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Revision of the genus *Renda* Blackwelder, 1952 (Coleoptera: Staphylinidae: Xantholinini)

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Revision of the genus *Renda* Blackwelder, 1952 (Coleoptera: Staphylinidae: Xantholinini)

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Abstract

The genus *Renda* Blackwelder, 1952 is revised and redescribed. Thirteen previously described species of *Renda* are redescribed and twenty-one species are described as new. *Renda funebris* (Sharp, 1876) is proposed as a junior synonym of *R. flagellicornis* (Nordmann, 1837), *R. pubescens* (Nordmann, 1837) as a junior synonym of *R. formicaria* (Laporte, 1835), and *R. dalmasi* (Fauvel, 1901) as a junior synonym of *R. minor* Sharp, 1876. A key to the species of *Renda* is provided and diagnostic characters are illustrated. A generic key for a group of genera consisting of *Renda*, *Agrodes* and *Plochionocerus* is also included. A phylogenetic analysis was performed to analyze the relationships among *Renda* species, based on the study of 416 specimens belonging to 31 species. The strict consensus tree supports the monophyly of the genus, but species relationships within *Renda* are poorly resolved, with only two species groups recovered as monophyletic clades.

Key words: Staphylinidae, cladistic analysis, taxonomy, Neotropics

Resumen

Se revisó el género *Renda* Blackwelder, 1952, con redescripción del género y de las trece especies descritas. Se describen 21 especies nuevas en este trabajo. *Renda funebris* (Sharp, 1876) se propone como sinónimo junior de *R. flagellicornis* (Nordmann, 1837), *R. pubescens* (Nordmann, 1837) como sinónimo junior de *R. formicaria* (Laporte, 1835), y *R. dalmasi* (Fauvel, 1901) como sinónimo junior de *R. minor* Sharp, 1876. Se incluye una clave dicotómica para todas las especies de *Renda*, en adición a los comentarios taxonómicos, distribución geográfica e ilustraciones de caracteres diagnósticos, así como también una clave para la identificación de los géneros *Renda*, *Agrodes* y *Plochionocerus*. Se llevó a cabo un análisis filogenético para conocer las relaciones filogenéticas de las especies de *Renda* con base en el estudio de 416 ejemplares de 31 especies. El cladograma de consenso estricto obtenido soporta la monofilia del género, pero las relaciones a nivel de especie están pobremente resueltas, con solo dos grupos de especies como clados monofiléticos.

Palabras clave: Staphylinidae, análisis cladístico, taxonomía, Neotrópico

Introduction

The earliest described species of the genus *Renda* Blackwelder, 1952 (Figs. 2–9) were originally placed in the genera *Sterculia* Laporte, 1835 or *Araeocnemus* Nordmann, 1837, until Sharp (1885) established a separate genus *Plochionocerus* Sharp, 1885 for them; species described since then have been variously included in either Sharp's *Plocionocerus* or *Sterculia*. Blackwelder (1952) noticed that Sharp's genus name was preoccupied by *Plochionocerus* Dejean, 1833 (which was congeneric with *Sterculia* and *Araeocnemus*, and had priority over those names), and proposed the replacement name *Renda* for *Plochionocerus* Sharp.

Asiain *et al.* (2007) studied the phylogeny of *Plochionocerus* sensu Dejean, resurrected the genus *Agrodes* for some of its species, and transferred *P. leprieuri* (Laporte, 1835) to *Renda*. Five and six synapomorphies were presented supporting both *Agrodes* and *Plochionocerus* respectively as monophyletic and four synapomorphies were presented for *Renda*. Their results suggested that *Renda* is the sister taxon of *Agrodes* plus *Plochionocerus*. Also, they showed that there were sufficient synapomorphies to support the monophyly of *Agrodes* and *Plochionocerus*, and it would be interesting to show that this is the case for *Renda* as well, because there is very little taxonomic and phylogenetic knowledge for the 13 known species (Table 1). The taxonomic history of *Renda* is closely associated with that of *Plochionocerus* and *Agrodes*, and was reviewed by Asiain *et al.* (2007).The objectives of this study were to provide a redescription of the genus and its known species (Table 1), describe twenty-one new species, and conduct a phylogenetic analysis in order to test the monophyly of the genus *Renda* and to obtain a hypothesis about the phylogenetic interrelationships of its spe-

cies. For all species, distributions are summarized, diagnostic characters are illustrated, and a key for their recognition is provided.

TABLE 1. Geographical distribution of species of *Renda* known before this study (Herman, 2001). BRA: Brazil, COL: Colombia, CR: Costa Rica, FG: French Guiana, GUA: Guatemala, GUY: Guayana, HON: Honduras, MEX: Mexico, PAN: Panama, PER: Peru, SUR: Surinam, TRI: Trinidad and VEN: Venezuela. ** Species transferred from *Plochionocerus* to *Renda* from Asiain *et al.* (2007).

Species	BRA	COL	CR	FG	GUA	GUY	HON	MEX	PAN	PER	SUR	TRI	VEN
R. brachyptera (Sharp, 1885)					X		X	X	X			X	
R. brasiliana (Bernhauer, 1927)	X												
R. clavicornis (Sharp, 1876)	X									X			
R. dalmasi (Fauvel, 1901)		X											
R. debilis (Sharp, 1885)					X			X					
R. fimetaria (Sharp, 1876)	X												
R. flagellicornis (Nordmann, 1837)	X										X		
R. formicaria (Laporte, 1835)	X	X	X	X		X				X			X
R. funebris (Sharp, 1876)	X												
R. leprieuri (Laporte, 1835)**				X		X							
R. minor (Sharp, 1876)	X												
R. profundepunctata (Bernhauer, 1927)	X												
R. pubescens (Nordmann, 1837)	X												

Material and methods

The specimens analyzed were obtained via loans from the following collections (acronyms identify depository of specimens in the text):

AMNH	American Museum of Natural History, New York, USA (L. Herman)
BMNH	The Natural History Museum, London, UK (R. Booth)
CC-UAEH	Colección de Coleoptera, Centro de Investigaciones Biológicas, UAEH, Pachuca, Hidalgo, México (J. Márquez)
CNIN	Colección Nacional de Insectos, Instituto de Biología, UNAM, México, D.F., México (S. Zaragoza)
CZUG	Centro de Estudios en Zoología, Universidad de Guadalajara, Zapopan, Jalisco, México (J. L. Navarrete-Heredia)
FMNH	Field Museum of Natural History, Chicago, USA (A. Newton)
IEXA	Colección Entomológica, Instituto de Ecología, A.C., Xalapa, Veracruz, México (L. Delgado)
INBC	Instituto Nacional de Biodiversidad, Heredia, Costa Rica (A. Solís)
QCAZ	Pontificia Universidad Católica del Ecuador, Quito, Ecuador (G. Onore)
SEMC	Snow Entomological Collection, Natural History Museum / Biodiversity Research Center, University of Kansas, Lawrence, KS, USA (Z. Falin)
USNM	National Museum of Natural History, Smithsonian Institution, Washington, D.C., USA (D. Furth)
ZMHB	Museum für Naturkunde der Humboldt-Universität zu Berlin, Berlin, Germany (M. Uhlig)

Additionally, specimens of *Renda* were requested from other important Staphylinidae collections. Type material was specifically requested from the Institut Royal des Sciences Naturalles, Brussels, Belgium (*R. dalmasi* Fauvel), and the Muséum National d'Histoire Naturelle, Paris, France (*R. formicaria* Laporte and *R. leprieuri* Laporte); however, the curators in charge of those collections were not able to locate any type specimens; "the type is lost" was indicated for *R. dalmasi*. Material was also requested from some Central American collections, such as the Museo Nacional de Historia Natural de El Salvador (MNHDS, E. Echeverría) and the Colección de Artrópodos, Universidad del Valle de Guatemala (CAUVG, E. Cano), but these collections do not have any *Renda* specimens. Type specimens of all species were studied, except those of *R. formicaria*, *R. leprieuri* and *R. dalmasi*.

Measurements were taken with an ocular micrometer attached to a dissecting microscope, and are similar to the ones taken by Asiain *et al.* (2007). A dichotomous key modified from Asiain *et al.* (2007) is provided to distinguish *Renda* from *Agrodes* and *Plochionocerus* using distinct characters as previously documented. A key to identify all species of *Renda* is included as well. In the material examined, data from different labels are separated by slashes, and the acronym of the collection, the sex (♂, ♀ or "?" when sexing was not possible), and the number of specimens are cited in brackets. The type material information is cited verbatim.

For the phylogenetic analysis the following taxa were used as outgroups: *Philonthus testaceipennis* Erichson, 1840 (Staphylininae, Staphylinini, Philonthina) (Fig. 1), *Agrodes conicicollis* Sharp, 1876 and *Plochionocerus splendens* (Blanchard, 1842) (Staphylininae, Xantholinini; Fig. 2). The last two taxa represent genera in the same tribe as *Renda*.

In the text, the number of characters and character states are indicated in brackets (e.g. 2:3, respectively). The cladistic analysis was conducted with Nona version 2.0 (Golobof, 1993) and WinClada version 0.9.99 (Nixon, 2000) to edit the cladograms. A heuristic search was conducted, retaining 10,000 cladograms with 1000 replications and 100 starting trees for each replication, and a TBR + multiple TBR (tree bisection and reconnection) strategy was applied. Multistate characters were treated as non additive. Bootstrap values were calculated using 1000 replications, 100 search replications (mult*N), 10 starting trees for replication, and "Random seed" = 10. Bootstrap values for each node are indicated as percentages.

Results and discussion

Key to determine *Renda* from related genera (modified from Asiain *et al.*, 2007)

1. Lateral border of head (temple) forming lateroventral furrow (Figs. 19, 54); ventral surface with expanded, umbilicate punctures (Fig. 21); elytral hind margin with depression or notch (Fig. 59) ..... *Plochionocerus*

1'. Lateral border of head (temple) without lateroventral furrows (convex; Figs. 25–29); with superior temporal carina (at superior level of eye) and/or inferior temporal carina (at inferior level of eye) delimiting flattened or concave internal area (Figs. 30–34); ventral surface lacking expanded, umbilicate punctures; elytral hind margin without depression or notch..... 2

2(1'). Head elongate, more than 1.5x as long as wide (1.54–2.00x); prosternum slightly elongate (length/width ratio 1.04–1.20); pronotal hypomeron with fine, sparse setae throughout or in posterior 2/3 (Fig. 57); tibiae with brush of pale setae in their basal half or in their basal 2/3 (Fig. 60); body blue or green metallic color .....*Agrodes*

2'. Head oval, elongate or quadrate, less than 1.5x as long as wide; prosternum transverse (length/width ratio 0.65–0.88); pronotal hypomeron with fine, sparse setae in anterior third (Fig. 58); tibiae with brush of pale setae in all lateral borders (Fig. 61); body shiny black, except in five species with green, blue or metallic reflections on body .....*Renda*

***Renda* Blackwelder, 1952**
(Figs. 3–10)

Renda Blackwelder, 1952: 338 (replacement name for *Plochionocerus* Sharp).
Type species: *Sterculia formicaria* Laporte, fixed by objective synonymy with *Plochionocerus* Sharp, by Blackwelder, 1952: 315.
Synonymy: *Plochionocerus* Sharp, 1885: 471 (preoccupied, not *Plochionocerus* Dejean, 1833)

Redescription: Total length 11.3–22.5 mm; body black to dark brown, five species with metallic green or blue coloration.

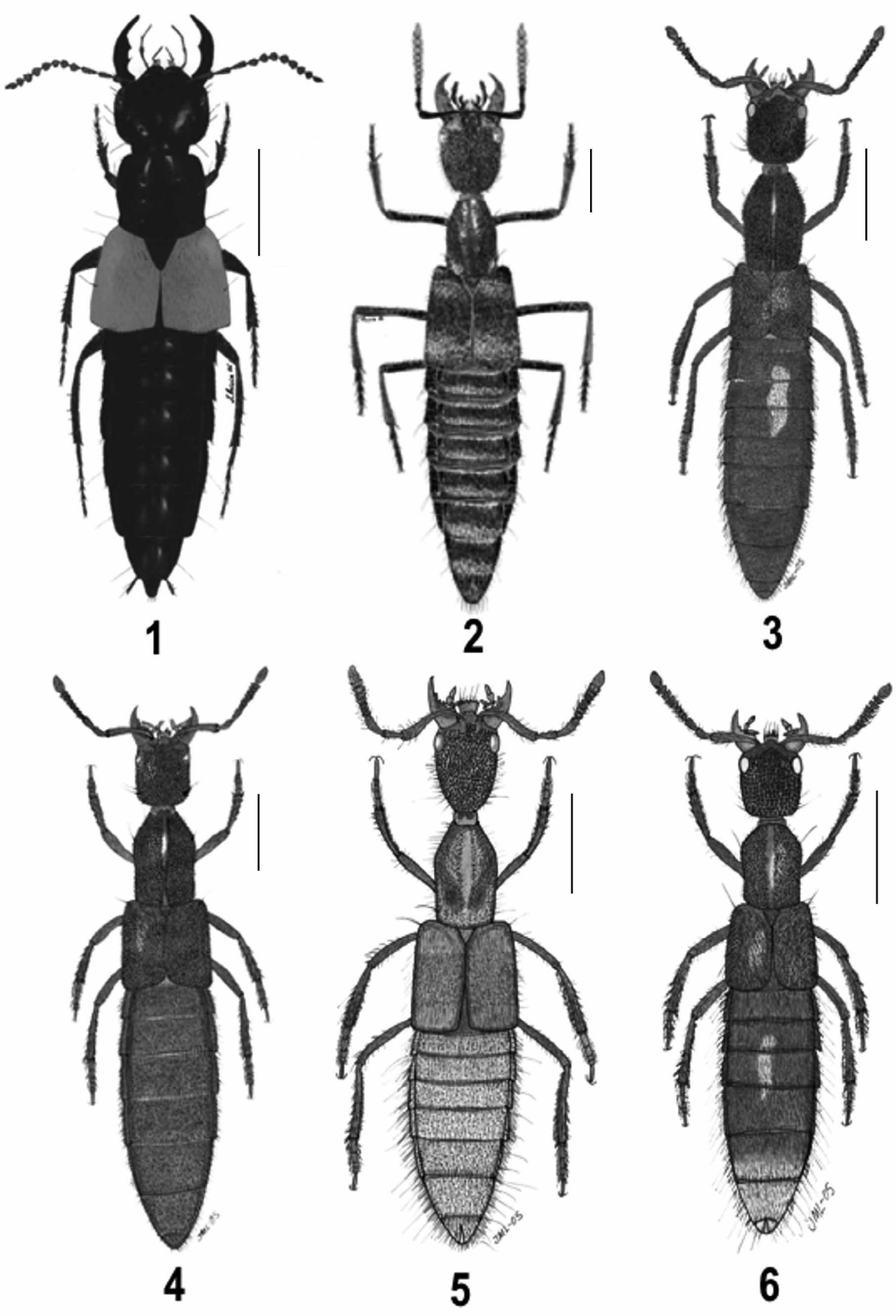
Head. Oval (Figs. 11–13), elongate (Figs. 17–18), or quadrate (Fig. 19), some times narrowed in posterior region (Figs. 14–16); less than 1.5x as long as wide. Dorsal surface with dense setae and umbilicate punctures, with smooth areas on vertex and front, surface variably convex. Ventral surface with umbilicate punctures variably dense, unevenly distributed (Figs. 22–24); gular sutures variably convex. Temple convex (Fig. 27), or with superior temporal carina (at superior level of eye; Figs. 30, 31), inferior temporal carina (at inferior level of eye; Fig. 32), or both temporal carinae (Figs. 33, 34). Additionally, median flattened or concave area (internal when carinae to exists) present or absent (Figs.27–34). Antennae reaching at least middle part of pronotum when directed backwards; first antennomere 1.6x to more than twice as long as antennomeres 2–3 combined, second antennomere 0.6x to more than 1.0x as long as third antennomere, antennomeres 4–10 transverse, increasing in width toward apical antennomeres, apical antennomere 0.80–1.10x as long as antennomeres 9–10 combined. Labrum slightly bilobed (Fig. 54) or with two lateral teeth and two central teeth (Fig. 55). Mandibles less than 0.5x as long as head, with two teeth on left mandible and one tooth on right mandible. First maxillary palpomere shortest; second longest; third shorter (0.5x) to almost as long as apical palpomere; apical palpomere elongate, conical or conically elongate (Figs.38–40). First labial palpomere shorter than second and third; second 0.5 to 1.0x as long as apical palpomere; apical palpomere elongate, asymmetrically conical, moderately wide at apex or securiform (Figs. 44–46).

Thorax. Pronotum with fine, dense to moderately dense setiferous punctures, except for wide longitudinal impunctate area (Figs. 5–10, 51, 52); or with very dense umbilicate punctures, except for narrow longitudinal impunctate area (Figs. 3, 4, 49, 50); lateral margins slightly sinuate at posterior half; with or without poorly developed depressed area at each side of posterior third (Figs. 51, 52); superior line of pronotal hypomeron absent in anterior third, directed ventrad and close to inferior line (Fig. 58); pronotal hypomeron with sparse and fine setae on anterior third (Fig. 58). Elytra as long as (Fig. 4), shorter (Fig. 3), or slightly longer than pronotum; some species with horizontal fascia of pale and long setae on anterior fourth of elytra and with similar setae on posterior borders (Fig. 5). Prosternum transverse, variably setose. Mesosternum short and wide, surface smooth and with sparse setiferous punctures in foremargin. Metasternum large, with smooth surface and sparse setiferous punctures.

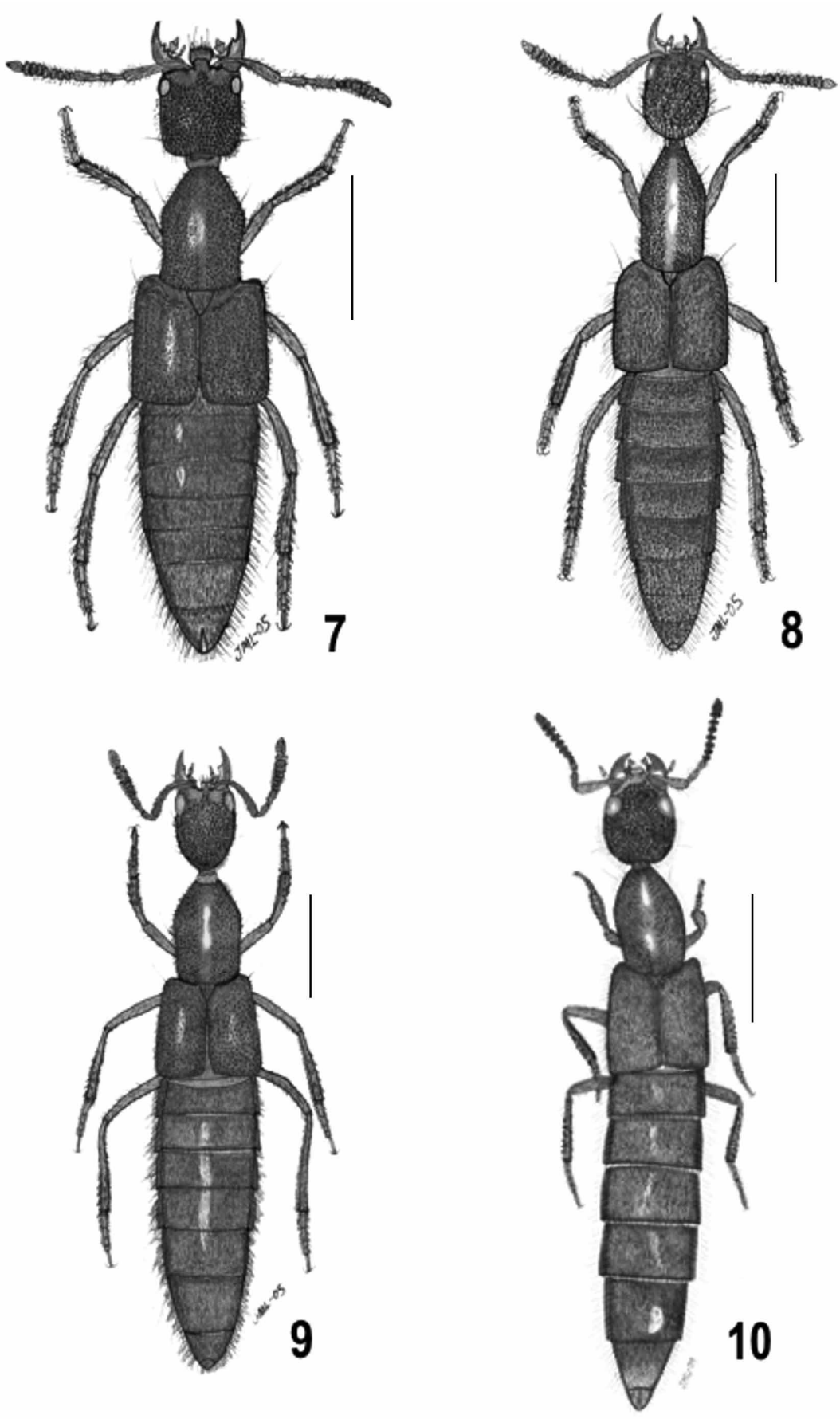
Legs. First legs shorter than middle and third legs; tarsi not expanded, with long and pale setae on ventral surface, setae denser on protarsi than meso and metatarsi; protibiae with spines, spines sparser on meso and metatibiae; additionally, tibiae with brush of pale setae on all lateral borders (Fig. 61); first tarsi with fifth tarsomere longest, followed by first and second, which are similar in length, third and fourth shortest; middle and last legs with first and fifth tarsomeres similar in length and longer than second, third and fourth tarsomeres.

Abdomen. Subequal in width to elytra, some species with abdomen wider than elytra; shining; with fine setae as dense as, or denser than on elytra; lateral setae longer than setae on medial area of each segment; genital sternite elongate in males, slightly asymmetrical and bilobed toward apex, wider than genital tergite.

Aedeagus. Variable in shape: elongate; ovally elongate, with base of median lobe notably widened; ovally elongate, with base of median lobe not conspicuously wide; or ovally elongate, with lateral margins of median lobe concave (Figs. 62–92). Parameres symmetrical or asymmetrical, with right or left paramere shorter than the other (Figs. 79, 81, 83, 84, 92).



FIGURES 1–6. Habitus, dorsal view: 1, *Philonthus testaceipennis*; 2, *Plochionocerus splendens*; 3, *Renda brachyptera*; 4, *R. flagellicornis*; 5, *R. leprieuri*; 6, *R. debilis*. Scale bar 3 mm.



FIGURES 7–10. Habitus, dorsal view: 7, *Renda minor*; 8, *R. clavicornis*; 9, *R. fimetaria*; 10, *R. julietae*. Scale bar 3 mm.

Comparison. *Renda* can be separated from *Plochionocerus*, *Agrodes* and other similar genera by the following combination of characters: elytra black or almost black in metallic species; temple convex or with one or two temporal carinae, with or without flattened or concave internal area (Figs. 27–34); mandibles less than 0.5x as long as head; apical labial palpomere slightly widened toward apex (Figs. 44, 45), except in three species with this palpomere securiform at apex (Fig. 46); gular sutures convex; superior line of pronotal hypomeron absent in anterior third, directed ventrad and close to lower line (Fig. 58); pronotal hypomeron with sparse and fine setae on anterior third (Fig. 58); tibiae with brush of pale setae on whole lateral border (Fig. 61).

Key to determine the species of *Renda*

1. Pronotum with dense umbilicate punctures, except for narrow longitudinal impunctate area ("formicaria" species group; Figs. 3, 4, 49, 50) 2
1´. Pronotum with fine, moderately dense punctures, except for wide longitudinal impunctate area (Figs. 5–10, 51, 52) 9
2(1). Head not posteriorly narrowed (Figs. 11, 12) 3
2´. Head posteriorly narrowed (Fig. 15) 7
3(2). Head with temple convex (Figs. 27–29); aedeagus ovally elongate, base of median lobe not conspicuously widened, with constricted lateral margins (Figs. 66, 68) 4
3´. Temple of head with one or two temporal carinae (Figs. 30–34); aedeagus oval, base of median lobe notably widened, lateral margins not constricted (Figs. 65, 67, 69) 5
4(3). Elytra shorter than pronotum (0.8–0.9x; Fig. 3); body with few long yellow setae; small aedeagus, internal sac with weakly sclerotized structures (Fig. 66) ..... *R. brachyptera*
4´. Elytra as long as pronotum; body with dense long yellow setae; elongate aedeagus, internal sac with sclerotized structures moderately visible (Fig. 68) ..... *R. formicaria*
5(3). Temple of head with inferior temporal carina (below eye; Fig. 32); ventral surface of head slightly convex; apical maxillary palpomere 1.50–1.75x as long as preapical palpomere; internal sac of aedeagus with sclerotized structures (Figs. 67, 69) 6
5´. Temple of head with superior and inferior temporal carinae (above and below eye, respectively; Fig. 34); ventral surface of head clearly convex; apical maxillary palpomere 1.76–2.00x as long as preapical palpomere; internal sac of aedeagus with weakly sclerotized structures (Fig. 65) ..... *R. bicarinata* **sp. nov.**
6(5). Apical antennomere slightly shorter than antennomeres 9–10 combined (proportion 0.93x); ventral surface of head with dense umbilicate punctures separated by less than twice their width (Fig. 24); short aedeagus, with narrow internal sac and long parameres (0.39x the length of median lobe; Fig. 67) ..... *R. flagellicornis*
6´. Apical antennomere almost as long as antennomeres 9–10 combined (proportion 1.06x); ventral surface of head with moderately dense umbilicate punctures separated by 2–3x their width (Fig. 23); aedeagus elongate, with wide internal sac and short parameres (0.29x the length of median lobe; Fig. 69) ..... *R. grandipenis* **sp. nov.**
7(2). Head with temple convex (Fig. 27); ventral surface of head clearly convex; eyes long (0.33x as long as head and interocular distance 0.57x as wide as head measured at eye level); apical maxillary palpomere conically elongate, twice as long as preapical palpomere (Fig. 39); pronotum with wide, smooth longitudinal central area (Fig. 50); prosternum with fine carinate longitudinal line on anterior half (male unknown)..... *R. glabrinotum* **sp. nov.**
7´. Temple of head with superior and/or inferior temporal carinae (Figs. 30–32); ventral surface of head slightly convex; eyes smaller (0.22–0.28x as long as head and interocular distance 0.66–0.68x as wide as head); apical maxillary palpomere elongate, 1.86–1.87x as long as preapical palpomere (Fig. 38); pronotum with narrow longitudinal impunctate central area (Figs. 51, 52); prosternum without longitudinal carinate line 8
8(7). Temple of head with superior temporal carina and a flattened area (Fig. 30); eyes 0.22x as long as head; ventral surface of head with moderately dense umbilicate punctures separated by 2–3x their width (Fig. 23); apical area (from insertion of parameres to apex of median lobe, *sensu* Asiain *et al.* 2007) of median lobe of aedeagus 0.3x as long as total length of median lobe, internal sac with weakly sclerotized structures (Fig. 70) ..... *R. profundepunctata*
8´. Temple of head with inferior temporal carina and a moderately deep concave area (Fig. 32); eyes 0.28x as long as head; ventral surface of head with dense umbilicate punctures separated by twice or less their width (Fig. 24);

apical area of median lobe of aedeagus 0.14x as long as total length of median lobe, internal sac with moderately visible sclerotized structures (Fig. 71) ..... *R. sharpi* **sp. nov.**

9(1). Body with metallic green or blue color, or at least somewhat metallic; apical antennomere at least 1.1x the length of antennomeres 9–10 combined; elytra with fascia of long and pale setae at anterior quarter, fascia as wide as or slightly wider than scutellum (Fig. 5); labrum with two pairs of teeth, the central pair longest (Fig. 55) ("fasciata" species group) 10

9´. Body black, not metallic; apical antennomere subequal to or shorter than antennomeres 9–10 combined (1.07x or less); elytra without fascia of long and pale setae; labrum bilobed (Fig. 54) 14

10(9). Head oval, notably narrowed posteriorly (Fig. 14); temple convex (Figs. 27, 28) 11

10´. Head ovally elongate, not posteriorly narrowed (similar to Figs. 17–18), or if posteriorly narrowed, with head elongate (Fig. 16); temple of head with one or two carinae (Figs. 30–34) 12

11(10). Temple of head flattened (Fig. 28); dorsal surface of head clearly convex; ventral surface of head with slightly dense umbilicate punctures separated by 3x their width (Fig. 22); pronotum shorter than elytra (0.87x as long), without depressed areas at each side of posterior third; aedeagus small and elongate (Fig. 76) ..... *R. simplicephala* **sp. nov.**

11´. Temple of head slightly to moderately concave area (Fig. 29); dorsal surface of head slightly convex; ventral surface of head with moderately dense umbilicate punctures separated by 2–3x their width (Fig. 23); pronotum as long as elytra (0.92x), with depressed area at each side of the posterior third (Fig. 51); aedeagus elongate, with base of median lobe widened (Fig. 73) ..... *R. fasciata* **sp. nov.**

12(10). Head elongate and posteriorly narrowed (Fig. 16); tempora of head with superior temporal carina and a slightly to moderately deep concave area (Fig. 31); mandibles with external channel; ventral surface of head with sparse umbilicate punctures separated by 3x their width (Fig. 22); aedeagus with long parameres (0.51x as long as median lobe), internal sac with sclerotized structures (Fig. 75) ..... *R. leprieuri*

12´. Head ovally elongate, not posteriorly narrowed (similar to Figs.17, 18); tempora of head with superior and inferior temporal carinae and a slightly deep concave area (Fig. 34); mandibles with external channel poorly developed; ventral surface of head with dense umbilicate punctures separated by 2–3x their width (Fig. 23); aedeagus with short parameres (0.48x or less as long as median lobe), internal sac with weakly sclerotized structures (Figs. 72, 74) 13

13(12). Body black with metallic reflection; ventral surface of head slightly convex; pronotum with depressed area clearly visible at each side of posterior third (Fig. 51); aedeagus small, elongate, with parameres and apical area of median lobe long (0.48x and 0.45x as long as median lobe, respectively), internal sac of aedeagus with weakly sclerotized structures (Fig. 74) ..... *R. fulgida* **sp. nov.**

13´. Body metallic green or blue; ventral surface of head clearly convex; pronotum with depressed area poorly developed at each side of posterior third; aedeagus large, ovally elongate, with short parameres and apical area of median lobe (0.29x and 0.26x as long as median lobe, respectively), internal sac of aedeagus with sclerotized structures moderately visible (Fig. 72) ..... *R. cyanea* **sp. nov.**

14(9). Apical maxillary palpomere conical, 1.00–1.29x as long as preapical palpomere (Fig. 40) ("minor" species group) 15

14´. Apical maxillary palpomere elongate or conically elongate, 1.42 to more than twice as long as preapical palpomere (Figs. 38, 39) 22

15 (14). Pregenital and genital segments of abdomen, and posterior border of fifth visible abdominal segment yellow 16

15´. Genital segment and posterior border of pregenital segment of abdomen reddish brown 17

16 (15). Head ovally elongate (similar to Fig. 17); ventral surface of head clearly convex; apical antennomere nearly as long as antennomeres 9–10 combined (proportion 0.94x); pronotum 1.41x as long as wide and shorter than elytra (0.83x); aedeagus elongate, with symmetrical parameres and internal sac with weakly sclerotized structures (Fig. 77) ..... *R. brasiliana*

16´. Head oval quadrate (similar to Fig. 19); ventral surface of head slightly convex; apical antennomere shorter than antennomeres 9–10 combined (proportion 0.85x); pronotum 1.38x as long as wide and nearly as long as elytra (0.97x); aedeagus ovally elongate, with base of median lobe widened, right paramere longer than left paramere and internal sac with sclerotized structures (Fig. 78) ..... *R. debilis*

17(15). Head ovally elongate (length/width proportion 1.27–1.37x; similar to Fig. 17) 18

17´. Head oval quadrate (length/width proportion 1.14–1.22x; similar to Fig. 19) 20

18(17). Head slightly convex dorsally; first antennomere 1.59–1.67x as long as antennomeres 2–3 combined; ventral surface of head with moderately dense umbilicate punctures separated by 2–3x their width (Fig. 23); pronotum

1.38–1.46x as long as wide; parameres asymmetrical, apical area of median lobe 0.22–0.32x as long as total length of median lobe (Figs. 83, 84) 19

18´. Head clearly convex dorsally; first antennomere 1.73–1.95x as long as antennomeres 2–3 combined; ventral surfaces of head with very dense umbilicate punctures separated by less than twice their width (Fig. 24); pronotum 1.69–1.76x as long as wide; parameres symmetrical, apical area of median lobe 0.14x as long as total length of median lobe (Fig. 80) ..... *R. longiceps* **sp. nov.**

19(18). Second antennomere longer than third antennomere (proportion 1.19x); pronotum 1.38x as long as wide; aedeagus ovally elongate, with base widened, left paramere longer than right paramere, 0.22x as long as median lobe, internal sac with sclerotized structures (Fig. 84) ..... *R. raulmunizi* **sp. nov.**

19´. Second antennomere shorter than third antennomere (proportion 0.80–0.93x); pronotum 1.46x as long as wide; aedeagus elongate, with right paramere longer than left paramere, 0.32x as long as median lobe, internal sac with weakly sclerotized structures (Fig. 83) ..... *R. nitida* **sp. nov.**

20 (17). Head with temple convex (Fig. 27); apical antennomere nearly as long as antennomeres 9–10 combined (proportion 0.91–0.97x); aedeagus small (length 1.33 mm), elongate, parameres 0.34–0.40x as long as median lobe, internal sac with weakly sclerotized structures (Figs. 79, 82) 21

20´. Head with temple flattened (Fig. 28); apical antennomere shorter than antennomeres 9–10 combined (proportion 0.84x); aedeagus large (3.32–3.36 mm), ovally elongate, with base widened, parameres 0.29x as long as median lobe, internal sac with sclerotized structures (Fig. 81) ..... *R. mesoamericana* **sp. nov.**

21(20). Total body length 11.9–14.5 mm; head slightly expanded toward posterior corners, dorsally faintly convex, ventrally clearly convex; pronotum 1.38x as long as wide; right paramere longer than left paramere, 0.4x as long as median lobe (Fig. 79) ..... *R. lescheni* **sp. nov.**

21´. Total body length 11.3–12.8 mm; head not expanded toward posterior corners, clearly convex dorsally, ventrally slightly convex; pronotum 1.41x as long as wide; aedeagus with symmetrical parameres, 0.29x as long as median lobe (Fig. 82) ..... *R. minor*

22(14). Apical labial palpomere securiform (Fig. 46) (“palpalis” species group) 23

22´. Apical labial palpomere moderately expanded toward apex, or conical (Figs. 44, 45) (“fimetaria” species group) 25

23(22). Total body length 17.1 mm; dorsal surface of head slightly convex; head with temple convex (Fig. 27); pronotum with wide and conspicuous, but not umbilicate punctures; male unknown ..... *R. palpalis* **sp. nov.**

23´. Total body length less than 16.1 mm; dorsal surface of head clearly convex; temple of head with one or two temporal carinae and a flattened or concave area (Figs. 30–34); pronotum with fine punctures; male known 24

24(23). Head oval quadrate (length/width proportion 1.10–1.17x; Fig. 19); tempora of head with inferior temporal carina and a deep, concave area (similar to Fig. 32); ventral surface of head clearly convex; eyes long (0.39x as long as head) and wide (interocular distance 0.57x the cephalic width, measured at eye level); pronotum with depressed area poorly developed at each side of posterior third; aedeagus ovally elongate, with apical area of median lobe 0.24x as long as total length of median lobe (Fig. 92) ..... *R. ophthalmica* **sp. nov.**

24´. Head oval (length/width proportion 1.22–1.28x; Fig.13); tempora of head with superior and inferior temporal carinae and a flattened area (Fig. 33); ventral surface of head slightly convex; eyes shorter (0.29x as long as head) and less wide (interocular distance 0.66x as wide as head width measured at eye level); pronotum without depressed areas; aedeagus elongate, with apex of median lobe 0.15x as long as total length of median lobe (Fig. 91) ..... *R. julietae* **sp. nov.**

25(22). Apical maxillary palpomere conically elongate (Fig. 39); pronotum 1.60–1.67x as long as wide, without depressed area at each side of posterior third 26

25´. Apical maxillary palpomere elongate (Fig. 38); pronotum 1.41–1.56x as long as wide, with depressed area at each side of posterior third moderately visible 28

26 (25). Head with temple convex (Fig. 27); pronotum longer than elytra (proportion 1.24x); second antennomere as long as third antennomere; male unknown .... *R. brevipennis* **sp. nov.**

26´. Temple of head with superior and inferior carinae (Figs. 33–34); second antennomere shorter than third antennomere (proportion 0.89–0.91x); pronotum as long as elytra (proportion 1.00–1.07x) 27

27(26). Head oval, narrowed posteriorly (similar to Fig. 14), 1.41x as long as wide; ventral surface of head clearly convex; eyes 0.27x as long as head, interocular distance 0.61x cephalic width at eye level; apical antennomere 1.1x as long as antennomeres 9–10 combined; apical maxillary palpomere 1.75x as long as preapical palpomere .... *R. fimetariamimus* **sp. nov.**

27´. Head ovally elongate, not narrowed posteriorly (Fig.18), 1.32–1.44x as long as wide; ventral surface of head slightly convex; eyes 0.33x as long as head, interocular distance 0.58x cephalic width (at eye level; Figs. 9, 18); apical antennomere nearly as long as antennomeres 9–10 combined (proportion 0.91x); apical maxillary palpomere 1.82x as long as preapical palpomere ..... *R. fimetaria*

28(25). Head oval, narrowed posteriorly (similar to Figs. 14, 15); head with temple convex (Fig. 27); ventral surface of head slightly convex; pronotum 0.87x as long as elytra; aedeagus ovally elongate, with base notably widened (Fig. 85)..... *R. brendelli* **sp. nov.**

28´. Head oval or oval quadrate, not narrowed posteriorly (similar to Figs. 11–13, 17–19); temple of head with superior and inferior carinae (Figs. 33–34); ventral surface of head clearly convex; pronotum as long as elytra (proportion 0.99–1.00x); aedeagus ovally elongate, base not strongly widened (Figs. 86, 87, 90) 29

29(28). Head slightly convex dorsally; antennomere 2 shorter than antennomere 3 (proportion 0.87x); apical antennomere 1.16x as long as wide; ventral surface of head with moderately dense umbilicate punctures separated by 2–3x their width (Fig. 23); aedeagus with left paramere longer than right paramere, 0.23x total length of median lobe, apical area of median lobe 0.11x as long as total length of median lobe, internal sac with sclerotized structures (Fig. 87) ..... *R. clavicornis*

29´. Head clearly convex dorsally; antennomere 2 as long as antennomere 3; apical antennomere as long as wide; ventral surface of head with sparse umbilicate punctures separated by more than 3x their width (Fig. 22) or dense separated by less than twice their width (Fig. 24); aedeagus with symmetrical parameres (Figs. 86, 90), 0.36–0.42x as long as median lobe, apical area of median lobe 0.21–0.23x as long as total length of median lobe, internal sac with weakly sclerotized structures 30

30(29). Head oval (1.23–1.30x longer than wide; similar to Fig. 13); eyes 0.30x as long as head; ventral surfaces of head with dense umbilicate punctures separated by less than twice their width (Fig. 24); pronotum with fine punctures; prosternum with longitudinal, fine carina on anterior half ..... *R. cariniventris* **sp. nov.**

30´. Head oval quadrate (1.18–1.22x longer than wide; similar to Fig. 19); eyes 0.33x as long as head (measured from middle); ventral surface of head with sparse umbilicate punctures separated by more than 3x their width (Fig. 22); pronotum with wide and conspicuous but not umbilicate punctures; prosternum without longitudinal carina ..... *R. pronotalis* **sp. nov.**

Descriptions of the species of *Renda*

As mentioned in the results of the cladistic analysis, only two species groups were supported as monophyletic: “minor” and “fasciata”. Additionally, three other artificial species groups are proposed here for phenetic convenience. For the same reasons, *R. ophtalmica* is included in the “palpalis” species group, and *R. brevipennis* in the “fimetaria” species group. In this section, species are organized into these species groups in the order that they appear in the key; species in each group are arranged alphabetically.

1. Species with very dense umbilicate punctures on head and pronotum (Figs. 3, 4, 49, 50), body of large size and apical maxillary palpomere elongate or conically elongate (Figs. 38, 39) ..... “formicaria” species group

Renda bicarinata sp. nov.

Type material (43 specimens)**. Holotype,** male: “COSTA RICA**:** Guanacaste, Santa Rosa National Park, 25–27-VII- 1980, D. H. Janzen & W. Hallwachs” (INBIO). **Paratypes**: Same data as holotype (1♀, INBIO). Same data as holotype, except: “6–20-VII-1978, D. H. Janzen” (1♂, INBIO). Same data as holotype, except: “7–9-XII-1979” (1♀, INBIO). “Cache, Rogers, *Plochionocerus formicarius* var. D. S. / B.C.A. Col.I.2. *Plochionocerus formicarius* Er.” (1♂, BMNH). “Puntarenas, Península de Osa, Rancho Quemado, 200 m, 12–24-V-1993, A. Gutíerrez L-S 292500, 511000” (1♂, 1♀, INBIO). “Guanacaste, P. N. Guanacaste, Est. Sta. Rosa, 300 m, VI-1990, R. Espinosa, L-N 313000, 359800” (1♀, INBIO). “San José, Zona Protectora, Cerro Turrubares, 1756 m, IV-1990, R. Zuñiga, 197500-484500” (1♂, INBIO). “Limon, Est. Hitoy Cerere, Res.

Biol. Hitoy Cerere, 100 m, E. López, 12–28-IV-1992, L-N 184200 643300" (1♀, INBIO). "Guanacaste, P. N. Barra Honda, 3 km NO de Nacaome, 100 m, 14-IX–5-X-1992, M. Reyes, L-N 239000 386000" (1♀, INBIO). "Puntarenas, Est. Cerro de Oro, Sendero Guapinol, 345 m, 10-I-1996, L. Angulo, L_S 278800 518900 # 6976 / 96-LAA144" (1♀, INBIO). "Guanacaste, Nicoya, Pque. Nal. Barra Honda, 100 m, 10-VIII-2000, W. Porras, Red de golpeo, L_N 385400 239180 # 58782" (1♀, INBIO). "Guanacaste, 9 km S Santa Cecilia, Estac. Pitilla, 700 m, Malaise trap, 1988 GNP Blod. Sur. 330200, 380200" (1♀, INBIO). "Guanacaste, 5 km SO Sta. Cecilia, Est. Pitilla, Fca. Pasmompa, 400 m, P. Rios & C. Moraga, XII-1990, L-N 333500 380600" (1♂, INBIO). "Limon, Hy. 32, Rio Barbilla, D. Brzoska, 14-VI-1990" (1♂, SEMC). "Puntarenas, Wilson Bot. Garden, 100 m, Gamboa Annex (forest trail), D. Brzoska, 11-V-1996" (1♂, SEMC). "Guanacaste, Maritza Biol. Stn., 550 m, 22-V-1993, J. S. & A. K. Ashe, # 036, ex: flight intercept trap" (1♂, SEMC). "Alajuela, E. B. San Ramón, R. B. San Ramón 27 km N & 8 km W San Ramón, 810 m, 10°13´4"N, 84°35´45"W, 7-VII-2000, J. Ashe, R. Brooks, Z. Falin, CR1ABF00 074" (1♂, SEMC). "Carrillo" (1♀, AMNH). "San José, Enrique Schmidt" (1♀, AMNH). "Limon, Ebene, Rsmoothtador, Hamburgfarm, 15-XII-35 (Nom.), F. Nevermann / *Pl.* (*s. str.*) *brachypterus* Shp." (1♂, 1?, FMNH). "Palmares, IX-41, (Moya)" (1♀, FMNH). "San José, La Caja" (1♂, FMNH). "San Jose, La Caja, XI-39" (1♂, FMNH). Same data, except: "VIII-1938" (1♀, FMNH). "Paraiso, 25-I-40 / *Pl.* (*s. str.*) *humeralis* Brg." (1♂, FMNH). "Coyolar, 13-VI-43 / Typus / *Pl.* (*s. str.*) *planipennis* Brg." (1♀, FMNH). "ECUADOR**:** Los Rios, CCRP, 13-VI-1980, S. Sandoval" (1♀, QCAZ). Same data, except: "4-I-1981" (1♂, QCAZ). Same data, except: "7-VI-1980" (1♂, QCAZ). "PANAMA: "*Plochionocerus brachypterus* Var. D. S. Bugaba 800–1500 ft. Panama. Champion (in the plaque with the specimen) / Bugaba, 800–1500 ft. Champion / B.C.A. Col. I. 2. *Plochionocerus brachypterus*, Sharp / Syntype" (2 ♀♀, BMNH). "Canal Zone, Barro Colorado Is. / I–II-1945, J. Zetek" (1♂, USNMNH). "Barro Colorado Island, 09°11´N, 75°51´W, 7-VII-1994, D. Banks, ex: flight intercept trap" (1♀, SEMC). Same data, except: "40 m, 9°11´0"N, 79°51´0"W 17–23-VII-2000 PAN1C00 087; S. Chatzimanolis" (1♀, SEMC). Same data, except: "24-VII-2000, Ex. Miscellaneous coll. PAN1C00 089" (1♀, SEMC). "Canal Zone, Madden Forest Pres., 1-VII-1976 / A. Newton collector / berl. litter around fermented palm fruits" (1♀, FMNH). "Colon, Parque Nac. Soberania, Pipeline Rd. Nr. Gamboa, 09°07´N, 79°45´W, 40 m, 25-V-1995. Chaboo, Jolly, Hayford. Ex: beating foliage" (2♀, SEMC). "Pto. Grunelles (?), 28.VII.30 (1♀, SEMC). "BCl, Pan. 64 L" (1♂, USNMNH).

Description. Total length 13.8–19.0 mm; body black and shining, with antennae, mouthparts and tarsi reddish brown.

Head. Oval (Fig. 11), 1.31x as long as wide; dorsal surface slightly convex; ventral surface clearly convex; with dense umbilicate punctures on dorsal and ventral surfaces separated by less than twice their width (Fig. 24); temple with superior and inferior temporal carinae and a concave area (Fig. 34); eyes 0.28x length of head, interocular distance 0.65x width of head measured at eye level; first antennomere nearly twice length of 2–3 combined, apical antennomere 0.94x length of antennomeres 9–10 combined; labrum slightly bilobed (Fig. 54); mandibles with external channel; apical maxillary palpomere elongate (Fig. 38), 1.94x length of preapical palpomere; apical labial palpomere slightly widened and flattened toward apex (Fig. 44), almost twice as long as preapical palpomere.

Thorax. Pronotum 1.45x as long as wide, slightly wider than head (1.09x); with dense umbilicate punctures, except for narrow longitudinal impunctate area (Fig. 49); posterior half of pronotum without depressed areas. Elytra as long as pronotum, with short setae as dense as those on head, these setae denser on pronotum and sparser on abdomen. Prosternum with setae sparser than that of meso and metasternum.

Abdomen. Covered with pale and long setae denser than elsewhere on body.

Aedeagus. Ovally elongate, with base of median lobe strongly widened; total length 2.9 mm; parameres 0.30x length of median lobe; apical area of median lobe 0.13x total length of median lobe; internal sac with weakly sclerotized structures (Fig. 65).

Variation. Great variation in total length (13.8–19.0 mm). Body color mainly black, with antennomeres 4–11, maxillary and labial palpi, and tarsomeres reddish brown, and apex of last visible abdominal segment

reddish. However, in several specimens these structures are almost black and in some specimens, the apex of the last antennomere is yellow or reddish. Punctures on cephalic ventral surface are unevenly distributed and variably dense.

Comparison. This species is similar to *R. formicaria* and *R. flagellicornis* in the dense umbilicate punctation of the head and pronotum and the large body size. *Renda bicarinata* can be distinguished from the two previous species by the temple with superior and inferior temporal carinae and a concave area, by the oval head and the particular characteristics of the aedeagus.

Remarks. Several specimens of *R. bicarinata* had been previously identified as *R. formicaria* or as a variety, owing to the similarity of both species. Two paralectotypes of *R. brachyptera* from Panama (considered as "variation" by Sharp, 1885) are not conspecific with the lectotype of that species, but belong to *R. bicarinata* sp. n., and were designated as paratypes of that species.

Etymology. The species name is derived from the Latin word "carinae", and refers to the two carinae on the temple of the head that delimit the concave internal area.

Geographic distribution. Costa Rica, Ecuador and Panama.

***Renda brachyptera* (Sharp, 1885)**
Fig. 3

Plochionocerus brachypterus Sharp, 1885: 471; Herman, 2001: 3747 (*Renda*).

Type material. Lectotype (here designated), male: "*Plochionocerus brachypterus* D. S. Cerro Zunil 4–5000 ft. Champion (in the plaque with the specimen) / sp. figured / Cerro Zunil, Guatemala. Champion / B.C.A. Col. I. 2. *Plochionocerus brachypterus*, Sharp / Sharp coll. 1905-313 / Syntype" (BMNH). **Paralectotypes**: "*Plochionocerus brachypterus* Var. Honduras. Sallé (in the plaque with the specimen) / Honduras / Sallé col. / B.C.A. Col. I.2. *Plochionocerus brachypterus*, Sharp / *Sterculia formicaria* aliud Sallé / Syntype" (1♂, BMNH). "*Plochionocerus brachypterus* Type D. S. Las Mercedes, Guatemala, 3000 ft. Champion (in the plaque with the specimen) / Las Mercedes, 3000 ft. Champion / B.C.A. Col. I.2. *Plochionocerus brachypterus*, Sharp / Sharp coll. 1905-313 / Syntype" (1♀, BMNH). "Guatemala: Zapote, G. C. Champion / B.C.A. Col.I.2 *Plochionocerus brachypterus* Sharp" (1♂, FMNH). "*Plochionocerus brachypterus* D. S. Misantla, México. Höge (in the plaque with the specimen) / Misantla, México. Höge / B.C.A. Col. I.2. *Plochionocerus brachypterus*, Sharp / Sharp coll. 1905-313 / Syntype" (1♀, BMNH). "*Plochionocerus brachypterus*. Cordova. Mex. Sallé / (in the plaque with the specimen) / Cordova / Mexico. Sallé coll. / B.C.A. Col. I. 2. *Plochionocerus brachypterus*, Sharp / 1106 / *Sterculia formicaria* Cart. Aliud Sallé / Syntype" (1♂, BMNH). "PANAMA: "*Plochionocerus brachypterus* Var. D. S. Bugaba 800–1500 ft. Panama. Champion (in the plaque with the specimen) / Bugaba, 800–1500 ft. Champion / B.C.A. Col. I. 2. *Plochionocerus brachypterus*, Sharp / Syntype" (2 ♀♀, BMNH).

Additional material (5 specimens). "**MÉXICO**: Chiapas, Tuzantán, Finca Irlanda, 4-VI-74, J. Hendrichs / Cafetal, Alt. 1000–1200 m" (1♂, CNI). "Chiapas, Villa Flores, 22-XI-82, Limber H." (♀, CZUG). "Jalisco, San Sebastían del Oeste, camino a La Bulera. BTSC, 11-VII-1997, 950 m, ex hojarasca, J. L. Navarrete" (1♂, 1♀, CZUG). "Nayarit, Hy 200, km 131, El Guamuchil, 14-VII-1992, D. Brzoska" (♀, SEMC).

Redescription. Total length 14.9 to 18.0 mm. Body black, with maxillary and labial palpi, and tarsi reddish brown. Entire body densely pilose.

Head. Oval, 1.30x as long as wide; dorsally and ventrally slightly convex; dorsal surface of head with dense umbilicate punctures, with only anterior portion smooth; ventral surface of head with dense umbilicate punctures separated unevenly by 1–2x their width (Fig. 24); temple flattened, with similar punctures as on head disk (Fig. 28); eyes 0.27x as long as head, interocular distance 0.68x cephalic width; first antennomere almost twice the length of antennomeres 2–3 combined, apical antennomere as long as antennomeres 9–10

combined; labrum slightly bilobed (Fig. 54); mandibles with external channel; elongate apical maxillary palpomere (Fig. 38), 1.83x as long as preapical palpomere; apical labial palpomere moderately wide and flattened toward apex (Fig. 44), nearly twice as long as preapical palpomere.

Thorax. Pronotum 1.48x as long as wide; 1.08x as wide as cephalic width; with dense umbilicate punctures, except for narrow longitudinal impunctate area; without depressed areas on basal half (Fig. 49). Elytra 0.86x as long as pronotum; elytral disc with dense, pale setae, these setae shorter than those of abdomen. Prosternum with setae less dense than those of mesosternum and metasternum.

Abdomen. Long, pale setae more numerous on lateral and posterior borders of segments compared to the disc.

Aedeagus. Ovally elongate, with lateral margins of median lobe convex; total length 2.37 mm; parameres 0.34x as long as median lobe, apical area of median lobe 0.21x as long as total length of median lobe, and internal sac with weakly sclerotized structures (Fig. 66).

Variation. Total length (14.2–18.0 mm). One female specimen has legs, antennae and mouthparts entirely reddish brown, contrasting with the majority of specimens that have only antennomeres 4–11, mouthparts and tarsi reddish brown. Some males were observed with the right paramere of the aedeagus slightly longer than the left paramere.

Comparison. *Renda brachyptera* is similar to species with dense umbilicate punctures on the head and the pronotum, such as *R. bicarinata*, *R. flagellicornis* and *R. formicaria*; it can be distinguished from them by their short elytra relative to the pronotum, the lack of temporal carinae on head, but with tempora flattened, and a pear-shaped aedeagus.

Remarks. Syntypes agree with the localities and countries included in the original description (Sharp, 1885). Two paralectotypes from Panama designated by Sharp are at the same time paratypes of *R. bicarinata* sp. n. To establish the identity of this species and to avoid its confusion with similar species, such as *R. bicarinata*, one male from Guatemala was selected and designated as the lectotype because it represents adequately the species, including the aedeagus.

Geographic distribution. Mexico, Guatemala and Honduras (Herman, 2001). The record from Panama corresponds instead to *R. bicarinata*; specimens reported from Trinidad were not studied.

***Renda flagellicornis* (Nordmann, 1837)**
Fig. 4

Araeocnemus flagellicornis Nordmann, 1837:165; Blanchard, 1842: 83 (*Sterculia*; synonym of *formicaria*); P. Lucas, 1857: 49 (*Agrodes*); Fauvel, 1901: 83 (*Plochionocerus*); Herman, 2001: 3748 (*Renda*).
Sterculia funebris Sharp, 1876: 188; Sharp, 1885: 471 (*Plochionocerus*); Fauvel, 1901: 83 (*Plochionocerus*, synonym of *formicarius*); Herman, 2001: 3748 (*Renda*), **syn. nov.**

Type material. Lectotype of *Araeocnemus flagellicornis* (here designated)**,** male: “5800 / Hist. Coll. (Coleoptera) Nr. 5800 (1. Ex.) *Sterculia formicaria* Lap. Americ. Merid. Zool. Mus. Berlin / *formicaria* Laporte *Araeocnemis flagellicornis* Nordm. Bras. Sieber / Syntypus *Araeocnemus flagellicornis* Nordmann, 1837 labelled by MNHUB 2006” (MNHUB). **Paralectotypes** females: “Hist. Coll. (Coleoptera) Nr. 5800 (2. Ex.) *Sterculia formicaria* Lap. Americ. Merid. Zool. Mus. Berlin / *formicaria* Laporte *Araeocnemis flagellicornis* Nordm. Bras. Sieber” (MNHUB). “Surin. / Hist. Coll. (Coleoptera) Nr. 5800 (3. Ex.) *Sterculia formicaria* Lap. Americ. Merid. Zool. Mus. Berlin” (MNHUB). **Lectotype** of *Sterculia funebris* (here designated), male: “Ega / S. America: Brazil / Sharp Coll. 1905-313 / Syntype” (BMNH). **Paralectotypes**: “Ega / S. America: Brazil / Sharp Coll. 1905-313 / *S. funebris* var. Cap. et thor. Angustte. / Syntype” (1♂, BMNH). “Type / Ega / S. America: Brazil / Sharp Coll. 1905-313 *Sterculia funebris*. Type D. S. / Syntype” (1♀, BMNH).

Additional material (24 specimens)**.** "**ARGENTINA**: Jujuy, Calilegua, Calilegua Nat. Pk., 20-X-1994, 840 m, 23°44´34.5"S, 64°51´13"W / J. Carpenter, D. Agosti, transition forest & lianas partial decid. Leaflitter nr. Decaying tree trunk" (1♂, AMNH). "Misiones, 1932, K. J. Hayward. B. M. 1933-187" (1♀, BMNH). "No country data, Sosomoco on coll. 6.1gii, 800 m / *formicarius* Cst. det. Bernhauer / *flagellicornis* Nr. det. Bernhauer" (1?, FMNH). "**BOLIVIA**: Cochabamba, Cochabamba, 67.5 km NE, Est. Biol. Valle del sajita, Univ. de San Simón, 300 m, 17°6´33"S, 64°47´52"W, 7–9-II-1999, F. Genier, BOL1G99 042; ex: flight intercept trap 2" (1♀, SEMC). Same data, except: "9–13-II-1999, R. Hanley, BOL1H99 078, ex: flight intercept trap" (1♀, SEMC). "Coroico / *flagellicornis* Nrd. det. Bernhauer" (1?, FMNH). "Rio Zongo, 750 m, Hg. Farse / *formicarius* Cast. det. Bernhauer / *flagellicornis* Nd.? det. Bernhauer" (1?, FMNH). "**BRAZIL**: Goias, Jataí, XI-1972, F. M. Oliveira" (1♂, AMNH). "Para" (1♂, BMNH). "Ega / *Plochionocerus funebris* Shp." (1♂, FMNH). "Sta. Catharina, Mafra / Coll. J. Guerin, S. Paulo" (1♀, FMNH). "Amazon, Bates" (1♀, FMNH). "**COLOMBIA**: Cundinamarca, PNN Sumapaz, Cabaña Las Mirlas, 03°48´N, 73°52´W, 710 m, Malaise, 19-III–03-IV-2002, H. Vargas, M. 3110" (1♂, SEMC). "Bogota. Crasles (?) / 66 / *Sterculia formicaria* Laporte Erich. 304. *flagellicornis* Nordm. Columbia" (1♀, BMNH). "Columb. Mor. / Hist. Coll. (Coleoptera) Nr. 5800 (4. Ex.) *Sterculia formicaria* Lap. Americ. Merid. Zool. Mus. Berlin" (1♀, MNHUB). "**ECUADOR**: Napo: 5.5 km S Baeza, 5800 feet, on ferns, 30-V-1993, J. J. Morrone" (1♀, AMNH). "Napo, Cosanga, 2000 m, 25-V-1998, D. Prado" (1♀, QCAZ). "Mera" (1♂, BMNH). "Mera / *funebris* Sharp" (1♀, BMNH). "Sucumbios, El Reventador, 1400 m, 5-XII-1992, L. de la Torre" (1♂, QCAZ). "**PERU**: Loreto, Iquitos, 90 m, 9-V-1992, J. Danoff-Berg, ex. flight intercept trap" (1♂, SEMC). "Pasco, Puzuzo, 5 km S Oxapampa-Puzuzo Rd., 1100 m, 10°8´18"S, 75°32´30"W, 19-X-1999, R. Brooks PERU1B99 074" (1♀, SEMC). "no locality" (1♀, BMNH). "no locality data / *flagellicornis* Nd. det. Bernhauer, Bang Haas" (1♂, FMNH).

Redescription. Total length 18.7–22.5 mm. Body shining black, with first three antennomeres, mouthparts and tarsi reddish brown. Body covered with dense setae.

Head. Oval (Fig. 12), 1.36x as long as wide; dorsally and ventrally slightly convex; dorsal surface with dense umbilicate punctures, extending near to anterior margin; ventral surface with dense umbilicate punctures separated by twice or less their width (Fig. 24); tempora with inferior temporal carina and a flattened to slightly concave area (Fig. 32); eyes 0.28x length of head, interocular distance 0.64x width of head; first antennomere nearly twice length of antennomeres 2–3 combined, apical antennomere 0.93x length of antennomeres 9–10 combined; labrum slightly bilobed (Fig. 54); mandibles with external channel; apical maxillary palpomere elongate (Fig. 38), 1.68x length of preapical palpomere; apical labial palpomere slightly widened and flattened towards apex (Fig. 44), and nearly twice as long as preapical palpomere.

Thorax. Pronotum 1.5x as long as wide; 1.10x as wide as head; with dense umbilicate punctures, except for narrow longitudinal impunctate area (Fig. 49); posterior half of pronotum without depressed areas. Elytra as long as pronotum; elytral disc with dense setiferous punctures. Prosternum with setae less dense than those of meso and metasternum.

Abdomen. With pale, long setae that are denser on lateral and posterior borders than other areas; fourth to last visible segments with long, pale setae medially; pregenital sternite of male apically sinuate.

Aedeagus. Ovally elongate, with base of median lobe widened; total length 3.55 mm; parameres 0.39x length of median lobe; apical area of median lobe 0.14x as long as total length of median lobe; internal sac with sclerotized structures (Fig. 67).

Variation. Several specimens have the first three antennomeres, mouthparts and tarsi black; the inferior temporal carina of the head can be slightly visible to inconspicuous; umbilicate punctures on the ventral surface of head can be dense to very dense; some specimens have the vertex of the head convex.

Comparison. *Renda flagellicornis* can be confused with the remaining members of the "formicaria" species group. It can be distinguished from *R. profundepunctata*, *R. sharpi* and *R. glabrinotum* by its oval head, while the last three species have a posteriorly narrowed oval head; it can be separated from *R. brachyptera* and *R. bicarinata* by the presence of a inferior temporal carina on the head, while *R. brachyptera* does not

have carinae and *R. bicarinata* has both superior and inferior carinae. *Renda flagellicornis* can be distinguished from *R. grandipenis* by the ventral surface of head with dense umbilicate punctures separated by less than twice their width and a small aedeagus, with large parameres; while *R. grandipenis* has the ventral surface of head with sparser umbilicate punctures separated by 2–3x their width and an elongate aedeagus with short parameres. It is especially difficult to distinguish *R. flagellicornis* from *R. formicaria*, which can also be sympatric; *R. flagellicornis* has an elongate, robust, black, shining body with sparser brown setae; the scutellum and surrounding area have only a few long black setae that contrast with the remaining setae of the elytra; the median area of the temple of the head is slightly concave; and the aedeagus is large and wide, internal sac with sclerotized structures. In contrast, *R. formicaria* has a shorter, less robust body, with a reddish brown color, principally due to the high density of pale setae (mainly on elytra and abdomen); the scutellum and surrounding area are with dense black long setae that contrast with the remaining pale setae of the elytra; the median area of the temple of head is flattened; the aedeagus is smaller and pear-shaped, and the internal sac with moderately visible sclerotized structures.

Remarks. The type specimens of *R. flagellicornis* and *R. funebris* were compared and dissected, and they were found to be identical in form and measurements of the aedeagus as well as the remaining characters of external morphology. *Renda funebris* is proposed as a junior synonym of *R. flagellicornis*. The designation of lectotypes (males) was necessary for the unambiguous proposal of the new synonymy. Syntypes of each species, which have the minimal information (countries and collectors) agree with their original descriptions (Nordmann, 1837; Sharp, 1876).

Geographic distribution. This species was recorded previously from Surinam and Brazil (Herman, 2001). It is recorded here for the first time from Argentina, Bolivia, Colombia, Ecuador and Peru.

Renda formicaria (Laporte, 1835)

Sterculia formicaria Laporte, 1835: 119; P. Lucas, 1857: 49 (*Agrodes*); Sharp, 1885: 471 (*Plochionocerus*); Blackwelder, 1952: 315 (*Renda*).

Araeocnemus pubescens Nordmann, 1837: 167; Erichson, 1839: 304 (*Sterculia*, synonym of *formicaria*); P. Lucas, 1857: 49 (*Agrodes*, synonym of *formicarius*); Fauvel, 1901: 83 (*Plochionocerus*, synonym of *formicarius*); Herman, 2001: 3748 (*Renda*), **syn**. **nov.**

Type material. Type material of *Sterculia formicaria* Laporte not located (described from "Cayenne" = French Guiana). **Lectotype** of *Araeocnemus pubescens* (here designated), male: "Hist. Coll. (Coleoptera) Nr. 5800 (7. Ex) *Sterculia formicaria* Lap. Americ. Merid. Zool. Mus. Berlin (green label) / Syntypus *Araeocnemus pubescens* Nordmann, 1837 labelled by MNHUB 2006 (red label)" (MNHUB). **Paralectotypes**: same data as lectotype, except: "(8. Ex)" (1♀, MNHUB). Same data as previous, except: "(6 Ex.)" (1♀, MNHUB). "Cartapaua Sello / Hist. Coll. (Coleoptera) Nr. 5800 (5. Ex) *Sterculia formicaria* Lap. Americ. Merid. Zool. Mus. Berlin (green label) / Var. *Araeocnemis pubescens* Nordm. Brasil Fev. / Syntypus *Araeocnemus pubescens* Nordmann, 1839 labelled by MNHUB 2006 (red label)" (1♀, MNHUB).

Additional material (67 specimens). "**ARGENTINA**: Misiones, Env. de San Ignacio, Villa Lutecia, E. R. Wagner, 1910 / Avril / Juin / *Plochionocerus pubescens* Nordm." (1♀, FMNH). "Misiones, Puerto Iguazú, 25.34S, 54.34W, XII-1992, S. Bolle" (1♀, FMNH). "**BRAZIL**: Cantareira, S. Paulo, 20-I-1940, E. Halik 1899" (1♂, USNMNH). Same data as previous, except: "22-I-1940. E. Halik, 2598" (1♀, USNMNH). Same data as previous, except: "24-XII-1939, E. Halik, 7585" (1♀, USNMNH). "S. Paulo, Bang Haas / *formicaria* Lap., det. Fvl." (1♂, FMNH). "Sao Paulo, Saude, 14-I-1915, Mulsa / *Pl.* (s. stc.) *formicarius* (Er.)" (1♀, FMNH). "Sao Paulo, Cantareira, I-1935 / Coll. J. Guerin, S. Paulo" (1♀, FMNH). "Sao Paulo, M. Ráz, Mus. Pragense / *Plochionocerus pubescens* Nordm." (1♂, 2♀, FMNH). "Sao Paulo, Campinas vic., Santa Genebra Reserve, 6-V-1995 / near nests of *Pachycondyla striata* (Formicidae), F. N. S. Madeiros / *Renda formicarius*

Lap. det. M. K. Thayer 1995" (1♀, FMNH). "Est. S. Catharina, Tuinville, III-1926, Melzer / *pubescens* Nrdm., Det. Bernhauer" (1?). "Sta. Catharina, Joinvills, II-1921, Vihmith" (1♂, FMNH). "Brasilia, Sao Paulo, J. Mráz / *Plochionocerus funebris* Sharp, det. Rambousek" (1♀, FMNH). "Santa Catha." (1♀ , FMNH). "Sta. Catharina / *formicarius* C. Det. Bernhauer, Mus. Germ. / pubescens Nord. det. Bernhauer" (1?, FMNH) "Minas, Rio Jose, 24-XI-1920, W. Saat / No. 28 J. F. Zikán / *pubescens* Nrdm. Det. Bernhauer" (1?, FMNH). "Brasilia, Alegre, A. Haucke" (1?, FMNH). "Brasilia, Bluncitán, Hetschko / *formicaria* Cas / *pubescens* Nord. det. Bernhauer" (1?, FMNH). "Lambary, M. Geraes, XI-1926, E. Halik 6226" (1♀, USNMNH). "Rio de Janeiro, Guanabra / XII-1967, M. Alvarenga" (1♂, AMNH). "no locality data / *Agrodes formicaria* Cast. Inus. Castelnaus" (1♂, BMNH). "4696, no locality data / *formicaria* Casteln. Coll. Stelman Bang Haas 599 / *pubescens* Ndm ?, det. Bernhauer Bang-Haas." (1♀, AMNH). "Sao Paulo, Jabaquara, II-1947, J. Guerin " (1♀, BMNH). "Brasilia, Sao Paulo, Jaro Mráz / *Plochionocerus funebris* Sharp, det. Rambousek" (1♀, BMNH). "Mato Grosso, Itaum, Dourados, III-1974, M. Alvarenga" (1♀, AMNH). "Corupa (Hansa Humbolt), S. Cath., III-1941" (1♀, AMNH). Same data, except: "II-1947" (1♀, AMNH). "Sn Paul., 6032" (1♀, BMNH). "Ega. 58.b." (1♀, BMNH). "Ega / *Sterculia formicaria* (according to M. D. Sharp)" (1♀, BMNH). "St. Paulo / 65.3" (1♀, BMNH). "Sta. Catharina S. C. Brasilien (Staudinger)" (1♀, BMNH). "Paraamvco / "*formicaria*" Genstaecher" (1♀, BMNH). "Corupa, S. Cath. (Hansa Humbolt), XI-1948" (1♀, AMNH). Same data as previous, except: "XII-1948" (1♀, AMNH). "Guanabara, Rio de Janeiro, III-1969, M. Alvarenga" (1♂, 1♀ AMNH). "Guanabara, Corcovado, X-1972, M. Alvarenga" (1♂, AMNH). "Rio Natal, S. Cath., IV-1947" (2♀, AMNH). "Represa Rio Grande, III-1972, M. Alvarenga" (1♀ AMNH). "Esperito Sto" (1♂, BMNH). Nova Teutonia, Sta. Catharina, 17-XI-46, F. Plaumann" (1♂, FMNH). Sao Paulo, Cantareira / Coll. J. Guerin, S. Paulo / *Plochionocerus pubescens* ? (Nordm.)" (1♂, FMNH). Sta. Catharina, Estr. Do Bugre / Coll. J. Guerin, S. Paulo" (1♂, FMNH). "Pará, Redencao vic., Kayapo Territory, Pinkaiti Field Station on Riozinho R., 7°46.29´S, 51°57.65´W, XI-1998, tropical evergreen seasonal / lowland forest on clay soil, dung pitfall or flight intercept traps, P. Y. Scheffler" (1♂, FMNH). "Amazons, no locality data" (1♀, FMNH). "**BRITISH GUIANA**, Katabo, Bartica District, 10-7 1919 / Gift of New York Zoo. Soc., Dept. Tropical Research, William Beebe, Dir" (1♀, AMNH). No locality data / *formicarius* Er., det. Bernhauer" (2♀♀, FMNH). "S. America: **COLOMBIA,** no locality data / *Sterculia formicaria* ? Lap. Colomb." (1♀, BMNH). " no locality data, 46.92 / 464 / 73 Cotohille grande" (1♀, BMNH). "**PARAGUAY**: Cazaapá Hermosa, prop. Sosa Family, San Rafael Reserve, 90 m, 26°19´15"S, 55°44´55"W, 5-XII-2000, Z. H. Falin, J. Pramuk, PAR1F00 120A" (1♂, SEMC). "Itapua Yatai, prop. Hostettler family. San Rafael Reserve, 100 m, 26°38´17"S, 55°39´50"W, 22-XI-2000, Z. H. Falin, PAR1F00 020, ex: pyrethrum fogging fungosy logs" (1♀, SEMC). "Guira Dept., 300 m elev., 12-X-1951, C. Pfannel" (1?, FMNH). "**PERU**: Iberia, Madre de Dios, 28-IV-1947, Alt. 500 ft." (1♀, AMNH). Same data as previous, except: "IV-30" (1♂, AMNH). "**TRINIDAD**, B. W. I., 1903, G. E. Bryant / *pubescens* " (1♀, BMNH). "Arima Valley, B. W. I. 13-II-1951 / Gift of New York Zoo. Soc., Dept. Tropical Research, William Beebe, Dir." (1♀, AMNH). "**VENEZUELA**: Aragua, Rancho Grande Biological Station, 16 km N, 36 km, 340 m, 10°24´0"N, 67°41´0"W, 4–18-VII-1994; T. Philips VEN1p94 009, ex: flight intercept trap" (1♂, SEMC). "Maracay, 440 m, 15-V-1950, P. Guagliumi" (1♀, USNMNH). No country and locality data: *formicaria* Lap. 1, 304, *pubescens* Nordm." (1♀, BMNH). "Rio gd. Du Sul" (1♀, BMNH). "Amazonas / Bowring. 63.47*" (1♀, BMNH). "M. Cameron. Bequest. B. M. 1955-147" (1♀, BMNH). "Jatahy, Goyaz / *formicaria* Lp., det. Bernhauer" (1♀, FMNH).

Redescription. Total length 18.3–21.0 mm. Body black, shining, with antennae, mouthparts, tarsi and genital abdominal segment reddish brown. Body densely covered with long, pale setae.

Head. Oval (similar to Fig. 11), 1.38x as long as wide; dorsal and ventral surface slightly convex; dorsal surface with dense umbilicate punctures; ventral surface with dense umbilicate punctures separated by less than twice their width (Fig. 24); temple flattened (Fig. 28); eyes 0.25x as long as head, interocular distance 0.66x cephalic width; first antennomere 1.91x length of antennomeres 2–3 combined, apical antennomere as long as antennomeres 9–10 combined; labrum slightly bilobed (Fig. 54); mandibles with external channel;

apical maxillary palpomere elongate (Fig. 38), 1.80x as long as preapical palpomere; apical labial palpomere moderately wide and flattened toward apex (Fig. 44), nearly twice as long as preapical palpomere.

Thorax. Pronotum 1.5x as long as wide; 1.08x as wide as head; with dense umbilicate punctures, with longitudinal impunctate area wider in anterior third than in posterior half (very narrow, but visible; Fig. 49); without depressed areas on basal half. Elytra as long as pronotum, densely covered with fine setae. Prosternum with sparser setae than on mesosternum and metasternum.

Abdomen. Homogeneous and densely covered with long, pale setae.

Aedeagus. Pear-shaped (lateral margins of median lobe convex); total length 3.0 mm; parameres 0.33x as long as median lobe; apical area of median lobe 0.20x total length of median lobe; internal sac with moderately visible sclerotized structures (Fig. 68).

Variation. Great variation in total length (18.3 to 21.0 mm). Antennae, mouthparts and tarsi are red in a majority of specimens but 3 of 10 specimens are almost entirely black. In some specimens the genital segment is brown to black.

Comparison. *Renda formicaria* can be confused primarily with *R. flagellicornis*, but the main differences are discussed in the remarks under that species.

Remarks. As it was not possible to study any type specimens (Cayenne) of *R. formicaria* (not located in the Muséum National d'Histoire Naturelle, Paris), it is difficult to determine the identity of this species. Specimens previously identified as *R. formicaria* by Nordmann, Erichson and Sharp contain individuals of *R. flagellicornis*, *R. pubescens* and *R. bicarinata* n. sp., so it is clear that some of these species could be synonyms of *R. formicaria*, as this name is older. *Renda bicarinata* can probably be dismissed because its geographic distribution is restricted mainly to Costa Rica and Panama (with only two records for Ecuador). *Renda flagellicornis* is distributed from Colombia through the west of South America but it is possible that in some places it is sympatric with *R. formicaria*. Based on their congruent Amazonian distribution, principally toward the east of South America including British Guiana, *R. pubescens* is considered a junior synonym of *R. formicaria*. Additionally, the name "*formicaria*" refers to some similarity of the studied species with ants, and without doubt *R. pubescens* is most similar to ants due to a great density of long and pale setae. The lectotype designation (male) for *Araeocnemus pubescens* was necessary due to the present proposal of synonymy with *R. formicaria*. The four syntype specimens of *R. pubescens* agree with the data of the original description: "Brasilia meridionali. D. Sello" (Nordmann, 1837).

Geographical distribution. This species was recorded previously from Brazil, Colombia, French Guiana, Guyana, Peru and Venezuela (Herman, 2001). The record from Costa Rica (Herman, 2001) corresponds to *R. bicarinata* **sp. nov.** It is recorded here for the first time from Argentina, Paraguay and Trinidad.

Renda glabrinotum sp. nov.

Type material (1 specimen)**. Holotype,** female: "SURINAME: Saramacca, West Suriname Road, 178 km WSW Zanderij Airport, 25 m, 4°59´6"N, 56°18´48"W, 12–14-VI-1999, Z. H. Falin, B. DeDijn, SUR1F99 o73, ex: flight intercept trap" (SEMC).

Description. Total length 16.1 mm. Body densely setose; black, shining, with maxillary and labial palpi, labrum, apical antennomere and tarsi red.

Head. Oval, narrowed posteriorly (without posterior corners; similar to Fig. 15), 1.33x as long as wide; dorsal surface slightly convex, ventrally clearly convex (mainly at gular sutures); with dense umbilicate punctures on dorsal surface and sparse umbilicate punctures on ventral surface separated by more than 3x their width (Fig. 22); temple without carinae, but with a narrow area slightly concave (Fig. 29); eyes 0.33x as long as head, interocular distance 0.57x cephalic width; first antennomere 1.8x as long as antennomeres 2–3 combined, apical antennomere 0.92x as long as antennomeres 9–10 combined; labrum slightly bilobed (Fig. 54); with mandibular external channel; apical maxillary palpomere conically elongate (Fig. 39), twice as long as

preapical palpomere; apical labial palpomere with apex slightly widened and flat (Fig. 44), nearly twice as long as preapical palpomere.

Thorax. Pronotum 1.43x as long as wide; 1.08x cephalic width; with dense umbilicate punctures; with smooth longitudinal belt wider than in remaining species of this group, the narrowest portion 4–5x the width of an umbilicate puncture (Fig. 50); without depressed areas in posterior third. Elytra as long as pronotum (0.97x); with less setae than on head, pronotum and abdomen. Prosternum transverse; with fine setae as dense as those on meso and metasternum.

Abdomen. Densely covered with brown setae, that is sparser and darker than in *R. formicaria*.

Aedeagus. Male unknown.

Variation. Unknown.

Comparison. Although the only specimen known is female, it has several unique characteristics to propose it as new species and to distinguish it from the remaining species of the "formicaria" species group: the oval and posteriorly narrowed head, the large eyes, the absence of carinae and presence of a slightly concave area on the temple of head, the smooth longitudinal belt that is wider than in other species of "formicaria" species group, and the small, longitudinal, carinate line on the prosternum.

Etymology. The species name is derived from the Latin words "glaber" and "notum", and refers to the smooth longitudinal belt on the pronotum, which is wider than that of other species with dense umbilicate punctures on the head and pronotum.

Geographical distribution. Suriname.

***Renda grandipenis* sp. nov.**

Type material (1 specimen)**. Holotype,** male: "ECUADOR: Cosanga, Napo, 2000 m, 11-IV-1996, C. Salvador" (QCAZ).

Description. Total length 20.0 mm. Body black, shining, with red mouthparts and tarsi.

Head. Oval (similar to Fig. 11), 1.43x as long as wide; dorsally and ventrally slightly convex; dorsal surface with very dense umbilicate punctures, and ventral surface with moderately dense umbilicate punctures separated by 2–3x their width (Fig. 23); temple with inferior temporal carina and a concave area (Fig. 32); eyes 0.29x as long as head; first antennomere 2.06x as long as antennomeres 2–3 combined, apical antennomere 1.06x as long as antennomeres 9–10 combined; labrum slightly bilobed (Fig. 54); with mandibular external channel; apical maxillary palpomere elongate (Fig. 38), 1.72x as long as preapical palpomere; apical labial palpomere moderately widened and flattened apically (Fig. 44), nearly twice as long as preapical palpomere.

Thorax. Pronotum 1.5x as long as wide; 1.12x as wide as head; with dense umbilicate punctures and a narrow, longitudinal impunctate area, with anterior half slightly wider (Fig. 49); anterior half with small impunctate areas lateriad of median impunctate area; without depressed areas in posterior third. Elytra 1.08x as long as pronotum, with setae as in *R. flagellicornis*. Prosternum transverse, with setae sparser than on meso and metasternum.

Abdomen: Covered with setae as in *R. flagellicornis*.

Aedeagus. Ovally elongate, base of median lobe widened; total length 4.24 mm; parameres 0.29x as long as median lobe; apical area of median lobe 0.14x total length of median lobe, and internal sac with sclerotized structures (Fig. 69).

Variation. Unknown.

Comparison. This species is similar to *R. flagellicornis* but can be distinguished by the apical antennomere, which is as long as antennomeres 9–10 combined, the moderately dense umbilicate punctures on the ventral cephalic surface and mainly by the large aedeagus, with short parameres; while *R. flagellicornis* has an apical antennomere slightly shorter than antennomeres 9–10 combined, dense umbilicate punctures on the cephalic ventral surface and a shorter aedeagus with longer parameres.

Etymology. The name of this species is derived from the Latin words "grandis" and "penis" and refers to the large aedeagus, the largest of this species group.

Geographical distribution. Ecuador.

Renda profundepunctata (Bernhauer, 1927)

Plochionocerus profundepunctata Bernhauer, 1927: 164; Herman, 2001: 3748 (*Renda*).

Type material. Holotype, female: "Itatiaya, Est. do Rio, 800 m, 31.I.925, Montserrat, J. P. Zikán / *Plochionocerus profundepunctatus* Bernh. Type unic. / Chicago NHMus, M. Bernhauer Collection" (FMNH).

Additional material (3 specimens)**.** "S. America: **BRAZIL**" (1♀, BMNH). "S. America" (1♂, 1♀, BMNH).

Redescription. Total length 14.2–20.7 mm. Body black, shining with reddish brown antennomeres 1–3, mouthparts, tarsi and genital segment. Head and pronotum with sparse, short setae, remainder of body with dense, long setae.

Head. Oval, posteriorly narrowed (similar to Fig. 14), 1.41x as long as wide; slightly convex dorsally and ventrally; ventral surface with umbilicate punctures moderately dense separated by 2–3x their width (Fig. 23) and unevenly distributed; temple with superior and inferior temporal carinae and a flattened area (Fig. 30); eyes small (0.22x length of head), interocular distance 0.68x cephalic width; first antennomere 1.86x as long as antennomeres 2–3 combined, apical antennomere 0.94x as long as antennomeres 9–10 combined; labrum slightly bilobed (Fig. 54); mandibles with external channel; elongate apical maxillary palpomere (Fig. 38), 1.87x as long as preapical palpomere; apical labial palpomere moderately wide and flattened toward apex (Fig. 44), nearly twice as long as preapical palpomere.

Thorax. Pronotum 1.5x as long as wide; 1.07x as wide as head; with dense umbilicate punctures, except for narrow, longitudinal impunctate area, which is wider at anterior third and narrower in the remainder of its length; without depressed areas in posterior third (Fig. 49). Elytra as long as pronotum, with dense setae on elytral disc. Prosternum with sparser setae than mesosternum and metasternum and with small, central, longitudinal carinate line.

Abdomen. Densely covered with setae as on elytra, these setae denser than on head and pronotum.

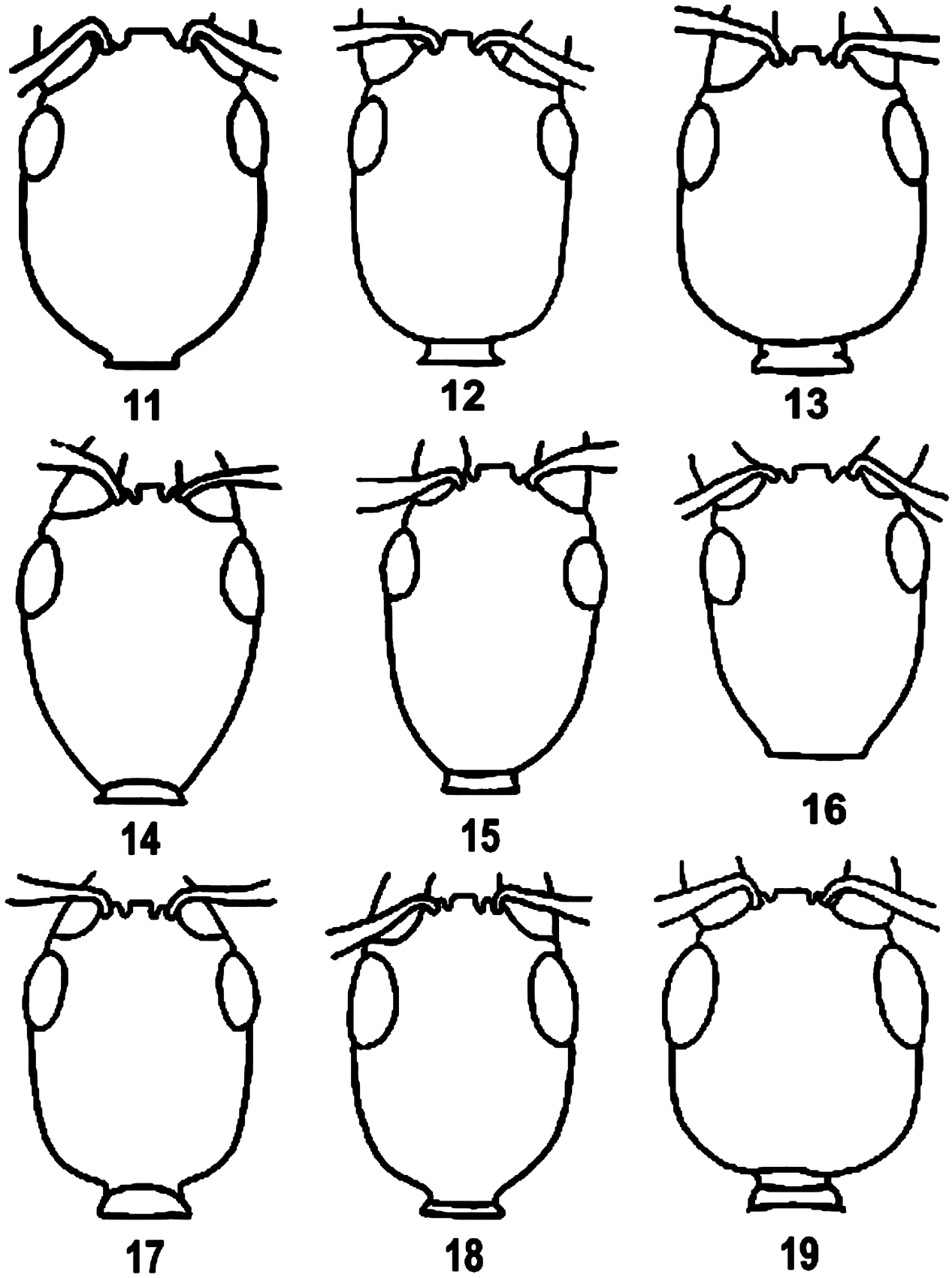
Aedeagus. Pear-shaped (lateral margins of median lobe convex); total length 1.9 mm; parameres 0.33x as long as median lobe; apical area of median lobe 0.30x as long as total length, internal sac with weakly sclerotized structures (Fig. 70).

Variation. The genital segment of males is red, while in females it is reddish brown. In one specimen, the elytra are as long as the pronotum.

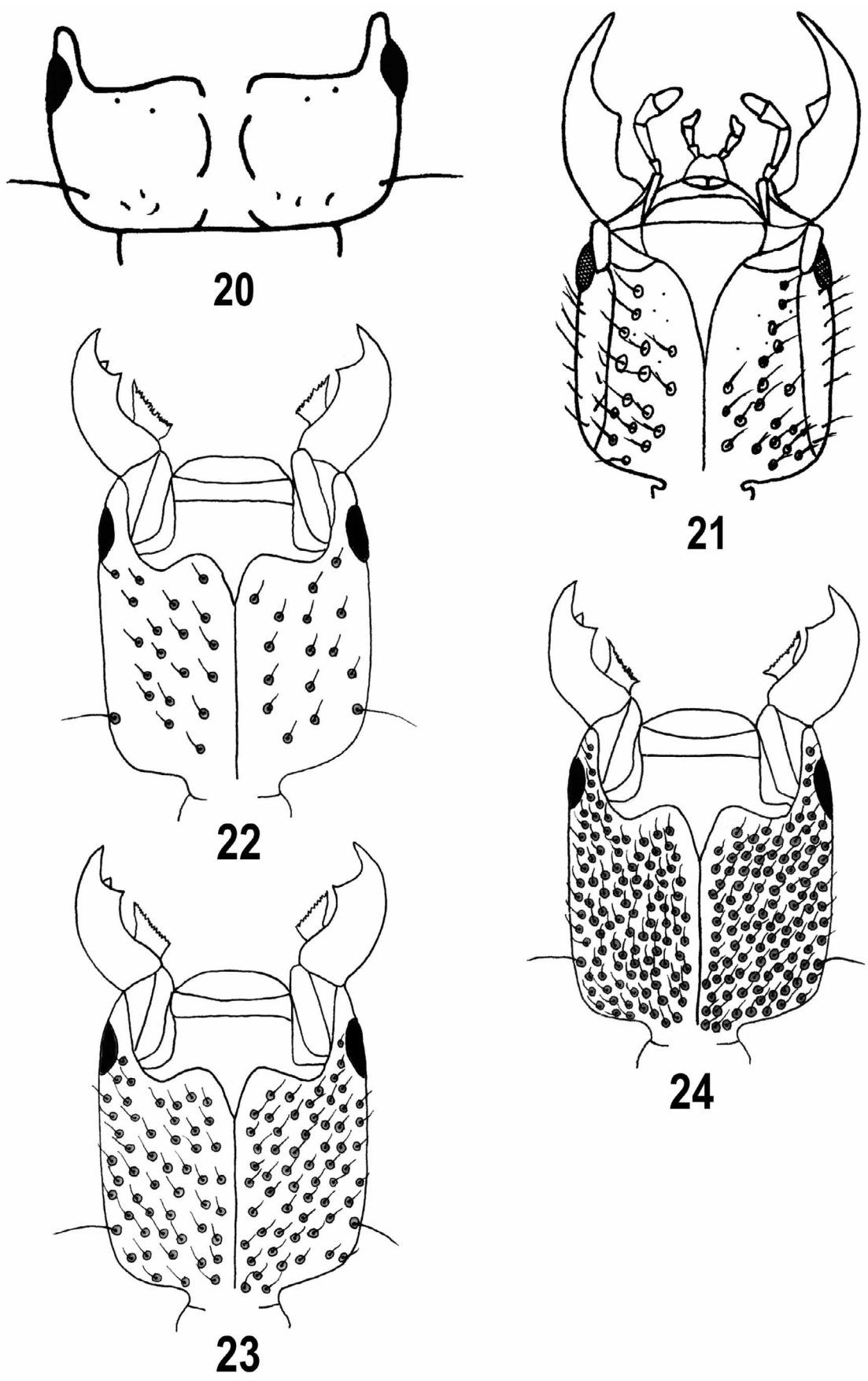
Comparison. This species can be confused with remaining species of the "formicaria" species group, but only *R. sharpi* and *R. glabrinotum* have an oval head that is posteriorly narrowed. It can be separated from *R. glabrinotum* by the presence of superior and inferior temporal carinae on the temple of the head, while *R. glabrinotum* does not have these carinae. It can be distinguished from *R. sharpi* by its short eyes (less than 0.25x as long as head), ventral surface of the head with moderately dense umbilicate punctures separated by 2–3x their width and the internal sac of the aedeagus with weakly sclerotized structures. In contrast, *R. sharpi* has long eyes (0.25–0.30x as long as head), dense umbilicate punctures on the ventral surface of the head separated by less than twice their width and the internal aedeagus sac with moderately visible sclerotized structures.

Remarks. The label data of the type specimen agree with the information in the original description, when one specimen, the holotype, is recorded (Bernhauer, 1927).

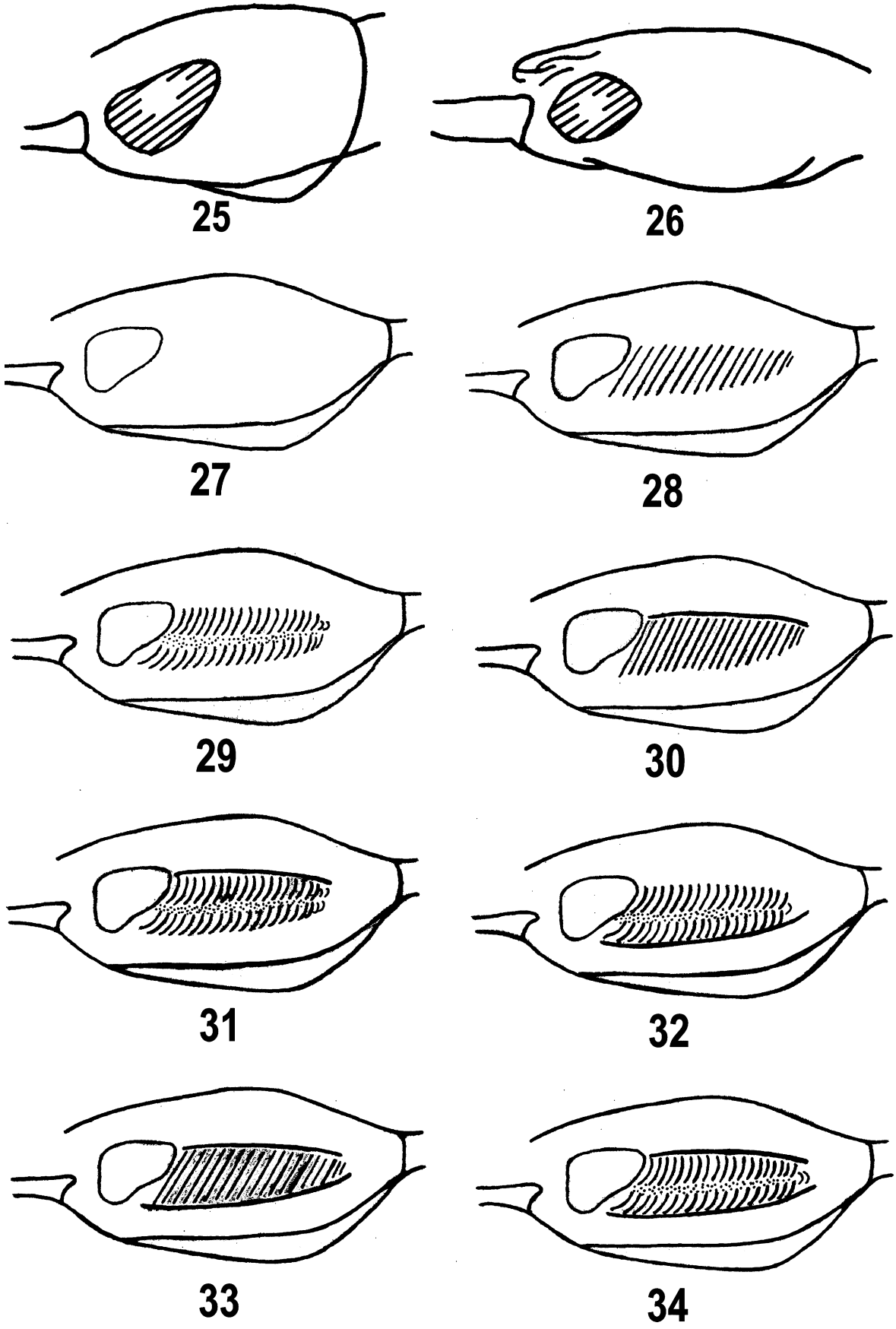
Geographical distribution. Brazil (Herman, 2001).



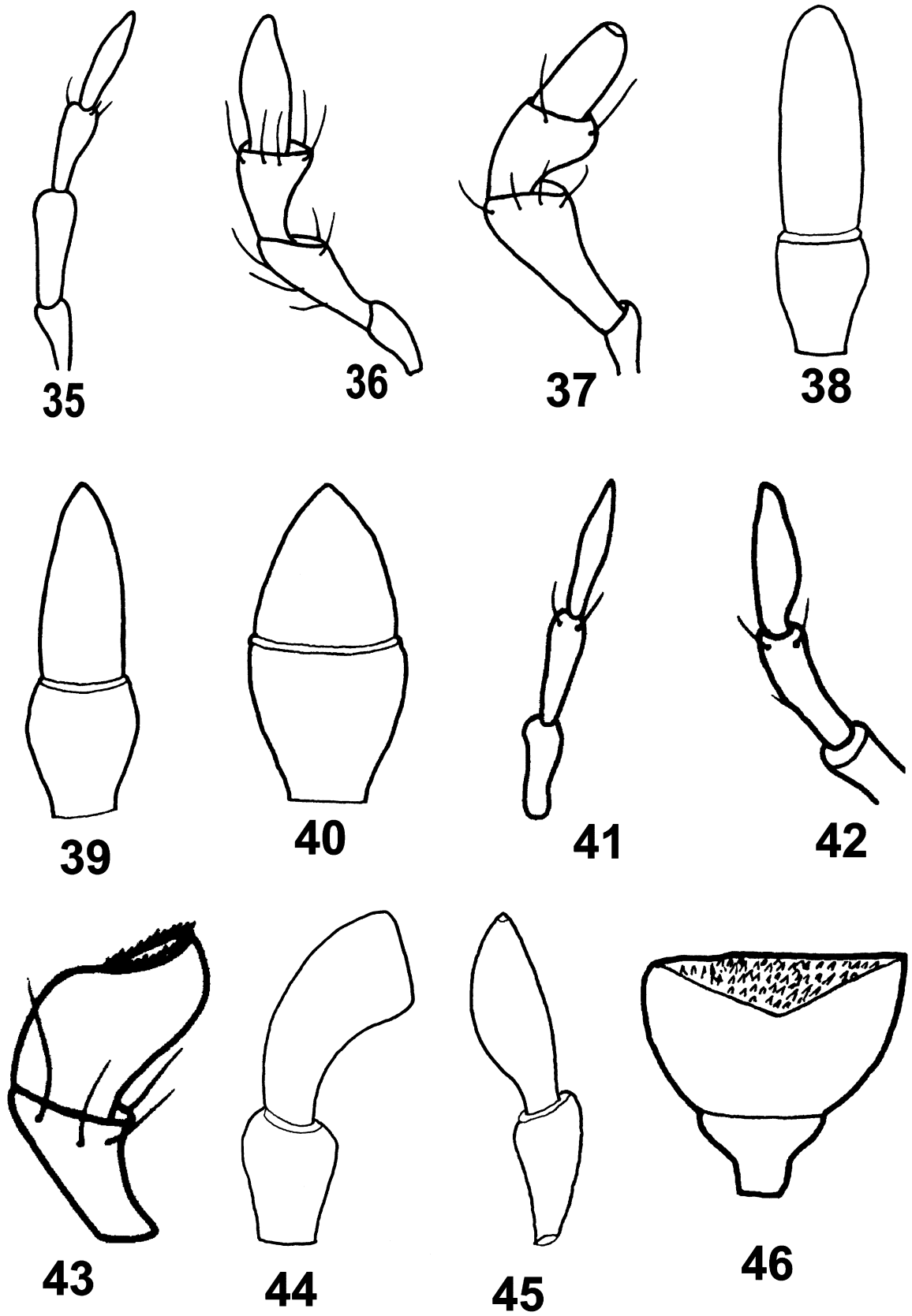
FIGURES 11–19. Dorsal view of head: 11, *Renda bicarinata*; 12, *R. flagellicornis*; 13, *R. julietae*; 14, *R. fasciata*; 15, *R. sharpi*; 16, *R. leprieuri*; 17, *R. nitida*; 19, *R. fimetaria*; 19, *R. ophthalmica*.



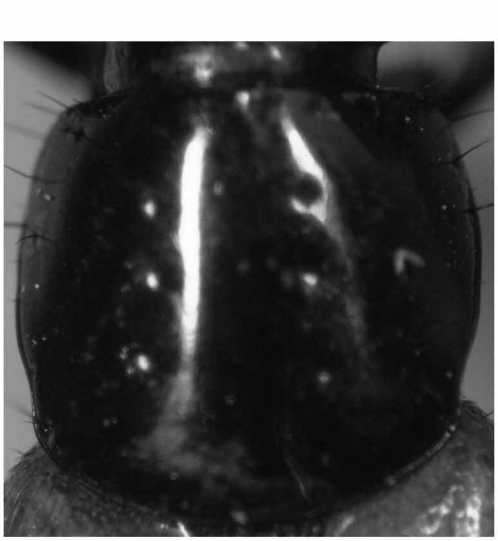
FIGURES 20–24. Ventral view of head: 20, *Philonthus testaceipennis*; 21, *Plochionocerus splendens*; 22, *Renda brendelli*; 23, *R. clavicornis*; 24, *R. brachyptera*.



FIGURES 25–34. Lateral view of head: 25, *Philonthus testaceipennis*; 26, *Agrodes conicicollis*; 27, *Renda debilis*; 28, *R. brachyptera*; 29, *R. fasciata*; 30, *R. profundepunctata*; 31, *R. leprieuri*; 32, *R. flagellicornis*; 33, *R. julietae*; 34, *R. bicarinata*.



FIGURES 35–46. Maxillary palpi: 35, *Philonthus testaceipennis*; 36, *Agrodes conicicollis*; 37, *Plochionocerus splendens*. Apical and subapical maxillary palpomeres: 38, *R. bicarinata*; 39, *R. fimetaria*; 40, *R. minor*. Labial palpi: 41, *P. testaceipennis*; 42, *A. conicicollis*. Apical and subapical labial palpomeres: 43, *P. splendens*; 44, *R. formicaria*; 45, *R. brasiliana*; 46, *R. palpalis*.



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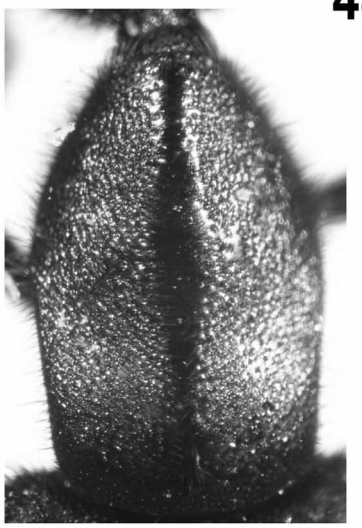

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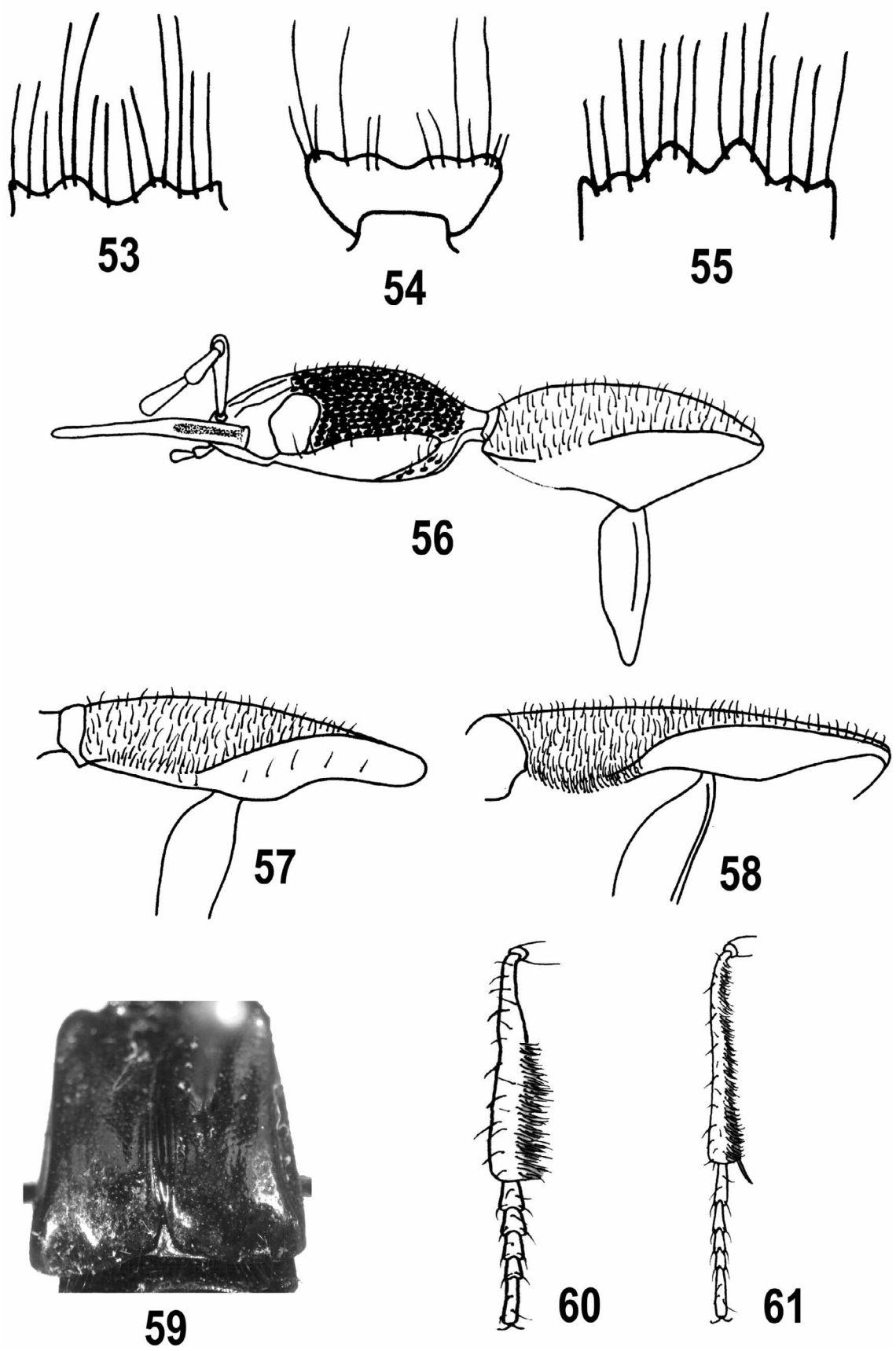
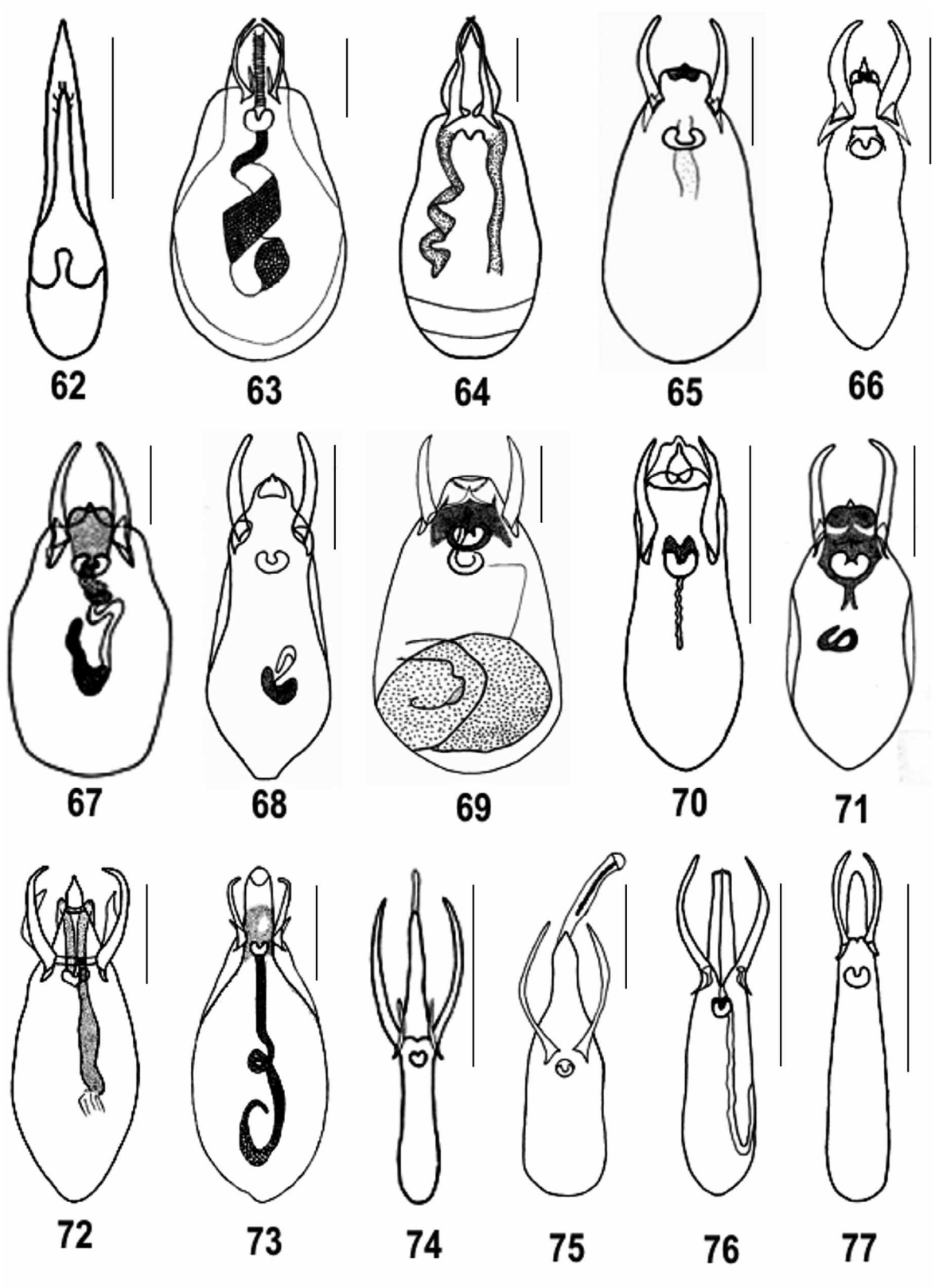
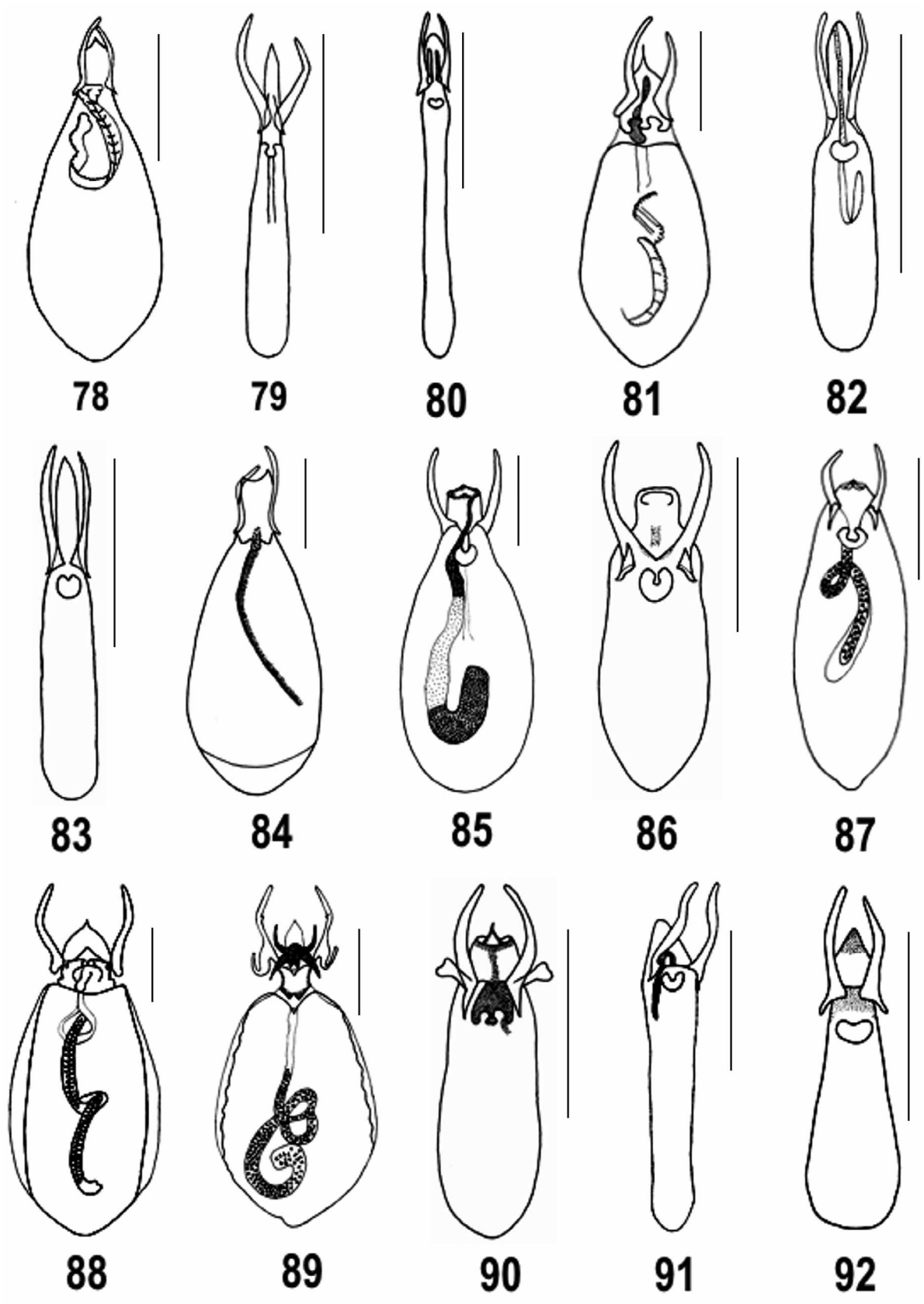
FIGURES 47–52. Pronotum: 47, *Philonthus testaceipennis*; 48, *Plochionocerus splendens*; 49, *Renda formicaria*; 50, *R. glabrinotum*; 51, *R. fulgida*; 52, *R. minor.*



FIGURES 53–61. Labrum: 53, *Philonthus testaceipennis*; 54, *Renda* spp. 55, *R. fasciata*. Lateral view of pronotal hypomeron: 56, *Plochionocerus splendens*; 57, *Agrodes* spp.; 58, *Renda* spp. 59, Elytra of *Plochionocerus* spp. Tibiae: 60, *Agrodes* spp.; 61, *Plochionocerus* spp. and *Renda* spp.



FIGURES 62–77. Ventral view of aedeagus: 62, *Philonthus testaceipennis*; 63, *Agrodes conicicollis*; 64; *Plochionocerus splendens*; 65, *Renda bicarinata*; 66, *R. brachyptera*; 67, *R. flagellicornis*; 68, *R. formicaria*; 69, *R. grandipenis*; 70, *R. profundepunctata*; 71, *R. sharpi*; 72, *R. cyanea*; 73, *R. fasciata*; 74, *R. fulgida*; 75, *R. leprieuri*; 76, *R. simplicephala*; 77, *R. brasiliana*. Scale bar 1 mm.



FIGURES 78–92. Ventral view of aedeagus: 78, *R. debilis*; 79, *R. lescheni*; 80, *R. longiceps*; 81, *R. mesoamericana*; 82, *R. minor*; 83, *R. nitida*; 84, *R. raulmunizi*; 85, *R. brendelli*; 86, *R. cariniventris*; 87, *R. clavicornis*; 88, *R. fimetaria*; 89, *R. fimetariamimus*; 90, *R. pronotalis*; 91, *R. julietae*; 92, *R. ophthalmica*. Scale bar 1 mm.

***Renda sharpi* sp. nov.**

Type material (9 specimens)**. Holotype,** male: "ECUADOR: Pichincha, Maquipucupa For. Res., 50 km NW Quito, 1300 m, 23-XII-1991, C. Carlton, R. Leschen # 72 ex: banana duff berlese" (SEMC). **Paratypes**: same data as holotype, except: "1400 m, 22-XII-1991, C. Carlton, R. Leschen" (1♀, SEMC). Same data as holotype, except: "River Trail, 1200 m, 0°7¨34"N, 78°37´57"W, 27–29-X-1999, Z. H. Falin, ECU1F99 053, ex: flight intercept trap" (1♀, SEMC). "Pichincha, Macquipucuna Biological Station, 1300 m, 0°7´12"N, 78°37´48"W, 8–18-III-1996; P. Hibbs, ECU2H96 008B; ex malaise trap" (1♂, SEMC). "Esmeraldas Bilsa, 0°20´0"S, 79°43´0"W, 10-V–5-VI-1996, ECU1H96 016; P. Hibbs, ex: flight intercept trap" (1♂, SEMC). "Pichincha, Tandapi, 700 m, 29-VI-1991, V. Pérez" (1♀, QCAZ). "COLOMBIA, no locality data" (1?, FMNH). No country data: "S. America, Caucathal / *funebris* Shp.? Bang Haas, det. Bernh." (2♀, FMNH).

Description. Total length 15.3–18.8 mm. Body black, shining with reddish brown mouthparts, tarsi and genital segment.

Head. Oval, posteriorly narrowed (Fig. 15), 1.43x as long as wide; slightly convex dorsally and ventrally; dorsal and ventral surfaces with dense umbilicate punctures separated by less than twice their width (Fig. 24); temple with inferior temporal carina and a concave, slightly to moderately deep area (Fig. 32); eyes 0.28x as long as head, interocular distance 0.66x cephalic width; first antennomere 1.73x as long as antennomeres 2–3 combined, apical antennomere 0.94x as long as antennomeres 9–10 combined; labrum slightly bilobed (Fig. 54); mandibles with external channel; apical maxillary palpomere elongate (Fig. 38), 1.86x as long as preapical palpomere; apical labial palpomere moderately wide and flattened toward apex (Fig. 44), nearly twice as long as preapical palpomere.

Thorax. Pronotum 1.5x as long as wide; 1.12x as wide as head; with dense umbilicate punctures, with longitudinal impunctate area wide at anterior third and very narrow, but visible at posterior half; without depressed areas on posterior third (Fig. 49). Elytra as long as pronotum (0.94x), with dense setae on elytral disc. Prosternum with less density of setae than mesosternum and metasternum.

Abdomen. Densely covered with setae as on remainder of body.

Aedeagus. Pear-shaped (lateral margins of median lobe convex); total length 2.53 mm; parameres 0.37x as long as median lobe, apical area of median lobe 0.14x as long as total length, internal sac with moderately visible sclerotized structures (Fig. 71).

Variation. Great variation in total length (15.3–18.8 mm). The elytra in some specimens show metallic reflections and the antennae can be black or reddish brown.

Remarks. The species can be confused mainly with *R. profundepunctata* but the main differences are discussed in the remarks under that species.

Etymology. I take pleasure in dedicating the name of this species to D. Sharp, in gratitude for his great contribution to the knowledge of Staphylinidae.

Geographic distribution. Ecuador.

1´. Species with dense umbilicate punctures on head; pronotum with dense to moderately dense fine punctures, except for wide longitudinal impunctate area (Figs. 5–10; 51, 52); body of medium to short size and apical maxillary palpomere elongate (Fig. 38), conically elongate (Fig. 39) or conical (Fig. 40) 2

2. Metallic species or at least with metallic reflections; apical antennomere longer than antennomeres 9–10 combined; labrum with four teeth (Fig. 55); elytra with a transversal band of long, white setae on anterior third (fascia) and on posterior border (Fig. 5) ..... "fasciata" species group

***Renda cyanea* sp. nov.**

Type material (1 specimen)**. Holotype**, male: "ECUADOR: Napo Prov. Jatun Sacha Biol. Sta. 21 km E Puerto Napo, 400 m, 7 VII 1994, Francois Génier, ex: flight intercept trap" (SEMC).

Description. Total length 16.8 mm. Head, abdomen and legs metallic blue; pronotum metallic violaceous; elytra near black; antennomeres 1–3, mouthparts, tarsi and genital segment reddish brown; antennomeres 4–11 reddish, with apex of last antennomere yellow.

Head. Ovally elongate, with obtuse posterior corners (similar to Figs. 12, 14), 1.44x as long as wide; dorsal surface slightly convex only on vertex; ventral surface clearly convex, mainly on gular sutures; dorsal surface with very dense umbilicate punctures and ventral surface with moderately dense umbilicate punctures, unevenly distributed, separated by 2–3x their width (Fig. 23); temple with superior and inferior temporal carinae and a slightly deep, concave area (Fig. 34); eyes 0.28x as long as head, interocular distance 0.65x cephalic width; first antennomere 1.81x as long as antennomeres 2–3 combined, apical antennomere 1.35x as long as antennomeres 9–10 combined; labrum with 4 teeth, central pair longer than lateral pair (Fig. 55); mandibular external channel poorly developed; apical maxillary palpomere conically elongate (Fig. 39), 1.69x as long as preapical palpomere; apical labial palpomere with apex slightly widened and flattened (Fig. 44), nearly twice as long as preapical palpomere.

Thorax. Pronotum long, 1.62x as long as wide; as wide as head, with fine and moderately dense punctures, except for smooth and wide longitudinal belt; with depressed area at each side of posterior third slightly visible (Fig. 51). Elytra 1.06x as long as pronotum; with fascia of pale, long setae as wide as scutellum and with similar setae on posterior border (similar to Fig. 5). Prosternum transverse, with setae sparser than on meso and metasternum.

Abdomen. Covered with moderately dense, pale, long setae, that are denser than on head and pronotum.

Aedeagus. Ovally elongate, with base of median lobe narrowed; total length 3.44 mm; parameres 0.29x length of median lobe, apical area of median lobe 0.26x as long as total length of median lobe and internal sac with moderately visible sclerotized structures (Fig. 72).

Variation. Unknown.

Comparison. This species can be confused with the remaining species of this group. It can be distinguished from *R. fulgida* by its metallic blue color, while *R. fulgida* is black, with metallic reflections; it can be distinguished from *R. simplicephala*, *R. fasciata* and *R. leprieuri* by its oval head not narrowed posteriorly, in the remaining species the head is oval and narrowed posteriorly. Additionally, the aedeagus of *R. cyanea* is oval with a narrow base.

Etymology. The species name is derived from the Latin word "cyaneus", and refers to the metallic blue body color of this species.

Geographic distribution. Ecuador.

***Renda fasciata* sp. nov.**

Type material (2 specimens)**. Holotype**, male: "PERU: Madre de Dios, Pantiacolla Lodge, 5.5 km NW El Mirador Trail, Alto Madre de Dios River, 560 m, 12°39´10"S, 71°15´28"W, 23–26 Oct 2000; R. Brooks, PERU1B00 100, ex: flight intercept trap" (1♂, SEMC). **Paratype**: "ECUADOR, Napo, Scyasuni, 250 m, 7–14 Sept 1997, F. Maza / *Plochionocerus* det. Newton 1999" (1♂, QCAZ).

Description. Total length 14.6–14.8 mm. Body metallic green, elytra almost black, antennomeres 1–3, tarsi and genital segment, brown; antennomeres 4–11 red.

Head. Oval, posteriorly narrowed (Fig. 14), 1.38x as long as wide; dorsal surface a little convex, ventral surface clearly convex; with very dense umbilicate punctures on dorsal surface and moderately dense umbilicate punctures on ventral surface separated by 2–3x their width (Fig. 23); temple without temporal carinae,

with a concave area slightly deep (Fig. 29); eyes 0.31x as long as head, interocular distance 0.64x cephalic width; first antennomere 1.91x as long as antennomeres 2–3 combined, apical antennomere 1.22x as long as antennomeres 9–10 combined; labrum with 4 teeth, central pair larger than lateral pair (Fig. 55); mandibular external channel poorly developed; apical maxillary palpomere conically elongate (Fig. 39), 1.5x as long as preapical palpomere; apical labial palpomere with apex slightly widened and flattened (Fig. 44), near twice as long as preapical palpomere.

Thorax. Pronotum 1.66x as long as wide; as wide as head; with dense fine punctures except for wide longitudinal impunctate area; without depressed areas at each side of posterior third (similar to Fig. 52). Elytra 1.08x as long as pronotum; with fascia of pale, long setae wider than scutellum and similar setae on posterior borders (similar to Fig. 5). Transverse prosternum, covered with setae sparser than on meso and metasternum.

Abdomen. Densely covered with pale, long setae, mainly on borders of each segment.

Aedeagus. Ovally elongate, base of median lobe widened; total length 3.8 mm; parameres 0.2x as long as median lobe, not reaching apex of median lobe; apical area of median lobe 0.23x as long as total length of median lobe and internal sac with sclerotized structures (Fig. 73).

Variation. Slight variation in total body length and in metallic color.

Comparison. This species can be confused with the remaining metallic species of this group but the absence of carinae on the temple of head, the slightly deep concave area, the fascia of setae on elytra wider than the scutellum, the posteriorly narrowed head and the oval aedeagus with base of median lobe widened and short parameres, permit recognition of this species from the others.

Etymology. The species name is derived from the Latin word “fascia”, and refers to the band of pale, long setae on the anterior third of the elytra.

Geographic distribution. Ecuador and Peru.

***Renda fulgida* sp. nov.**

Type material (9 specimens). **Holotype**, male: “COSTA RICA: Prov. Guanacaste, Est. Maritza, lado O Vol. Orosi, 600 m, Tp Malaise, 1989, L-N 326900, 373000” (INBIO). **Paratypes**: “Prov. Guanacaste, Est. Pitilla, 9 km S Sta. Cecilia, 700 m, 22-VIII-1993, C. Moraga, LN 330200 380200, # 2322” (1♂, INBIO). “Prov. Guanacaste, Est. Pitilla, 9 km S Santa Cecilia, Fila Orosilito, P. N. Guanacaste, 700 m. IV-1994, F. Pizarro, L- N 330200 380200 # 3062” (1♂, INBIO). Same data, except: “F. Araya, V-1992” (1♀, INBIO). Same data, except: “C. Moraga, V-1991” (1♀, INBIO). “Prov. Limon, Sector Cerro Cocori, Fca. de E. Rojas, 150 m, E. Rojas, I-1991, L-N 286000, 567500” (1♀, INBIO). “NICARAGUA: Rio San Juan Dept., 60 km SE San Carlos, Refugio Bartola, 100 m, 10°58.40´N, 84°20.30´W, 26-V-2002, R. Brooks, Z. Falin, S. Chatzimanolis, ex: sweeping vegetation, NIC1BFC02 080” (1♂, SEMC). “PANAMA: Panama, Old Gamboa Rd, 14–19-XI-1994, D. Windsor, ex: flight intercept trap” (1♀, SEMC). “Panamá Pr., Cerro Jefe, 900 m, 9° 12´N, 79° 21´W, 16-IV-77, Stockwell” (1♀, FMNH).

Description. Total length 14.8–16.5 mm. Body black, shining with metallic reflections (green-brown) on head and abdomen (most strongly on sternites).

Head. Oval, with posterior angles obtuse (similar to Fig. 17), 1.33x as long as wide; dorsal and ventral surface slightly convex; with very dense umbilicate punctures on dorsal surface, ventrally with dense umbilicate punctures unevenly distributed separated by 1–2x their width (Fig. 24); temple with superior and inferior temporal carinae and a flattened to slightly concave area (Figs. 33, 34); eyes 0.26x as long as head, interocular distance 0.62x cephalic width; first antennomere 1.76x as long as antennomeres 2–3 combined, apical antennomere 1.23x as long as antennomeres 9–10 combined; labrum with two central teeth longer than two lateral teeth (Fig. 55); mandibles with external channel poorly developed; apical maxillary palpomere elongate (Fig. 38), 1.6x as long as preapical palpomere; apical labial palpomere widened and flattened moderately in apex (Fig. 44), nearly twice as long as preapical palpomere.

Thorax. Pronotum 1.5x as long as wide; 1.04x as wide as head; with fine, moderately dense punctures, except for wide longitudinal impunctate area; with depressed area clearly visible on each half of posterior third (Fig. 51). Elytra 1.05x as long as pronotum; with fascia of pale and long setae wider than scutellum and similar setae on posterior borders (similar to Fig. 5). Prosternum transverse, with fine setae sparser than on meso and metasternum.

*Abdomen***.** Densely covered with pale, long setae that are denser than on head and pronotum.

*Aedeagus***.** Elongate; total length 1.6 mm; parameres 0.48x as long as median lobe, apical area of median lobe 0.45x as long as total length of median lobe, and internal sac without sclerotized structures (Fig. 74).

Variation. Metallic lustre variably visible on head, pronotum and abdomen, and mainly visible in ventral view. In several specimens the apex of the last antennomere is red.

Comparison. This species is easily distinguished from the rest of species of this group by the black color of the body with only metallic reflections, the oval head, the temple of the head with superior and inferior temporal carinae and a concave, area and the small aedeagus.

Etymology. The species name is derived from the Latin word “fulgidus” and refers to the bright metallic color of this species.

Geographic distribution. Costa Rica, Nicaragua and Panama.

***Renda leprieuri* (Laporte, 1835)**
Fig. 5

Sterculia leprieuri Laporte, 1835: 118; Herman, 2001: 3745 (*Plochionocerus*); Asiain *et al*., 2007: 7 (*Renda*).
Sterculia holtzi Bernhauer, 1907: 284; Bernhauer & Schubert, 1914: 315 (*Sterculia*, synonym of *leprieuri*).

Type material. Type material of *Sterculia leprieuri* Laporte not located (described from “Cayenne” = French Guiana). **Holotype** of *Plochionocerus holtzi*, male: “Britisch Guayana / *leprieuri* (the remaining data not visible) / *holtzi* Brnh. Typus / *holtzi*” (FMNH).

Additional material (7 specimens)**.** “**FRENCH GUIANA**: Les Eaux Claires, 3-XI-1995, A. Berkov” (1♂, AMNH). “Cayenne” (1♂, 1♀, IRSNB). “**GUYANA**: Region 8, Iwokrama Forest, Turtle Mt. Base camp., 50 m, 4°40´19”N, 58°4´14”W, 30-V–1-VI-2001, R. Brooks, Z. Falin, GUY1BF01 098, ex: flight intercept trap (1♀, SEMC). “Amer. Mer., no locality data” (1♀, IRSNB). “**SURINAM**: Brocopondo Brownsberg Nature Reserve, Mazaroni Falls Traihead, 450 m, 4°56´55”N, 55°10´53”W, 24-VI-1999, H. Hiwat, SUR1F99 103B, ex: roadside vegetation” (1♂, SEMC). “Tito Sn. Vicente en Delluus” (1♀, IRSNB).

Redescription. Total length 15.8–17.3 mm. Body metallic green to blue, elytra metallic brown and antennae, mouthparts and legs reddish brown.

Head. Elongate, posteriorly narrowed (Fig. 16); 1.48x as long as wide; dorsal surface clearly convex; ventral surface slightly convex; with very dense umbilicate punctures on dorsal surface; ventral surface with few umbilicate punctures separated by more than 3x their width (Fig. 22); temple with superior temporal carina and a narrow, slightly to moderately deep concave area (Fig. 31); eyes 0.27x as long as head, interocular distance 0.60x cephalic width; first antennomere 1.78x length of antennomeres 2–3 combined, apical antennomere longer (1.1x) than antennomeres 9–10 combined; labrum with two central teeth longer than two lateral teeth (Fig. 55); mandibles with external channel; apical maxillary palpomere conically elongate (Fig. 39), 1.6x as long as preapical palpomere; apical labial palpomere slightly widened and flattened toward apex (Fig. 44), nearly twice as long as preapical palpomere.

Thorax. Pronotum 1.6x as long as wide; as wide as head; with moderately dense fine punctures, except for wide longitudinal impunctate area and with a clearly visible depressed area at each side of posterior third (Fig. 51). Elytra as long as pronotum, with dense, long and pale setae transversally distributed on the anterior fourth

(fascia; Fig. 5). Prosternum and mesosternum with slightly dense, pale, long setae, these setae dense on lateral and posterior areas of metasternum.

Abdomen. Completely covered by long, pale setae combined with short, brown setae.

Aedeagus. Ovally elongate; total length 2.5 mm; with parameres 0.51x length of median lobe, apical area of median lobe 0.45x as long as total length of median lobe and internal sac with sclerotized structures (Fig. 75).

Variation. The metallic color of body can be green to blue. The superior carina on the temple of the head varies from clearly visible to slightly visible and concave area can be slightly to moderately deep.

Comparison. This species can be confused with *R. fulgida*, *R. simplicephala*, *R. cyanea* and *R. fasciata*. It can be distinguished from them by the elongate head, the superior temporal carina on the temple of the head, the absence of a lower carinate line on the lateral margins of the head and the aedeagus with long parameres. While the remaining species have an oval or ovally elongate head, temple convex or with superior and inferior temporal carinae, and parameres shorter than those in *R. leprieuri*.

Remarks. It was not possible to study any type specimens of *Sterculia leprieuri* Laporte, 1835, but the holotype of *Sterculia holtzi* Bernhauer, 1907 (junior synonym proposed by Bernhauer and Schubert, 1914) was used to establish the probable identity of *R. leprieuri*. This species was recently transferred from *Plochionocerus* to *Renda* by Asiain *et al.* (2007).

Geographic distribution. French Guiana, Guyana (Herman, 2001) and Surinam (first national record).

***Renda simplicephala* sp. nov.**

Type material (2 specimens). **Holotype,** male: “ECUADOR: Napo Reg., Tiputini Res. Stat., 220 m, 5–25-IX-00, 0°38´S, 76°9´W / Flight intercept trap, D. J. Inwars & K. A. Jackson, BMNH (E) 2000-194” (BMNH). **Paratype**, female: “Napo, Archidona, Nanchiyacu, 5-XII-1986, X. Viters” (QCAZ).

Description. Total length 16.2–16.8 mm. Body metallic green, pronotum nearly metallic blue, elytra darker, antennomeres 4–11, mouthparts, tarsi and genital segment reddish brown, apex of last antennomere yellow.

Head. Oval, posteriorly narrowed (posterior corners absent; similar to Fig. 14), 1.34x as long as wide; dorsal and ventral surfaces moderately convex; with dense umbilicate punctures on dorsal surface; ventral surface with slightly dense and unevenly distributed umbilicate punctures (Fig. 22); temple without temporal carinae but delineate flattened area with some punctures (Fig. 28); eyes 0.27x as long as head, interocular distance 0.61x cephalic width; first antennomere 1.84x as long as antennomeres 2–3 combined, apical antennomere 1.1x as long as antennomeres 9–10 combined; labrum with 4 teeth, lateral pair longer than central pair (Fig. 55); mandibular external channel poorly developed; apical maxillary palpomere elongate (Fig. 38), 1.71x as long as preapical palpomere; apical labial palpomere moderately widened and flattened apically (Fig. 44), near twice as long as preapical palpomere.

Thorax. Pronotum 1.56x as long as wide; almost as wide as head (0.98x); with fine and slightly dense punctures, except for wide longitudinal impunctate area; without depressed areas on posterior third (similar to Fig. 52). Elytra 1.13x as long as pronotum; elytra denuded, setal characters therefore impossible to observe, fascia probably present in undamaged specimens. Prosternum transverse, with slightly dense, fine setae as on meso and metasternum.

Abdomen. Specimens damaged, without setae on abdomen. In undamaged specimens abdomen probably densely covered with pale, long setae.

Aedeagus. Elongate; total length 1.825 mm; parameres 0.48x length of median lobe, apex of median lobe 0.36x its total length, internal sac with moderately visible sclerotized structures (Fig. 76).

Variation. Specimens vary in total length and from metallic green to blue in color.

Comparison. This species is distinguished from the rest species of this group by the oval and posteriorly narrowed head, the absence of temporal carinae on the temple of the head, the convex dorsal surface of the head, the few umbilicate punctures on the ventral surface of the head and the small aedeagus.

Etymology. The species name is derived from the Latin words "simplex" and "cephalus" and refers to the simple head, without temporal carinae or concave area on the temple of the head.

Geographic distribution. Ecuador.

2´. Species with mainly black body; apical antennomere as long as, or shorter than antennomeres 9–10 combined; labrum slightly bilobed (Fig. 54); without fascia on elytra (Figs. 6, 7) 3
3. Species with apical maxillary palpomere conical (Fig. 40) ..... "minor" species group

***Renda brasiliana* (Bernhauer, 1927)**

Plochionocerus brasiliana Bernhauer, 1927: 164; Herman, 2001: 3747 (*Renda*).

Type material. Holotype, female: "Rio de Janeiro, Brasilien, Standinger / *brasilianus* Bernh. Type unic." (FMNH).

Additional material (4 specimens). "**BRAZIL**: Guanabara, Rio de Janeiro, X-1968, M. Alvarenga" (1♀, AMNH). "Goias, Jataí, X-1972, F. M. Oliveira" (1♂, AMNH). "Minas Gerais, Pampulha, UFMG Campus, 830 m, 19°52´0"S, 43°38´0"W, 28-V-1997, J. C. R. Fontenelle, BRA1F96 109, ex: malaise 3" (1♀, SEMC). "**PARAGUAY**: N. Paraguay, Molinoscue (Seharz leg.) / *Pl.* (*Leptotr.*) *brasilianus* (?) Brh." (1♀, FMNH).

Redescription. Total length 12.5–14.3 mm. Head and pronotum black; antennomeres 2–11, mouthparts, legs, elytra and visible abdominal segments 1–5 (except posterior border of segment 5) reddish brown; posterior border of visible abdominal segment 5, entire segment 6 and genital segment yellow.

Head. Ovally elongate, with obtuse posterior angles (similar to Fig. 17); 1.22x as long as wide; dorsally and ventrally convex; dorsal surface with dense umbilicate punctures evenly distributed; ventral surface with dense umbilicate punctures separated by 1–2x their width (Fig. 24); temple convex (Fig. 27); eyes 0.28x as long as head, interocular distance 0.67x cephalic width; first antennomere 1.79x as long as antennomeres 2–3 combined, apical antennomere 0.94x length of antennomeres 9–10 combined; labrum slightly bilobed (Fig. 54); mandibles with external channel; apical maxillary palpomere conical (Fig. 40), 1.24x as long as preapical palpomere; apical labial palpomere moderately wide and flattened toward apex (Fig. 44), nearly twice as long as preapical palpomere.

Thorax. Pronotum 1.41x as long as wide; with dense fine punctures, except for wide longitudinal impunctate area; with depressed area at each side of posterior third slightly visible (Fig. 51). Elytra 1.17x as long as pronotum; elytral disc with pale setae as dense as those on abdomen. Prosternum with setae less dense than those on mesosternum and metasternum.

Abdomen. Densely covered with long, pale setae.

Aedeagus. Elongate; total length 1.8 mm; with short parameres (0.28x length of median lobe); apical area of median lobe 0.21x total length of median lobe and internal sac without sclerotized structures (Fig. 77).

Variation. One specimen has black elytra and abdomen (not reddish brown). Three specimens have the dorsal surface of the head clearly convex. Two specimens have the head slightly widened posteriorly.

Comparison. The black coloration of the body, posterior border of fifth visible abdominal segment and pregenital and genital segments yellow, head with temple convex and conical apical maxillary palpomere may confuse *R. brasiliana* with *R. debilis*. *Renda brasiliana* can be distinguished by the ovally elongate head, convex ventral surface of the head, large pronotum, elongate aedeagus, symmetrical parameres and the internal sac with weakly sclerotized structures. On the contrary, *R. debilis* has subquadrate head, slightly convex ven-

tral surface of the head, short pronotum, ovally elongate aedeagus with the base of median lobe widened, asymmetrical parameres and internal sac with sclerotized structures.

Geographic distribution. Brazil (Herman, 2001) and Paraguay (first national record).

***Renda debilis* (Sharp, 1885)**
Fig. 6

Plochionocerus debilis Sharp, 1885: 472; Herman, 2001: 3748 (*Renda*).

Type material. Lectotype (here designated), male: "*Plochionocerus debilis* Type D. S. San Joaquín, Guatemala. Champion (in the plaque with the specimen) / Type / San Joaquín, Vera Paz. Champion / B.C.A. Col. I. 2. *Plochionocerus debilis* Sharp / Syntype" (BMNH). **Paralectotype,** female: "*Plochionocerus debilis* S. Geronimo. Guatemala. Champion (in the plaque with the specimen) / S. Geronimo, Guatemala. Champion / B.C.A. Col. I. 2. *Plochionocerus debilis* Sharp / Syntype" (BMNH).

Additional material. "**GUATEMALA**: Verapaz, Copan, Conradt." (1?, FMNH). "**MEXICO**, no locality data" (1♂, FMNH).

Redescription. Total length 12.5–12.9 mm. Body black, antennae, mouthparts and tarsi reddish brown, and posterior third of fifth visible abdominal segment, pregenital and genital segments yellow.

Head. Quadrate oval (similar to Fig. 19); clearly convex dorsally and slightly convex ventrally; dorsal surface with dense umbilical punctures, except for smooth front; vertex with denser punctures forming net; ventral surface with moderately dense and unevenly distributed, umbilicate punctures separated by 2–3x their width (Fig. 23); temple convex (Fig. 27); eyes 0.28x as long as head, interocular distance 0.67x cephalic width (at eye level); first antennomere 1.6x length of antennomeres 2–3 combined, apical antennomere 0.85x length of antennomeres 9–10 combined; labrum slightly bilobed (Fig. 54); with mandibular external channel; conical apical maxillary palpomere (Fig. 40), as long as preapical palpomere; apical labial palpomere with slightly widened and flattened apex (Fig. 44), nearly twice as long as preapical palpomere.

Thorax. Pronotum 1.38x as long as wide; 1.08x as wide as head; with moderately dense fine punctures, except for wide, longitudinal impunctate area; without lateral depressed area at posterior third (Fig. 52). Elytra as long as pronotum; with fine setae as dense as those on pronotum. Prosternum with fine setae as sparse as on meso and metasternum.

Abdomen. Densely covered with long, pale setae that are denser on lateral borders.

Aedeagus. Ovally elongate, with base of median lobe widened; total length 2.5 mm; asymmetrical parameres (left shorter), 0.23x as long as median lobe (right paramere); apical area of median lobe 0.15x total length of median lobe; internal sac with sclerotized structures (Fig. 78).

Variation. Females are longer than males. In males examined, the abdominal segments are yellow and in females they are red-yellow. However, the female specimens are overall paler than males and are probably teneral.

Comparison. This species can be confused with *R. brasiliana* due to the similar color pattern of the body, the temple convex of the head and the conical apical maxillary palpomere. Distinguishing characteristics of both species are included in the remarks for *R. brasiliana*.

Remarks. Two syntypes are recorded in the original description (Sharp, 1885), which correspond with the specimens studied. Designation of the lectotype was necessary to avoid future confusions of this species with similar species, such as *R. brasiliana*.

Geographic distribution. Guatemala and Mexico (Herman, 2001; Navarrete-Heredia *et al.* 2002).

***Renda lescheni* sp. nov.**

Type material (5 specimens). **Holotype,** male: "PANAMA: Colon, Parque Nac. Soberania Pipeline Rd. km 6.1, 7–21 June 1995. J. Ashe, R. Brooks # 265 ex: flight intercept trap" (SEMC). **Paratypes**: Same data as holotype, except: "Km 4.1 09°01´N, 79°45´W, 40 m 18–19 May 1995 Chaboo, Jolly, Hayford, ex: flight intercept trap" (1♂, SEMC). "Panama: Darien, Cana Biological Station, 600 m 7°45´18"N, 77°41´6"W, R. Brooks, PAN1AB96 115, ex: flight intercept trap" (1♂, SEMC). "PERU: Depto. Loreto, 1.5 km Teniente López 2°35.66´S, 76°06.92´W, 22 July 1993, 210–240 m. Richard Leschen # 164 ex: flt. Icp. Trap, Qd 23" (1♀, SEMC). Same data, except: 20 July 1993, # 134, Qd. 17" (1♂, SEMC).

Description. Total length 11.9–14.5 mm. Body black, shining with antennomeres 4–11, palpi, tarsi and genital segment reddish brown. Body densely and almost evenly setose.

Head. Ovally quadrate, slightly wider at posterior angles, with posterior margin slightly convex (similar to Fig. 19); 1.12x as long as wide; dorsal surface slightly convex, ventral surface clearly convex, mainly on gular sutures; dorsal and ventral surface with very dense, umbilicate punctures separated by less than twice their width (Fig. 24); temple convex (Fig. 27); eyes 0.26x as long as head, interocular distance 0.69x cephalic width; first antennomere 1.84x as long as antennomeres 2–3 combined, apical antennomere 0.91x as long as antennomeres 9–10 combined; labrum slightly bilobed (Fig. 54); with mandibular external channel; apical maxillary palpomere conical (Fig. 40), 1.21x as long as preapical palpomere; conical apical labial palpomere (Fig. 45).

Thorax. Pronotum 1.38x as long as wide; as wide as head; with dense fine punctures, except for wide longitudinal impunctate area; with depressed area slightly visible at each side of posterior third (Fig. 51). Elytra as long as pronotum, with setae as dense as those on head and pronotum. Prosternum with fine setae as dense as those on mesosternum; metasternum with denser setae than those on pro and mesosternum.

Abdomen. With long, pale setae on margins and short and brown setae on each segment.

Aedeagus. Elongate; total length 1.6 mm; with parameres slightly asymmetrical, 0.4x length of median lobe; apical area of median lobe 0.27x total length of median lobe; internal sac with weakly sclerotized structures (Fig. 79).

Variation. One of the three specimens has antennomeres 4–11 reddish. The head varies from nearly flat to slightly convex dorsally and the depressed areas of the pronotum are poorly developed to inconspicuous.

Comparison. This species can be confused with *R. minor*, *R. mesoamericana* and *R. ophthalmica* and their distinguishing characteristics can be found in the remarks for those species. Additionally, *R. lescheni* is similar to *R. brasiliana*, among other characteristics, in that the head is clearly convex ventrally. However, it can be distinguished by the reddish brown last visible abdominal segment and slightly asymmetrical parameres of the aedeagus. In *R. brasiliana* the two last visible abdominal segments are yellow, and the parameres of the aedeagus are symmetrical.

Etymology. I take pleasure in dedicating the name of this species to Richard A. B. Leschen (New Zealand Arthropod Collection, Landcare Research, Auckland, New Zealand), the collector of several specimens of *Renda*, and for his contribution to the study of Staphylinidae.

Geographic distribution. Panama and Peru.

***Renda longiceps* sp. nov.**

Type material (2 specimens). **Holotype,** male: "BRAZIL, Goias: Jataí, Nov. 1972. F. M. Oliveira" (AMNH). **Paratype**, female: "ECUADOR: Sucumbios, Sacha Lodge, 0°S, 76.5°W, 270 m, 22.II–4.III 1994, Hibbs, ex: malaise" (SEMC).

Description. Total length 12.0–14.1 mm. Body black, shining with antennomeres 4–11, mouthparts, legs and last two visible abdominal segments reddish brown.

Head. Ovally elongate (similar to Figs. 12, 17), 1.37x as long as wide; dorsal surface convex, ventral surface slightly convex; umbilicate punctures very dense dorsally and ventrally separated by twice or less their width (Fig. 24); temple convex (Fig. 27); eyes 0.25x as long as head, interocular distance 0.7x cephalic width; first antennomere 1.89x length of antennomeres 2–3 combined, apical antennomere as long as antennomeres 9–10 combined; labrum slightly bilobed (Fig. 54); with mandibular external channel; apical maxillary palpomere conical (Fig. 40), 1.28x as long as preapical palpomere; apical labial palpomere asymmetrically conical (Fig. 45).

Thorax. Pronotum elongate (1.72x as long as wide); as wide as head; with dense and fine punctures, except for a wide longitudinal impunctate area (Fig. 52); with depressed area at each side of posterior third. Elytra as long as pronotum, with fine setae as dense as those on other parts of body. Prosternum with setae as dense as those on meso and metasternum.

Abdomen. Covered with fine setae as dense as those on rest of body.

Aedeagus. Very elongate and narrow; total length 2.1 mm; parameres 0.24x as long as length of median lobe; apical area of median lobe 0.14x total length of median lobe; internal sac with weakly sclerotized structures (Fig. 80).

Variation. The male specimen is larger than the female specimen and its last visible abdominal segment is yellow; all antennomeres of the female are reddish brown.

Comparison. Due to the ovally elongate head, conical apical maxillary palpomere and the head with temple convex, this species can be confused with *R. nitida*. However, *R. longiceps* can be distinguished by the very dense umbilicate punctures on the ventral surface of the head, apical antennomere as long as antennomeres 9–10 combined, elongate pronotum and narrow aedeagus with the short apical area of the median lobe.

Etymology. The species name is derived from the Latin word “longus”, and refers to the elongate body, especially the elongate pronotum of this species.

Geographic distribution. Brazil and Ecuador.

***Renda mesoamericana* sp. nov.**

Type material (91 specimens)**. Holotype,** male: “PANAMA: Colon, Parque Nac. Soberania Pipeline Rd. Km 4.1, 40 m, 09°07´N, 79°45´W, 7–21-VI-1995, J. Ashe, # 265, ex: flight intercept trap” (SEMC). **Paratypes**: “COSTA RICA: Punta. Prov. Rincon de Osa, 150 m, 8°41.141´N, 83°31.117´W, 23–26-VI-2001, S. & J. Peck 01-14, ex FIT, CR1P01 006” (38 ?, SEMC). “Prov. Guanacaste, Est. Las Almendras, 300 m, 3–20-XII-1994, E. E. López, intersección L- N 334850 369500, # 4779” (3♂, 1♀, INBIO). “Prov. Puntarenas, Península de Osa, Rancho Quemado, 200 m, 1–27-I-1992, A. Marín. L-S 292500 511000, # 1779” (1♀, INBIO). Same data, except: “12–24-V-1993, A. Gutíerrez. L-S 292500, 511000” (1♀, INBIO). “Prov. Guanacaste, P. N. Guanacaste, 9 km S Sta. Cecilia, Est. Pitilla, 700 m, VIII-1991, P. Rios, L-N 330200, 380200” (1♀, INBIO). Same data, except: “VIII-1994, C. Moraga, L N 330200, 380200, # 3198” (1♀, INBIO).”Prov. Limon, R. N. F. S. Barranca del Colorado, Rio Sardinas, 10 m, 6–14-IV-1994, F. Ayala, L-N 291500 564700, #2854” (1?, INBIO). “Prov. Limon, Rio Sardinas, Barranca del Colorado, 15 m, 06–12-XI-1994, F. V. Ayala, L-N 291500 565900, # 3293” (1♂, INBIO). “Prov. Puntarenas, Corcovado P. N., Est. Sinera, 0–100 m, I-1990, G. Fonseca, 270500, 508300” (1?, INBIO). “Prov. Guanacaste, W side Volcán Orosí, Estac. Maritza, 600 m, Malaise Tp., 1989, GNP Biod. Sur. 326900, 373000” (1?, INBIO). “Cartago, nr Río Rsmoothtazon, 5 km SE Turrialba, 800 m, 13-II-´65, J. B. Karren (1?, SEMC). “Prov. Guanacaste, Maritza Biol. Stn., 550 m, 22-V-1993, J. S. & A. K. Ashe, # 036, ex: flight intercept trap” (1?, INBIO). “Prov. Puntarenas, P. N. Piedras Blancas, Esquinas Lodge (NW-Golfito), 15-V-1996, D. Brzoska” (1♂, SEMC). “Prov. Puntarenas, Corcovado National Park, Sirena stn. Corcovado trail, 150 m, 8°29´7”N, 83°34´39”W, 28-VI–1-VII-2000, Z. H. Falin, CR1ABF00, 059, ex: flight intercept trap” (1♂, SEMC). “Prov. Puntarenas, R. F. Golfito Dulce, 5 km W Piedras Blancas, 100

m, VIII-1992, P. Hanson" (1?, SEMC). "Prov. Guanacaste, Patilla Biological Station, 610 m, 10°59´22"N, 85°25´33"W, 13–15-VII-2000, J. Ashe, R. Brooks, Z. Falin, CR1ABF00, 135, ex: flight intercept trap" (1?, SEMC). "Prov. Heredia, La Selva, 3.2 km SE Puerto Viejo, 100 m, 27-III-1992, W. Bell, ex: flight intercept trap" (1?, SEMC). "San José, La Caja, VI-43, Sohmih" (1♂, FMNH). "Santa Ana, VI-40 / Typus / *Pl*. (*Leptotc*.) *astenus* Brg." (1♂, FMNH). "Guanacaste, Comelco, Palo Verde, OTS, 9 km, W. Bagaces, 40 m elev., 10°32´N, 85° 18´W, 9-IV-1973, J. Wagner, J. Kethley / FM (HD) # 73-388, 73CRIV-9a: Berlese, 4 liters conc. Organic debris on rocks below falls, dripzone" (1♀, FMNH). "ECUADOR: Los Rios, CCRP, 26-II-80, T. de Vries / Ex: Pit fall Bijao" (1♂, QCAZ). Same data, except: "4-I-1981, S. Sandoval" (1♀, QCAZ). Same data, except: "5-III-79, T. de Vries / Ex Pit fall Bosque 2rio Cuad. Cerrado" (1♀, QCAZ). "Los Rios, Rio Palenque, 17-VI-1980, S. Sandoval" (1♀, QCAZ). "NICARAGUA: Rio San Juan Dept., 60 km SE San Carlos, Refugio Bartola, 100 m, 10°58.4´N, 84°20.30´W, 28-V-2002, R. Brooks, Z. Falin, S. Chatzimanolis, ex: pyrethrum fogging gungosy logs. NIC1BFC02 104" (1♀, SEMC). "PANAMA: Colon, Parque Nac. Soberania Pipeline Rd. Km 4.1, 40 m, 09°07´N, 79°45´W, 29–31-V-1995, J. Ashe, # 085, ex: flight intercept trap" (1♂, SEMC). Same data, except: "km 5.3, # 086" (1♀, SEMC). Same data, except: "km 6.1, 4–7-VI-1995, J. Ashe, R. Brooks, # 138, ex: flight intercept trap" (2♂, SEMC). Same data, except: "km 2.0, 16-V-1995, Chaboo, Jolly, Hayford" (1♀, SEMC). Same data, except: "6.1 km on Pipeline Rd. nr. Gamboa, 40 m, 09°06´N, 79°45´W, 27–29-V-1995, J. Ashe, # 089b, ex: flight intercept trap" (1♂, SEMC). Same data as holotype (2♂, SEMC). "Darien, Cana Biological Station, 550 m, 7°45´18"N, 77°41´6"W, 7–9-I-1996, J. Ashe, R. Brooks, PAN1AB96 114, ex: flight intercept trap" (1?, SEMC). Same data, except: "PAN1AB96 109" (1?, SEMC). Same data, except: "PAN1AB96 115" (1?, SEMC). Same data, except: "3–7-VI-1996, # 067" (2?, SEMC). "Darien, Biological Station Serrania de Pirre, 1200 m, 7°45´18"N, 77°41´6"W, 4–7-VI-1996, J. Ashe, R. Brooks, PAN1AB96 105, ex: flight intercept trap" (1?, SEMC). "Prov. Panama, 7.3 km El Llano-Carti Rd, 350 m, 4–6-VI-1995, A. R. Gillogly, ex: flight intercept trap" (1?, SEMC). "Prov. Panama, Old Gamboa Rd., 19-VII-1993, D. Windsor, ex: flight intercept trap" (1?, SEMC). "Prov. Panama, Barro Colorado Island, 40 m, 9°11´0"N, 79°51´0"W, 17–23-VII-2000, PAN1C00 087, S. Chatzimanolis, ex: : flight intercept trap" (1♂, SEMC). "Gadiva, IX-X-1938" (1♂, 1♀, FMNH). Same data, except one more label: "*Pl*. (*Leptotc*.) *selvaticus* Brg." (1?, FMNH). "TRINIDAD: Tunapuna, Mt. St. Benedict, Mt. Tabor, 500 m, 21-VI 8-VII-1993, FMHD 93- / 425, rainforest, flight intercept trap, S. & J. Peck, # 93-38" (2♂, FMNH). "Maracas Valley, above Loango Village, 600 m, 22-VI 6-VII-93, montane rainforest, FIT, S. & J. Peck, 93-43 / FM 93-426" (1♂, FMNH). "St. George Co., Simla research Station, 800 ft., Arima Valley, N. Range, 10°41´34"N, 61°17´22" W, 29-V a 3-VI-2000, A. S. Ramsdale / flight intercept trap, premontane tropical rainforest" (1♂, FMNH). "Maracas Valley above Loango Village, 600 m, 9–22-VI-1993, FMHD 93-410 / montane rainforest, flight intercept trap, S. & J. Peck, # 93-22" (1♂, FMNH).

Description. Total length 13.2–15.5 mm. Body black, shining with antennomeres 4–11, palpi, tarsi and genital segment reddish brown; apex of last antennomere yellow.

Head. Ovally quadrate (similar to Fig. 19); 1.22x as long as wide; dorsally and ventrally slightly convex; with very dense umbilicate punctures on dorsal surface and dense on ventral surface separated for less than twice their width (Fig. 24); temple flattened, flat area with dense umbilicate punctures (Fig. 28); eyes 0.28x as long as head, interocular distance 0.64x as wide as head (at eye level); first antennomere 1.76x as long as antennomeres 2–3 combined, apical antennomere 0.84x as long as antennomeres 9–10 combined; labrum slightly bilobed (Fig. 54); with mandibular external channel; apical maxillary palpomere conical (Fig. 40), and as long as preapical palpomere; apical labial palpomere asymmetrically conical (Fig. 45).

Thorax. Pronotum 1.42x as long as wide; as wide as head (0.96x); with dense fine punctures, except for wide longitudinal impunctate area; with poorly developed depressed area at each side of anterior third (Fig. 51). Elytra as long as pronotum and as setose as pronotum. Prosternum with sparse, fine setae, setae as sparse as on meso and metasternum.

Abdomen. Covered with fine setae as dense as those on the rest of the body; with long, pale setae on margins of each segment.

Aedeagus. Ovally elongate, with base of median lobe widened; total length 3.36 mm; parameres 0.29x as long as median lobe; apical area of median lobe 0.19x total length of median lobe; internal sac with sclerotized structures (Fig. 81).

Variation. In addition to the variation in total length, the coloration of antennomeres 4–11, palpi, tarsi and genital segment varies from almost black to reddish brown, to red. The flattened area of the temple is slightly inclined and can be poorly visible. The depressed areas at each side of posterior third of pronotum can be slightly to moderately visible.

Comparison. This species can be distinguished from the similar *R. brasiliana*, *R. minor* and *R. lescheni* by the temple of the head without temporal carinae, but with a flattened area and by its large aedeagus with internal sac with sclerotized structures.

Etymology. The name of this species refers to its geographic distribution, mainly in Mesoamerica, with the exception of some records from Ecuador and Trinidad.

Geographic distribution. Costa Rica, Ecuador, Nicaragua, Panama and Trinidad.

***Renda minor* (Sharp, 1876)**
Fig. 7

Sterculia minor Sharp, 1876: 191; Sharp, 1885: 471 (*Plochionocerus*); Herman, 2001 (*Renda*).
Plochionocerus dalmasi Fauvel, 1901: 84; Bernhauer and Schubert, 1914: 315 (*Plochionocerus*); Herman, 2001: 3748 (*Renda*), **syn. nov.**

Type material. Lectotype of *Sterculia minor* (here designated, sex undetermined): "Type / Amazon Fonteboa / S. America: Brazil / Sharp Coll. 1905-313/ *Sterculia minor* Type D. S. / Syntype" (BMNH). **Paralectotype**: "Ega / S. America: Brazil/ *Sterculia minor* var. D. S. Amazons / Sharp coll. 1905-313 / Syntype" (BMNH). Type material of *Plochionocerus dalmasi* Fauvel not located, not found in Institut Royal des Sciences Naturalles, Brussels, Belgium (holotype described from "Colombie").

Additional material (24 specimens)**.** "**BOLIVIA**: Cochabamba, Cochabamba, 67.5 km NE, Est. Biol. Valle del Sajita, Univ. De San Simón, 300 m, 17°6´33"S, 64°47´52"W, 9–13 Feb 1999; F. Genier, BOL1G99 069; Ex: flight intercept trap" (2♀, SEMC). Same data, except: "7–9 Feb 1999, 041" (1♀, SEMC). "**BRAZIL**, Goias: Jataí, Nov. 1972, F. M. Oliveira" (2♀, AMNH). "S. Paulo, Ypiranga, Dr. Ihering / *minor* Shp. det. Bernh." (1?, FMNH). "**COLOMBIA**: Cali, Fassl / *dalmasi* Fauv. det. Bernh." (1♂, FMNH). "**ECUADOR**: Zamora-Chinchipe, Rio Bombuscaro. 4°7´0"S, 78°59´0"W. 26 Jun–4 Jul 1996. ECU1H96 oo1; P. Hibbs. Ex: flight intercept trap" (2♂, SEMC). "Ecuador: Sucumbios, Sacha Lodge, 0.5°S, 76.5°W, 270 m, 4–14-III-1994, Hibbs, ex: Malaise" (1♀, SEMC). Same data, except: "1–31 XII-1994" (1♀, SEMC). Same data, except: "3–13 VII-1994" (1♂, SEMC). "**FRENCH GUIANA**: Wanaboo (near Nason), Marowijne River, 40 m, 4°33´35"N, 54°26´36"W, 31 May–5 Jun 1999; Z. H. Falin, B. DeDijn SUR1F99 032, ex: flight intercept trap" (1♀, SEMC). "**PARAGUAY**: Cazaapá Hermosa, Prop. López family, San Rafael Reserve, bank Rio Rebicuary, 80 m, 26°17´23"S, 55°43´7"W, 1–4 Dec 2000; Z. H. Falin, PAR1F00 107; ex: flight intercept trap" (1♂, 1♀, SEMC). "**PERU**: Loreto Prov., Iquitos, 90 m, 5 May 1992, J. Danoff-Berg, ex: flight intercept trap" (1♀, SEMC). "Peru: Madre de Dios, Pantiacolla Lodge, 5,5 km W El Mirador Trail, Alto Madre de Dios River, 500 m 12°39´10"S, 71°15´28"W 23–26 Oct 2000; R. Brooks. PERU1B00 100, ex: flight intercept trap" (1♀, SEMC). "Peru: Madre de Dios, Cocha Casu Bio. Stn. Manu National park, 350 m. 11°53´45"S, 71°24´24"W. 17–19 Oct 2000; R. Brooks, PERU1B00 042; ex: flight intercept trap" (1♀, SEMC). "Madre de Dios Dept., Manu Prov., Parque Nac. Manu, Zona Res, Rio Manu, Cocha Juarez, trail nr. Manu / Lodge, 18–24-IX-1992, flight intercept trap, A. Hartman" (1♂, 1♀, FMNH). "**SURINAME**:

Brocopondo, Brownsberg Nature Preserve, Witi Creek Trail, 340 m, 4°56´55”N, 55°10´53”W, 23–25 Jun 1999; Z. H. Falin, A. Gangadin, H. Hiwat, SUR1F99 115, ex: flight intercept trap” (1♂, 3♀, SEMC).

Redescription. Total length 11.3–12.8 mm. Body black, with antennomeres 4–11, labrum, palpi, tarsi, posterior 2/3 of penultimate visible abdominal segment and last visible abdominal segment reddish brown.

Head. Ovally quadrate (similar to Fig. 19); 1.21x as long as wide; dorsally and ventrally slightly convex; dorsal surface with very dense umbilicate punctures, ventral surface with dense umbilicate punctures separated by 1–2x their width (Fig. 24); temple convex (Fig. 27); eyes 0.3x as long as head, interocular distance 0.67x cephalic width (at eye level); first antennomere 1.88x as long as antennomeres 2–3 combined, apical antennomere as long as antennomeres 9–10 combined; labrum slightly bilobed (Fig. 54); with mandibular external channel; apical maxillary palpomere conical (Fig. 40), as long as preapical palpomere; apical labial palpomere asymmetrically conical (Fig. 45), longer than preapical palpomere.

Thorax. Pronotum 1.41x as long as wide; 1.07x as wide as head; with dense fine punctures, except for wide longitudinal impunctate area (Fig. 52); with depressed area poorly developed at each side of posterior third. Elytra as long as pronotum; with dense fine setae as on pronotum. Prosternum transverse, with setae sparser than on meso and metasternum.

Abdomen. Densely covered with long, pale setae.

Aedeagus. Elongate; total length 1.4 mm; parameres 0.34x as long as median lobe; apical area of median lobe 0.29x as long as total length of median lobe; internal sac with weakly sclerotized structures (Fig. 82).

Variation. Two specimens have antennomeres 4–11, mouthparts, tarsi and two last visible abdominal segments brown, almost black. Some specimens have the apex of the last antennomere yellow. Depressed areas at each side of posterior third of pronotum are slightly visible to inconspicuous.

Comparison. This species can be confused with *R. longiceps*, *R. nitida*, *R. mesoamericana*, *R. lescheni* and *R. brasiliana* due to the similar shape of the apical maxillary and labial palpomeres and the punctures of the pronotum. It is distinguished from *R. longiceps* and *R. nitida* by an ovally quadrate head (length/width proportion: 1.17–1.25), while in the latter two species the head is ovally elongate (length/width proportion: 1.26–1.50). It can be separated from *R. mesoamericana* by the temple of head convex and by its oval aedeagus with a widened base of the median lobe. It is separated from *R. lescheni* and *R. brasiliana* by the slightly convex ventral surface of head and denser umbilicate punctures on this area (the latter two species have clearly convex ventral surface of the head and sparser umbilicate punctures).

Remarks. In spite of the fact that it was impossible to locate the holotype of *R. dalmasi*, I propose this species as a junior synonym of *R. minor* based on the following considerations. Of all previously studied specimens of any species from Colombia, only one was identified by Bernhauer as *R. dalmasi* and this specimen corresponds morphologically to *R. minor.* In the original description of *R. dalmasi*, the characteristics given by Fauvel (1901) are not very useful for the identification at the species level, but some of them, such as head almost flat and quadrate, dense umbilicate punctures on the ventral surface of the head, fine punctuation of the pronotum, similar length of head and pronotum and the total length (11 mm), completely correspond with *R. minor.* Additionally, the same author (Fauvel, 1901) indicates that *R. dalmasi* is similar to “*Pl. minor* Shp., from Amazonas”. Finally, seven species are recorded in this work from Colombia and two of them could be excluded from this taxonomic problem because their head and pronotum have dense umbilicate punctures (*R. flagellicornis* and *R. formicaria*). One of the remaining four species is proposed here as a new species (*R. fimetariamimus*), that has an oval, posteriorly narrowed head, temple with temporal carinae and a concave area, characteristics that were not included in the original descriptions of *R. dalmasi* and *R. minor. Renda fimetaria* can also be excluded as it has a very characteristic head with large eyes, and it is difficult to confuse this species with any other. *Renda clavicornis* has a convex head, with superior and inferior temporal carinae and a concave area, characters that were not observed in the study of *R. minor.* The remaining species are *R. dalmasi* and *R. minor*, which are proposed here as synonyms.

Considering the present proposed synonymy and the probable confusion of *R. minor* with other similar species, a lectotype for this species was designated from one of the two examined specimens which have the same label data as those indicated in the original description (Sharp, 1876).

Geographic distribution. Previously recorded from Brazil (*R. minor*) and Colombia (*R. dalmasi*) (Herman, 2001). It is recorded here for the first time from Bolivia, Ecuador, French Guiana, Paraguay, Peru and Surinam.

***Renda nitida* sp. nov.**

Type material (9 specimens). **Holotype**, male: "BOLIVIA: Cochabamba, Cochabamba, 67.5 km NE, Est. Biol. Valle del Sajita, Univ. De San Simón, 300 m; 17°6´33"S, 64°47´52"W, 7–9 Feb 1999; F. Génier, BOL1G99 042; ex: flight intercept trap 2" (SEMC). **Paratypes**: same data as holotype (1♀, SEMC). "BRAZIL: Rondonia, 62 km SW Ariquemes, F. Zda. Rancho, Grande, 14-X-1993 / C. W. & L. B. O´Brien, at mercury vapor & UV light" (1♂, FMNH). "ECUADOR: Napo Prov. Jatun Sacha Biol. Sta. 21 km E Puerto Napo, 400 m. 18 VII 1994 Francois Génier, ex: flight intercept trap" (1♂, 1♀, SEMC). "PERU: Madre de Dios, Pantiacolla Lodge, Monk Saki Trail, Alto Madre de Dios River, 400 m, 12°39´22"S, 71°13´55" W, 25 Oct 2000; R. Brooks, PERU1B00 098" (1♂, SEMC). "Peru: Madre de Dios, Pekitza Biol. Stn., Castanal Trail, Reserved Zone, Manu National Park, 317 m, 11°56´41"S, 71°17´0"W. 15–16 Oct 2000; R. Brooks, PERU1B00 013, ex: flight intercept trap" (1♀, SEMC). "Peru: Tumbopata Prov. Madre de Dios Dpto. 15 km NE Puerto / Cuzco Amazonico 12°33´S, 69°03´W, Quebrada Mariposa 200 m / 13 June 1989 R. A. Leschen # 484, ex: flight intercept trap" (1♀, SEMC). "Chanchamayo, 1500 m, Heynl / *clavicornis* Shp. det. Bernh." (1?, FMNH).

Description. Total length 13.6–16.7 mm. Body black, shining with antennomeres 4–11, palpi, tarsi and genital segment reddish brown.

Head. Ovally elongate (Fig. 17); 1.28x as long as wide; slightly convex dorsally and ventrally; dorsal surface with very dense umbilicate punctures, ventral surface with moderately dense umbilicate punctures separated by 2–3x their width (Fig. 23), unevenly distributed; temple flattened (Fig. 28); eyes 0.28x as long as head, interocular distance 0.65x cephalic width (at eye level); first antennomere 1.67x as long as antennomeres 2–3 combined, apical antennomere 0.92x as long as antennomeres 9–10 combined; labrum slightly bilobed (Fig. 54); with mandibular external channel; apical maxillary palpomere conical (Fig. 40), 1.29x as long as preapical palpomere; apical labial palpomere asymmetrically conical (Fig. 45), longer than preapical palpomere.

Thorax. Pronotum 1.46x as long as wide; as wide as head; with dense fine punctures, except for wide longitudinal impunctate area (Fig. 51); with depressed area poorly visible at each side of posterior third. Elytra 1.05x as long as pronotum, with fine setae as dense as those on head and pronotum. Transverse prosternum, with fine setae as dense as those on meso and metasternum.

Abdomen. Densely covered with long, pale setae.

Aedeagus. Elongate; total length 1.85 mm; parameres 0.35x total length of median lobe; apical area of median lobe 0.32x total length of median lobe; internal sac with weakly sclerotized structures (Fig. 83).

Variation. The holotype is shorter than remaining specimens. Antennomeres 4–11 can be almost black to brown, the apical half of last antennomere can be red or yellow, the genital segment varies from reddish brown to black in the anterior half, to entirely reddish brown. Two specimens have reddish brown legs.

Comparison. This species is similar to *R. longiceps* in the ovally elongate head. *Renda nitida* and *R. longiceps* can be distinguished from *R. mesoamericana*, *R. minor*, *R. lescheni* and *R. brasiliana* by the ovally quadrate and shorter head. *Renda nitida* is separated from *R. longiceps* by the head slightly convex dorsally, the apical antennomere shorter than antennomeres 9–10 combined, the ventral surface of head with moder-

ately dense umbilicate punctures and the elongate parameres of the aedeagus (0.35x the length of median lobe). *Renda longiceps* has the dorsal head clearly convex, the apical antennomere as long as antennomeres 9–10 combined, the ventral surface of the head with very dense umbilicate punctures and short parameres of the aedeagus (0.24x the length of median lobe).

Etymology. The species name is derived from the Latin word "nitida" and refers to the shiny black color of this species.

Geographic distribution. Bolivia, Brazil, Ecuador and Peru.

***Renda raulmunizi* sp. nov.**

Type material (1 specimen). **Holotype,** male: "MEXICO: Chiapas, El Bosque (6.6 mi SW), 4800 ft., 17° 01´N, 92°47´W, 25–29-VIII-1973, cloud forest with pine, dung / trap (human), A. Newton, 542 Dh, FMNH # 73-1120 Field Museum N. H. / Renda s. sp. ? det. Newton, 1993" (FMNH).

Description. Total length 15.8 mm. Body black, shining with antennomeres 4–11, mouthparts, tibiae, tarsi, posterior border of pregenital and genital segments reddish brown.

Head. Ovally elongate (similar to Fig. 17), 1.27x as long as wide; slightly convex dorsally and ventrally; very dense umbilicate punctures on dorsal surface; moderately dense umbilicate punctures on ventral surface separated by 2–3x their width (Fig. 23), unevenly distributed; temple convex (Fig. 27); eyes 0.3x as long as head, interocular distance 0.69x cephalic width; first antennomere 1.59x as long as antennomeres 2–3 combined, apical antennomere 0.9x as long as antennomeres 9–10 combined; labrum slightly bilobed (Fig. 54); with mandibular external channel; apical maxillary palpomere conical (Fig. 40), as long as preapical palpomere; apical labial palpomere asymmetrically conical (Fig. 45), 1.5x as long as preapical palpomere.

Thorax. Pronotum 1.38x as long as wide; 1.07x cephalic width; with dense fine punctures, except for wide longitudinal impunctate area; with depressed area moderately visible at each side of posterior third (Fig. 51). Elytra as long as pronotum, with fine setae as dense as those on pronotum and sparser than on head and abdomen. Prosternum has fine and sparse setae; setae on meso and metasternum similar.

Abdomen. Covered with fine setae denser than that on head, pronotum and elytra.

Aedeagus. Ovally elongate, with base of median lobe widened; total length 3.75 mm; asymmetrical parameres, left longer than right; left paramere 0.27x as long as median lobe; apical area of median lobe 0.22x total length of median lobe; internal sac with sclerotized structures (Fig. 86).

Variation. Unknown.

Comparison. *Renda raulmunizi* can be confused with several species of the "minor" group but it can be distinguished by the ovally elongate head, red tibiae and tarsi, the pronotum with a depressed area at each side of the posterior third, as well as the large aedeagus, with asymmetrical parameres and characteristic internal sac.

Etymology. I take pleasure in dedicating the name of this species to Raúl Muñiz Velez, recently passed away; he was an excellent teacher and friend, and a good example in my life.

Geographical distribution. Mexico (known only from the type locality).

3´. Species with apical maxillary palpomere elongate or conically elongate (Figs. 38, 39) 4

4. Species with apical labial palpomere slightly widened and flattened toward apex (Fig. 44) .... "fimetaria" species group

***Renda brendelli* sp. nov.**

Type material (4 specimens). **Holotype,** male: "PERU: Dept. Loreto, 1.5 km N Teniente Lopez, 2°35.66´S, 76°06.92´W, 22 July 1993, 210–240 m, Richard Leschen # 165, ex: flt. Icpt. Trap, Qd 17" (SEMC). **Paratypes**: "Coroico, BOLIVIA / Standing in NHM as *P. pubescens*?" (1♀, BMNH). "PANAMA: Panama Pr. Campana, 850 m, 8°40´N, 79°56´W, 6 sept. ´70. Stockwell" (1♂, BMNH). "PERU: Madre de Dios Dept., Tambopata, 28-X-1982 / FMHD # 82-405, ex forest canopy, T. L. Erwin" (1♀, FMNH).

Description. Total length 12.5–14.7 mm. Body black, with antennomeres 4–11, palpi, tarsi and genital segment reddish brown.

Head. Oval, slightly posteriorly narrowed (similar to Fig. 14); 1.38x as long as wide; slightly convex dorsally and ventrally; dorsal surface with dense umbilicate punctures and some smooth areas on vertex; ventral surface with sparse, umbilicate punctures separated by more than 3x their width (Fig. 22), combined with fine, dense setae; temple with inferior temporal carina and a slightly deep, concave area (Fig. 32); eyes 0.28x as long as head, interocular distance 0.66x cephalic width (at eye level); first antennomere 1.84x as long as antennomeres 2–3 combined, apical antennomere 1.02x as long as antennomeres 9–10 combined; labrum moderately bilobed (Fig. 54); with mandibular external channel; apical maxillary palpomere elongate (Fig. 38), 1.93x as long as preapical palpomere; apical labial palpomere moderately widened at apex (Fig. 44), almost twice as long as preapical palpomere.

Thorax. Pronotum 1.55x as long as wide; 0.96x cephalic width; with fine, dense punctures, except for wide longitudinal impunctate area (Fig. 52); with depressed area at each side of posterior third poorly developed. Elytra 1.13x as long as pronotum, with fine setae as dense as those on head and pronotum. Prosternum with fine setae as dense as those on meso and metasternum.

Abdomen. Covered with setae slightly denser than those on remaining body; borders of each segment with setae paler and longer than on internal area.

Aedeagus. Ovally elongate, with base of median lobe widened; total length 3.46 mm; parameres 0.26x length of median lobe; apical area of median lobe 0.14x total length of median lobe; internal sac with sclerotized structures (Fig. 85).

Variation. In females, body length is greater than in males, the vertex is without smooth areas, the temple without carinae, the head has no depressed internal area, and the ventral surface of the head has moderately dense, umbilicate punctures combined with fine punctures.

Comparison. This species can be confused with *R. clavicornis*, *R. cariniventris* and *R. pronotalis* due to the length of the apical maxillary palpomere, but it is easily separated from them by the slightly, posteriorly narrowed head, the inferior temporal carina weakly developed, the slightly convex ventral surface of the head, the elytra longer than pronotum and by the widened base of the median lobe of the aedeagus.

Etymology. It is with great pleasure that I dedicate the name of this species to Martin Brendell (former curator of Staphylinidae of the Natural History Museum in London) for his facilitation in specimen loans and for his friendship.

Geographic distribution. Bolivia, Panama and Peru.

***Renda brevipennis* sp. nov.**

Type material (1 specimen). **Holotype,** female: "PERU: Cuzco Dept., Consuelo, Manu rd., km 165, 7-X-1982 / FMHD #82-353, ex leaf litter, L. E. Watrous & G. Mazurek" (FMNH).

Description. Total length 15.5 mm. Body reddish brown with red antennae, mouthparts and tarsi. The only specimen known is probably teneral.

Head. Ovally elongate (similar to Fig. 17); 1.35x as long as wide; moderately convex dorsally on vertex and ventrally at gular sutures; dorsal surface with dense umbilicate punctures, punctures sparser on vertex and

front; ventral surface with sparse umbilicate punctures separated by 3x or more their width (Fig. 22), almost evenly distributed; temple flattened (Fig. 28); eyes 0.3x as long as head, interocular distance 0.65x cephalic width; first antennomere 1.84x as long as antennomeres 2–3 combined, apical antennomere as long as antennomeres 9–10 combined; labrum weakly bilobed (Fig. 54); mandibular external channel poorly developed, present only on base of each mandible; apical maxillary palpomere conically elongate (Fig. 39), twice as long as preapical palpomere; apical labial palpomere asymmetrically conical (Fig. 45), twice as long as preapical palpomere.

Thorax. Pronotum 1.62x as long as wide; as long and as wide as head; with dense, fine punctures, except for wide longitudinal impunctate area; without depressed areas on posterior third (Fig. 52). Elytra notably shorter than pronotum (0.69x), with fine setae as dense as those on pronotum and as sparse as those on head and abdomen; wings not present (without membranous wings or damaged); prosternum with fine setae, as sparse as those on meso and metasternum.

Abdomen. Wider than head and pronotum, as wide as, or slightly wider than elytra; densely covered with fine setae that are denser than pronotum and elytra, setae of this type mainly on borders of each segment; sixth visible sternite strongly emarginate in apex.

Aedeagus. Unknown.

Variation. Unknown.

Comparison. The head shape, the apical maxillary palpomere and eyes of *R. brevipennis* are similar to those of *R. fimetaria* and *R. fimetariamimus*, but the former is distinguished by its very short elytra, the absence of carinae on the temple of head, the wide abdomen and the emarginated apex of the sixth visible sternite.

Etymology. The species name is derived from the Latin words “brevis” and “pennae” and refers to the short elytra of this species.

Geographic distribution. Peru.

***Renda cariniventris* sp. nov.**

Type material (5 specimens). **Holotype,** male: “FRENCH GUIANA, Roura, 18.4 km SSE, 240 m, 4°36´38”N, 52°13´25”W, 25–29 May 1997; J. Ashe, R. Brooks, FG1AB97 081, ex: flight intercept trap” (SEMC). **Paratypes**: “BRAZIL: Am. Reserva Ducke, 26 km NE Manaus, Barbosa, M. 6.V. / Plot B FIT1 Feb. 1995 / 27.5” (1♀, BMNH). Same data as holotype (1♂, SEMC). Same data, except: “39.4 km SSE, 270 m, 4°32´43”N, 52°8´26”W, 29 May – 10 Jun 1997; # 172” (1♂, SEMC). “French Guiana: Saül, 7 km N, 3 km NW, Les Eaux Claires, Mt. La fumée, 3°39´46”N, 53°13´19”W, 490 m, 1–8 Jun 1997; J. Ashe, R. Brooks, FG1AB97 162, ex: flight intercept trap” (1♂, SEMC).

Description. Total length 14.5–16.2 mm. Body black, with antennomeres 4–11, labrum, palpi, tarsi and genital segment red.

Head. Oval, slightly widened posteriorly (similar to Fig. 13); 1.26x as long as wide; dorsally and ventrally convex; dorsal surface with very dense, umbilicate punctures, ventral surface with dense, umbilicate punctures separated by less than twice their width (Fig. 24); temple with superior and inferior temporal carinae and a concave area (Fig. 34); eyes 0.3x as long as head, interocular distance 0.62x cephalic width; first antennomere 1.83x as long as antennomeres 2–3 combined, apical antennomere 0.93x as long as antennomeres 9–10 combined; labrum slightly bilobed (Fig. 54); with mandibular external channel; apical maxillary palpomere elongate (Fig. 38), 2.15x as long as preapical palpomere; apical labial palpomere slightly widened at apex (Fig. 44), almost twice as long as preapical palpomere.

Thorax. Pronotum 1.5x as long as wide; 1.03x cephalic width; with dense, fine punctures, except for wide longitudinal impunctate area (Fig. 52); with poorly developed depressed area at each side of posterior third.

Elytra as long as pronotum; with fine setae as dense as those on head and pronotum. Anterior half of prosternum with a poorly developed longitudinal carina; with fine setae as dense as those on meso and metasternum.

Abdomen. Covered with setae as dense as those on remaining body.

Aedeagus. Ovally elongate; total length 1.72 mm; parameres 0.42x as long as median lobe; apical area of median lobe 0.23x total length of median lobe; internal sac with weakly sclerotized structures (Fig. 86).

Variation. Coloration in specimens can vary as follows: legs (except tarsi) almost black to reddish brown; antennomeres 1–3 black to reddish brown; apex of last antennomere red or yellow. The umbilicate punctures on the ventral surface of the head vary from dense to very dense. The carinate line on the prosternum can be slightly to moderately developed. Female specimens studied have wider pronotal punctures than males.

Comparison. This species is similar to *R. brendelli*, *R. clavicornis* and *R. pronotalis* in the finely punctuated pronotum, mainly black body and the elongate apical maxillary palpomere. *Renda cariniventris* is distinguished from *R. brendelli* by the superior and inferior temporal carinae that delimit the concave area. It can be distinguished from *R. pronotalis* by the oval shape of the head and the carinate prosternum (*R. pronotalis* has an ovally quadrate head and no carinate line on the prosternum). It can be separated from *R. clavicornis* by the slightly, posteriorly narrowed head with clearly convex dorsal and ventral surfaces, apical antennomere shorter than antennomeres 9 and 10 combined and by the shorter aedeagus with long parameres and internal sac with weakly sclerotized structures.

Etymology. The species name is derived from the Latin words “carinae” and “ventris” and refers to the longitudinal, fine carina on the anterior half of the prosternum.

Geographic distribution. Brazil and French Guiana.

***Renda clavicornis* (Sharp, 1876)**
Fig. 8

Sterculia clavicornis Sharp, 1876: 190; Sharp, 1885: 471 (*Plochionocerus*); Herman, 2001: 3748 (*Renda*).

Type material. Holotype, female: “Holotype / Amazon, Obydos / S. America: Brazil / Sharp Coll. 1905-313 / *Sterculia clavicornis* type D. S. / Holotype *Sterculia clavicornis* Sharp 1876: 190 det. R. G. Booth 2007” (BMNH).

Additional material (43 specimens). “**COLOMBIA**: Chocó, PNN Utria Río San Pichí, 06°01´N, 77°20´W, 10 m, Malaise, 30-VI/04-VII-2000, B. Brown Leg. M.3313” (1♂, SEMC). “**COSTA RICA**: Puntarenas, Osa Penn., Fundacion Neotrop. 10 km W Rincón, 20 m, 8°42´30”N, 83°31´30”W. 23 Jun 1997; R. Anderson CR1A97 028D, ex: berlese forest litter” (1♂, SEMC). “Rancho Quemado, Península de Osa, 200 m, Prov. Punt., Costa Rica, F. Quesada, Dic 1991, L-S-292500, 511000” (1♀, INBIO). “Est. Carrillo, 700 m, P. N. Braulio Carrillo, Prov. S. José, Costa Rica, 15 a 17 feb 1993. C. Hymenoptera. L-N-236700, 541800” (1♀, INBIO). “Puntarenas Prov. Rincón de Osa, July 14–26, 1969, T. Schuh, J. Crane / JSCC” (1♀, AMNH). “**ECUADOR**: Los Ríos, CCRP, 7 Mar 1981, S. Sandoval” (1♂, QCAZ). Same data, except: “16 Jun 1980” (1♀, QCAZ). Same data, except: “1 Jan 1981” (1♀, QCAZ). Same data, except: “26 Feb 1980, Legit T. De Vries / B2 Cacao” (1♀, QCAZ). Same data, except: “IX-79, Legit Sandoval / ex. Pitfall /B2 Cacao” (1♀, QCAZ). “Ecuador: Esmeraldas, Bilsa, 0°20´0”S, 79°43´0”W, 5 Jun – 7 Jul 1996; P. Hibbs ECU1H96 014, ex: flight intercept trap” (1♂, SEMC). “**FRENCH GUIANA**: Cayenne, 33.5 km S and 8.4 km NW of Hwy N2 on Hwy D5, 30 m, 4°48´18”N, 52°28´41”W, 29 May–9 Jun 1997; J. Ashe, R. Brooks, FG1AB97 171; ex: flight intercept trap” (1♀, SEMC). “French Guiana: Saül, 7 km N, 0.5 km ESE Les Eaux Claires, Mt. La Fumée, 3°49´46”N, 53°13´19”W, 300 m, 4–8 Jun 1997; J. Ashe, R. Brooks, FGAB97 164, ex flight intercept trap” (1♀, SEMC). “French Guiana: Roura, 18.4 km SSE, 240 m, 4°36´38”N, 52°13´25”W, 29 May–10 Jun 1997.

J. Ashe, R. Brooks FG1AB97 180, ex: flight intercept trap" (1♀, SEMC). "**GUYANA**: Region 8, Iwokrama Forest, Kabocalli Field Stn. 4°17´4"N, 58°30´35"W. R. Brooks, Z. Falin, GUY1B01 146, ex: flight intercept trap" (1♀, SEMC). "**PANAMA**: Panama, Barro Colorado Island, 09°11´N, 79°51´W, 16 July 1994. D. Banks, ex: flight intercept trap" (1♂, SEMC). Same data, except: "22 July 1994" (1♂, SEMC). Same data, except. 3 July 1994" (1♂, SEMC). Same data, except: "24 Aug 1994" (1♂, 1♀, SEMC). "Canal Zone, Barro Colorado Is., 27-II-1976, A. Newton / litter uder rotting logs" (1♂, FMNH). "Panama: Panama 09°05´N, 79°40´W, Old Plantation Rd. 6.9 km S Gamboa, 80 m, 7–22 VI 1995, J. Ashe, R. Brooks # 266, flight intercept trap" (1♂, 1♀, SEMC). "Panama: Panama Gamboa, Ols Gamboa Rd. 22 June 1993, C. Michalski, ex: flight intercept trap" (1♀, SEMC). "Panama: Colon, Parque Nal. Soberania, Pipeline Rd. Km 2.0, 09°07´N, 95°45´W, 40 m, 23–25 May 1995 Chaboo, Jolly, Hayford, ex: flight intercept trap" (1♂, SEMC). Same data, except: "km 6.1, 4–7 June 1995, J. Ashe, R. Brooks # 138" (1♀, SEMC). Same data, except: "7–21 June 1995, # 265" (2♀, SEMC). Same data, except: km 5.3, 40 m, 29–31 V 1995, J. Ashe # 086" (1♀, SEMC). "Panama: Colon, 15 km N jct. Escobal & Piña Rds. Ca 30 m, 02–11 Jun 1996; J. Ashe, R. Brooks PAN1AB96 121, ex: flight intercept trap" (2♀, SEMC). Same data, except: "14 km N jct. # 181B" (1♀, SEMC). "Panama: Darien, Cana Biological Station, 750 m. 7°45´18"N, 77°41´6"W, 05 Jun 1996; J. Ashe, R. Brooks PAN1AB96 023, ex: misc collecting" (1♂, SEMC). Same data, except: "600 m, 03–07 Jun 1996, 067, ex: flight intercept trap" (1♂, SEMC). "Panamá: Chiriqui Prov., La Fortuna, "Hydro. Trail". 08°22´N, 82°14´W. 1150 m, 23-V–9-VI 1996. J. Ashe, R. Brooks # 156, ex: flight intercept trap" (1♀, SEMC). "Panamá: Chiriqui Prov. 20.4 km N San Felix. 08°22´N, 81°46´W, 950 m, 8 VI 1995, R. Anderson, # 95-09C, ex: leaf litter" (1♀, SEMC). "Panama: Canal Zone, Barro Colorado Is. 21 July 1967 M. G. Neumann" (1♀, SEMC). "**PERU**: Dept. Loreto, 1.5 km N. Teniente Lopez, 2° 35.66S, 76°06.92´W, 18 July 1993, 210–240 m, Richard Leschen, # 118, ex: flt. itcpt. trap, Qd. 14" (1♀, SEMC). Same data, except: "23 July 1993, # 191" (2♀, SEMC). "Peru: Dept. Loreto, Campamento San Jacinto, 2°18.75´S, 75°51.77´W, 7 July 1993, 175–215 m, Richard Leschen # 43, ex: flight intercept trap, Qd 24" (1♀, SEMC). "**SURINAME**: Saramacca, West Suriname Road, 178 km WSW Zanderij Airport, 25 m. 4°59´6"N, 56°18´48"W, 12–14 Jun 1999; Z. H. Falin, B. DeDijn SUR1F99 073, ex: flight intercept trap" (1♀, SEMC). "Suriname: Marowijne Palumeu, ca 160 m, 3°20´56"N, 55°26´18"W, 5–9 Jul 1999, Z. H. Falin, D. Konoe, SUR1F99 185, ex: flight intercept trap" (1♀, SEMC). No country data: "National Forest, C. Z., 3-II-1945, R. Arnett" (1♂, FMNH).

Redescription. Total length 12.9–16.9 mm. Body black, shining with antennomeres 4–11, palpi, tarsi and genital segment reddish.

Head. Oval (Fig. 8); 1.2x as long as wide; dorsally slightly convex and ventrally clearly convex; dorsal surface with very dense, umbilicate punctures; ventral surface with moderately dense, umbilicate punctures separated by 2–3x their width (Fig. 23), almost evenly distributed; temple with superior and inferior temporal carinae that delimit a deep, concave area (Fig. 34); eyes 0.3x as long as head, interocular distance 0.65x cephalic width; first antennomere 1.73x as long as antennomeres 2–3 combined, apical antennomere 1.06x as long as antennomeres 9–10 combined; labrum moderately bilobed (Fig. 54); with mandibular external channel; apical maxillary palpomere elongate (Fig. 38), 2.12x as long as preapical palpomere; apical labial palpomere moderately widened at apex (Fig. 44), almost twice as long as preapical palpomere.

Thorax. Pronotum 1.43x as long as wide; 1.03x as wide as head; with dense, fine punctures, except for wide longitudinal impunctate area (Fig. 52); with depressed area at each side of posterior third poorly developed. Elytra as long as pronotum; with fine setae as dense as those on head but denser than those on pronotum. Prosternum with longitudinal, fine carina on anterior half.

Abdomen. Densely covered with fine setae as dense as those on head and elytra; borders of segments with paler and longer setae than those on internal area of each segment.

Aedeagus. Ovally elongate; total length 2.75 mm; right paramere slightly shorter than left paramere; parameres 0.23x as long as median lobe; apical area of median lobe 0.11x total length of median lobe; internal sac with sclerotized structures (Fig. 87).

Variation. Some small specimens have a clearly convex dorsal surface of head. The apex of the last antennomere varies from reddish to yellow and the genital segment varies from brown to reddish. The longitudinal carina on the anterior half of the prosternum is variably developed. One specimen has some umbilicate punctures on the pronotum.

Comparison. This species is similar to *R. brendelli*, *R. cariniventris* and *R. pronotalis* in the elongate apical maxillary palpomere. However, *R. clavicornis* is clearly distinguished from those three species by the superior and inferior temporal carinae of the head that delimit deep, concave area, by the slightly convex dorsal surface of the head, by the carina on the prosternum and by the shape of the aedeagus.

Geographic distribution. Known previously from Brazil and Peru (Herman, 2001); it is recorded here from Colombia, Costa Rica, Ecuador, French Guiana, Guyana, Panama and Suriname for the first time.

***Renda fimetaria* (Sharp, 1876)**
Fig. 9

Sterculia fimetaria Sharp, 1876: 190; Sharp, 1885: 471 (*Plochionocerus*); Herman, 2001: 3748 (*Renda*).

Type material. Lectotype (here designated)**,** male: "Type / Ega / S. America: Brazil / Sharp Coll. 1905-313 / *Sterculia fimetaria* type D. S. / syntype" (BMNH). **Paralectotypes**: same data as lectotype (1♀, BMNH; 1♂, FMNH).

Additional material (7 specimens) "Amazona / S. America: **BRAZIL**, no locality data / *Sterculia fimetaria* Ind. Typ. D. S. Amazons" (1♂, BMNH). "No locality data" (1♀, AMNH). "**COLOMBIA**, Villavicencio, M. I. / July, 1938, H. Dybas" (1♀, FMNH). "**PARAGUAY**: Guairá, Paso Yobai, 15-XII-1990, U. Drechsel" (1♀, SEMC). "**PERU**: Tambopata Prov., Madre de Dios Dpto., 15 km NE Puerto / Cuzco Amazonica, 12°33´S, 69°03´W, 200 m, Maldonado Reserva / 24-VI-1989, J. S. Ashe, R. A. Leschen, # 244 ex Z2E16, pitfall trap" (1♂, SEMC). "Madre de Dios, Rio Tambopata Res. 30 km (air) SW Pto. Maldonado, 290 m, 12°50´S, 069°20'W / B. M. 1982–183, P. 34, 6-III-1982, N. E. Stork" (1♂, BMNH). "Madre de Dios Dept., Tambopata, 28-X-1982 / FMHD # 82-403, rotten figs, L. E. Watrous & G. Mazurek" (1♀, FMNH).

Redescription. Total length 15.7–17.5 mm. Black body, with mouthparts, antennae, legs and genital segment reddish-brown.

Head. Ovally elongate, with obtuse posterior corners (Figs. 9, 18); 1.38x as long as wide; dorsal and ventral surfaces faintly convex; dorsal surface with dense, umbilicate punctures, these punctures becoming sparser or absent on vertex and anterior border; ventral surface with sparse, umbilicate punctures separated by more than 3x their width (Fig. 22); temple with superior and inferior temporal carinae and a slightly concave area (Fig. 34); eyes long (0.33x as long as head) and wide (interocular distance 0.58x cephalic width) (Figs. 9, 18); first antennomere 1.67x as long as antennomeres 2–3 combined, apical antennomere 0.91x length of antennomeres 9–10 combined; labrum bilobed (Fig. 54); mandibles with external channel poorly developed; apical maxillary palpomere conically elongate (Fig. 39), 1.82x as long as preapical palpomere; apical labial palpomere slightly widened and flattened toward apex (Fig. 44), more than 1.75x as long as preapical palpomere.

Thorax. Pronotum 1.61x as long as wide; 1.05x as wide as head; with fine moderately dense punctures, except for wide, longitudinal impunctate area; without depressed areas at each side of posterior third (Fig. 52). Elytra as long as pronotum; elytral disc with punctures as dense as those on pronotum. Prosternum with setae as dense as those on meso and metasternum.

Abdomen. First three visible abdominal segments with pale, long setae distributed on lateral and posterior borders, central areas of these segments with short, brown setae; remainder of abdominal segments completely covered by dense, pale, long setae.

Aedeagus. Ovally elongate, with base of median lobe widened; total length 4.56 mm; parameres 0.27x length of median lobe; apical area of median lobe 0.13x total length of median lobe; internal sac with sclerotized structures (Fig. 88).

Variation. The majority of specimens have the antennae, mouthparts, legs and last visible abdominal segment reddish but in some specimens they are brownish. Umbilicate punctures on vertex of head are variably sparse. The gular sutures are variably developed toward the neck. In two specimens, the elytra are slightly shorter than the pronotum (proportion 0.87 and 0.96x respectively).

Comparison. *Renda fimetaria* can be confused with *R. fimetariamimus* due to the fine punctures on the pronotum, black body, conically elongate apical maxillary palpomere, moderately, apically widened apical labial palpomere, temple with superior and inferior temporal carinae, and the pronotum without depressed areas. *Renda fimetariamimus* is distinguished by the oval head that is posteriorly narrowed, dense umbilicate punctures on the dorsal surface, a clearly convex ventral surface, shorter eyes, and the presence of a small spine on the median internal area of the parameres.

Remarks. The three syntype specimens agree with the locality data of the original description (Sharp, 1876) and of them the male was designated as a lectotype to avoid future confusions with similar species, as *R. fimetariamimus*.

Geographic distribution. Brazil, Colombia (Herman, 2001), Paraguay and Peru (first national records).

***Renda fimetariamimus* sp. nov.**

Type material (1 specimen). **Holotype,** male: “COLOMBIA: Vaupes, Mitu, 11.V.1974, M. Cooper, B. M. 1974-327” (BMNH).

Description. Total length 13.5 mm. Body black, with antennae, mouthparts, legs and genital segment reddish brown; central area of pronotum with reddish brown spot.

Head. Oval, posteriorly narrowed (similar to Fig. 14); 1.41x as long as wide; dorsal surface is slightly convex at vertex; dorsal surface with very dense dorsal umbilicate punctures, slightly dense ventrally separated by 3x or more their width (Fig. 22) and unevenly distributed; ventral surface with gular sutures clearly convex; temple with superior and inferior temporal carinae and a concave area (Fig. 34); eyes 0.27x as long as head, interocular distance 0.61x as wide as cephalic width (at eye level); first antennomere 1.91x as long as antennomeres 2–3 combined, apical antennomere 1.07x as long as antennomeres 9–10 combined; labrum weakly bilobed (Fig. 54); with mandibular external channel; apical maxillary palpomere conically elongate (Fig. 39), 1.75x as long as preapical palpomere; apex of apical labial palpomere slightly widened and flattened (Fig. 44), more than 1.75x as long as preapical palpomere.

Thorax. Pronotum 1.67x as long as wide; as wide as head; with dense, fine punctures, except for wide, longitudinal impunctate area (Fig. 52); without depressed areas at each side of posterior third. Elytra as long as pronotum, with punctures as those on pronotum, punctures slightly denser at anterior and posterior borders, but setae not forming a fascia. Prosternum with fine setae as dense as those on meso and metasternum.

Abdomen. Densely covered with setae as in rest of body, setae on borders of segments paler and longer than those on the medial area of each segment.

Aedeagus. Ovally elongate, with base of median lobe widened; total length 3.56 mm; parameres 0.25x as long as median lobe, with a small spine in the middle of internal margin of each paramere; apical area of median lobe 0.16x as long as total length of median lobe; internal sac with sclerotized structures (Fig. 89).

Variation. Unknown.

Comparison. This species is similar to *R. fimetaria* in the temple with superior and inferior temporal carinae and a concave area and in the pronotum without depressed lateral areas. *Renda fimetariamimus* is distinguished from *R. fimetaria* by the posteriorly narrowed head, short eyes and aedeagus with a spine on the

parameres; while *R. fimetaria* does not have a head narrowing posteriorly, it has large eyes and a distinct aedeagus, without spine in the parameres.

Etymology. The species name is derived from the Latin word "mimus" and refers to the great similarity of this species with *R. fimetaria*.

Geographic distribution. Colombia (known only from the type locality).

***Renda pronotalis* sp. nov.**

Type material (2 specimens)**. Holotype,** male: "ECUADOR: Napo, Scyasuni, 250 m. 7–14 Sept 1997, F. Maza / Ex: interception trap" (QCAZ). **Paratype,** female: "Ecuador: Napo reg., Tiputini Res. Stat., 220 m. 5–25.IX.00, 0°38´S, 76°9´W / Flight intercept trap, D. J. Inwars & K. A. Jackson, BMNH (E) 2000-194" (1♀, BMNH).

Description. Total length 13.2–13.4 mm. Body black, with antennomeres 4–11, mouthparts, tibiae, tarsi and genital segment red to reddish brown.

Head. Ovally quadrate (similar to Fig. 19); dorsally and ventrally convex; 1.2x as long as wide; with dense, umbilicate punctures on dorsal surface and some smooth areas on vertex and front; ventral surface with slightly dense, umbilicate punctures separated by more than 3x their width (Fig. 22); temple with superior and inferior temporal carinae and a concave area (Fig. 34); eyes 0.33x as long as head, interocular distance 0.6x as wide as cephalic width; first antennomere 1.85x as long as antennomeres 2–3 combined, apical antennomere as long as antennomeres 9–10 combined; labrum slightly bilobed (Fig. 54); with mandibular channel; apical maxillary palpomere elongate (Fig. 38), 2.0x as long as preapical palpomere; apical labial palpomere with slightly widened apex (Fig. 44), almost twice as long as preapical palpomere.

Thorax. Pronotum 1.47x as long as wide; 1.07x as wide as head; with fine, dense punctures, except for smooth, wide longitudinal area (Fig. 52); with a poorly developed depressed area at each side of posterior third. Elytra as long as pronotum, with fine setae sparser than those on pronotum. Prosternum with fine setae sparser than those on meso and metasternum, with a longitudinal, fine carina on the posterior third.

Abdomen. Covered with setae as dense as those on head and pronotum.

Aedeagus. Ovally elongate; total length 1.75 mm; parameres 0.36x as long as median lobe; apical area of median lobe 0.21x total length of median lobe; internal sac with weakly sclerotized structures (Fig. 90).

Variation. The smooth areas on the vertex and front of head are variable in size and the umbilicate punctures on the ventral surface of the head vary in density from moderate to sparse.

Comparison. This species can be distinguished from the remaining species of this group by the ovally square head, the sparse umbilicate punctures on the ventral surface of the head, the slightly wide punctures on the pronotum and by the pronotum that is longer than the head (1.24x).

Etymology. The species name is derived from the Latin words "pro" and "notum" and refers to the conspicuous punctures on the pronotum and to the fact that this structure is longer than the head.

Geographic distribution. Ecuador.

4´. Species with apical labial palpomere securiform (Fig. 46) ..... "palpalis" species group

***Renda julietae* sp. nov.**
Fig. 10

Type material (5 specimens)**. Holotype,** male: "MÉXICO: Veracruz, Córdoba, Guadalupe del Barrial. 24.II.96. Coprotrampa. Alt. 940 m. 4–10 pm. E. Santos col. / *R. minor*. J. L. Navarrete det. 98´" (IEXA).

Paratypes: "COSTA RICA: Alajuela, E. B. San Ramon, R. B. San Ramon, 27 km N & 8 km W San Ramon. 10°13´30"N, 84°35´30"W, 950 m–15 Jun 1997; R. Anderson CR1A97 015B, ex: berlese forest litter" (1♂, SEMC). "HONDURAS: Dept. Cortez, P. N. Cerro Azul – Meamber, Los Pinos, 800 m. 14°52.4´N, 87°54.7´W, 10–16-V-2002. S. Peck 02-03, ex: FIT HON1P02 001" (2♂, 1♀, SEMC).

Description. Total length 15.2–16.1 mm. Body black, with antennomeres 4–11, mouthparts, tarsi, and apex of fifth visible abdominal segment to the genital segment red.

Head. Oval to slightly rounded (Figs. 10, 13); 1.25x as long as wide; dorsally convex and slightly convex ventrally; dorsal surface with umbilicate punctures and some smooth areas; ventral surface with moderately dense, unevenly distributed, umbilicate punctures separated by 2–3x their width (Fig. 23); temple with superior and inferior temporal carinae poorly developed and a flattened internal area (Fig. 33); eyes 0.29x as long as head, interocular distance 0.66x cephalic width (at eye level); first antennomere 1.76x as long as antennomeres 2–3 combined, apical antennomere as long as antennomeres 9–10 combined; labrum slightly bilobed (Fig. 54); with mandibular external channel; apical maxillary palpomere conically elongate (Fig. 39), 1.57x as long as preapical palpomere; apical labial palpomere securiform, with visible sensiles (Fig. 46), almost twice as long as preapical palpomere.

Thorax. Pronotum 1.52x as long as wide; as wide as head; with fine, dense punctures, except for smooth, wide longitudinal area; without depressed areas at lateral side of posterior third (Fig. 52). Elytra as long as pronotum, fine setae as on head and pronotum. Prosternum densely covered with fine setae as dense as those on meso and metasternum.

Abdomen. Covered with setae slightly denser than on rest of body.

Aedeagus. Elongate; total length 2.22 mm; with parameres directed toward right side of median lobe in ventral view; parameres 0.3x as long as median lobe; apical area of median lobe 0.15x total length of median lobe; internal sac without sclerotized structures (Fig. 91).

Variation. The apex of the last antennomere varies from red to yellow and the legs vary from almost black to reddish brown. The extent of the smooth areas on the dorsal surface of the head is variable.

Comparison. This species is similar to *R. ophthalmica* and *R. palpalis* because of their securiform apical labial palpomere. Distinguishing remarks can be found under those species.

Etymology. The name of this species is dedicated with great pleasure to my wife and my newborn baby, Julieta Asiain and Julieta Márquez respectively, in gratitude of Julieta Asiain´s help in the preparation of some drawings, revision of the manuscript, preparation of some specimens, and, most importantly, for our love and our daughter.

Geographic distribution. Costa Rica, Honduras and Mexico.

Renda ophthalmica sp. nov.

Type material (8 specimens)**. Holotype,** male: "PERU: Dept. Loreto, 1.2 km N Teniente López. 2°35.66´S, 76°06.92´W, 26-VII-1993, 210–240 m, Richard Leschen, # 212, ex: flight intercept trap, Qd. 11" (SEMC). **Paratypes:** "ECUADOR: Napo, Yuturi Lodge, Rio Napo, 270 m. 0°32´54"S, 76°2´18"W 20–21 Mar 1999. R. Brooks, D. Brzoska. ECU1B99 010 ex: flight intercept trap" (1♀, SEMC). "Ecuador: Napo Reg., Tiputini Res. Stat., 220 m. 5–25.IX.00, 0°38´S, 76°9´W / Flight intercept trap, D. J. Inward & K. A. Jackson, BMNH (E) 2000-194" (2♀, BMNH). "PERU: Dept. Loreto, 1.5 km N Teniente López. 2°35.66´S, 76°06.92´W 22 July 1993, 210–240 m. Richard Leschen # 119 ex: flt. Icp. Trap, Qd 23" (1♀, SEMC). Same data, except:"# 165" (1♀, SEMC). Same data, except: "# 165, Qd 17" (1♂, SEMC). "Peru: Madre de Dios, Cocha Cashu Bio. Stn. Manu National Park, 350 m. 11°53´45"S, 71°24´24"W 17–19 Oct 2000. R. Brooks PERU1B00 042 ex: flight intercept trap" (1♀, SEMC).

Description. Total length 11.5–14.7 mm. Body shining black, with antennae, mouthparts and tarsi reddish brown and last 1 or 2 antennomeres red.

Head. Ovally quadrate (Fig. 19); 1.14x as long as wide; dorsally and ventrally convex; dorsal surface with very dense, umbilicate punctures, slightly sparser on vertex (especially on convex area); ventral surface with sparse, umbilicate punctures separated by most than 3x their width (Fig. 22); temple with inferior temporal carina and a deep, concave area (Fig. 32); eyes 0.39x as long as head, interocular distance 0.57x cephalic width (at eye level); first antennomere 2.22x as long as antennomeres 2–3 combined, apical antennomere 1.07x as long as antennomeres 9–10 combined; labrum moderately bilobed (Fig. 54); with mandibular external channel; apical maxillary palpomere conically elongate (Fig. 39), twice as long as preapical palpomere; apical labial palpomere securiform, with apical sensiles (Fig. 46), almost twice as long as preapical palpomere.

Thorax. Pronotum 1.38x as long as wide; 1.07x as wide as head; with fine, dense punctures, except for smooth, wide longitudinal area; with depressed area at each side of posterior third slightly to moderately visible (Fig. 51). Elytra 1.12x as long as pronotum; with fine setae as dense as those on head and pronotum, setae slightly paler and longer than other species of this group. Prosternum with fine setae, slightly sparser than those on meso and metasternum.

Abdomen. Borders of segments densely covered with pale setae; medial area of each segment covered with setae as in rest of body.

Aedeagus. Ovally elongate; total length 1.6 mm; with slightly asymmetrical parameres, 0.37x as long as median lobe; apical area of median lobe 0.24x total length of median lobe, internal sac with weakly sclerotized structures (Fig. 92).

Variation. In addition to the variation in total length, the last 1 or 2 antennomeres vary in color from brown to red to yellow.

Comparison. *Renda ophthalmica* is distinguished from other species except *R. julietae* and *R. palpalis* by the conical apical maxillary palpomere and the securiform apical labial palpomere. It is distinguished from *R. julietae* by its ovally square head, the inferior temporal carina and a deep, concave area on the temple of the head, and by the larger eyes (while *R. julietae* has an oval head, two temporal carinae on the temple of the head, without a concave area, and the smaller eyes). The differences between *R. palpalis* and *R. ophthalmica* are commented on the remarks for *R. palpalis*.

Etymology. The species name is derived from the Latin word “ophtalmus” and refers to the large eyes of this species.

Geographic distribution. Ecuador and Peru.

***Renda palpalis* sp. nov.**

Type material (1 specimen). **Holotype,** female: “PERU: Cuzco Dept., Consuelo, Manu rd., km 165, 12-X-1982 / FMHD #82-375, ex leaf litter, L. E. Watrous & G. Mazurek” (FMNH).

Description. Total length 17.1 mm. Body black, shining with antennomeres 4–11, maxillary and labial palpi, and tarsi red; and genital segment yellow.

Head. Ovally elongate (similar to Fig. 17); 1.35x as long as wide; dorsal surface slightly convex on vertex; ventral surface convex; dorsal surface with dense, umbilicate punctures, becoming sparser on vertex; ventral surface with moderately dense, unevenly distributed, umbilicate punctures separated by 2–3x their width (Fig. 23); temple flattened with dense, umbilicate punctures (Fig. 28); eyes 0.27x as long as head, interocular distance 0.67x cephalic width (at eye level); first antennomere 1.82x as long as antennomeres 2–3 combined, apical antennomere 0.90x as long as antennomeres 9–10 combined; labrum moderately bilobed (Fig. 54); with mandibular external channel; apical maxillary palpomere conically elongate (Fig. 39), 1.42x as long as preapical palpomere; apical labial palpomere securiform (Fig. 46), twice as long as preapical palpomere.

Thorax. Pronotum 1.55x as long as wide; 1.1x as wide as head; with dense, conspicuous, non-umbilicate punctures, punctures wider than those on elytra and abdomen; with smooth, wide longitudinal area; without depressed areas at each side of posterior third (Fig. 52). Elytra 1.05x as long as pronotum, with fine setae as dense as those on head. Prosternum with fine setae sparser than those on meso and metasternum.

Abdomen. Almost as wide as elytra; covered with fine setae denser than those on rest of body.

Aedeagus. Unknown.

Variation. Unknown.

Comparison. *Renda palpalis* is similar to *R. ophthalmica* and *R. julietae* in the securiform apical labial palpomere and similar pronotal punctation. It can be distinguished from *R. ophthalmica* by the oval head, the elongate body, the shorter eyes and by the pronotum without depressed areas (while *R. ophthalmica* has an almost quadrate head, shorter body, large eyes and pronotum with a depressed area at each side of the posterior third). It is distinguished from *R. julietae* by the absence of temporal carinae and presence of an flattened area on the temple of head, the head slightly narrowed posteriorly, the apical maxillary palpomere 1.42x as long as preapical palpomere and by the conspicuous punctures on the pronotum (while *R. julietae* has superior and inferior temporal carinae on the temple of head, delimiting a flattened area, ovate head not narrowing posteriorly, the apical maxillary palpomere 1.5x as long as preapical palpomere and punctures less conspicuous on the pronotum).

Etymology. The species name is derived from the Latin word “palpus” and refers to the securiform apical labial palpomere.

Geographic distribution. Peru (known from type locality only).

Cladistic analysis

The cladistic analysis based on 34 morphological characters (Table 2, Appendix) resulted in 12 equally parsimonious cladograms with L = 181, CI = 45 and RI = 61. The strict consensus cladogram (L = 193, CI = 43 and RI = 56) is shown in figure 93. The hypothesis that *Agrodes* plus *Plochionocerus* form a sister group to *Renda* was supported with nine synapomorphies (node 1; 5:1, 6:2, 8:1, 11:2, 12:1, 19:1, 24:2, 28:1, 31:2) (Fig. 93), consistent with the results of Asiain *et al.* (2007). However, the relationships between *Plochionocerus* and *Agrodes* are not supported by synapomorphies (node 2) but only by a unique combination of homoplastic characters. An additional analysis with greater taxon sampling and more genera of Xantholinini should be conducted to corroborate the phylogenetic relationships presented here.

The genus *Agrodes* has five autapomorphies (12:2, 26:1, 27:1, 28:2 and 31:1) and the genus *Plochionocerus* has six autapomorphies (1:4, 2:8, 4.2, 10:1, 19:2, 29:2) in support of their monophyly. Both results are completely congruent with the results of Asiain *et al.* (2007). *Renda* is supported as monophyletic by six synapomorphies (node 3): dorsal surface of head slightly to moderately convex in lateral view (3:1), apical labial palpomere slightly widened toward apex (16:1; Fig. 44), gular sutures more elevated than lateral contiguous areas (18:1), upper line of the pronotal hypomeron absent in the anterior third (25:1; Fig. 58) and directed ventrad close to the lower line (26:2), and pronotal hypomeron with sparse fine setae on the anterior third (27:2; Fig. 58).

The phylogenetic relationships within *Renda* were not completely resolved. The first divergence within the genus includes one species group herein named “minor”, and a second clade of five species (node 3). The ‘minor’ group (node 4) is supported by one synapomorphy: apical maxillary palpomere conical (14:2; Fig. 45), and two homoplasies. The “minor” group is further separated into two clades, the first includes *R. longiceps* as sister species of *R. brasiliana* plus *R. minor* based on one homoplastic character (node 5); the second clade is a trichotomy of *R. lescheni*, *R. nitida* and the remaining three species, based on three homoplastic characters (node 7) . The third clade of this trichotomy consists of *R. raulmunizi* as the sister species of *R.*

debilis plus *R. mesoamericana*, based on two homoplastic characters (node 8); the last two species are united based on one synapomorphy (node 9): proportion of length of apical antennomere / length of antennomeres 9 and 10 combined = 0.81–0.85x (11:1), and one homoplastic character.

The remaining species of *Renda* are separated in two clades (node 10): the first one includes three species which is only supported by one homoplastic character (node 11). It is not appropriate to consider this clade a monophyletic species group but future studies by including additional characters could test the monophyly of this clade further. This first clade includes *R. brevipennis* as sister to *R. julietae* plus *R. palpalis* based on one homoplastic character; the latter two species are united based on one homoplasies (node 12).

TABLE 2. Character states for the species of *Renda* and three outgroups. ? = inapplicable characters.

Species	States of characters 1 2 3 12345678901234567890123456789012345
Philonthus testaceipennis	00000000000000000000000000000000-0
Agrodes conicicollis	00201221202200000013411201120011101
Plochionocerus splendens	47021221212110230021212100012021 00
Renda bicarinata	35111121202000111113220212210021 02
Renda brachyptera	01101121302000111113220312210023 02
Renda brasiliana	00211321202002220113211112211020 02
Renda brendelli	02101121222000111111211212211021 01
Renda brevipennis	01101111222001121111310412210021?? ?
Renda cariniventris	36211121222000111113211212211022 02
Renda clavicornis	36111121202000111112211212211022 21
Renda cyanea	35111221204111011112311212210122 00
Renda debilis	00201321101002221113110212210021 11
Renda fasciata	02111211204111011112311212210121 01
Renda fimetaria	36101112102001111111310212211021 01
Renda fimetariamimus	36111121203001011111310212211021 01
Renda flagellicornis	22101121302000011113220212210021 01
Renda formicaria	01101121202000111113220212210023 00
Renda fulgida	35101221204110011112212212210120 02
Renda glabrinotum	02111112202001111111220212211021?? ?
Renda grandipenis	23101121302000011112220212210021 01
Renda julietae	34201121202001031112210212211020 02
Renda leprieuri	12111221203101011111312212210122 01
Renda lescheni	00111121202002221113111212211020 12
Renda longiceps	00201121202002221113411212211020 02
Renda mesoamericana	01101121201002220113211212210021 11
Renda minor	00201121202002220113211212211020 02
Renda nitida	01101121102002220112211212211020 12
Renda ophthalmica	23211112402001131111111212211022 12
Renda palpalis	01111121202001031112210212210021?? ?
Renda profundepunctata	11101131202000111112220212210023 02
Renda pronotalis	36211111222000111111211212210022 02
Renda raulmunizi	00101121132002220112111212211021 21
Renda sharpi	22101121202000111113220212210023 00
Renda simplicephala	01211221202110011111210212211120 00

The second clade (node 13) is supported by one synapomorphy: apical labial palpomere slightly widened at apex (16:1; Fig. 44). From this node, a clade is composed of *R. fulgida*, *R. simplicephala*, *R. cyanea*, *R. fasciata* and *R. leprieuri* that is named herein as the 'fasciata' species group; this clade is supported by two synapomorphies (node 14): proportion of length of apical antennomere / length of antennomeres 9 and 10 combined = 1.10x or more (11:3), and with fascia of long, pale setae on the basal quarter of the elytra (30:1; Fig. 5), and five homoplastic characters. Relationships within the 'fasciata' group were not resolved.

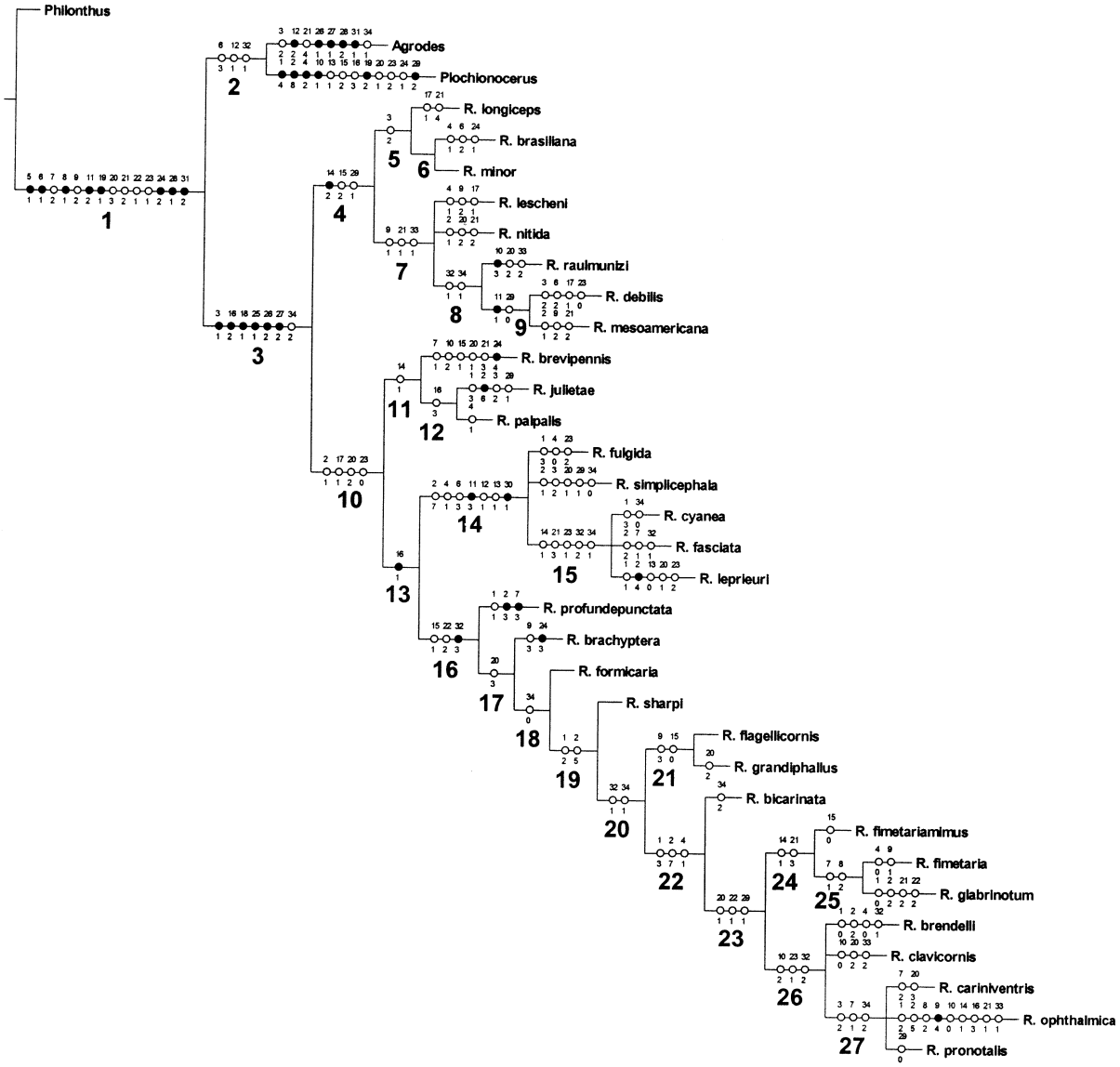


FIGURE 93. Strict consensus cladogram. Black circles= synapomorphies; open circles= homoplasies; numbers in nodes refer to clades discussed in the text.

The remaining species of *Renda* in the second clade are grouped based on one synapomorphy (node 16): aedeagus ovally elongate, with concave lateral margins of the median lobe (32:3; Figs. 66, 68), and two homoplastic characters. Within this clade, no synapomorphies could be found in support of the relationships between its species. However, it is worth considering the separation of these species into two informal groups; one with dense umbilicate punctures on the pronotum, (*R. profundepunctata*, *R. brachyptera*, *R. formicaria*, *R. sharpi*, *R. flagellicornis*, *R. grandipenis*, *R. bicarinata* and *R. glabrinotum* that can be named "formicaria" species group; Figs. 3, 4, 49, 50), and the second group with a finely, moderately densely punctured pronotum (*R. fimetariamimus*, *R. fimetaria*, *R. brendelli*, *R. clavicornis*, *R. ophthalmica* and *R. pronotalis* that can be

named "fimeraria" species group; Figs. 8, 9). With the exception of the 'minor' and 'fasciata' groups, informal groupings were used in the descriptive part of the paper, to provide easy and clear taxa identification but were not supported by the phylogenetic analysis.

Despite the morphological differences considered in the phylogenetic analysis, the great number of homoplastic characters, the lack of additional characters and the high number of species likely made it difficult to obtain a robust phylogenetic hypothesis for interspecific relationships within *Renda*. Indeed, Bootstrap support values (Fig. 94) with high support percentages (more than 70%) were found only for the following clades: (*Agrodes* + *Plochionocerus*) + *Renda* (node 1), *Renda* (node 3), and *R. flagellicornis* + *R. grandipallus* (node 21). The two proposed species groups, "minor" and "fasciata", have only 27% and 47% of bootstrap support, respectively. *Renda debilis* plus *R. mesoamericana*, and the trichotomy *R. cyanea*, *R. fasciata* and *R. leprieuri*, have values near 20%; remaining clades are supported with values less than 20%. However, the hypothesis presented herein is the first attempt to explore phylogenetic relationships within this genus based on the revision of a large number of specimens and species.

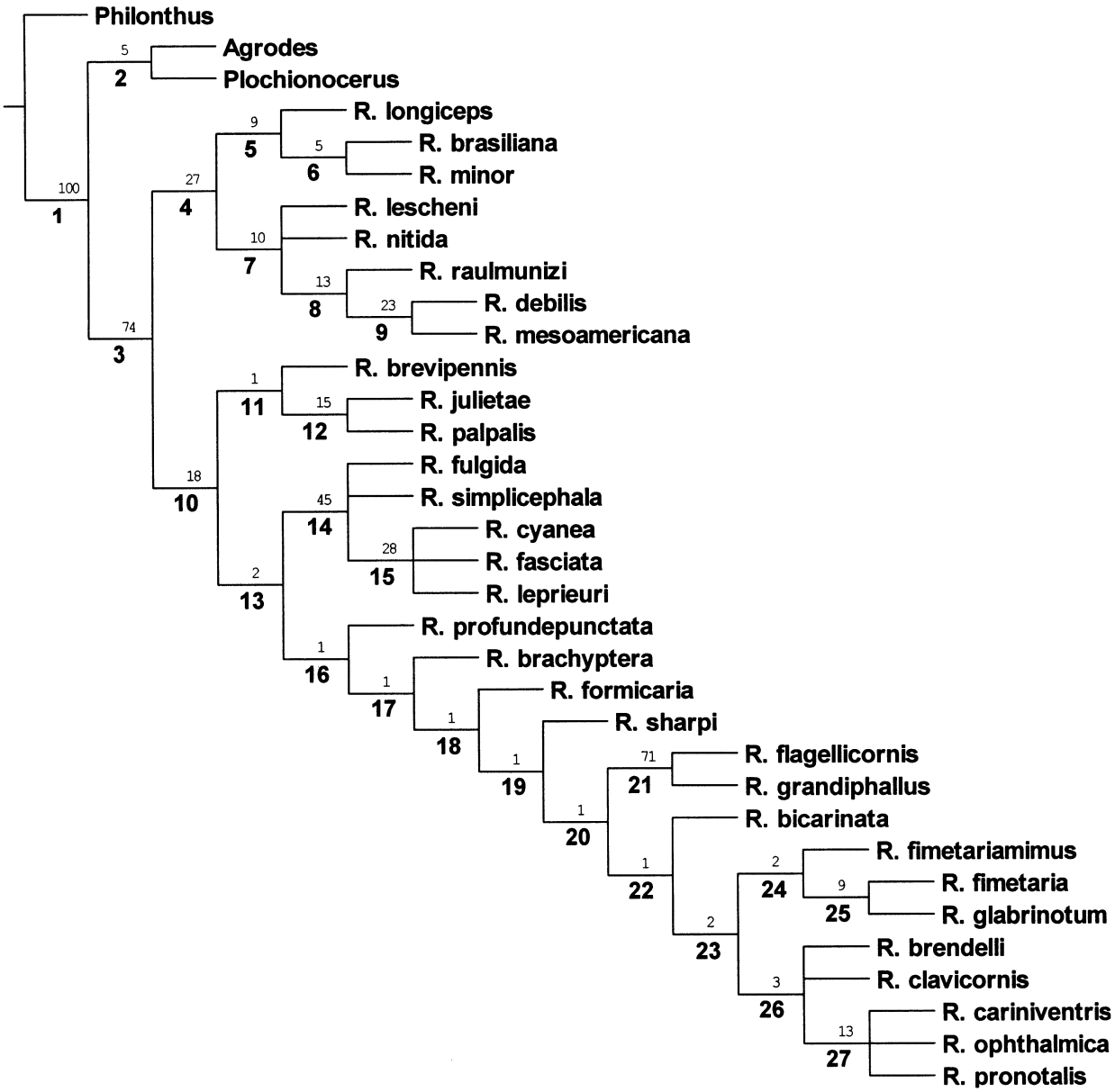


FIGURE 94. Results of the Bootstrap analysis. Numbers on the branches indicate percentage bootstrap values.

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Appendix. Characters and character states analyzed for the species of *Renda* and three outgroups.

1. Temple of the head: (0) without temporal carinae: *Ph. testaceipennis*, *A. conicicollis*, *R. brachyptera*, *R. brasiliana*, *R. brendelli*, *R. brevipennis*, *R. debilis*, *R. fasciata*, *R. formicaria*, *R. glabrinotum*, *R. lescheni*, *R. longiceps*, *R. mesoamericana*, *R. minor*, *R. nitida*, *R. palpalis*, *R. raulmunizi* and *R. simplicephala*. (1) with superior temporal carina (at eye level): *R. leprieuri* and *R. profundepunctata*. (2) with inferior temporal carina (below eye level): *R. flagellicornis*, *R. grandipenis*, *R. ophthalmica* and *R. sharpi*. (3) with superior and inferior temporal carinae that delimit a concave or flattened internal area: *R. bicarinata*, *R. cariniventris*, *R. clavicornis*, *R. cyanea*, *R. fimetaria*, *R. fimetariamimus*, *R. fulgida*, *R. julietae* and *R. pronotalis*. (4) Forming boarder of a latero-ventral deep furrow almost impunctate: *Pl. splendens*.
2. Shape of the lateral area of the head: (0) Convex and without carinate lines: *Ph. testaceipennis*, *A. conicicollis*, *R. brasiliana*, *R. debilis*, *R. lescheni*, *R. longiceps*, *R. minor* and *R. raulmunizi*. (1) Forming a flat area and without carinate lines: *R. brachyptera*, *R. brevipennis*, *R. formicaria*, *R. mesoamericana*, *R. nitida*, *R. palpalis* and *R. simplicephala*. (2) Forming depressed area variably deep and without carinate lines: *R. brendelli*, *R. fasciata* and *R. glabrinotum*. (3) Forming a flat area delimited by an upper carinate line: *R. profundepunctata*. (4) Forming depressed area delimited by an upper carinate line: *R. leprieuri*. (5) Forming depressed area delimited by a lower carinate line: *R. flagellicornis*, *R. grandipenis*, *R. ophthalmica* and *R. sharpi*. (6) Forming a flat area delimited by an upper and a lower carinate line: *R. julietae*. (7) Forming depressed area variably deep delimited by an upper and a lower carinate line: *R. bicarinata*, *R. cariniventris*, *R. clavicornis*, *R. cyanea*, *R. fimetaria*, *R. fimetariamimus*, *R. fulgida* and *R. pronotalis*. (8) Forming an almost impunctate deep latero-ventral furrow: *Pl. splendens*.
3. Dorsal convexity of the head (in lateral view): (0) Flat: *Ph. testaceipennis* and *Pl. splendens*. (1) Slightly to moderately convex: *R. bicarinata*, *R. brachyptera*, *R. brendelli*, *R. brevipennis*, *R. clavicornis*, *R. cyanea*, *R. fasciata*, *R. fimetaria*, *R. fimetariamimus*, *R. flagellicornis*, *R. formicaria*, *R. fulgida*, *R. glabrinotum*, *R. grandipenis*, *R. leprieuri*, *R. lescheni*, *R. mesoamericana*, *R. nitida*, *R. palpalis R. profundepunctata*, *R. raulmunizi* and *R. sharpi*. (2) Clearly or notably convex: *A. conicicollis*, *R. brasiliana*, *R. cariniventris*, *R. debilis*, *R. julietae*, *R. longiceps*, *R. minor*, *R. ophthalmica*, *R. pronotalis* and *R. simplicephala*.
4. Ventral convexity of the head (in lateral view): (0) Slightly convex: *Ph. testaceipennis*, *A. conicicollis*, *R. brachyptera*, *R. brendelli*, *R. brevipennis*, *R. debilis*, *R. fimetaria*, *R. flagellicornis*, *R. formicaria*, *R. fulgida*, *R. grandipenis*, *R. julietae*, *R. longiceps*, *R. mesoamericana*, *R. minor*, *R. nitida*, *R. profundepunctata*, *R. raulmunizi* and *R. sharpi*. (1) Clearly convex: *R. bicarinata*, *R. brasiliana*, *R. cariniventris*, *R. clavicornis*, *R. cyanea*, *R. fasciata*, *R. fimetariamimus*, *R. glabrinotum*, *R. leprieuri*, *R. lescheni*, *R. ophthalmica*, *R. palpalis*, *R. pronotalis* and *R. simplicephala*. (2) Flat: *Pl. splendens*.
5. Cephalic dorsal punctures: (0) sparse and no umbilicate: *Ph. testaceipennis*. (1) Very dense and umbilicate: *A. conicicollis*, *Pl. splendens* and *Renda* spp.
6. General color of the body: (0) Not metallic, bicolored (elytra red and the rest of the body black): *Ph. testaceipennis*. (1) Mainly black: *R. bicarinata*, *R. brachyptera*, *R. brendelli*, *R. brevipennis*, *R. cariniventris*, *R. clavicornis*, *R. fimetaria*, *R. fimetariamimus*, *R. flagellicornis*, *R. formicaria*, *R. glabrinotum*, *R. grandipenis*, *R. julietae*, *R. lescheni*, *R. longiceps*, *R. mesoamericana*, *R. minor*, *R. nitida*, *R. ophthalmica*, *R. palpalis*, *R. profundepunctata*, *R. pronotalis*, *R. raulmunizi* and *R. sharpi*. (2) Body black, except for red pregenital and genital segments: *R. brasiliana* and *R. debilis*. (3) Mainly metallic green or blue: *A. conicicollis*, *Pl. splendes*, *R. cyanea*, *R. fasciata*, *R. fulgida*, *R. leprieuri* and *R. simplicephala*.
7. Proportion of ocular length / cephalic length: (0) 0.45x: *Ph. testaceipennis*. (1) 0.33–0.39x: *R. fimetaria*, *R. glabrinotum*, *R. ophthalmica* and *R. pronotalis*. (2) 0.25 a 0.31x: *Pl. splendens*, *A. conicicollis*, *R. bicarinata*, *R. brachyptera*, *R. brasiliana*, *R. brendelli*, *R. brevipennis*, *R. cariniventris*, *R. clavicornis*, *R. cyanea*, *R. debilis*, *R. fasciata*, *R. fimetariamimus*, *R. flagellicornis*, *R. formicaria*, *R. fulgida*, *R. grandipenis*, *R. julietae*, *R. leprieuri*, *R. lescheni*, *R. longiceps*, *R. mesoamericana*, *R. minor*, *R. nitida*, *R. palpalis*, *R. raulmunizi*, *R. sharpi* and *R. simplicephala*. (3) 0.18–0.22x: *R. profundepunctata*.
8. Proportion of interocular width / cephalic width (at eye level): (0) 0.72–0.82x: *Ph. testaceipennis*. (1) 0.60–0.70x: *A. conicicollis*, *Pl. splendens* and *Renda* spp. (except species of state 2). (2) 0.57–0.58x: *R. fimetaria*, *R. glabrinotum* and *R. ophthalmica*.
9. Proportion of length antennomere 1 / length antennomeres 2–3 combined: (0) 0.82–1.00x: *Ph. testaceipennis*. (1) 1.59–1.67x: *R. debilis*, *R. fimetaria*, *R. nitida* and *R. raulmunizi*. (2) 1.73–1.95x: *A. conicicollis*, *Pl. splendens*, *R. bicarinata*, *R. brasiliana*, *R. brendelli*, *R. brevipennis*, *R. cariniventris*, *R. clavicornis*, *R. cyanea*, *R. fasciata*, *R. fimetariamimus*, *R. formicaria*, *R. fulgida*, *R. glabrinotum*, *R. julietae*, *R. leprieuri*, *R. lescheni*, *R. longiceps*, *R. mesoamericana*, *R. minor*, *R. palpalis*, *R. profundepunctata*, *R. pronotalis*, *R. sharpi* and *R. simplicephala*. (3) 1.97–2.07x: *R. brachyptera*, *R. flagellicornis* and *R. grandipenis*. (4) 2.16–2.29x: *R. ophthalmica*.

10. Proportion of length antennomere 2 / length antennomere 3: (0) 0.70–0.93x: *Ph. testaceipennis*, *A. conicicollis* and *Renda* spp. (except species of states 2 and 3). (1) 0.60–0.63x: *Pl. splendens*. (2) 0.97–1.00x: *R. brendelli*, *R. brevipennis*, *R. cariniventris* and *R. pronotalis*. (3) 1.19x: *R. raulmunizi*.
11. Proportion of length apical antennomere / length antennomeres 9 and 10 combined: (0) 0.62–0.69x: *Ph. testaceipennis*. (1) 0.81–0.85x: *R. debilis* and *R. mesoamericana*. (2) 0.90–1.07x: *A. conicicollis*, *P. splendens*, *R. bicarinata*, *R. brachyptera*, *R. brasiliana*, *R. brendelli*, *R. brevipennis*, *R. cariniventris*, *R. clavicornis*, *R. fimetaria*, *R. fimetariamimus*, *R. flagellicornis*, *R. formicaria*, *R. glabrinotum*, *R. grandipenis*, *R. julietae*, *R. lescheni*, *R. longiceps*, *R. minor*, *R. nitida*, *R. ophthalmica*, *R. palpalis*, *R. profundepunctata*, *R. pronotalis*, *R. raulmunizi* and *R. sharpi*. (3) 1.10x or more: *R. cyanea*, *R. fasciata*, *R. fulgida*, *R. leprieuri* and *R. simplicephala*.
12. Labrum: (0) Slightly bilobed: *Ph. testaceipennis* and *Renda* spp. (except species of state 1). (1) With a pair of lateral, small teeth and a pair of central, larger teeth: *Pl. splendens*, *R. cyanea*, *R. fasciata*, *R. fulgida*, *R. leprieuri* and *R. simplicephala*. (2) with two pairs of lateral, small teeth and a pair of central, larger teeth: *A. conicicollis*.
13. Mandibular external channel: (0) Present: *Ph. testaceipennis*, *A. conicicollis* and *Renda* spp. (except species of state 1). (1) Absent or scarcely visible: *Pl. splendens*, *R. cyanea*, *R. fasciata*, *R. fulgida* and *R. simplicephala*.
14. Shape of the apical maxillary palpomere: (0) Elongate: *Ph. testaceipennis*, *A. conicicollis*, *Pl. splendens*, *R. bicarinata*, *R. brachyptera*, *R. brendelli*, *R. cariniventris*, *R. clavicornis*, *R. flagellicornis*, *R. formicaria*, *R. fulgida*, *R. grandipenis*, *R. profundepunctata*, *R. pronotalis*, *R. sharpi* and *R. simplicephala*. (1) conically elongate: *R. brevipennis*, *R. cyanea*, *R. fasciata*, *R. fimetaria*, *R. fimetariamimus*, *R. glabrinotum*, *R. julietae*, *R. leprieuri*, *R. ophthalmica* and *R. palpalis*. (2) Conical: *R. brasiliana*, *R. debilis*, *R. lescheni*, *R. longiceps*, *R. mesoamericana*, *R. minor*, *R. nitida* and *R. raulmunizi*.
15. Proportion of length of apical maxillary palpomere / length of preapical maxillary palpomere: (0) 1.42–1.75x: *Ph. testaceipennis*, *A. conicicollis*, *R. cyanea*, *R. fasciata*, *R. fimetariamimus*, *R. flagellicornis*, *R. fulgida*, *R. grandipenis*, *R. julietae*, *R. leprieuri*, *R. palpalis* and *R. simplicephala*. (1) 1.80–2.12x: *R. bicarinata*, *R. brachyptera*, *R. brendelli*, *R. brevipennis*, *R. cariniventris*, *R. clavicornis*, *R. fimetaria*, *R. formicaria*, *R. glabrinotum*, *R. ophthalmica*, *R. profundepunctata*, *R. pronotalis* and *R. sharpi*. (2) 1.00–1.29x: *Pl. splendens*, *R. brasiliana*, *R. debilis*, *R. lescheni*, *R. longiceps*, *R. mesoamericana*, *R. minor*, *R. nitida* and *R. raulmunizi*.
16. Shape of apical labial palpomere: (0) Elongate: *Ph. testaceipennis* and *A. conicicollis*. (1) Slightly widened at apex, apex not truncated and without sensillae: *R. bicarinata*, *R. brachyptera*, *R. brendelli*, *R. cariniventris*, *R. clavicornis*, *R. cyanea*, *R. fasciata*, *R. fimetaria*, *R. fimetariamimus*, *R. flagellicornis*, *R. formicaria*, *R. fulgida*, *R. glabrinotum*, *R. grandipenis*, *R. leprieuri*, *R. profundepunctata*, *R. pronotalis*, *R. sharpi* and *R. simplicephala*. (2) asymmetrically conical: *R. brasiliana*, *R. brevipennis*, *R. debilis*, *R. lescheni*, *R. longiceps*, *R. mesoamericana*, *R. minor*, *R. nitida* and *R. raulmunizi*. (3) securiform: *Pl. splendens*, *R. julietae*, *R. ophthalmica* and *R. palpalis*.
17. Proportion of the length of apical labial palpomere / length of preapical labial palpomere: (0) 1.4–1.75x: *Ph. testaceipennis*, *A. conicicollis*, *Pl. splendens*, *R. brasiliana*, *R. mesoamericana*, *R. minor*, *R. nitida* and *R. raulmunizi*. (1) More than 1.75 to twice of more: *Renda* spp. (except species of state 0).
18. Gular sutures: (0) at same level as contiguous area or slightly depressed: *Ph. testaceipennis*, *A. conicicollis* and *Pl. splendens*. (1) Widened with respect to the contiguous area: *Renda* spp.
19. Type of punctures on the ventral surface of head: (0) with fine punctures only: *Ph. testaceipennis*. (1) Umbilicate punctures combined with fine punctures: *A. conicicollis* and *Renda* spp. (2) Umbilicate "widened punctures (combined with some fine punctures): *Pl. splendens*.
20. Density of umbilicate punctures on the ventral surface of the head (on average when the punctures are unevenly distributed): (0) two punctures on the central portion of each cephalic half: *Ph. testaceipennis*. (1) Slightly dense separated by more than 3x their width: *Pl. splendens*, *R. brendelli*, *R. brevipennis*, *R. fimetaria*, *R. fimetariamimus*, *R. glabrinotum*, *R. leprieuri*, *R. ophthalmica*, *R. pronotalis* and *R. simplicephala*. (2) Moderately dense separated by 2–3x their width: *R. clavicornis*, *R. cyanea*, *R. fasciata*, *R. fulgida*, *R. grandipenis*, *R. julietae*, *R. nitida*, *R. palpalis*, *R. profundepunctata* and *R. raulmunizi*. (3) Very dense separated by less than twice their width: *A. conicicollis*, *R. bicarinata*, *R. brachyptera*, *R. brasiliana*, *R. cariniventris*, *R. debilis*, *R. flagellicornis*, *R. formicaria*, *R. lescheni*, *R. longiceps*, *R. mesoamericana*, *R. minor* and *R. sharpi*.
21. Proportion of the length / width of the pronotum: (0) 0.87–0.95x: *Ph. testaceipennis*. (1) 1.32–1.38x: *R. debilis*, *R. lescheni*, *R. ophthalmica* and *R. raulmunizi*. (2) 1.41–1.56x: *Pl. splendens*, *R. bicarinata*, *R. brachyptera*, *R. brasiliana*, *R. brendelli*, *R. cariniventris*, *R. clavicornis*, *R. flagellicornis*, *R. formicaria*, *R. fulgida*, *R. glabrinotum*, *R. grandipenis*, *R. julietae*, *R. mesoamericana*, *R. minor*, *R. nitida*, *R. palpalis*, *R. profundepunctata*, *R. pronotalis*, *R. sharpi* and *R. simplicephala*. (3) 1.60–1.67x: *R. brevipennis*, *R. cyanea*, *R. fasciata*, *R. fimetaria*, *R. fimetariamimus* and *R. leprieuri*. (4) 1.70–1.73x: *A. conicicollis* and *R. longiceps*.
22. Punctures of the pronotum: (0) with two central, longitudinal lines with 4 punctures each: *Ph. testaceipennis*. (1) With moderately dense fine punctures, except for a central-longitudinal smooth and wide area: *A. conicicollis*, *Pl. splendens*, *R. brasiliana*, *R. brendelli*, *R. brevipennis*, *R. cariniventris*, *R. clavicornis*, *R. cyanea*, *R. debilis*, *R. fasciata*, *R. fimetaria*, *R. fimetariamimus*, *R. fulgida*, *R. julietae*, *R. leprieuri*, *R. lescheni*, *R. longiceps*, *R. mesoamericana*, *R. minor*, *R. nitida*, *R. ophthalmica*, *R. pronotalis*, *R. raulmunizi* and *R. simplicephala*. (2) With very dense

umbilicate punctures, except for the central, longitudinal, smooth, narrow area: *R. bicarinata*, *R. brachyptera*, *R. flagellicornis*, *R. formicaria*, *R. glabrinotum*, *R. grandipenis*, *R. profundepunctata* and *R. sharpi*.

23. Posterior third of the pronotum: (0) without depressed areas at each side: *Ph. testaceipennis*, *R. bicarinata*, *R. brachyptera*, *R. brevipennis*, *R. debilis*, *R. fimetaria*, *R. fimetariamimus*, *R. flagellicornis*, *R. formicaria*, *R. glabrinotum*, *R. grandipenis*, *R. julietae*, *R. palpalis*, *R. profundepunctata*, *R. sharpi* and *R. simplicephala*. (1) With scarcely visible depressed area at each side: *A. conicicollis*, *R. brasiliana*, *R. brendelli*, *R. cariniventris*, *R. clavicornis*, *R. cyanea*, *R. fasciata*, *R. lescheni*, *R. longiceps*, *R. mesoamericana*, *R. minor*, *R. nitida*, *R. ophthalmica*, *R. pronotalis* and *R. raulmunizi*. (2) With a clearly visible depressed area at each side: *Pl. splendens*, *R. fulgida* and *R. leprieuri*.
24. Proportion of the pronotal length / elytral length: (0) Pronotum 0.58–0.67x shorter than elytra: *Ph. testaceipennis*. (1) Pronotum 0.77–0.83x shorter than elytra: *Pl. splendens* and *R. brasiliana*. (2) Pronotum 0.87–1.09x as long as elytra: *A. conicicollis*, *R. brendelli*, *R. bicarinata*, *R. cariniventris*, *R. clavicornis*, *R. cyanea*, *R. debilis*, *R. fasciata*, *R. fimetaria*, *R. fimetariamimus*, *R. flagellicornis*, *R. formicaria*, *R. fulgida*, *R. glabrinotum*, *R. grandipenis*, *R. julietae*, *R. leprieuri*, *R. lescheni*, *R. longiceps*, *R. mesoamericana*, *R. minor*, *R. nitida*, *R. ophthalmica*, *R. palpalis*, *R. profundepunctata*, *R. pronotalis*, *R. raulmunizi*, *R. sharpi* and *R. simplicephala*. (3) Pronotum 1.1–1.2x longer than elytra: *R. brachyptera*. (4) Pronotum 1.31x longer than elytra: *R. brevipennis*.
25. Degree of development of the superior line of the pronotal hypomeron: (0) completely developed, or only partially vanished at anterior third, but visible again in the anterior corner: *Ph. testaceipennis*, *A. conicicollis* and *Pl. splendens*. (1) Vanished at anterior third and not visible in the anterior corner: *Renda* spp.
26. Direction of the upper line of the pronotal hypomeron in the anterior third: (0) Right (not directed downward): *Ph. testaceipennis* and *Pl. splendens*. (1) Slightly directed downward, but clearly separated from the lower line: *A. conicicollis*. (2) Directed downward and very close to the lower line (not united): *Renda* spp.
27. Setae pattern on the pronotal hypomeron: (0) without setae: *Ph. testaceipennis* and *Pl. splendens*. (1) With few fine setae on all area or at least on the posterior two thirds: *A. conicicollis*. (2) With few fine setae on the anterior third (at level of the procoxae): *Renda* spp.
28. Shape of the prosternum: (0) Very transverse (length / width proportion 0.4–0.6x): *Ph. testaceipennis*. (1) Transverse (length / width proportion 0.61–0.90x): *Pl. splendens* and *Renda* spp. (2) Slightly long (length / width proportion 1.01x or more): *A. conicicollis*.
29. Setae pattern on the prosternum: (0) with fine setae sparser than on meso and metasternum: *Ph. testaceipennis*, *A. conicicollis*, *R. bicarinata*, *R. brachyptera*, *R. brevipennis*, *R. cyanea*, *R. debilis*, *R. fasciata*, *R. flagellicornis*, *R. formicaria*, *R. fulgida*, *R. grandipenis*, *R. leprieuri*, *R. mesoamericana*, *R. palpalis*, *R. profundepunctata*, *R. pronotalis* and *R. sharpi*. (1) With fine setae as dense as those on meso and metasternum: *R. brasiliana*, *R. brendelli*, *R. cariniventris*, *R. clavicornis*, *R. fimetaria*, *R. fimetariamimus*, *R. glabrinotum*, *R. julietae*, *R. lescheni*, *R. longiceps*, *R. minor*, *R. nitida*, *R. ophthalmica*, *R. raulmunizi* and *R. simplicephala*. (2) Smooth: *Pl. splendens*.
30. Fascia of long, pale setae on the first quarter of the elytra: (0) without fascia: *Ph. testaceipennis*, *A. conicicollis*, *Pl. splendens* and *Renda* spp. (except species of state 1). (1) With fascia: *R. cyanea*, *R. fasciata*, *R. fulgida*, *R. leprieuri* and *R. simplicephala*.
31. Setae pattern on the inner margin of the tibiae: (0) without ctenidium of dense and pale setae, only with sparse and brown setae: *Ph. testaceipennis*. (1) With ctenidium of dense and pale setae on the basal half or slightly more of the tibiae: *A. conicicollis*. (2) With ctenidium of dense and pale setae on all inner side of the tibiae: *Pl. splendens* and *Renda* spp.
32. Shape of the aedeagus: (0) elongate: *Ph. testaceipennis*, *R. brasiliana*, *R. fulgida*, *R. julietae*, *R. lescheni*, *R. longiceps*, *R. minor*, *R. nitida* and *R. simplicephala*. (1) ovally elongate, with the base of median lobe notably widened: *A. conicicollis*, *Pl. splendens*, *R. bicarinata*, *R. brendelli*, *R. debilis*, *R. fasciata*, *R. fimetaria*, *R. fimetariamimus*, *R. flagellicornis*, *R. grandipenis*, *R. mesoamericana* and *R. raulmunizi*. (2) Ovally elongate, with the base of median lobe not conspicuously widened: *R. cariniventris*, *R. clavicornis*, *R. cyanea*, *R. leprieuri*, *R. ophthalmica* and *R. pronotalis*. (3) Ovally elongate, with concave lateral margins of median lobe: *R. brachyptera*, *R. formicaria*, *R. profundepunctata* and *R. sharpi*. (?) Inapplicable (females): *R. brevipennis*, *R. glabrinotum* and *R. palpalis*.
33. Symmetry of the parameres of the aedeagus: (0) Symmetrical parameres: *Pl. splendens*, *A. conicicollis*, and *Renda* spp. (except species of states 1 and 2). (1) Asymmetrical parameres, with the left paramere shorter than right paramere: *R. debilis*, *R. lescheni*, *R. mesoamericana*, *R. nitida* and *R. ophthalmica*. (2) Asymmetrical parameres, with the right paramere shorter than left paramere: *R. clavicornis* and *R. raulmunizi*. (?) Inapplicable (females): *R. brevipennis*, *R. glabrinotum* and *R. palpalis*. (-) incomparable (parameres fused): *P. testaceipennis*.
34. Internal sac of the aedeagus: (0) with moderately visible sclerotized structures: *Ph. testaceipennis*, *Pl. splendens*, *R. cyanea*, *R. fasciata*, *R. formicaria*, *R. sharpi* and *R. simplicephala*. (1) with sclerotized structures clearly visible: *A. conicicollis*, *R. brendelli*, *R. clavicornis*, *R. debilis*, *R. fimetaria*, *R. fimetariamimus*, *R. flagellicornis*, *R. grandipenis*, *R. leprieuri*, *R. mesoamericana* and *R. raulmunizi*. (2) without sclerotized structures: *R. bicarinata*, *R. brachyptera*, *R. brasiliana*, *R. cariniventris*, *R. fulgida*, *R. julietae*, *R. lescheni*, *R. longiceps*, *R. minor*, *R. nitida*, *R. ophthalmica*, *R. profundepunctata* and *R. pronotalis*. (?) Inapplicable (females): *R. brevipennis*, *R. glabrinotum* and *R. palpalis*.