

NEW SPECIES AND RECORDS OF *PLATYCREPIDIUS* CANDÈZE FROM
COSTA RICA AND PANAMA (COLEOPTERA: ELATERIDAE)

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Abstract

Eleven species of *Platycrepidius* Candèze (Agrypninae, Platycrepidiini) are recorded from Costa Rica, including seven previously undescribed species. Newly described species are: *P. alajuelensis* new species, *P. bosque* new species, *P. costaricensis* new species, *P. decimnotatus* new species, *P. duodecimnotatus* new species, *P. monteverde* new species, and *P. tico* new species. New country records for Costa Rica include *P. boucardi* (Sallé), *P. eburatus* (Champion), *P. grandini* (Candèze), and *P. partitus* (Champion); *P. grandini* is recorded from Panama for the first time.

The Meso-American species of *Platycrepidius* Candèze (1859) were last reviewed by Champion (1895) under the preoccupied genus name *Eudactylus* Sallé. Champion (*ibid*) listed four species, *E. boucardi* Sallé, *E. eburatus* Champion, *E. grandini* Candèze, and *E. partitus* Champion. None of these species reports included Costa Rica records. No species attributed to this genus were described from the region since. Golbach *et al.* (1988) presented a key to all of the described species of *Platycrepidius*. Here, seven new species are described and four new country records are reported from recent sampling efforts.

Images of each species, a key to the Meso-American species, distribution maps, and complete label data for non-type specimens will be available at <http://www.inbio.ac.cr/>, and mirrored at <http://www.abs.sdstate.edu/sdnhcbs/>. These sites will contain periodic updates on descriptive, illustrative, and distributional information of these species. See Erwin and Johnson (2000, this issue) for details on formatting and data presentation for this paper. Unless otherwise stated all holotypes and other specimens are in the collections of the Instituto Nacional de Biodiversidad, Santo Domingo, Heredia, Costa Rica (INBio). All specimens from this collection are coded with specimen unique alpha-numeric sequences beginning with "CRI" or indicated as "INBio." Additional specimens in my collection (PJJC), or in collections with abbreviations indicated in the acknowledgments.

Platycrepidius alajuelensis, new species

Type Series. Holotype, ♂, labeled "Sect. San Ramon de Dos Rios, Prov. Alaju, COSTA RICA, 620 m, 27 ABR-11 MAY 1995, C. Cano, L N 318100 381900 #5276; INBIO CRI002146015."

Etymology. Named for the province of Alajuela, from which the type was collected.

Diagnosis. The pronotum yellow with a black median vitta, and the elytral base flavous with apex black and a flavous subapical macula, provide immediate recognition. Pretarsal claws with single large ventral seta.

Description. Length 12.8 mm, width 2.5 mm; elongate, silhouette subfusi-

form, shallowly convex; integument shining, finely to moderately, shallowly punctured, finely pubescent. Head nigrous; frons with a shallow subtriangular impression, frontal margin obtuse, projecting over labrum; antennae strongly serrate from segment 4, nigrous, except segments 9–11 infusate. Pronotum flavous with a nigrous median vitta; pronotal base with short smooth median carina on declivity; hind angles strongly divergent, unicarinate dorsally; hypomeron flavous, mesal margin shallowly excavate and slightly flaired anteriorly. Scutellum nigrous. Elytra flavous in basal half, nigrous in apical half, with flavous preapical macula. Prosternum, mesosternum, metasternum nigrous with infusate to flavous highlights; abdominal ventrites nigrous with lateral margins flavous; legs flavous, except tarsi nigrous. Aedeagus (Fig. 1) with median lobe constricted at midlength, narrow apically, apex obtuse; paramere narrowly sagittate, with 3 dorsal and 14–16 ventral setae.

Additional Specimens Examined. PANAMA, Panama Province, Cerro Jefe (♂)(R. Morris).

Notes. Females are unknown.

Platycrepidius bosque new species

Type Series. Holotype, ♂, labeled “Rio San Lorencito, 900 m, Res. For. Sn Ramon, 5 km N Col. Palmarena, Alajuela, COSTA RICA, Mar 1990, Curso Carabidae 244500–470700; INBIO CRI000159437.”

Etymology. The species epithet “*bosque*” is Spanish for forest, in reference to this beetles’ habitat, and is used as a noun in apposition.

Diagnosis. Pronotum testaceous and with a pair of black vittae, and each elytron with a short black humeral vitta. Pretarsal claws as above.

Description. Length 15.6 mm, width 4.5 mm; elongate, silhouette subfusiform, shallowly convex; integument shining, finely shallowly punctured, finely pubescent. Head testaceous, with pair piceous maculae on vertex; frons with a shallow subtriangular impression, frontal margin obtuse, projecting over labrum; antennae strongly serrate from segment 4, segments 1–3 testaceous, segments 4–11 darkly infusate. Pronotum testaceous, with two elongate discal nigrous maculae constricted at midlength and posteriorly; pronotal base with short piceous median carina on declivity; hind angles strongly divergent, unicarinate dorsally, flavotestaceous; hypomeron flavous, mesal margin shallowly excavate and slightly flaired anteriorly. Scutellum nigrous. Elytra flavous, nigrous on basal margin, humeri, striae intervals 1–2 to apex, and striae intervals 6–9 and epipleuron from metafemoral notch to apex. Prosternum, mesosternum, metasternum, abdominal ventrites, and legs testaceous to rufotestaceous. Aedeagus (Fig. 2) with median lobe shallowly constricted at midlength, narrow apically, apex obtuse; paramere narrowly sagittate, with 2 dorsal and 24–26 ventral setae.

Notes. Females are unknown.

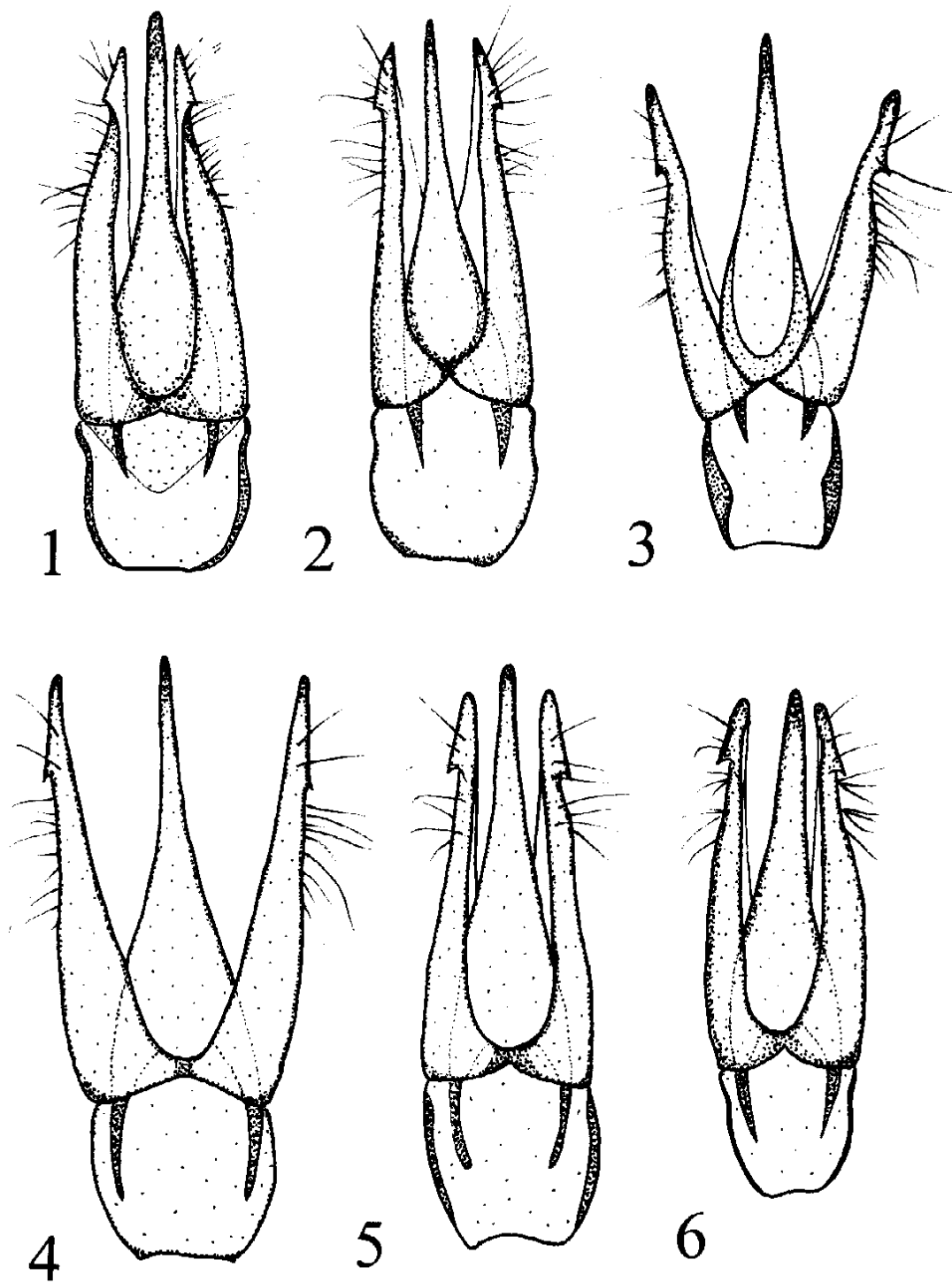
Platycrepidius boucardi Sallé, new country record

Historical. Sallé (1873) described this species from Oaxaca, Mexico.

Specimens Examined. COSTA RICA, Guanacaste Province, CRI000748637(♀), CRI000243640 (♀), and CRI002610397 (♀).

Platycrepidius costaricensis new species

Type Series. Holotype, ♂, labeled “Sect. San Ramón de Dos Rios, Prov. Alaju, COSTA RICA, 620m, 20 FEB-3 MAR 1995, C. Cano, L.N.318100_381900 #4398; INBIO CRI002175694.”



Figs. 1–6. *Platycrepidius* spp., aedeagi, all in dorsal aspect. 1) *P. alajuelensis* n. sp.; 2) *P. bosque* n. sp.; 3) *P. costaricensis* n. sp.; 4) *P. decimnotatus* n. sp.; 5) *P. duodecimnotatus* n. sp.; 6) *P. tico* n. sp.

Etymology. Named for the country of Costa Rica.

Diagnosis. Body entirely piceous to black and each elytron with 5 ivory colored burnishes. Pretarsal claws as above.

Description. Length 12.2–12.4 mm, width 3.1–3.3 mm; elongate, silhouette subfusiform, shallowly convex; integument subshining, moderately to coarsely

punctured, finely pubescent. Body piceous to nigrous throughout, except anterior portion of frons, epipleuron, and legs pale flavous; antennal segments 1–3 infusate, segments 4–11 piceous; five ivory burnishes on each elytron. Frons with a shallow subtriangular impression, frontal margin obtuse, slightly projecting over labrum; antennae strongly serrate from segment 4. Pronotum with hind angles strongly divergent, unicarinate dorsally; pronotal base with short median carina obsolescent posteriorly, subtuberculate anteriorly; hypomeron with mesal margin shallowly grooved and slightly flaired anteriorly. Elytra with apices divergent, acuminate from interval 1; each elytron with 5 ivory burnishes. Aedeagus (Fig. 3) with median lobe shallowly constricted at midlength, narrow apically, apex obtuse; paramere narrowly sagittate, with 11–13 dorsal and 13–15 ventral setae.

Additional Material Examined. COSTA RICA, Prov. Limón, CRI000397846 (♀); Prov. Guanacaste, 2 mi. N. Bijagus (♀)(UNLC).

Platycrepidius decimnotatus new species

Type Series. Holotype, ♂, labeled “Sector Cerro Cocori, Fca. de E. Rojas, 150 m, Prov. Limón, COSTA RICA, Feb 1993, E. Rojas, L-N-286000, 567500; INBIO CRI001405261.”

Etymology. The specific epithet “*decimnotatus*” refers to the 10 ivory colored burnishes on the elytra.

Diagnosis. Elytra reddish-brown basally, piceous apically, with 5 ivory colored burnishes each. Pretarsal claws as above.

Description. Length 6.9–9.0 mm, width 2.0–2.5 mm; elongate, silhouette subfusiform, shallowly convex; integument subshining, moderately to coarsely punctured, finely pubescent. Head rufobrunneous; frons with a shallow subtriangular impression, frontal margin obtuse, slightly projecting over labrum, anterior margin flavous; antenna serrate from segment 4, segments 1–3 flavobrunneous, segments 4–11 infusate. Pronotum rufobrunneous; hind angles divergent, unicarinate dorsally; pronotal base subtuberculate at declivity; hypomeron rufobrunneous, with an infusate area posteriorly; mesal margin shallowly grooved and slightly flaired anteriorly. Elytra rufobrunneous in basal half, piceous apically; epipleuron with flavous mark near metacoxa; apices divergent, acuminate from interval 1; each elytron with 5 ivory burnishes. Prosternum, mesosternum, and metasternum rufobrunneous. Legs pale flavous. Abdominal ventrites piceous. Aedeagus (Fig. 4) with median lobe shallowly constricted at midlength, narrow apically, apex obtuse; paramere narrowly sagittate, with 2–4 dorsal and 4–6 ventral setae.

Additional Material Examined. COSTA RICA, Prov. Limón, CRI000405051 (♂), CRI002415266 (♂), CRI001343469 (♀), CRI000698112 (♀), CRI000998059 (♀), CRI001770668 (♂), CRI001405261 (♂) (PJJC); Prov. Heredia, CRI002282247 (♀), F. La Selva, 3 km S. Pto. Viejo (♂)(PJJC); Prov. Cartago, Turrialba (♂)(UCRC); Prov. Alajuela, Falda N.E. Volcan (♂ ♀)(2, PJJC).

Platycrepidius duodecimnotatus new species

Type Series. Holotype, ♂, labeled “Sector Cocori, 30 km al N. de Cariari, Prov. Limón, COSTA RICA, 100m, Feb 1994, E. Rojas, A.A. Solís, L N 286000.567500 #2639; INBIO CRI001973218.”

Etymology. The specific epithet “*duodecimnotatus*” refers to the 12 burnishes on the elytra.

Diagnosis. Elytra largely piceous with 6 ivory colored burnishes each. Pre-tarsal claws as above.

Description. Length 6.9–8.8 mm, width 2.0–2.6 mm; elongate, silhouette subfusiform, shallowly convex; integument subshining, dull on pronotum, moderately to coarsely punctured, finely pubescent. Head piceous, frons flavous; frons with a shallow subtriangular impression, frontal margin obtuse, slightly projecting over labrum; antenna serrate from segment 4, segments 1–3 flavous, segments 4–11 infusate. Pronotum rufobrunneous; hind angles strongly divergent, unicarinate dorsally; pronotal base tubercule obsolete; hypomeron rufobrunneous, mesal margin shallowly grooved and slightly flaired anteriorly. Elytra piceous; epipleuron rarely with obsolescent flavous mark near metacoxa; apices divergent, acuminate from interval 1; each elytron with 6 cream-yellow burnishes. Prosternum, mesosternum, and metasternum, and abdominal ventrites infusate to piceous. Legs pale flavous. Aedeagus (Fig. 5) with median lobe shallowly constricted at midlength, narrow apically, apex obtuse; paramere narrowly sagittate, with 2 dorsal and 4–6 ventral setae.

Additional Material Examined. COSTA RICA, Prov. Limón, CRI000961281 (♀), CRI000961288 (♀), CRI000698104 (♂), CRI000879501 (♀); Prov. Guanacaste, CRI000853006 (♀), CRI000698682 (♂), CRI00071696 (♀) 0, CRI001973218 (♂) (PJJC); Prov. Alajuela, CRI001776355 (♀); Prov. Heredia, CRI001311516 (♀), Prov. Heredia, La Selva (♂)(4, INBio-ALAS; 2, PJJC).

Platycrepidius eburatus Champion, **new country record**

Historical. Champion (1895) described this species from 4 specimens collected at Bugaba, Panama.

Specimens Examined. COSTA RICA, Prov. Puntarenas, CRI002366763 (♂), CRI001843103 (♀), CRI001843147 (♂), CRI001846035 (♀); Golfo Dulce, 24 km W of Piedras Blancos (4, UCRC), R. Riyoto, Rancho Quemodo (UCRC), Cerro Rincon (1, UCRC); Pen. Osa (♀)(UCRC) Golfo Dulce, 3 km SW. Rincon (♀)(PJJC); Prov. Heredia, La Selva Biol. Sta. (♀)(PJJC).

Platycrepidius grandini Candèze, **new country records**

Historical. Candèze (1864) described this species from Mexico. Champion (1895) additionally recorded this species from Nicaragua.

Specimens Examined. COSTA RICA, Guanacaste Province, CRI001836984 (♂); CRI001810523 (♀); CRI001121756 (♀); CRI001038445 (♀); CRI002204757 (♀); CRI001121755 (♀); 22–27 June 1981 (♂)[no database tag] (PJJC). PANAMA, Panama Altos (Isla) de Maje (♂)(UNLC).

Notes. The posterior pronotal maculae are absent on specimen CRI001121755.

Platycrepidius monteverde **new species**

Type Series. Holotype, ♀, labeled “Estacion La Casona, R.B. Monteverde, Prov. Punt., COSTA RICA, 1500 m, Jun 1991, N. Obando, LN 253250_449700 #1714; CRI001694153.”

Etymology. The species epithet “*monteverde*” is a geographic place name and a haven for biologists in northern Costa Rica; it is used as a noun in apposition.

Diagnosis. Distinguished by the trivittate elytra and a deep and narrow anterior emargination of the pronotal vitta. Pretarsal claws as above.

Description. Length 20.2 mm, width 6.0 mm; elongate, silhouette subfusiform, shallowly convex; integument shining, finely shallowly punctured, finely pubescent. Head rufotestaceous; frons with a shallow subtriangular impression, frontal margin obtuse, projecting over labrum; antennae narrowly serrate from segment 4, segments 1–4 brunneoflavous, segment 5 brunneoflavous basally, infusate apically, segments 6–11 infusate gradating to nigrous apically. Pronotum flavous laterally, rufoflavous anteriomedially, with a deeply incised broad median nigrous vitta in basal 3/4; pronotal base with short obtuse median carina on declivity; hind angles strongly divergent, obsolescently unicarinate dorsally; hypomeron flavous laterally, piceous medially, mesal margin shallowly excavate and slightly flaired anteriorly. Scutellum nigrous. Elytra flavous, nigrous on basal margin, circumscutellar area, interval 1 to apex, intervals 5–6 and 10 from basal quarter to apex. Prosternum, mesosternum, and metasternum rufoflavous medially, piceous laterally; legs rufoflavous; abdominal ventrites rufoflavous medially to base of ventrite 4, piceous mediolaterally and convergent to ventrites 4–5, flavous laterally.

Notes. This species is known from a single specimen. Males are unknown.

Platycrepidius partitus Champion, new country record

Historical. Champion (1895) described this species from one specimen collected in Nicaragua.

Specimens Examined. COSTA RICA, Alajuela Province, CRI001770034 (♂), CRI001770035 (♂), CRI002146726 (♀), and CRI002250444 (♂).

Platycrepidius tico new species

Type Series. Holotype, ♂, labeled “Est. San Ramón Ocstc, Prov. Alaju, COSTA RICA, 620m, 3–19 Abr 1994, F. Quesada, L N 318100_381900 #2817; INBIO CRI001776358.”

Etymology. The species epithet “*tico*” is the informal local term for a Costa Rican citizen, and is used as a noun in apposition.

Diagnosis. The entirely reddish-yellow pronotum lacking vittae or maculae and two black vittae on each elytron in combination is distinctive for this species. Pretarsal claws as above.

Description. Length 13.0–14.2 mm, width 3.5–4.1 mm; elongate, silhouette subfusiform, shallowly convex; integument shining, finely shallowly punctured, finely pubescent. Head dark rufotestaceous; frons with a shallow subtriangular impression, frontal margin obtuse, projecting over labrum; antennae strongly serrate from segment 4, segments 1–4 and basal portion of segment 5 rufotestaceous, segment 5 apical portion and segments 6–11 darkly infusate. Pronotum dark rufotestaceous, hind angles testaceous; hind angles slightly divergent, unicarinate dorsally; pronotal base with short smooth median carina on declivity, testaceous; hypomeron rufotestaceous anteriorly, grading to testaceous posteriorly, mesal margin shallowly grooved and slightly flaired anteriorly. Scutellum nigrous. Elytra flavous, with strial intervals 1–3 nigrous to midlength, intervals 1–2 nigrous from midlength to apex, intervals 6–9 nigrous from metafemoral notch to apex. Prosternum rufotestaceous to coxal cavities, intercoxal mucro nigrous to piceous. Mesosternum and metasternum nigrous to piceous. Abdominal ventrites nigrous to piceo-infusate, with lateral margins flavous. Legs testaceous. Aedeagus (Fig. 6) with median lobe shallowly constricted at midlength, narrow apically, apex obtuse; paramere narrowly sagittate, with 3–4 dorsal and 13–15 ventral setae.

Additional material examined. COSTA RICA, Prov. Alajuela, CRI001770036 (♀), CRI001820508 (♀); Prov. Guanacaste, CRI000898491 (♀); Prov. Limón, CRI001353034 (♀), CRI001352888 (♀), CRI001730280 (♀); Prov. Heredia, CRI001243263 (♀), CRI002740110 (♂), La Selva Biol. Sta. (♂)(INBio-ALAS), F. La Selva, 3 km S. Pt. Viejo (♂)(PJJC).

Acknowledgments

Specimens were generously provided by A. Solís, Instituto Nacional de Biodiversidad, Santo Domingo, Heredia (INBio); Henry Hespenheide, Arthropods of La Selva Project and University of California, Los Angeles (INBio-ALAS); P.E. Hanson, Universidad de Costa Rica, San Pedro, Heredia (UCRC); B.C. Ratcliffe, University of Nebraska, Lincoln (UNLC); Roy Morris, Miami.

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(Received 31 May 2000; accepted 3 July 2000; publication supported by Instituto Nacional de Biodiversidad.)