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Bolivian Rhinotragini II: *Isthmiade* Thomson, 1864 (Coleoptera, Cerambycidae), with two new species

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ABSTRACT

Bolivian Rhinotragini II: Isthmiade *Thomson, 1864 (Coleoptera, Cerambycidae), with two new species.* I. martinsi *sp. nov. and* I. zamalloae *sp. nov. are described. Bolivian forms of both sexes of* I. ichneumoniformis *Bates, 1870,* I. laevicollis *Tippmann, 1953, and* I. planifrons *Zajciw, 1972 are redescribed. New synonymy established:* I. laevicollis *Tippmann, 1953* = I. carinifrons *Zajciw, 1972 syn. nov. Notes on host-flowers, photographs and a key to the Bolivian species of* Isthmiade *are provided.*

Keywords: Bolivia; Cerambycinae; Host-flowers; New species; Rhinotragini.

INTRODUCTION

Thomson (1864) described the genus *Isthmiade* on the basis of one species, *I. hephestionoides;* later it was found to be synonymous with *Stenopterus braconides* Perty, 1832 from Brazil. Bates (1870) added *Isthmiade ichneumoniformis* and, later, Bates (1873) two further species, *I. rubra* and *I. macilenta,* all three from Brazil. Gounelle (1911) described *I. modesta* from Brazil, and Aurivillius (1912) placed *Leptura necydalea* Linnaeus, 1758 in the genus. Tippmann (1953) described *I. laevicollis* from Peru. Linsley (1961) described the first non-South American species, *I. perpulchra* from Panama. Zajciw (1972a, b), in two papers described four further species from Brazil (*I. planifrons, I. cylindrica, I. carinifrons* and *I. rugosifrons*), revised and redescribed the genus and its ten known South American species (omitting *I. necydalea* (Linnaeus, 1758) which was thought to belong to another genus) distributed from Surinam to Argentina in the east and Peru to Bolivia in the west.

Unfortunately Zaciw did not recoginise that *I. carinifrons,* was the other sex of two male specimens he studied of *I. laevicollis;* a new synonymy is established below. Today, with a further species from French Guiana (Tavakilian & Peñahererra-Leiva, 2005), and two new ones from Bolivia, the South American species of *Isthmiade* stand at thirteen. In the detailed descriptions and redescriptions of the five Bolivian species, females of *I. laevicollis* and males of *I. planifrons* are described for the first time.

MATERIAL AND METHODS

Nearly all of the material examined was collected at the Hotel Flora & Fauna, 420-440 m, 5 km SE of Buena Vista, Department of Santa Cruz, Bolivia. This hilly locality lies in disturbed transition forest (Semideciduous Chiquitano Forest and Tropical Humid Forest), 16 km from the foot of the eastern Cordillera of the Andes.

Measurements (mm): Total length = length of head from apex of labrum to hind margin of antennal tubercles + length of pronotum + length from base of elytron at

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humerus to tip of abdomen. Length of rostrum = genal length from apex of side to where it meets inferior lobe. Length of inferior lobe from its most forward position on frons to its hind margin adjacent to front of antennal tubercle. Interocular distance of inferior lobes = width of frons at its narrowest point. References to antennal length in relation to body parts are made with head planar to dorsad and antenna straightened.

The acronyms used in the text are as follows: Museo Noel Kempff Mercado, Universidad Autónoma Gabriel Renè Moreno, Santa Cruz de la Sierra, Bolivia (MNKM); Museu Nacional, Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brazil (MNRJ); Museu de Zoologia, Universidade de São Paulo, São Paulo, Brazil (MZSP); Robin Clarke/Sonia Zamalloa private collection, Hotel Flora and Fauna, Buena Vista, Santa Cruz, Bolivia (RCSZ).

RESULTS AND DISCUSSION

Taxonomy

Isthmiade Thomson, 1864

Isthmiade Thomson, 1864: 166, 1865: 417; Lacordaire, 1869: 504; Bates, 1870: 326, 1873: 121; Zajciw, 1972b: 575 (rev.).; Monné, 2006: 481 (cat.).

Type-species: *Isthmiade hephestionoides* Thomson, 1864 (original designation) [= *Stenopterus braconides* Perty, 1832].

The following description of the genus is translated from Zajciw (1972b), with author's rewording in square brackets:

Body black, rufous or testaceous, with parts or fasciae black; slender, elongate, more or less narrow. Clypeus smooth or punctate, sometimes pubescent. Eyes very finely granulate. Antennae not passing beyond middle of urosternite III [must be changed to *apex of urosternite III* to include some males of *I. laevicollis* and female *Isthmiade zamalloae* sp. nov.], antennal tubercles not close, from antennomere VI [add *(VII)* to cater for *I. martinsi* sp. nov.] more or less distinctly serrate. Prothorax, nearly always [*usually* would be better since that of *I. ichneumoniformis* is quadrate] longer than wide, broadly constricted at front, less behind; pronotal disc shining, with five calli, which may be vestigial. Elytra long [elytra of *I. planifrons* are short], reaching about as far as middle to apex of urosternite II [change to *as far as apex of urosternite I to basal third of III,* as in *I. planifrons* and *I. laevicollis* respectively], but never further; awl-shaped [*or wedge-shaped* as in *I. planifrons*]; apices almost always rounded and truncate [see below]. Wings cover abdomen, frequently dusky, as a rule with pale, preapical fascia, or entirely translucent [delete *with dusky fascia* for clarity, and to cater for *I. zamalloae* sp. nov. with entirely translucent wings]. Procoxae globate and conical, cavities closed behind. Metasternum tumid and wider than base of abdomen, mesal margin of metepisterna narrowed to apex. Metafemora shorter than abdomen; metatibia not hirsute [better *metatibia usually densely setose, never with compact brush*]; metatarsi normal or thickened, tarsomere I [add *usually* to cater for *I. zamalloae*] longer than II + III. Abdominal process (between metacoxae) *either* unicolourous, short and triangular, *or* [remove *whitish,* to end, to cater for male *I. planifrons*], narrowed, curved and acuminate to apex [most of process, or only apex, may be whitish].

Male: Inferior lobes of eyes almost contiguous, or more distant; sides of prothorax with sexual puncturation; shape of urosternite V different from other abdominal segments.

Female: Inferior lobes of eyes well separated; sides of prothorax without sexual puncturation; urosternite V elongate and conical.

And, as Zajciw and many other authors have pointed out, members of the genus have a striking similarity to wasps of the families Braconidae and Ichneumonidae.

Discussion: It is not clear what Zajciw meant when he described the apices of the elytra as *rounded-truncate;* he used this term to describe the apices of *I. cylindrica, I. rubra* and *I. planifrons* and certainly, if we look at the figure he provided for *I. cylindrica,* the term is apt, but not at all typical of other species, *I. planifrons* included.

It seems necessary to re-word this part of the generic description because the shape of elytral apex is an important character for separating the species. Before doing so, another inter-specific character of use (which affects shape of elytral apices, and which Zajciw refers to without defining it) is, what will be referred to as, the *humero-apical costa* (the *dorsal costa* of other authors). The humero-apical costa, in its uninterrupted condition, can be described as the longitudinal convexity separating elytral disc from epipleuron, running from the most elevated part of humerus (where it is broad) to apex of elytra (where it is narrow and usually elevated). In *I. martinsi* sp. nov. it is complete, giving elytra a distinctly convex appearance; *I. zamalloae* sp. nov. slightly flattened behind humeri, otherwise complete; *I. ichneumoniformis* and *I. laevicollis* somewhat evanescent for middle third;

and in *I. planifrons* only present for apical half, giving elytra a distinctly flat appearance.

If *I. martinsi* sp. nov. and *I. planifrons* represent the two extremes of the genus, the generic description of the sides and apices of elytra may be described as follows: humero-apical costa of elytra variable, from entire to partly evanescent, but always discernable towards apex; apical margins *either* rounded, *or* transversely to obliquely truncate (sometimes with spines or teeth at sides), *or* sharply acuminate.

A number of characters common to all the Bolivian species are: mandibles yellow with black tip (except *I. planifrons* entirely black); clypeus impunctate; antennae rather uniform; scape and pedicel smooth and shining (except male *I. zamalloae* sp. nov. slightly reticulate) with scattered punctures, antennomere III-V (less often to VI) setose mesally, closely punctured, rest micropunctate with very short dense pubescence; VI-X (VII-X in *I. martinsi* sp. nov.) incrementally thickened and serrate at apex, XI acuminate at apex; legs increasingly longer from front to back.

Isthmiade laevicollis Tippmann, 1953 (Figs. 1A, 1B)

Isthmiade laevicollis Tippmann, 1953a: 215, pl. 16, fig. 26a; Zajciw, 1972b: 579; Julio *et al.,* 2000: 17 (holotype); Tavakilian & Peñaherrera-Leiva, 2005: 43, figs. 16, 26a-c; Monné, 2006: 482 (cat.).

Isthmiade laevicollis var. *rubrosignata* Tippmann, 1953a: 215, pl. 16, fig. 26b.

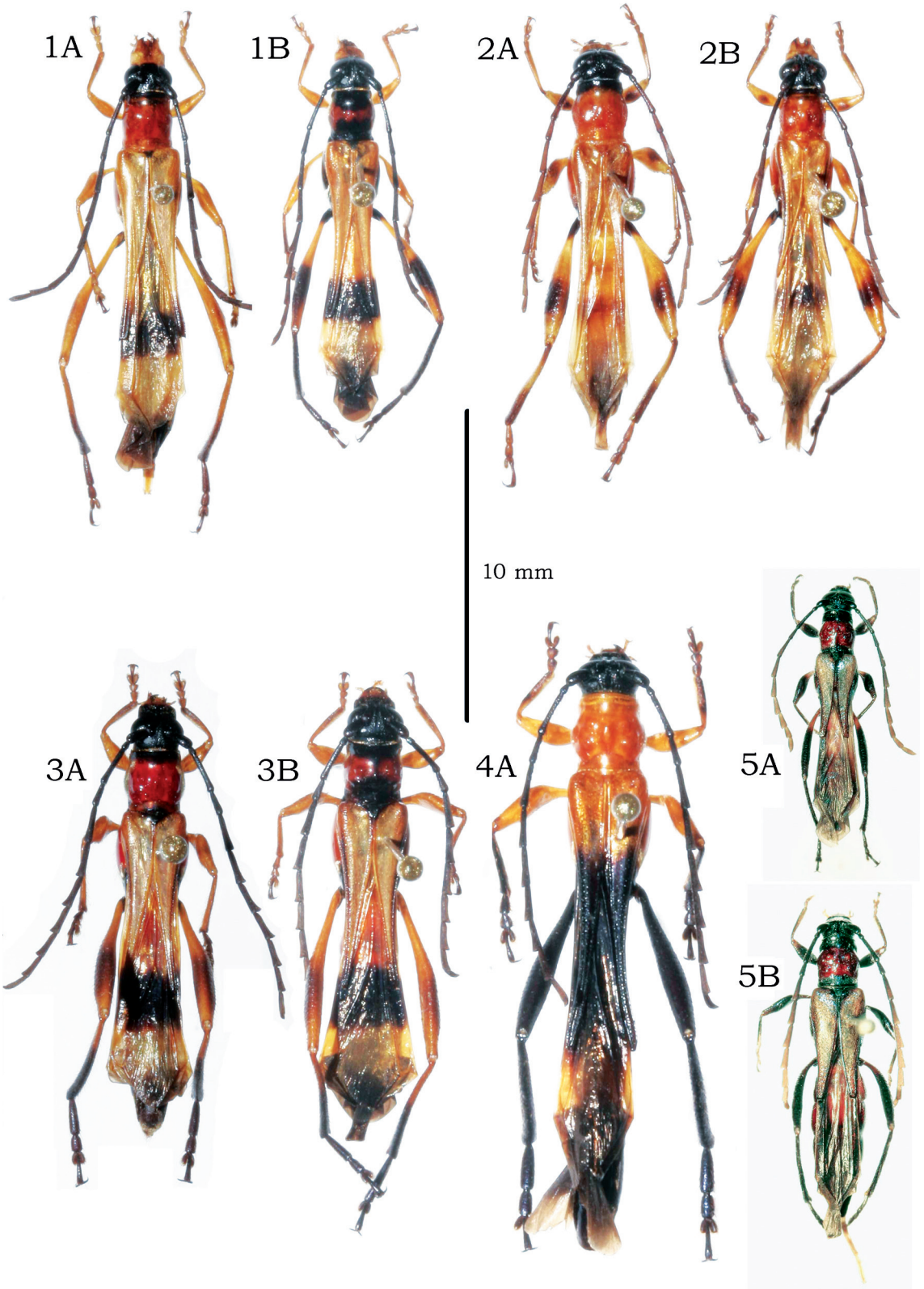
Isthmiade carinifrons Zajciw, 1972a: 13, syn. nov.

Diagnosis. Isthmiade laevicollis is readily separated from the other Bolivian species by the following combination of characters: rostrum and front legs entirely yellow, apices of elytra chestnut, obliquely truncate, outer angle usually with large tooth; wings with broad black and yellow bands.

Redescription. Male general colour: translucent yellow, and black. Head mostly black, including tip of mandibles, scape, pedicel and antennomeres III-V, rest of antennomeres dusky brown; mouthparts, labrum and clypeus rufous, and entire rostrum yellow. Prothorax black, except pronotum with narrow, reddish-yellow fascia across middle, this widening to occupy middle of sides, front and hind margins of this band scalloped by encroaching areas of black. Mesothorax, scutellum and apical fifth of elytra black, rest of elytra and mesosternal process yellow. Sides of metasternum, metepimeron and metepisternum black, inner two-thirds of metasternum orange-yellow. Urosternites I, II and most of III orange-yellow (abdominal process paler), apex of III, and all of IV and V blackish. Front legs entirely yellow; middle legs with hind part of coxa, tibia and tarsus chestnut, rest yellow; hind legs with coxa, trochanter, base of peduncle, dorsad of apex and broad ring around middle of femoral club, tibia and tarsus black, rest yellow; onychia darker than rest of tarsomeres, or black. Broad pre-apical band and apex of wings blackish, pre-apical yellow band broad and distinct.

General pubescence: Head almost glabrous; short scattered, yellow hairs on genae and line of denser hairs adjacent to apex of inferior lobes; submentum and gula glabrous except for a few scattered long hairs at sides. Front of prothorax and disc of pronotum glabrous; a round patch of dense, unruly, short and long hairs in front of prosternal process, sides of pronotum with large, hemispherical patch of short, very dense, semi-erect, white hair. Scutellum with uniform, fine, recumbent, white pubescence. Mesosternum with fine sparse hair at centre and apex of process, very dense, white and glistening on mesepimeron; and coxae with long recumbent hair. Basal half of metasternum, inner front corner and apex of metepisternum with dense, recumbent, white, glistening pubescence; apical half of metasternum moderately densely hirsute, otherwise glabrous. Abdomen almost glabrous, urosternites IV and V with short, semi-recumbent, yellow pubescence.

Surface ornamentation: labrum with line of twelve small punctures at base; clypeus impunctate, adjacent area of frons with regular, moderately large, isolated punctures, these becoming confused towards front margin of inferior lobes, and line of close small punctures adjacent to inner side of lobes; upper part of frons with single row of relatively small punctures to each side of frontal suture, these passing around inner margins of superior lobes in two rows of confluent punctures, and reverting to single row adjacent to hind margin of eyes; in this way leaving most of vertex impunctate; submentum irregularly and moderately densely punctured with mix of large and small punctures, gula smooth and impunctate. Prothorax with patch of somewhat confused punctures in front of prosternal process, the punctures a mix of large, smaller and micro-punctures; base and sides of process with very small punctures, apex micro-sculptured without obvious puncturation; sides of pronotum with large, semi-circular patch of rugose punctures (representing the sexual puncturation), the punctures of mixed sizes and many confluent, the interstices reticulate; disc of pronotum almost impunctate, two groups of three large



FIGURAS 1-5: Bolivian species of *Isthmiade* Thomson, 1864. **1.** *Isthmiade laevicollis* Tippmann, 1953, 1A female 1B male; **2.** *Isthmiade zamalloae* sp. nov., 2A male holotype, 2B female; **3.** *Isthmiade ichneumoniformis* Bates, 1870, 3A male, 3B female; **4.** *Isthmiade martinsi* sp. nov., 4A male holotype; **5.** *Isthmiade planifrons* Zajciw, 1972, 5A male, 5B female.

punctures adjacent to apex of central callus, otherwise the punctures small and scattered. Mesothorax (x40) with very small, dense punctures at centre of mesosternum, but increasingly impunctate laterally; scutellum densely micro-punctate; elytra almost impunctate on disc, with small group of asperate punctures on humeri and denser larger punctures on epipleuron, only becoming contiguous at extreme apex. Metathorax with moderately dense, large, shallow punctures where it is hirsute, micro-punctate where the pubescence is dense and recumbent, otherwise smooth and shining. Abdominal urosternites I-III almost impunctate, IV with a few scattered punctures throughout, most of V with denser, slightly asperate punctures.

Structure: Head. Rostrum relatively long; lengths of gena/inferior lobe 0.6/0.8 mm; inferior lobes almost contiguous (interocular distance/width of lobe 0.18/0.85 mm), separated by deep, V-shaped frontal suture (which is well marked to hind margin of superior lobes); superior lobes proximate, interocular distance/width of lobe 0.45/0.23 mm. Submentum separated from mentum by narrow declivity, somewhat poorly delimited, separated from short gula by two inconspicuous carinas. Antenna long and filiform, reaching apex of urosternite III; scape (0.9 mm) four times longer than pedicel (which is slightly elongate), two-thirds length of antennomere III (1.4 mm); antennomere IV (0.9 mm), V (1.3 mm) slightly shorter than III, VI subequal (1.2 mm), remaining antennomeres gradually shortening to X (0.9 mm), X1 slightly longer (1.0 mm).

Thorax. Prothorax distinctly longer (2.2 mm) than width of front and hind margins (1.6 mm), deeply constricted at apex and base (the latter complete to hind angles), sides strongly rounded and widest (2.0 mm) at middle; disc of pronotum with single, well-marked, elongate callus at centre, and two pairs of indistinct rounded calli to either side of centre; the prosternal process weakly arched, base narrow (about 1/11 width of coxal cavity) and elongate, apical triangle moderately large, with strongly raised sides.

Mesothorax abruptly declivous before mesosternal process, the latter broad at base (1/4 width of coxal cavity), apex cordiform without elevated sides, the whole process somewhat deformed by coarse puncturation. Scutellum subtrapezoidal, sides of basal half slightly emarginate, apical half parallel sided, apex slightly rounded. Elytra elongate (3.2 times width of humeri), reaching basal third of urosternite III; for basal two-thirds, strongly dehiscent, acuminate almost to apex, where they are widened; humero-apical costa incomplete for middle third (imparting flat look to elytron), salient and widening at extreme apex; apices obliquely truncate, slightly emarginate, sutural angle with small tooth, lateral angle with large tooth.

Metasternum moderately strongly convex (pro- and mesocoxae planar with metasternum), longitudinal suture almost entire, deeply impressed behind.

Legs large but femoral clubs not robust, profemur with short peduncles and relatively narrow clave; mesofemoral club almost slender; hind leg slender (5.7 mm), femora subcylindrical without distinct clave, tarsus not robust, metatarsomere I cylindrical, longer (1.1 mm) than II (0.5 mm) and III (0.4 mm) together.

Abdomen. Narrow and long, widening to apex, urosternite I longest (2.3 mm), narrow and constricted at middle; II (1.5 mm trapezoidal, slightly constricted; III (1.5 mm) quadrate, sides subparallel; IV quadrate (1.3 mm); V (0.7 mm) trapezoidal, depressed at middle, convex at apex, apical margin straight; abdominal process long and narrow with elevated sides.

Variation: Transverse reddish-yellow band across middle of pronotum may be wider; teeth at apex of elytra may be shorter and of equal size. Antennae may not reach middle of urosternite III.

Female sexual dichromatism: gula may be almost white; prosternum as male, or only black anteriorly to process and laterally orange-yellow; pronotum almost entirely orange-yellow (only front dusky with irregular orange intrusions), or more like male, but basal margin only black at middle and central orange-red band much wider, occupying all of sides and disc from apical 1/4 to basal margin; remaining sterna may be like male (except black changed for chestnut), or entirely orange-yellow (except apex of mesepimeron black); abdomen may be entirely orange-yellow (except for apical segment black), or entirely blackish (except urosternite I); black band on metafemoral club paler than male, or only suggested by slight darkening to orange-brown colour.

Female sexual dimorphism: rostrum very long, gena (1.0 mm) longer than inferior lobe (0.9 mm); interocular space (0.8 mm) more than four times wider than male and slightly wider than inferior lobe (0.7 mm), frontal suture not deeply incised, between suture and lateral margins broadly and shallowly impressed, impunctate (except a few small punctures towards antennal tubercles, which extend to back of inferior lobes as in male); antennae relatively shorter, reaching apex of urosternite II; prosternal process with very short base and larger apex; prothorax weakly constricted at base, pronotum more elongate (2.5 mm), sides much less

rounded (2.2 mm), glabrous and impunctate; calli reduced to salient central callus with single, low, rounded callus to either side at front (the posterior pair of calli completely eliminated by the very broad basal constriction); length of elytra 2.9 times width of humeri, nearly reaching apex of urosternite II; metasternum more convex than male, planar with procoxae, more salient than mesocoxae); abdomen fusiform, widest at middle of urosternite III, urosternite V long (1.3 mm), conical (apical margin rounded) and convex.

Measurements (mm): 6 males/2 females respectively: total length 13.0-15.8/15.3-18.5; length of pronotum 1.8-2.2/2.1-2.5; width of pronotum 1.7-2.0/2.0-2.2; length of elytra 6.2-7.0/7.1-8.4; width of humeri 2.1-2.2/2.4-2.8.

Material examined (in the RCSZ collection): BOLIVIA, Santa Cruz, 17°29'96"S/63° 39'13"W, 420 m, Hotel Flora & Fauna, 5 km SSE Buena Vista, R. Clarke/S. Zamalloa col. 3 males, 4.V.2005, 12.V.2005 and 26.IV.2006 on/flying to flowers of "Bejuco hoja lanuda"; 1 male, 23.XII.2005 and 1 male 20.XII.2008 on/flying to flowers of "Sapaimosi"; 1 male, 28.X.2006, on/flying to flowers of "Tutumillo espinoso"; 1 female, 4.IX.2005, on/flying to flowers of "Barbasquillo" vine; 1 female, 26.XI.2007 on/flying to flowers of "Sama blanca". Specimen with different data from above: Road to El Cairo-Cafetal, 6 km W Buena Vista, R. Clarke/S. Zamalloa col., 1 male, 20.VII.2008, on/flying to flowers of *Gomphrena vaga* Mart.

Discussion: When Zajciw revised the genus more than thirty years ago *I. laevicollis* was thought to be endemic to Peru and, no doubt, together with the rather singular aspect of his female *I. carinifrons* (from Para, Brazil), led him to overlook the actual similarity between his specimen and Tippmann's species, which was known only from males. Monné & Hovore (2006) recorded *I. laevicollis* from French Guiana, Brazil, Peru and Bolivia.

Isthmiade zamalloae sp. nov. (Figs. 2A, 2B)

Holotype: Male. Total length 17.1 mm. Deposited at MNKM.

Diagnosis. I. zamalloae sp. nov. is immediately recognizable in both sexes by short metatarsomere I, dusky round fascia of profemora, wings almost entirely translucent.

General colour: mostly translucent orange-yellow. Head mostly black (including underside of rostrum), including tip of mandibles, scape, pedicel and base of antennomere III, rest of antennomeres brown; mouthparts, labrum, clypeus, genae (above and below), and upper side of rostrum orange-yellow. Prothorax: front border of pronotum, most of prosternum (including sides and hind edge of coxal cavities, and tip of coxal process) black; rest of pronotum and prosternal process orange-yellow. Mesothorax (including scutellum and elytra) and metathorax orange to orange-yellow, sides of elytra from behind humeri to apical third slightly dusky. Abdomen orange-yellow (including abdominal process), urosternites IV and V and last two tergites fuscous. Legs mostly orange-yellow, the following chestnut or dusky: front of procoxa and most of metacoxa, trochanter and base of peduncle of meso- and metafemora, profemora with round spot on clave, dorsad of protibia; obscure, broad facia at middle of mesofemoral clave; metafemoral clave with broad band around middle, apical half of metatibia. Tarsi of middle and hind leg pale chestnut, onychia darker. Wings almost entirely translucent.

General pubescence: reduced and more uniform, yellow, hirsute hairs shorter and less dense, patches of glistening, recumbent pubescence almost absent. Head almost glabrous; short scattered hairs on genae and line of denser hairs adjacent to apex of inferior lobes; submentum and gula glabrous with group of 2-3 long setae to each side. Front of prothorax and disc of pronotum glabrous; a rectangular patch of dense, unruly, short and long hairs in front of prosternal process, sides of pronotum with oblique, large patch of short, very dense hair. Scutellum with uniform, fine, recumbent pubescence. Mesosternum with fine sparse hair at centre, denser on mesepimeron; and coxae with long recumbent hair. Basal half of metasternum and inner front corner of metepisternum with dense, recumbent, glistening pubescence; apical half of metasternum with sparse, long, erect hair. Abdomen almost glabrous, urosternites IV and V with sparse rows of long, erect hair.

Surface ornamentation: labrum with two compact group of five small punctures at base; genae almost impunctate; clypeus impunctate, adjacent depression of frons with irregular fine punctures; group of shallow punctures adjacent to front of inferior lobes and line of 5-6 punctures adjacent to inner side of lobes; upper part of frons with single row of irregular punctures to each side of frontal suture, these passing around inner margins of superior lobes in two rows of confluent punctures, leaving vertex, including postorbital area, impunctate; submentum with four rows of arced carina separated by rows of large, semi-confluent punctures.

Prothorax with rectangular patch of somewhat rugose and reticulate punctures in front of prosternal process; base of prosternal process with large punctures, apex with uniform small punctures; sides of pronotum with large, oblique, flat patch of rugose punctures (representing the sexual puncturation) spreading to disc of pronotum, two groups of 7-9 large punctures to either side of central callus and two groups of 6 just behind central callus. Mesothorax (x40) densely punctured at centre of mesosternum and entirely on mesosternal process; mesepimeron and mesepisternum smooth and shining; scutellum densely micro-punctate; elytra almost impunctate, with small group of asperate punctures on humeri and irregular line of small, confluent punctures on epipleura. Metasternum moderately densely punctured except at sides; outer front corner of metepisternum with small group of small dense punctures, rest smooth and shining. Abdominal urosternites I-III almost impunctate, IV and V with a few scattered punctures throughout, centre of V reticulate.

Structure: Head. Rostrum short, frons separated from clypeus by shallow, transverse declivity; lengths of gena/inferior lobe 0.7/1.0 mm; inferior lobes very convex, widest behind antennal tubercles, not at all contiguous, interocular distance/width of lobe 0.25/1.10 mm; interocular space delimited by well marked, elevated borders and deep frontal suture, and terminating in raised, ogivoid area on apex of frons (where it is further delimited by contrasting colour (interocular black, frons orange); superior lobes proximate, interocular distance/width of lobe 0.5/0.25 mm. Frontal suture deep and relatively wide to hind margins of superior lobes (where it is wide enough to be furnished with a single line of small punctures). Submentum slightly depressed, separated from gula by transverse depression. Antenna slender, reaching middle of urosternite III; scape (1.1 mm) almost three times longer than pedicel (which is slightly elongate), two-thirds length of antennomere III (1.5 mm); antennomere IV (0.9 mm), V as long as three, VI subequal (1.4 mm), remaining antennomeres gradually shortening to X (0.9 mm), X1 slightly longer (1.0 mm).

Thorax. Prothorax longer (2.5 mm) than width of front and hind margins (both 2.2 mm), deeply constricted at base and apex, basal depression externally delimited by deep fovea; basal angles right-angled (when viewed from above); sides strongly rounded, widest (2.4 mm) just in front of middle. Disc of pronotum with five, somewhat ill-defined, low calli: central one elongate; anterior pair small and round; posterior pair ovate. Prosternal process almost flat, base narrow (about 1/10 width of coxal cavity) and moderately short; apical triangle elongate, relatively small, sides elevated around central depression.

Mesothorax abruptly declivous before mesosternal process, the latter broad at base (1/4 length of coxal cavity), apex cordiform without elevated sides, the whole process somewhat deformed by coarse puncturation. Scutellum trapezoidal, sides of apex elevated, apical border notched. Elytra only moderately elongate (2.3 times width of humeri), reaching basal third of urosternite II; strongly dehiscent and sharply acuminate; humero-apical costa weak just behind humeri, otherwise entire and salient to apex, giving elytron distinct convex appearance for apical two-thirds.

Metasternum broad (entire sides of mesosternum visible from above) and moderately strongly convex (planar with pro- and mesocoxae); longitudinal suture deeply impressed, occupying apical two-thirds.

Legs robust, front leg less so; procoxae very salient, distinctly more so than mesocoxae (as in *I. planifrons,* but no other Bolivian species); profemur short (2.5 mm), peduncle short, clave not strongly tumid, fusiform; mesofemur longer (3.0 mm), peduncle moderately long (0.9 mm), clave wide vertically, widest at middle, attenuate to apex; metafemur (6.1 mm) with short, robust peduncle (1.5 mm) and long tumid clave, the latter widest at middle, apex reaching middle of urosternite III. Tarsi moderately robust, protarsus less so; protarsomeres I and II subequal, III longer; mesotarsomere I subcylindrical equal to II in length, both shorter than III; metatarsomere I cylindrical, shorter (0.9 mm) than II + III. II (0.6 mm) and III (0.5 mm), III not strongly bifid.

Abdomen. Elongate and subparallel, widest at apex of urosternite III. Urosternite I longest (2.5 mm), trapezoidal and constricted at middle; II (1.8 mm), quadrate, sides parallel; III (1.7 mm) transverse, sides subparallel; IV (1.6 mm) trapezoidal, sides rounded; V (1.1 mm) trapezoidal, centre of apex slightly depressed, apical margin with rounded protuberance at middle; abdominal process long and broad, sides elevated, same colour as urosternite I.

Variation: Colour differences unremarkable: procoxal process entirely yellow; sides of elytral (and sometimes epipleuron) may be blackish for middle third; wings slightly duskier (but still much less than other Bolivian species); antennae may reach apex of urosternite III; urosternites IV and V almost black. Punctures more numerous on disc of pronotum (up to 12/group).

Female: Colour distribution of the single female specimen shows no significant difference from males (in-

cluding the characteristic dusky fascia on profemoral clave) except procoxal process entirely orange-yellow and abdomen fuscous.

Sexual dimorphism: interocular space almost three times wider than male (1.3 mm) and slightly narrower than width of inferior lobe (1.5 mm), moderately deeply incised by frontal suture, between this and lateral border one complete carina (and associated sulcus) and one short, comma-shaped sulcus at base, with a few scattered, large punctures towards antennal tubercles, otherwise almost impunctate; antennae long, reaching apex of urosternite III; prosternal process with very short base and larger apex; mesosternal process almost impunctate; prothorax weakly constricted at base, pronotum more elongate and sides much less rounded than male, disc more tumid (and consequently calli more distinct), sides glabrous, impunctate anteriorly (except for group of 12 large punctures at extreme sides), posteriorly punctures much sparser; elytra 2.4 times width of humeri, reaching basal third of urosternite II, less parallel-sided, and dehiscence stronger; metasternum less convex and slightly less salient than pro- and mesocoxae; abdomen fusiform, widest at middle, urosternite V long (1.5 mm), conical (apex moderately pointed) and convex; hind leg less robust, peduncle longer and clave less thickened; metatarsomere I short as in male.

Measurements (mm): 4 males/1 female respectively: total length 14.6-17.4/15.0; length of pronotum 2.2-2.7/2.6; width of pronotum 2.2-2.6/1.9; length of elytra 5.5-6.2/5.5; width of humeri 2.3-2.6/2.2.

Type material: Holotype male, BOLIVIA, Santa Cruz: Hotel Flora & Fauna, 5 km SSE of Buena Vista, 17°29'96"S/63°39'13"W, 430 m, 26.IV.2006, R. Clarke & S. Zamalloa col., on flower of "Bejuco hoja lanuda" (MNKM). Paratypes with same data as holotype: 1 female 6.V.2005 (RCSZ), 1 male 25.IV.2006 (MNRJ), 1 male 20.IV. 2008 (MZSP). Paratype with other host flower, same locality: 1 male 25.XII.2005, on flowers of "Sapaimosi" (RCSZ).

Discussion: In some ways this species seems to have reversed sexual dimorphism, the male habitus looks more like that of a female (larger, heavier and broader), the female the reverse; male antennae are shorter than female's and male metasternum more convex than female's.

Etymology: This species is dedicated to my wife, Sonia Zamalloa Herrera, persistent cerambycid hunter.

Isthmiade ichneumoniformis Bates, 1870 (Figs. 3A, 3B)

Isthmiade ichneumoniformis Bates, 1870: 326; 1873: 122; Gounelle, 1911a: 51; Lima, 1955: 105 (biol.); Zajciw, 1972b: 578; Tavakilian & Peñaherrera-Leiva, 2005: 43, figs. 15, 28a-c (lect.); Monné, 2006: 482 (cat.).

Diagnosis: I. ichneumoniformis is readily separated from other Bolivian species by its relatively large size, uniform black head, pale, elongate elytra and orange-red abdomen.

Original description: Black, shining, elytra testaceous-gold, abdomen red (except apex); legs testaceous red, hind leg femora broadly ringed dusky, tibia and tarsus dusky; wings yellow, apical band black. Length 5-7 lines male, female.

Redescription. Male g*eneral colour:* Head, pro- and mesosternum, scutellum, urosternites IV and V, black. Pronotum usually translucent orange-red across middle, broadly black at front margin and less so at hind margin, but pigmentation of hind margin often protrudes on to disc, or extends along midline to front margin, or, less commonly, black colour reduced to narrow band at front margin (among the material examined pronotum never entirely black, nor entirely orange-red); extreme sides of pronotum black. Elytra translucent orange-yellow (almost vitreous) except area around scutellum, epipleuron from behind humeri to apex, and extreme apices rufous. Broad fascia across apical third of wings translucent yellow to orange-yellow. Metasternum and metepisternum orange-red, urosternites I-III usually so, but most of abdomen may be black. Legs translucent orange-yellow except coxae, apical half of metatibia, and all of metatarsus black; apical two-thirds of metafemoral club dusky.

General pubescence: Head almost glabrous, genae with short, recumbent pubescence. Submentum and gula glabrous with group of 2-3 long setae at each side. Sides of pronotum towards base with round patch of dense, long, recumbent pubescence. Prothorax anterior to prosternal process and apical half of metasternum densely hirsute, mesepimeron and base of metasternum clothed with glistening, recumbent, golden pubescence; metepisternum and urosternites I-III almost glabrous, IV and V with rows of long, erect hairs, denser at sides.

Surface ornamentation: Labrum with row of six large punctures interspersed with smaller ones, clypeus im-

punctate, frons with mix of large and small, confluent punctures in depressed area, otherwise impunctate; vertex between antennal tubercles with single row of confluent punctures, these extending around inner and hind margins of superior lobes in two irregular rows (which may be invested by short, narrow carinas), leaving vertex largely impunctate; submentum with large, rectangular patch of anastomosed punctures, gula impunctate; prothorax anterior to prosternal process with irregular, contiguous punctures, interstices micro-punctate; sides of pronotum under pubescence coarsely and closely punctured (representing the sexual puncturation), the interstices reticulate; elytra with uniform, sparse, small punctures at midline; centre of metasternum with moderately dense, uniform, small punctures; metepisternum and urosternites almost impunctate, some sparse punctures at sides of IV and V.

Structure: Head. Rostrum distinctly short; frons separated from clypeus by strong, transverse declivity; lengths of gena/inferior lobe 0.7/1.0; inferior lobes subcontiguous, interocular distance/width of lobe 0.2/1.1 mm; frontal suture represented by deep V-shaped depression extending to hind margin of superior lobes; superior lobes relatively proximate, interocular distance/width of lobe 0.50/0.25 mm. Area of submentum depressed with evanescent arced carinas, not separated from gula by distinct declivity. Antennae slender, somewhat short, reaching base of urosternite III; scape (length 1.0 mm) more than three times longer than pedicel, two-thirds length of antennomere III (1.6 mm); IV (0.9 mm), V and VI equal (1.5 mm), remaining antennomeres gradually shortening to X (1.1 mm), X1 longer (1.2 mm).

Thorax. Prothorax distinctly longer (2.4 mm) than width of front and hind margins (both 2.1 mm), deeply constricted at base and apex, the sides strongly rounded and wide (2.4 mm); disc of pronotum with five distinct calli, those to either side of centre subcircular, central one elongate; base of prosternal process slightly arched, elongate and very narrow (ca. 12 times narrower than width of coxal cavity), apex triangular, large and declivous across apex, the margins narrow and slightly raised, but not explanate.

Mesothorax abruptly declivous before mesosternal process, the latter moderately broad at base at base (1/4 width of coxal cavity), apex weakly cordiform with well elevated sides. Scutellum large, elongate, subtriangular, apex broadly rounded, not bifid; elytral surface adjacent to scutellum elevated and dusky in colour. Elytra elongate (2.6 times width of humeri), reaching middle of urosternite II, strongly acuminate from humerus to apex; dehiscent for apical two-thirds; humero-apical costa weak for middle third, only slightly salient to apex; apices with smooth, blunt, truncate lobe at tip.

Metasternum tumid and convex (planar with pro- and mesocoxae), longitudinal suture not deeply impressed, occupying apical four-fifths.

Legs robust; profemur short (3.0 mm), peduncle almost absent, clave large, widest at middle; mesocoxae flattened, mesofemur longer (4.0 mm), peduncle moderately long (1.2 mm), clave large, attenuate to apex; metafemur subcylindrical without distinct clave, long (7.5 mm), reaching middle of urosternite IV. Tarsi robust; protarsomeres I and II subequal, both shorter and much narrower than III (0.45 x 0.50 mm), mesotarsomere I and III of equal length (0.5 mm), I subcylindrical, slightly longer than II, both I and II much narrower than III; metatarsomeres I and II cylindrical, I longer (1.5 mm) than II (0.7 mm) and III (0.5 mm) together.

Abdomen. Moderately robust and elongate, subparallel, urosternite I longest (2.9 mm), trapezoidal and constricted at middle; II (2.2 mm), rectangular, subparallel and weakly constricted at basal third; III (2.1 mm) quadrate; IV subquadrate (1.6 mm); V (1.1 mm) trapezoidal, slightly depressed from apex to middle, apical margin slightly sinuate; abdominal process long and narrow, whitish.

Female: Rostrum hardly longer than male, length of genae equal to length of inferior lobe (0.7 mm), distance between inferior lobes (0.7 mm), width of lobe (0.8 mm); frons multi carinate from antennal tubercles to apical declivity, each side (between outer margin and frontal suture) with three very narrow carinas and three slightly broader sulci, this arrangement sometimes subdivided by further short carinas in an asymmetrical manner. Patch of pubescence at sides of pronotum in males much reduced in extent and density, and size of punctures minute. Metasternum more convex behind and more salient than mesocoxa (even though these are more salient than in male), the latter not flattened. Abdomen robust, fusiform; urosternite IV elongate (0.1.6 mm) and trapezoidal; V elongate (2.0 mm), conical (apex rounded, not angular), narrow (basal margin 1.2 mm, apical margin 0.7 mm) and regularly convex; abdominal process same colour as abdomen.

Measurements (mm): 24 males/4 females respectively: total length 15.3-18.5/17.4-18.3; length of pronotum 2.1-2.6/2.3-2.4; width of pronotum 2.0-2.6/2.4; length of elytra 6.4-7.9/7.2-7.4; width of humeri 2.1-2.8/2.7-2.9.

Material examined (in the RCSZ collection): BOLIVIA, Santa Cruz, 17°29'96"S/63° 39'13"W, 420 m, Hotel Flora & Fauna, 5 km SSE Buena Vista, R. Clarke/S. Zamalloa col. The following on/flying to flowers of "Bejuco hoja lanuda": 11 males 21.IV.2005, 1 male 6.V.2005, 1 male 10.V.2005, 1 male 11.V.2005, 2 females 12.V.2005. The following on/flying to flowers of "Barbasquillo" vine: 1 male 3.VIII.2005, 2 males 30.VIII.2005. The following on/flying to flowers of "Sapamoisi": 3 males 21.XII.2005, 1 male 24.XII.2005, 1 male 27.XII.2005. The following on/flying to flowers of "Tutumillo espinoso": 1 male 20.X.2006. The following on/flying to flowers of "Sama blanca": 1 female 11.XI.2006. The following from different locality and host flower: BOLIVIA, Santa Cruz, road to San Javier, 12 km ENE Buena Vista, R. Clarke/S. Zamalloa col., on/flying to flowers of "Esquiziton": 1 female 14.XII.2005.

Discussion: Maybe *I. ichneumoniformis* is more than one species, or a superspecies, but the Bolivian specimens look very like the illustration of the Lectotype given by Tavakilian & Peñahererra-Leiva (2005) except this specimen has entirely black pronotum and dark fascia on pro- and mesofemora. Since Bates' description, four lines of Latin, is inadequate for comparative purposes, only evaluation of specimens from all parts of its geographical distribution will determine its status.

Isthmiade martinsi sp. nov. (Fig. 4A)

Holotype: Male. Total length 23.7 mm. Deposited at MNKM.

Diagnosis: Isthmiade martinsi sp. nov. is readily separated from other Bolivian species by its large size, and black: head, apical two-thirds of elytra, entire abdomen and hind legs.

General colour: Head mostly shining black, including tip of mandibles, scape and pedicel; antennomeres dull, dark chestnut; the following orange: mouthparts, labrum, clypeus, gula and adjacent parts of neck. Pronotum, scutellum and basal third of elytra translucent orange, and apical two-thirds of elytra lustrous black. All thoracic sternites orange-yellow. Abdomen entirely black, smooth and shining with violet sheen, only abdominal process yellowish. Front and middle legs mostly orange, including coxae, femur, base of protibia, and midline of protarsomeres; the rest dark chestnut to black, including all of mesotarsus and onychyia. Hind legs almost entirely black with metallic violet sheen, only basal half of coxae orange-yellow. Wings entirely smoky except broad band across apical third translucent.

General pubescence: reduced and more uniform, hirsute hairs shorter and less dense, patches of glistening, recumbent pubescence almost absent. Head almost glabrous, antennomeres IV-XI densely clothed with fine, short, cinnamon coloured pubescence. Submentum and gula glabrous with group of 2-3 large setae at each side. Front half of prothorax glabrous, anterior to prosternal process a transverse patch of dense, semi-recumbent, short, yellow hairs mixed with sparse, longer ones; pronotum at extreme sides of basal and middle third with dense, erect, short, golden hairs. Scutellum with fine, white, recumbent pubescence, semi-erect and dense on apical half. Mesothorax almost glabrous, scattered erect hairs on mesosternal process and at sides; elytra glabrous. Metasternum with uniform, semi-erect, long, yellow hairs, only dense in two patches just behind coxal cavities; metepisternum glabrous. Abdomen glabrous, apical tergites and urosternite V with dense mix of short and longer, black hairs.

Surface ornamentation: Labrum with row of six punctures; clypeus impunctate; basal two-thirds of gena sulcate with small scattered punctures, adjacent part of frons, apex of gena, and two broad triangular areas at middle of frons impunctate; upper part of interocular space with single row of irregular punctures, these extending to inner and hind margins of superior lobes in 3-4 rows of large, semi-confluent punctures, leaving centre of vertex impunctate. Area of submentum with transverse, arced rows of punctures, these large, deep and confluent at sides, smaller, shallower and anastomosed adjacent to mentum. Prothorax, anterior to prosternal process with moderately small, sparse punctures; pronotum mostly impunctate, centre of disc and front third of sides with groups of very small punctures, basal two-thirds of sides with crescent of large, anastomosed punctures (probably representing the sexual puncturation). Mesothorax (x40) slightly rugose at centre, very finely and sparsely punctured, otherwise impunctate; scutellum densely micro-punctate; basal half of elytra appear impunctate, the punctures shallow and ill-defined, only at sides clearly visible as rows of widely spaced, small punctures, these increasingly denser and deeper towards elytral apices, where some become confluent. Metathorax almost impunctate at sides, centre of metasternum, especially towards apex, with a moderately dense mix of small and larger punctures. Abdominal urosternites I-III almost impunctate, IV with a few scattered punctures throughout, centre of V reticulate and rugose, with mixture of irregularly sized punctures.

Structure: Head. Rostrum somewhat short; frons separated from clypeus by deep, transverse declivity; frontal suture deep from declivity to antennal tubercles; lengths of gena/inferior lobe 0.7/1.0 mm; inferior lobes moderately wide apart, interocular distance/width of lobe 0.35/1.10 mm, interocular space delimited by well marked, elevated borders; superior lobes relatively distant, interocular space/width of lobe 0.65/0.25 mm. Submentum elevated and strongly demarcated from genal and gular area by well developed, falcate carina. Antennae appear to be short (only reaching apical third of urosternite II) because abdomen is long. Scape subcylindrical (length 1.0 mm) almost three times longer than pedicel, antennomeres III (1.6 mm) and IV (1.0 mm) cylindrical, V as long as III, VI (1.5 mm) hardly serrate,VII-X gradually shorter to X (1.1 mm), X1 longer (1.3 mm).

Thorax. Prothorax longer (2.7 mm) than width of front and hind margins (2.3 mm), deeply constricted at apex and base, which is flat and separated from disc of pronotum by a strong declivity, and marked by an indistinct foveum; sides strongly rounded and wide (2.6 mm); disc of pronotum with five large, tumulous calli, central one elongate, anterior pair circular, posterior pair subovate; prosternal process slightly arched, base moderately short (half the length of apex), very narrow (1/10 width of coxal cavity), apex large and trapezoidal, declivous across middle, margins moderately elevated, broad and somewhat explanate.

Mesothorax abruptly declivous before mesosternal process, the latter narrow at base (1/11 length of coxal cavity), apex cordiform with well elevated sides. Scutellum small, elongate, sides subparallel, apex bifid. Elytra very elongate (3.5 times width of humeri), reaching apical third of urosternite II, strongly acuminate from humerus to apex; dehiscent for apical two-thirds; humero-apical costa almost entirely salient from humeri to apex, giving elytron distinctly convex appearance; apices with elongate, smooth, blunt, lobe slightly angled towards sutural margin.

Metasternum strongly convex (especially behind), more salient than mesocoxae; longitudinal suture moderately impressed, occupying apical two-thirds.

Legs robust; profemur short (3.0 mm), peduncle almost absent, clave large, widest at middle; mesofemur longer (4.5 mm), flattened laterally, peduncle moderately long (1.2 mm), clave large, attenuate to apex; metafemur subcylindrical without distinct clave, long (8.0 mm), reaching middle of urosternite III. Tarsi robust; protarsomeres I and III subequal, both slightly longer than II; mesotarsomere I subcylindrical, 1.5 times longer than II and III; metatarsomeres I and II cylindrical, I longer (1.6 mm) than II (0.9 mm) and III (0.6 mm) together.

Abdomen. Vespiform, very long, more than twice as long as thoracic segments together. Urosternite I narrow and elongate (4.3 mm), constricted for apical two-thirds; II narrow and elongate (2.8 mm), constricted for basal two-thirds; III moderately elongate (2.5 mm), sides straight but diverging to apex; IV subquadrate, slightly longer (2.2 mm) than wide (2.0 mm); V (1.4 mm long) trapezoidal, apex slightly concave to either side of midline, apical margin bisinuate. Abdominal process long and very narrow.

Variation: Sides of genae may be orange. Pro- and mesotarsi may be chestnut. Apex of scutellum may be only slightly bifid to slightly rounded. Apices of elytra vary slightly, apical lobes may be smaller and less oblique.

Female: not known.

Measurements (mm): 5 males: total length 20.4-23.7; length of pronotum 2.6-2.7; width of pronotum 2.4-2.6; length of elytra 9.6-10.3; width of humeri 2.7-2.9.

Type material: Holotype male, BOLIVIA, Santa Cruz: Hotel Flora & Fauna, 5 km SSE of Buena Vista, 17°29'96"S/63°39'13"W, 420 m, 25.XII.2006, R. Clarke & S. Zamalloa col., on flowers of "Sapaimosi" (MNKM). Paratypes (same data as holotype): 1 male, 19.XII.2005 (MZSP); 1 male 17.XII.2006 (RCSZ); 1 male 21.XII.2008 (RCSZ). Paratype with other host flower, same locality: 1 male, 29.IX.2007, flying to flowers of "Piton" (RCSZ).

Etymology: This species is dedicated to Dr. Ubirajara Ribeiro Martins, in recognition of his life times' work on the Neotropical Cerambycidae.

Isthmiade planifrons Zajciw, 1972 (Figs. 5A, 5B)

Isthmiade planifrons Zajciw, 1972a: 137; 1972b: 581; 1974a: 57 (distr.); Julio *et al.,* 2000: 17 (holotype); Monné, 2006: 483 (cat.).

Diagnosis: Because of its small size *Isthmiade planifrons* cannot be confused with any other Bolivian species. The strongly outlined, shorter, cuneiform elytra and dark legs are also characteristic.

Redescription: Male g*eneral colour:* opaque, chestnut to black. Head, entire mandible and scutellum black; sterna black, except sides and disc of pronotum broadly, and mesepisterna orange-red. Scape, pedicel, antennomere III, IV and basal half of V black, the rest brown. Elytra translucent ochraceous except area around scutellum and apical 1/4 rufous, sutural and lateral borders and epipleuron (except adjacent to humeri) black. Abdomen orange, apical half of urosternite V blackish, apex of abdominal process cream. Legs chestnut, darkest on coxae, femoral clubs and dorsad of protibia; protibia orange, dorsad black; apex of profemoral club slightly orange; peduncles of meso- and metafemora orange; protarsus brown, basal mesotarsomeres paler, III chestnut, onychium black, metatarsus entirely black. Wings uniformly dusky for apical half.

General pubescence: body hirsute, becoming dense in front of prosternal process, and all of metasternum and metepisternum. Short, recumbent pubescence on rostrum. Submentum and gula almost glabrous, sparsely hirsute at sides, without specialised group of large setae. Patches of dense, longer, recumbent, glistening white pubescence on sides of pronotum (adjacent to coxal cavities, and associated with sexual puncturation), mesosternum, mesepimeron, basal half and line down middle of metasternum, base and apex of metepisternum, and metacoxae. Abdomen sparsely hirsute, denser at sides and apex.

Surface ornamentation: labrum with arc of six moderately large punctures on basal half, clypeus and frons between inferior lobes impunctate; frontal suture distinct to hind margin of antennal tubercles; vertex with smooth, impunctate line at middle, otherwise closely and irregularly punctured with large and small punctures between, and adjacent to, hind margin of superior lobes; submentum with indistinct carinas and mixture of scattered small and large punctures, gula impunctate. Prothorax anterior to prosternal process transversely striate and micro-punctate with scattered large punctures, apex of prosternal process densely micro-punctate; pronotal disc sparsely punctured with mixture of 32 larger and smaller punctures, median line narrow and impunctate; sides with scattered small and large punctures, sexual puncturation represented by patch where the surface is densely micropunctate and overlain by pubescence (as mentioned above). Mesosternum rugose, with very dense, fine punctures; elytra with confused band of moderately large, isolated punctures running from shoulders and spreading on to disc after basal half, rest of disc with sparse, shallow punctures; sides with single line of large close punctures from basal third to apex. Metasternum with rows of dense, small, reticulate punctures radiating from midline, these rows covering basal half and midline to apex. Abdomen almost impunctate and very shiny; urosternite V with uniform, moderately dense, small punctures.

Structure: Head. Rostrum distinctly short, lengths of gena/inferior lobe 0.25/0.70 mm; frons separated from clypeus by shallow declivity; frontal suture lying in V-shaped depression, distinct to back of antennal tubercles; inferior lobes almost contiguous, interocular distance/width of lobe 0.1/0.6 mm; superior lobes proximate, interocular distance/width of lobe 0.30/0.15 mm. Antenna long and slender, reaching middle of urosternite III; scape pyriform (0.5 mm) almost three times longer than pedicel (0.2 mm); antennomere III (0.9 mm) the longest; antennomere IV (0.5 mm), V (0.8 mm) nearly as long as three, subequal to VI and VII (both 0.75 mm), remaining antennomeres gradually shortening to X (0.5 mm), X1 (0.6 mm).

Thorax. Prothorax distinctly longer (1.6 mm) than width of front/hind margins (1.2/1.3 mm), deeply constricted at base and apex, the sides strongly rounded and widest (1.4 mm) at middle; disc of pronotum not strongly raised, with two prominent calli just in front of middle and two less prominent calli just behind middle, these separated by elongate callus at midline; prosternal process flat, base narrow (1/9 width of coxal cavity) and elongate, apex large and triangular, not declivous across middle, the margins narrow and elevated, but not explanate.

Mesothorax abruptly declivous before mesosternal process, the latter moderately broad at base (1/4 width of coxal cavity), apex slightly wider, outer angles prominent.

Scutellum subtriangular, apex bifid. Elytra strongly outlined by thickening of elevated margin between upper surface and epipleuron; relatively short and broad (2.1 times width of humeri), reaching apex of urosternite I, narrowing regularly to apex, apical third strongly dehiscent; humero-apical costa only traceable from middle to apex, giving elytron a distinctive flat appearance; apices not lobed, truncate, very slightly oblique, both inner and outer angles minutely toothed.

Metasternum tumid and convex (slightly flattened on disc and planar with pro- and mesocoxae); longitudinal suture strongly impressed from base to apex.

Legs moderately robust, profemora with short peduncle and tumid clave; mesofemoral peduncle and clave longer; hind leg long (3.3 mm), gradually thickening from base to near apex. Tarsi not robust, but relatively long, metatarsus 1.9 mm; metatarsomeres I

(0.7 mm) longer than II (0.3 mm) and III (0.25 mm) together.

Abdomen. Long and narrow, with transverse, bead-like segments. Urosternite I longest (1.2 mm), narrow with subparallel sides, urosternites II (0.9 mm) and III (1.0 mm) strongly rounded at sides, IV (0.9 mm) subparallel, V (0.7 mm) trapezoidal with sides slightly "winged" and deep depression on apical half; abdominal process short, triangular, whitish at apex.

Variation: Colour generally may become paler and less contrasting, especially that of elytra and legs, the latter sometimes entirely brownish-orange; distribution of red and black is variable (sterna, including pronotum, may be entirely black but not entirely red; abdomen may be entirely black). Punctures on labrum may be reduced to four large ones, or as many as 12 smaller ones; punctures on disc of pronotum may be reduced, or become very large (0.1 mm diameter) to form a compact group. Antennae may be shorter, reaching base of urosternite III, and elytra longer reaching middle of II. Apical triangle of prosternal process may be declivous across middle; pronotum varies from 1.13-1.23 longer than wide. Elytral dehiscence stronger or weaker, apices may reach basal third of urosternite II, and may be more acuminate and truncate, outer angles rounded or with distinct small teeth.

Female: Colour distribution of the females show no significant difference from the male except for: black fascia at base of pronotum may be trident-shaped; abdomen tends to be darker, even blackish, and abdominal process same colour as rest of abdomen.

Pubescence in general reduced, hirsute patch in front of prosternal process absent; patches of dense white pubescence reduced especially on prothorax and metasternum, but still entire on mesepimeron, and dense patch of recumbent pubescence adjacent to procoxal cavities small. Punctures on disc of pronotum very variable, from 10-34 larger punctures; and calli more distinct in larger females.

Sexual dimorphism: rostrum longer, length gena/length inferior lobe 0.4/0.5 mm; distance between inferior lobes/width of lobe 0.35/0.55 mm, interocular space somewhat elevated, flat, lacking carinas, with one or two irregular rows of smaller and larger punctures to either side of midline; frontal suture relatively broad, well marked from clypeus to behind antennal tubercles, from where it continues to back of occiput as a narrow, impunctate carina. Antennae shorter, in most females reaching apical 1/3 of urosternite II. Elytra more strongly dehiscent, diverging from middle, length rather variable, reaching from apex of urosternite I to middle of II; apical teeth generally larger. Metasternum less tumid than male, planar with procoxae, more salient than mesocoxae; smooth, with sparse punctures, not at all reticulate, metasternal suture may be less impressed and not entire. Metasternum. Abdomen fusiform, urosternites with slightly different proportions: I long (1.5 mm), II (1.2 mm) longer than III (1.1 mm), IV (0.9 mm), V (0.8 mm) black, moderately conical, regularly convex, apex rounded.

Measurements (mm): 25 males/8 females respectively: total length 7.2-10.7/8.9-10.9; length of pronotum 1.2-1.7/1.5-2.0; width of pronotum 1.1-1.5/1.3-1.8; length of elytra 2.6-3.6/3.4-4.6; width at humeri 1.2-1.7/1.6-2.2.

Material examined (in the RCSZ collection): The following with the same data and collectors, different flower hosts: BOLIVIA, Santa Cruz, 17°29'96"S/63°39'13"W, 420 m, Hotel Flora & Fauna, 5 km SSE Buena Vista, R. Clarke/S. Zamalloa col. The following on/flying to flowers of "Barbasquillo" vine: 1 male 2.VIII.2005, 1 female 22.VIII.2005, 1 female 23.VIII.2005, 1 female 27.VIII.2005, 1 male 30.VIII.2005, 1 male 9.X.2004, 1 male (ex.1a) and 1 female (ex.1b) in coitus 8.X.2005, 4 males 3. IX.2005, 1 male 4.IX.2005,1 male 9.IX.2005, 1 male 27.IX.2005, 1 male 2.VIII.2007. The following on/flying to flowers of "Piton amarillo": 1 female 11.X.2005, 1 male 20.X.2005, 1 male 25.X.2005. The following on/flying to flowers of "Sama blanca chica": 1 male 7.X.2005, 1 male (ex. 2a) and 1 female (ex. 2b) in coitus 8.X.2005, 1 male 21.X.2005, 1 female 18.IX.2007. The following on/flying to different flowers: 1 male 3.IX.2005 on "Mango"; 1 male 9.X.2004 on "Turere"; 1 male 2.X.2005 on "Laguno"; 1 male 26.X.2005 on "Sama blanca"; 2 males 15.VIII.2007 and 9.VIII.2008 on *Gomphrena vaga;* 1 male, 13.VIII.2008 on "Ramoneo"; 1 male, 27.VIII.2008 on "Sapaimosi". The following flying to white light: 1 male 23.IX.2005. The following collected at different localities: Rancho El Cairo, 5 km W Buena Vista, 1 female 30.VIII.2005, R. Clarke/S. Zamalloa col., on/flying to flowers of "Barbasquillo" vine. Road to Potrerito village, 4 km W of Buena Vista, 440 m, 9.VIII.2008, R. Clarke & S. Zamalloa col., on/flying to flowers of *Gomphrena vaga* Mart.

Discussion: Monné & Hovore (2006) record this species from Espírito Santa, Brazil. Since Wappes *et al.* (2006) did not list *I. planifrons* for Bolivia, these records represent a new record for this country and a considerable range extension for the species.

Key to the Bolivian species of *Isthmiade* Thomson, 1864

1. Head entirely black or dark chestnut.....2
– Head black with yellow rostrum 4
2. Size larger 13.0-22.5 mm. Elytra longer, awl-shaped. Clubs of pro- and mesofemora orange-yellow with or without dusky to black fascia. Only tip of mandibles black.....3
– Size smaller 9.0-10.9 mm. Elytra shorter, wedge-shaped. Femoral clubs may be brownish-orange, but usually entirely dark chestnut to black. Mandibles entirely black. Figs. 5A, 5B .... *Isthmiade planifrons* Zajciw, 1972
3. Pronotum, all thoracic sternites, scutellum, and basal two-thirds of elytra orange-yellow. Apical two-thirds of elytra, abdomen, and metafemora entirely black. Size larger 20.4-23.7 mm. Fig. 4A..... ..... *Isthmiade martinsi* sp. nov.
– Pronotum always black in part, metasternum and metepisternum mostly or partly orange-red. Elytra almost entirely orange-yellow, urosternites I-III usually red, but abdomen never entirely black. Scutellum black. Size smaller 15.3-18.5 mm. Figs. 3A, 3B.....*Isthmiade ichneumoniformis* Bates, 1870
4. Elytra chestnut at apex; longer, 3 times width of humeri, apices truncate and spined. Scutellum black. Pro- and mesofemora without dusky fascia. Figs. 1A, 1B .....*Isthmiade laevicollis* Tippmann, 1953
– Elytra entirely yellow; shorter, 2-2.5 time swidth of humeri, apices sharply acuminate. Scutellum yellow. Pro- and mesofemora with dusky fascia. Figs. 2A, 2B.....*Isthmiade zamalloae* sp. nov.

RESUMO

Rhinotragini Bolivianos II: Isthmiade *Thomson, 1864 (Coleoptera, Cerambycidae, Rhinotragini), com duas espécies novas. São descritas* I. martinsi *sp. nov. e* I. zamalloae *sp. nov. São redescritas as formas bolivianas de ambos sexos de* I. laevicollis *Tippmann, 1953,* I. ichneumoniformis *Bates, 1870 e* I. planifrons *Zajciw, 1972. Nova sinonímia estabelecida:* I. laevicollis *Tippmann, 1953* = I. carinifrons *Zajciw, 1972 syn. nov. São fornecidas notas sobre flores-hospedeiras, fotografias e chave para as espécies bolivianos.*

PALAVRAS-CHAVE. Bolívia; Cerambycinae; Flores-hospedeiras; Novas espécies; Rhinotragini.

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APPENDIX

Flowering plants visited by Bolivian species of *Isthmiade*.

Local Name		
Barbasquillo	*Serjania lethalis* St. Hilaire	SAPINDACEAE
Isthmiade ichneumoniformis Bates, 1870		
Isthmiade laevicollis Tippmann, 1953		
Isthmiade planifrons Zajciw, 1972		
Bejuco hoja llanuda	*Gouania mollis* Reiss.	RHAMNACEAE
Isthmiade ichneumoniformis Bates, 1870		
Isthmiade laevicollis Tippmann, 1953		
Isthmiade zamalloae sp. nov.		
Esquizaton	*Trichilia stellatotomentosus* Kuntze	MELIACEAE
Isthmiade ichneumoniformis Bates, 1870		
Gomphrena	*Gomphrena vaga* Mart.	AMARANTHACEAE
Isthmiade laevicollis Tippmann, 1953		
Isthmiade planifrons Zajciw, 1972		
Laguno	*Ilex* sp.	AQUIFOLIACEAE
Isthmiade planifrons Zajciw, 1972		
Piton	*Talisia esculenta* St. Hilaire	SAPINDACEAE
Isthmiade martinsi sp. nov.		
Isthmiade planifrons Zajciw, 1972		
Piton amarillo	*Talisia hexaphylla* Vahl.	SAPINDACEAE
Isthmiade ichneumoniformis Bates, 1870		
Isthmiade planifrons Zajciw, 1972		
Ramoneo	*Iresine diffusa* Willd.	AMARANTHACEAE
Isthmiade ichneumoniformis Bates, 1870 (observed)		
Isthmiade planifrons Zajciw, 1972		
Sama blanca	*Cupania cinerea* Poeppig & Endl.	SAPINDACEAE
Isthmiade ichneumoniformis Bates, 1870		
Isthmiade laevicollis Tippmann, 1953		
Isthmiade planifrons Zajciw, 1972		
Sama blanca chica	*Matayba guianensis* Aublet	SAPINDACEAE
Isthmiade ichneumoniformis Bates, 1870		
Isthmiade planifrons Zajciw, 1972		
Sapaimosi	*Trichilia elegans* Adr. Juss.	MELIACEAE
Isthmiade ichneumoniformis Bates, 1870		
Isthmiade laevicollis Tippmann, 1953		
Isthmiade martinsi sp. nov.		
Isthmiade planifrons Zajciw, 1972		
Isthmiade zamalloae sp. nov.		
Sombrerillo	*Dictyoloma peruviana* Planchon	RUTACEAE
Isthmiade ichneumoniformis Bates, 1870		
Isthmiade planifrons Zajciw, 1972		
Turere	*Rhamnidium elaeocarpum* Reissek	RHAMNACEAE
Isthmiade planifrons Zajciw, 1972		
Tutumillo espinoso	*Casearia aculeata* Jacq.	FLACOURTIACEAE
Isthmiade ichneumoniformis Bates, 1870		
Isthmiade laevicollis Tippmann, 1953		
Isthmiade planifrons Zajciw, 1972		

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