

## A New Mexican *Steleops* (Psocoptera: Psocidae)

por

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**Abstract:** *Steleops (Steleops) monticola* sp. n., collected in southern Mexico constitutes the fifth species recognized in *Steleops*, an American genus formerly known only in Paraguay and Brazil. Structures of both sexes are illustrated; measurements, ratios and ctenidial counts are provided for one specimen of each sex. *S. (S.) monticola* sp. n., differs from the other species in the genus on basis of genital characters and forewing spotting. The types are deposited in the Insect Collection, Instituto de Biología, UNAM, Departamento de Zoología.

The genera *Pelmatocoria* and *Steleops* were erected by Enderlein in 1910, to include psocids with pedunculated compound eyes. They are presently regarded as subgenera of *Steleops*, the difference between them being the junction of Rs and M in the forewing with a crossvein between in *Pelmatocoria*, or both veins fused for a length in *Steleops* (Roesler, 1944; Šmithers, 1967). *S. punctipennis* Enderlein, from Paraguay, is the type species (subgenus *Steleops*); *S. pedunculata* Enderlein from Paraguay and Brazil is the type species of the subgenus *Pelmatocoria*; New (1972) described two additional species from Matto Grosso, Brazil: *S. maculata* (subgenus *Pelmatocoria*) and *S. pulchra* (subgenus *Steleops*).

The purpose of this paper is to record the presence in Mexico of a new species of *Steleops (Steleops)*, and to provide information on the male genitalia, previously unknown. The illustrations were made with the aid of a camera lucida, the measurements are given in mm, and were taken with a calibrated ocular micrometer. The following abbreviations in the text stand for parts measured: FW: forewing length; HW: hindwing length; F: length of right hind femur; T: length of right hind tibia;  $t_1$ ,  $t_2$ : length of first and second tarsomeres, hind leg;  $t_1$ ct: number of ctenidia on  $t_1$ ;  $f_1$ ... $f_7$ : length of antennal flagellomeres 1-7; IO, minimum distance between compound eyes in dorsal view of head; D: antero-posterior diameter of right compound eye in dorsal view of head; d: transverse diameter of right compound eye in dorsal view of head; PO: d/D.

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*STELEOPS (STELEOPS) MONTICOLA* sp. n.

**Diagnosis:** Head pattern distinct (Fig. 1); phallosome closed, arms fused distally into a rounded, sclerotized bulb (Fig. 2). Hyandrium mesally with a sclerotized, forked projection, each half curved, with a row of denticles on outer edge (Fig. 7). Subgenital plate (SGP) broad, mesal projection short, apically rounded (Fig. 11). Third valvula of gonapophyses with a distinct, long, distal lobe (Fig. 12).

**Male:** Color (in alcohol). Body dark brown on a clear background. Compound eyes black; ocelli, clear, each with a dark brown centripetal crescent, grouped in a tubercle; head with a distinct, dark brown, V-shaped mark, the apex on lower postclypeus (Fig. 1). Distal part of fourth segments of maxillary palps pale brown, other segments creamish-white. Scape, proximal end of pedicel and first flagellomere of each antenna pale brown, other flagellomeres pale yellowish. Tergal lobes of meso- and metathorax, upper pleura, areas next to coxae and intercoxal spaces brown. Forewings slightly spotted (Fig. 3); veins pale brown on proximal halves of wings, dark brown on distal halves of wings; hindwings hyaline (Fig. 4). Meso- and metathoracic coxae deep brown proximally; prothoracic coxae creamish-white. Each femur and tibia with a subapical, dark brown, semicircular band. Tarsomeres dark brown. Abdomen clear, with dark brown subcuticular rings.

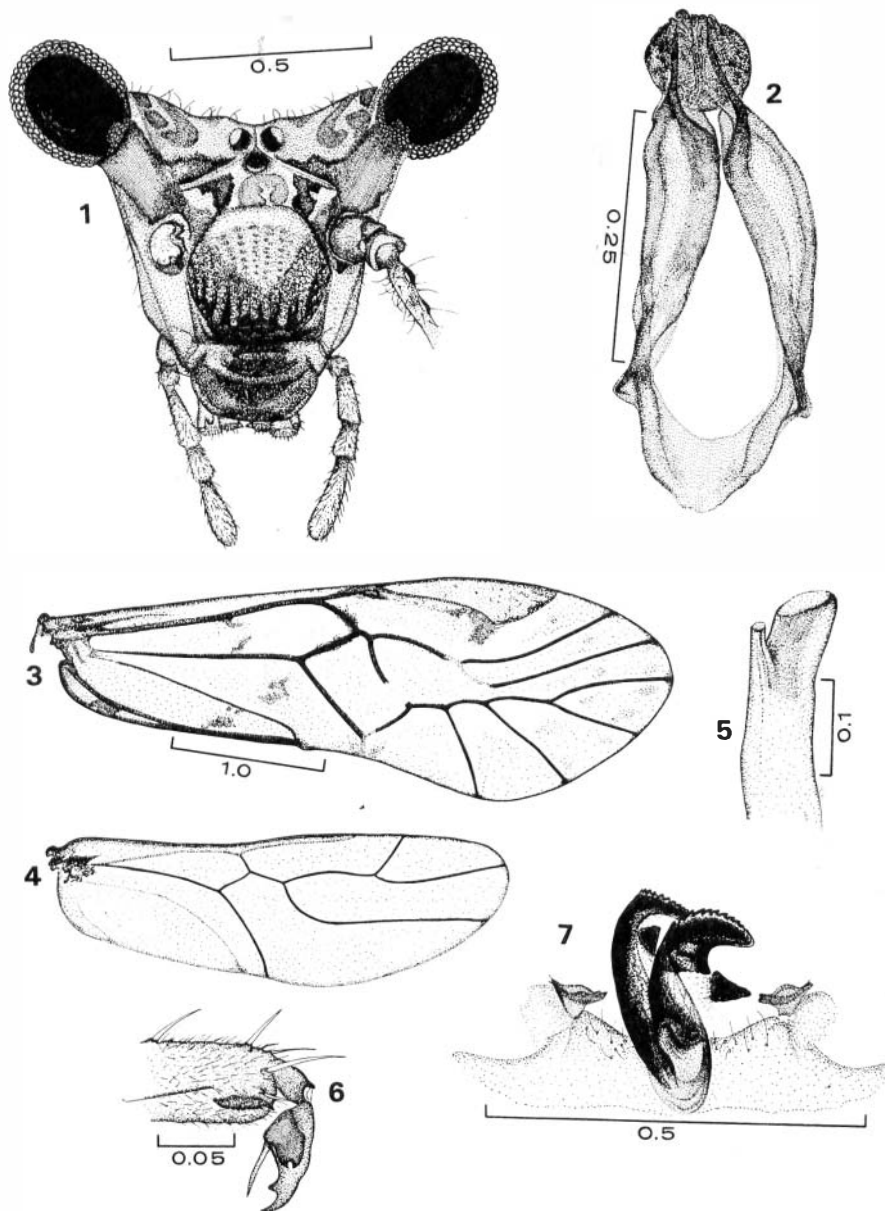
**Morphology:** Hyandrium (Fig. 7) narrow, with small triangular, sclerotized apophyses on post-lateral corners, and with a large, mesal, strongly sclerotized, posteriorly directed projection, forked, each arm curved upward and bearing distally a row of denticles on outer edge. Phallosome (Fig. 2), closed; arms dilated toward distal end, then tapering and fusing terminally to form a rounded bulb; each arm with a small, lateral protuberance near the base. Epiproct (Fig. 8), distally bilobed, paraprocts (Fig. 8) articulated to clunium at end nearer epiproct, each with an apical, slender, sclerotized prong. Sensory fields each with 26 trichobothria. Lacinal tip (Fig. 5). Tarsal claw (Fig. 6).

**Measurements** (in mm): FW: 4.170; HW: 3.000; F: 0.842; T: 1.817;  $t_1$ : 0.776;  $t_2$ : 0.151;  $t_1$ ct: 36;  $f_1$ : 0.851;  $f_2$ : 0.785;  $f_3$ : 0.700;  $f_4$ : 0.577;  $f_5$ : 0.378;  $f_6$ : 0.274;  $f_7$ : 0.208; I0: 0.615; D: 0.312; d: 0.255; I0/D: 1.969; PO: 0.818.

**Female:** Color (in alcohol). Same as in the male. Forewing spots, femoral and tibial brown bands more distinct than in the male.

**Morphology:** SGP (Fig. 11) broad, setose, with the median projection short, apically rounded. Gonapophyses (Fig. 12): first valvula long, slender; second valvula broad, distally acuminate; third valvula with a distinct, long, distal lobe, blunt apically. Epiproct (Fig. 9). Paraprocts (Fig. 10) with mesal, longitudinal row of setae; sensory fields each with 21 trichobothria.

**Measurements** (in mm): FW: 3.780; HW: 2.790; F: 0.861; T: 1.741;  $t_1$ : 0.776;  $t_2$ : 0.160;  $t_1$ ct: 32;  $f_1$ : 0.889;  $f_2$ : 0.747;  $f_3$ : 0.586;  $f_4$ : 0.473;  $f_5$ : 0.302;  $f_6$ : 0.208;  $f_7$ : 0.179; I0: 0.643; D: 0.321; d: 0.246; I0/D: 2.0; PO: 0.764.

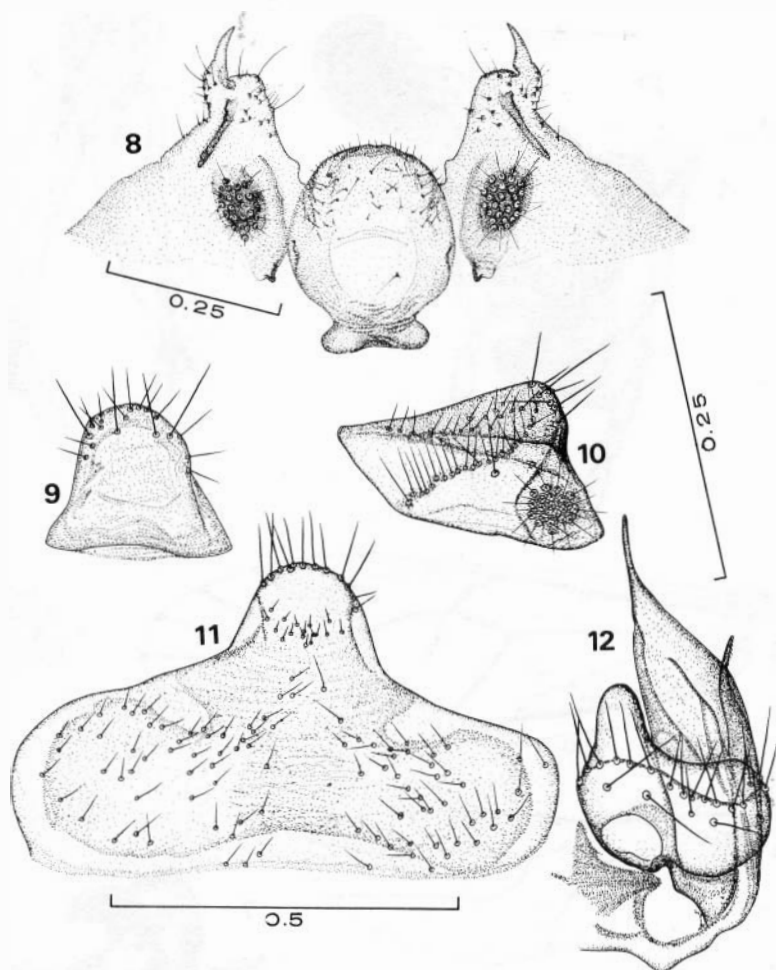


Structures of *Steleops monticola* sp. n. (♂)

- Fig. 1. Front view of head
- Fig. 2. Phallosome
- Fig. 3. Forewing
- Fig. 4. Hindwing

- Fig. 5. Apex of lacinia
- Fig. 6. Tarsal claw, hind leg
- Fig. 7. Hypandrium

Scales in mm. Fig. 4, same scale as Fig. 3.



Structures of *Steleops monticola* sp. n.

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|----------|---------------------------|--|--------------------|
| Fig. 8.  | Paraprocts and epiproct ♂ | Fig. 11.   | Subgenital plate ♀ |
| Fig. 9.  | Epiproct ♀                | Fig. 12.   | Gonapophyses ♀     |
| Fig. 10. | Right paraproct ♀         | Scales in mm. Figures 9 and 12, same scale as Fig. 10. |                    |

**Type locality:** MEXICO: *Oaxaca*: ca. 40 km SE of Nochixtlán; 4 km S of Hwy. 190, Rd. to San Andrés Nuxiño, elevation 2,100 m, pine-oak forest, holotype ♂, 10.XI.1977, beating oak branches on mountain slope, A.N. García Aldrete. Allotype ♀, MEXICO: *Oaxaca*: 29 km SE of Nochixtlán, 21.VIII.1973, beating oak branches, A.N. García Aldrete. Types deposited in the collection of the Instituto de Biología, Universidad Nacional Autónoma de México, Apartado Postal 70-153, México 20, D.F. MEXICO.

**Records:** (from type locality): 6.VIII.1975, beating oak branches, 1 larva, A.N. García Aldrete. *Guerrero*: 6 km NE of Ayotoxtla, 24.X.1973, beating oak branches, oak forest 1 ♀, A.N. García Aldrete.

**Comments:** *Steleops monticola* sp.n., together with *S. punctipennis* Enderlein, 1910 and *S. pulchra* New, 1972, belong within the subgenus *Steleops*. The other two species recognized in the genus: *S. pedunculata* Enderlein, 1910 and *S. maculata* New, 1972, belong in the subgenus *Pelmatocoria*, as separated by Roesler (1944). Enderlein's description of the male genitalia of *Steleops (Pelmatocoria) pedunculata* is strongly reminiscent of the hypandrium of *S. monticola* sp. n., except that in the former the projection of the hypandrium is not divided in two arms. Unfortunately, the specimens of *Steleops* available for study are few, most of the species being represented by single specimens; the eventual study of more abundant material of the known species will probably shed light on the true nature of the subgeneric division as well as on the relations with other genera.

The presence of *S. monticola* sp. n., in Mexico is of interest, since the other known species in the genus are from Paraguay and Brazil; it is also of interest that in Mexico it occupies an area of temperate forest at 2,000 m, contrasting with the tropical forests in which the other species are found.

#### ACNOWLEDGMENTS

I deeply appreciate the collaboration of Leticia Beatriz Menchaca López; she took the measurements and did most of the illustrations included in the paper.

#### RESUMEN

*Steleops (Steleops) monticola* sp. n. es la quinta especie reconocida en *Steleops*, un género americano previamente registrado sólo en Paraguay y Brasil. La nueva especie fue colectada en el sur de México. Se presentan ilustraciones de estructuras de ambos sexos, así como medidas, proporciones y cuentas de ctenidia de un ejemplar de cada sexo. *S. (S.) monticola* sp. n., se distingue de las otras especies del género por las diferencias en la genitalia y en el moteado de las alas anteriores. Los tipos están depositados en la colección de insectos del Instituto de Biología, UNAM, Departamento de Zoología, Apdo. Postal 70-153, México 20, D.F. MEXICO.

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