

STUDIES IN NEOTROPICAL LEPTOCERIDAE (TRICHOPTERA) I:  
*Achoropsyche*, A NEW GENUS

R. W. HOLZENTHAL

SUMMARY

*Achoropsyche*, NEW GENUS, is created for the widespread South American species *Brachysetodes duodecimpunctatus* (Navás). It is placed in the Achoropsychini, NEW TRIBE. The new genus shows a sister group relationship with the Triaenodini + Oecetini + Setodini + Mystacidini branch (Leptocerinae) of Morse (1981). Illustrations are given of the male and female genitalia and male wings. The immature stages are unknown.

INTRODUCTION

Recent systematic investigations in the Neotropical genus *Brachysetodes* Schmid have revealed that the genus is polyphyletic and composed of at least three unrelated taxa. I am here removing one of these taxa, containing only *Brachysetodes duodecimpunctatus* (Navás), and establishing a new genus for it, *Achoropsyche*. This new genus is clearly unrelated to *Brachysetodes sensu stricto* and shows a sister group relationship with the more apomorphic leptocerine branch Triaenodini + Oecetini + Setodini + Mystacidini as defined by Morse (1981). I am also erecting here the new tribe Achoropsychini to include the new genus and its single species.

Achoropsychini, NEW TRIBE

Type genus: *Achoropsyche*, NEW GENUS

Diagnosis: Defined by the characteristics of the genus.

*Achoropsyche*, NEW GENUS

Type species: *Achoropsyche duodecimpunctata* (Navás)

Diagnosis: Tibial spur formula 1,2,2. Midcranial sulcus absent. Mesopleural katepisterum truncate dorsally. Forewing with forks I and V present; M 2-branched and petiolate in both sexes; discal and thyridial cells equal in length, the former originating after the latter; membrane of stigma and cell R<sub>1</sub> thickened. Hindwing with forks I and V present. Male genitalia: Ninth sternal and phallic sclerotized strips present. Tergites X fused dorsally. Inferior appendages one-segmented, broadly fused baso-ventrally. Phallic apparatus with a pair of semi-membranous parameres. Female genitalia: appendages of abdominal segment X short; U-shaped in lateral view. Valves situated ventro-laterally; U-shaped and spatulate.

Etymology: From the Greek *achoros* meaning homeless or without a resting

place in reference to both the very widespread distribution of the type-species and its frequent generic reassignment. Gender: feminine.

*Achoropsyche* and the Triaenodini + Oecetini + Setodini + Mystacidini branch of Morse's (1981) phylogeny share the homologous fusion of tergites X of the male genitalia. However, because the new genus possesses the plesiomorphic truncated mesopleural katapisternum it cannot be placed in one of these more apomorphic tribes and I am obligated to erect the monotypic tribe Achoropsychini to accommodate it. At this time it is difficult to define the tribe further because it is impossible to distinguish between characters that are synapomorphic at the tribal level or simply autapomorphies at the specific level.

*Achoropsyche duodecimpunctata* (Navás), NEW COMBINATION  
(Figures 1-3)

*Setodes duodecimpunctata* Navás, 1916, p. 22, Figure 14, male. Banks, 1924, p. 447.

"*Setodes* or *Leptocerus*" *duodecimpunctatus*, Fischer, 1966, p. 45.

*Brachysetodes duodecimpunctatus*, Flint, 1972, p. 244. Flint, 1974, p. 120, Figure 266, male.

MALE: Length of forewing 6-7 mm. Forewing pale brown, covered with golden brown hairs; a small fold present at arculus; 12 dark brown spots present as indicated in Figure 3A. Hindwing hyaline. Palps, head, and thorax with scattered white and brown hairs. Legs and antennae clothed with fine white hairs.

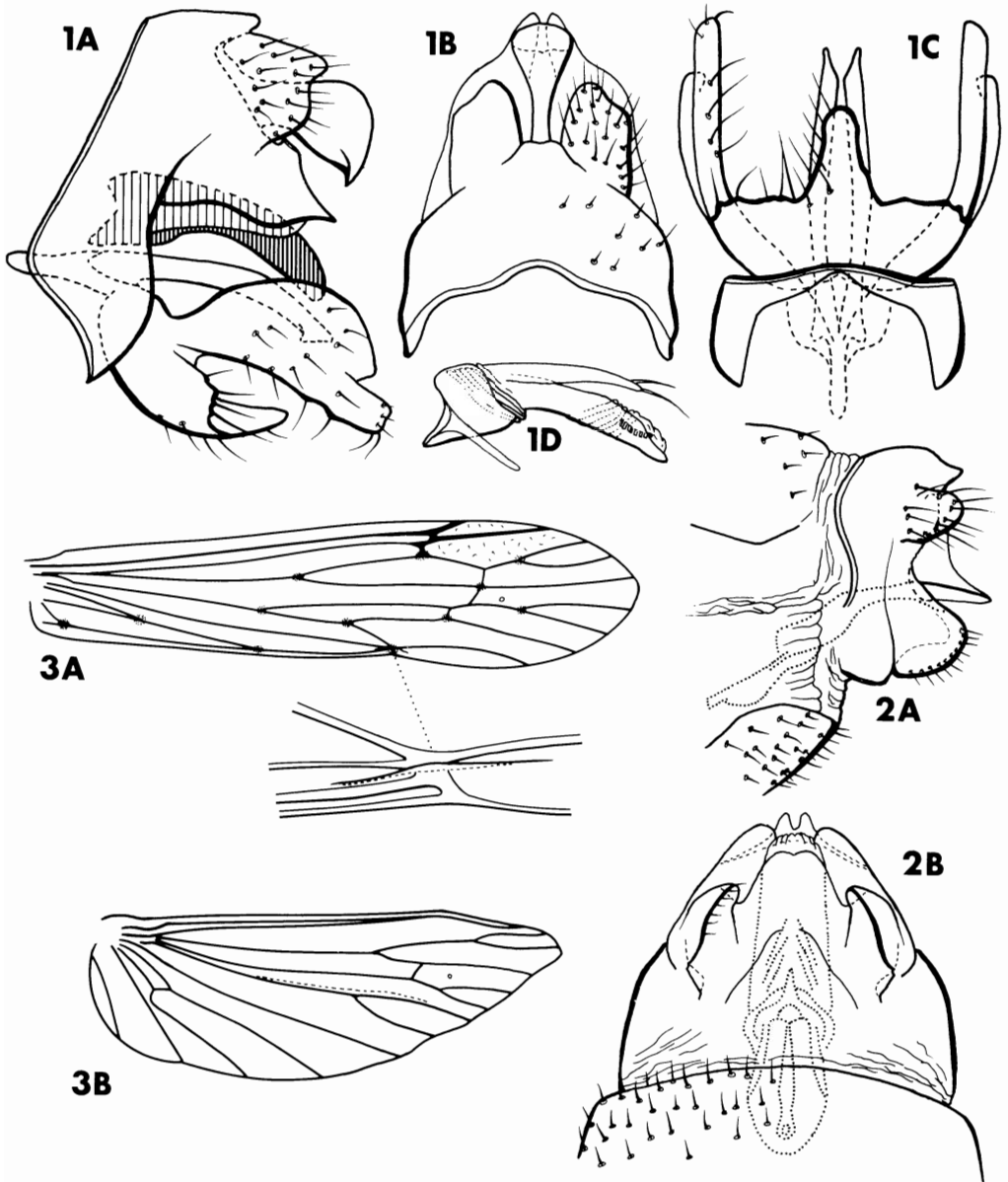
Genitalia as in Figures 1A-1D. Entire genitalic apparatus lightly sclerotized. Dorso-lateral portion of abdominal pleurite IX expanded into a prominent triangular process extending posteriorly to segment X. Sternite IX a very narrow strip. Tergites X fused into a single clavate hood-like structure with a beak-shaped apex. Preanal appendages broadly attached to segment IX and flap-like. Inferior appendages complex; fused basally; with a single keel-like baso-mesal projection, a pair of baso-dorsal processes, and a pair of lateral processes. Baso-dorsal processes blade-shaped, parallel, and only narrowly separated along their lengths; apparently acting as guides or supports for the phallic apparatus. Lateral processes more or less semicircular in lateral view, with a scoop-shaped dorsal subdivision and a rectangular apical subdivision. Phallic apparatus with indistinct phallic apodeme; thin phallic sclerotized strips; large phallobase; pair of semi-membranous parameres, each tipped with fine setae; and tubular phallicata. Phallosomal sclerite U-shaped.

FEMALE: Length of forewing 5-6 mm. Color and structure of body and wings similar to those of male except lacking arcular fold. Genitalia as in Figures 2A and 2B. Abdominal segment X with a mesal cleft. Appendages of segment X short and U-shaped in lateral view. Valves situated ventro-laterally; U-shaped and spatulate. Vaginal apparatus complex; vaginal chamber apparently produced and protruding posteriorly as a thin shelf-like plate.

Distribution and Biology: This species is widespread and fairly common throughout South America. I have seen specimens from Argentina, Bolivia, Brazil, Colombia, Ecuador, Guyana, Paraguay, Peru, Surinam, Uruguay, and Venezuela. Nothing can be said about the larval habitat. Adults have been collected commonly near very large rivers.

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I am particularly indebted to Dr. Oliver S. Flint, Jr., Smithsonian Institution,



Figures 1-3. *Achoropsyche duodecimpunctata* (Navás). 1, Male genitalia: A, lateral; B, dorsal; C, sternite IX and inferior appendages only, ventral; D, Phallic apparatus, lateral. 2, Female genitalia: A, lateral; B, ventral. 3, Male wings: A and inset, forewing and detail of arculus; B, hindwing.

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