Contributions to the knowledge of American Ectrichodiinae. II. Notes about *Rhiginia* and *Pothea* (Hemiptera: Reduviidae)[1,2]

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ABSTRACT

The male holotypes of the new species *Rhiginia willinki*, *Rhiginia aimara*, and *Pothea (Brachypothea) andina* are described. The first two species are from Peru, the third from Bolivia. The male genitalia of *Pothea (Brachypothea) carvalhoi* Carpintero are described and illustrated. *Rhiginia guttata* Carpintero and *R. argentina* Carpintero are declared junior synonyms of *R. corrugata* Maldonado and *R. ruficoria* Maldonado, respectively. A key to the species in *Pothea* (*Brachypothea*) is presented.

RESUMEN

Contribución al conocimiento de los ectricodinos americanos. Notas sobre *Rhiginia* y *Pothea*

Se describen las nuevas especies de Ectrichodiinae, *Rhiginia willinki* y *R. aimara*, del Perú y *Pothea (Brachypothea) andina* de Bolivia. Se describe e ilustra la genitalia masculina de *Pothea (Brachypothea) carvalhoi* Carpintero 1980, del Brasil. Se declaran *Rhiginia guttata* Carpintero y *R. argentina* Carpintero sinónimos de *R. corrugata* y *R. ruficoria* Maldonado, respectivamente. Se presenta una clave para las especies en *Pothea* (*Brachypothea*).

DESCRIPTIONS AND DISCUSSION

Among specimens from the Instituto Miguel Lillo (IML) and Sr. A. Martínez's personal collection, loaned to us for study, the new species described below were found. The species are described, illustrated and compared with allied taxa. Measurements are in millimeters or given in relative proportions to the first segment of the antenna or rostrum.

Rhiginia willinki Carpintero and Maldonado, new species
Figs. 1 to 5

Male—Coloration; light coral red: head and neck dorsally, most of pronotum, humeral angle of hemelytra and basal third of costal margin

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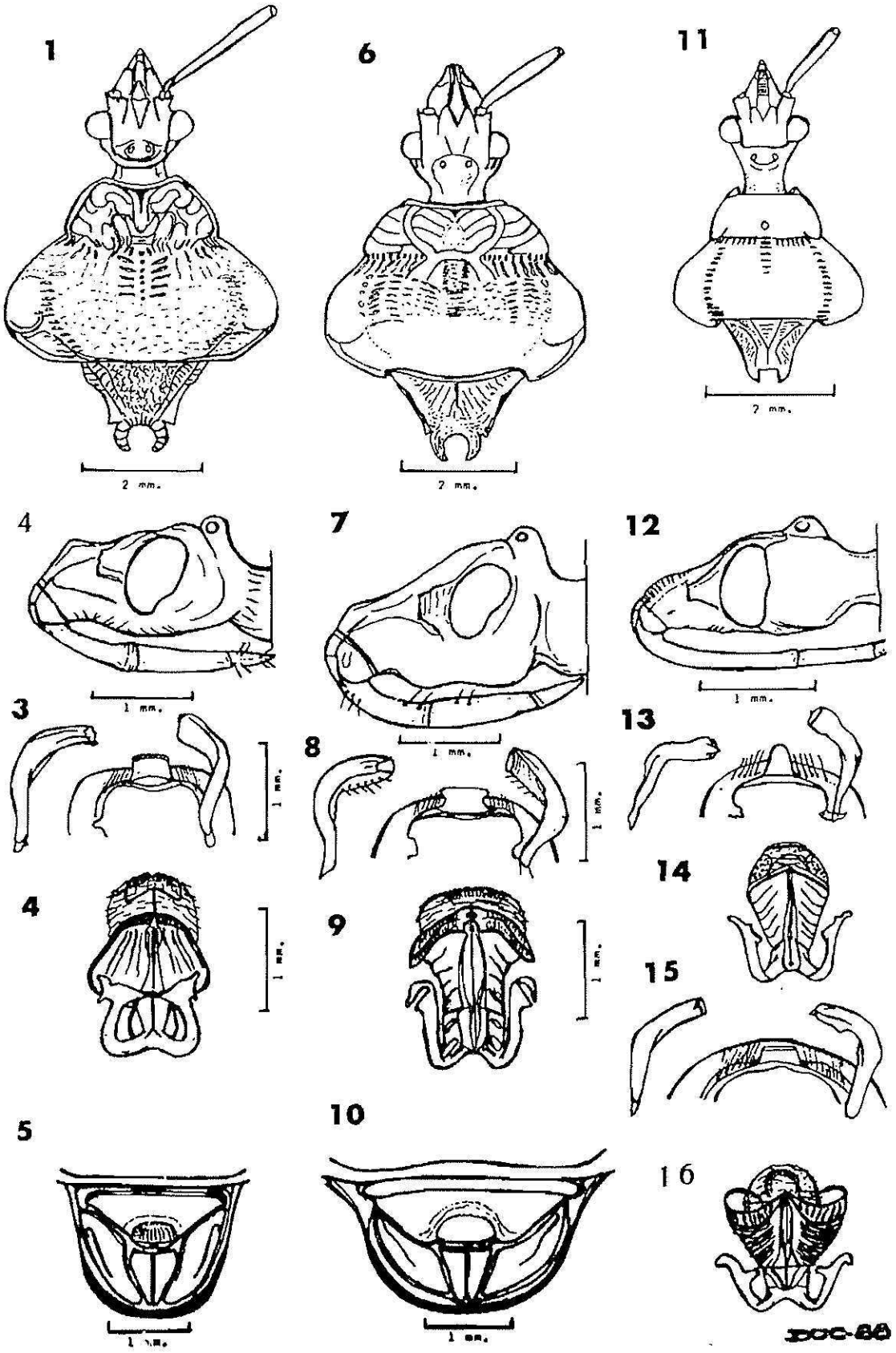

PLATE 1.—*Rhiginia willinki* n. sp., male holotype: 1. anterior part of body, dorsal; 2. head, lateral; 3. posterior border of hypopygium, anterior view, claspers, dorsal and inter-

of corium, ventral connexivum, ventral paraconnexival narrow band, and external longitudinal third of dorsal connexivum. Shiny black with mahogany areas: head and neck laterally and ventrally, margins of pronotum, pleurae, thoracic sterna, hemelytra, antennae and its pilosity, abdomen dorsally, 1 + 1 lateral abdominal bands, most of I and VII abdominal sterna, hypopygium. Light brown: third rostral segment, tarsal pilosity. Smokey brown: hind wings. Silvery white: eyes and ocelli.

Head: horizontal, slender, vertex rugose, tylus with angulate upper margin; rostrum thickened, straight. First antennal segment straight, slightly thickening towards apex, pilose, about as long as head. Ocellar callus long-ovate, transverse, caudad of posterior margins of eyes. Eyes large, closer to upper surface of head than to lower. Thorax: anterior lobe of pronotum semicircular, short, anterior and lateral margins slightly concave; transverse sulcus deep, medially with a widened carina (fig 1); longitudinal sulcus deep to carina of transverse sulcus. Posterior lobe subhexagonal, finely rugose except before humeral angles and posterior margin; with median longitudinal depression ornamented with 1 + 1 rows of short striae and a median row of punctures, prehumeral depressions well defined, hind margin straight. Scutellum trapezoidal, sculptured, corrugate; apical prongs cylindrical, transversely striate, slightly converging and depressed apically. Legs cylindrical, straight, slender; anterior femora slightly thickened, tibiae slightly enlarged apically. Hemelytra almost reaching abdominal apex, hind wings reaching hind margin of VI tergum. Abdomen: terga finely striate-punctate, connexival margin straight; ventral disc smooth, laterally rugose-striate; I intersternal suture crenate, II and III only laterally. Genitalia as in figures 3 and 4.

Head: length 2.48, width across eyes 1.94 (proportions—1.27:1); interocular space 0.97, width of eye 0.43 (proportions—2.25:1). Pronotum: length 3.02, greatest width 4.64. Rostral segments: 1.08, 1.08, 0.43 (proportions—1:1:0.4). Antennal segments: 2.48, 3.24, — (proportions—1:1.3:—). Total body length 16.85 mm.

Female—shape and coloration mostly as in male. Margins of pronotum black; blackish band along transverse sulcus extended over anterior longitudinal sulcus and bordering depression of posterior lobe. First antennal segment slightly curved, glabrous, slightly shorter than

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nal dorsolateral (apex raised about 45°); 4. phallosome, basilar bridge entire, dorsal; 5. female genitalic segments, caudal. *Rhiginia aimara* n. sp., male holotype; 6. anterior part of body, dorsal; 7. head, lateral; 8. same as 3; 9. phallosome, dorsal; 10. female genitalic segments, caudal. *Pothea (Brachypothea) andina* n. sp., male holotype; 11. anterior part of body, dorsal; 12. head, lateral; 13. same as 3; 14. phallosome, dorsal. *Pothea (Brachypothea) carvalhoi* Carpintero; 15. same as 3; 16. phallosome, dorsal.

length of head. Head slightly stouter than in male. Hemelytra reaching to midlength of VII tergum, hind wings to hind margin of V. Genitalia as in figure 5.

Head: length 2.70, width across eyes 2.05 (proportions—1.3:1); interocular space 1.08, width of eye 0.43 (proportions—2.5:1). Abdomen: length 11.24, greatest width 7.02. Rostral segments: 1.13, 1.34, 0.49 (proportions—1:1:0.42). Antennal segments: 2.16, 2.92, (proportions—1:1.35:—). Total body length 16.96 mm.

Holotype—male, Pichica, Coluga, PERU; at 2,150 m, Weyrauch leg. Paratype—Sinchona, Cordillera Azul, PERU; at 1,300 m; Weyrauch leg. Both in Instituto Miguel Lillo.

Discussion: *Rhiginia willinki* is closer to *R. corrugata* Maldonado. The latter is slightly larger and more robust, with margins of pronotum straight, ocelli much more elevated, anterior lobe of pronotum black, with golden yellow corrugations (coral red in *willinki*). The new species is somewhat close to *R. lateralis* (Lepeletier & Serville). The latter is 19 mm, without red areas ventrally, and the first antennal segment subequal in length to head.

Rhiginia aimara Carpintero and Maldonado, new species.
Figs 6-10

Male—Coloration; light orange red: head, thorax, disc of abdominal venter, connexivum ventrally, a ventral paraconnexival narrow band, outer longitudinal third of dorsal connexivum, triangular spot on basal angle of corium. Blackish-brown: eyes, apex of antenniferous tubercle; antennal segments I, II, III, VI, VII, VIII; apex of rostrum, femora, tibiae, most of tarsi, scutellar margins and apical prongs, hind wings. Shiny black with violaceous lustre: abdomen dorsally, 1 + 1 broad lateral bands from sternum II to hypopygium, hemelytra. Straw yellow: IV and V antennal segments, short elongate stripes on femora (more outstanding in male paratype).

Head—relatively robust, rostrum thick, slightly upcurved. Vertex smooth, tylus with upper margin slightly gibbous at midlength. Anterior margin of ocellar callus level with posterior margin of eyes. Eyes not reaching upper or lower margins of head. First antennal segment thickened, shorter than length of head. Thorax: anterior lobe of pronotum sculptured, longitudinal sulcus deep, reaching transverse median carina of transverse sulcus, transverse sulcus deep. Posterior lobe of pronotum rugose on anterior 2/3, lateral and posterior borders smooth. Humeral angles and hind margin as in figure 6. Scutellum sculptured, wider than long, discal depression shallow; apical prongs apart basally, incurved, apices close. Legs cylindrical, slender, short pilose ventrally, pilosity in regular rows; profemur slightly thickened. Hemelytra reaching abdominal apex, hind wings not reaching apical margin of VI tergum. Abdominal

terga densely punctate, VII tergum and covered areas of connexivum finely striate; ventral disc smooth, sterna laterally sparsely rugose-striate; only first intersternal suture crenate. Genitalia as in figures 8 and 9.

Head: length 2.70, width of head across eyes 1.94, (proportions—1.38:1); interocular space 1.8, width of eye 0.43, (proportions—2.5:1). Rostral segments: 1.08, 0.97, 0.48, (proportions—1:0.9:0.4). Antennal segments (paratype): 1.89, 2.81, 1.51, 0.97, 0.76, 0.43, (proportions—1: 1.48:0.8:0.51:0.4:0.22).

Female—Coloration: femora, "knees", base of first antennal segment light orange-red; blackish-violet bands on ventral abdomen wider than in male. Slightly larger but otherwise similar to male; eyes and ocelli relatively smaller, first antennal segment curved and glabrous, slightly thicker legs, profemur much thicker. Hemelytra almost reaching abdominal apex, hind wings reaching anterior margin of VI tergum. Genitalia as in figure 14.

Holotype—male, Tingo María, PERU; at 670 m; Weyrauch leg. Paratype—female, Yurai, PERU. At 300 m, Weyrauch leg. Both in Instituto Miguel Lillo.

Discussion: Curiously, *Rhiginia willinki* is similar to *Zirta limbata* Breddin. They can be separated by generic characters, e. g., antenna 4-segmented and abdominal sterna not punctate in the latter. It is somewhat similar to large specimens of *Rhiginia crudelis* Stål, 1872, which has a smooth pronotum. For comparison with other species in *Rhiginia* see Carpintero and Maldonado 1988.[5]

Rhiginia corrugata Maldonado

1972 *Rhiginia corrugata* Maldonado[6], 52:48. Brasil, Argentina, Bolivia.
1980 *Rhiginia guttata* Carpintero[7], 14:26. Argentina, Bolivia. New synonym.

Type material of both species, present in our collections, was compared by both authors.

Rhiginia ruficoria Maldonado

1972 *Rhiginia ruficoria* Maldonado (8), 52:49. Argentina
1980 *Rhiginia argentina* Carpintero (6), 14:25. Argentina. New synonym.

[5]—— y J. Maldonado-Capriles. 1988. Contributions to the knowledge of American Ectrichodiinae. I. Notes about *Rhiginia* (Hemiptera: Reduviidae). *J. Agric. Univ. P. R.*, 72 (2): 251-54.

[6]Maldonado-Capriles, J., 1972. Neotropical Reduviidae (Heteroptera) in the Museum of Zoology of the University of Helsinki, Finland, with description of new species. *Not. Entomol.*, 52: 47-56.

[7]—— 1980. Nuevos Ectrichodiinae americanos (Insecta-Hemiptera-Reduviidae). *Acta Sci., Entomol.* 14: 1-33.

Type material of both species, present in our collections, was compared by both authors.

Pothea (Brachypothea) andina Carpintero and Maldonado, new species. Figs 11 - 14

Male. Coloration—shiny black with brownish lustre: head, thorax, legs, sterna I and VII, broad lateral band from sterna III to VI that extends into intersternal sutures and hypopygium. Light red: connexivum dorsally, intertergal sutures, connexivum ventrally, festooned ventral paraconnexival band from segments II to VII, disc of sterna III to V. Pink yellow: small spot above on tylus, 1 + 1 spots apically on antenniferous tubercles, 1 + 1 spots on vertex contiguous to internal margin of eyes, basal angle of corium, clavus, ocelli, and base of membranal veins. Reddish brown: rostrum, antennae, tarsi, most of abdominal dorsum. Smokey brown: remaining parts of hemelytra, hind wings. Dark red: short annulus at midlength of protibia.

Head—horizontal, slender, tylus slightly convex and transversely rugose. Large eyes, almost reaching upper and lower margins of head. Ocellar callus elevated, basad of posterior margin of eyes; ocelli of medium size, lateral on callus. Antennal segments I, VII, VIII short pilose, II to VI, with long vertical pilosity. Rostrum long, slender. Pronotum—trapezoidal, margins convex, angles round. Scutellum wider than long, sculptured; apical prongs short, thick, internal margins parallel. Legs slender, profemora slightly thickened; ventral carinae obsolete; pilose. Fore wings almost reaching apex of abdomen, corium chitinized; hind wings extending to middle of VI tergum. Abdomen wide and more flattened than usual for the genus; dorsally most of connexivum exposed; terga finely punctate; sterna and intersternal sutures smooth, only first intersternal suture slightly crenate. Genitalia (figs 13, 14)—hypopygium subhexagonal, posterior process unciform, projected caudad, margin each side of process long vertical pilose. Claspers: basal 1/3 straight, thence incurved to apex, slightly club-shaped, apex truncate, with a preapical tooth. Phallosome with short and thin basal plate, basilar bridge membranous. Aedeagal articulation pentagonal in cross-section. Dorsolateral sclerotization conspicuous only laterally. Middle lamina chitinized, apical sclerotization of apex of endosome elongate, inconspicuous; endosome with 1 + 1 lateral plates.

Head—length 1.94, width across eyes 1.30. (proportions—1.50:1); interocular space 0.65, width of eye 0.34, (proportions 2:1); anteocular lobe 0.64, postocular lobe 0.81, (proportions 0.80:1). Abdomen length 6.59, greatest width 4.10, (proportions 1.60:1). Rostral segments 1.19, 0.65, 0.32, (proportions 1:0.54:0.27). Antennal segments: 0.97, 1.99, 0.76, 0.54, 0.32, 0.27, 0.27, 0.32, (proportions—1: 2.05:0.77:0.55:0.33:0.27:0.27:0.33). Total length of body 10.69 mm.

Holotype—male, Departamento Tarija, Cuesta de Sama, BOLIVIA; at 2,500 m. In A. Martínez's collection.

Discussion: *Pothea (Brachypothea) andina* is close to *P. (B.) hepperi* Carpintero 1978[8], a slightly smaller (9.33 mm) species with connexivum and abdominal venter yellow. It is also close to *P. (B.) carvalhoi* Carpintero 1980, a slightly larger species (11.66 mm), which lacks the yellow spots on vertex and has the anterior and posterior lobes of the head of equal length.

Pothea (Brachypothea) carvalhoi Carpintero
Figs 14, 15.

1980 *Pothea (Brachypothea) carvalhoi* Carpintero[7], 14:8.

Male genitalia (figs 15, 16)—Hypopygium subcircular, apical process trapezoidal, thin, inclined caudad; pilose each side of process. Claspers angularly bent at about midlength, with a preapical tooth. Basal plate of phallosome with short, chitinized bridge (dissected out in fig. 16). Articular plate of aedeagus subquadrangular. Dorsolateral sclerotization of aedeagus well defined; conspicuous chitinized median lamina; endosome with arcuate apical process. Genitalia of holotype, mounted on slide, in A. Martinez's collection.

Key to the species in *Pothea (Brachypothea)*

1. Head as long as pronotum; head at most twice as long as wide* 2
   Head shorter than pronotum 3
2. Femora carinate, middle portion constricted; legs yellowish-red, shiny black spots on femora and tibiae. 11.8 mm, Bolivia ..... *yungaensis* Carpintero, 1980
   Femora thickened, fusiform, not constricted; legs shiny black; tibiae with conspicuous yellowish annulus. 12-12.5 mm, Panama ..... *annulipes* Champion, 1899
3. Head uniformly colored, without spots 4
   Head dark with light spots 7
4. Head much shorter than pronotum; head very dark, with metallic lustre 5
   Head slightly shorter than pronotum; head with different coloration 6
5. Tylus of males rounded; lighter parts of abdomen and connexivum yellow; 9.3 mm, Argentina ..... *hepperi* Carpintero, 1978

[8]Carpintero, D. J., 1978. Revisión del género *Pothea* Amyot y Serville, 1843. Sus especies en la Argentina. (Hemiptera, Reduviidae, Ectrichodiinae). *Rev. Mus. Argent. Cienc. Nat.* Bernardino Rivadavia, 5: 175-286.

Tylus of males elevated anteriorly; lighter parts of abdomen and connexivum bright coral red; 9.3-11.6 mm, Argentina ..... *carvalhoi* Carpintero, 1980

6. Pronotum and head uniformly piceous; basal angle of corium red; 12.6 mm, Bolivia ..... *haematogaster* Breddin, 1903

Pronotum and head pale yellow, ochraceous; pronotum with two longitudinal vittae, darker along posterior lobe; basal angle of corium yellow; 12 mm, Mexico ..... *maculata* Champion, 1899

7. Head above with large straw color area; 12.5 mm, Brazil ..... *aenescens* Stål, 1868

Head above with pinkish spots on tylus, antenniferous tubercles, and close to eyes ..... *andina* sp. nov.

* If head is longer, over twice as long as wide, species belong in subgenus *Pothea*.

P. aeneonitens Stål, 1864, may fit here in *Brachypothea*. It was described, probably in error, from "America Borealis." It has femora I and II dorsally emarginate and dark brown coloration with a shiny grayish pronotum.