H] / *Stenotarsus globosus* Guérin (Var.) Mexique (NHM); **Lectotype of *Stenotarsus circumdatus* Gerstaecker (present designation),** male: Xalappa, Deppe / Hist. Coll. (Coleoptera), Nr 21857, *Stenotarsus circumdatus* Gerst., Xalappa, Deppe, Zool. Mus. Berlin [green label] / SYNTYPUS *Stenotarsus circumdatus* Gerstaecker, 1858. Labelled by MNB 2006 (MNB); **Paralectotype of *Stenotarsus circumdatus* Gerstaecker,** female: same data as lectotype: (MNB); **Lectotype of *Stenotarsus***

***discipennis* Gorham (present designation)**, male: Syntype [round, blue bordered label] / Type H.T. [round, red bordered label] / Capetillo, Guatemala, G.C.

Champion / Sp. figured / *S. discipennis* / B.C.A., VII, *Stenotarsus* [p] *discipennis* Gorh. [h] (NHM); **Paralectotype of *Stenotarsus discipennis* Gorham**, female: Syntype [round, blue bordered label] / Cerro Zunil, 4000 ft. Champion / B.C.A., VII, *Stenotarsus* [p] *discipennis* Gorh. [h] (NHM). **Lectotype of *Stenotarsus tarsalis* Gorham (present designation)**, male: CORDOVA / Mexico, Salle col. / Type / *S. tarsalis* / *Stenotarsus circumdatus* Gerst. = *Stenotarsus globosus* Guer. Apud Salle [h] / B.C.A., VII, *Stenotarsus* [p] *tarsalis* Gorh. [h] / Syntype [round, blue bordered label] / *Stenotarsus tarsalis* Gorham [h] det. R.G. Booth 2010 (NHM).

Other material. Guatem. 8.–9.11, El Tumbador, Riedel S.G. / *Stenotarsus circumdatus* Gerst.?, det. H.F. Strohecker (1 female: MNB); GUATEMAL. Tumbador, v.12, C. Riedel S. / *Stenotarsus discipennis* Gorham, det. 1977, H.F. Strohecker (1 female: MNB); Tactic, Vera Paz, Champion (1 male, 1 female: NMNH); [same data plus] *Stenotarsus globosus* Guer (1 female: NMNH); [same data plus] / *Stenotarsus globosus* Guérin dt. Stroh. (1 male: NMNH); Tactic, Vera Paz, Champion / 91972 / *Stenotarsus globosus* Guer (1 male: MNB); [same data except] 91971 / *Stenotarsus globosus* Guérin det. H.F. Strohecker (1 female: MNB); Chiapas Mex, L. Hotzen '19, Pacific Slope Cordilleras, 800–1000 (2 males, 1 female: NMNH); México: Oaxaca, Km. 1 carr. Juquila–San Pedro Ocotepc, 19–VIII–2003, Alt. 1600 m, Hongos, Q. Santiago y L. Delgado, *Stenotarsus globosus* Guérin–Méneville E. Arriaga–Varela det. 2006 (1 female: IEXA); Km 21 carretera Yolotepec – Juquila, BE, 1850m, ex *Lactarius* IIIB, 30–31.VII.1991, J.L. Navarrete, G.A. Quiroz y L. Delgado #871 (2 males, 2 females: CZUG); Juquila, Santa María Yolotepec, 1–2.VIII.1990, ex Hojarasca, J.L. Navarrete, G.A. Quiroz–Rocha y L. Delgado cols. (1 male: CZUG); México, Oaxaca, Km. 26 Teotitlán–Huatla, 2400 msnm, 16–III–1989, A. Cadena L. Cervantes (1 female: CNIN); México: Veracruz, Cerro Acatlán, Mesófilo, 17–VIII–1990, Col. J.L. Navarrete y L. Delgado / ex *Russula* IIIA #488/ *Stenotarsus circumdatus* Gerstaecker, E. Arriaga–Varela det. 2006 (1 female: CZUG) México, Veracruz: Córdoba, Miguel Aguilar, Alt. 940 m, 29–31.III.1996, E. Santos y L. Delgado / *Stenotarsus militaris* Gerstaecker, F.W. Shockley det. 2002/ *Stenotarsus discipennis* Gorham E. Arriaga–Varela det. 2006 (1 female: IEXA); Cordova 6 / Coll. J. Flohr / *circumdatus* Gsr. / *Stenotarsus globosus* Guér. ex description, det. H.F. Strohecker (1 male: MNB); 277 / *Stenotarsus circumdatus* Gerst. Mexique (1 male: MNHN); Mexico, Coll. J. Flohr (1 female: MNB); Veracruz, Presidio, 8–VII–1993, C. Mayorga. (1 male: CNIN).

Distribution. Guatemala: Alta Verapaz, Quetzaltenango; México: Chiapas, Oaxaca, Veracruz (Fig. W3).

Habits and Habitats. *Altitudinal range:* 350–2400 m.a.s.l. *Vegetation:* cloud forest. *Host fungi:* *Russula* sp. (Russulales: Russulaceae). *Period of collecting:* March to August.

Remarks. The color variation of this species had lead to the establishment of different species in the past: *Stenotarsus circumdatus* Gerstaecker, *S. discipennis* Gorham and *S. tarsalis* Gorham. However, no significant morphological difference was found to validate the separation of these species, and therefore they are synonymized here under *Stenotarsus globosus* Guérin–Méneville.

Stenotarsus tarsalis (Gorham 1890) was described originally based on three specimens: a male from Cordoba and what its author thought were two females

from Xalapa. None of them was designated as holotype. Gorham noticed the tooth on metafemur of the male from Cordova and suggested its similarity to that of *S. rubrocinctus* Gestaecker. From the study of the series of syntypes of *S. tarsalis* we found that one specimen from Xalapa was actually a male, and moreover, that both specimens from this locality were not conspecific with the male from Cordova, but instead belong to *S. thoracicus*, a species also described by Gorham (1890) in the same work. The male from Cordova is here chosen as the lectotype to base the identity of *S. tarsalis* on a single specimen.

Blackwelder (1945) cited *S. globosus* from Honduras, Panamá, Colombia, Guyana, Perú and Bolivia. These records are most likely due to misidentifications and no specimen from south of Guatemala was found in our study, so they remain dubious.

***Stenotarsus guatemalae* Arrow**

(Figs. C5, F1, H4, K4, P4, T7–8, X1)

Stenotarsus guatemalae Arrow, 1920: 51. Blackwelder 1945: 439; Strohecker 1953: 53; Shockley *et al.* 2009a: 82.

Stenotarsus adumbratus Gorham, 1890: 140 (not Gorham, 1873: 63).

Diagnosis. This species resemble *Stenotarsus sallaei* Gorham and wholly brown colored specimens of *S. oblongulus* Gorham, due to their rather oblong and uniformly brown body, and pronotum with small, rounded or weakly elongate foveae (Figs. K4, K15; L6). *Stenotarsus guatemalae* can be distinguished by having terminal antennomere widening apically and without protuberances on lateral margins (Fig. H4), metatibia linear, gradually widened apically (Fig. P5), male abdominal ventrite I without protuberances, and penis rather flattened, slightly bent externally in ventral view (Fig. T8) and widened apically in lateral view (Fig. T7).

Description of males. Body: 3.6–4.7 mm long, long oval, moderately convex (Fig. C5); 1.76–1.84 x as long as wide; 2.94–3.03 x as long as high. Wholly dark brown except antennomeres 8–11 black, 6–7 infuscate. Densely covered with long, suberect, light coppery to golden setae.

Head: Clypeus widely transverse 2.5 x wider than long. Terminal labial palpomere narrow, acuminate narrowly truncate at apex. Interocular distance 0.72 x as wide as head including eyes. Antenna rather long and slender (Fig. H4), 0.48 x as long as body; scape 1.6 x as long as wide, 1.7 x longer than pedicel; pedicel 1.2 x longer than wide; third antennomere 1.2 x as long as wide, 1.2 x as long as pedicel; fourth 1.7 x as long as wide, 1.5 x as long as pedicel; fifth 1.6 x as long as wide, 1.7 x as long as pedicel; sixth subequal to fourth; seventh 1.5 x as long as wide, 1.7 x as long as pedicel; eighth 1.1 x as long as wide, 1.5 x longer than pedicel; antennal club about 0.39 x as long as total antennal length, with segments almost symmetrical; ninth antennomere weakly widening apically, 1 x as long as wide, 2 x as long as pedicel; tenth weakly widening apically, 0.9 x as long as wide, 2 x as long as pedicel; terminal antennomere rather ovoid, 1.5 x as long as wide, 3.8 x as long as pedicel.

Prothorax: Pronotum widest at base, transverse (Fig. K4), 2.02–2.17 x wider than long; 1.85–1.89 x wider at base than in front angles; 2.11–2.13 x wider than

head. Sides convergent to front angles. Front angles produced, briefly acute and rounded at tip. Hind angles distinctly acute. Anterior margin narrow, flat. Lateral margins weakly raised; moderately wide, weakly narrowing posteriorly: width of margin at base about 1/3 of the distance between basal pore and hind angle; area between marginal line and pronotal edge flat. Disc moderately convex, finely and closely punctate. Longitudinal sulci moderately deep, narrowing anteriorly, short, slightly convergent. Basal pores small, rounded. Basal sulcus absent. Pronotal base almost rounded, converging over scutellum. Prosternal process moderately wide at base, gently widened posteriorly (Fig. F1); at apex about as wide as longitudinal procoxal diameter.

Pterothorax: Scutellum triangular, moderately large, 1.92 x wider than long, 0.17 x as wide as pronotum. Elytra length 2.35–3.21 mm; 1.18 x longer than wide; 3.40–3.50 x longer and 1.3–1.4 x wider than pronotum; long ovoid, widest at basal third, then roundly convergent to rounded apex. Moderately densely punctate with foveolate punctures rather small and shallow, separated by 2.5–5.0 diameters, being sparser and shallower at apex of elytra and near scutellum. Humerus moderately prominent. Epipleuron at base, about 0.8 x as wide as intermesocoxal process of metaventrite. Mesoventrite deeply excavated in front; setose pores on sides small; mesoventral process slightly longer than longitudinal coxal diameter, without inner carinae. Metaventrite moderately convex, without modification on the anterior margin; with a pair of small setose pores of approximately same diameter below each mesocoxa. Metanepisternum with setose pore small.

Legs moderately long and slender (Fig. P4). Trochanter simple. Meso and metafemur bearing moderately long decumbent setae. Meso and metatibia slender; metatibia as long as metafemur, 0.34 x as long as elytra, gradually widening apically, linear, unarmed. Metatarsus 0.65 x as long as metatibia; second tarsomere produced and lobed, about 2.0 x as wide at apex as fourth tarsomere at middle length.

Abdomen: Ventrite I almost as long as metaventrite (Fig. F1), slightly shorter than ventrites II–V, with sparse, shallow, coarse foveolate punctation, without protuberances. Ventrite V 1.7 x longer than IV, with apex rounded; ventrite VI rounded at apex. Tergite VIII truncate posteriorly. Penis slender, curved, apex bent externally in ventral view (Fig. T8), weakly widening towards the oblique apex in lateral view (Fig. T7). Tegmen with moderately large submembranous tegminal plate.

Description of female. Female unknown.

Sexual dimorphism. Unknown.

Variation. The specimen from Costa Rica (4.7 mm) is larger than the holotype (3.6 mm).

Material examined. Types. Lectotype of *Stenotarsus guatemalae* Arrow (present designation), male: Syntype [round, blue bordered label] / Type H.T. [round, red bordered label] / Tactic, Vera Paz, Champion / *Stenotarsus guatemalae*, type, Arrow / B.C.A., VII, *Stenotarsus* [p] *adumbratus* Gorb. [h] / *S. adumbratus*, Gorb. (NHM).

Other material. Costa Rica, Prov. San José, Puriscal. P.N. La Cangreja. Send. Ecotrópica. 300 – 400 13 Jul 2004. D. Briseño. L.N. 185736 496067. 77719 / INBIO00386332, INBIOCRI, Costa Rica (1 male: INBIO).

Distribution. Costa Rica: San José; Guatemala: Alta Verapaz (Fig. X1).

Habits and habitats. *Altitudinal range:* 300–1380 m.a.s.l.

Remarks. This species is recorded from Costa Rica for the first time.

***Stenotarsus incisus* sp. nov.**

(Figs. C6, F6, H5, J6, K5, O12, P5, R3, T9–10, V5, W2)

Diagnosis. This species is distinguished from other species of the region by its small size (3.3–4.5 mm), body contrastly colored with pronotum and elytra dark red, each with a black macula (Fig. C6), pronotum with lateral margins markedly wide, without an angle or tooth, basal pores small, slightly oblique (Fig. K5), metaventrite of males with a deep longitudinal, medial pit or incision near the anterior margin (Fig. J6) and legs with second tarsomere narrow, not widened apically (Fig. O12).

Description of males. Body short oval (Fig. C6), markedly convex (Fig. F6); length 3.3–3.4 mm; 1.7–1.8 x width; 2.4 x height. Contrastly colored: head red; antenna wholly black or with antennomeres 1–6 red or gradually infusate; pronotum red with a large, center black macula; elytra red, each with a large, oval, black macula; epipleura red; hypomeron and prosternum red; pterothorax black with mesoventrite red, or completely red; legs black or red. Densely covered with long, suberect, golden setae.

Head: Clypeus transverse 2.0 x wider than long. Terminal labial palpomere narrow, acuminate, narrowly truncate at apex. Interocular distance 0.64 x as wide as head including eyes. Antenna moderately long and slender (Fig. H5), 0.37 x as long as body; scape 1.2 x as long as wide, 1.6 x longer than pedicel; pedicel 1 x longer than wide; third antennomere 1.2 x as long as wide, 0.9x as long as pedicel; fourth 1.3x as long as wide, 1.1 x as long as pedicel; fifth and sixth subequal to fifth; seventh 1.1 x as long as wide, 0.9 x as long as pedicel; eighth 0.9 x as long as wide, 0.8 x longer than pedicel; antennal club about 0.45 x as long as total antennal length with segments almost symmetrical; ninth antennomere widened apically, 0.9 x as long as wide, 16 x as long as pedicel; tenth widened apically, 0.9 x as long as wide, 1.7 x as long as pedicel; terminal antennomere symmetrical, subrectangular, 1.4 x as long as wide, 3.1 x as long as pedicel.

Prothorax: Pronotum (Fig. K5) widest at base; markedly transverse: 2.3–2.4 x wider than long; 2.1–2.2 x wider at base than in front angles; 2.4 x wider than head. Sides strongly convergent in basal half, then scarcely rounded to front angles. Front angles produced, right-angled, rounded at tip. Hind angles acute. Anterior margin narrow, scarcely acuminate at middle. Lateral margins distinctly raised, flat to slightly concave; area between marginal line and pronotal edge flat; markedly wide, weakly narrowing posteriorly; accentuating near base; width of margin at base about 2/5 of the distance between basal pore and hind angle. Disc moderately convex, finely and closely punctate. Longitudinal sulci rather feeble, short. Basal pores small, slightly elongated and oblique. Basal sulcus impressed only very near pores. Pronotal base rounded. Prosternal process narrow at base, strongly widened posteriorly; apex about as wide as longitudinal procoxal diameter.

Pterothorax: Scutellum triangular, small, 1.65–1.80 x wider than long, 0.14 x as wide as pronotum. Elytra length 2.15–2.30 mm; 1.18–1.25 x longer than wide; 3.4 x longer and 1.18–1.25 x wider than pronotum; ovoid, widest near basal third, then roundly converging to the weakly acuminate apex; moderately densely

punctate with foveolate punctures rather small and shallow, separated by 1.5–3.5 diameters, being sparser and shallower at apex. Humerus weakly prominent. Epipleuron at base about 0.8 x as wide as intermesocoxal process of metaventrite. Mesoventrite deeply excavated in front; setose pores on sides small; mesoventral process about as wide as longitudinal coxal diameter, without inner carinae. Metaventrite markedly convex, with a deep longitudinal pit or incision near the anterior margin at midline (Fig. J6); with a pair of small setose pores of approximately same diameter below each mesocoxa. Metanepisternum with setose pore small.

Legs rather short and slender (Fig. P5). Trochanter simple. Meso and metafemur rather stout, widest at mid-length; unarmed; metafemur about as long as mesofemur, bearing moderately long decumbent setae. Meso and metatibia very slender; metatibia scarcely shorter than metafemur, 0.30–0.31 x as long as elytra; very weakly widening apically, linear, unarmed. Metatarsus (Fig. O12) about 0.58–0.62 x as long as metatibia; second tarsomere produced and narrow, about as wide at apex as fourth tarsomere at middle length.

Abdomen: Ventrite I slightly longer than metaventrite and as long as ventrites II–V, with sparse large foveolate punctation, without protuberances. Ventrite V markedly longer than IV, with apex briefly truncate. Ventrite VI rounded at apex. Tergite VIII truncate. Penis rather stout, curved, strongly constricted near apical third in ventral view (Fig. T10); slightly sinuate, narrowing towards apex in lateral view (Fig. T9). Tegmen with moderately large and membranous tegminal plate.

Description of females. Body: length 3.5–4.5 mm; 1.65–1.85 x as long as wide; 2.4–2.5x as long as high. Antenna: 0.35–0.38 x longer than body. Pronotum: 2.28–2.45 x wider than long; 2.05–2.17 x wider at base than in front angles; 2.48–2.45 x wider than head. Elytra: length 2.3–3.0 mm; 1.1–1.2 x longer than wide; 3.1–3.6 x as long as pronotum; 1.20–1.33 x wider than pronotum. Metaventrite: without modifications near anterior margin. Metatibia: 0.30 x as long as elytra. Metatarsus about 0.58–0.62 x as long as metatibia. Ovipositor with proctiger truncate; coxites markedly wide, without styli (Fig. V5).

Sexual dimorphism. Females lack the longitudinal fovea on metaventrite and have longer and wider elytra.

Variation. The paratypes from Quetzaltenango, Sto. Domingo Tepuxtepec and Tlapacoyan have ventral surfaces and legs completely red.

Material examined. Types. Holotype, male: MÉXICO: Chiapas, Ángel Albino Corzo, Reserva “El Triunfo”, Julio – 1991, Mesófilo, E. Guevara, col. / ex *Russula mexicana* / *Stenotarsus marginalis* Arrow, E. Arriaga–Varela det. 2006 (CZUG);

Paratypes: same data as holotype (1 male, 2 females: CZUG); Quetzaltenango, Guat, V–9–45, E.J. Hambleton (1 female: NMNH); Oaxaca, Km 3 carr. Sto. Domingo Tepuxtepec–Juquila Mixes, 19–VIII–2003, Alt. 2000 m, Tr. Intercepción, Q. Santiago & L. Delgado (1 female: IEXA); Veracruz, Banderilla, La Martinica, 30.VIII.2001, en *Lactarius* sp. No. 43, Alt. 1550, L. Delgado col./ *Stenotarsus marginalis* Arrow, E. Arriaga–Varela det. 2006 (1 female: IEXA); Tlapacoyan, Ver., 18–IV–1946, 800m., C. Bolivar (1 female: ENCB).

Distribution. Guatemala: Quetzaltenango; México: Chiapas, Oaxaca, Veracruz (Fig. W2).

Habits and habitats. *Altitudinal range:* 800–2000 m.a.s.l.. *Vegetation:* cloud forest. *Host fungi:* *Lactarius* sp. and *Russula mexicana* (Agaricales: Russulaceae). *Collecting techniques:* flight intercept trap.

Etymology. The specific epithet refers to the longitudinal incision or pit in the metaventrite of males of this species.

***Stenotarsus kfkai* sp. nov.**

(Figs. C7, F2, H6, K6, M4, P6, T11–12, W6)

Diagnosis. This species shares a similar penis with *Stenotarsus mexicanus* sp. nov. (Figs. T13–14). However, it can be easily distinguished, by the body wholly black except the elytra which are widely margined by yellow–orange stripe, excluding suture (Fig. C7), and by the antennae with antennomeres 2–7 comparatively thin, about 2 x longer than wide (Fig. H7).

Description of males. Body 4.4–5.3 mm long, moderately large, short oval, markedly convex (Fig. C7); length 1.7–1.8 x as long as wide, 2.65–2.70 x as long as high. Entirely black excepting elytra, which are yellow, each widely margined by black excepting suture. Densely covered with distinctly short, decumbent, dark coppery setae.

Head: Clypeus widely transverse 2.2–2.3 x wider than long. Terminal labial palpomere narrow, acuminate, narrowly truncate at apex. Interocular distance 0.63–0.64 x as wide as head including eyes. Antenna moderately long and very slender (Fig. H6), 0.4–0.5 x as long as body; scape 1.3 x as long as wide, 1.3 x longer than pedicel; pedicel 1.9 x longer than wide; third antennomere 1.8 x as long as wide, 0.9 x as long as pedicel; fourth 2.1 x as long as wide, 1.1 x as long as pedicel; fifth subequal to fourth; sixth 1.9 x as long as wide, as long as pedicel; seventh subequal to sixth; eighth 1.4 x as long as wide, as long as pedicel; antennal club about 0.35 x as long as total antennal length, its segments weakly symmetrical; ninth antennomere, strongly widened apically, 0.8 x as long as wide, 1.1 x as long as pedicel; tenth strongly widened apically, 0.6 x as long as wide, 1.1 x as long as pedicel; terminal antennomere weakly asymmetrical, nearly round–shaped, widest near mid length 1.2 x as long as wide, 2.4 x as long as pedicel.

Prothorax: Pronotum widest at base; markedly transverse (Fig. K6), 2.2–2.3 x wider than long; 1.9–2.0 x wider at base than in front angles; 2.0–2.1 x wider than head. Sides convergent in posterior half, then weakly rounded to front angles. Front angles produced, acute, briefly rounded at tip. Hind angles right–angled. Anterior margin narrow, acuminate at middle. Lateral margin weakly raised; rather narrow, weakly widening posteriorly, accentuating near base: width of margin at base almost 1/5 of the distance between basal pore and hind angle; area between marginal line and pronotal edge flat to weakly concave. Disc comparatively deeply and closely punctate, moderately convex. Longitudinal sulci feeble, short, straight. Basal pores rather moderately small, slightly curved, oblique. Basal sulcus impressed only near pores. Pronotal base rounded. Prosternal process wide at base, widened posteriorly; apex as wide as longitudinal procoxal diameter.

Pterothorax: Scutellum triangular, moderately large, 1.8 x wider than long, 0.16 x as wide as pronotum. Elytra length 3.00–3.55 mm; 1.16–1.21 x longer than wide; 3.2–3.4 x as long as pronotum; 1.3–1.35 x wider than pronotum; ovoid, widest before basal third, then converging roundly to the weakly acuminate apex.

Densely and evenly punctate with foveolate punctures small and somewhat deep (Fig. M4), separated by 2.0–2.5 diameters, being slightly sparser and shallower at apex of elytra. Humerus moderately prominent. Epipleuron moderately wide at base, about 0.7 x as wide as intermesocoxal process of metaventrite. Mesoventrite deeply excavated in front; setose pores on sides small; mesoventral process wider than longitudinal coxal diameter, without inner carinae. Metaventrite moderately convex, without modifications on anterior margin; with a pair of small setose pores of approximately same diameter below each mesocoxa. Metanepisternum with setose pore small.

Legs moderately long and slender (Fig. P6). Trochanter simple. Meso and metafemur moderately slender, widest at mid-length; unarmed; metafemur about as long as mesofemur, bearing short decumbent setae. Meso and metatibia moderately slender; metatibia about as long as metafemur, 0.33–0.35 x longer than elytra, continuously widened distally, linear, unarmed. Metatarsus about 0.60–0.65 x as long as metatibia; second tarsomere produced and lobed, about 2.5 x as wide at apex as fourth tarsomere at middle length.

Abdomen: Ventrite I slightly shorter than metaventrite and ventrites II–V, with small foveolate punctation, without protuberances (Fig. F2). Ventrite V almost 1.5 x longer than IV, with apex truncate. Ventrite VI rounded at apex. Tergite VIII truncate. Penis very slender, curved, broader preapically, then widening gradually towards apex, (Fig. T12); narrower at mid-length in lateral view (Fig. T11). Tegmen with moderately large submembranous tegminal plate.

Description of females. Body: length 5.6 mm; 1.72 x as long as wide; 2.85 x as long as high. Antenna: 0.36 x as long as body. Pronotum: 2.3–5.0 x wider than long; 1.9 x wider at base than at front angles; 2.23 x wider than head. Elytra: length 3.9 mm; 1.2 x longer than wide; 4.0 x longer and 1.4 x wider than pronotum. Metatibia: 0.29 x longer than elytra. Metatarsus: about 0.55 x as long as metatibia. Ovipositor with proctiger rounded, coxites moderately wide, without styli.

Sexual dimorphism. No significant sexual dimorphism was found.

Variation. No significant variation was found.

Material examined. Types. Holotype, male: MÉXICO, Veracruz: Altotonga, Río Pancho Poza, 25–IX–2001, *Lactarius* No. 167, Alt. 1900, L. Delgado col. (IEXA);

Paratypes: Mexico, coll. J. Flohr (1 female: MNB); Lag. Verde [h] / Mexico, coll. J. Flohr / *Stenotarsus* sp. indet, det. H.F. Strohecker (1 male: MNB).

Distribution. México: Veracruz (Fig. W6).

Habits and habitats. *Altitudinal range:* 5?1,900 m.a.s.l. *Host fungi:* *Lactarius* sp. (Russulales: Russulaceae).

Etymology. This species is dedicated to the eminent Czech author Franz Kafka, who imagined what it would be like to wake up as an insect.

Remarks. The short and decumbent setae on pronotum and elytra in this species are rare among the *Stenotarsus* fauna of this region. The paratypes were labeled as collected in “Lag. Verde”, which probably refers to Laguna Verde in the coast of central Veracruz. However, the identity of this locality remains uncertain.

***Stenotarsus latipes* Arrow**

(Figs. B1–B5, B7–11, C8, G2–3 H7, K7, P7, T13–14, V6, X3)

Stenotarsus latipes Arrow, 1920: 52. Blackwelder 1945: 439; Strohecker 1953: 53; Roubik & Skelley 2001: 155; Arriaga–Varela *et al.* 2007: 14; Navarrete–Heredia *et al.* 2008: 120; Shockley *et al.* 2009a: 82.
Stenotarsus angustulus Gorham, 1890: 138 (not Gerstaecker, 1858: 327).
Synonymized by Arrow, 1920.

Diagnosis. Very similar to *Stenotarsus molgorae* sp. nov. sharing, among other features, a similar antennal structure (Fig. H7, H13), distinctly narrow lateral margins of the pronotum (Fig. K7), and the distinctly broad and curved meso and metatibia in males (Figs. P7, Q1). It can be distinguished by having the tibiae and tarsi of all legs reddish brown instead of black (Fig. C8), the meso and metatibiae of males more strongly curved and bearing a conspicuous row of tubercles at inner margin (Fig. P7), and the penis markedly widened in basal half in ventral view (Fig. T14).

Description of males. Body 4.9–5.8 mm long moderately large, long oval, moderately convex and large (Fig. C8); 1.86–1.95 x as long as wide, 2.95–3.30 x as long as high. Wholly reddish brown except antennomeres 3–11 which are black. Densely covered with moderately long, subdecumbent, coppery setae.

Head: Clypeus transverse 2.1 x wider than long. Terminal labial palpomere narrow, acuminate, narrowly truncate at apex (Fig. B5). Interocular distance 0.60–0.71 x as wide as head including eyes. Antenna moderately long and stout (Fig. H7), 0.45 x as long as body; scape 1.5 x as long as wide, 1.9 x longer than pedicel; pedicel 1.2 x longer than wide; third antennomere 1.6 x as long as wide, 1.3 x as long as pedicel; fourth 1.6 x as long as wide, 1.4 x as long as pedicel; fifth 1.6 x as long as wide, 1.6 x as long as pedicel; sixth and seventh subequal to fifth; eighth 1.2 x as long as wide, 1.3 x longer than pedicel; antennal club about 0.4 x as long as total antennal length, with segments almost symmetrical; ninth antennomere widened apically, 1.3 x as long as wide, 2.2 x as long as pedicel; tenth widened apically, as long as wide, 2 x as long as pedicel; terminal antennomere widening apically, 1.6 x as long as wide, 3.4 x as long as pedicel.

Prothorax: Pronotum widest at base, transverse (Fig. K7), 1.97–2.13 x wider than long; 1.68–1.82 x wider at base than in front angles; 1.98–2.15 x wider than head. Sides almost continuously rounded. Front angles moderately produced, right-angled, rounded at tip. Hind angles right-angled or slightly acute. Anterior margin narrow, weakly rounded. Lateral margins hardly raised; distinctly narrow, of subequal width along its length: width of margin at base less than 1/6 of the distance between basal pore and hind angle; area between marginal line and pronotal edge flat. Disc moderately convex, finely and closely punctate. Longitudinal sulci moderately deep, short, weakly curved inwardly. Basal pores small, slightly elongate and oblique (Fig. B6). Basal sulcus impressed only near pores. Pronotal base rounded. Prosternal process wide, weakly widened posteriorly; at apex slightly wider than longitudinal procoxal diameter.

Pterothorax: Scutellum triangular, moderately large, 1.67–1.72 x wider than long, 0.18–0.2 x as wide as pronotum. Elytra length 3.4–3.8 mm; 1.25–1.31 x longer than wide; 3.62–4.0 x longer and 1.32–1.43 x wider than pronotum; long ovoid, widest at basal third, then roundly convergent to the acuminate apex. Moderately densely punctate with foveolate punctures moderately large and deep, separated by 3–5 diameters (Fig. B10), being sparser and shallower near apex of elytra and scutellum. Humerus moderately prominent. Epipleuron moderately wide

at base, about 0.8 x as wide as the intermesocoxal process of metaventrite. Mesoventrite deeply excavated in front, setose pores on sides small, mesoventral process wider than longitudinal coxal diameter, without inner carinae. Metaventrite weakly convex, almost flat in center, without modifications on anterior margin; with a pair of small setose pores of approximately same diameter below each mesocoxa. Metanepisternum with setose pore small.

Legs moderately long and somewhat stout (Fig. P7). Trochanter simple. Meso and metafemur moderately widened at mid-length; unarmed; metafemur about as long mesofemur, bearing moderately long decumbent setae. Meso and metatibia distinctly flattened, and curved; metatibia slightly shorter than metafemur, 0.27–0.33 x as long as elytra, continuously widened distally, with a inner row of tubercles. Metatarsus 0.54–0.58 x as long as metatibia; second tarsomere produced and lobed, about 3 x as wide at apex as fourth tarsomere at middle length (Fig. B11).

Abdomen: Ventrite I about as long as metaventrite and slightly shorter ventrites II–V, with moderately coarse foveolate punctation, without protuberances. Ventrite V almost 1.5 x longer than IV, with apex slightly truncate; ventrite VI acuminate at apex. Tergite VIII truncate. Penis comparatively short and stout, curved, widened in basal half, slightly bent externally in ventral view (Fig T14), gradually widened apically in lateral view (Fig T13). Tegmen with tegminal plate moderately large.

Description of females. Body: length 5.60–6.15 mm; length 1.90–1.95 x as long as wide; 2.9–3.2 x as long as high. Antenna: 0.36–0.38 x as long as body. Pronotum: 2.09–2.10 x wider than long; 1.85–2.0 x wider at base than in front angles; 2.08–2.22 x wider than head. Elytra: length 3.9–4.5 mm; 1.32–1.40 x longer than wide; 3.9–4.1 x longer and 1.39–1.43 x wider than pronotum. Metatibia: 0.26–0.29 x longer than elytra, scarcely curved, unarmed. Metatarsus: about 0.50–0.55 x as long as metatibia. Ovipositor with proctiger acuminate, coxites wide, without styli (Fig. V6).

Sexual dimorphism. Males have proportionally larger antennae. Also the meso and metatibia is distinctly flattened and curved, with inner row of small tubercles.

Variation. Although this species shows a broad geographical range no significant variation was found among its members.

Material examined. México: Chihuahua, Urique, Cerocahui, el Salitre, 19–21–VII–2006, Alt. 1700, Tr. Intercepción. M. Castillo y L. Delgado cols. (2 males: IEXA); Sierra de Durango / *Stenotarsus angustulus* Gerst. (1 female: MNHN); Canelas (1 female: MNB); [same data plus] *Stenotarsus latipes* Arrow det. H.F. Strohecker, from study of type (1 male: MNB); Canelas 6 (1 female: MNB); Mexico, Coll. J. Flohr / *unicolor* Horn / *Stenotarsus latipes* Arrow det. H.F. Strohecker (1 female: MNB); MÉXICO, Guerrero, Acahuizotla, bomba de captación, BTC, 799 msnm, 17°21'19.6"N 99°27'14.5" W, 24.V.2009, col. Cisteil Pérez–Hdez. (3 males, 2 females: CNIN); MÉXICO, Guerrero, Acahuizotla, Camino San Roque–Nejapa, BTC, 769 msnm, 17°21'0.21"N 99°27'57" W, 24.V.2009, col. Cisteil Pérez–Hdez (2 males, 5 females: CNIN); MÉXICO, Guerrero, Acahuizotla, Nejapa, BTC, 920 msnm, 17°22'31.7"N 99°27'26" W, 24.V.2009, Trampa de Luz (en Iona), S. Zaragoza–Caballero col. (5 males, 7 females: CNIN); 14 Km Carretera Pto. del Gallo, Paraiso, Atoyac de Alvarez, Gro. / 28 – VII – 1983, A. Luis, B. lauracea, 2000 msnm (1 female: MZFC); Taxco (1 female: MNB); MÉXICO: Guerrero, Tetipac, El Peral, 2210m, BMM, 18°35'46" N, 99°37'12" W, ex *Lactarius deliciosus*,

J.L. Navarrete col (1 female: CZUG); México: Morelos, Tlayacapan, San José de los Laureles, BMM, 18°55'58" N, 99°0'9" W, ex *Russula* IIB, 15.IX.1991, J.L. Navarrete col. (1 female: JLN); México: Jalisco, Atenguillo, Cerro El Faro, Km. 85 carr. Ameca–Mascota, BPE, 1935 m, 20°22'N, 104°36'W, 5.VI.2004, ex Cortez, J. Cortés–Aguilar, V. Zamora (2 males, 1 female: CZUG); Méx. Jalisco, Autlán, Puerto Los Mazos, BMM, 1630 m, 19°41'29"N, 104°23'69" W, 25.VII.1994, ex Agarical, G.A. Quiroz–Rocha (1 female: CZUG); México: Jal, Mascota, Cerro La Mona, carr. Ameca–Mascota, 1456 m, BPE, 20°27'41.3"N, 104°45'0.0"W, 4–17.VII.2005, NTP Calamar, K. Paredes (1 male: CZUG); México: Jalisco, Mascota, El Atajo, carr. Mascota–Las Palmas, BMM, 1413 m, 20°38'01"N, 104°51'45"W, 6.VII.2005, ex *Sirobasidium sanguineum* (Tremellaceae), J. Cortés–Aguilar (14 males, 20 females: CZUG); Mascota, El Atajo, carr. Mascota–Las Palmas, BMM, 1413 m, 20°38'01"N, 104°51'45"W, 14.XII.2004, ex tronco, 1413 m, 20°38' N, 104°51' w, J.L. Navarrete–Heredia, V.H. Flores cols (2 males, 2 females: CZUG); MÉXICO: Jal, Tequila, Volcán de Tequila, BEP, 1868 m, 20°49'24.8"N, 103°51'21.9"W, ex *Lactarius*, 21.IX.2006, E. Arriaga–Varela & A. Mólgora cols. (10 males, 13 females); México: Jal, Tequila, Volcán de Tequila, BEP, 2000 m, 20°46'34.5"N, 103°51'48"W, ex *Lactarius*, 22.IX.2006, E. Arriaga–Varela & A. Mólgora cols. (4 males; 3 female: CZUG); México: Jal, Tequila, Volcán de Tequila, Km. 12 de la brecha a las antenas, BPE, 2200 m, ex *Lactarius*, 16.IX.2006, I.G. Rocha & J. Cortés cols. (12 males, 8 females: CZUG); México: Jalisco, Zapopan, Huaxtla, BE, 1431 msnm 20°56'00.2"N 103°24'18.8"W, 26.VI.2007, ex *Stereum ostreae*, CEAS Arcediano col. (2 males, 4 females: CZUG); Oaxaca: Tuxtepec 15 / Mexico, Coll. J. Flohr / *nitidularius* Gerst (1 female: MNB); Yolotepec 15 / Mexico coll. Flohr / *Stenotarsus latipes* Arrow det. H.F. Strohecker (1 female: MNB); Yolotepec / Mexico, coll J. Flohr / *Stenotarsus latipes* Arrow det. H.F. Strohecker (1 female: MNB); México: Oaxaca, Km 21 carretera Yolotepec – Juquila, BE, 1850m, ex *Lactarius* IIB, 30–31.VII.1991, J.L. Navarrete, G.A. Quiroz y L. Delgado #871 (1 female: CZUG); [illegible] / Mexico, coll J. Flohr (1 female: MNB); Mexico, Coll Flohr (2 males, 2 females: MNB).

Distribution. Guatemala: Baja Verapaz, Sacatepequez; México: Chihuahua, Guerrero, Durango, Jalisco, Morelos, Oaxaca, Veracruz (Fig. X3).

Habits and habitats. *Habits:* this species has been collected active at day, feeding, copulating or flying (C. Pérez–Hernández, personal communication). Once, 34 specimens were collected on the same dead log, feeding on fungi *Sirobasidium sanguineum*. Six specimens were found feeding and copulating over a dead log infested by *Stereum ostrea* fungi (Fig. G2). Larvae of various instars were collected on the same fungi ten days later. In other occasion they have been collected feeding on fungi, along with other endomychids like *Epipocus longicornis* Gerstaecker, *Stenotarsus raramuri* sp. nov. and remarkably with the similar *Stenotarsus molgorae* sp. nov (Fig. G3) (J. Cortés–Aguilar, personal communication). *Altitudinal range:* 769–2000 m.a.s.l. *Vegetation:* Pine–oak, cloud and tropical deciduous forest. *Period of collecting:* May to October. *Host fungi:* *Russula* sp., *Lactarius deliciosus* and *Lactarius* spp. (Russulales: Russulaceae); *Stereum ostrea* (Russulales: Stereaceae); *Sirobasidium sanguineum* (Tremellales: Sirobasidiaceae).

Remarks. The type material was not studied. However, specimens from MNB identified by H. F. Strohecker by direct comparison with types were studied. Roubik

& Skelley (2001) reported the occurrence of this species in Costa Rica, and commented its aggregating behavior. Nevertheless, according to our observations, the Costa Rican specimens do not belong to *S. latipes*, but instead to a similar, unnamed species. Although *S. latipes* specimens has been collected in large numbers, its aggregating behavior requires confirmation. This species is recorded from Chihuahua State for the first time.

***Stenotarsus lemniscatus* Gorham**

(Figs. C9, H8, K8, M5, P8, T15–16, Y1)

Stenotarsus lemniscatus Gorham, 1890: 139. Strohecker 1953: 53; Shockley *et al.* 2009a: 82; Roubik & Skelley 2001: 255.

Diagnosis. This species is distinguished from the other congeners of the region by the following combination of characters: body wholly ferruginous–brown (Fig. C9), long antennae, 0.39–0.50 x as long as body (Fig. H8), pronotum with base emarginate over scutellum (Fig. K8), second tarsomere of all legs markedly narrow, not widened distally, and, the shape of penis, which is strongly widened apically in lateral view (Figs. T15–16).

Description of males. Body 3.7–4.6 mm long, markedly convex (Fig. C9); 1.68–1.70 x as long as wide; 2.8 x as long as high. Wholly dark brown except last five antennomeres which are black. Densely covered with long, suberect, golden setae.

Head: Clypeus transverse 1.9–2.0 x wider than long. Terminal labial palpomere narrow, acuminate, narrowly truncate at apex. Interocular distance 0.58–0.61 x as wide as head including eyes. Antenna long and slender (Fig. H8), 0.45–0.50 x as long as body; scape 1.7 x as long as wide, 2 x longer than pedicel; pedicel 1.1 x longer than wide; third antennomere 1.4 x as long as wide, 1.1x as long as pedicel; fourth 1.5 x as long as wide, 1.3 x as long as pedicel; fifth 2 x as long as wide, 1.6 x as long as pedicel; sixth 1.8x as long as wide, 1.7 x as long as pedicel; seventh 1.6 x as long as wide, 1.8x as long as pedicel; eighth 1.4 x as long as wide, 1.6 x longer than pedicel; antennal club about 0.4 x as long as total antennal length, with segments almost symmetrical; ninth antennomere widened apically, 1.4 x as long as wide, 2 x as long as pedicel; tenth widened apically, 1.1 x as long as wide, 1.8 x as long as pedicel; terminal antennomere slightly asymmetrical, widest near mid–length, with a small protuberance on lateral margin at mid–length, 1.8 x as long as wide, 3.2 x as long as pedicel.

Prothorax: Pronotum (Fig. K8) widest at base; widely transverse: 2.25–2.33 x wider than long; 2.15 x wider at base than in front angles; 2.25–2.35 x wider than head. Sides almost continuously rounded to front angles. Front angles produced, right–angled, narrowly rounded at tip. Hind angles right–angled to slightly acute. Anterior margin narrow, almost flat. Lateral margins moderately raised, wide, narrowing posteriorly; width of margin at base about 1/3 of the distance between basal pore and hind angle; area between marginal line and pronotal edge flat to weakly concave. Disc moderately convex, finely and closely punctate. Longitudinal sulci rather feeble, short, weakly curved. Basal pores small, slightly elongated and oblique. Basal sulcus not impressed. Pronotal base emarginate over scutellum. Prosternal process narrow at base, weakly widened posteriorly; at apex about 0.75 x as wide as longitudinal procoxal diameter.

Pterothorax: Scutellum triangular, small, 1.5–1.65 x wider than long, 0.15 x as wide as pronotum. Elytra length 2.5–3.0 mm; 1.12–1.14 x longer than wide; 3.4–3.7 x longer and 1.35 x wider than pronotum; ovoid, widest near basal third, then roundly converging to the somewhat acuminate apex; rather sparsely punctate with foveolate punctures moderately large, shallow, separated by 2–5 diameters, being sparser and shallower at apex. Humerus moderately prominent. Epipleuron at base about 0.8 x as wide as intermesocoxal process of metaventrite. Mesoventrite deeply excavated in front; setose pores on sides small; mesoventral process about as wide as longitudinal coxal diameter, without inner carinae. Metaventrite moderately convex, without modifications near the anterior margin; with a pair of small setose pores of approximately same diameter below each mesocoxa. Metanepisternum with setose pore small.

Legs moderately long and slender (Fig. P8). Trochanter simple. Meso and metafemur somewhat stout, slightly widened at mid-length; meso and metafemur unarmed; metafemur about as long as mesofemur, bearing moderately long decumbent setae. Meso and metatibia slender; metatibia scarcely shorter than metafemur, 0.33–0.35 x as long as elytra; gradually widened apically, linear to slightly curved, inner margin unarmed. Metatarsus about 0.60–0.65 x as long as metatibia; second tarsomere produced and narrow, about as wide or narrower at apex as fourth tarsomere at middle length.

Abdomen: Ventrite I slightly longer than metaventrite and as long as ventrites II–V, with sparse large foveolate punctation, without protuberances. Ventrite V markedly longer than IV, with apex truncate. Ventrite VI rounded at apex. Tergite VIII widely truncate (Fig. R7). Penis small and stout, curved, widened apically in ventral (Fig. T16) and lateral view (Fig. T15). Tegmen with moderately large submembranous tegminal plate.

Description of females. Body: length 4.10–4.75 mm; length 1.60–1.65 x as long as wide; 2.60–2.67 x as long as high. Antenna: 0.39–0.45 x as long as body. Pronotum: 2.28–2.41 x wider than long; 2.0–2.2 x wider at base than in front angles; 2.3–2.5 x wider than head. Elytra: length 2.80–3.15 mm; 1.04–1.12 x longer than wide; 3.70–3.95 x as long as pronotum; 1.42–1.49 x wider than pronotum. Metatibia: 0.28–0.33 x as long as elytra. Metatarsus 0.53–0.58 x as long as metatibia. Coxites without styli.

Sexual dimorphism. Females have considerably shorter antennae than males (0.39–0.45 x and 0.45–0.50 x as long as body, respectively).

Variation. The specimens from Los Tuxtlas in Veracruz, have shorter antennae: 0.39 x as long as body in females, and 0.45 x in one studied male.

Material examined. Types. Lectotype (present designation), male: Syntype [round, blue bordered label] / Type [round, red bordered label] / Zapote, Guatemala, G.C. Champion / *St. lemniscatus* Gorh. / B.C.A., VII, *Stenotarsus* [p] *lemniscatus* Gorh. [h] (NHM); **Paralectotype,** female: Syntype [round, blue bordered label] / Zapote, Guatemala, G.C. Champion / *St. lemniscatus* Gorh. / B.C.A., VII, *Stenotarsus* [p] *lemniscatus* Gorh. [h] (NHM).

Other material. Costa Rica. Prov. Limón. R.B. Hitoy Cerere, V. de la Estrella, Send. Espavel, 560m., 18 SEP–4 OCT 2003, B.Gamboa, F. Rojas, W. Arana, Malaise, #9. L S 401200 569800 #75496 / inb0003782408, inbiocri costa rica (1 male: INBIO); Costa Rica. Prov. Puntarenas, P.N. Corcovado. Sector La Leona, Cerro Puma, 100 – 300m, 21 JUN – 10 JUL 2003, M. Moraga, Libre. L. S. 267700 518900 #74484 (1 female: INBIO); Costa Rica. Prov. Limón, Reserva, Biol. Hitoy

Cerere, Est. Hitoy Cerere, Send Poza de las Chiclas, 100m, 25 AGO 2000. W Arana. Col. Acuática. L_N_643226_184176 #58674 (1 male: INBIO); La Ceiba, Honduras / WM Mann collector (1 female: NMNH); México, Veracruz: México: Veracruz, Est. Biol. Los Tuxtlas, 20–IX–89, J.L. Colín, R. Rojas (1 male: CNIN); México: Veracruz, Est. Biol. “Los Tuxtlas”, 9–X–1989, J.L. Colín & H. Rojas Cols. (1 female: CNIN); México: Veracruz, Est. Biol. Los Tuxtlas, 16–IX–89, H. Rojas, J.L. Colín. (1 female: CNIN).

Distribution. Costa Rica: Limón, Puntarenas, Guatemala: Quetzaltenango, Honduras: Atlántida, México: Veracruz (Fig. Y1).

Habits and habitats. *Altitudinal range:* 100–300 m.a.s.l. *Period of collecting:* July to October.

Remarks. This is the first record of this species from México and Honduras.

***Stenotarsus marginalis* Arrow**

(Figs. C10, H9, J1, K9, N16, P9, T17–18, X1)

Stenotarsus marginalis Arrow, 1920: 50. Blackwelder 1945: 440; Strohecker 1953: 54; Shockley *et al.* 2009a: 83.

Stenotarsus maculicollis Gorham, 1890: 141 (not Gerstaecker 1858: 333).
Synonymized by Arrow, 1920.

Diagnosis. This species is easily recognizable among all other species from the region by the markedly large, oblique basal pores on the pronotum (Figs. J1, K9), and the metaventrite with only one large setose pore below each mesocoxa (Fig. N16).

Description of males. Body 4.15 mm long, moderately long oval and convex (Fig. C10); 1.9 x width; 2.65 x height. Contrastly colored: antennae red with club black, head red, pronotum black, broadly margined laterally by red, elytra black, each margined by red stripe, venter red. Densely covered with comparatively long, suberect, coppery setae.

Head: Clypeus transverse 2.0 x wider than long. Terminal labial palpomere narrow, acuminate, narrowly truncate at apex. Interocular distance 0.71 x as wide as head including eyes. Antenna moderately long and rather stout (Fig. H9), 0.41 x as long as body; scape 1.2 x as long as wide, 1.7 x longer than pedicel; pedicel 0.8 x longer than wide; third antennomere 0.9 x as long as wide, 1 x as long as pedicel; fourth to seventh subequal to third; eighth 0.8 x as long as wide, 1.1 x longer than pedicel; antennal club 0.48 x as long as total antennal length, with segments almost symmetrical; ninth antennomere weakly widened apically, as long as wide, 1.9 x as long as pedicel; tenth widened apically, 0.9 x as long as wide, 2.1 x as long as pedicel; terminal antennomere slightly asymmetrical, widest after mid-length, 1.6 x as long as wide, 4.2 x as long as pedicel.

Prothorax: Pronotum (Fig. K9) widest at base; markedly transverse: 2.35 x wider than long; 1.9 x wider at base than in front angles; 2.15 x wider than head. Sides weakly convergent in basal half, then weakly rounded to front angles. Front angles produced, right-angled, weakly rounded at tip. Hind angles slightly acute. Anterior margin narrow, not acuminate at middle. Lateral margins distinctly raised and wide, weakly narrowing near base: width of margin at base less than 1/2 of the

distance between basal pore and hind angle; area between marginal line and pronotal edge flat to slightly concave. Disc moderately convex, finely and closely punctate. Longitudinal sulci very short and feeble. Basal pores remarkably large, elongated and oblique. Basal sulcus impressed, lacking at center. Pronotal base rounded, almost horizontal over scutellum. Prosternal process narrow at base, weakly widened posteriorly; apex about 0.6 x longitudinal procoxal diameter.

Pterothorax: Scutellum triangular, small, 1.3 x wider than long, 0.14 x as wide as pronotum. Elytra length 2.63 mm; 1.2 x longer than wide; 3.35 x longer and 1.18 x wider than pronotum; ovoid, widest near basal third, then roundly converging to rounded apex; moderately densely punctate with foveolate punctures comparatively large and deep, separated by 1.5–3.5 diameters, being sparser and shallower at apex. Humerus weakly prominent. Epipleuron at base about 0.8 x as wide as intermesocoxal process of metaventrite. Mesoventrite deeply excavated in front; setose pores on sides small; mesoventral process about as wide as longitudinal coxal diameter, without inner carinae. Metaventrite markedly convex, without modifications near the anterior margin; with only a distinctly large setose pore below each mesocoxa (Fig. N16). Metanepisternum with setose pore small.

Legs moderately short and stout (Fig. P9). Trochanter simple. Meso and metafemur moderately stout, slightly widest at mid-length, unarmed; metafemur slightly curved, about as long as mesofemur, bearing moderately long decumbent setae. Meso and metatibia moderately stout; metatibia scarcely shorter than metafemur, 0.33 x as long as elytra; weakly and gradually widened apically, linear, inner margin unarmed. Metatarsus 0.63 x as long as metatibia; second tarsomere produced, about as wide at apex as fourth tarsomere at middle length.

Abdomen: Ventrite I slightly shorter than metaventrite and as long as ventrites II–V, with sparse large foveolate punctation, without protuberances. Ventrite V markedly longer than IV, with apex briefly truncate. Ventrite VI rounded at apex. Tergite VIII truncate. Penis narrow, curved, very weakly widened apically in ventral (Fig. T18) and lateral view (Fig. T17). Tegmen with moderately large submembranous tegminal plate.

Description of female. Female unknown.

Sexual dimorphism. Unknown.

Material examined. Type. Holotype, male: Holotype [round, red bordered label] / Type H.T. [round, red bordered label] / Zapote, Guatemala, G.C. Champion / *Stenotarsus maculicollis* Gerstaecker[h] / B.C.A., VII, *Stenotarsus* [p] *maculicollis* Gerst. [h] / Sp. figured / *Stenotarsus marginalis* Arrow [h] (NHM).

Distribution. Guatemala: Quetzaltenango (Fig. X1).

Remark. This species was reported by Arriaga–Varela *et al.* (2007) from México. However, this record was based on a misidentification of specimens described here as *Stenotarsus incisus* sp. nov.

***Stenotarsus mesoamericanus* sp. nov.**

(Figs. C11, H10, K10, N3, P10, T19–20, V7, W1)

Diagnosis. This species is most similar to *Stenotarsus cortesi* sp. nov. and *S. parallelicornis* sp. nov. sharing similar antennal structure, with flagellomeres about as long as wide, and club slightly longer than the rest of antenna, with its articles

elongate and scarcely widened apically (Figs. H1, H10, H18). *Stenotarsus mesoamericanus* can be distinguished by having the pronotum and elytra red, each with a large, central, black macula (Fig. C11) and by the shape of penis, which is more strongly widened near apex in lateral view (Fig. T21).

Description of males. Body 5.40 mm long, moderately long oval, markedly convex (Fig. C11); 1.75 x as long as wide, 2.6 x as long as high. Contrastly colored: head red, antenna orange–red with club black; pronotum ferruginous red with a subtriangular to semicircular black macula, not extending beyond basal pores at base; elytra red with a large, oval black macula; epipleura red; venter wholly ferruginous red. Densely covered with long, suberect, golden setae.

Head: Clypeus transverse 2 x wider than long. Terminal labial palpomere narrow, acuminate, narrowly truncate at apex. Interocular distance 0.64 x as wide as head including eyes. Antenna moderately long and distinctly stout (Fig. H10), 0.42 x as long as body; scape 1 x as long as wide, 1.6 x longer than pedicel; pedicel 1 x longer than wide; third antennomere 1.3 x as long as wide, 1.1 x as long as pedicel; fourth 1.3 x as long as wide, 1.1 x as long as pedicel; fifth 1.1 x as long as wide, 1.2 x as long as pedicel; sixth 1.1 x as long as wide, 1.2 x as long as pedicel; seventh 1.1 x as long as wide, 1.1 x as long as pedicel; eighth 0.8 x as long as wide, 1 x as long as pedicel; antennal club about 0.54 x as long as total antennal length, with segments almost symmetrical and parallel sided; ninth antennomere scarcely widened apically, 1.3 x as long as wide, 2.9 x as long as pedicel; tenth scarcely widened apically, 1.4 x as long as wide, 3.1 x as long as pedicel; terminal antennomere markedly elongate, nearly parallel sided, 2.1 x as long as wide, 5.2 x as long as pedicel.

Prothorax: Pronotum widest at base; transverse (Fig. K10): 2.35 x wider than long; 2.35 x wider at base than in front angles; 2.45 x wider than head. Sides convergent in basal half then weakly rounded to front angles, with a small tooth at mid–length. Front angles rather strongly produced, slightly acute, rounded at tip. Hind angles right–angled. Anterior margin narrow, scarcely acuminate at middle. Lateral margins markedly raised, markedly wide: width of margin at base about 1/3 of the distance between basal pore and hind angle; area between marginal line and pronotal edge flat to slightly concave. Disc moderately convex, finely and closely punctate. Longitudinal sulci rather shallow, short, curved. Basal pores moderately large, elongated and oblique. Basal sulcus impressed only very close to pores. Pronotal base slightly emarginate over scutellum. Prosternal process narrow at base, strongly widened posteriorly (Fig. N3); at apex narrower than longitudinal procoxal diameter.

Pterothorax: Scutellum triangular, small, 1.5 x wider than long, 0.17 x as wide as pronotum. Elytra length 3.75 mm; 1.2 x longer than wide; 4.0 x longer and 1.38 x wider than pronotum; ovoid, widest near basal third, then roundly converging to the slightly acuminate apex; moderately vaguely punctate with foveolate punctures rather small and shallow, separated by 4–5 diameters, being coarser near humeri and slightly sparser and shallower at apex. Humerus moderately prominent. Epipleuron at base about 0.75 x as wide as intermesocoxal process of metaventrite. Mesoventrite deeply excavated in front; setose pores on sides small; mesoventral process about as wide as the longitudinal coxal diameter, without inner carinae. Metaventrite markedly convex, without modifications near the anterior margin; with a pair of small setose pores of approximately same diameter below each mesocoxa. Metanepisternum with setose pore small.

Legs moderately long and rather stout (Fig. P10). Trochanter simple. Meso and metafemur moderately stout, widest at mid-length; meso and metafemur unarmed; metafemur slightly longer than mesofemur, bearing moderately long decumbent setae. Meso and metatibia moderately stout; metatibia about as long as metafemur, 0.31 x longer than elytra; gradually widened apically, linear, inner margin unarmed. Metatarsus about 0.55 x as long as metatibia; second tarsomere produced and narrow, about 1.2 x wider at apex than fourth tarsomere at middle length.

Abdomen: Ventrite I slightly longer than metaventrite and as long as ventrites II–V, with moderately large foveolate punctation below metacoxae, without protuberances. Ventrite V almost 2x longer than IV, with apex briefly truncate. Ventrite VI rounded at apex. Tergite VIII truncate. Penis large, moderately narrow, curved, width almost same as length in ventral view (Fig. T20); strongly widened near apex in lateral view (Fig. T19). Tegmen with moderately large submembranous tegminal plate.

Description of females. Body: length 4.0 mm; 1.5 x as long as wide, 2.3 x as long as high. Antenna: 0.41 x as long as body. Pronotum: 2.35 x wider than long; 2.0 x wider at base than in front angles; 2.3 x wider than head; tooth on lateral edge poorly developed. Elytra: length 3.07 mm; 1.1 x longer than wide; 3.73 x as long as pronotum; 1.45 x wider than pronotum. Metatibia: 0.29 x as long as elytra. Metatarsus: about 0.59 x as long as metatibia. Ovipositor with proctiger very acuminate, narrowly rounded apically; coxites narrow, without styli (Fig. V7).

Material examined. Types. Holotype, male: MÉXICO: *Puebla*, Xicotepec de Juárez, Hidroeléctrica Patla. Bosque mesófilo de montaña–cultivos. En hongos de troncos. 3–X–2003. E. Chanes col. (UAEH); **Paratypes**, females: same data as holotype: (UAEH); El Triunfo, 8–VII–1993, C. Mayorga (CNIN).

Distribution. México: Chiapas, Puebla (Fig. W1).

Habits and habitats. *Vegetation*: cloud forest–plantations. *Habitat*: “dead log fungi”.

Etymology. The species epithet is based on Mesoamerica, the name given by anthropology scholars to the area extending from Central México to northern Central America.

Remark. The apex of the penis of the holotype is broken (Fig. T19).

***Stenotarsus mexicanus* sp. nov.**

(Figs. C12, H11, K11, J2, P11, T11–12, V8, X2)

Diagnosis. This species shares a similar penis with *Stenotarsus kfkai* sp. nov (Fig. T13–14). However it can be easily distinguished by the pronotum and elytra black, each completely bordered by red, and by the stouter antennae (Fig. H11), with the flagellomeres about 1.5 x longer than wide. *Stenotarsus mexicanus* also strongly resembles contrastly colored specimens of *S. militaris* Gerstaecker in general appearance. *Stenotarsus mexicanus* differs from *S. militaris* in the shape of terminal antennomere, which is more elongate in *S. mexicanus* (Fig. H11), by the penis, which is not abruptly constricted preapically in lateral view, and by the female ventrite V being truncate instead of emarginate apically, as in *S. militaris*.

Description of males. Body: 5.10–6.0 mm long, moderately long oval, weakly convex (Fig. C12); length, 1.75–1.80 x as long as wide; 3.40–3.45 x as long as high. Contrastly colored: head ferruginous red; antenna red with antennomeres 8–11 black; pronotum with a large subsemicircular black macula reaching anterior margin and not surpassing basal pores at base, lateral margins and angles ferruginous red; hypomeron and prosternum red; scutellum red; elytra red, each with a large, oval, black maculae; epipleura red; meso and metathorax red with metaventricle infusate at center; legs orange–red; abdomen orange–red with intercoxal process of first ventrite black or infusate. Densely covered with long, suberect, golden setae.

Head: Clypeus transverse 2.2–2.4 x wider than long. Terminal labial palpomere narrow, acuminate, narrowly truncate at apex. Interocular distance 0.64–0.68 x as wide as head including eyes. Antenna moderately long and slender (Fig. H11), 0.45 x as long as body; scape 1.3 x as long as wide, 1.9 x longer than pedicel; pedicel 0.9 x longer than wide; third antennomere 1.4 x as long as wide, 1.5 x as long as pedicel; fourth 1.3 x as long as wide, 1.4 x as long as pedicel; fifth subequal to third; sixth 1.5 x as long as wide, 1.5 x as long as pedicel; seventh 1.4 x as long as wide, 1.5 x as long as pedicel; eighth as long as wide, 1.4 x longer than pedicel; antennal club, about 0.45 x as long as total antennal length, with segments almost symmetrical; ninth antennomere widened apically, 1.1 x as long as wide, 2.4 x as long as pedicel; tenth widened apically, 1.1 x as long as wide, 2.7 x as long as pedicel; terminal antennomere elongate oval, slightly asymmetrical, widest near apical 2/3, 1.7 x as long as wide, 4.5 x as long as pedicel.

Prothorax: Pronotum widest at base, strongly transverse (Figs. J2, K11), 2.15–2.24 x wider than long; 1.87–1.95 x wider at base than front angles; 2.17–2.24 x wider than head. Sides almost continuously rounded, less convergent in basal half. Front angles moderately produced, right–angled, rounded at tip. Hind angles right–angled. Anterior margin narrow, slightly acuminate at middle. Lateral margins raised; markedly wide, narrowing posteriorly: width of margin at base little less than 1/3 of the distance between basal pore and hind angle; area between marginal line and pronotal edge flat. Disc moderately convex, finely and closely punctate. Longitudinal sulci moderately deep and long, weakly curved. Basal pores large, slightly curved, markedly oblique. Basal sulcus wide, complete, feebler over scutellum. Pronotal base rounded. Prosternal process moderately wide at base, widened posteriorly; at apex scarcely narrower than longitudinal procoxal diameter.

Pterothorax: Scutellum triangular, moderately large, 1.90–2.25 x wider than long, 0.17 x as wide as pronotum. Elytra length 3.4–4.0 mm; 1.05–1.10 x longer than wide; 3.25–3.38 x longer and 1.34–1.41 x wider than pronotum; markedly ovoid, widest at basal fourth, then roundly convergent to the moderately acuminate apex. Moderately densely punctate with foveolate punctures moderately large and deep, separated by 2–4 diameters, being sparser and shallower at apex of elytra and near scutellum. Humerus moderately prominent. Epipleuron moderately wide at base, about 0.8–0.9 x wider than the intermesocoxal process of metaventricle. Mesoventrite deeply excavated in front; setose pores on sides small; mesoventral process scarcely wider than longitudinal coxal diameter, without inner carinae. Metaventricle moderately convex, without modifications on anterior margin; with a pair of small setose pores of approximately same diameter below each mesocoxa. Metanepisternum with setose pore small.

Legs moderately long and slender (Fig. P11). Trochanter simple. Meso and metafemur moderately widened at mid-length; unarmed; metafemur about as long as mesofemur, bearing moderately long decumbent setae. Meso and metatibia moderately slender; metatibia as long as metafemur, 0.33–0.34 x longer than elytra, gradually widened distally, linear, unarmed. Metatarsus 0.56–0.60 x as long as metatibia; second tarsomere produced and lobed, about 2.5 x as wide at apex as fourth tarsomere at middle length.

Abdomen: Ventricle I almost as long as metaventricle and as long as ventricles II–V, with moderately coarse foveolate punctation, without protuberances. Ventricle V slightly longer than IV, with apex truncate. Ventricle VI rounded at apex. Tergite VIII truncate. Penis very slender, curved, widening gradually near apex, then narrowed apically in ventral view (Fig. T12); narrowed at mid-length in lateral view (Fig. T11). Tegmen with moderately large submembranous tegminal plate.

Description of females. Body: length 5.2–5.9 mm; length 1.71–1.78 x as long as wide; 2.62–2.68 x as long as high. Antenna: 0.40–0.43 x as long as body. Pronotum: 2.27–2.33 x wider than long; 1.97–2.03 x wider at base than in front angles; 2.27–2.33 x wider than head. Elytra: length 3.58–4.10 mm; 1.15–1.20 x longer than wide; 3.45–3.56 x longer and 1.27–1.39 x wider than pronotum. Metatibia: 0.28–0.30 x longer than elytra. Metatarsus: about 0.57–0.59 x as long as metatibia. Ovipositor with proctiger rounded, coxites wide, without styli (Fig. V8).

Sexual dimorphism. Females have slightly shorter antennae and longer elytra.

Variation. Black maculae on elytra hardly reach the apical third in one of the paratypes.

Material examined. Holotype, male: Mexico, Motzorongo, Staat Vera Cruz, R. Becker S. / *Stenotarsus globosus* Guérin, det. H.F. Strohecker (MNB); **Paratypes**: same data as holotype: (1 male, 4 females: MNB); [same data plus] / *Stenotarsus globosus* Guérin (1 male: MNB); Mexico coll. J. Flohr (2 males, 2 females: MNB) [same data plus] / *militaris* Gerst (1 male: MNB); [same data plus] motzorongo 6 / *Stenotarsus prope panamanus* Gorham, det. H.F. Strohecker (1 male: MNB); Atoyac 6 / Mexico coll. J. Flohr / *rubrocinctus* Gerst (1 male; MNB)

Distribution. México: Veracruz (Fig. X2).

Habits and habitats. *Altitudinal range*: 290 (?) m.a.s.l.

Etymology. The specific name is derived from México, the country of origin of this new species.

***Stenotarsus militaris* Gerstaecker**

(Figs. D1–2, F4, H12, K12, M7, P12, R4, R9, S2, T21–22, Y2)

Stenotarsus militaris Gerstaecker, 1858: 325; Gorham 1890: 137; Blackwelder 1945: 440; Strohecker 1953: 54; Arriaga–Varela *et al.* 2007: 15; Shockley *et al.* 2009a: 83.

Stenotarsus pilatei Gorham, 1873: 53. Gorham 1890: 135; Blackwelder 1945: 440; Strohecker 1953: 55; Arriaga–Varela *et al.* 2007: 15; Shockley *et al.* 2009a: 84. **New synonym.**

Diagnosis. The uniformly brown members of this species (Figs. D2, F4) resemble those of *Stenotarsus nigricans* Gorham. *Stenotarsus militaris* differs from *S.*

nigricans by the emarginate ventrite V of females, and the penis constricted preapically in lateral view (Fig. T21). Contrasty colored specimens of *S. militaris* superficially resemble the members of *S. mexicanus* sp. nov. but *S. militaris* is distinguished by having the shorter terminal antennomere (Fig. H12).

Description of males. Body: 5.4–5.7 mm long, long oval, moderately convex (Fig. D1–2), length 1.77–1.82 x as long as wide; 3.00–3.45 x as long as high. Wholly brown except antennomeres 8–11 black, 6–7 infusate (Figs. D2, F4) or contrastly colored (Fig. D1): head red; antenna red with antennomeres 8–11 black; pronotum red with a very large subsemicircular to subrectangular black macula reaching anterior margin and surpassing basal pores at base, lateral margins and angles ferruginous red; hypomerion and prosternum red; scutellum red; elytra red, each with a large, oval, black macula; epipleura red; mesothorax red, metaventrite red with a central black or infusate macula; legs orange–red; abdomen orange–red with intercoxal process of first ventrite black or infusate. Densely covered with long, suberect, golden to coppery setae.

Head: Clypeus transverse 2.0 x wider than long. Terminal labial palpomere narrow, acuminate, narrowly truncate at apex. Interocular distance 0.58–0.69 x as wide as head including eyes. Antenna moderately long and somewhat stout (Fig. H12), 0.40–0.44 x as long as body; scape 1.4 x as long as wide, 1.7 x longer than pedicel; pedicel 1.1 x longer than wide; third antennomere 1.5 x as long as wide, 1.3 x as long as pedicel; fourth 1.5 x as long as wide, 1.3 x as long as pedicel; fifth to seventh subequal to fourth; eighth 1.1 x as long as wide, 1.2 x longer than pedicel; antennal club about 0.4 x as long as total antennal length, with antennomeres almost symmetrical; ninth antennomere widened apically, 1.1 x as long as wide, 2.1 x as long as pedicel; tenth strongly widened apically, 0.9 x as long as wide, 2.1 x as long as pedicel; terminal antennomere short, subovate, widest near mid–length, 1.4 x as long as wide, 3.5 x as long as pedicel.

Prothorax: Pronotum widest at base, strongly transverse (Fig. K12), 2.3–2.4 x wider than long; 1.90–1.95 x wider at base than in front angles; 2.22–2.26 x wider than head. Sides almost continuously rounded, less convergent in basal half. Front angles produced, right–angled to briefly obtuse, briefly rounded at tip. Hind angles right–angled. Anterior margin narrow, slightly acuminate at middle. Lateral margins raised, markedly wide, weakly narrowing posteriorly, accentuating strongly near base: width of margin at base less than 1/4 of the distance between basal pore and hind angle; area between marginal line and pronotal edge flat to weakly concave. Disc moderately convex, finely and closely punctate. Longitudinal sulci moderately deep, lacking anteriorly, short, weakly curved. Basal pores moderately large, slightly curved, markedly oblique. Basal sulcus comparatively wide, complete, slightly feebler over scutellum. Pronotal base rounded. Prosternal process moderately wide at base, widened posteriorly; apex as wide as longitudinal procoxal diameter.

Pterothorax: Scutellum triangular, moderately large, 1.75–2.20 x wider than long, 0.14–0.18 x as wide as pronotum. Elytra length 3.5–3.9 mm; 1.16–1.20 x longer than wide; 3.48–3.68 x longer and 1.29–1.41 x wider than pronotum; long ovoid, widest before basal third, weakly convergent in medial half, then roundly convergent to the acuminate apex. Densely punctate with foveolate punctures comparatively large and deep (Fig. M7), separated by 1.5–3.0 diameters, being sparser and shallower at apex of elytra and near scutellum. Humerus moderately prominent. Epipleuron moderately wide at base, about 0.8–0.9 x as wide as the

intermesocoxal process of metaventrite. Mesoventrite deeply excavated in front; setose pores on sides small; mesoventral process wider than longitudinal coxal diameter, without inner carinae. Metaventrite moderately convex, without modifications on anterior margin; with a pair of small setose pores of approximately same diameter below each mesocoxa. Metanepisternum with setose pore small.

Legs moderately long (Fig. P12). Trochanter simple. Meso and metafemur moderately widened at mid-length; unarmed; metafemur about as long as mesofemur, bearing moderately long decumbent setae. Meso and metatibia moderately slender; metatibia as long as metafemur, 0.30–0.34 x as long as elytra, continuously widened distally, linear, unarmed. Metatarsus 0.56–0.61x as long as metatibia; second tarsomere produced and lobed, about 2.5 x as wide at apex as fourth tarsomere at middle length.

Abdomen: Ventrite I slightly shorter than metaventrite and ventrites II–V, with moderately coarse foveolate punctation, without protuberances. Ventrite V almost 1.5 x longer than IV, with apex slightly emarginate; ventrite VI rounded at apex. Tergite VIII truncate. Penis very slender, curved, narrowing gradually toward apex in ventral view (Fig. T22); slightly sinuate, weakly widening apically, with a preapical constriction in lateral view (Fig. T21). Tegmen with distinctly large submembranous tegminal plate (Fig. S2).

Description of females. Body: length 5.6–6.6 mm; length 1.80–1.94 x as long as wide; 3.00–3.23 x as long as high. Antenna: 0.35–0.37 x as long as body. Pronotum: 2.15–2.30 x wider than long; 1.84–1.98 x wider at base than in front angles; 2.22–2.3 x wider than head. Elytra: length 4.10–4.65 mm; 1.25–1.35 x longer than wide; 3.8–4.1 x longer and 1.35–1.50 x wider than pronotum. Metatibia: 0.27–0.29 x longer than elytra. Metatarsus about 0.55–0.57x as long as metatibia. Ventrite V (Fig. R4) and tergite VIII emarginated (Fig. R9). Ovipositor with proctiger rounded, coxites moderately wide, without styli.

Sexual dimorphism. Females have longer and wider elytra. The ventrite V and tergite VIII are clearly emarginate in females instead of truncate as in males.

Variation. There are two basic color patterns in this species: a wholly reddish brown form and a red colored form with large black maculae on elytra and pronotum.

Material examined. Type. Lectotype of *Stenotarsus militaris* Gerstaecker (present designation), female: [triangle shaped white label] / 138 / [heart shaped red label] / Mexico [blue label] / Mus. Zool. Polonicum, Warszawa / *militaris* Gerst, Mex / Syntype MIZ 103152 n (MIZ); **Holotype of *Stenotarsus pilatei* Gorham,** male: Holotype [round, red bordered label] / Type [round, red bordered label] / Type *pilatei* [square, red bordered label] / Gorham 91–50/ B.C.A., VII, *Stenotarsus* [p] *pilatei* Gorh. [h] (NHM).

Other material. Trece aguas 9.4 (2 females: NMNH); Livingston, Guate, 4.5, H.S Barber, Collector / *St. pilatei* Gorham / *Stenotarsus pilatei* Gorham, dt. Stroh (1 female: NMNH) Malpaso, Chis., 20–VII–72, O. Hecht / *Stenotarsus discipennis* Gorh. (1 male: ENCB); Q. Roo, Rancho El Ramonal, 13–VI–83. O. Canul (2 males, 1 female: CNIN); Tamazunchale, SLP, Mex, XI–16–46, Laredo–1870, Talbert inspc. / orchid plant, 47–810 (2 females: NMNH); Los Tuxtlas, Est. Biol., 2–10/VII/85, C. Mayorga (1 female: CNIN); S. And. Tuxtla / *Stenotarsus rubrocinctus* Gerst. Mexique (1 male: MNHN); *Stenotarsus rubrocinctus* Gerst. Mexique (1 female: MNHN); *Stenotarsus militaris*? (female) Gerst. det. H.F. Strohecker (1 female: MNB).

Distribution. Guatemala: Izabal, México: Chiapas, Quintana Roo, San Luis Potosí, Veracruz, Yucatán (Fig. Y2).

Habits and habitats. *Altitudinal range:* 0–900 m.s.n.m. *Period of collecting:* June to November. *Habits:* once collected in orchid plants.

Remarks. Holotype of *Stenotarsus pilatei* Gorham differs only in coloration, being wholly brown instead of contrastly colored as *S. militaris*. Hence, these species are synonymized. In the original description of *S. pilatei*, Gorham (1873) pointed its resemblance to *S. militaris*. Conversely, Gorham (1890) failed to sustain a precise concept of *S. pilatei*, and assigned this identity to a variety of unrelated species (Arrow 1920).

***Stenotarsus molgorae* sp. nov.**

(Figs. D3, G3, H13, K7, P13, T23–24, Y3)

Diagnosis. *Stenotarsus molgorae* is similar to *S. latipes* Arrow in overall appearance, including the structure of the antennae (Figs. H7, H13) and the pronotum with distinctly narrow lateral margins (Fig. K7). Besides the shape of the penis, which is not markedly widened at base as in *S. latipes* (Fig. T24), *S. molgorae* differs from *S. latipes* by having all tibia and tarsi black (Fig. D3). Moreover, males of *S. molgorae* have the meso and metatibia narrower, less curved and without small tubercles on the inner margin (Fig. P13).

Description of males. Body 4.60–4.72 mm long, moderately convex and large (Fig. D3); 1.92–1.96 x as long as wide; 3.0–3.1 x as long as high. Reddish brown with tibiae and tarsi of all legs and antennae black except first or first two antennomeres which are light brown. Very densely covered with moderately long, subdecumbent, coppery setae.

Head: Clypeus transverse 2.1 x wider than long. Terminal labial palpomere narrow, acuminate, narrowly truncate at apex. Interocular distance 0.66–0.67 x as wide as head including eyes. Antenna moderately long and stout (Fig. H13), 0.41–0.42 x as long as body; scape 1.6 x as long as wide, 1.6 x longer than pedicel; pedicel 1 x longer than wide; third antennomere 1.6 x as long as wide, 1.3 x as long as pedicel; fourth 1.5 x as long as wide, 1.3 x as long as pedicel; fifth 1.4 x as long as wide, 1.5 x as long as pedicel; sixth and seventh subequal to fourth; eighth 1.1 x as long as wide, 1.2 x longer than pedicel; antennal club about 0.4 x as long as total antennal length, with segments almost symmetrical; ninth antennomere widened apically, as long as wide, 2 x as long as pedicel; tenth widened apically, as long as wide, 2 x as long as pedicel; terminal antennomere widest beyond mid-length, 1.4 x as long as wide, 3.5 x as long as pedicel.

Prothorax: Pronotum widest at base, transverse (Fig. K7), 2.05–2.15 x wider than long; 1.65–1.75 x wider at base than in front angles; 1.89–1.97 x wider than head. Sides almost continuously rounded. Front angles moderately produced, right-angled, rounded at tip. Hind angles right-angled or slightly acute. Anterior margin narrow, slightly rounded. Lateral margins hardly raised; distinctly narrow, almost of same width along its length: width of margin at base less than 1/6 of the distance between basal pore and hind angle; area between marginal line and pronotal edge flat. Disc moderately convex, finely and closely punctate. Longitudinal sulci moderately deep, short, weakly curved. Basal pores small,

slightly elongate and oblique. Basal sulcus impressed only near pores. Pronotal base rounded. Prosternal process wide, weakly widened posteriorly; at apex slightly wider than longitudinal procoxal diameter.

Pterothorax: Scutellum triangular, moderately large, 1.62–1.77 x wider than long, 0.19–0.20 x as wide as pronotum. Elytra length 3.15–3.30 mm; 1.30–1.35 x longer than wide; 3.75–4.0 x longer and 1.35–1.44 x wider than pronotum; long ovoid, widest at basal third, then roundly convergent to the acuminate apex. Moderately densely punctate with foveolate punctures moderately large and deep, separated by 3–5 diameters, being sparser and shallower near apex of elytra and scutellum. Humerus moderately prominent. Epipleuron moderately wide at base, about 0.8 x as wide as the intermesocoxal process of metaventrite. Mesoventrite deeply excavated in front, setose pores on sides small, mesoventral process wider than longitudinal coxal diameter, without inner carinae. Metaventrite weakly convex, almost flat in center, without modifications on anterior margin; with a pair of small setose pores of approximately same diameter below each mesocoxa. Metanepisternum with setose pore small.

Legs moderately long and somewhat stout (Fig. P13). Trochanter simple. Meso and metafemur moderately widened at mid-length; unarmed; metafemur about as long as mesofemur, bearing moderately long decumbent setae. Meso and metatibia rather stout, moderately curved; metatibia slightly shorter than metafemur, 0.28–0.30 x longer than elytra, continuously widened distally, without row of very small tubercles. Metatarsus 0.61–0.64 x as long as metatibia; second tarsomere produced and lobed, about 3 x as wide at apex as fourth tarsomere at middle length.

Abdomen: Ventrite I about as long as metaventrite and slightly shorter than ventrites II–V, with moderately coarse foveolate punctation, without protuberances. Ventrite V almost 1.5 x longer than IV, with apex slightly truncate. Ventrite VI acuminate at apex. Tergite VIII truncate. Penis: comparatively short and stout, curved, narrowing near apex, slightly bent externally in ventral view (Fig. T24); widened apically in lateral view (Fig. T23). Tegmen with moderately large submembranous tegminal plate.

Description of females. Body: length 5.3–5.6 mm; length 1.95–2.12 x as long as wide; 3.10–3.25 x as long as high. Antenna: 0.36–0.38 x as long as body. Pronotum: 2.08–2.15 x wider than long; 1.77–1.80 x wider at base than in front angles; 2.03–2.07 x wider than head. Elytra: length 3.8–3.9 mm; 1.36–1.43 x longer than wide; 4.0–4.1 x longer and 1.3–1.4 x wider than pronotum. Metatibia: 0.25–0.28 x as long as elytra, slightly curved. Metatarsus: about 0.56–0.59 x as long as metatibia.

Sexual dimorphism. Females have proportionally less elongate antennae, longer elytra, and less curved meso and metatibia.

Variation. No significant variation was found.

Material examined. Types. Holotype, male: Jal, Tequila, Volcán de Tequila, BEP, 1868 m, 20°49'24.8"N, 103°51'21.9"W, ex *Lactarius*, 21.IX.2006, E. Arriaga–Varela & A. Mólgora cols. (CZUG); **Paratypes**: same data as holotype: (3 males, 8 females: CZUG; 1 male, 1 female: MIZ; 1 male, 1 female: CNIN; 1 male: NMNH; 1 male: NHM); México: Jal, Tequila, Volcán de Tequila, Km. 12 de la brecha a las antenas, BPE, 2200 m, ex *Lactarius*, 16.IX.2006, I.G. Rocha & J. Cortés cols. (6 males, 5 females: CZUG; 1 male, 1 female: INBIO; 1 male, 1 female: IEXA; 1 male: MNB).

Distribution. México: Jalisco (Fig. Y3).

Etymology. This species is dedicated to biologist Ana Mólgora Tapia co-collector of the holotype.

Habits and habitats. *Habits:* this species was collected feeding on fungi along with *Stenotarsus latipes* (Fig. G3). *Altitudinal range:* 1868–2200 m.a.s.l.

Vegetation: Pine–Oak forest. *Period of collecting:* September. *Host fungi:* *Lactarius* sp. (Agaricales: Russulaceae)

***Stenotarsus monterrosoi* sp. nov.**

(Figs. D4, H14, J7, K13, P13, U1–2, V9, Y1)

Diagnosis. This species resemble *Stenotarsus smithi* Gorham by its small size, among 3–4 mm, and body wholly brown (Figs. D4). It can be distinguished by the structure of the penis, which has the same width throughout in ventral view (Figs. U2), and by the larger body size: 3.75–4.15 mm, shorter antennae, 0.33 x as long as body (Fig. H13), and by the second tarsomere not widened apically.

Description of males. Body: 3.75–3.85 mm long, short oval, moderately convex, small (Fig. D3), 1.7 x as long as wide; 2.85–2.90 x height. Wholly ferruginous–brown except antennal club black. Densely covered with long, suberect, golden setae.

Head: Clypeus transverse 1.85 x wider than long. Terminal labial palpomere narrow, acuminate, narrowly truncate at apex. Interocular distance 0.67 x as wide as head including eyes. Antenna short and slender (Fig. H14), 0.33 x as long as body; scape 1.4 x as long as wide, 2 x longer than pedicel; pedicel as long as wide; third antennomere 1.3 x as long as wide, 1.1 x as long as pedicel; fourth 1.4 x as long as wide, 1.2 x as long as pedicel; fifth and sixth subequal to fourth; seventh 1.1 x as long as wide, 1.2 x as long as pedicel; eighth subequal to seventh in dimensions but widened distally; antennal club 0.37 x as long as total antennal length, with segments almost symmetrical; ninth antennomere widened apically, 0.7 x as long as wide, 1.6 x as long as pedicel; tenth strongly widened apically, 0.9 x as long as wide, 2 x as long as pedicel; terminal antennomere scarcely asymmetrical, subovate, widest at apical 2/3, 1.1 x as long as wide, 2.7 x as long as pedicel.

Prothorax: Pronotum widest at base; transverse (Fig. K13): 2.0 x wider than long; 2.4 x wider than head; 2.15 x wider at base than in front angles. Sides continuously rounded to front angles. Front angles slightly produced, briefly obtuse, narrowly rounded at tip. Hind angles right–angled. Anterior margin narrow, very scarcely acuminate at middle. Lateral margins raised; moderately wide, weakly narrowing posteriorly; width of margin at base about 1/3 of the distance between basal pore and hind angle; area between marginal line and pronotal edge weakly concave. Disc moderately convex, finely and closely punctate. Longitudinal sulci rather feeble, short, weakly curved inwardly. Basal pores small, slightly elongated. Basal sulcus not present. Pronotum base convergent, flat over scutellum. Prosternal process narrow at base, strongly widened posteriorly; at apex about as wide as longitudinal procoxal diameter.

Pterothorax: Scutellum triangular, small, 1.8 x wider than long, 0.14 x wider than pronotum. Elytra length 2.5 mm; 1.1x longer than wide; 3.0 x longer and 1.35 x wider than pronotum; ovoid, widest near basal third, then roundly converging to

the weakly acuminate apex; moderately densely punctate with foveolate punctures moderately large and deep, separated by 2–4 diameters, being sparser and shallower at apex. Humerus moderately prominent. Epipleuron at base about 0.8 x as wide as intermesocoxal process of metaventrite. Mesoventrite deeply excavated in front; mesoventral process about as wide as longitudinal coxal diameter, without inner carinae. Metaventrite moderately convex, without modifications near the anterior margin (Fig. J7); with a pair of moderately large setose pores of approximately same diameter below each mesocoxa. Metanepisternum with setose pore small.

Legs short and slender (Fig. P13). Trochanter simple. Meso and metafemur rather stout, widest at mid-length; meso and metafemur unarmed; metafemur about as long as mesofemur, bearing moderately long decumbent setae. Meso and metatibia very slender; metatibia scarcely shorter than metafemur, 0.3 x as long as elytra; gently widened apically, linear, unarmed. Metatarsus 0.66 x as long as metatibia; second tarsomere produced and narrow, about as wide at apex as fourth tarsomere at middle length.

Abdomen: Ventrite I slightly longer than metaventrite and as long as ventrites II–V, with sparse large foveolate punctation, without protuberances. Ventrite V markedly longer than IV, with apex briefly truncate. Ventrite VI rounded at apex. Tergite VIII truncate. Penis small, moderately narrow, curved (Figs. U1–2). Tegmen with moderately large submembranous tegminal plate.

Description of females. Body: length 3–7.5–4.15 mm; length 1.77–1.80 x as long as wide; 2.65 x as long as high. Antenna: 0.32–0.33 x as long as body. Pronotum: 2.08–2.11 x wider than long; 2.27–2.35 x wider at base than in front angles; 2.45–2.5 x wider than head. Elytra: length 2.35–2.58 mm; 1.1 x longer than wide; 2.89–2.94 x as long as pronotum; 1.24–1.26 x wider than pronotum. Metatibia: 0.30 x as long as elytra. Metatarsus about 0.65–0.69 x as long as metatibia. Ovipositor with proctiger rounded, coxites wide, without styli (Fig. V9).

Sexual dimorphism. No relevant sexual dimorphism was found.

Material examined. Types. Holotype, male: Bobas, Guat, May 1924 / W.M. Mann collector (NMNH); **Paratypes**: same data as holotype: (4 males, 5 females: NMNH).

Distribution. Guatemala: Izabal (?) (Fig. Y1).

Habits and habitats. *Period of collecting*: collected in May.

Etymology. This small-sized species from Guatemala is dedicated to the late Guatemalan author Augusto Monterroso, who mastered the art of a short narrative.

Remark. The locality written in the label as “Bobas” in Guatemala, could not be located. This name may be a misspelling of Bobos, a small town and river in Izabal department.

***Stenotarsus nigricans* Gorham**

(Figs. D5, F3, H15, K14, N12, N17, P15, R6, U3–4, V10, X2)

Stenotarsus nigricans Gorham, 1890: 135. Blackwelder 1945: 440; Strohecker 1953: 54; Shockley *et al.* 2009a: 83.

Diagnosis. This species resemble superficially the wholly brown specimens of *S. militaris* Gerstaecker, but can be distinguished by the shape of penis (Figs. U3–4), which is comparatively stouter and not constricted near apex in lateral view, and by the apex of the ventrite V of female, which is at most weakly emarginate (Figs. F3, R6), instead of strongly emarginate as in *S. militaris*.

Description of males. Body large short oval, convex (Fig. D5); length 5.1–5.9 mm; 1.60–1.65 x as long as width; 2.87–3.18 x as long as wide. Wholly ferruginous red or dark brown, except antennomeres 8–11 which are black, antennomeres 6–7 infusate. Densely covered with long, suberect, light coppery setae.

Head: Clypeus transverse, about 2.2 x wider than long. Terminal labial palpomere narrow, acuminate, narrowly truncate at apex. Interocular distance 0.65–0.69 x as wide as head including eyes. Antenna moderately long and slender (Fig. H16), 0.41–0.42 x as long as body; scape 1.5 x as long as wide, 1.9 x longer than pedicel; pedicel as long as wide; third antennomere 1.9 x as long as wide, 1.7 x as long as the pedicel; fourth 1.7 x as long as wide, 1.6 x as long as pedicel; fifth to seventh subequal to fourth; eighth 1.3 x as long as wide, 1.6 x longer than the pedicel; antennal club about 0.39 x as long as the total antennal length, with segments slightly asymmetrical; ninth antennomere weakly widened apically, as long as wide, 2.3 x as long as pedicel; tenth widened apically, 0.9 x as long as wide, 2.2 x as long as pedicel; terminal antennomere asymmetrical, subrectangular, 1.4 x as long as wide, 3.7 x as long as pedicel.

Prothorax: Pronotum widest at base, transverse (Fig. K14), 2.0–2.2 x wider than long; 1.82–1.89 x wider at base than at front angles; 2.22–2.26 x wider than head. Sides almost continuously rounded, less convergent in basal half. Front angles produced, right-angled or briefly obtuse, briefly rounded at tip. Hind angles right-angled. Anterior margin narrow, distinctly acuminate at middle. Lateral margins distinctly raised; markedly wide, weakly narrowing posteriorly, accentuating near base; width of margin at base about 1/4 of the distance between basal pore and hind angle; area between marginal line and pronotal edge flat to weakly concave. Disc moderately convex, finely and closely punctate. Longitudinal sulci moderately deep, lacking anteriorly, short, weakly curved inwardly. Basal pores large, slightly curved, oblique. Basal sulcus complete, slightly feebler over scutellum. Pronotal base rounded. Prosternal process moderately wide at base, slightly widened posteriorly; at apex about as wide as longitudinal procoxal diameter.

Pterothorax: Scutellum triangular, moderately large, 1.77–1.86 x wider than long, 0.17–0.18 x as wide as pronotum. Elytra length 3.4–3.6 mm; 1.11–1.16 x longer than wide; 3.32–3.54 x longer and 1.38–1.48 x wider than pronotum; long ovoid, widest before basal third, weakly convergent in medial half, then roundly convergent to the moderately acuminate apex. Densely punctate with foveolate punctures moderately large and deep, separated by 1.5–3.0 diameters, being sparser and shallower at apex of elytrae and near scutellum. Humerus moderately prominent. Epipleuron at base about 0.85 x as wide as the intermesocoxal process of metaventrite. Mesoventrite deeply excavated in front; setose pores on sides small (Fig. N12); mesoventral process slightly wider than longitudinal coxal diameter, without inner carinae. Metaventrite weakly convex, without modifications on the anterior margin; with a pair of small setose pores of approximately same diameter below each mesocoxa (N17). Metanepisternum with small setose pore.

Legs moderately long and slender (Fig. P15). Trochanter simple. Meso and metafemur moderately widened at mid-length, unarmed; metafemur about as long as mesofemur, bearing moderately long decumbent setae. Meso and metatibia moderately slender; metatibia as long as metafemur, 0.32–0.33 x as long as elytra, gradually widened distally, linear, unarmed. Metatarsus 0.52–0.58 x as long as metatibia; second tarsomere about 2.5 x as wide at apex as fourth tarsomere at mid-length.

Abdomen: Ventrite I slightly shorter than metaventrite and ventrites II–V, with moderately coarse foveolate punctation, without protuberances. Ventrite V slightly longer than IV, with apex truncate. Ventrite VI rounded at apex. Tergite VIII slightly truncate. Penis slender, curved, subequal in width along most of its length, tapering apically in ventral view (Fig. U4), slightly sinuate in lateral view (Fig. U3). Tegmen with moderately large submembranous tegminal plate.

Description of females. Body: length 5.4–5.9 mm; length 1.75–1.85 x as long as wide and 2.9–3.2 x as long as high. Antenna: 0.38 x as long as body. Pronotum: 2.15–2.20 x wider than long; 1.9–1.95 x wider at base than in front angles; 2.25 x wider than head. Elytra: length 3.60–4.05 mm; 1.19–1.25 x longer than wide; 3.72–3.87 x longer and 1.38–1.45 x wider than pronotum. Metatibia: 0.28–0.29 x as long as elytra. Metatarsus: about 0.53–0.55 x as long as metatibia. Ovipositor with proctiger rounded, coxites moderately wide, without styli (Fig. V10).

Sexual dimorphism. Females have shorter antennae and longer and wider elytra.

Variation. The holotype is considerably darker than the Mexican specimens.

Material examined. Type. Holotype, female: Holotype [round, red bordered label] / type [round, orange bordered label] / Telemán, Guatemala, G.C. Champion / *Sten. nigricans* Gorham [h] / B.C.A., Col., VII, *Stenotarsus* [p] *nigricans* Gorh. [h] (NHM).

Other material. MÉXICO: Jalisco, Casimiro Castillo, Arroyo Tacubaya, BTS, 600m, *ex Rigidoporus microsporus*, 4.VII.2002, 19°35'47"N, 104°25'52"W, H. E. Fierros–López col. (2 males, 11 females CZUG); MÉXICO: Jalisco, Casimiro Castillo, Arroyo Tacubaya, BTS, 600m, *ex Rigidoporus microsporus*, 4.VII.2002, 19°35'47"N, 104°25'52"W, H.E. Fierros, A. Rocha & G. González cols. (2 males, 1 female: CZUG); C. de Plumas 15 / Mexico, Coll. J. Flohr / *Stenotarsus* sp. indesc., det. H.F. Strohecker (male: MNB).

Distribution. Guatemala: Alta Verapaz, México: Jalisco (Fig. X2).

Habits and habitats. *Altitudinal range:* 600 m.a.s.l. *Vegetation:* tropical subdeciduous forest. *Period of collecting:* July. *Host fungi:* *Rigidoporus microsporus* (Polyporales: Meripilaceae).

Remarks. Since the holotype is a female, the identity of the Mexican specimens cannot be stated without ambiguity. However, those seem to fit quite well in all characters, except for the lighter color. The alleged relation suggested by Gorham (1890) of this species to the Colombian species *S. rubicundus* Gerstaecker and *S. sericatus* Gerstaecker, is based solely on its dark fuscous color, and seems to be artificial.

This species is recorded from México for the first time. A specimen in MNB is labeled as collected on “C. de Plumas”. That locality was not identified unambiguously. It could refer to “Cerro de las Plumas (Ihuitepec)” in Santa María Teopoxco, Oaxaca, or as stated by Selander & Vaurie (1962: 25) could be a

misspelling of “Cerro de las Palmas” Veracruz. However, the locality “Cerro de las Palmas” neither was located by Selander & Vaurie (1962) with certainty.

***Stenotarsus oblongulus* Gorham**

(Figs. D6–7, F7, H16, J3, K15, P16, S3, U5–6, Z1)

Stenotarsus oblongulus Gorham, 1890: 138. Blackwelder 1945: 440, Strohecker 1953: 55; Shockley *et al.* 2009a: 84.

Diagnosis. This species is most similar to *S. sallaei* sharing a body long oval and pronotum with basal pores small and slightly elongate. *Stenotarsus oblongulus* can be separated by the body often contrastly colored, with pronotum and elytra red with large black markings (Fig. D6; terminal antennomere with a small protuberance on margin (Fig. H16); metatibia continuously widening apically; weakly curved (Fig. P16); and by the abdominal ventrite I of males without protuberances.

Description of males. Body 4.7–5.0 mm long, long oval (Fig. D6–7), weakly convex (Fig. F7); 1.76–2.00 x as long as wide, 2.95–3.20 x as long as high. Wholly reddish brown except antennomeres 7–11 black, 5–6 infuscated (Fig. D7), or contrastly colored (Fig. D6): head orange–red with mouthparts infuscate, antenna with antennomeres 3–7 gradually infuscate, segments 8–11 are black; pronotum with a large subsemicircular or subquadrate black macula, hypomeron orange–red, pro and mesosternum weakly infuscate, scutellum orange–red to black, elytra red, each with a large, oval, black macula, metasternum and metanepisternum black, legs red or infuscate with trochanters, tibio–femoral joints and tarsi paler; abdomen orange–red with first ventrite mainly black. Densely covered with long, suberect, golden setae.

Head: Clypeus transverse 2.2 x wider than long. Terminal labial palpomere narrow, acuminate, narrowly truncate at apex. Interocular distance 0.63 x as wide as head including eyes. Antenna moderately long and slender (Fig. H16), 0.44 x as long as body; scape 0.2 x as long as wide, 1.5 x longer than pedicel; pedicel 1.3 x longer than wide; third antennomere 1.7 x as long as wide, 1.3x as long as pedicel; fourth and fifth subequal to third; sixth 1.6 x as long as wide, 1.2 x as long as pedicel; seventh 1.4 x as long as wide, 1.3 x as long as pedicel; eighth as long as wide, 1.1 x longer than pedicel; antennal club 0.42 x as long as total antennal length, with segments slightly asymmetrical; ninth antennomere weakly widened apically, 1.3 x as long as wide, 2.2 x as long as pedicel; tenth widened apically, as long as wide, 1.9 x as long as pedicel; terminal antennomere slightly asymmetrical, almost continuously widened apically, with a small protuberance on external margin near mid–length, 2.3 x as long as wide, 3.3 x as long as pedicel.

Prothorax: Pronotum widest at base, markedly transverse (Fig. J3, K15), 2.12–2.20 x wider than long; 1.87–2.00 x wider at base than in front angles; 2.11–2.25 x wider than head. Sides convergent in basal half or 2/3, then slightly rounded to front angles. Front angles produced, about right angled. Hind angles briefly acute. Anterior margin narrow, not distinctly acuminate at middle. Lateral margins weakly raised, comparatively narrow; width of margin at base less than 1/4 of the distance between basal pore and hind angle; area between marginal line and pronotal edge flat. Disc moderately convex, finely and closely punctate.

Longitudinal sulci moderately deep and long, narrowing anteriorly, slightly convergent. Basal pores small, slightly elongated. Basal sulcus absent. Pronotal base rounded. Prosternal process wide at base, slightly widened posteriorly; at apex about as wide as longitudinal procoxal diameter.

Pterothorax: Scutellum triangular, moderately large, 1.76–1.85 x wider than long, 0.16–0.19 x as wide as pronotum. Elytra length 3.15–3.45 mm; 1.18 x longer than wide; 3.7 x longer and 1.44 x wider than pronotum; long ovoid, widest at basal third, then roundly convergent to the rounded apex. Moderately densely punctate with foveolate punctures moderately large and deep, separated by 2.5–4.0 diameters, being sparser and shallower at apex of elytra and near scutellum. Humerus moderately prominent. Epipleuron moderately wide at base, about 0.85 x as wide as the intermesocoxal process of metaventrite. Mesoventrite deeply excavated in front, setose pores on sides small; mesoventral process slightly wider than longitudinal coxal diameter, without inner carinae. Metaventrite moderately convex, without modifications on anterior margin; with a pair of small setose pores of approximately same diameter below each mesocoxa. Metanepisternum with setose pore small.

Legs moderately long and slender (Fig. P16). Trochanter simple. Meso and metafemur moderately widened at mid-length; unarmed; metafemur about as long as mesofemur, bearing moderately long decumbent setae. Meso and metatibia moderately slender; metatibia as long as metafemur, 0.28–0.30 x as long as elytra, widening apically, weakly curved, unarmed. Metatarsus 0.61–0.65 x as long as metatibia; second tarsomere produced and lobed, about 2.5 x as wide at apex as fourth tarsomere at middle length (Fig S2).

Abdomen: Ventrite I slightly shorter than metaventrite and ventrites II–V, with moderately coarse foveolate punctation, without protuberances. Ventrite V slightly longer than IV, with apex truncate. Ventrite VI rounded at apex. Tergite VIII truncate. Penis moderately long and narrow, narrowing in apical half, with an apical crest in ventral view (Fig. U6); strongly widening in apical half in lateral view (Fig. U5). Tegmen with rather large submembranous tegminal plate (Fig. S3).

Description of females. Body: length 4.80–5.05 mm; 1.74–2.10 x as long as wide; 3.0–3.2 x as long as high. Antenna: 0.42–0.43 x as long as body. Pronotum: 2.20–2.29 x wider than long; 1.92–1.98 x wider at base than in front angles; 2.15–2.28 x wider than head. Elytra: length 3.25–3.56 mm; 1.15–1.43 x longer than wide; 3.60–4.00 x longer and 1.26–1.41 x wider than pronotum. Metatibia: 0.28–0.32 x longer than elytra. Metatarsus: about 0.49–0.54 x as long as metatibia. Ovipositor with proctiger acuminate, coxites wide, without styli.

Sexual dimorphism. Females have slightly shorter antennae.

Variation. There are two basic color patterns in this species: a wholly reddish brown form and a red colored form with large black maculae on elytra and pronotum. Some contrastly colored specimens have legs and antennae black, and pronotum almost completely black.

Material examined. Type. Holotype, female: Holotype [round, red bordered label] / type [round, orange bordered label] / Capetillo, Guatemala, G.C. Champion / Sp. figured / *Sten. oblongulus* Gorham [h] / B.C.A., Col., VII, *Stenotarsus* [p] *oblongulus* Gorh. [h] (NHM).

Other material. Trece Aguas, 7.4.06, Guate / Alta V. Paz, Guatemala / Barber & Schwarz Coll. / *Stenotarsus distinguendus* Arrow / *Stenotarsus sallaei* Gorh.? / *Stenotarsus distinguendus* Arrow, dt. Stroh (1 male: NMNH). Mexico, Chiapas,

Aguacatenan / P. Hubbell, VII.1975 (1 female: NMNH); México, Oaxaca, Candelaria, Loxicha, Finca La Media Luna, 26–VIII–2003, Alt. 550 m, Q. Santiago y L. Delgado / *Stenotarsus* sp. 14, E. Arriaga–Varela det. 2006 (3 males: IEXA); Juquila 15 / Mexico Coll. Flohr / *augustulus* Gerst. / not *angustus* det. H.F. Strohecker (1 female: MNB); Cordoba, Mex / NLHKrauss, 1955 / *Stenotarsus* spp. (1 female: NMNH); [illegible] / *Stenotarsus* sp. prope. *oblongulus* Gorh., det. H.F. Strohecker (1 male: MNB); S. Juan de la Punta 6 / *claviger* Gerst. (1 female: MNB).
Distribution: Guatemala: Alta Verapaz, Quetzaltenango; México: Chiapas, Oaxaca, Veracruz (Fig. Z1).
Habits and habitats. *Altitudinal range:* 550 to 1,000 m.a.s.l. *Period of collecting:* July–August.

Remark. This is the first record of this species from México.

***Stenotarsus orbicularis* Gerstaecker**

Stenotarsus orbicularis Gerstaecker, 1858: 322. Gorham 1890: 134; Arrow 1920: 50; Blackwelder 1945: 440; Strohecker 1953: 55; Roubik & Skelley 2001: 256; Shockley *et al.* 2009a: 84.

Remarks. This species was not located among the studied material, and the type presumably deposited in MNHN was not available for examination. Based on personal notes by H. F. Strohecker, Roubik & Skelley (2001) suggested the possibility of *Stenotarsus ovalis* Arrow was a junior synonym of *S. orbicularis*. This, however, can not be confirmed without examination of the type material.

***Stenotarsus ovalis* Arrow**

(Figs. A2, D8, H17, J4, J9, L1, M6, N5, N10, O6, Q1, U7–8, V11, Y3)

Stenotarsus ovalis Arrow, 1920: 50. Blackwelder 1945: 440; Strohecker 1953: 55; Roubik & Skelley 2001: 256; Shockley *et al.* 2009a: 84.

Stenotarsus rotundus Arrow, 1920: 52. Blackwelder 1945: 440; Strohecker 1953: 56; Synonymized by Roubik & Skelley 2001: 256.

Stenotarsus orbicularis Gorham, 1890: 134 (in part).

Stenotarsus pilatei Gorham, 1890: 135 (in part).

Diagnosis. This species is recognizable among all species of the region by the scutellum of semicircular shape (Fig. N10), elytral Epipleuron wide: about 1.2 x wider at base than the anterior margin of metaventricle, by the males having a transverse, well defined oblong concavity near the anterior margin of metaventricle (Fig. J9), and a small sharp tooth on hind margin of metatrochanter.

Description of males. Body 6.6–5.4 mm long, short oval, moderately convex (Fig. D8); 1.55–1.64 x as long as wide; 3.0–3.1 x as long as high. Wholly reddish brown except antennomeres 6–11 which are black (Fig. A2). Densely covered with long, suberect, golden to coppery setae.

Head: Clypeus moderately transverse 1.7–1.8 x wider than long. Terminal labial palpomere narrow, acuminate, narrowly truncate at apex. Interocular

distance 0.63–0.66 x as wide as head including eyes. Antenna long and slender (Fig. H17), 0.42–0.45 x as long as body; scape 1.4 x as long as wide, 1.9 x longer than pedicel; pedicel 0.9 x longer than wide; third antennomere 1.8 x as long as wide, 1.7 x as long as pedicel; fourth 2 x as long as wide, 1.9 x as long as pedicel; fifth 2 x as long as wide, 2.1 x as long as pedicel; sixth 1.8 x as long as wide, 1.9 x as long as pedicel; seventh subequal to sixth; eighth 1.4 x as long as wide, 1.5 x longer than pedicel; antennal club 0.35–0.38 x as long as total antennal length, with antennomeres almost symmetrical; ninth antennomere weakly widened apically, 1.2 x as long as wide, 2.1 x as long as pedicel; tenth widened apically, as long as wide, 2 x as long as pedicel; terminal antennomere slightly asymmetrical, oblong, widest near mid-length, 1.6 x as long as wide, 3.7 x as long as pedicel.

Prothorax: Pronotum (Fig. J4, L1) widest at base; markedly transverse and trapezoidal: 2.32–2.37 x wider than long; 2.32–2.43 x wider at base than in front angles; 2.60–2.68 x wider than head. Sides rounded, strongly convergent to front angles. Front angles produced, right-angled or briefly obtuse, blunt at tip. Hind angles acute. Anterior margin narrow, very weakly acuminate at middle. Lateral margins raised, markedly wide, narrowed near base; width of margin at base less than 1/3 of the distance between basal pore and hind angle; area between marginal line and pronotal edge flat to very weakly concave. Disc moderately convex, finely and closely punctate. Longitudinal sulci feeble, short and slightly convergent. Basal pores moderately large, slightly curved and oblique. Basal sulcus only impressed near pores. Pronotal base rounded. Prosternal process narrow at base, strongly widened posteriorly; at apex slightly narrower than longitudinal procoxal diameter (Fig. N5).

Pterothorax: Scutellum subsemicircular, rather small (Fig. N10), 1.87 x wider than long, 0.11–0.12 x as wide as pronotum. Elytra length 3.6–4.5 mm; 1.03–1.08 x longer than wide; 3.37–3.50 x longer and 1.30–1.42 x wider than pronotum; ovoid, widest near basal third, then roundly converging to the rounded apex; densely punctate with foveolate punctures rather large and deep, separated by 1.5–3.5 diameters (Fig. M6), being coarser below humeri and sparser and shallower at apex. Humerus moderately prominent. Epipleuron distinctly wide at base, about 1.2 x as wide as of the intermesocoxal process of metaventrite. Mesoventrite deeply excavated in front; setose pores on sides small; mesoventral process about as wide as longitudinal coxal diameter, without inner carinae. Metaventrite weakly convex, with a transverse concavity of a well defined oblong shape, more densely pubescent and infuscate, near the anterior margin (Fig. J9); with a pair of small setose pores of approximately same diameter below each mesocoxa. Metanepisternum with setose pore small.

Legs long and slender (Fig. O6, Q1). Pro and mesotrochanters simple; metatrochanter with a small sharp tooth on basal margin. Meso and metafemur markedly slender, widest barely before mid-length; meso and metafemur unarmed; metafemur slightly longer than mesofemur, bearing moderately long decumbent setae. Meso and metatibia very slender; metatibia about as long as metafemur, 0.4 x as long as elytra, very weakly and continuously widened apically, almost linear, with a row of small tubercles on inner margin. Metatarsus about 0.36–0.40 x as long as metatibia; second tarsomere produced and lobed, about 2.5 x wider at apex than fourth tarsomere at middle length.

Abdomen: Ventrite I almost as long as metaventrite and ventrites II–V, with moderately dense foveolate punctation in anterior half, without protuberances.

Ventrite V almost 2 x longer than IV, with apex rounded. Ventrite VI rounded at apex. Tergite VIII truncate. Penis short, stout, curved, with an accessory process on external side in lateral view (Fig. U8); widening strongly towards apex in lateral view (Fig. U7). Tegmen with moderately large submembranous tegminal plate.

Description of females. Body: length 6.2–5.6 mm; 1.60–1.67 x longer than wide; 3.04–3.17x longer than high. Antenna: moderately long and slender, 0.36–0.38x as long as body. Pronotum: 2.26–2.42 x wider than long; 2.30–2.41 x wider at base than in front angles; 2.56–2.65 x as wide as the head. Elytra: length 3.75–4.25 mm; 1.09–1.10 x longer than wide; 3.46–3.63 x longer and 1.37–1.43x wider than pronotum. Metaventrite without a concavity, or other modification, near the anterior margin. Legs: hind trochanter unarmed. Meso and metatibia without row of small tubercles; metatibia as long as metafemur, 0.32–0.34 x longer than elytra. Metatarsus: about 0.59–0.60 x as long as metatibia. Ovipositor with proctiger slightly acuminate, blunted apically; coxites rather narrow, without styli (Fig. V11).

Sexual dimorphism. Females lack the depression on intercoxal process of metaventrite, the sharp tooth on the metatrochanter and the row of tubercles on inner margin of metatibia. Male antennae and legs are considerably more elongate.

Variation. Specimens from Costa Rica and Panamá are slightly smaller: 5.7–5.4 mm.

Material examined. Mexico, coll. J. Flohr / *Stenotarsus ovalis* Arrow, det. H.F. Strohecker, from study of type. (1 male: MNB); 22.4, Cacao, Trece Aguas / Alta V. Paz, Guatemala / Schwartz & Barber coll. (1 male, 1 female: NMNH); 28.4, Cacao, Trece Aguas / Alta V. Paz, Guatemala / Schwartz & Barber coll. (1 male, 2 female: NMNH); 1.4.06, Cacao, Trece Aguas / Alta V. Paz, Guatemala / Schwartz & Barber coll. / *St. ovalis* Arrow / *Stenotarsus ovalis* Arrow dt. Stroh. (1 female: NMNH); Cabima Pan., May, 19.11, August Busck / *globosus* dt. Stroh. (1 male: NMNH); Cabima Pan., May, 26.11, August Busck (1 female: NMNH); Ancon, Canal Zone, Panama / June 1909 / A.H. Jennings coll. / *globosus* dt. Stroh. (1 male: NMNH); COSTA RICA, Prov. Puntarenas. P.N. Corcovado. Sector La Leona. Cerro Puma. 100 – 300m. 17 SEP – 5 OCT 2003 A. Azofeifa. Libre. L_S_267700 518900 #75661 / INB0003785329, INBIOCRI COSTA RICA (1 male: INBIO)

Distribution. México; Guatemala: Alta Verapaz; Costa Rica: Puntarenas; Panama: Panama. (C8).

Habits and habitats. *Altitudinal range:* 100–300 m.a.s.l. *Period of collecting:* April to October.

Remarks. See remarks on *Stenotarsus orbicularis* Gerstaecker.

The type material was not studied. However, specimens from MNB identified by H. F. Strohecker, by direct comparison with types, were studied. Characters like semicircular scutellum, wide elytral epipleura and teeth on male metatrochanters are not found in other species from the region, but are present in various species from South Central America and South America like *Stenotarsus subtilis* Arrow and *Stenotarsus obtusus* Gerstaecker, to which *S. ovalis* is most similar. This species is recorded from México for the first time, although without specific locality.

***Stenotarsus parallelicornis* sp. nov.**

(Figs. D9, H18, L2, Q2, U9–10, W1)

Diagnosis. This species is most similar to *S. cortesi* sp. nov. and *S. mesoamericanus* sp. nov. sharing similar antennal structure, with flagellomeres about as long as wide, club slightly longer than the rest of antenna, with its antennomeres elongate and scarcely widened apically (Fig. H1, H10; H18). *Stenotarsus parallelicornis* can be separated from these species by having the body wholly reddish brown (Fig. D8), lateral margins of pronotum with a small tooth at mid-length (Fig. L2), and penis widened preapically in lateral view (Fig. U9). **Description of males.** Body: 5.5 mm long, short oval, markedly convex. (Fig. D9); 1.6 x as long as wide, 2.6 x as long as high. Wholly reddish brown except antennal club which is black, eighth antennomere is infusate. Densely covered with comparatively long, suberect, cupreous setae.

Head: Clypeus transverse 2 x wider than long. Terminal labial palpomere narrow, acuminate, narrowly truncate at apex. Interocular distance 0.7 x as wide as head including eyes. Antenna moderately long and markedly stout (Fig. H18), 0.45 x as long as body; scape 1.2 x as long as wide, 2 x longer than pedicel; pedicel 0.6 x longer than wide; antennomere 3 as long as wide, 1.1 x as long as pedicel; fourth and fifth subequal to third; sixth as long as wide, 1.4 x as long as pedicel; seventh 0.8 x as long as wide, 1.3 x as long as pedicel; eighth 0.7 x as long as wide, 1.2 x longer than pedicel; antennal club 0.58 x as long as total antennal length; its antennomeres almost symmetrical and hardly widened apically; ninth antennomere 1.4 x as long as wide, 3.3 x as long as pedicel; tenth 1.6 x as long as wide, 4.1 x as long as pedicel; terminal antennomere elongate, nearly parallel sided, 2.6 x as long as wide, 7.1 x as long as pedicel.

Prothorax: Pronotum widest at base; transverse (Fig. L2), 2.12 x wider than long; 2.1 x wider at base than in front angles; 2.27 x wider than head. Sides convergent in basal half then weakly rounded to front angles, with a small tooth at mid-length. Front angles produced, right-angled, weakly rounded at tip. Hind angles right-angled. Anterior margin narrow, scarcely acuminate at middle. Lateral margins markedly raised and wide, narrowing near base: width of margin at base about 1/3 of the distance between basal pore and hind angle; area between marginal line and pronotal edge flat to slightly concave. Disc moderately convex, finely and closely punctate. Longitudinal sulci moderately deep, short, curved. Basal pores moderately large, elongated and oblique. Basal sulcus impressed only near pores. Pronotal base flat over scutellum. Prosternal process narrow at base, widened posteriorly; at apex markedly narrower than longitudinal procoxal diameter.

Pterothorax: Scutellum triangular, small, 1.2 x wider than long, 0.11 x as wide as pronotum. Elytra length 3.8 mm; 1.1 x longer than wide; 3.55 x longer and 1.5 x wider than pronotum; ovoid, widest near basal third, then roundly converging to the slightly acuminate apex; moderately densely punctate with foveolate punctures moderately large and comparatively deep, separated by 2–3 diameters, being coarser near humeri and slightly sparser and shallower at apex. Humerus moderately prominent. Epipleuron at base about 0.7 x as wide as intermesocoxal process of metaventrite. Mesoventrite deeply excavated in front; setose pores on sides small; mesoventral process slightly about as wide as the longitudinal coxal diameter, without inner carinae. Metaventrite markedly convex, without modifications near the anterior margin; with a pair of small setose pores of approximately same diameter below each mesocoxa. Metanepisternum with setose pore small.

Legs moderately long and rather stout (Fig. Q2). Trochanter simple. Meso and metafemur moderately slender, widest at mid-length, unarmed; metafemur slightly longer than mesofemur, bearing moderately long decumbent setae. Meso and metatibia moderately stout; metatibia about as long as metafemur, 0.33 x as long as than elytra; widened apically, linear, unarmed. Metatarsus about 0.66 x as long as metatibia; second tarsomere produced and narrow, about 1.2 x wider at apex than fourth tarsomere at middle length.

Abdomen: Ventrite I slightly longer than metaventrite and as long as ventrites II–V, with moderately large foveolate punctation below metacoxae, without protuberances. Ventrite V almost twice longer than IV, with apex truncate. Ventrite VI rounded at apex. Tergite VIII truncate. Penis moderately large and stout, curved, weakly widened towards apex in lateral and ventral view (Figs. U9–10). Tegmen with moderately large submembranous tegminal plate.

Description of female. Body: length 6.0 mm; length 1.7 x as long as wide, 2.3 x as long as high. Antenna: 0.41 x as long as body. Pronotum: 2.25 x wider than long; 2.25 x wider at base than in front angles; 2.4 x wider than head. Elytra: length 4.15 mm; 1.18 x longer than wide; 3.7 x as longer than pronotum; 1.4 x wider than pronotum. Metatibia: 0.3 x as long as elytra. Metatarsus: about 0.55 x as long as metatibia. Ovipositor with proctiger distinctly acuminate, narrowly rounded apically; coxites markedly narrow, without styli.

Sexual dimorphism. The tooth on lateral margin of pronotum is smaller in the female.

Material examined. Types. Holotype, male: Motzorongo / *Stenotarsus* *prope. validicornis*, H.F. Strohecker det. (MNB); **Paratype**, female: same data as holotype: (MNB).

Distribution. México: Veracruz (Fig. W1).

Habits and habitats. Unknown.

Etymology. The specific epithet refers to the parallel sided articles of antennal club.

Remarks. Gorham (1890) reported the presence of the South American species *Stenotarsus claviger* Gerstaecker in México and Panamá. Subsequently, Arrow (1920) stated that the specimens studied by Gorham agreed more with *S. validicornis* Gerstaecker than with *S. claviger*. Roubik & Skelley (2001) followed this situation for Panama, and Arriaga–Varela *et al.* (2007) for Mexican beetles. However, none of these species were cited from México in the checklists of Strohecker (1953) and Blackwelder (1945).

The specimens described here, were labeled by H. F. Strohecker as probably belonging to *S. validicornis* Gerstaecker. These specimens were compared by us with type series of *S. claviger* Gerstaecker, but we were not able to study the type of *S. validicornis* or the specimens reported by Gorham (1890). However, it seems highly unlikely that *S. validicornis*, described from French Guiana, occurs in México.

***Stenotarsus raramuri* sp. nov.**

(Figs. D10, I1, L3, M8, O8, Q3, S1, T5–6, V4, W3)

Diagnosis. This species resembles *S. globosus*, *S. rubrocinctus*, and *S. shockleyi* sp. nov., sharing a similar antennal structure (Figs. H3, I1, I4), genitalia of both sexes (Fig. T5–6; V4), male metaventricle with a concavity between mesocoxae, male metatibia with a row of small tubercles on inner margin (P3, Q3–4, 7), and metafemur with a tooth on inner margin near trochanter (Figs. O7–10). Among the members of this group *S. raramuri* is distinguished by: larger size (length 6.9–7.9 mm), the body wholly ferruginous red except antennomeres 7–11 which are black (Fig. D10), elytra with foveolate punctures comparatively large and deep (Fig. M8) and metafemur of males with tooth widely truncate (Fig. O8).

Description of males. Body: 6.7–7.9 mm long, long oval, moderately convex (Fig. D10); length; body 1.80–1.83 x as long as wide; length 2.9–3.0 x as long as high. Completely reddish brown, excepting antennomeres 7–11 which are black. Densely covered with golden setae.

Head: Clypeus transverse 2.0 x wider than long. Terminal labial palpomere narrow, acuminate, narrowly truncate at apex. Interocular distance 0.63–0.65 x as wide as head including eyes. Antenna moderately long and slender (Fig. I1), 0.40 x longer than body; scape 1.2 x as long as wide, 1.6 x longer than pedicel; pedicel as long as wide; third antennomere 1.4 x as long as wide, 1.2 x as long as pedicel; fourth 1.6 x as long as wide, 1.4 x as long as pedicel; fifth 2 x as long as wide, 1.7 x as long as pedicel; sixth 1.7 x as long as wide, 1.6 x as long as pedicel; seventh 1.3 x as long as wide, 1.3 x as long as pedicel; eighth subequal to seventh; antennal club, about 0.38 x as long as the total antennal length, with segments almost symmetrical; ninth antennomere widened apically, 1.2 x as long as wide at apical side, 2 x as long as pedicel; tenth widened apically, 1.1 x as long as wide, 1.9 x as long as pedicel; terminal antennomere slightly asymmetrical, subrectangular, slightly widening apically, 1.4 x as long as wide, 3 x as long as pedicel.

Prothorax: Pronotum widest at base (Fig. L3); transverse: 2.0 x wider than long; 2.36 x wider than head; 2.00–2.05 x wider at base than in front angles. Sides weakly convergent in posterior half, then weakly rounded to front angles. Front angles produced, right-angled or briefly acute, blunt at tip. Hind angles weakly acute. Anterior margin narrow, slightly acuminate at middle. Lateral margins moderately raised, moderately wide, weakly narrowing posteriorly, accentuating close to base; width of margin at base about 1/4 of the distance between basal pore and hind angle; area between marginal line and pronotal edge weakly concave. Disc moderately convex finely and closely punctate; lateral sulci moderately deep, lacking anteriorly, short, weakly curved inwardly. Basal pores large, curved, oblique. Basal sulcus only impressed close to pores. Pronotal base rounded. Prosternal process narrow at base, widened posteriorly; at apex scarcely narrower than longitudinal procoxal diameter.

Pterothorax: Scutellum triangular, moderately large, 1.50–1.75 x wider than long, 0.18 x as wide as pronotum. Elytra length 4.9–5.3 mm; 1.23 x longer than wide; 3.53–3.62 x longer and 1.45 x wider than pronotum; ovoid, widest near basal third, then roundly converging to the acuminate apex; moderately densely punctate (Fig. M8) with foveolate punctures moderately large and rather deep, separated by 1.5–4.0 diameters, being sparser and shallower at apex. Humerus moderately prominent. Epipleura at base about 0.8 x as wide as the intermesocoxal process of metaventricle. Mesoventricle deeply excavated in front; mesoventral process about as wide as longitudinal coxal diameter, without inner

carinae; with a small setose pore on each side near anterior margin. Metaventricle weakly convex, with transverse, more densely pubescent concavity on intercoxal process between mesocoxae; with a pair of small setose pores of approximately same diameter below each mesocoxa. Metanepisternum with setose pore small.

Legs long and slender (Fig. Q3). Trochanter simple. Meso and metafemur rather slender, widest barely before mid-length; mesofemur unarmed; metafemur slightly longer than mesofemur, bearing moderately long decumbent setae, with a widely truncate tooth on the base of inner margin (Fig. O8). Meso and metatibia moderately slender; metatibia as long as metafemur, 0.37–0.39 x as long as elytra, very weakly and gradually widened apically, slightly bent in apical third, with a row of small tubercles on inner margin. Metatarsus about 0.41 x as long as metatibia; second tarsomere produced and lobed, about 2.5 x wider at apex than fourth tarsomere at middle length.

Abdomen: Ventricle I almost as long as metaventricle and slightly shorter than ventricles II–V, with sparse foveolate punctation below metacoxae, without protuberances. Ventricle V scarcely longer than IV, with apex truncate. Ventricle VI rounded at apex. Tergite VIII weakly truncate. Penis slender, curved, gradually narrowed and with apical crest in ventral view (Fig. T6), widened near apex in lateral view (Fig. T5). Tegmen with moderately large submembranous tegminal plate (Fig. S1).

Description of females. Body: length 7.0–7.5mm; 1.8 x as long as wide; 2.70–2.77 x as long as high. Antenna: 0.38–0.39 x longer than body. Pronotum: 2.0–2.1x wider than long; 1.93–2.0 x wider at base than in front angles; 2.38x as wide as head. Elytra: length 4.65–5.2 mm; 1.16–1.23 x longer than wide; 3.65–3.70 x longer and 1.38–1.45 x wider than pronotum. Metaventricle: without concavity or other modification on the anterior margin. Metafemur unarmed. Metatibia: 0.30–0.33 x as long as elytra; linear, unarmed; as long as metafemur. Metatarsus: about 0.55–0.60 x as long as metatibia. Ovipositor with proctiger rounded, coxites wide, without styli (Fig. V4).

Sexual dimorphism. Males have a concavity on metaventricle, the metatibia with a row of small tubercles and metafemur with a tooth. Females have proportionally larger elytra and shorter antennae and legs.

Variation. No significant variation was found.

Material examined. Types. Holotype, male: Canelas [h] / *S. globosus* Guérin?, teneral, det. H.F. Strohecker (MNB); **Paratypes**: Canelas [h] (2 males, 1 female: MNB); same data plus / *Stenotarsus sallaei* v. (1 female: MNB); México, Jal., Mascota, El Atajo, carr. Mascota–Las Palmas, BMM, 1413 m, 20°38'01"N, 104°51'45"W, 6.VII.2005, ex *Sirobasidium sanguineum* (Tremellaceae), J. Cortés–Aguilar (1 male: CZUG)

Distribution. México: Durango, Jalisco (Fig. W3).

Habits and habitats. *Altitudinal range*: 1360–1413 m.a.s.l. *Vegetation*: cloud forest. *Host fungi*: *Sirobasidium sanguineum* (Tremellales: Sirobasidiaceae).

Period of collecting: July.

Etymology. This species is dedicated to the Raramuri (Tarahumara) people, who inhabit the Sierra Madre Occidental of México, the region where the holotype was collected.

Remarks. Henry F. Strohecker studied the specimens from Durango and labeled them as probably teneral members of *S. globosus*. These specimens are, however, not teneral.

Stenotarsus rubrocinctus Gerstaecker, 1858.

(Figs. D11, H3, J10, L4, O9, Q4, S1, T5–6, V4, W3)

Stenotarsus rubrocinctus Gerstaecker, 1858: 324; Gorham 1890: 137; Blackwelder 1945: 440; Strohecker 1953: 56; Arriaga–Varela *et al.* 2007: 15; Shockley *et al.* 2009a: 85.

Diagnosis. This species is most similar to *S. globosus*, *S. raramuri*, sp. nov. and *S. shockleyi* sp. nov., sharing similar antennal structure (Figs. H3, I1, I4), genitalia of both sexes (Figs. T5–6; V4), and the sexually dimorphic characters of male: metaventricle with a concavity between mesocoxae (Figs. J10–11), metatibia with a row of small tubercles on inner margin (O2, P3, Q4–5, Q8), and metafemur with a tooth on inner margin near trochanter (Figs. O7–10). Among these species *S. rubrocinctus* can be separated by having the body of medium size (length 5.4–6.6 mm), antenna red with antennomeres 7–11 black, pronotum red with a large triangular black spot reaching anterior margin and not surpassing basal pores at base (Fig. D11), elytra with foveolate punctures rather small, and male metafemur with tooth large, curved and pointed at tip (Fig. O9).

Description of males. Body: 5.4–6.5 mm long, short oval, markedly convex, (Fig. D11); 1.67–1.73 x width; 2.8–2.92 x height. Contrastly colored: head orange to red; antenna orange–red with antennomeres 7–11 black, antennomere 6 may be infuscated; pronotum red with a large triangular black mark reaching anterior margin and not surpassing basal pores at base, margins and angles orange–red; hypomeron and prosternum red; scutellum black or rarely red; elytra red, each elytron with a large, oval, black macula; epipleura red; meso and metathorax black with mesoventrite infuscate or red at least at middle; legs orange–red; abdomen orange–red with first ventrite black margined by red. Densely covered with long, suberect, golden setae; with darker setae in the black parts of elytra and pronotum.

Head: Clypeus transverse 1.8–2.0 x wider than long. Terminal labial palpomere narrow, acuminate, narrowly truncate at apex. Interocular distance 0.66–0.68 x as wide as head including eyes. Antenna moderately long and slender (Fig. H3), 0.42 x as long as body; scape 1.4 x as long as wide, 1.8 x longer than pedicel; pedicel 1.1 x longer than wide; third antennomere 1.6 x as long as wide, 1.4 x as long as pedicel; fourth subequal to third; fifth 2 x as long as wide, 1.7 x as long as pedicel; sixth 1.9 x as long as wide, 1.6 x as long as pedicel; seventh subequal to sixth; eighth 1.3 x as long as wide, 1.5 x longer than pedicel; antennal club 0.4 x as long as total antennal length, with segments almost symmetrical; ninth widened apically, 1.3 x as long as wide at apical margin, 2 x as long as pedicel; tenth widened apically, 1.2 x as long as wide, 2.2 x as long as pedicel; terminal antennomere slightly asymmetrical, subrectangular, slightly widening apically, 1.6 x as long as wide, 3.6 x as long as pedicel.

Prothorax: Pronotum widest at base; transverse (Fig. L4): 2.0–2.2 x wider than long; 2.3–2.4 x wider than head; 1.9–2.0 x wider at base than in front angles. Sides weakly convergent in posterior half, then weakly rounded to front angles. Front angles produced, right–angled to briefly acute, narrowly rounded at tip. Hind angles weakly acute. Anterior margin narrow, slightly acuminate at middle. Lateral margins moderately raised, weakly accentuating anteriorly; moderately wide,

weakly narrowing posteriorly, accentuating close to base; width of margin at base almost 1/4 of the distance between basal pore and hind angle; area between marginal line and pronotal edge weakly concave. Disc moderately convex finely and closely punctate. Longitudinal sulci moderately deep, lacking anteriorly, short, weakly curved inwardly. Basal pores large, curved, oblique. Basal sulcus only impressed close to pores. Pronotal base rounded. Prosternal process narrow at base, widened posteriorly; at apex scarcely narrower than longitudinal procoxal diameter.

Pterothorax: Scutellum triangular, moderately large, 1.7–1.8 x wider than long, 0.18–0.19 x as wide as pronotum. Elytra length 3.7–4.3 mm; 1.1–1.3 x longer than wide; 3.40–3.45 x longer and 1.43–1.52 x wider than pronotum; ovoid, widest near basal third, then roundly converging to acuminate apex; moderately densely punctate with foveolate punctures rather small and shallow, separated by 1.5–4.0 diameters, being sparser and shallower near apex. Humerus moderately prominent. Epipleuron at base about 0.8 x as wide as the intermesocoxal process of metaventrite. Mesoventrite deeply excavated in front; setose pores on sides small; mesoventral process about as wide as longitudinal coxal diameter, without inner carinae. Metaventrite weakly convex, with transverse, more densely pubescent concavity on intercoxal process between mesocoxae (Fig. J10); with a pair of small setose pores of approximately same diameter below each mesocoxa. Metanepisternum with setose pore small.

Legs long and slender (Fig. Q4). Trochanter simple. Meso and metafemur rather slender, widest before mid-length; mesofemur unarmed; metafemur slightly longer than mesofemur, bearing moderately long decumbent setae, with a large, well developed tooth, pointed at tip, in the base of inner margin. Meso and metatibia very slender; metatibia as long as metafemur, 0.40–0.45 x as long as elytra, very weakly and gradually widened apically, slightly bent in apical third, with a row of small tubercles on inner margin. Metatarsus about 0.4 x as long as metatibia; second tarsomere produced and lobed, about 2 x wider at apex than fourth tarsomere at middle length.

Abdomen: Ventricle I almost as long as metaventrite and slightly shorter than ventrites II–V, with sparse foveolate punctation below metacoxae, without protuberances. Ventricle V scarcely longer than IV, with apex truncate. Ventricle VI rounded at apex. Tergite VIII weakly truncate. Penis slender, curved, gradually narrowed and with apical crest in ventral view (Fig. T6), widened near apex in lateral view (Fig. T5). Tegmen with moderately large submembranous tegminal plate (Fig. S1).

Description of females. Body: length 5.6–6.6 mm; 1.60–1.63 x as long as wide; 2.53–2.62 x as long as high. Antenna: 0.38–0.40 x as long as body. Pronotum: 2.16–2.21 x wider than long; 1.90–1.98 x wider at base than in front angles; 2.15–2.38 x as wide as the head. Elytra: length 3.75–4.5 mm; 1.08–1.10 x longer than wide; 3.64–3.79 x longer and 1.47–1.58 x wider than pronotum. Metaventrite: moderately convex, without a concavity or other modification, on the anterior margin. Legs long and slender. Metafemur: unarmed. Metatibia: 0.30–0.33 x as long as elytra; linear, unarmed. Metatarsus: about 0.58–0.63 x as long as metatibia. Ovipositor with proctiger rounded, coxites wide, without styli (Fig. V4).

Sexual dimorphism. Males have a concavity on metaventrite, the metatibia with a row of small tubercles and metafemur with a tooth. Females have proportionally larger elytra and shorter antennae and legs.

Variation. No significant variation was found.

Material examined. Types. Lectotype of *Stenotarsus rubrocinctus*

Gerstaecker (present designation), male: Mexico [blue label] / Mexico / Zool. Mus. Polonicum, Warszawa 12/45 / SYNTYPE MIZ 103153 [red label] /

rubrocinctus Gerstaecker, Mex. (MIZ); **Paralectotype,** male: Mexico [blue label] / Zool. Mus. Polonicum, Warszawa 12/45 / SYNTYPE MIZ 103154 [red label];

Paralectotype, male: 21859 / Hist. Coll. (Coleoptera), Nr 21859, *Stenotarsus rubrocinctus* Gerstaecker, Mexico, Dohrn. Zool. Mus. Berlin [green label] / *rubrocinctus* Gerstaecker, Mexico, Dohrn [green label] / SYNTYPUS *Stenotarsus rubrocinctus* Gerstaecker, 1858. Labelled by MNB 2008 (MNB).

Other material. Hidalgo, 45 Km. Tlanchinol carr. Molango – Huejutla, en tronco podrido, 3/III/79, R. Terrón (10 males, 13 females: CNIN); Querétaro, Landa de Matamoros, Neblinas, 9.VIII.2002, Alt. 600 m, en tronco podrido, Q. Santiago y L. Delgado (1 male: IEXA); Veracruz, Huayacocotla, Carr. a Zicaltepec, La Selva, 2112 m, Bosque de Encino– Pino, N20°33'19.1" W98°29'14.6". Troncos podridos. 26–VI–2003. Asiain, Canales y Márquez (1 female: UAEH).

Distribution. México: Hidalgo, Querétaro, Veracruz (Fig. W3).

Habits and Habitats. *Altitudinal range:* 600–2400 m.a.s.l. *Habitats:* rotten log. *Period of collecting:* March and July–August.

Remarks. *Stenotarsus rubrocinctus* has a strong resemblance to *S. globosus* Guérin–Méneville, due to their contrastly colored body (Figs. C3, D11) and rather large metafemoral tooth in males (Figs. O7, O9). However, while members of *S. globosus* show a significant variation in coloration with some specimens having antennae, pronotum and legs completely black, all members of *S. rubrocinctus* have legs completely red, antenna only with articles 7–11 black, and pronotum with black triangular macula, not surpassing basal pores.

***Stenotarsus rulfoi* sp. nov.**

(Figs. D12, I2, L5, M9, Q5, U11–12, Z1)

Diagnosis. This species resembles *S. spiropenis* sp. nov, sharing the widely truncate terminal labial palpomere (Fig. B6), pronotum with long longitudinal sulci (Figs. L5, L9), elytra with foveolate punctures arranged in longitudinal striae (Figs. M9, M11), mesoventral process with subtriangular figures (Fig. N13), and penis twisted or coiled. *Stenotarsus rulfoi* is distinguished from *S. spiropenis* by having the longitudinal sulci of pronotum narrower (Fig. L5), smaller foveolate punctures on anterior half of elytra (their diameter about 2 x of diameter of the setiferous punctures) (Fig. M9), and the antennae black, with only the scape red.

Description of males. Body: 4.66–5.32 mm long, long oval (Fig. D12), moderately convex; 1.91–1.95 x as long as wide, 2.90–2.97 x as long as high. Wholly reddish brown, except antennomeres 2–11 which are black. Densely covered with long, suberect, coppery setae.

Head: Clypeus transverse 2.2 x wider than long. Terminal labial palpomere broad, widely truncate at apex. Interocular distance 0.68–0.71 x as wide as head including eyes. Antenna moderately long and markedly stout (Fig. I2), 0.39 x as long as body; scape 1.5 x as long as wide, 1.8 x longer than pedicel; pedicel 0.9 x longer than wide; third antennomere 1.1 x as long as wide, 1.3 x as long as

pedicel; fourth as long as wide, 1.2 x as long as pedicel; fifth subequal to fourth; sixth as long as wide and as long as pedicel; seventh as long as wide, 1.2 x as long as pedicel; eighth 0.9 x as long as wide, 1.1 x longer than pedicel; antennal club about 0.36 x as long as total antennal length, with segments almost symmetrical; ninth antennomere widened apically, 0.8 x as long as wide, 1.6 x as long as pedicel; tenth strongly widened apically, 0.8 x as long as wide, 1.6 x as long as pedicel; terminal antennomere short subovate, asymmetrical, wider at apical fourth, as long as wide, 2.3 x as long as pedicel.

Prothorax: Pronotum widest at base, moderately transverse (Fig. L5), 1.74–1.78 x wider than long; 1.81–1.88 x wider at base than in front angles; 2.05–2.15 x wider than head. Sides convergent in basal half, then very weakly rounded to front angles. Front angles produced, right-angled to slightly acute, almost sharp at tip. Hind angles briefly acute. Anterior margin narrow, slightly rounded. Lateral margins raised; moderately wide, weakly widening in anterior half and near base: width of margin at base slightly less than 1/4 of the distance between basal pore and hind angle; area between marginal line and pronotal edge flat. Disc finely and closely punctate, weakly convex. Longitudinal sulci long, comparatively deeply and moderately widely excavated, weakly convergent. Basal pores moderately large, slightly curved, markedly oblique. Basal sulcus only impressed very near pores. Pronotal base rounded. Prosternal process narrow at base, scarcely widened posteriorly; at apex distinctly narrower than longitudinal procoxal diameter.

Pterothorax: Scutellum subpentagonal, rather small, 1.25–1.45 x wider than long, 0.12 x as wide as pronotum. Elytra length 3.15–3.65 mm; 1.28–1.33 x longer than wide; 3.19–3.27 x longer and 1.38–1.40 x wider than pronotum; rather oblong, widest before basal third, weakly convergent in medial third, then roundly convergent to the rounded apex. Foveolate punctures comparatively small and shallow, arranged in longitudinal rows, lacking in apical half, punctures separated by one diameter (Fig. M9). Humerus prominent. Epipleuron moderately wide at base, about 0.85 x as wide as the intermesocoxal process of metaventrite. Mesoventrite scarcely excavated in front; setose pores on sides moderately large; mesoventral process scarcely wider than longitudinal coxal diameter, with three subtriangular figures formed by carinae. Metaventrite moderately convex, without modifications on anterior margin; with a pair of moderately large setose pores of approximately same diameter below each mesocoxa. Metanepisternum with a moderately large setose pore at anterior margin.

Legs moderately long and stout (Fig. Q5). Trochanter simple. Meso and metafemur strongly widened at mid-length; unarmed; metafemur about as long as mesofemur, bearing moderately long decumbent setae. Meso and metatibia moderately slender; metatibia as long as metafemur, 0.33–0.35 x as long as elytra, continuously widened distally, linear, unarmed. Metatarsus 0.56–0.58 x as long as metatibia; second tarsomere produced and lobed, about 2.5 x as wide at apex as fourth tarsomere at middle length.

Abdomen: Ventrite I as long as metaventrite and as ventrites II–V, with moderately coarse foveolate punctation, without protuberances. Ventrite V 2 x longer than IV, with apex briefly truncate. Ventrite VI rounded at apex. Penis very slender, flattened, curved, and slightly twisted, width subequal along its length in ventral view (Figs U11–12). Tegmen with moderately large submembranous tegminal plate.

Description of females. Body: length 5.5–5.6 mm; 1.87–1.93 x as long as wide; 2.83–2.92 x as long as high. Antenna: 0.37 x as long as body. Pronotum: 1.90 x wider than long; 1.89 x wider at base than in front angles; 2.09–2.14 x wider than head. Elytra: length 3.68–3.75 mm; 1.23–1.30 x longer than wide; 3.50–3.52 x longer and 1.43–1.49 x wider than pronotum. Metatibia: 0.33–0.35 x as long as elytra. Metatarsus: about 0.49–0.52 x as long as metatibia. Ovipositor with proctiger rounded, coxites wide with terminal styli.

Sexual dimorphism. Females have proportionally slightly less elongate antennae and longer and wider elytra.

Material examined. Types. Holotype, male: México: Jalisco, San Gabriel, El Floripondio, 2300m, BEP, 27.X.1997, ex bajo corteza *Pinus*, J.L. Navarrete (CZUG); **Paratypes:** same data as holotype: (1 male, 3 females: CZUG).

Distribution. México: Jalisco (Figs. Z1).

Habits and habitats. *Altitudinal range:* 2300 m.a.s.l. *Vegetation:* oak–pine forest. *Habitat:* collected under bark of *Pinus* sp. *Period of collecting:* October.

Etymology. This species is dedicated to the prominent Mexican writer Juan Rulfo, who lived his youth at San Gabriel town, 20 kilometers away from the type locality.

***Stenotarsus sallaei* Gorham.**

(Figs. E1, I3, L6, Q6, R1, U13–14; V12; Z2)

Stenotarsus sallaei Gorham, 1873: 63; Gorham 1890: 140; Arrow 1920: 51; Blackwelder 1945: 440; Strohecker 1953: 56; Arriaga–Varela *et al.* 2007: 15; Shockley *et al.* 2009a: 85.

Stenotarsus distinguendus Arrow, 1920: 51; Blackwelder 1945: 439; Strohecker 1953: 56; Shockley *et al.* 2009a: 81. **New synonym.**

Diagnosis. *Stenotarsus sallaei* resembles superficially *S. guatemalae* and brown specimens of *S. oblongulus* Gorham, sharing rather oblong body, and pronotum with small and weakly elongate foveae (Fig. K4, K15; L6). It is distinguished from both these species by the following combination of characters: terminal antennomere gradually widened apically, without protuberances on lateral margin (Fig. I3), metatibia almost parallel along basal half, widened at inner margin at apical 3/4 (Fig. Q6), males with abdominal ventrite I bearing a small, blunt, conical protuberance at center, near posterior margin (Fig. R1). Penis very narrow in ventral view (Fig. U14), widened and flattened at apex in lateral view (Fig. U13).

Description of males. Body: 4.60–4.75 mm long, long oval (Fig. E1), weakly convex; 1.83–1.85 x as long as wide; 2.83–2.89 x as long as high. Wholly brown except antennomeres 7–11 which are black, antennomere 6 may be infuscate. Densely covered with long, suberect, light coppery to golden setae.

Head: Clypeus transverse 2.2 x wider than long. Terminal labial palpomere narrow, acuminate, narrowly truncate at apex. Interocular distance 0.63–0.64 x as wide as head including eyes. Antenna comparatively long and slender (Fig. I3), 0.45–0.47 x as long as body; scape 1.7 x as long as wide, 1.4 x longer than pedicel; pedicel 1.4 x longer than wide; third antennomere 1.4 x as long as wide, as long as pedicel; fourth 1.6 x as long as wide, 1.1x as long as pedicel; fifth 1.9 x as long as wide, 1.3 x as long as pedicel; sixth and seventh subequal to fifth; eighth 1.4 x as long as wide, 1.2 x longer than pedicel; antennal club about 0.38 x

as long as total antennal length, with segments almost symmetrical; ninth antennomere weakly widened apically, 1.1 x as long as wide, 1.6 x as long as pedicel; tenth slightly asymmetrical, widened apically, 0.9 x as long as wide, 1.3 x as long as pedicel; terminal antennomere almost symmetrical, gradually widened apically, 1.7 x as long as wide, 2.9 x as long as pedicel.

Prothorax: Pronotum widest at base, transverse (Fig. L6), 2.0–2.1 x wider than long; 1.78–1.90 x wider at base than in front angles; 2.1–2.2 x wider than head. Sides weakly rounded, converging to front angles. Front angles produced, briefly obtuse and rounded at tip. Hind angles briefly obtuse. Anterior margin narrow, not distinctly acuminate at middle. Lateral margins weakly raised, narrow, weakly narrowing posteriorly: width of margin at base almost 1/4 of the distance between basal pore and hind angle; area between marginal line and pronotal flat. Disc moderately convex, finely and closely punctate. Longitudinal sulci moderately deep, short, narrowing anteriorly, slightly convergent. Basal pores small, rounded or slightly elongated. Basal sulcus absent. Pronotal base rounded. Prosternal process wide at base, slightly widened posteriorly; at apex about as wide as longitudinal procoxal diameter.

Pterothorax: Scutellum triangular, moderately large, 2.2–2.4 x wider than long, 0.18–0.19 x as wide as pronotum. Elytra length 3.4–3.6 mm; 1.11–1.16 x longer than wide; 3.25–3.32 x longer and 1.28–1.30 x wider than pronotum; long ovoid, widest at basal third, then roundly convergent to the moderately acuminate apex. Densely punctate with foveolate punctures moderately large and deep, separated by 2.5–4.5 diameters, being sparser and shallower at apex of elytra and near scutellum. Humerus moderately prominent. Epipleuron moderately wide at base, about 0.8 x as wide as the intermesocoxal process of metaventrite. Mesoventrite deeply excavated in front; setose pores small; mesoventral process slightly wider than longitudinal coxal diameter, without inner carinae. Metaventrite moderately convex, without modifications on anterior margin; with a pair of small setose pores of approximately same diameter below each mesocoxa. Metanepisternum with setose pore small.

Legs moderately long and slender (Fig. Q6). Trochanter simple. Meso and metafemur moderately widened at mid-length; unarmed; metafemur about as long as mesofemur, bearing moderately long decumbent setae. Meso and metatibia moderately slender; metatibia as long as metafemur, 0.33–0.34 x as long as elytra, parallel in basal half, widened at apical third, slightly curved, unarmed. Metatarsus 0.57–0.60 x as long as metatibia; second tarsomere produced and lobed, about 2.0 x as wide at apex as fourth tarsomere at middle length.

Abdomen: Ventrite I slightly shorter than metaventrite and that ventrites II–V, with moderately coarse foveolate punctation, bearing a conical protuberance, rounded at tip, at midline near posterior margin (Fig. R1). Ventrite V longer than IV, with apex truncate. Ventrite VI rounded at apex. Tergite VIII truncate. Penis very slender, curved, in ventral view (Fig. U14); flat and broadened near apex in lateral view (Fig. U13). Tegmen with moderately large submembranous tegminal plate

Description of females. Body: length 4.4–5.0 mm; 1.75–1.84 x as long as wide; 2.79–2.86 x as long as high. Antenna: 0.42–0.43 x as long as body. Pronotum: 2.13–2.20 x wider than long; 1.91–1.95 x wider at base than in front angles; 2.25–2.30 x wider than head. Elytra: length 3.10–3.33 mm; 1.13–1.20 x longer than wide; 3.32–3.43 x longer and 1.33–1.39 x wider than pronotum. Metatibia: 0.29–

0.32 x as long as elytra; parallel in basal half, then weakly widened at 3/4, very scarcely curved, Metatarsus: about 0.49–0.54 x as long as metatibia. Ventricle I without protuberances. Ovipositor with proctiger distinctly acuminate, pointed apically; coxites wide, without terminal styli (Fig. V12).

Sexual dimorphism. Females have proportionally less elongate antennae and longer and broader elytra. The metatibia are slightly less widened at apical fourth, and abdominal ventrite I lacks the conical protuberance.

Material examined. Types. Lectotype of *Stenotarsus sallaei* Gorham (present designation), female: Syntype [round, blue bordered label] / Mexico, Salle Coll. / Toxpan / 2198 / B.C.A., VII, *Stenotarsus* [p] *sallaei* Gorh. [h] (NHM);

Paralectotype, female: Syntype [round, blue bordered label] / Type H.T. [round, red bordered label] / *S. sallaei* Gorham type / Gorham 91–50 / type Guérin Men. / *Stenotarsus sallaei* Gor. (type) Tuxpam, Mexique (NHM); **Lectotype of**

***Stenotarsus distinguendus* Arrow (present designation)**, male: Syntype [round, blue bordered label] / Type H.T. [round, red bordered label] / Sabo, Vera Paz, Champion / *Stenotarsus distinguendus*, type, Arrow / B.C.A., VII, *Stenotarsus* [p] *sallaei* Gorh. [h] (NHM).

Other Material: México: Los Tuxtlas, Estado de Veracruz, Estación Biológica, 13–VIII–1985, M.L. Castillo, col. (1 male, 1 female: CNIN); 211 / *Stenotarsus sallaei* Guer. Tuxpam (1 male: MNHN); 21862 / *sallaei* Guer. (sec. Deyrolle), Mexico Deyr. / Hist.–Coll. (Coleoptera) Nr. 21862, *Stenotarsus sallaei* Guér. México, Deyrolle, Zool. Mus. Berlin / *Stenotarsus sallaei* Gorh. (female) det. H.F. Strohecker, from study of syntypes (1 female: MNB); Hist.–Coll. (Coleoptera) Nr. 21862, *Stenotarsus sallaei* Guér. México, Deyrolle, Zool. Mus. Berlin (1 male: MNB); México: Veracruz, Zongolica, Ixcohuapa. 18°40'40.3" N, 96°59'06.6" W. 1040 m. Cafetal–BMM (*Alnus* sp.). En tronco con hongo resupinado. 6.X.2011. Col. E. Arriaga–Varela (1 male: CZUG).

Distribution. Guatemala: Baja Verapaz; México: Veracruz (Fig. Z2).

Habits and habitats. *Period of collecting:* August.

Remarks. The differences proposed by Arrow (1920) to differentiate *S. distinguendus* from *S. sallaei* were: elytra more finely and closely punctate, and narrower and less rounded pronotal margins in *S. distinguendus*. These were not corroborated through the study of material. Hence, *S. distinguendus* is synonymized here under *S. sallaei*. The protuberance on abdominal ventrite I in males is peculiar, and has not been reported for other *Stenotarsus* species.

***Stenotarsus shockleyi* sp. nov.**

(Figs. E2, I4, J11, L7, N6, M10, O10, Q7, T5–6, X3)

Diagnosis. This species is very similar to *S. globosus*, *S. rubrocinctus*, and *S. raramuri* sp. nov., sharing a similar antennal structure (Figs. H3, I1, I4), genitalia of both sexes (Fig. T5–6; V4), and the sexually dimorphic characters of male: metaventrite with a concavity between mesocoxae (Figs. J10–11), metatibia with a row of small tubercles on inner margin (O2, P3, Q4–5, Q8), and metafemur with a tooth on inner margin near trochanter (Figs. O7–10). Among the members of this group, *S. shockleyi* is distinguished by comparatively small size (length 5.1–5.4 mm), antenna red with antennomeres 7–11 black, pronotum red with a large

triangular black macula reaching anterior margin and not surpassing basal pores at base (Fig. E2), prosternal process scarcely widened distally (Fig. N6), elytra with foveolate punctures rather large and deep (Fig. M10), concavity on male metaventricle subpentagonal (Fig. J11), and metafemur with tooth poorly developed (Fig. O10).

Description of males. Body 5.1–5.4 mm long, long oval, markedly convex (Fig. E2); 1.82–1.90 x as long as wide; 2.8–2.9 x as long as high. Contrastly colored: head orange to red; antenna orange–red with antennomeres 7–11 black, sixth antennomere may be infuscated; pronotum red with a large triangular black mark reaching anterior margin and not surpassing basal pores at base, margins and angles orange–red; hypomeron and prosternum red; scutellum black or rarely red; elytra red, each elytron with a large, oval, black macula; epipleura red; meso and metathorax black with mesoventrite infuscate or red at least at middle; legs orange–red; abdomen orange–red with first ventrite black margined by red. Densely covered with long, suberect, golden setae; with black setae in the black parts of elytra and pronotum.

Head: Clypeus transverse 2.2 x wider than long. Terminal labial palpomere narrow, acuminate, narrowly truncate at apex. Interocular distance 0.70 x as wide as head including eyes. Antenna moderately long and slender (Fig. I4), 0.40–0.42 x as long as body; scape 1.3 x as long as wide, 1.5 x longer than pedicel; pedicel 1.3 x longer than wide; third 1.7 x as long as wide, 1.2 x as long as pedicel; fourth 1.5 x as long as wide, 1.2 x as long as pedicel; fifth 2 x as long as wide, 1.6 x as long as pedicel; sixth 1.9 x as long as wide, 1.5 x as long as pedicel; seventh 1.6 x as long as wide, 1.4 x as long as pedicel; eighth 1.3 x as long as wide, 1.2 x longer than pedicel; antennal club about 0.39 x as long as the total antennal length, with segments almost symmetrical; ninth widened apically, 1.3 x as long as wide at apical side, 2 x as long as pedicel; tenth almost symmetrical, widened apically, 1.1 x as long as wide, 1.8 x as long as pedicel; terminal antennomere widened apically, 1.5 x as long as wide, 3.2 x as long as pedicel.

Prothorax: Pronotum widest at base; transverse (Fig. L7): 1.95–2.05 x wider than long; 1.95–2.00 x wider at base than in front angles; 2.15–2.25 x wider than head. Sides weakly convergent in posterior half, then weakly rounded to front angles. Front angles produced, right-angled, narrowly rounded at tip. Hind angles right-angled. Anterior margin narrow, slightly acuminate at middle. Lateral margins moderately raised, moderately wide, weakly narrowing posteriorly, accentuating close to base: width of margin at base about 1/3 of the distance between basal pore and hind angle; area between marginal line and pronotal edge weakly concave to flat. Disc moderately convex, finely and closely punctate. Longitudinal sulci feeble, short, weakly curved. Basal pores large, slightly curved, oblique. Basal sulcus lacking over scutellum. Pronotal base rounded. Prosternal process (Fig. N6) narrow at base, almost parallel sided; at apex distinctly narrower than longitudinal procoxal diameter.

Pterothorax: Scutellum triangular, moderately large, 1.65–1.70 x wider than long, 0.17–0.18 x as wide as pronotum. Elytra length 3.50–3.64 mm; 1.2 x longer than wide; 3.39–3.42 x longer and 1.35–1.4 x wider than pronotum; ovoid, widest near basal third, then roundly converging to the markedly acuminate apex; moderately densely punctate with foveolate punctures rather large and deep, separated by 2–4 diameters (Fig. M10), being smaller near scutellum and sparser and shallower near apex. Humerus moderately prominent. Epipleuron at base

about 0.95 x as wide as intermesocoxal process of metaventrite. Mesoventrite deeply excavated in front; setose pores on sides small; mesoventral process about as wide as longitudinal coxal diameter, without inner carinae. Metaventrite weakly convex, with densely pubescent subpentagonal concavity, near the anterior margin between mesocoxae (Fig. J11); with a pair of small setose pores of approximately same diameter below each mesocoxa. Metanepisternum with setose pore small.

Legs moderately long and slender (Fig. Q7). Trochanter simple. Meso and metafemur moderately slender, widest at basal third; mesofemur unarmed; metafemur slightly longer than mesofemur, bearing moderately long decumbent setae, with a small, truncate, tooth in the base of inner margin (Fig. O10). Meso and metatibia very slender; metatibia as long as metafemur, 0.34–0.35 x as long as elytra, scarcely widened apically, slightly bent in apical third, with a row of small tubercles on inner margin. Metatarsus about 0.58 x as long as metatibia; second tarsomere produced and lobed, about 2 x wider at apex than fourth tarsomere at middle length.

Abdomen: Ventricle I almost as long as metaventrite and slightly shorter than ventrites II–V, with sparse foveolate punctation below metacoxae, without protuberances. Ventricle V scarcely longer than IV, with apex truncate. Ventricle VI rounded at apex. Tergite VIII slightly truncate. Penis slender, curved, gradually narrowed and with apical crest in ventral view (Fig. T6), widened near apex in lateral view (Fig. T5). Tegmen with moderately large submembranous tegminal plate.

Description of female. Female unknown.

Sexual dimorphism. Unknown.

Variation. No significant variation was found.

Material examined. Types. Holotype, male: CAE Cotaxtla, Ver., Mex. 9.VII.1987, K.R. Pullen, Trampa Malaise (CZUG); **Paratype**, male: same data as holotype: (CZUG).

Distribution. México: Veracruz (Fig. X3).

Habits and habitats. *Altitudinal range:* about 100 m.a.s.l. *Period of collecting:* July. *Collecting method:* Malaise trap.

Etymology. This species is dedicated to Dr. Floyd W. Shockley, for his work on Endomychidae, and its willingness to share his knowledge and resources.

***Stenotarsus smithi* Gorham**

(Figs. E3, I5, L8, Q8, U15–16, Y2)

Stenotarsus smithi Gorham, 1890: 140. Blackwelder 1945: 440; Strohecker 1953: 56; Arriaga–Varela *et al.* 2007: 16; Shockley *et al.* 2009a: 85.

Diagnosis. This species resembles *S. monterrosoi* sp. nov. by its small size (less than 4.0 mm) and body wholly brown (Figs. D4, E3). It can be distinguished by the smaller body (3.0 mm), longer antennae (0.4 x as long as body) (Fig. I5), the second tarsomere distinctly widened apically and different shape of penis (Figs. U15–16).

Description of male holotype. Body 3.0 mm long, short oval (Fig. E3), markedly convex; 1.7 x as long as wide; 2.6 x as long as high. Wholly dark brown except last

four antennomeres which are black. Densely covered with long, suberect, golden setae.

Head: Clypeus slightly transverse 1.6 x wider than long. Terminal labial palpomere narrow, acuminate, narrowly truncate at apex. Interocular distance 0.7 x as wide as head including eyes. Antenna moderately long and slender (Fig. I5), 0.4 x as long as body; scape 1.4 x as long as wide, 1.4 x longer than pedicel; pedicel 1.4 x longer than wide; third antennomere 1.7 x as long as wide, 1.2 x as long as pedicel; fourth 1.5 x as long as wide, as long as pedicel; fifth to seventh subequal to fourth; eighth 1.2 x as long as wide, as long as pedicel; antennal club about 0.4 x as long as total antennal length, with segments almost symmetrical; ninth antennomere widened apically, 1.1 x as long as wide, 1.6 x as long as pedicel; tenth strongly widened apically, 0.8 x as long as wide, 1.5 x as long as pedicel; terminal antennomere ovoid, widest about mid-length, 1.3 x as long as wide, 2.9 x as long as pedicel.

Prothorax: Pronotum widest at base; transverse (Fig. L8); 2.08 x wider than long; 2.32 x wider than head; 2.0 x wider at base than in front angles. Sides rounded to front angles. Front angles slightly produced, right-angled, rounded at tip. Hind angles right-angled. Anterior margin narrow, very scarcely acuminate at middle. Lateral margins raised, wide, weakly narrowing near base: width of margin at base about 1/3 of the distance between basal pore and hind angle; area between marginal line and pronotal edge flat. Disc moderately convex, finely and closely punctate. Longitudinal sulci rather feeble, short, weakly curved. Basal pores small, slightly elongated, weakly oblique. Basal sulcus only impressed near pores. Pronotal base acuminate over scutellum. Prosternal process narrow at base, widened posteriorly; at apex about as wide as longitudinal procoxal diameter.

Pterothorax: Scutellum triangular, small, 1.5 x wider than long, 0.12 x as wide as pronotum. Elytra length 1.95 mm; 1.06 x longer than wide; 2.85 x longer and 1.28 x wider than pronotum; ovoid, widest near basal third, then roundly converging to the weakly acuminate apex; moderately densely punctate with foveolate punctures moderately large and deep, separated by 2–4 diameters, being sparser and larger at sides. Humerus weakly prominent. Epipleuron at base about 0.8 x as wide as intermesocoxal process metaventrite. Mesoventrite deeply excavated in front; setose pores small; mesoventral process about as wide as longitudinal coxal diameter, without inner carinae. Metaventrite moderately convex, without modifications near the anterior margin; with a pair of small setose pores of approximately same diameter below each mesocoxa. Metanepisternum with setose pore small.

Legs rather short and slender (Fig. Q8). Trochanter simple. Meso and metafemur rather slender, scarcely widest before mid-length; meso and metafemur unarmed; metafemur about as long as mesofemur, bearing moderately long decumbent setae. Meso and metatibia very slender; metatibia scarcely shorter than metafemur, 0.36 x as long as than elytra; very weakly and gradually widened apically, linear, inner margin unarmed. Metatarsus about 0.57 x as long as metatibia; second tarsomere produced and widened, about 2.0 x as wide at apex as fourth tarsomere at middle length.

Abdomen: Ventrite I as long as metaventrite and ventrites II–V, with sparse large foveolate punctation, without protuberances. Ventrite V twice as long as IV, with apex rounded. Ventrite VI rounded at apex. Tergite VIII moderately truncate

posteriorly. Penis small, curved, moderately narrow, widened near apical 2/3 in ventral view (Fig. U16); almost of same width in lateral view (Fig. U15).

Description of female. Female not studied.

Sexual dimorphism. Unknown.

Variation. Unknown.

Material examined. Type. Holotype male of *Stenotarsus smithi* Gorham: Holotype [round, red bordered label] / Type [round, red bordered label] / Teapa, Tabasco, Feb, H.H.S. / Sp. figured / B.C.A., VII, *Stenotarsus* [p] *smithi* Gorh. [h] (NHM).

Distribution. México: Tabasco (Fig. Y2).

***Stenotarsus spiropenis* sp. nov.**

(Figs. B6, E4, G4, I6, J5, L9, M11, N7, N11, N13, N15, N18, Q9, S4, U17–18, V1, Z1)

Diagnosis. It is most similar to *Stenotarsus rulfoi* sp. nov. sharing the widely truncate terminal labial palpomere (Fig. B6), pronotum with long longitudinal sulci (Figs. L7, L11), elytra with foveolate punctures arranged in longitudinal striae (Figs. M10, 12), mesoventral process with subtriangular figures (Fig. N13), and penis coiled. *Stenotarsus spiropenis* can be differentiated from *S. rulfoi* by having wider longitudinal sulci on pronotum (Fig. L11), larger foveolate punctures on anterior half of elytra (their diameter larger than 3 x than diameter of the setiferous punctures) (Fig. M12), and the antennae black with first three or four antennomeres ferruginous red or infusate.

Description of males. Body: 4.9–5.2 mm long, long oval (Fig. E4), moderately convex; 1.81–1.85 x as long as wide, 2.65–2.88 x as long as high. Wholly ferruginous red, except antennomeres 5–11 which are black, articles 3–4 may be gradually infusate. Densely covered with long, suberect, coppery setae.

Head: Clypeus transverse, about 2.2 x wider than long. Terminal labial palpomere broad, widely truncate at apex (Fig. B6). Interocular distance 0.66–0.67 x as wide as head including eyes. Antenna moderately long and rather stout (Fig. I6) 0.40 x as long as scape 1.3 x as long as wide, 1.3 x longer than pedicel; pedicel 1.1 x longer than wide; third antennomere 1.5 x as long as wide, 1.3 x as long as pedicel; fourth 1.4 x as long as wide, 1.2 x as long as pedicel; fifth 1.3 x as long as wide, 1.2 x as long as pedicel; sixth and seventh subequal to fifth; eighth 1.1 x as long as wide, 1.1 x longer than pedicel; antennal club about 0.36 x as long as total antennal length, with segments almost symmetrical to slightly asymmetrical; ninth antennomere symmetrical, widened apically, 0.9 x as long as wide, 1.5 x as long as pedicel; tenth slightly asymmetrical, strongly widened apically, 0.7 x as long as wide, 1.4 x as long as pedicel; terminal antennomere asymmetrical, short ovoid, widest near mid length, 1.1 x as long as wide, 2.4 x as long as pedicel.

Prothorax: Pronotum widest at base, moderately transverse (Fig. J5, L9), 1.85–1.90 x wider than long; 1.81–1.88 x wider at base than in front angles; 1.9–2.0 x wider than head. Sides subsinuate in basal half, then converging to front angles. Front angles strongly produced, acute, almost sharp at tip. Hind angles slightly acute. Anterior margin wide, not acuminate at middle. Lateral margins distinctly raised; wide, scarcely narrowing near base: width of margin at base less than 1/3 of the distance between basal pore and hind angle; area between marginal line and pronotal edge flat. Disc finely and closely punctate, weakly

convex. Longitudinal sulci distinctly long and deeply and widely excavated, weakly convergent. Basal pores moderately large, slightly curved, markedly oblique. Basal sulcus absent. Pronotal base almost rounded, flat to slightly emarginate over scutellum. Prosternal process narrow at base, scarcely widened posteriorly (Fig. N7); at apex slightly narrower than longitudinal procoxal diameter.

Pterothorax: Scutellum subpentagonal, rather small (Fig. N11), 1.40–1.45 x wider than long, 0.11 x as wide as pronotum. Elytra length 3.35–3.40 mm; 1.18–1.20 x longer than wide; 3.16–3.18 x longer and 1.38–1.42 x wider than pronotum; rather oblong, widest before basal third, weakly convergent in mid-length, then roundly convergent to the rounded apex. Foveolate punctures arranged in longitudinal striae, lacking in apical half, punctures comparatively large and deep, separated by one diameter (Fig. M11). Humerus prominent. Epipleuron moderately wide at base, about 0.85 x as wide as intermesocoxal process of metaventrite. Mesoventrite (Fig. N13) scarcely excavated in front; setose pores on sides moderately large; mesoventral process scarcely wider than longitudinal coxal diameter, with three subtriangular figures formed by carinae. Metaventrite weakly convex, without modifications on the anterior margin; with a pair of moderately large setose pores of approximately same diameter below each mesocoxa (Fig. N18). Metanepisternum with moderately large setose pore (Fig. N15).

Legs moderately long and slender (Fig. Q9). Trochanter simple. Meso and metafemur strongly widened at mid-length; unarmed; metafemur about as long as mesofemur, bearing moderately long decumbent setae. Meso and metatibia moderately slender; metatibia as long as metafemur, 0.33–0.35 x as long as elytra, gradually widened distally, linear, unarmed. Metatarsus 0.55–0.58 x as long as metatibia; second tarsomere produced and lobed, about 2.5 x as wide at apex as the fourth tarsomere at middle length.

Abdomen: Ventrite I as long as metaventrite and as ventrites II–V, with moderately coarse foveolate punctation, without protuberances. Ventrite V 2 x longer than IV, with apex briefly truncate. Ventrite VI rounded at apex. Tergite VIII truncate. Penis very slender, flattened, curved, and slightly twisted, width subequal along its length in ventral view (Figs. U17–18). Tegmen with moderately large submembranous tegminal plate (Fig. S4).

Description of females. Body: length 5.0–5.2 mm; 1.78–1.81 x as long as wide and 2.6 x as long as high. Antenna: 0.40–0.42 x as long as the body. Pronotum: 1.85–1.90 x wider than long; 1.85–1.88 x wider at base than in front angles; 2.24–2.27 x wider than head. Elytra: length 3.25–3.40 mm; 1.16–1.18 x longer than wide; 3.09–3.17 x longer and 1.37–1.46 x wider than pronotum. Metatibia: 0.33–0.35 x as long as elytra. Metatarsus: about 0.50–0.54 x as long as metatibia. Ovipositor with proctiger rounded, coxites wide, with terminal styli (Fig. V1).

Sexual dimorphism. No significant sexual dimorphism was found.

Variation. No significant variation was found.

Material examined. Types. Holotype, male: MEX: Casimiro Castillo, cam. a El Parotal, BTC, 700m, ex *Favolus brasii*. 14.VII.1999. J.L. Navarrete col. (CZUG); **Paratypes**: same data as holotype: (1 male, 2 females. CZUG); MÉXICO, Jalisco, Casimiro Castillo, BTS, 600 msnm, 19°3'47"N 104°43'46"W, ex *Auricularia delicata*, 06.VII.2007, col. H.E. Fierros–López (1 male, 1 female: CZUG; 1 male: MIZ); México: Jalisco, Villa Purificación, Camino San Miguel – Zapotán, 6 km. E. Zapotán, 17.IX.2010, BTSC pert. Tronco con hongos. E. Arriaga–Varela col (CZUG).

Distribution. México: Jalisco (Fig. Z1).

Etymology. Its name refers to the twisted or coiled shape of penis.

Habits and habitats. *Altitudinal range:* 600–700 m.a.s.l. *Vegetation:* subdeciduous and deciduous tropical forest. *Host fungi:* *Favolus tenuiculus* (Polyporales: Polyporaceae) (Fig. G4) and *Auricularia delicata* (Auriculariales: Auriculariaceae). *Period of collecting:* July and September.

***Stenotarsus thoracicus* Gorham**

(Figs. E5, F5, I7, L10, N8, Q10, U19–20, V13, Y3)

Stenotarsus thoracicus Gorham, 1890: 136; Blackwelder 1945: 440; Strohecker 1953: 57; Arriaga–Varela *et al.* 2007: 16; Shockley *et al.* 2009a: 85.

Diagnosis. This species resembles *S. globosus* and *S. rubrocinctus* due to its contrastly colored, rather short oval body (Fig. E5), pronotum with oblique, and reniform, basal foveae (Fig. L12.), and abdominal ventrite V scarcely longer than IV. *Stenotarsus thoracicus* can be distinguished by the shape of penis, which is slightly stouter and narrowing apically in ventral view (Fig. U19), the male metaventrite lacking a concavity near the anterior margin between mesocoxae, and male metafemur and metatibia unarmed (Fig. Q11).

Description of males. Body: 5.20–5.65 mm long, short oval, markedly convex (Fig. E5); 1.54–1.60 x as long as wide; 2.50–2.65 x as long as high. Contrastly colored: head orange–red, antenna wholly black or with antennomeres 1–7 red or gradually infusate; pronotum with a large subsemicircular to subtriangular black macula; hypomerion and prosternum orange red; scutellum orange–red to slightly infusate; elytra red, each elytron with a large, oval, black macula epipleura red; mesosternum orange red; mesepisternum, mesepimeron, metasternum and metanepisternum black, legs orange red to black; abdomen orange–red with base of first ventrite black (Fig. F5). Densely covered with long, suberect, golden setae; with black setae in the black parts of elytra and pronotum.

Head: Clypeus transverse 2.0–2.2 x wider than long. Terminal labial palpomere narrow, acuminate, narrowly truncate at apex. Interocular distance 0.63–0.65 x as wide as head including eyes. Antenna rather long and slender (Fig. I7), 0.45–0.50 x as long as body; scape 1.5 x as long as wide, 1.6 x longer than pedicel; pedicel 1.3 x longer than wide; third antennomere 1.4 x as long as wide, 1.2 x as long as pedicel; fourth 1.6 x as long as wide, 1.4 x as long as pedicel; fifth 1.7 x as long as wide, 1.5 x as long as pedicel; sixth and seventh subequal to fifth; eighth 1.4 x as long as wide, 1.4 x longer than pedicel; antennal club about 0.4 x as long as total antennal length, with segments almost symmetrical; ninth antennomere widened apically, 1 x as long as wide, 1.9 x as long as pedicel; tenth widened apically, as long as wide, 2 x as long as pedicel; terminal antennomere oblong, widest near middle, 1.5 x as long as wide, 3.4 x as long as pedicel.

Prothorax: Pronotum widest at base, strongly transverse (Fig. L10), 2.3–2.4 x wider than long; 2.0–2.1 x wider at base than in front angles; 2.25–2.35 x wider than head. Sides almost gradually rounded, less convergent in basal half. Front angles moderately produced, right–angled, briefly blunt at tip. Hind angles right–angled. Anterior margin narrow, slightly acuminate at middle. Lateral margins raised markedly wide, narrowing posteriorly: width of margin at base about 1/3 of

the distance between basal pore and hind angle; area between marginal line and pronotal edge flat. Disc moderately convex, finely and closely punctate. Longitudinal sulci slightly impressed, short, narrow and weakly curved. Basal pores moderately large, slightly curved, markedly oblique. Basal sulcus complete, almost lacking over scutellum. Pronotal base rounded. Prosternal process wide at base, widened posteriorly; at apex about as wide as longitudinal procoxal diameter (Fig. N8).

Pterothorax: Scutellum triangular, moderately large, 1.6–1.8 x wider than long, 0.15 x as wide as pronotum. Elytra length 3.4–4.0 mm; 1.0–1.1 x longer than wide; 3.6–3.7 x longer and 1.41–1.52 x wider than pronotum; markedly ovoid, widest at basal third, then roundly convergent to the moderately acuminate apex. Moderately densely punctate with foveolate punctures small and somewhat deep, separated by 2–5 diameters, being sparser and shallower at apex of elytra and near scutellum. Humerus moderately prominent. Epipleuron moderately wide at base, about 0.8–0.9 x as wide as the intermesocoxal process of metaventrite. Mesoventrite deeply excavated in front; setose pores small; mesoventral process scarcely wider than longitudinal coxal diameter, without inner carinae. Metaventrite moderately convex, without modifications on anterior margin; with a pair of small setose pores of approximately same diameter below each mesocoxa. Metanepisternum with setose pore small.

Legs moderately long and slender (Fig. Q10). Trochanter simple. Meso and metafemur moderately widened at mid-length; unarmed; metafemur about as long as mesofemur, bearing moderately long decumbent setae. Meso and metatibia moderately slender; metatibia as long as metafemur, 0.31–0.34 x as long as elytra, gradually widened distally, linear, unarmed. Metatarsus 0.56–0.6 x as long as metatibia; second tarsomere produced and lobed, about 3 x as wide at apex as fourth tarsomere at middle length.

Abdomen: Ventrite I slightly shorter than metaventrite and that ventrites II–V, with moderately coarse foveolate punctation, without protuberances. Ventrite V scarcely longer than IV, with apex truncate; ventrite VI rounded at apex. Tergite VIII truncate. Penis slender, curved, weakly widened at apical third, then narrowing toward apex, with a small apical crest in ventral view (Fig. U20); widened near apical third then distinctly narrowed in lateral view (Fig. U19). Tegmen with moderately large submembranous tegminal plate.

Description of females. Body: length 4.35–4.40 mm; 1.6 x as long as wide; 2.65–2.70 x as long as high. Antenna: 0.44 x as long as body. Pronotum: 2.2 x wider than long; 1.79–1.82 x wider at base than in front angles; 2.12 x wider than head. Elytra: length 2.85–2.89 mm; 1.03–1.05 x longer than wide; 3.2 x longer and 1.38–1.39 x wider than pronotum. Metatibia: 0.30 x longer than elytra. Metatarsus: about 0.58 x as long as metatibia. Ovipositor with proctiger rounded, coxites moderately wide, without styli (Fig. V13).

Sexual dimorphism. Females have proportionally shorter antennae and longer elytra.

Variation. Darker specimens have antennae and pronotum completely black.

Material examined. Types. Lectotype (present designation), male: Syntype [round, blue bordered label] / Type H.T. [round, red bordered label] / Tuxpam, Mexico, Salle coll. / 2196 / B.C.A., VII, *Stenotarsus* [p] *thoracicus* Gorh. [h] / *Stenotarus thoracicus* Guer, Apud Sallé / *Stenotarsus. thoracicus* Guer (type) Tuxpam (NHM). Paralectotype male of *Stenotarsus tarsalis* Gorham: Syntype

[round, blue bordered label] / Type / Type [round, red bordered label] / Jalapa, Mexico, Hoege / *S. tarsalis* Gorham [h] / B.C.A., VII, *Stenotarsus* [p] *tarsalis* Gorh. [h] / (NHM); Paralectotype female of *Stenotarsus tarsalis* Gorham (See remarks under description of *S. globosus* Guérin–Méneville): Syntype [round, blue bordered label] / Jalapa, Mexico, Hoëge / B.C.A., VII, *Stenotarsus* [p] *tarsalis* Gorh. [h] (NHM).

Other material. México: Hidalgo, carr. a Chapulhuacán, delante de Palomas, 1499m., bosque mesófilo de montaña pert., N 21°5'28.1" W 99°1'15.2", troncos podridos, I–VII–2003, J. Asiain, J. Canales y J. Márquez (2 males: UAEH); Tlapacoyan, Ver., 18–IV–1946, 800m, C. Bolívar (2 males: ENCB); *Stenotarsus thoracicus* Gorham, det. H.F. Strohecker (1 male: MNB); J / Mexico, coll. J. Flohr (1 female: MNB); Cerr [h] / Mexico, coll. J. Flohr / smithi Gor / *Stenotarsus thoracicus* Gorham, det. H.F. Strohecker (1 female: MNB); Jalapa 6 / Mexico, coll. J. Flohr / *Stenotarsus tarsalis* (1 female: MNB).

Distribution. México: Hidalgo, Veracruz (Fig. Y3).

Habits and Habitats. *Altitudinal range:* 1?–1499 m.a.s.l. *Vegetation:* cloud forest. *Habitat:* rotten logs. *Period of collecting:* April and July.

Remarks. Females of this species are hard to distinguish from those of *S. globosus* and *S. rubrocinctus*. The main differences to distinguish it in the absence of males are: body slightly shorter (1.6 x as long as wide), pronotum with smaller basal pores (Fig. K4, L6, L12), and wider prosternal process (Fig. N8).

Two members of the type series of *S. tarsalis*, a male and a female, on which Gorham (1890) based his description (here synonymized under *S. globosus* Guérin–Méneville) belong to *S. thoracicus*.

Conclusions

Our results demonstrate that the diversity of *Stenotarsus* in México and northern Central America was considerably underestimated. The most complete taxonomic treatment of this genus from this area (Gorham 1890) and its subsequent addition (Arrow 1920) were inadequate as taxonomic references, as suggested by Roubik & Skelley (2001). The number of species previously recorded from the area was 21 (Shockley 2009a). In the present paper, five of these are synonymized; the presence of one (*S. validicornis* Gerstaecker) was not corroborated, and 12 new species are described, leaving the count in 27. Of the three countries investigated, México stands as the most diverse with 23 species. In Guatemala there are 14, while in Belize there is only one species presently known.

Characters used in the past to describe species were insufficient to assess the morphological diversity of the genus, and were treated rather unsystematically. In this work we found that various features previously overlooked are very informative in species segregation and possibly in the formation of species groups. Such characters are, among others: shape of terminal labial palpomere, shape and size of pronotal basal pore, shape and width of prosternal process, width of epipleura, shape of scutellum, size and number of setose pores of metaventricle, apical width of second tarsomere, shape of tergite VIII, and various aspects of genitalia of both sexes, more remarkably the presence or absence of styli in gonocoxites. At the same time, characters used more traditionally like the shape

and proportion of antennomeres, width of lateral margins of pronotum, shape and size of legs, and shape of penis, have reasserted their importance in species segregation.

Our study also strongly suggests that populations of *Stenotarsus* species can vary in body coloration. Therefore, when faced with entities that differed only in color pattern and in some morphological proportions, we decided against describing new species. Furthermore, we synonymized some species that were previously described based on such characters.

Some of these populations have an allopatric distribution and could have received the status of subspecies under other species concepts. However, according to present knowledge, we preferred to treat them as color variations, which additional specimens could reveal are part of a cline. Additional lines of evidence, such morphological, molecular, geographical and biological, are needed to shed more light on the nature of these populations.

The composition of the *Stenotarsus* fauna from México, Guatemala and Belize is clearly differentiated from that known from southern Central America: Costa Rica and Panama. Both regions share only three species: *S. guatemalae* Arrow, *S. lemniscatus* Gorham and *S. ovalis* Arrow. A preliminary observation of the specimens from Costa Rica and Panama deposited in just a few collections (e.g. INBIO and NMNH) suggests that the diversity of this area is also greatly underestimated. A revision of the *Stenotarsus* from this area will probably result in an increase of the known diversity in a rate similar to the present work or greater. Unfortunately, as is the case Belize, almost nothing is known from the intermediate countries: El Salvador, Honduras and Nicaragua. Only one species, *S. lemniscatus*, which is reported here for the first time from Honduras, is known from these countries.

Even in the absence of a phylogenetic hypothesis for *Stenotarsus* we can infer the species treated do not form a monophyletic group. Most of the members from our region are probably most closely related to the species from other areas of the Neotropics, especially in Costa Rica and Panamá. However, as the fauna of these countries still needs revision, we have abstained from proposing species groups, which undoubtedly would have been artificial and incomplete. Such grouping proposals should only be attempted after a comprehensive revision and phylogenetic analysis of *Stenotarsus* species.

The most outstanding morphological discontinuity among the species treated here is found between *S. rulfoi* and *S. spiropenis* spp. nov. and the rest of species. These two basic groups differ considerably in many morphological aspects like the shape of terminal labial palpomere, the length of longitudinal sulci of pronotum, the linear arrangement of foveolate punctures on elytra, the carinate surface of the mesoventrite, the surface of metaventrite, and the presence of terminal styli on gonocoxites. The only species in the new world that show similar features to *S. rulfoi* and *S. spiropenis* are *S. nigrivestis* Shockley (2007) and one undescribed species from Costa Rica. These neotropical species with punctures arranged in striae could be more related to palaeotropical members of *Stenotarsus*. However, the presence of styli on gonocoxites, a character that could be crucial in the supraspecific classification, has not been investigated in most species of *Stenotarsus* and allied genera. A thorough phylogenetic analysis of *Stenotarsus* is pending. That study will include *Stenotarsus* species from all regions, as well as

members of putatively related genera, like *Chondria* and *Ectomychus*, in order to test the monophyly of *Stenotarsus*.

Future works on this fauna should include the study of specimens deposited in many more collections worldwide. This surely would result in the discovery of many more unknown species. Also, study of the type material of *Stenotarsus orbicularis* Gerstaecker is needed to determine the status of *S. ovalis* Arrow, which has been suggested to be a junior synonym of the former species (Roubik & Skelley 2001). At the same time, an increase in collecting effort is required. There is a tremendous need for entomological collecting in practically all regions of the Neotropics, especially considering the anthropogenic pressures on species with preferences for habitats such as cloud and rain forests. In order to make a real advance in the knowledge of this group the collecting effort should not only focus on unexplored territories but also in rarely explored habitats, such as the forest canopy and leaf litter.

Acknowledgements. This work would have been impossible without the kind collaboration of the curators of the entomological collections whose material was studied: Maxwell Barclay and Roger Booth (NHM), Bernd Jaeger (MNB), Dominika Mierzwa (MIZ), Roxana Acosta Gutiérrez and Juan José Morrone Lupi (MZFC), Socorro Cuevas Correa (ENCB), Leonardo Delgado Castillo (IEXA), Juan Márquez Luna (CC-UAEH), Ángel Solís (INBIO) Azadeh Tagavian (MNHN) and Natalia Vandenberg (NMNH).

Cisteil Pérez Hernández, Hugo Eduardo Fierros López and Jesús Cortés Aguilar are acknowledged for providing information on the habitats and habits of *Stenotarsus* species. Thanks go to Ismael Novo Leyva and his family for providing access to his property where the specimens of *Stenotarsus cortesi* sp. nov. were collected. Photographs (Figs. G1, G3–4) of *Stenotarsus* spp. on its habitat were taken by Jesús Cortés Aguilar, we appreciate the permission for its reproduction. Susana Guzmán Gómez of the Unidad de Informática para la Biodiversidad (UNIBIO) of the Instituto de Biología (UNAM) is acknowledged for providing technical assistance with the photographs taken with the Leica Z16 APO A microscope. Margarita Reyes Salas and Fernando Ortega Gutiérrez, Instituto de Geología (UNAM) are acknowledged for the assistance with the scanning electron microscope photographs. Enio Cano provided information on the location of Guatemalan localities.

Floyd W. Shockley (NMNH) is greatly acknowledged for providing important literature compiled through a project of the Department of Entomology of the University of Georgia.

The first author (EAV) wants to thank the members of his master's degree committee: Atilano Contreras-Ramos and Juan José Morrone Lupi, for the support and guidance through the development of this review. Paul Skelley made valuable and helpful suggestions to an early draft of the manuscript. The Instituto de Biología as well as the Coordinación del Posgrado en Ciencias Biológicas (UNAM) are acknowledged for their support for this research.

This work was possible thanks to the student scholarship 220329 given by CONACYT to the first author. This work is presented as a partial requirement for the obtainment of the Master in Biological Sciences degree by the first author (EAV).

References

- Arriaga–Varela, E., Tomaszewska, K.W. & Navarrete–Heredia J.L. (2007) A synopsis of the Endomychidae (Coleoptera: Cucujoidea) of México. *Zootaxa*, 1594, 1–38.
- Arrow, G.J. (1920) A contribution to the classification of the coleopterous family Endomychidae. *Transactions of the Entomological Society of London*, 1920 (1/2), 1–83, pl.1.
- Blackwelder, R.E. (1945) Checklist of the coleopterous insects of Mexico, Central America, The West Indies, and South America. *Bulletin of the United States National Museum*, 185, 435–550.
- Csiki, E. (1900) Coleoptera nova in collectione Musei Nationali Hungarici. *Természetráji Füzetek*, 23, 400–403.
- Denlinger, D.L. (1994) The beetle tree. *American Entomologist*, 40 (3), 168–171.
- Denlinger, D.L. (1996) Reply to O. Nedved's, "Beetle Tree the Second". *American Entomologist*, 42, 3.
- Eldredge, N., & Cracraft J. (1980) Phylogenetic patterns and the evolutionary process. Columbia University Press, New York, 349 pp.
- Erwin, T.L. & Erwin L.J.M. (1976) Relationships of predaceous beetles to tropical forest decay. Part II. The natural history of neotropical *Eurycoleus macularis* Chevrolat (Carabidae: Lebiini) and its implications on evolution of ectoparasitoidism. *Biotropica*, 8, 215–224.
- Gerstaecker, A. (1858) Monographie der Endomychiden, einer Familie der Coleopteren. In: Gerstaecker A., *Entomographien. Abhandlungen in Bereich der Gliederthiere, mit besonderer Benutzung der Koenigl. Entomologischen Sammlung zu Berlin*. Erster Band. W. Engelmann, Leipzig, XIV + pp. 433, 3 pls.
- Guérin–Méneville, F.E. (1857) Matériaux pour une Monographie des Coléoptères du groupe des Eumorphides, et plus spécialement du genre *Eumorphus*. *Archives entomologiques*, 1, 237–280, 1 pl.
- Gorham, H.S. (1873) *A catalogue of the coleopterous group Endomychici. With descriptions of new species and notes*. Williams and Norgate, London, 64 pp.
- Gorham, H.S. (1890) Erotylidae, Endomychidae and Coccinelidae. *Biologia Centrali–Americana*. Insecta, Coleoptera, Vol. VII, 115–257.
- Instituto Nacional de Estadística Geografía e Informática (2002) Localidades de la Republica Mexicana 2000. Available from:

[Http://www.conabio.gob.mx/biotica/cms/index.php?option=com_content&task=view&id=5&Itemid=4](http://www.conabio.gob.mx/biotica/cms/index.php?option=com_content&task=view&id=5&Itemid=4) (acceded 1 June 2011).

Lawrence, J.F. & Newton Jr, A.F. (1995) Families and subfamilies of Coleoptera (with selected genera, notes, references and data on family–group names). In: Pakaluk, J. and S.A. Slipinski (Eds.) *Biology, phylogeny, and classification of Coleoptera: papers celebrating the 80th birthday of Roy A. Crowson*. Muzeum I Instytut Zoologii PAN, Warsaw. pp. 779–1006.

Lawrence, J.F., Beutel, R.G., Leschen, R.A.B. & Ślipiński, A. (2010) Glossary of morphological terms In: Leschen, R. A. B., Beutel, R. G. & Lawrence, J. F. (eds.), *Handbuch der Zoologie/Handbook of Zoology. Band/ Volume IV. Arthropoda: Insecta Teilband/Part 38. Coleoptera, Beetles. Volume 2. Morphology and Systematics (Polyphaga partim)*. W. DeGruyter, Berlin. pp. 9–20.

Laurent, P., Daloze, D., Braekman, J.C. & Pasteels J.M. (2005) Stenotarsol, a new terpenoid from *Stenotarsus subtilis* (Coleoptera: Endomychidae). *Tetrahedron Letters*, 46, 931–932.

McHugh, J.V. & Pakaluk J. (1997) Review of the larval stages of Epipocinae (Insecta, Coleoptera, Endomychidae). *Annales Zoologici*, 47(1/2), 59–77.

Navarrete–Heredia, J.L., Arriaga–Varela E., González–Hernández, A.L., López Velázquez, R., Cortés–Aguilar, J. (2008) *Guía de Artrópodos de Arcediano*. Comisión Estatal del Agua de Jalisco. México D. F. 174 pp.

Nedved, O. (1996) Beetle tree the second. *American Entomologist*, 42, 3.

Nedved, O. & Windsor, D. (1994a). Supercooling ability, fat and water contents in a diapausing tropical beetle, *Stenotarsus rotundus* (Coleoptera: Endomychidae). *European Journal of Entomology*, 91, 307–312.

Nedved, O. & Windsor, D (1994b) Allometry in sexual dimorphism of *Stenotarsus rotundus* Arrow (Coleoptera: Endomychidae). *The Coleopterists Bulletin*, 48, 51–59.

Nelson, G., & Platnick, N. (1981) Systematics and biogeography. Cladistics and vicariance. Columbia University Press, New york, 567 pp.

Nixon, K.C. & Wheeler, Q.D. (1990) An amplification of the phylogenetic species concept. *Cladistics*, 6: 211–223.

Pakaluk, J., Ślipiński, S.A., & Lawrence, J.F. (1994) Current classification and family–group names in Cucujoidea (Coleoptera). *Genus*, 5, 223–268.

Perty, J.A.M. (1832) Fasc. 2. In: *Delectus animalium articulatum, quae in itinere per Brasiliam annis MDCCCVII–MDCCCXX jussu et auspiciis Maximiliani Josephi I. Bavariae Regis augustissimi peracto collegerunt Dr. J.B. de Spix et De C.F. Ph. Martius. Accedit dissertatio de insectorum in America meridionali habitantium vitae*,

genere, moribus et distributione geographica. J.A.M. Perty. Monachii, impenis editoris, pp. 61–124, pls 13–24.

Roubik, D.W. & Skelley P.E. (2001) *Stenotarsus subtilis* Arrow, the aggregating fungus beetle of Barro Colorado Island Nature Monument, Panama (Coleoptera, Endomychidae). *The Coleopterists Bulletin*, 55(3), 249–263.

Selander, R.B. & Vaurie P. (1962) A Gazetteer to accompany the “Insecta” Volumes of the “Biologia Centrali–Americana”. *American Museum Novitates*, 2099, 1–70.

Shockley, F.W. (2007) *Stenotarsus nigrivestis*, a new species of Endomychidae (Coleoptera: Cucujoidea) from the Dominican Republic. *The Coleopterists Bulletin*, 61, 479–486.

Shockley, F.W., Tomaszewska K.W., & McHugh, J.V. (2009a) An annotated checklist of the handsome fungus beetles of the world (Coleoptera: Cucujoidea: Endomychidae). *Zootaxa* 1999, 1–113.

Shockley, F.W., Tomaszewska K.W., & McHugh, J.V. (2009b) Review of the natural history of the Handsome Fungus Beetles (Coleoptera: Cucujoidea: Endomychidae). *Insecta Mundi* 0072: 1–24.

Ślipiński, A. & Pakaluk, J. (1992) Problems in the classification of the Cerylonid series of Cucujoidea (Coleoptera). *In*: M. Zunino, X. Belles, M. Blas, (eds.). *Advances in Coleopterology*. European Association of Coleopterology, Barcelona, pp. 79–88.

Strohecker, H.F. (1953) *Coleoptera Fam. Endomychidae*. *In*: Wytzman P. (ed.), *Genera Insectorum*, Volume number?. Desmet–Verneuil, Brussels, 140 pp.

Strohecker, H.F. (1957) New species of endomychidae (Coleoptera) in the collections of the Hungarian National Museum and other institutions. *Annales Historico–Naturales Musei Nationa Nationalis Hungarici*, 8, 259–283

Strohecker, H.F. (1974) Two new *Stenotarsus* from India in Museum G. Frey (Col., Endomychidae). *Entomologische Arbeiten aus dem Museum Georg Frey*, 25, 136–138.

Strohecker, H.F. (1975). The genus *Ectomychus* in Africa (Coleoptera Endomychidae). *Revue Zoologique Africaine*, 89, 217–223.

Strohecker, H.F. (1978) The *Stenotarsinae* of New Guinea and Melanesia (Coleoptera: Endomychidae). *Pacific Insects*, 19, 145–164.

Strohecker, H.F. (1979) Additional records of New Caledonian *Stenotarsinae* (Coleoptera: Endomychidae), with descriptions of two new species of *Paniegenia*. *Pacific Insects*, 21, 221–223.

- Strohecker, H.F. (1983) Two new species of *Stenotarsus* from New Guinea (Coleoptera: Endomychidae). *Revue Suisse Zoologique*, 90, 559–561.
- Tanaka, S. (1986) Sexual dimorphism in *Stenotarsus rotundus* (Arrow) (Coleoptera: Endomychidae). *The Coleopterists Bulletin*, 40, 45–47.
- Tanaka, S. (2000) The role of moisture in the control of diapause, mating and aggregation in a tropical insect. *Entomological Science*, 3 (1), 147–155.
- Thomson, J. (1857) Description d'un genre nouveau de la famille des Eumorphides, et des plusieurs espèces qui rentrent dans cette division. *Archives Entomologique*, 1, 153–157.
- Tomaszewska, K.W. (2000) Morphology, phylogeny and classification of adult Endomychidae (Coleoptera, Cucujoidea). *Annales Zoologici*, 50(49), 449–558.
- Tomaszewska, K.W. (2010) Endomychidae Leach, 1815. In: Leschen, R. A. B., Beutel, R. G. & Lawrence, J. F. (eds.), *Handbuch der Zoologie/Handbook of Zoology. Band/Volume IV. Arthropoda: Insecta Teilband/Part 38. Coleoptera, Beetles. Volume 2. Morphology and Systematics (Polyphaga partim)*. W. DeGruyter, Berlin. pp. 442–454.
- Wolda, H., & D.L. Denlinger. (1984) Diapause in a large aggregation of a tropical beetle. *Ecological Entomology*, 9, 217–230.

CONCLUSIONES GENERALES

Previo a este trabajo 21 especies de *Stenotarsus* habían sido registradas en Itaxonomicazas aportaciones previas. Nuestros resultados demuestran que la diversidad del género *Stenotarsus* en México, Guatemala y Belice había sido considerablemente subestimada. El número de especies registradas para la zona disponibles para esta fauna (Gorham 1890; Arrow 1920) se encontraba en 21. En la presente contribución cinco de ellas fueron sinonimizadas, la presencia de una no fue corroborada y 12 especies nuevas se describen, dejando la cuenta en 27 especies. De los tres países estudiados, México es el que más especies registra, con 23. Guatemala tiene 14. Mientras que de Belice sólo se conoce una especie.

Los caracteres usados en el pasado para la descripción y diagnóstico específica eran insuficientes para evaluar la diversidad morfológica del género y fueron tratados de manera poco sistemática. En este trabajo encontramos que varios caracteres previamente ignorados son muy informativos en la segregación de especies y posiblemente en la formación de grupos de especies. Tales caracteres son principalmente: forma del artejo terminal de los palpos labiales, la mayoría de las especies de nuestra región, presentan el artejo apical acuminado. Mientras que en *S. rulfoi* y *S. spiropenis*, es truncado, forma y tamaño de los poros basales del pronoto, forma y tamaño del proceso prosternal, anchura de la epipleura elitral en la base, forma del escutelo, número y tamaño de los poros setosos del metaventrículo, ancho apical del segundo tarsómero, forma del terguito VIII, y varios aspectos de la genitalia en ambos sexos, más destacadamente la presencia de estiletes terminales en los gonocoxitos del ovopositor. A su vez, los caracteres más usados tradicionalmente, como la forma y proporción de los antenómeros, los márgenes laterales del pronoto, forma de las patas y del pene han reafirmado su peso en la determinación específica. Futuros trabajos descriptivos sobre las especies de *Stenotarsus* deben de refrendar el peso de tales caracteres y proponer otros no tratados aquí.

Este estudio sugiere también que las especies de *Stenotarsus* pueden presentar una notable variación en el padrón de coloración entre poblaciones. Por lo tanto, aun teniendo varias entidades que difieren solamente en el patrón de coloración, y en ocasiones ligeramente en proporciones morfológicas, no se consideraron especies separadas con base en estas diferencias, en la espera de más evidencia. Paralelamente, las especies que habían sido descritas previamente con base en estos caracteres fueron sinonimizadas. Algunas de estas poblaciones muestran una distribución alopátrida y hubieran podido recibir el status de subespecies bajo un concepto de especie tradicional. Sin embargo, de acuerdo a nuestro conocimiento actual se decidió tratar a estas poblaciones como variaciones de color, las cuales podrán demostrar ser parte de una clina según se tenga acceso a más especímenes. Evidencia adicional de naturaleza diversa, como lo es morfológica, molecular, geográfica o de su historia natural, es necesaria para arrojar luz sobre el status de estas poblaciones.

La composición de la fauna de *Stenotarsus* de la zona parece estar claramente diferenciada de la del sur de América Central: Costa Rica y Panamá. Ambas regiones comparten sólo tres especies: *S. guatemalae* Arrow, *S. lemniscatus* Gorham and *S. ovalis* Arrow. Una observación preliminar del material de estos países depositado en unas cuantas colecciones entomológicas (e. g.

INBIO and NMNH) sugiere que su diversidad está altamente subestimada. La revisión de la fauna de estos países sin duda representará un incremento en el número de especies registradas en una tasa similar o mayor a la del presente trabajo. Desafortunadamente, como es el caso de Belice, es muy poco lo que se conoce de este grupo de los países intermedios de América Central: El Salvador, Honduras and Nicaragua. Sólo una especie se conoce de estos países: *S. lemniscatus*, la cual se registra de Honduras por primera vez aquí.

Aún en la ausencia de hipótesis filogenética alguna sobre las especies de *Stenotarsus* podemos inferir que la fauna de la presente zona dista mucho de formar un grupo monofilético. La mayoría de los miembros de la región están probablemente más emparentados con especies de otras áreas del trópico del nuevo mundo. Sin embargo, ante la carencia de una revisión de la fauna neotropical de *Stenotarsus*, no se proponen formalmente aquí grupos de especies. Aun así, preliminarmente se pueden señalar ciertas afinidades entre algunas especies que sugieren la existencia de agrupaciones. *Stenotarsus cortesí*, *S. mesoamericanus* y *S. parallelicornis* spp. nov. forman un grupo caracterizado por la estructura antenal, con una clava muy larga y de artejos poco ensanchados. Varias especies afines a estas se distribuyen en el resto de América Central y del Sur (e.g. *S. claviger* Gerstaecker y *S. validicornis* Gerstaecker). *Stenotarsus latipes* y *S. molgorai* son muy similares, por lo que sin duda podrían ser parte de un grupo específico, junto con una especie no descrita de Costa Rica. Otra de las putativas agrupaciones específicas más plausibles en nuestra región sería la conformada por *S. globosus*, *S. raramuri*, *S. rubrocinctus* y *S. shockleyi*, las cuales aparte de varios caracteres sexuales secundarios presentan un edeago similar.

Sin embargo, la discontinuidad morfológica más sobresaliente entre las especies tratadas aquí se encuentra entre *S. rulfoi* y *S. spiropenis* spp. nov. y el resto de especies. Estos dos grupos básicos difieren considerablemente en muchas características morfológicas como la forma del palpómero labial terminal, la longitud de los surcos pronotales, el arreglo lineal de los puntos foveolados de los élitros, la superficie carenada del mesoventrito y sobresalientemente la presencia de estiletos en los gonocoxitos del ovipositor. Las únicas otras especies del nuevo mundo que presentan tales caracteres son *S. nigrivestis* Shockley (2007) y una especie no descrita de Costa Rica. Estas especies neotropicales con élitros con puntuaciones ordenadas en estrías podrían ser más cercanas a especies paleotropicales que a el resto de la fauna de América. Desafortunadamente la presencia de estiletos en los gonocoxitos, un carácter que puede ser crucial en la clasificación supreespecífica, no ha sido estudiada en la mayoría de las especies de *Stenotarsus* y géneros afines. Un exhaustivo análisis filogenético de *Stenotarsus* es, por lo tanto, necesario. Tal estudio deberá de incluir especies de *Stenotarsus* de todas la regiones, así como miembros de los géneros putativamente cercanos, como *Chondria* y *Ectomychus*, con el propósito de descartar para o polifilia del género. Tal estudio deberá incluir la codificación de los caracteres incluidos en este trabajo, como lo son la forma de los palpos labiales, forma de los poros basales del pronoto, etc. Así mismo la inclusión de caracteres morfométricos y caracteres no analizados en el presente trabajo, como la espermateca del ovipositor, arrojarán luz sobre las relaciones de este género.

Futuros trabajos taxonómicos sobre *Stenotarsus* de estos países deberán de incluir el estudio de especímenes depositados en muchas otras colecciones entomológicas alrededor del mundo. Esto probablemente tendrá como resultado

el descubrimiento de más especies. Así mismo, es necesario estudiar los ejemplares tipo de *Stenotarsus orbicularis* Gerstaecker para determinar si *S. ovalis* Arrow es un sinónimo junior de esta, como se ha sugerido (Roubik & Skelley 2001). A la vez, se necesita un incremento en el esfuerzo de colecta. Aún existe un desconocimiento de la fauna de prácticamente todas las zonas del Neotrópico. La necesidad de conocer esta fauna es imperante, sobretodo debido a las presiones antropogénicas que sufren los hábitats preferidos de estos organismos, los bosques tropicales y el mesófilo de montaña. Con el objeto de hacer un verdadero avance en el entendimiento de estos grupos se necesita no sólo explorar nuevos territorios sino también microhábitats raramente muestreados como el dosel de los bosques y la hojarasca.

BIBLIOGRAFÍA

Arriaga–Varela, E., Tomaszewska, K.W. & Navarrete–Heredia J.L. (2007) A synopsis of the Endomychidae (Coleoptera: Cucujoidea) of México. *Zootaxa*, 1594, 1–38.

Arrow, G.J. (1920) A contribution to the classification of the coleopterous family Endomychidae. *Transactions of the Entomological Society of London*, 1920 (1/2), 1–83, pl.1.

Csiki, E. (1900) Coleoptera nova in collectione Musei Nationali Hungarici. *Természetráji Füzetek*, 23, 400–403.

Denlinger, D.L. (1994) The beetle tree. *American Entomologist*, 40 (3), 168–171.

Denlinger, D.L. (1996) Reply to O. Nedved's, "Beetle Tree the Second". *American Entomologist*, 42, 3.

Gerstaecker, A. (1858) Monographie der Endomychiden, einer Familie der Coleopteren. In: Gerstaecker A., *Entomographien. Abhandlungen in Bereich der Gliederthiere, mit besonderer Benutzung der Koenigl. Entomologischen Sammlung zu Berlin*. Erster Band. W. Engelmann, Leipzig, XIV + pp. 433, 3 pls.

Guérin–Méneville, F.E. (1857) Matériaux pour une Monographie des Coléoptères du groupe des Eumorphides, et plus spécialement du genre *Eumorphus*. *Archives entomologiques*, 1, 237–280, 1 pl.

Gorham, H.S. (1873) *A catalogue of the coleopterous group Endomychici. With descriptions of new species and notes*. Williams and Norgate, London, 64 pp.

Gorham, H.S. (1890) Erotylidae, Endomychidae and Coccinelidae. *Biologia Centrali–Americana*. Insecta, Coleoptera, Vol. VII, 115–257.

Lawrence, J.F. & Newton Jr, A.F. (1995) Families and subfamilies of Coleoptera (with selected genera, notes, references and data on family–group names). In: Pakaluk, J. and S.A. Slipinski (Eds.) *Biology, phylogeny, and classification of Coleoptera: papers celebrating the 80th birthday of Roy A. Crowson*. Muzeum I Instytut Zoologii PAN, Warsaw. pp. 779–1006.

Nedved, O. (1996) Beetle tree the second. *American Entomologist*, 42, 3.

Nedved, O. & Windsor, D. (1994a). Supercooling ability, fat and water contents in a diapausing tropical beetle, *Stenotarsus rotundus* (Coleoptera: Endomychidae). *European Journal of Entomology*, 91, 307–312.

Nedved, O. & Windsor, D (1994b) Allometry in sexual dimorphism of *Stenotarsus rotundus* Arrow (Coleoptera: Endomychidae). *The Coleopterists Bulletin*, 48, 51–59.

Pakaluk, J., Ślipiński, S.A., & Lawrence, J.F. (1994) Current classification and family–group names in Cucujoidea (Coleoptera). *Genus*, 5, 223–268.

Perty, J.A.M. (1832) Fasc. 2. In: *Delectus animalium articulorum, quae in itinere per Brasiliam annis MDCCCVII–MDCCCXX jussu et auspiciis Maximiliani Josephi I. Bavariae Regis augustissimi peracto collegerunt Dr. J.B. de Spix et De C.F. Ph. Martius. Accedit dissertatio de insectorum in America meridionali habitantium vitae, genere, moribus et distributione geographica*. J.A.M. Perty. Monachii, impensis editoris, pp. 61–124, pls 13–24.

Roubik, D.W. & Skelley P.E. (2001) *Stenotarsus subtilis* Arrow, the aggregating fungus beetle of Barro Colorado Island Nature Monument, Panama (Coleoptera, Endomychidae). *The Coleopterists Bulletin*, 55(3), 249–263.

Shockley, F.W. (2007) *Stenotarsus nigrivestis*, a new species of Endomychidae (Coleoptera: Cucujoidea) from the Dominican Republic. *The Coleopterists Bulletin*, 61, 479–486.

Shockley, F.W., Tomaszewska K.W., & McHugh, J.V. (2009a) An annotated checklist of the handsome fungus beetles of the world (Coleoptera: Cucujoidea: Endomychidae). *Zootaxa* 1999, 1–113.

Ślipiński, A. & Pakaluk, J. (1992) Problems in the classification of the Cerylonid series of Cucujoidea (Coleoptera). In: M. Zunino, X. Belles, M. Blas, (eds.). *Advances in Coleopterology*. European Association of Coleopterology, Barcelona, pp. 79–88.

Strohecker, H.F. (1953) *Coleoptera Fam. Endomychidae*. In: Wytzman P. (ed.), *Genera Insectorum*, Volume number?. Desmet–Verneuil, Brussels, 140 pp.

Strohecker, H.F. (1957) New species of endomychidae (Coleoptera) in the collections of the Hungarian National Museum and other institutions. *Annales Historico–Naturales Musei Nationa Nationalis Hungarici*, 8, 259–283

Strohecker, H.F. (1974) Two new *Stenotarsus* from India in Museum G. Frey (Col., Endomychidae). *Entomologische Arbeiten aus dem Museum Georg Frey*, 25, 136–138.

Strohecker, H.F. (1979) Additional records of New Caledonian Stenotarsinae (Coleoptera: Endomychidae), with descriptions of two new species of *Paniegena*. *Pacific Insects*, 21, 221–223.

Tanaka, S. (1986) Sexual dimorphism in *Stenotarsus rotundus* (Arrow) (Coleoptera: Endomychidae). *The Coleopterists Bulletin*, 40, 45–47.

Tomaszewska, K.W. (2000) Morphology, phylogeny and classification of adult Endomychidae (Coleoptera, Cucujoidea). *Annales Zoologici*, 50(49), 449–558.

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FIGURAS

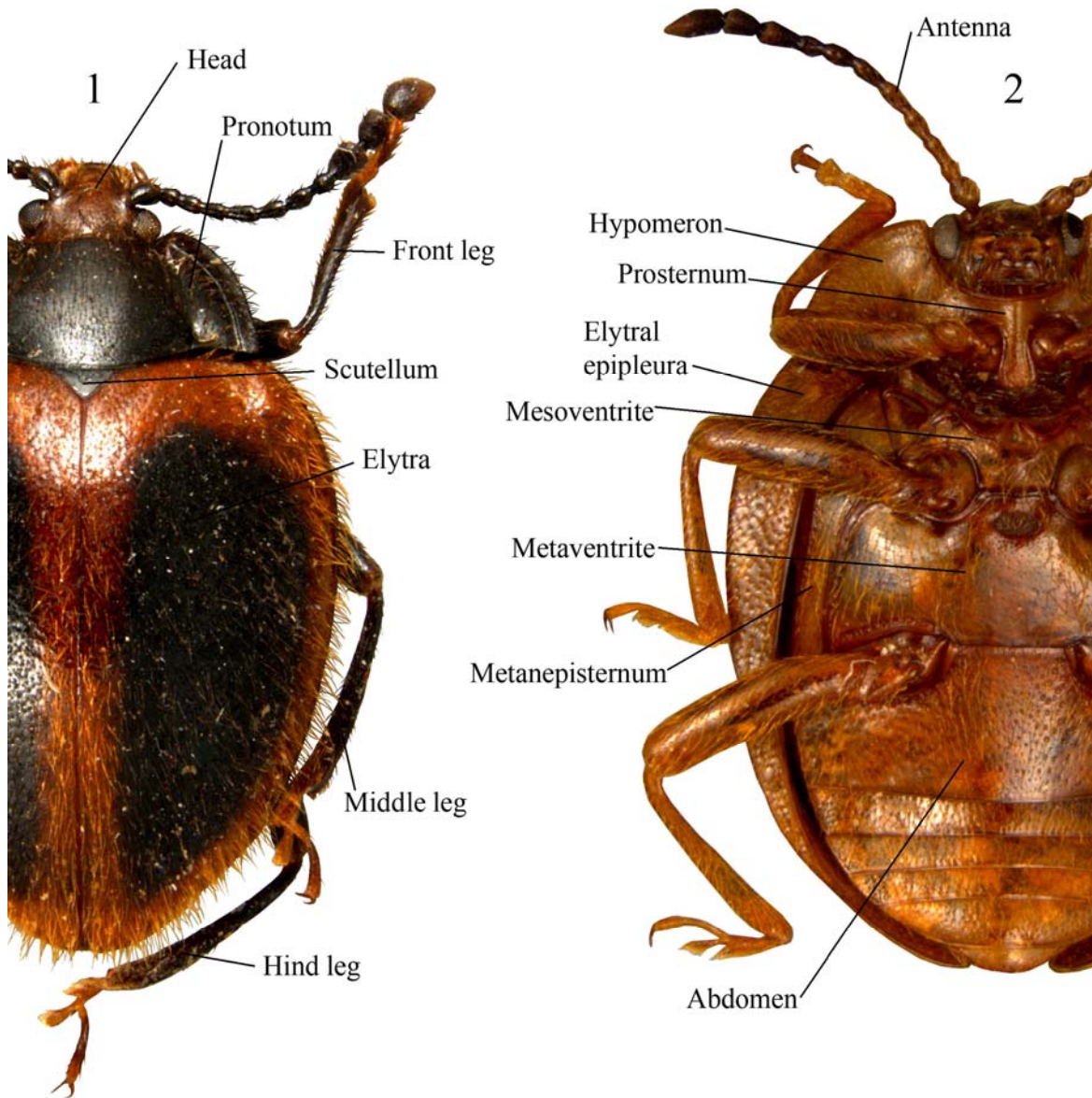


Figura A. Morfología general de las especies de *Stenotarsus*. 1. *S. globosus* macho en vista dorsal. 2. *S. ovalis* macho en vista ventral.

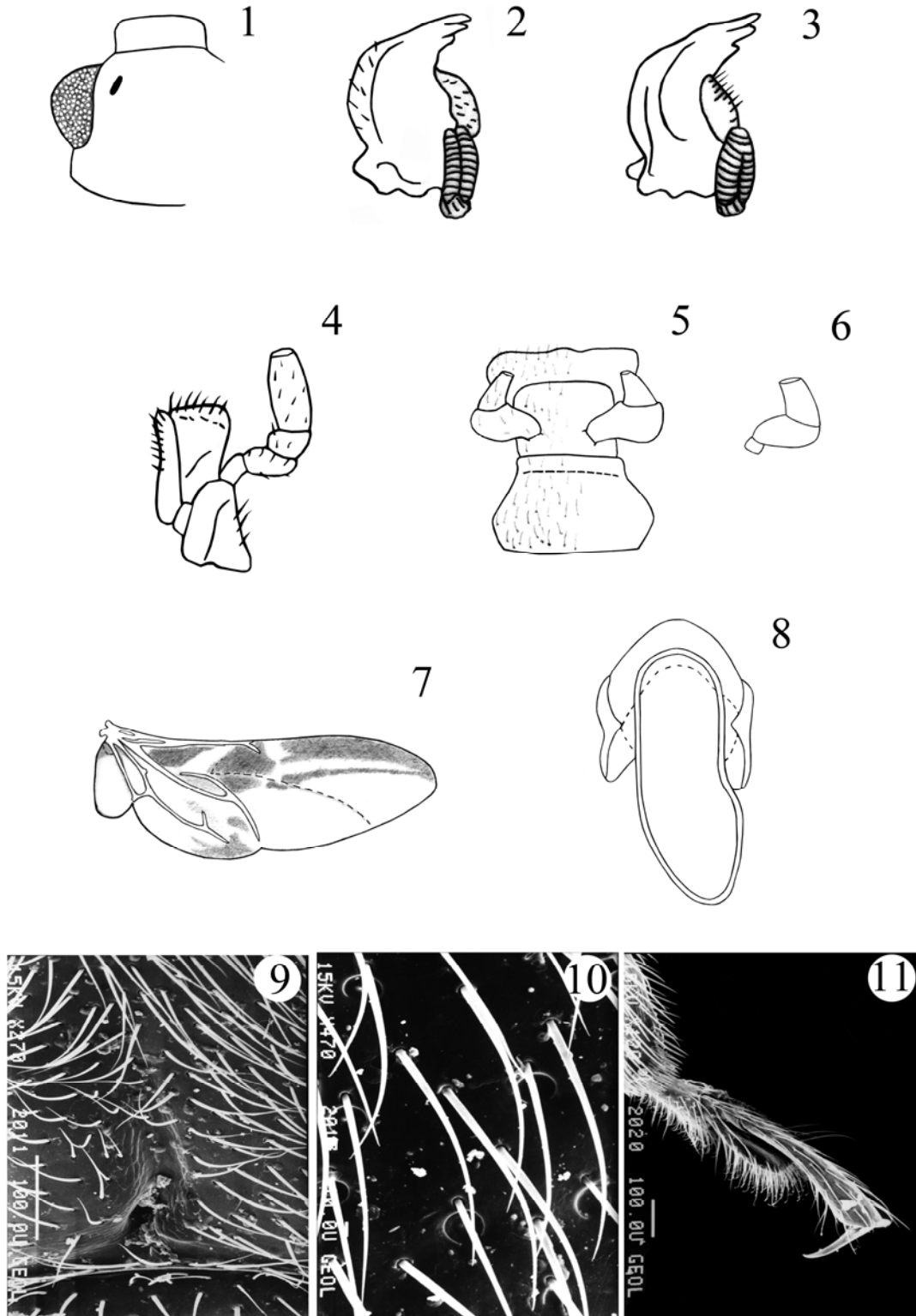


Figura B. Morfología general de las especies de *Stenotarsus*. 1–5, 7–11. *S. latipes*. 6. *S. spiropenis*. 1. Cabeza 2. Mandíbula en vista dorsal. 3. Mandíbula en vista ventral. 4. Maxila. 5. Labio. 6. Palpo labial. 7. Ala metatorácica. 8. Segmento abdominal IX en vista ventral. 9. Fóvea basal del pronoto. 10. Superficie dorsal del élitro. 11. Metatarso.

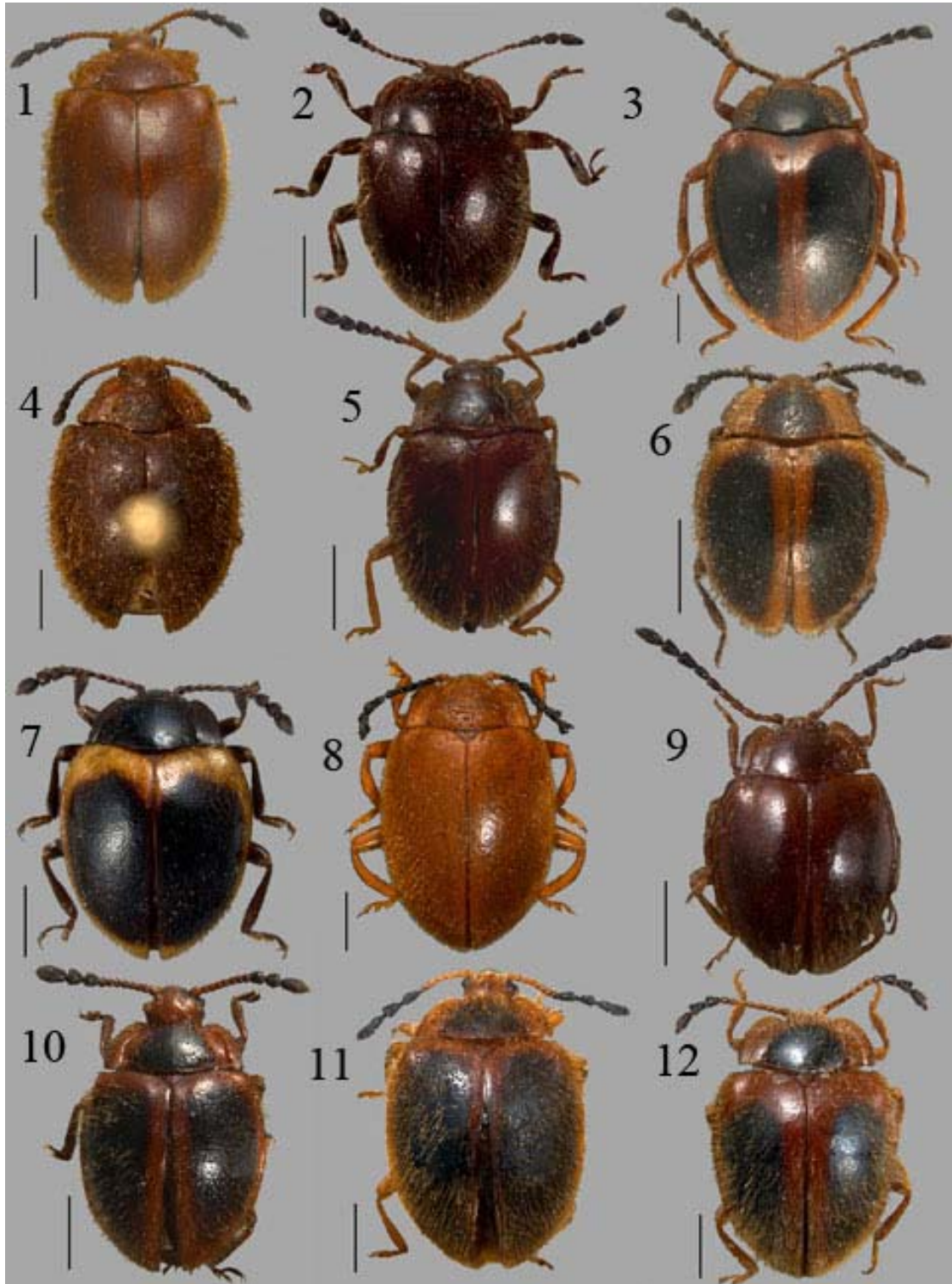


Figura C. Vista dorsal de *Stenotarsus* spp. Línea de escala: un milímetro. 1. *S. cortesi*. 2. *S. exiguus*. 3–4. *S. globosus*. 5. *S. guatemalae*. 6. *S. incisus*. 7. *S. kaffai*. 8. *S. latipes*. 9. *S. lemniscatus*. 10. *S. marginalis*. 11. *S. mesoamericanus*. 12. *S. mexicanus*.

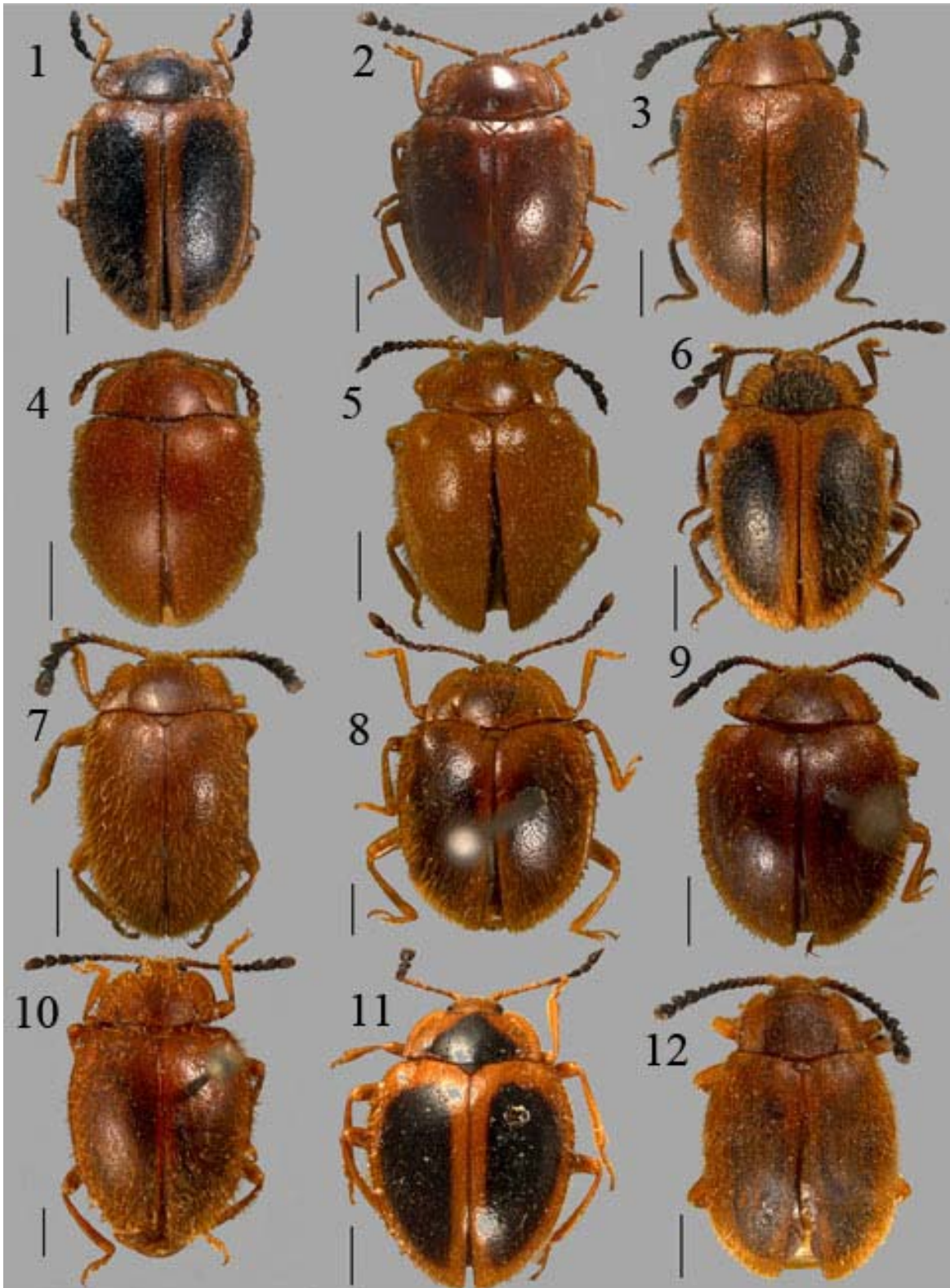


Figura D. Vista dorsal de *Stenotarsus* spp. Línea de escala: un milímetro. 1–2. *S. militaris*. 3. *S. molgorae*. 4. *S. monterrosoi*. 5. *S. nigricans*. 6–7. *S. oblongulus*. 8. *S. ovalis*. 9. *S. parallelicornis*. 10. *S. raramurii*. 11. *S. rubrocinctus* 12. *S. rulfoi*.



Figura E. Vista dorsal de *Stenotarsus* spp. Línea de escala: un milímetro. 1. *S. sallaei*. 2. *S. shockleyi*. 3. *S. smithi*. 4. *S. spiropenis*. 5. *S. thoracicus*.



Figura F. 1–6. Vista ventral de *Stenotarsus* spp. Línea de escala: un milímetro. 6–7. Vista lateral de *Stenotarsus* spp. 1. *S. guatemalae*. 2. *S. karkai*. 3. *S. nigricans*. 4. *S. militaris*. 5. *S. thoracicus*. 6. *S. incisus*. 7. *S. oblongulus*.



Figura G. Habitos de *Stenotarsus* spp. 1. Pupa de *S. cortesi* sp. nov. En un tonco en descomposición. 2. Pareja de *S. latipes* Arrow sobre un tronco en descomposición infestado con *Stereum ostrea*. 3. Ejemplares de *S. latipes* y *S. molgorae* sp. nov. alimentándose de un esporóforo de *Lactarius* sp. 4. *S. spiropenis* sp. nov. alimentándose de un esporóforo de *Polyporus tenuicollis*.

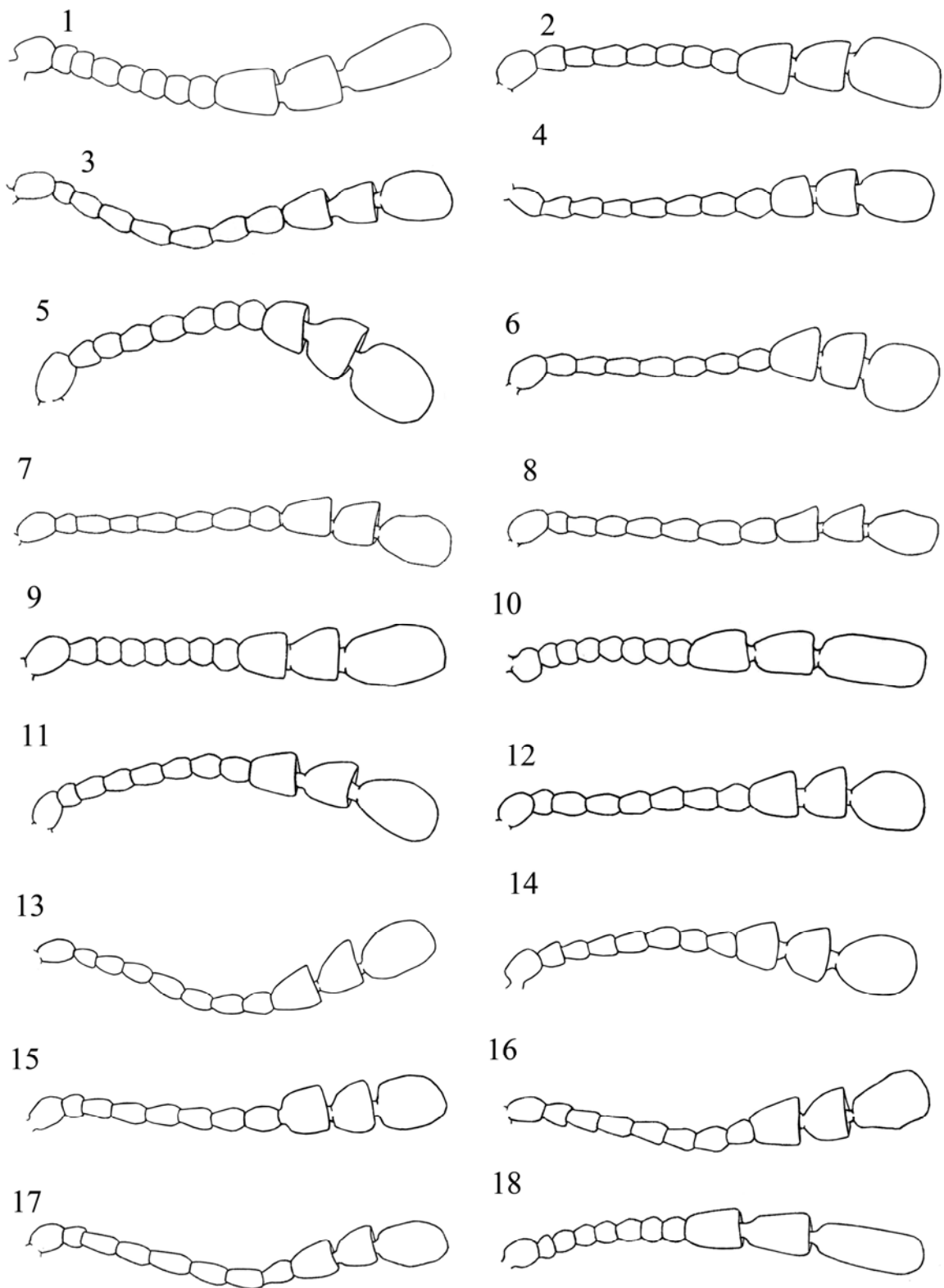


Figura H. Antenas de *Stenotarsus* spp. 1. *S. cortesi*. 2. *S. exiguus*. 3. *S. globosus*, *S. rubrocinctus*. 4. *S. guatemalae*. 5. *S. incisus*. 6. *S. karkai*. 7. *S. latipes*. 8. *S. lemniscatus*. 9. *S. marginalis*. 10. *S. mesoamericanus* 11. *S. mexicanus*. 12. *S. militaris*. 13. *S. molgorae*. 14. *S. monterrosoi*. 15. *S. nigricans*. 16. *S. oblongulus*. 17. *S. ovalis*. 18. *S. parallelicornis*.

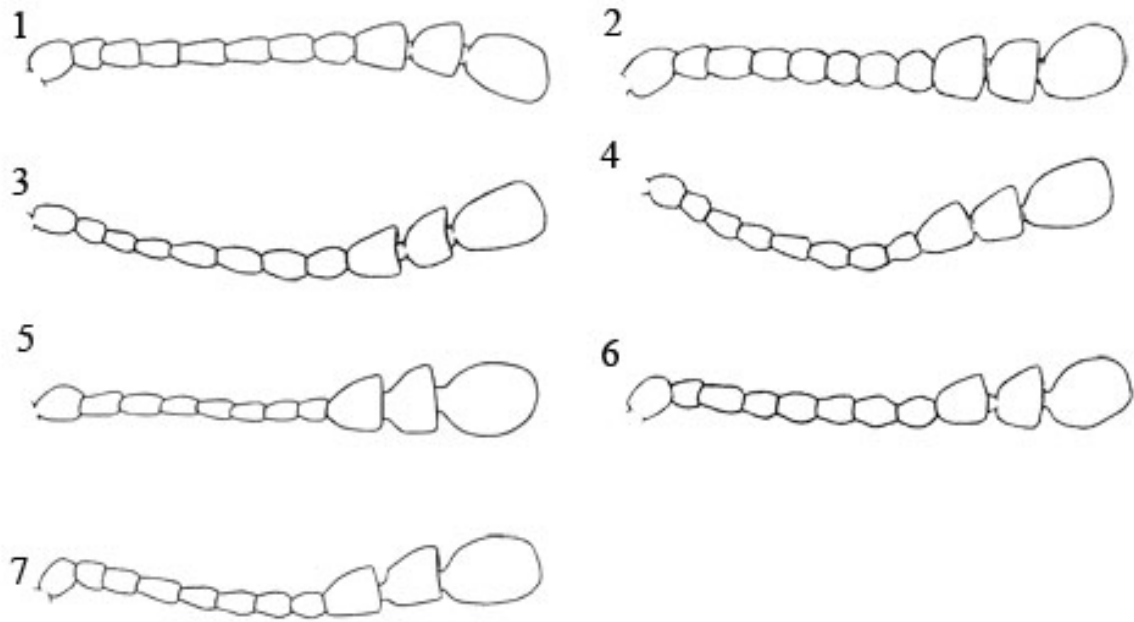


Figura I. Antenas de *Stenotarsus* spp. 1. *S. raramuri*. 2. *S. rulfoi*. 3. *S. sallaei*. 4. *S. shockleyi*. 5. *S. smithi*. 6. *S. spiopenis*. 7. *S. thoracicus*.

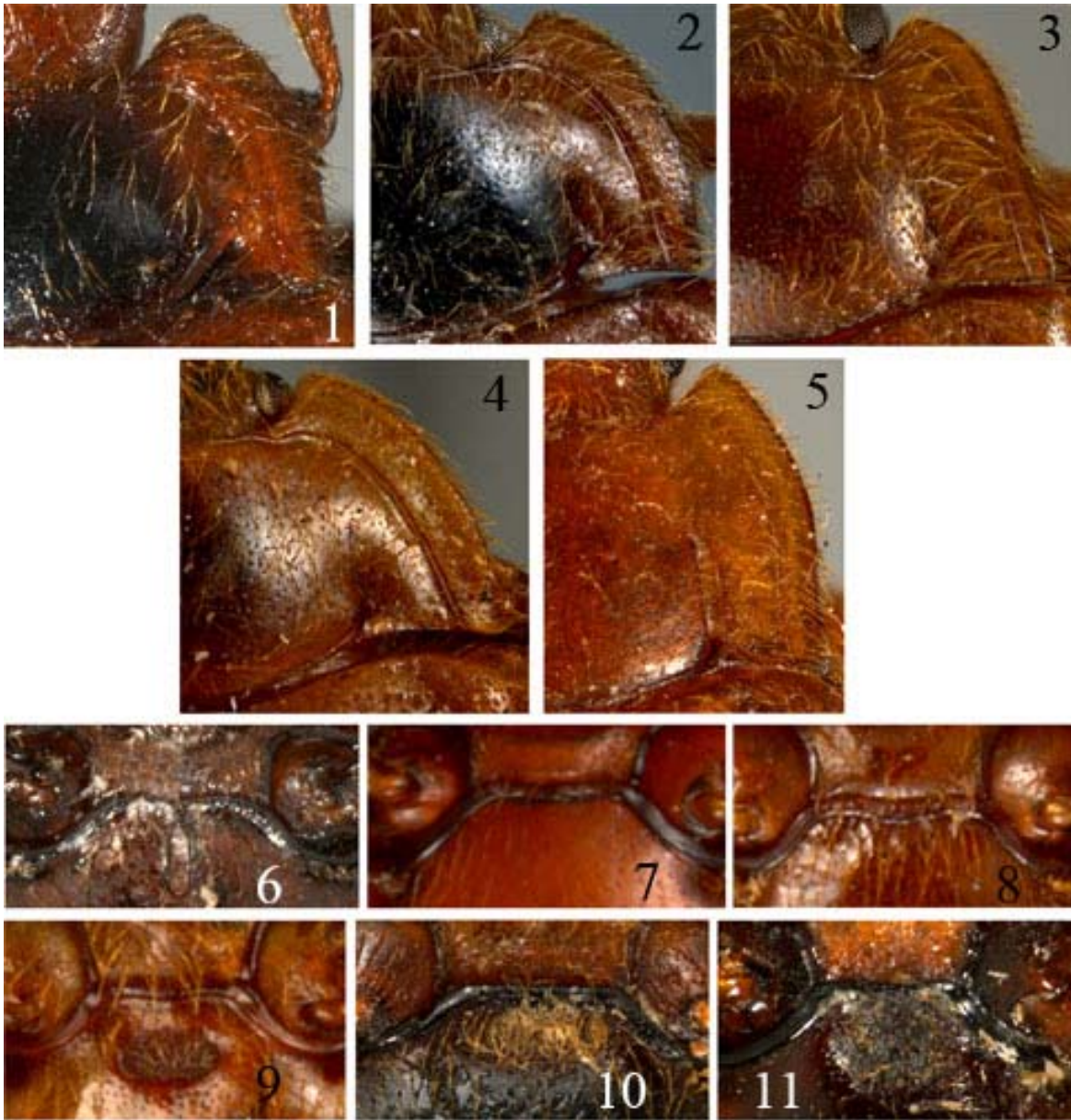


Figura J. 1–5. Pronoto de *Stenotarsus* spp. 6–11. Proceso intercoxal de *Stenotarsus* spp. 1. *S. marginalis*. 2. *S. mexicanus*. 3. *S. oblongulus*. 4. *S. ovalis*. 5. *S. spiropenis*. 6. *S. incisus*. 7. *S. monterrosoi*. 8. *S. oblongulus*. 9. *S. ovalis*. 10. *S. rubrocinctus*. 11. *S. shockleyi*.

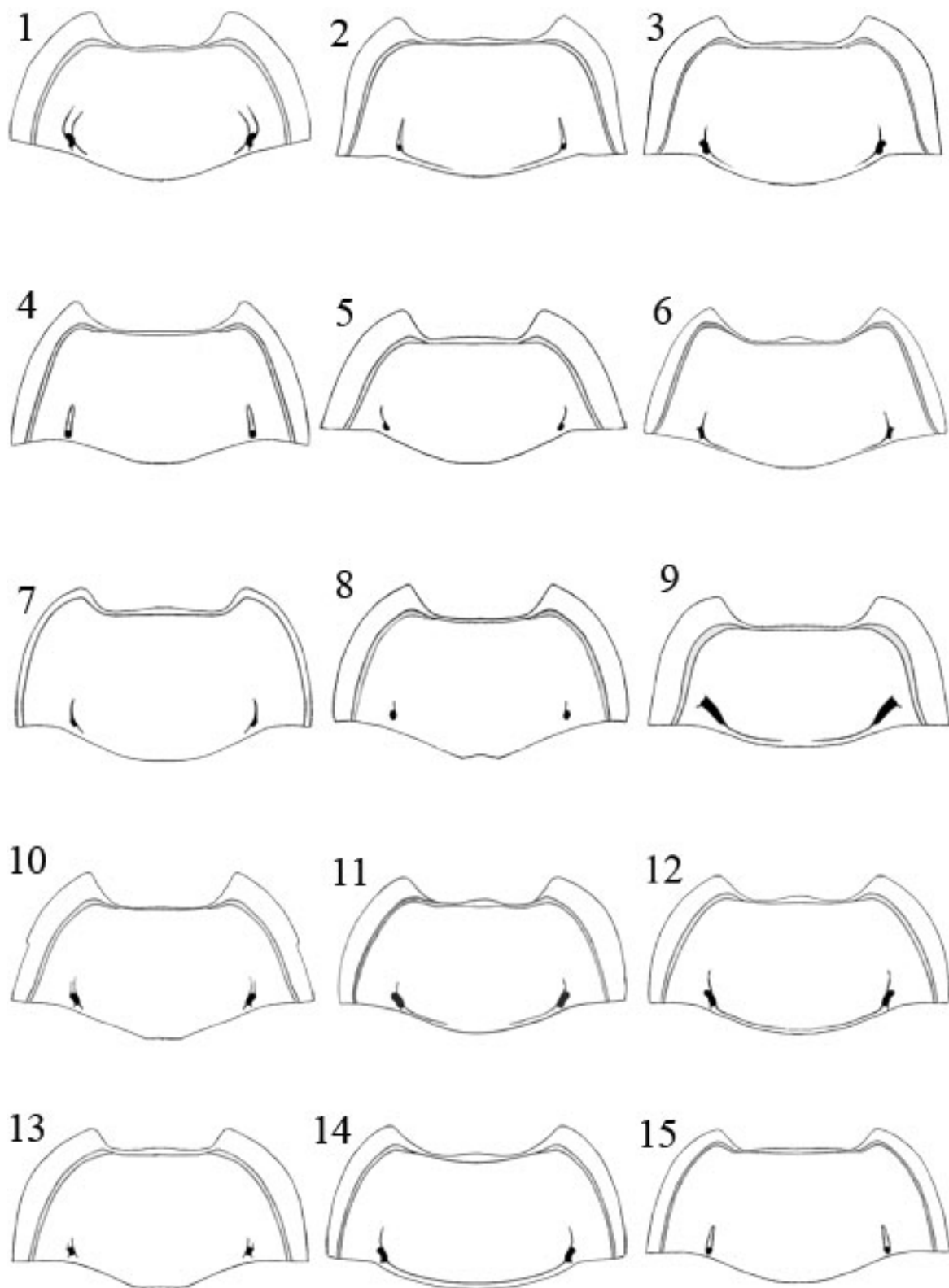


Figura K. Pronoto de *Stenotarsus* spp. 1. *S. cortesi*. 2. *S. exiguus*. 3. *S. globosus*. 4. *S. guatemalae*. 5. *S. incisus*. 6. *S. karkai*. 7. *S. latipes*, *S. molgorae*. 8. *S. lemniscatus*. 9. *S. marginalis*. 10. *S. mesoamericanus* 11. *S. mexicanus*. 12. *S. militaris*. 13. *monterrosoi*. 14. *S. nigricans*. 15. *S. oblongulus*.

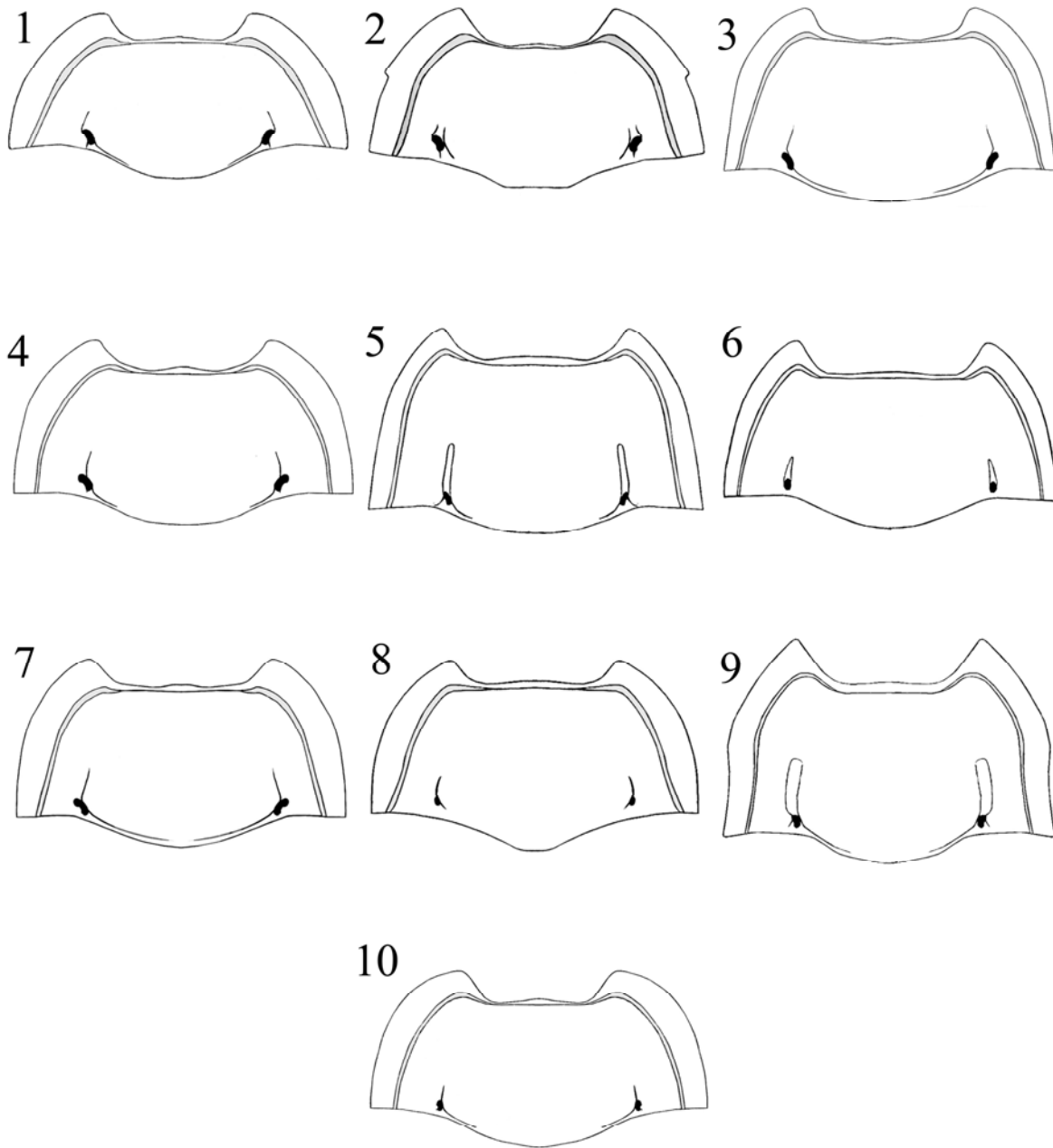


Figura L. Pronoto de *Stenotarsus* spp. 1. *S. ovalis*. 2. *S. parallelicornis*. 3. *S. raramuri*. 4. *S. rubrocinctus*. 5. *S. rufi*. 6. *S. sallaei*. 7. *S. shockleyi*. 8. *S. smithi*. 9. *S. spiopenis*. 10. *S. thoracicus*.



Figura M. Superficie del élitro de *Stenotarsus* spp. 1. *S. cortesi*. 2. *S. exiguus*. 3. *S. globosus*. 4. *S. kafkai*. 5. *S. lemniscatus*. 6. *S. ovalis*. 7. *S. militaris*. 8. *S. raramuri*. 9. *S. rulfoi*. 10. *S. shockleyi*. 11. *S. spiropenis*.

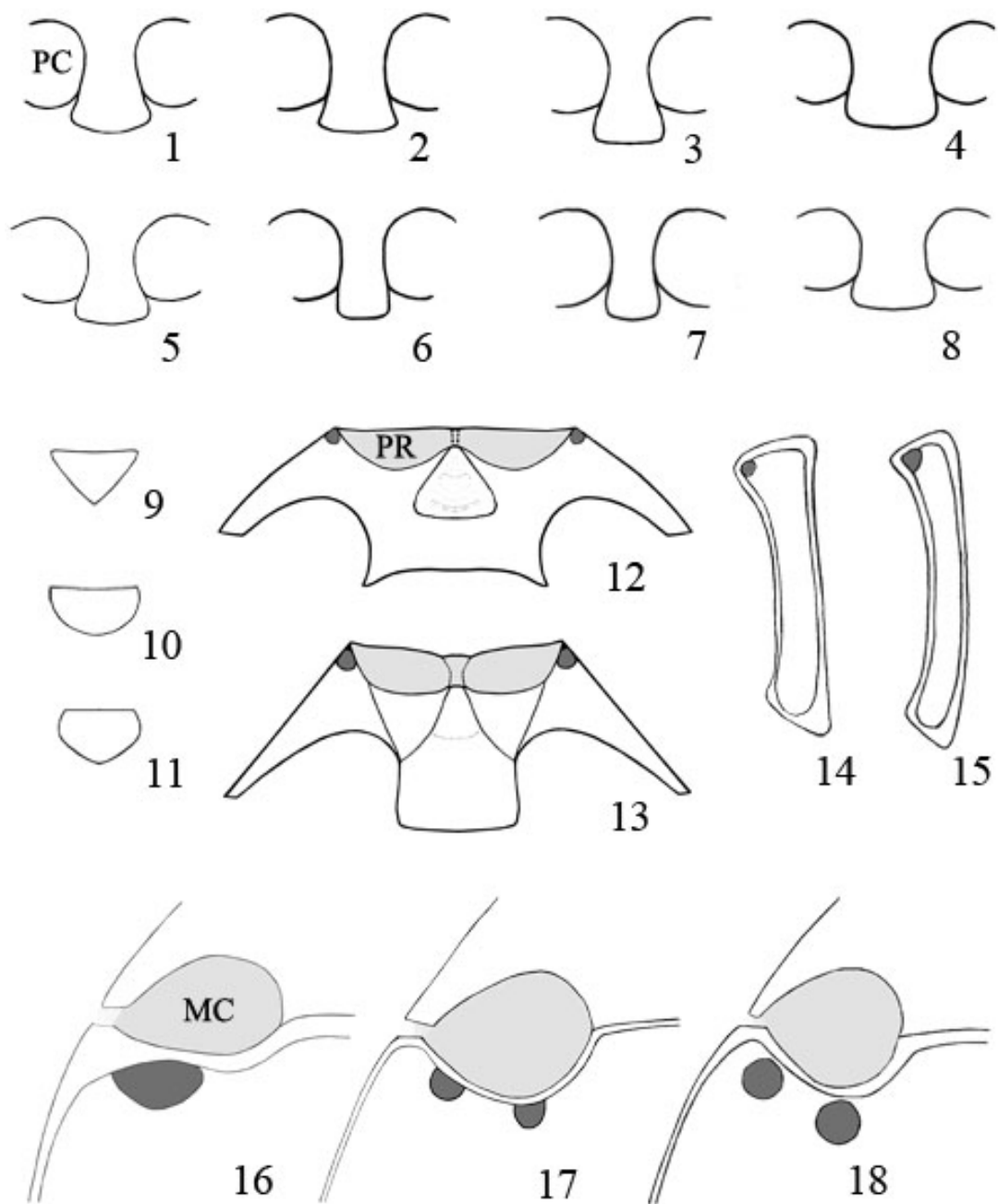


Figura N. Estructuras torácicas *Stenotarsus* spp. 1–8. Proceso prosternal. 9–11. Escutelo. 12–13. Mesoventrito. 14–15. Metanepisternon. 16–18. Porción anterolateral del metaventrito. 1. *S. cortesi*. 2. *S. globosus, rubrocinctus*. 3. *S. meosamericanus*. 4. *S. oblongulus*. 5. *S. ovalis*. 6. *S. shockleyi*. 7. *S. spiropenis*. 8. *S. thoracicus*. 9. *S. globosus*. 10. *ovalis*. 11. *S. spiropenis*. 12. *S. nigricans*. 13. *S. spiropenis*. 14. *S. ovalis*. 15. *S. spiropenis*. 16. *S. marginalis*. 17. *S. nigricans*. 18. *S. spiropenis*. PC. Cavity procoxal. PR. Descanso procoxal. SP. Poro setoso. MC. Cavity mesocoxal.

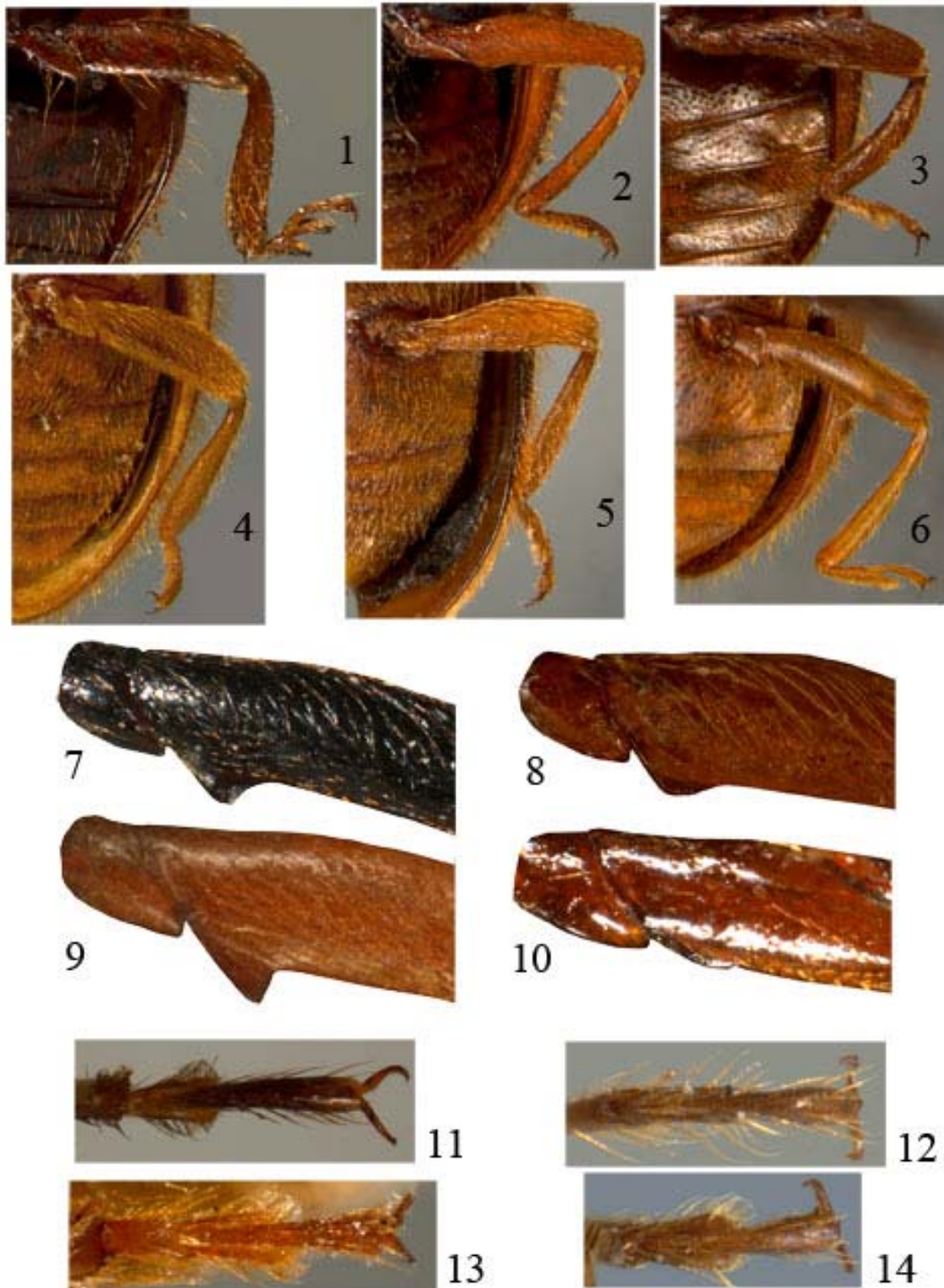


Figura O. Estructuras de las patas traseras de *Stenotarsus* spp. 1–6 Pata trasera. 7–10. Base del metafémur masculino. 11–14. Metatarso. 1. *S. exiguus*. 2. *S. globosus*. 3. *S. latipes*. 4. *S. nigricans*. 5. *S. spiopenis*. 6. *S. ovalis*. 7. *S. globosus*. 8. *S. raramuri*. 9. *S. rubrocinctus*. 10. *S. shockleyi*. 11. *S. globosus*. 12. *S. incisus*. 13. *S. spiopenis*. 14. *S. oblongulus*.

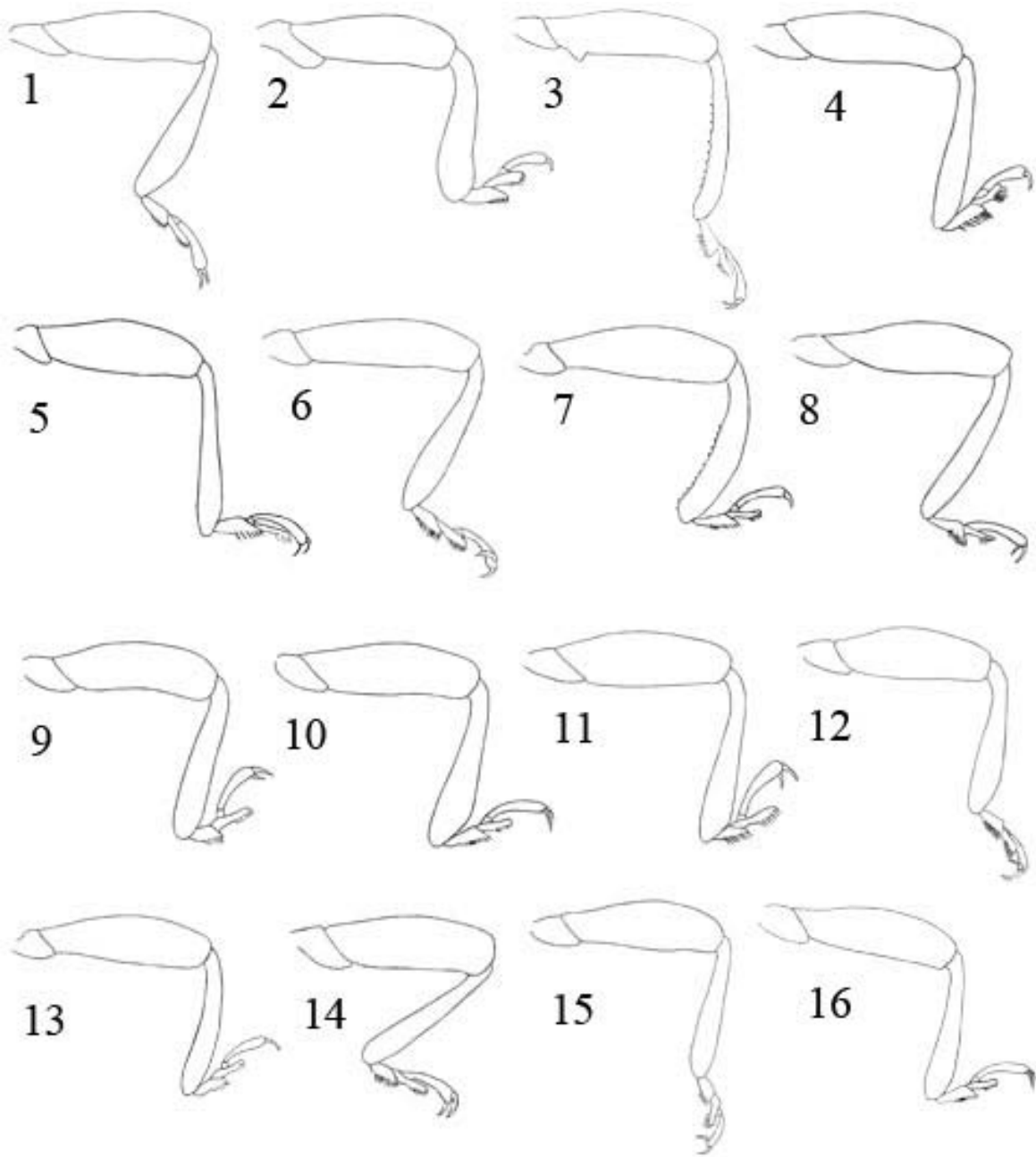


Figura P. Patas traseras de los machos de *Stenotarsus* spp. 1. *S. cortesi*. 2. *S. exiguus*. 3. *S. globosus*. 4. *S. guatemalae*. 5. *S. incisus*. 6. *S. karkai*. 7. *S. latipes*. 8. *S. lemniscatus*. 9. *S. marginalis*. 10. *S. mesoamericanus*. 11. *S. mexicanus*. 12. *S. militaris*. 13. *S. molgorae*. 14. *S. monterrosoi*. 15. *S. nigricans*. 16. *S. oblongulus*.

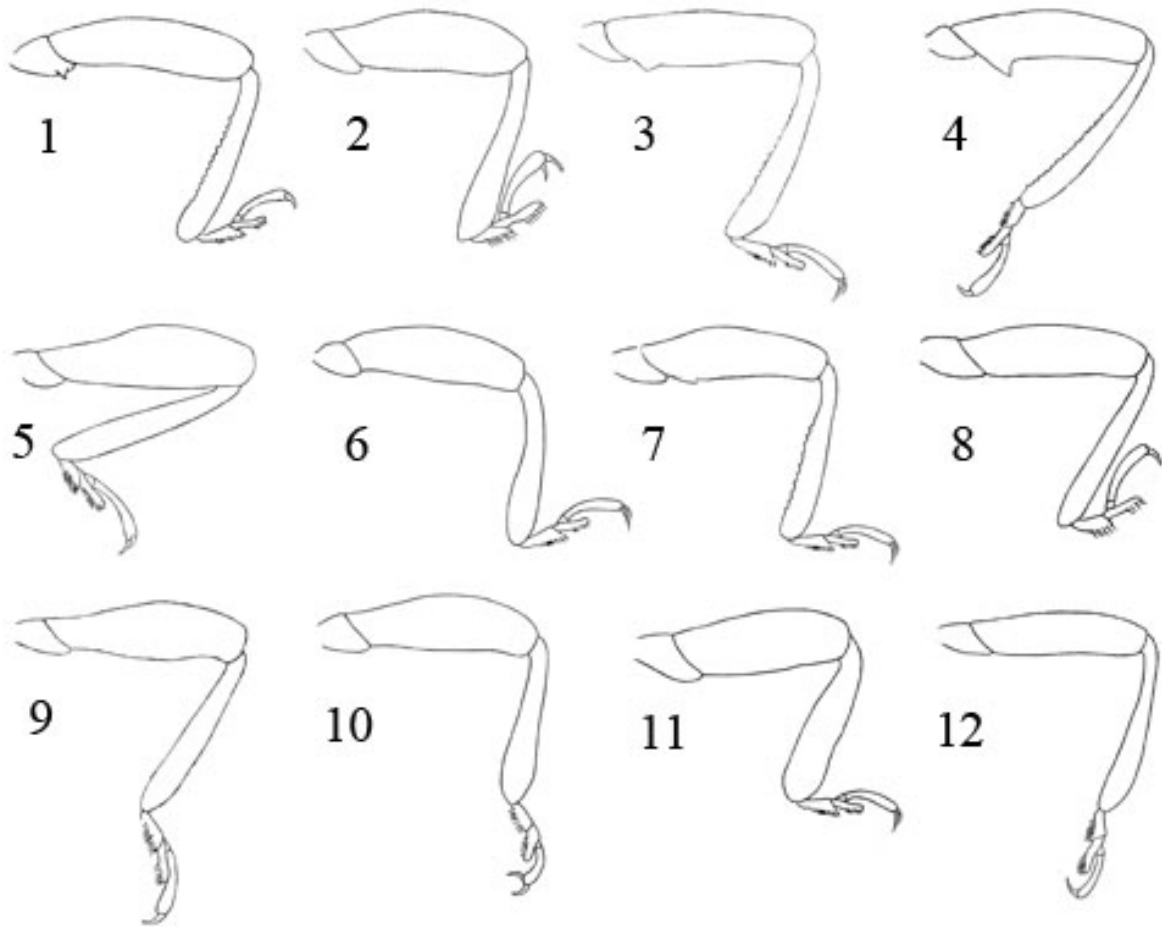


Figura Q. 1–10. Patas traseras de los machos de *Stenotarsus* spp. 11–12. Patas traseras de la hembras de *Stenotarsus* spp. 1. *S. ovalis*. 2. *S. parallelicornis*. 3. *S. raramuri*. 4. *S. rubrocinctus*. 5. *S. rulfoi*. 6. *S. sallaei*. 7. *S. shockleyi*. 8. *S. smithi*. 9. *S. spiropenis*. 10. *S. thoracicus*. 11. *S. exiguus*. 12. *S. globosus*.

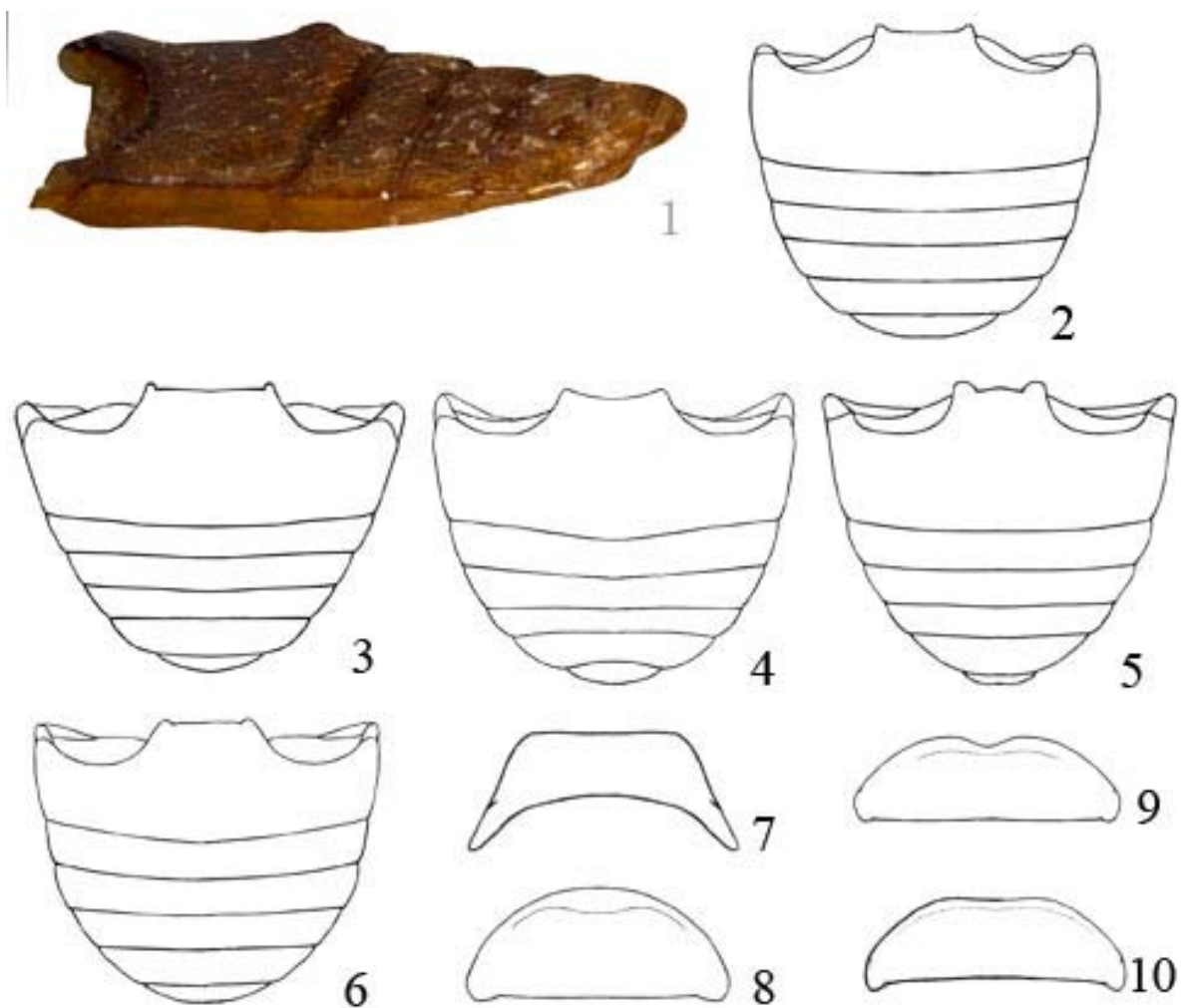


Figura R. Estructuras abdominals de *Stenotarsus* spp. 1. Vista lateral del abdomen masculino de *S. sallaei*. 2–6. Abdomen femenino de *Stenotarsus* spp. 7–10. Tergito VIII de hembras de *Stenotarsus* spp. 2. *S. globosus*. 3. *S. incisus*. 4. *S. militaris*. 5. *S. monterrosoi*. 6. *S. nigricans*. 7. *S. lemniscatus*. 8. *S. monterrosoi*. 9. *S. militaris*. 10. *S. nigricans*.

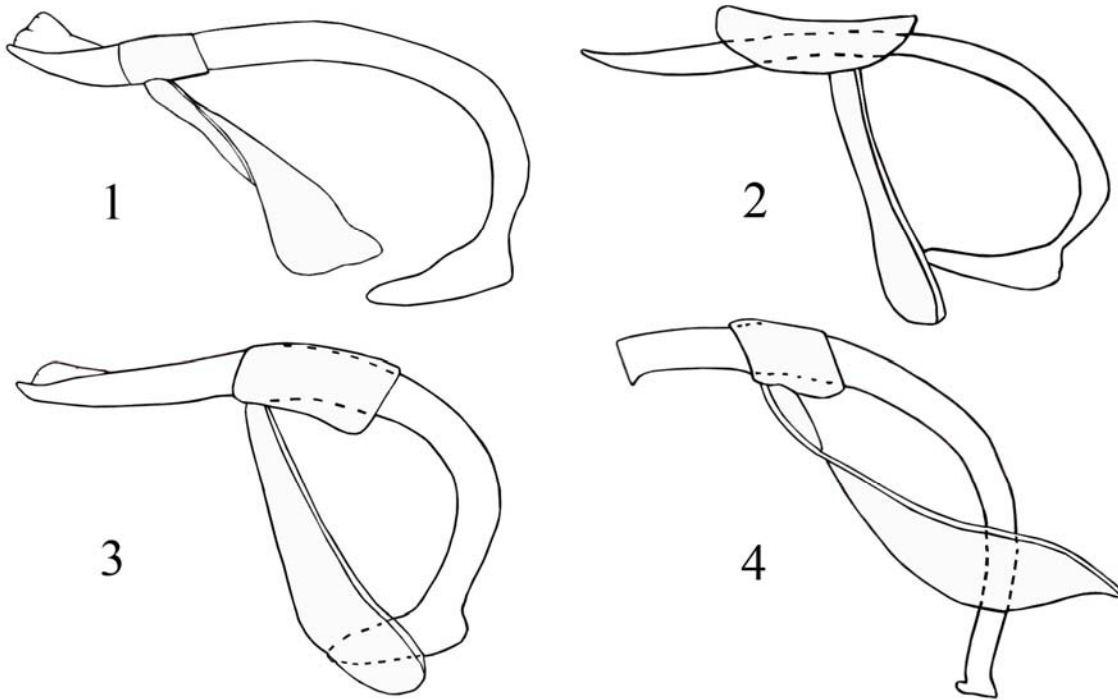


Figura S. Eedeago de *Stenotarsus* spp. 1. *S. globosus*, *S. raramuri*, *S. rubrocinctus*, *S. shockleyi*. 2. *S. militaris*. 3. *S. oblongulus*. 4. *S. spiropenis*.



Figura T. Lóbulo medio del edeago de *Stenotarsus* spp. 1–2. *S. cortesi*. 3–4. *S. exiguus*. 5–6. *S. globosus*, *S. raramuri*, *S. rubrocinctus*, *S. shockleyi*. 7–8. *S. guatemalae*. 9–10. *S. incisus*. 11–12. *S. kfkai*, *S. mexicanus*. 13–14. *S. latipes*. 15–16. *S. lemniscatus*. 17–18. *S. marginalis*. 19–20. *S. mesoamericanus*. 21–22. *S. militaris*. 23–24. *S. molgorae*.

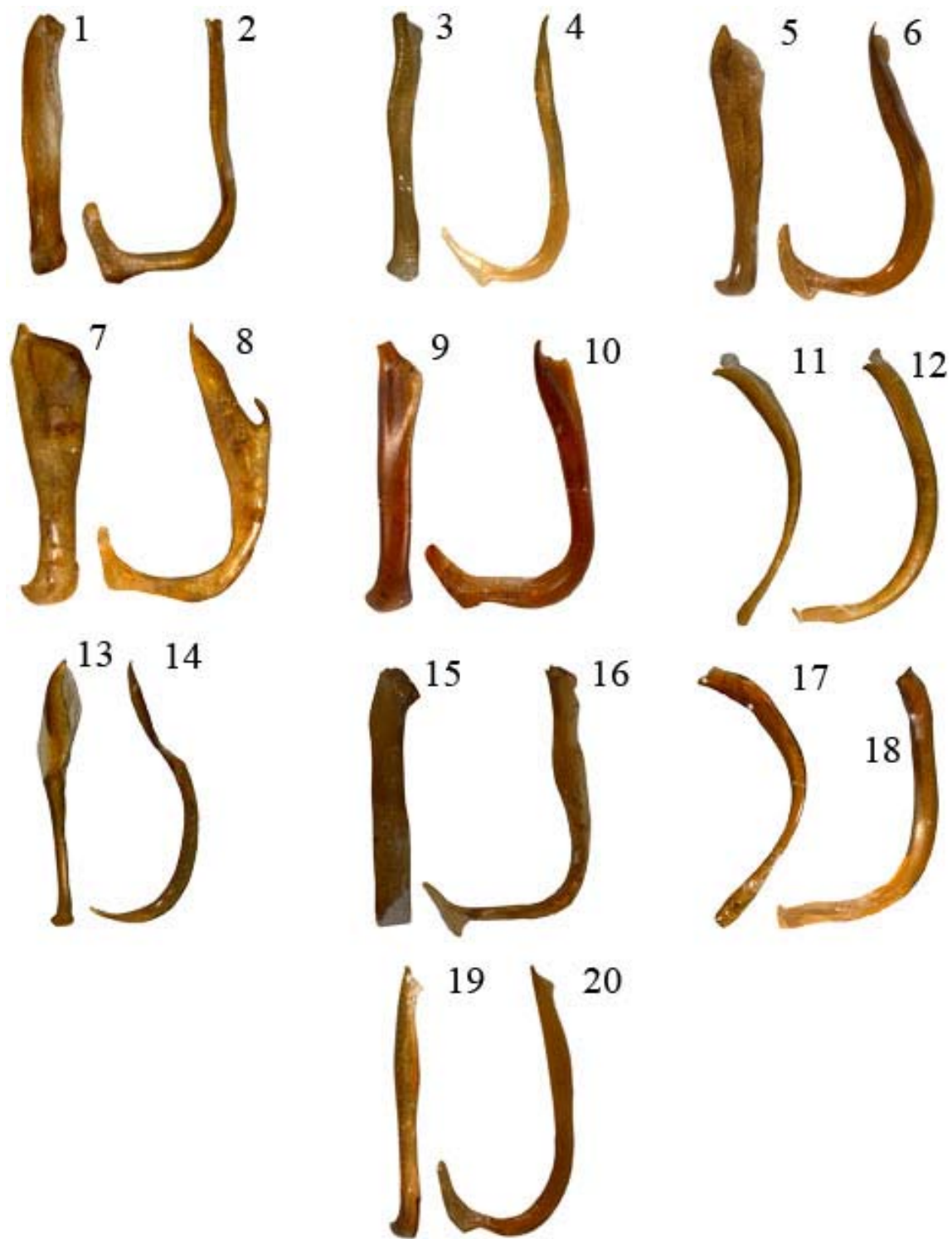


Figura U. Lóbulo medio del eedeago *Stenotarsus* spp. 1–2. *S. monterrosoi*. 3–4. *S. nigricans*. 5–6. *S. S. oblongulus*. 7–8. *S. ovalis*. 9–10. *S. parallelicornis*. 11–12. *S. rulfoi*. 13–14. *S. sallaei*. 15–16. *S. smithi*. 17–18. *S. spiropenis*. 19–20. *S. thoracicus*.

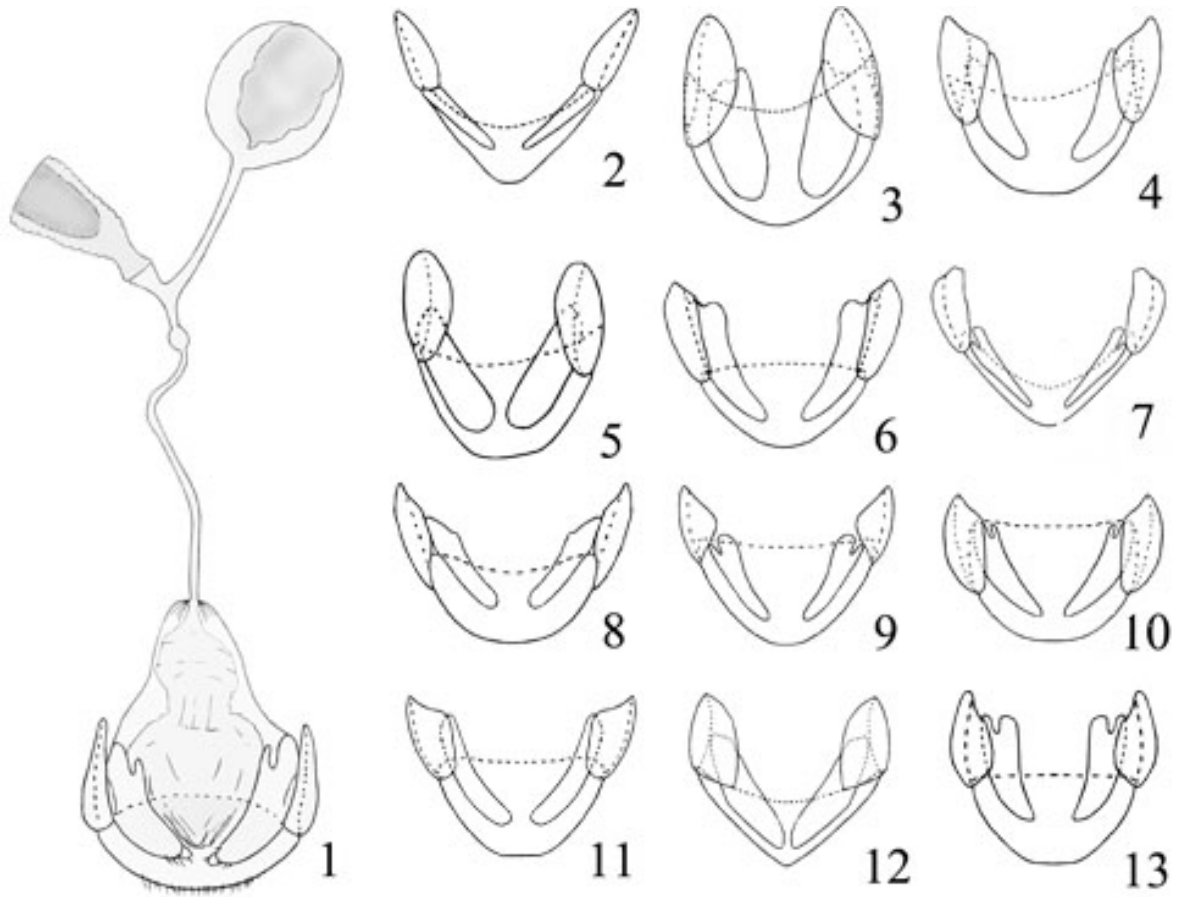


Figura V. Estructuras del genital femenino de *Stenotarsus* spp. 1. Ovipositor con espermateca y glándula accesoria de *S. spiropenis*, dorsal. 2–13. Parte terminal del ovipositor, dorsal. 2. *S. cortesi*. 3. *S. exiguus*. 4. *S. globosus*, *S. raramuri*, *S. rubrocinctus*, *S. shockleyi*. 5. *S. incisus*. 6. *S. latipes*. 7. *S. mesoamericanus*. 8. *S. mexicanus*. 9. *S. monterrosoi* 10. *S. nigricans*. 11. *S. ovalis*. 12. *S. sallaei*. 13. *S. thoracicus*.

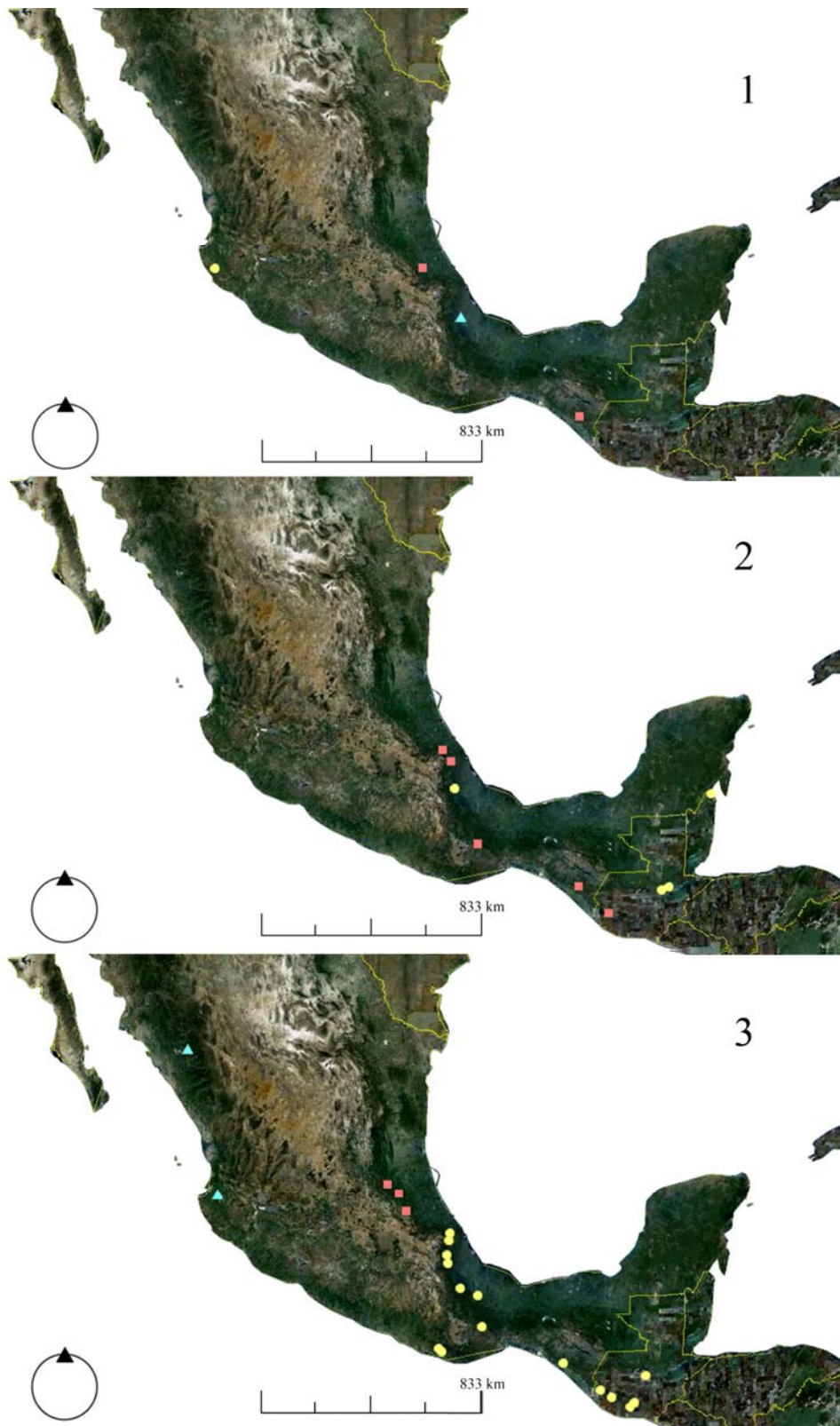


Figura W. Mapas de la distribución de *Stenotarsus* spp. Círculos amarillos (C), cuadros rojos (S), triángulos azules (T). 1. *S. cortesi* (C), *S. mesoamericanus* (S), *S. parallelicornis* (T). 2. *S. exiguus* (C), *S. incisus* (S). 3. *S. globosus* (C), *S. rubrocinctus* (S), *S. raramuri*. (T).

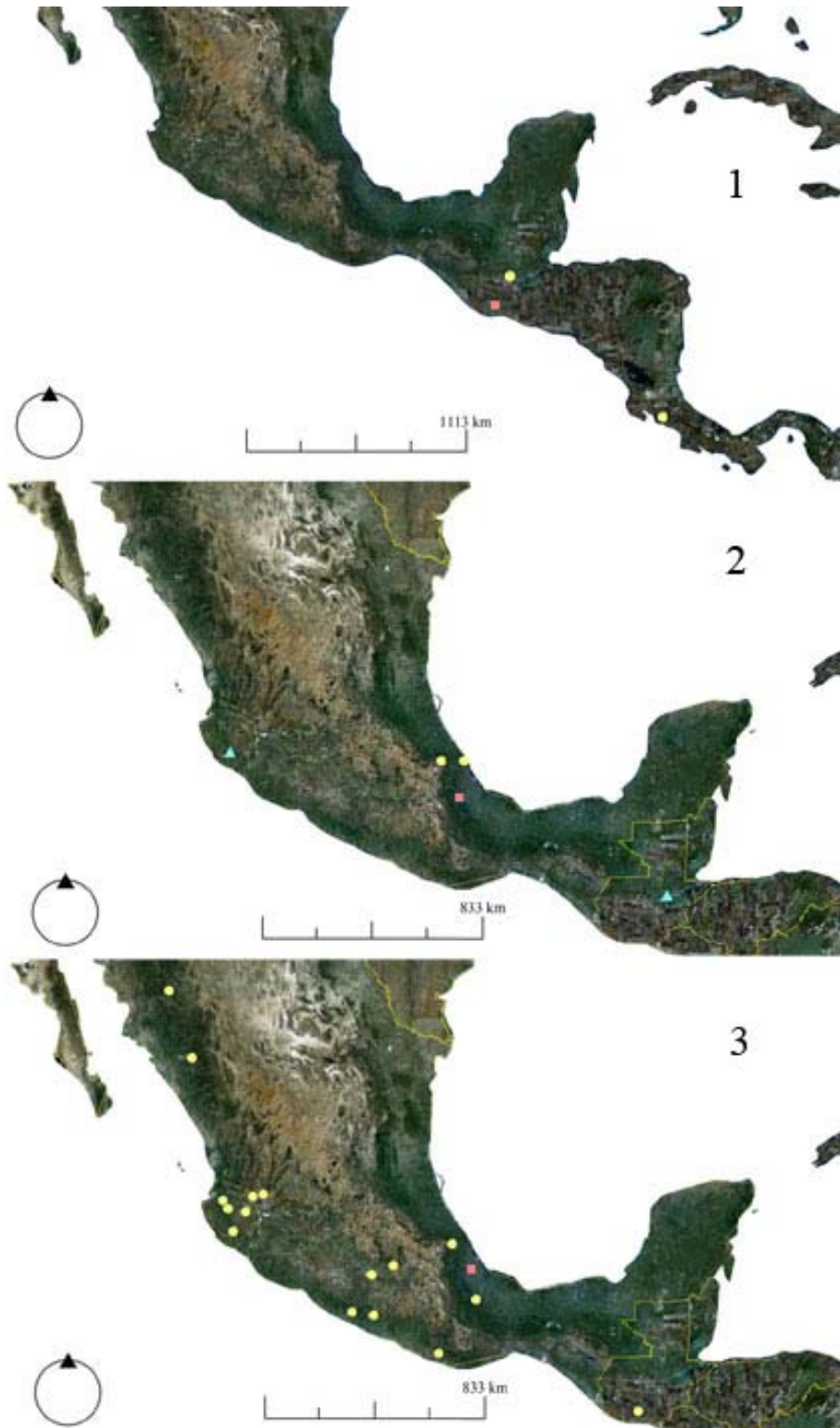


Figura X. Mapas de la distribución de *Stenotarsus* spp. Círculos amarillos (C), cuadros rojos (S), triángulos azules (T). 1. *S. guatemalae* (C), *S. marginalis* (S). 2. *S. kafkai* (C), *S. mexicanus* (S), *S. nigricans* (T). 3. *S. latipes* (C), *S. shockleyi* (S).

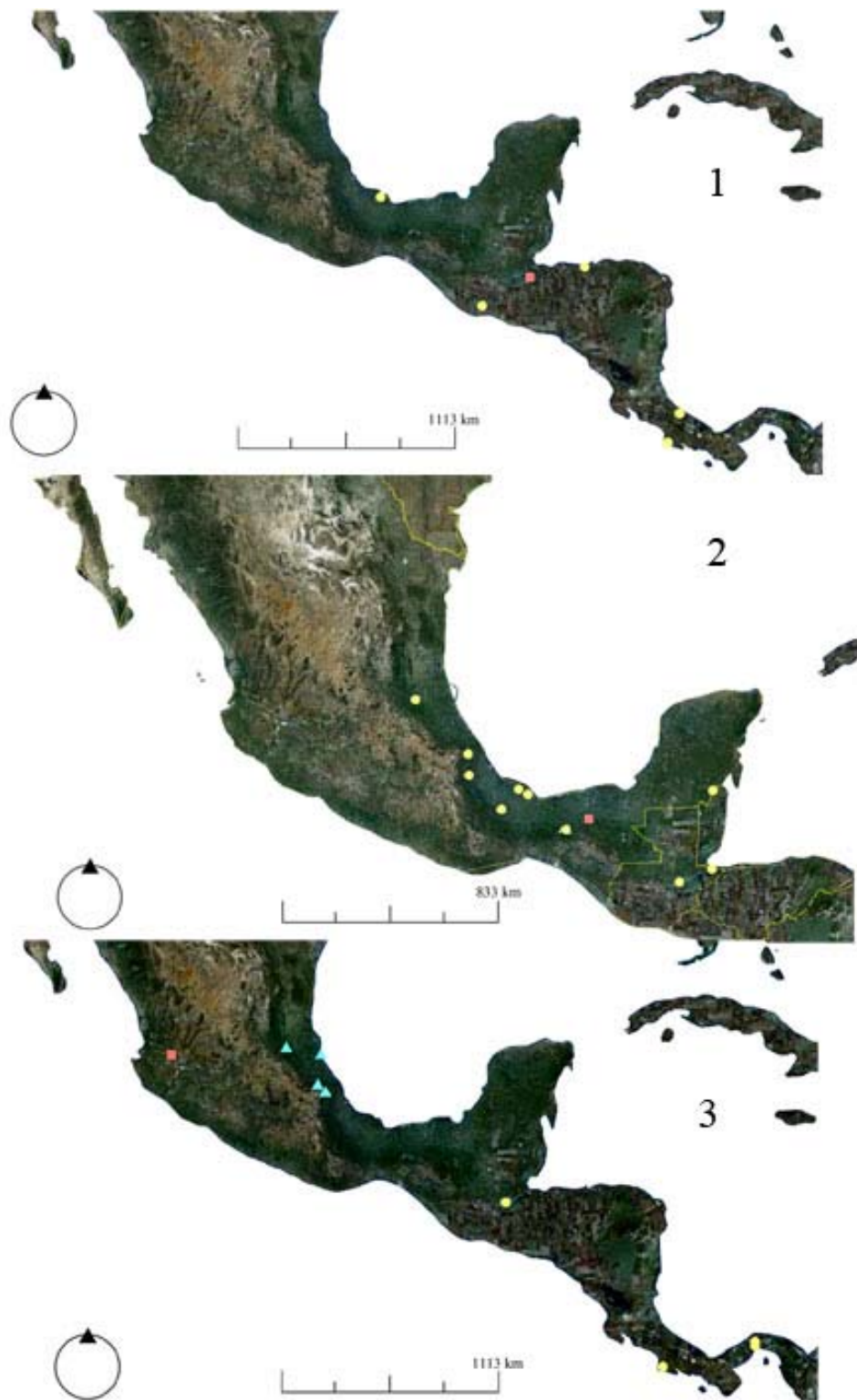


Figura Y. Mapas de la distribución de *Stenotarsus* spp. Círculos amarillos (C), cuadros rojos (S), triángulos azules (T) 1. *S. lemniscatus* (C), *S. monterrosoi* (S). 2. *S. militaris* (C), *S. smithi* (S). 3. *S. ovalis* (C), *S. molgorae* (S), *S. thoracicus* (T).

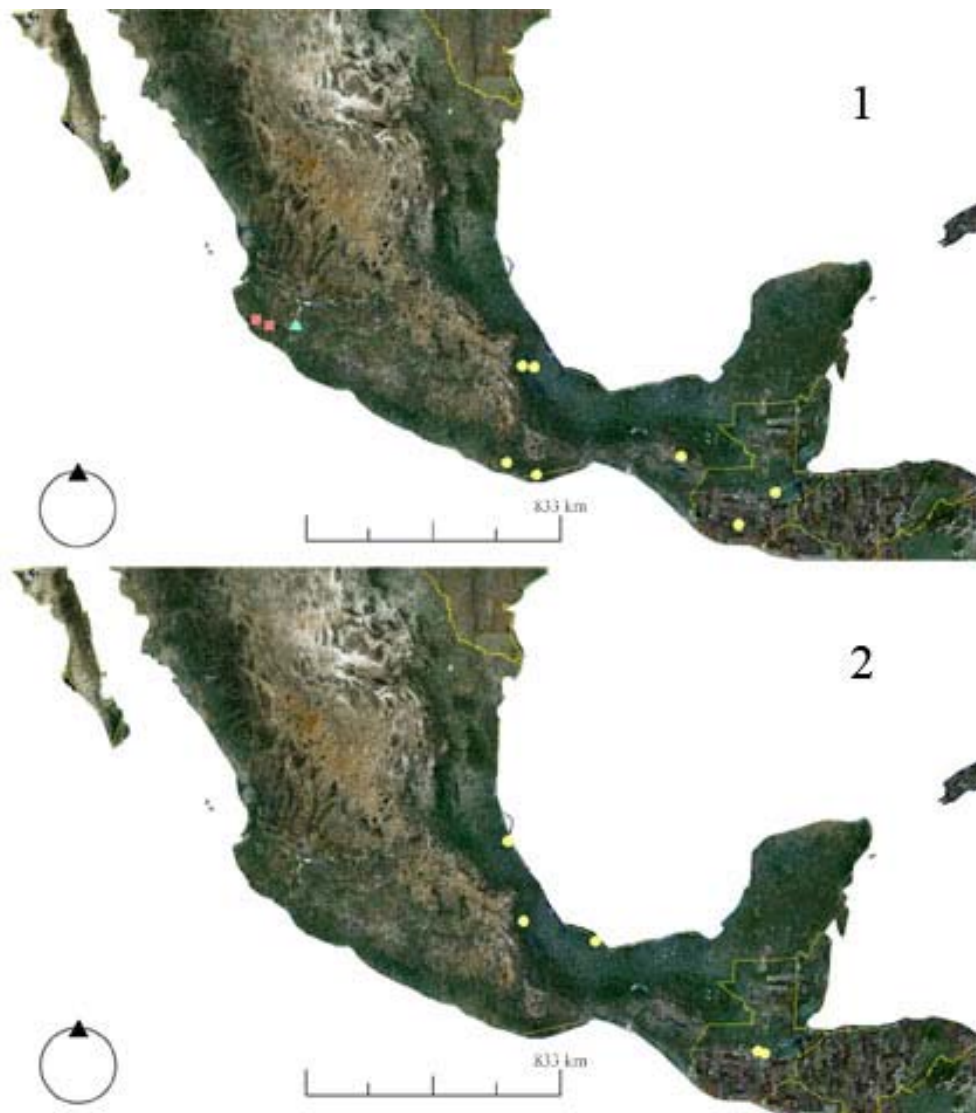


Figura Z. Mapas de la distribución de *Stenotarsus* spp. Círculos amarillos (C), cuadros rojos (S), triángulos azules (T) 1. *S. oblongulus* (C), *S. spiropenis* (S), *S. rulfoi* (T). 2. *S. sallaei* (C).