

**A new *Loneura* from Colombia, and Colombian records of *L. mirandaensis* García Aldrete, and *Loneuroides venezolanus* García Aldrete (Psocodea: 'Psocoptera': Ptiloneuridae)**  
**Una especie nueva de *Loneura* de Colombia y primeros registros para Colombia de *L. mirandaensis* García Aldrete y *Loneuroides venezolanus* García Aldrete (Psocodea: 'Psocoptera': Ptiloneuridae)**

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**ABSTRACT**

*Loneura colombiana* n. sp., from Villavicencio, Meta, Colombia, is herein described and illustrated. It is close to *L. maracaensis* García Aldrete, from Roraima Brazil. The Venezuelan species *L. mirandaensis* García Aldrete and *Loneuroides venezolanus* García Aldrete are recorded from Valle del Cauca, Colombia. These two species of *Loneura* are the first of this genus known in Colombia.

**Key words:** Neotropics, taxonomy, South America.

**RESUMEN**

*Loneura colombiana* n. sp., procedente de Villavicencio, Meta, Colombia, es aquí descrita e ilustrada. Es cercana a *L. maracaensis* García Aldrete, de Roraima, Brasil. Las especies venezolanas *L. mirandaensis* García Aldrete y *Loneuroides venezolanus* García Aldrete son aquí registradas en Valle del Cauca, Colombia. Ambas especies de *Loneura* son las primeras del género que se conocen en Colombia.

**Palabras clave:** Neotrópico, taxonomía, América del Sur.



**INTRODUCTION**

The genus *Loneura* was revised by Castro (2007), who recognized 15 described species, 14 neotropical and one nearctic; in addition, he recorded eight new species: six from Brazil, one from Bolivia and one from Nearctic Mexico (Chihuahua), but did not describe them.

We describe herein a species of *Loneura*, and provide a record of the Venezuelan *L. mirandaensis* García Aldrete, which constitute the first species record of this genus in Colombia. We also include a Colombian record of the related *Loneuroides venezolanus* García Aldrete, previously known only from its type locality in Venezuela. The specimens studied (two males and one female), were dissected in 80% ethyl alcohol, and their parts (head, wings, legs and genitalia), were mounted on slides in Canada Balsam. Standard measurements, given in  $\mu\text{m}$ , were taken on parts mounted on the slides, with a filar micrometer, with a measuring unit of 136  $\mu\text{m}$  for wings and 53  $\mu\text{m}$  for other parts. Abbreviations of parts measured are as follows: FW: right forewing, HW: right hindwing, F, T, t1 and t2: femur, tibia and tarsomeres 1 and 2 of right hind leg, Mx4: fourth palpomere of right maxillary palp, IO, D and d, respectively: minimum distance between compound eyes, antero-posterior and transverse diameter of right compound eye in dorsal view of head, PO: d/D. The holotype will be deposited in the Instituto de Ciencias Naturales, Universidad Nacional de Colombia, Santa Fé de Bogotá, Colombia. The specimens of *L. mirandaensis* García Aldrete, and of *Loneuroides venezolanus* García Aldrete,

are deposited in the Entomological Museum, Universidad del Valle, Cali, Colombia (MUSENUV).

*Loneura colombiana* García Aldrete, González & Carrejo ( $\sigma$ ).  
(Figs. 1-5)

**Diagnosis.** Head with a dark brown, transverse band, below ocellar group, limiting anteriorly with postclypeus, and extended on each side towards compound eyes. Forewing M five branched, plus a stub not reaching the wing margin (probably an anomalous condition), M5 dichotomously branched, as illustrated (Fig. 1), resulting in seven M terminals. Hindwing M four branched. Central sclerite of hypandrium robust, with two posterior projections, narrowing distally, pointed (Fig. 4). Phallosome with side struts V-shaped, external parameres long, slender, and three pairs of phallosome sclerites (Fig. 5).

**Color** (in 80 % alcohol). Body light brown, with ochre spots as indicated below. Compound eyes black, ocelli hyaline, with thick ochre centripetal crescents. Head pattern (Fig. 2), with a transverse, dark brown band as illustrated, and ochre postclypeal striae. First flagellomere whitish, the other brown. Coxae with ochre spots distally. Femora whitish, proximally brown, with two mesal brown spots on outer edge, a subdistal brown spot on inner edge, and two distal ochre spots. Tibia whitish, distally brown. Thorax with irregular ochre spots on pleurae; tergal lobes of meso- and metathorax more pigmented than rest of the thorax. Wings hyaline, veins brown, with dark spots at wing margin. Abdomen whitish, with subcuticular, irregular dark brown rings.

**Morphology.** Compound eyes prominent. Outer cusp of lacinial tip broad, with six denticles. Forewing pterostigma elongate, wider in the middle. Rs about as long as R2+3, M six branched, the sixth branch incomplete, and the fifth branch divided as illustrated, resulting in three branches at wing margin. Left forewing M five branched, the fifth one forked. Areola postica broad, apically rounded, wider than tall (Fig. 1). Hindwing (Fig. 1) with M four branched in both wings. Hypandrium (Fig. 4) of a broad, central piece and two small, rhomboid, side sclerites; central piece rounded anteriorly, with two large, posterior acuminate projections as illustrated. Phallosome symmetric, complex (Fig. 5). Side struts stout, V-shaped, joined distally to long, slender, external parameres, apically rounded. Phallosome sclerites: two mesal, U-shaped sclerites, with a distinct membranous area between them, each inner, shorter arm, joining the base of a central, stout, longitudinal sclerite, with a mesal, acuminate blade, and a distal, stout pointed arm. Outer, longer arm of U-shaped sclerite associated distally with a posterior, broad based sclerite, with a long, slender projection, running outward parallel to external parameres. Paraprocts (Fig. 3) broad, setose as illustrated, sensory fields with 20-22 trichobothria in basal rosettes. Epiproct (Fig. 3) broad, trapeziform, with a group of three small setae in the middle, near anterior border, one macrosetae mesally on each side, a field of microsetae posteriorly and a row of five setae along posterior border.

**Measurements.** FW: 4156, HW: 2847, F: 1120, T: 1736, fl: 795, IO: 323, D: 530, d: 328, IO/d: 0.98.

**Specimens studied.** Holotype ♂. COLOMBIA. Meta. Villavicencio. Vereda Argentina. Pie de monte llanero. 22-23. IV.1995 (collector not indicated in the specimen label).

**Etymology.** The specific name, a nominative adjective, refers to the country of origin of this species.

#### Key to the South American species of *Loneura*

(The Bolivian *L. quinaria* Navás, 1920 is not included, as no specimens of it are available for study, and the original description does not allow for comparison with the other species in the genus).

1. Forewing hyaline ..... 2
- Forewing with an irregular, pigmented marginal band, from cell R4+5 to vein Cu1a, occasionally extending to distal half of vein 1A ..... 5
2. Forewing M six-branched, with M6 forked; hindwing M five-branched ..... 3
- Forewing M five or six-branched, if six-branched, M6 not forked ..... 4
3. Central sclerite of hypandrium with two stout, lateral posterior projections, distally rounded; phallosome with inner pair of endophallic sclerites, distally pointed, outer edge serrate; mid-central pair broad, stout, distally serrate on outer edge; outer pair stout, with a slender, distal projection; external parameres slender ..... *L. boliviana* Williner
- Central sclerite of hypandrium with two stout, lateral posterior projections, distally pointed; endophallic sclerites not as above; external parameres stout, with an ante-apical outer bulge ..... *L. maracaensis* García Aldrete
4. Forewing M five-branched; hindwing M three-branched ..... *L. brasiliensis* Roesler
- Forewing M five or six-branched, M5 forked; hindwing M

- four-branched ..... *L. colombiana* García Aldrete *et al.*
5. Hindwing M five-branched; forewing M six-branched; marginal pigmented band of forewing from cell R4+5 to distal half of vein 1A, with colorless fenestrae on distal ends of veins from M1 through Cu1a, a colorless band from Cu-Cu1b to nodulus ..... *L. mirandaensis* García Aldrete
  - Hindwing M three or four-branched; forewing not as above ..... 6
  6. Hindwing M four-branched; forewing M six-branched; veins M3 and M6 forked ..... *L. lienhardi* García Aldrete
  - Hindwing M three-branched; forewing M five-branched, with M5 forked ..... 7
  7. Central sclerite of hypandrium with two outcurved, acuminate posterior projections in the middle; phallosome with a distinct pair of central endophallic sclerites, straight, posteriorly directed, acuminate; external parameres distally wide, with a field of many pores ..... *L. erwini* (New & Thornton)
  - Central sclerite of hypandrium broadly concave, with two incurved, acuminate posterior projections; phallosome not as above ..... *L. amazonica* (New)

#### DISCUSSION

*L. colombiana* belongs in a group of species in which the central piece of the hypandrium presents two posterior projections, the side struts of the phallosome are V-shaped, and the external parameres are well developed, with 2-3 pairs of endophallic sclerites [*L. amazonica* (New), *L. boliviana* Williner, *L. maracaensis* García Aldrete, *L. raramuri* García Aldrete, *L. splendida* Mockford, and *L. spp.* 2, 6, 8 Castro (2007)]. Among them, it is closer to *L. maracaensis* García Aldrete (2004), from Roraima, Brazil, with which it shares a somewhat similar hypandrium and a somewhat similar phallosome, with a pair of stout, U-shaped endophallic sclerites that articulate on each end with two other pairs of sclerites. Recent collecting by one of us (RGO), in Gorgona Island (Cauca), and in Valle del Cauca, Colombia, has revealed the presence of at least five additional undescribed species of *Loneura*. These will be treated elsewhere.

#### *Loneura mirandaensis* García Aldrete

*L. mirandaensis* García Aldrete, 2007: 100.

This species was described, on the basis of one male, from Miranda, Venezuela. The Colombian record is as follows: COLOMBIA. Valle del Cauca. Santiago de Cali, La Buitrera (03°22'19"N: 76°34'12"W), 15.VIII.2010, R. González, 1♂.

#### *Loneuroides venezolanus* García Aldrete

*L. venezolanus* García Aldrete, 2006: 134.

This species was described on the basis of two females from Tabay Mucuy, Mérida, Venezuela. The Colombian record is as follows: COLOMBIA. Valle del Cauca, Yumbo, Dapa (3°34'10"N: 76°34'14"W), R. González, 1♀.

The records above, extend considerably the range of distribution of the species involved, and add to the psocid fauna of Colombia, still poorly known.

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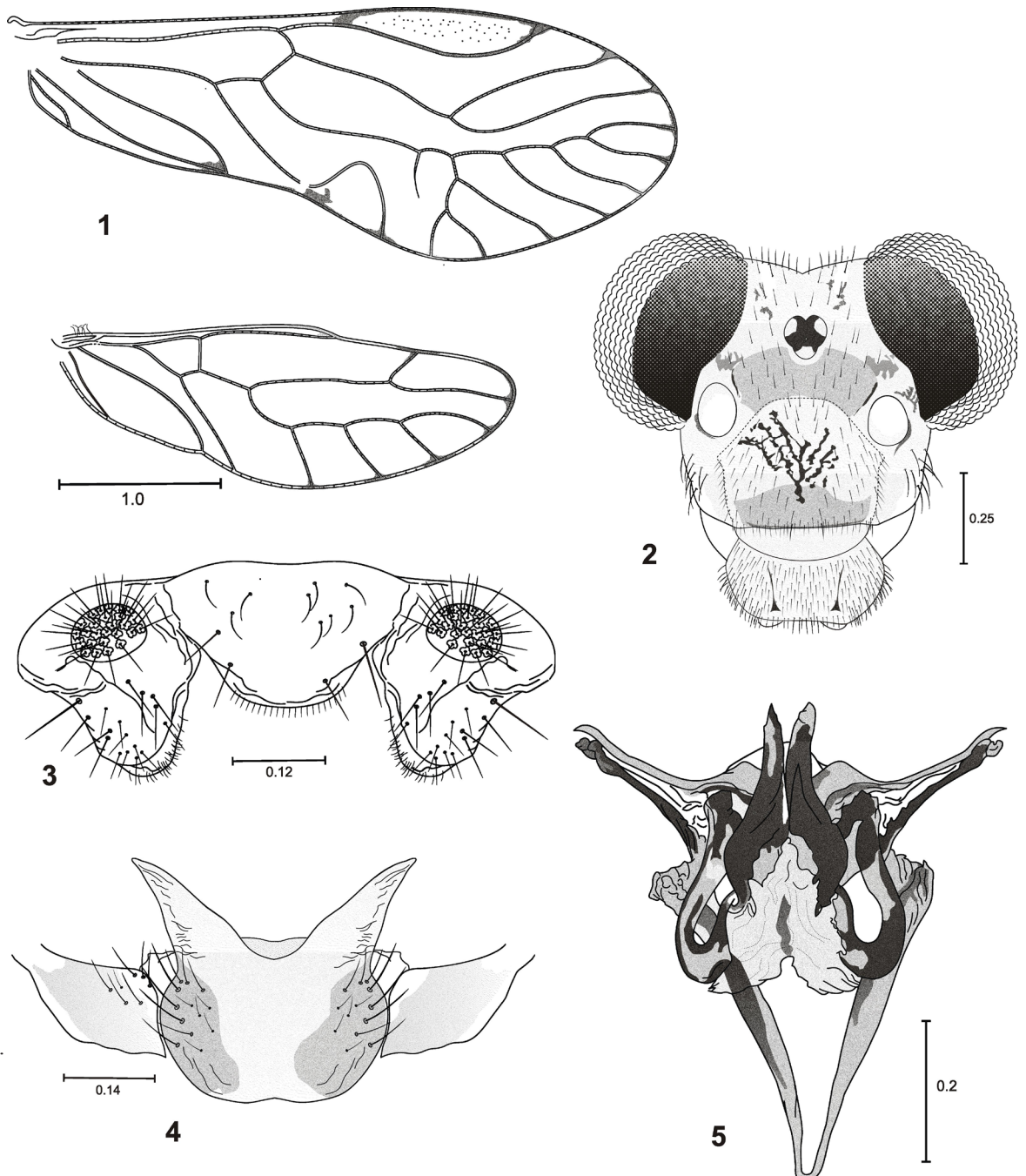
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Figures 1-5. *Loneura colombiana* García Aldrete, González & Carrejo (♂). Line scale in mm.

- 1. Fore- and hind-wings.
- 2. Front view of head.
- 3. Epiproct and paraprocts.
- 4. Hyandrium.
- 5. Phallosome.