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 cerambicid 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 endemity are included.

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

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

Introduction

Additions to the known cerambicid 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 cerambicid 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 cerambicid 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 cerambicid 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 Apomecygnini (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 Anacolinini

Chariea cyanea Audinet-Serville

Hovorelus splendidus Galileo and Monné

Tribe Prionini

Psalidognathus superbus Fries
Subfamily Cerambycinae

Tribe Bothriospillini
   *Ranqueles gounellei* Bosq  SC

Tribe Callichromatini
   *Callichroma seiunctum* (Schmidt)  SC
   *Mionochroma aureotinctum* (Bates)  SC
   *Mionochroma electrinum* (Gounelle)  SC

Tribe Cerambycini
   Subtribe Cerambycina
      *Jupoata costalimai* (Zajciw)  SC
      *Plocaederus pactor* (Lameere)  SC
   Subtribe Sphallotrichina
      *Coleoxestia denticornis* (Gahan)  SC
      *Coleoxestia polita* (Waterhouse)  SC
      *Coleoxestia punicornis* (Gounelle)  SC
      *Criodion tuberculatum* Gahan  CO
      *Poeciloxestia rugosicollis* Fragoso  SC

Tribe Clytini
   *Mecometopus latecinctus* Bates  SC
   *Mecometopus polygenus* Thomson  BN

Tribe Compsocerini
   *Aglaoschema prasinipenne* (Lucas)  SC
   *Aglaoschema ventrale* (Germar)  SC

Tribe Eburiini
   *Erosida delia* Thomson  SC

Tribe Ectenessini
   *Tricheurymerus obscurus* (Prosen)  SC

Tribe Elaphidionini
   *Ambonus albomaculatus* (Burmeister)  SC
   *Anelaphus cerussatus* (Newman)  SC
   *Periboem paucispinum* (Lameere)  SC
   *Stizocera armata* Audinet-Serville  SC
   *Stizocera juati* Martins and Napp  SC

Tribe Hesperophanini
   *Alastos batesi* (Pascoe)  SC
   *Hesperoburia brachypa* (Bates)  BN
   *Hesperophymatus chydaeus* Martins and Monné  SC

Tribe Ibidionini
   Subtribe Compsina
      *Engyum virgulatum* (Bates)  SC
      *Heterachthes tysiphonis* (Thomson)  SC
   Subtribe Ibidionina
      *Cycnidolon pharmesiodes* Martins  SC
      *Tetraopidion mucoriferum* (Thomson)  SC
Subtribe Tropidina
  *Diasporidion argentense* (Martins)  SC
  *Minibidion rurigena* (Gounelle)  SC
  *Tropidion hermione* (Thomson)  SC
  *Tropidin investitum* (Martins)  SC

Tribe Molorchini*
  *Merionoedopsis brevipennis* Melzer  SC

Tribe Oemini
  Subtribe Oemina
    *Argentinoeme schulzi* Bruch  SC
    *Ocroeme recki* (Melzer)  SC

Tribe Piezocerini
  *Gorybia semiopaca* Martins  SC
  *Haruspes quadripustulatus* Gounelle  SC

Tribe Pteroplatini
  *Deltosoma lacordairei* Thomson  SC
  *Thelgetra adustus* Burmeister  CO

Tribe Rhopalophorini
  *Cosmisoma argyreum* Bates  SC
  *Cynoderus tenuatus* Audinet-Serville  SC
  *Dihammophora chaquensis* Bosq  SC
  *Ischionodonta iridipennis* (Chevrolat)  SC
  *Lathusia ferruginea* (Bruch)  BO

Tribe Torneutini
  *Coccoderus amazonicus* Bates  SC

Tribe Trachyderini
  Subtribe Ancylocerina
    *Ceralocyna nigricollis* (Gounelle)  SC
  Subtribe Trachyderina
    *Panchylissus cyaneipennis* Waterhouse  SC
    *Phaedinus lanio* Guérin-Méneville  SC
    *Sternacanthus picticornis* Pascoe  LP, PN
    *Weyrauchia marinezae* Martins and Galileo  SC

**Subfamily Lepturinae**

Tribe Lepturini
  *Megachoriolaus bicolor* (Gounelle)  LP
  *Strangalia flavocincta* (Thomson)  CO
  *Strangalia xanthomelaena* Monné and Monné  SC

**Subfamily Lamiinae**

Tribe Acanthocinini
  *Anisolophia cultrifera* (White)  SC
  *Anisopodus haliki* Martins  SC
  *Atrypanius irrorellus* Bates  SC
**ADDENDS AND DELETIONS TO BOLIVIAN CERAMBYCIDA**

- *Baryssinus bicirrifer* Bates
- *Carphontes paradoxus* Monné and Monné
- *Lasiolepturges zikani* Melzer
- *Leptostylus obscurellus* Bates
- *Lepturges beaveri* Monné
- *Lepturges cingillus* Monné
- *Lepturges elimata* Monné
- *Lepturges hahneli* Gilmour
- *Lepturges hylaeanus* Monné
- *Lepturges inscriptus* (Bates)
- *Lepturges multilineatus* Melzer
- *Lepturges virgulti* Gilmour
- *Lophopoeum fuliginosum* Bates
- *Microplia nigra* Monné
- *Nealcidion bicristatum* (Bates)
- *Nealcidion cereicola* (Fisher)
- *Neseuterpa couturieri* (Tavakilian)
- *Pyssodrypsina venusta* (Bates)
- *Ozineus doctus* Bates
- *Pentheochaetes apicalis* Melzer
- *Pseudocobelura prolicia* (Bates)
- *Trichotithonus curvatus* (Bates)
- *Tropanisopodus andinus* Tippmann

**Tribe Acanthoderini**
- *Acanthoderes daviesii* (Swederus)
- *Cotyzineus bruchi* (Melzer)
- *Oreodera lanei* Monné and Fragoso
- *Penaherreraus sarryi* (Tavakilian and Peñaherrera-Leiva)
- *Pyrianoreina piranga* Martins and Galileo

**Tribe Aerenicini**
- *Montesia bosqi* Seabra
- *Montesia leucostigma* Lane

**Tribe Anisocerini**
- *Trigonopeplus abdominalis* White

**Tribe Agapanthiini**
- *Hippopsis griseola* Bates
- *Hipopsis prona* Bates
- *Hipopsis truncatella* Bates

**Tribe Apomecynini**
- *Adetus angustus* Melzer
- *Amphicnaeia affinis* Bates
- *Amphicnaeia armata* Galileo and Martins
- *Asygenhes venezuelensis* Breuning
- *Bisaltes adustus* (Burmeister)
- *Bisaltes bilineellus* Breuning
- *Bisaltes roseiceps* Breuning
- *Sympergus balyi* (Thomson)
Tribe Calliini
  *Graminea hispida* Galileo and Martins  
  *Gryllica prava* Lane  

Tribe Colobotheini
  *Colobothea biguttata* Bates  
  *Colobothea discicollis* Gahan  
  *Colobothea dostalbergeri* Schmid  

Tribe Desmiphorini
  *Mimasyngenes venezuelensis* Breuning  

Tribe Hemilophini
  *Adesmus vilhena* Galileo and Martins  
  *Eranina porongaba* (Galileo and Martins)  
  *Lycomimus albocinctus* Melzer  
  *Olivensa cephalotes* (Pascoe)  

Tribe Mauesini
  *Taurolema cicatricosa* Lane  

Tribe Onciderini
  *Cacostola brasiliensis* Thomson  
  *Hesycha inermicollis* (Breuning)  
  *Hesycha variabilis* Dillon and Dillon  
  *Hyspioma lyca* Dillon and Dillon  
  *Hyspioma solangeae* Galileo and Martins  
  *Lochmaeocles sladeni* (Gahan)  
  *Midamiella santaremensis* (Dillon and Dillon)  
  *Neodillonia albisparsa* (Germar)  
  *Oncideres apicalis* Dillon and Dillon  
  *Oncideres germarii* Thomson  
  *Oncideres nicea* Dillon and Dillon  
  *Trachysomus hydaspes* Dillon and Dillon  
  *Trestonia turbula* Monné and Fragoso  
  *Venustus zeteki* Dillon and Dillon  

Tribe Pogonocherini
  *Estoloderces luederwaldti* Melzer  
  *Lysimima fuscata* Haldeman  

Tribe Polyrhaphidini
  *Polyrhaphis angustata* Buquet  

Tribe Pteropliini
  *Rhaphiptera oculata* Gounelle  

Tribe Tetraopini*
  *Phaea coccinea* Bates  

Tribe Xenofreini
  *Xenofrea arcifera* Néouze and Tavakilian
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. nigritum 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)

Subfamily Lamiinae

Tribe Acanthoderini

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Literature Cited


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