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## Additions and deletions to the known Cerambycidae (Coleoptera) of Bolivia

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**Abstract.** An additional 137 species and two tribes are added to the cerambycid fauna of Bolivia while 12 species are deleted. This brings the total number of species known from Bolivia to 1,561. Comments and statistics regarding the growth of knowledge on the Bolivian Cerambycid fauna and species endemism are included.

**Resumen.** Ciento treinta y siete especies y dos tribus se añaden a la fauna conocida de cerambycidos en Bolivia, mientras que 12 especies se eliminan. Esto aumenta el número total de la especie que se conocen en Bolivia a 1,561. Se incluyen comentarios y estadísticas acerca del incremento del conocimiento sobre la fauna boliviana de cerambycidos y también acerca de las especies endémicas.

**Keywords.** Bolivia, Coleoptera, Cerambycidae, endemics, faunal survey, new country records.

### Introduction

Additions to the known cerambycid fauna of Bolivia continue to result from collections by those participating in or cooperating with the “Bolivian Cerambycidae Project (BCP)” that was initiated in 2000. This project is a joint effort between the Museo de Historia Natural “Noel Kempff Mercado” (MNKM), Santa Cruz de la Sierra, Bolivia, the Florida State Collection of Arthropods (FSCA), Gainesville, Florida, and the American Coleoptera Museum (ACMT), San Antonio, Texas. The program’s primary objective is simply “to conduct a survey of the Bolivia cerambycid fauna” but it is not so simply accomplished. Bolivia’s large size (424,000 sq. mi.) and its geographically diverse and often mountainous terrain contributes to the challenge. There are numerous remote and virtually inaccessible areas whose cerambycid faunas remain completely unknown. Since the inception of the BCP, most of the collecting by participants has been in Santa Cruz Department with brief forays into Beni, Cochabamba, La Paz, and recently Tarija. As a result, although our knowledge has increased tremendously (as discussed below) much remains to be done before anyone can speak definitively about the composition of Bolivia’s diverse cerambycid fauna.

## Discussion

From a historical perspective the Bolivian cerambycid fauna has been poorly known. As recently as 1995 only 548 cerambycid species (= 6.3%) of the almost 8,700 species known from the Western Hemisphere were recorded from Bolivia by Monné and Giesbert (1995) in their “Checklist of the Cerambycidae and Disteniidae (Coleoptera) of the Western Hemisphere.” These Bolivian species represented 275 genera (18.3%) and 53 tribes (47%) of the known New World fauna. Ten years later Monné and Hovore (2005) in their “Checklist of the Cerambycidae, or longhorned wood-boring beetles, of the Western Hemisphere” indicated that records grew to 670 species (= 7.4% of the Western Hemisphere total), 337 genera, and 63 tribes from Bolivia. Then, in 2006, BCP participants published a “Preliminary Checklist of Bolivian Cerambycidae (Coleoptera)” (Wappes et al. 2006) newly adding 496 species which increased the known fauna to 1,259 species. This was a giant step forward as the species recorded from Bolivia increased to 13.8% of the species known from the New World. This checklist also recorded 67 tribes and 501 genera for Bolivia. From 2000 to 2006 most of the species added to the Bolivian fauna resulted from identification of BCP collected specimens of existing species. During this time frame a growing number of newly described species from these same collections also added significantly to the Bolivian fauna. This continues today. From 2000 through 2010 more than 250 new species (= > 16% of the known fauna) have been described whose distribution includes Bolivia. Key contributors to the description of new Bolivian species during this period of rapid growth include: U. R. Martins (106 spp.), M. H. Galileo (79 spp.), R. O. Clarke (23 spp.), M. A. Monné (11 spp.), D. S. Napp (6 spp.), and A. Santos-Silva (5 spp.). Also contributing new species were: F. T. Hovore, S. W. Lingafelter, M. L. Monné, G.L. Néouze, R. Perger, and G. L. Tavakilian. Including the additions and deletions recorded in this paper, the Bolivian cerambycid fauna now totals 1,561 species (>15% of the recorded Western Hemisphere fauna), 597 genera (= 32% of the 1,846 described) and 79 tribes (= 62% of the 128 described). More than 1,000 species have been added to the known Bolivian fauna in the last 15 years with the majority (891) recorded in just the last five. However, with the vast and diverse areas yet to be adequately sampled, it is certainly possible that this is no more than one half to two thirds of the total fauna to be ultimately discovered in Bolivia. Additionally, the BCP collection still contains more than 250 as yet unidentified or undescribed species.

Bolivia is generally considered to have tremendous biological diversity and according to Ibisch and Merida (2004) “many groups are characterized by relatively high rates of endemism”. Their examples of highly endemic groups include the tiger beetles (Carabidae: Cicindelinae) with 24 of the 102 species (24%) being endemic. It is noteworthy that of the 1,561 Bolivian cerambycid species, 347 are known only from Bolivia, representing 22.4% endemism. This compares to 13% endemism for Costa Rican Cerambycidae (Swift et al. 2010) and 15% for Guatemala (Hovore 2006), countries whose cerambycid faunas are much better known than Bolivia’s. Among the Bolivian cerambycid tribes with the highest endemism are the Apomecynini (20 of 64 spp. = 31%), Calliini (11 of 26 spp. = 42%), Falsamblesthiini (5 of 14 spp. = 36%), Hemilophini (22 of 53 spp. = 41%), Onciderini (30 of 92 spp. = 33%) and the Rhinotragini (23 of 67 spp. = 34%). All but the Rhinotragini are members of the subfamily Lamiinae.

In the lists of additions and deletions given below, the department where the species was collected is indicated using the following abbreviations: BN = Beni; CO = Cochabamba; CQ = Chuquisaca; LP = La Paz; OR = Oruro; PN = Pando; PT = Potosi; SC = Santa Cruz and TR = Tarija. If unknown then BO = Bolivia. Tribes indicated with an asterisk are new records for Bolivia.

## Additions to the Checklist of Bolivian Cerambycidae

### Subfamily Prioninae

#### Tribe Anacolini

<i>Chariea cyanea</i> Audinet-Serville	LP
<i>Hovorelus splendidus</i> Galileo and Monné	LP

#### Tribe Prionini

<i>Psalidognathus superbus</i> Fries	CO
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**Subfamily Cerambycinae**

Tribe Bothriospillini		
<i>Ranqueles gounellei</i> Bosq		SC
Tribe Callichromatini		
<i>Callichroma seiunctum</i> (Schmidt)		SC
<i>Mionochroma aureotinctum</i> (Bates)		SC
<i>Mionochroma electrinum</i> (Gounelle)		SC
Tribe Cerambycini		
Subtribe Cerambycina		
<i>Jupoata costalimai</i> (Zajciw)		SC
<i>Plocaederus pactor</i> (Lameere)		SC
Subtribe Sphalotrichina		
<i>Coleoxestia denticornis</i> (Gahan)		SC
<i>Coleoxestia polita</i> (Waterhouse)		SC
<i>Coleoxestia pubicornis</i> (Gounelle)		SC
<i>Criodion tuberculatum</i> Gahan		CO
<i>Poeciloxestia rugosicollis</i> Fragoso		SC
Tribe Clytini		
<i>Mecomtopus latecinctus</i> Bates		SC
<i>Meocomtopus polygenus</i> Thomson		BN
Tribe Compsocerini		
<i>Aglaoschema prasinipenne</i> (Lucas)		SC
<i>Aglaoschema ventrale</i> (Germar)		SC
Tribe Eburini		
<i>Erosida delia</i> Thomson		SC
Tribe Ectenessini		
<i>Tricheurymerus obscurus</i> (Prosen)		SC
Tribe Elaphidionini		
<i>Ambonus albomaculatus</i> (Burmeister)		SC
<i>Anelaphus cerussatus</i> (Newman)		SC
<i>Periboeum paucispinum</i> (Lameere)		SC
<i>Stizocera armata</i> Audinet-Serville		SC
<i>Stizocera juati</i> Martins and Napp		SC
Tribe Hesperophanini		
<i>Alastos batesi</i> (Pascoe)		SC
<i>Hespereburia brachypa</i> (Bates)		BN
<i>Hesperophymatus chydæus</i> Martins and Monné		SC
Tribe Ibidionini		
Subtribe Compsina		
<i>Engyium virgulatum</i> (Bates)		SC
<i>Heterachthes tysiphonis</i> (Thomson)		SC
Subtribe Ibidionina		
<i>Cycnidolon phormesiodes</i> Martins		SC
<i>Tetraopidion mucoriferum</i> (Thomson)		SC

Subtribe Tropidina	
<i>Diasporidion argentinense</i> (Martins)	SC
<i>Minibidion rurigena</i> (Gounelle)	SC
<i>Tropidion hermione</i> (Thomson)	SC
<i>Tropidin investitum</i> (Martins)	SC
Tribe Molorchini*	
<i>Merionoedopsis brevipennis</i> Melzer	SC
Tribe Oemini	
Subtribe Oemina	
<i>Argentinoeme schulzi</i> Bruch	SC
<i>Ocroeme recki</i> (Melzer)	SC
Tribe Piezocerini	
<i>Gorybia semiopaca</i> Martins	SC
<i>Haruspex quadripustulatus</i> Gounelle	SC
Tribe Pteroplatini	
<i>Deltosoma lacordairei</i> Thomson	SC
<i>Thelgetra adustus</i> Burmeister	CO
Tribe Rhopalophorini	
<i>Cosmisoma argyreum</i> Bates	SC
<i>Cynoderus tenuatus</i> Audinet-Serville	SC
<i>Dihammophora chaquensis</i> Bosq	SC
<i>Ischionodonta iridipennis</i> (Chevrolat)	SC
<i>Lathusia ferruginea</i> (Bruch)	BO
Tribe Torneutini	
<i>Coccoderus amazonicus</i> Bates	SC
Tribe Trachyderini	
Subtribe Ancylocerina	
<i>Ceralocyna nigricollis</i> (Gounelle)	SC
Subtribe Trachyderina	
<i>Panchylissus cyaneipennis</i> Waterhouse	SC
<i>Phaedinus lanio</i> Guérin-Méneville	SC
<i>Sternacanthus picticornis</i> Pascoe	LP, PN
<i>Weyrauchia marinezae</i> Martins and Galileo	SC
<b>Subfamily Lepturinae</b>	
Tribe Lepturini	
<i>Megachoriolaus bicolor</i> (Gounelle)	LP
<i>Strangalia flavocincta</i> (Thomson)	CO
<i>Strangalia xanthomelaena</i> Monné and Monné	SC
<b>Subfamily Lamiinae</b>	
Tribe Acanthocinini	
<i>Anisolophia cultrifera</i> (White)	SC
<i>Anisopodus haliki</i> Martins	SC
<i>Atrypanius irrorellus</i> Bates	SC

<i>Baryssinus bicirrifera</i> Bates	SC
<i>Carphontes paradoxus</i> Monné and Monné	SC
<i>Lasiolepturges zikani</i> Melzer	SC
<i>Leptostylus obscurellus</i> Bates	SC
<i>Lepturges beaveri</i> Monné	SC
<i>Lepturges cingillus</i> Monné	SC
<i>Lepturges elimata</i> Monné	SC
<i>Lepturges hahneli</i> Gilmour	SC
<i>Lepturges hylaeanus</i> Monné	SC
<i>Lepturges inscriptus</i> (Bates)	SC
<i>Lepturges multilineatus</i> Melzer	SC
<i>Lepturges virgulti</i> Gilmour	SC
<i>Lophopoeum fuliginosum</i> Bates	SC
<i>Microplia nigra</i> Monné	SC
<i>Nealcidion bicristatum</i> (Bates)	SC
<i>Nealcidion cereicola</i> (Fisher)	SC
<i>Neseuterpia couturieri</i> (Tavakilian)	SC
<i>Nyssodrysinia venusta</i> (Bates)	SC
<i>Ozineus doctus</i> Bates	SC
<i>Pentheochaetes apicalis</i> Melzer	SC
<i>Pseudocobelura prolixa</i> (Bates)	SC
<i>Trichotithonus curvatus</i> (Bates)	SC
<i>Tropanisopodus andinus</i> Tippmann	LP
Tribe Acanthoderini	
<i>Acanthoderes daviesii</i> (Swederus)	BO
<i>Cotyzineus bruchi</i> (Melzer)	SC
<i>Oreodera lanei</i> Monné and Fragoso	SC
<i>Penaherreraus sarryi</i> (Tavakilian and Peñaherrera-Leiva)	SC
<i>Pyrianoreina piranga</i> Martins and Galileo	SC
Tribe Aerenicini	
<i>Montesia bosqi</i> Seabra	SC
<i>Montesia leucostigma</i> Lane	SC
Tribe Anisocerini	
<i>Trigonopeplus abdominalis</i> White	SC
Tribe Agapanthiini	
<i>Hippopsis griseola</i> Bates	SC
<i>Hipopsis prona</i> Bates	SC
<i>Hipopsis truncatella</i> Bates	SC
Tribe Apomecynini	
<i>Adetus angustus</i> Melzer	SC
<i>Amphicnaeia affinis</i> Bates	SC
<i>Amphicnaeia armata</i> Galileo and Martins	SC
<i>Asyngenes venezuelensis</i> Breuning	SC
<i>Bisaltes adustus</i> (Burmeister)	SC
<i>Bisaltes bilineellus</i> Breuning	CO
<i>Bisaltes roseiceps</i> Breuning	SC
<i>Sympergus balyi</i> (Thomson)	LP

Tribe Calliini		
	<i>Graminea hispida</i> Galileo and Martins	SC
	<i>Gryllica prava</i> Lane	SC
Tribe Colobotheni		
	<i>Colobothea biguttata</i> Bates	SC
	<i>Colobothea discicollis</i> Gahan	SC
	<i>Colobothea dostalbergeri</i> Schmid	SC
Tribe Desmiphorini		
	<i>Mimasyngenes venezuelensis</i> Breuning	SC
Tribe Hemilophini		
	<i>Adesmus vilhena</i> Galileo and Martins	SC
	<i>Eranina porongaba</i> (Galileo and Martins)	SC
	<i>Lycomimus albocinctus</i> Melzer	SC
	<i>Olivensa cephalotes</i> (Pascoe)	SC
Tribe Mauesini		
	<i>Taurolema cicatricosa</i> Lane	SC
Tribe Onciderini		
	<i>Cacostola brasiliensis</i> Thomson	SC
	<i>Hesycha inermicollis</i> (Breuning)	BN
	<i>Hesycha variabilis</i> Dillon and Dillon	SC
	<i>Hypsioma lyca</i> Dillon and Dillon	BN, SC
	<i>Hypsioma solangeae</i> Galileo and Martins	SC
	<i>Lochmaeocles sladeni</i> (Gahan)	CO
	<i>Midamiella santaremensis</i> (Dillon and Dillon)	SC
	<i>Neodillonionia albisparsa</i> (Germar)	SC
	<i>Oncideres apicalis</i> Dillon and Dillon	SC
	<i>Oncideres germarii</i> Thomson	SC
	<i>Oncideres nicea</i> Dillon and Dillon	SC
	<i>Trachysomus hydaspes</i> Dillon and Dillon	SC
	<i>Trestonia turbula</i> Monné and Fragoso	SC
	<i>Venustus zeteki</i> Dillon and Dillon	BO, "Yungas"
Tribe Pogonocherini		
	<i>Estoloderces luederwaldti</i> Melzer	SC
	<i>Lypsimena fuscata</i> Haldeman	SC
Tribe Polyrhaphidini		
	<i>Polyrhaphis angustata</i> Buquet	LP
Tribe Pteropliini		
	<i>Rhaphiptera oculata</i> Gounelle	SC
Tribe Tetraopini*		
	<i>Phaea coccinea</i> Bates	SC
Tribe Xenofreini		
	<i>Xenofrea arcifera</i> Néouze and Tavakilian	SC

**Previously recorded species to be removed from the Checklist of Bolivian Cerambycidae**

The following species were erroneously recorded from Bolivia and should be removed from the Checklist of Bolivian Cerambycidae. As indicated below, all species being removed had been misidentified with most subsequently described as new closely related species. In all cases, distributional department records are directly transferable to the replacement species.

**Subfamily Cerambycinae**

## Tribe Eburini

*Beraba limpida* Martins (replaced by *B. tate* Galileo and Martins, 2010)

*Eburodacrys lepida* Martins (replaced by *E. errata* Galileo and Martins, 2010)

## Tribe Elaphidionini

*Aposphaerion punctulatum* Martins and Napp (replaced by *A. nigratum* Galileo and Martins, 2010)

*Stizocera consobrina* Gounelle (probably *S. armata* Audinet-Serville)

## Tribe Heteropsini

*Erythropterus urucuri* Martins and Galileo (replaced by *E. kochi* Clarke, 2007)

## Tribe Torneutini

*Gigantotrichoderes conicicollis* Tippmann (replaced by *G. flabellicornis* (Zajciw, 1965) based on an examination of the Tippmann type at the USNM.

**Subfamily Lamiinae**

## Tribe Acanthoderini

*Penaherreraus pubicornis* (Audinet-Serville) (replaced by *P. sarryi* Tavakilian and Peñaherrera-Leiva, 2003)

## Tribe Colobotheini

*Colobothea passerina* Erichson (replaced by *C. simillima* Aurivillius, 1902)

## Tribe Onciderini

*Hesychotypa maculosa* Bates (replaced by *H. balia* Martins and Galileo, 2009)

*Proplerodia goyana* Martins and Galileo (replaced by *P. piriana* Martins and Galileo, 2009)

*Tulcus lycimnius* (Dillon and Dillon) (replaced by *T. diaphorus* Martins and Galileo, 2009)

## Tribe Polyrhaphidini

*Polyrhaphis paraensis* Bates (replaced by *P. argentina* Lane, 1978)

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