# FURTHER STUDIES ON THE NORTH AMERICAN SPECIES OF *PRISTOCERA* (HYMENOPTERA: BETHYLIDAE)<sup>1</sup>

## Howard E. Evans<sup>2,3</sup>

ABSTRACT: Pristocera parkeri is described from males from Missouri, with additional specimens from Arkansas, Louisiana, and Texas. P. dreisbachi is described from males from Veracruz, Mexico. Notes and range extensions are presented for five other species of this genus.

DESCRIPTORS: Bethylidae, Pristocera: new species, distribution.

This is a supplement to my revision of *Pristocera* of North America, published in 1963. At that time I recognized 19 species, collectively ranging from northern United States to Panama. In 1964 I added two more species, and in 1967 presented several new distribution records. Material examined since that date includes two additional species as well as several range extensions. As pointed out in 1964, all American species are properly assigned to the subgenus *Acrepyris*.

In 1963 I reviewed what is known regarding the biology of species of *Pristocera*, commenting that "there is a good possibility that all species... will be found to attack elaterid larvae". Recently an important paper has appeared on the biology of *P. rufa* Kieffer (Baker, 1976). This species attacks the larvae of a curculionid which infests the wood of cacao trees in Papua New Guinea. Baker's paper provides more detail than has previously been available on members of this genus.

#### Pristocera parkeri new species

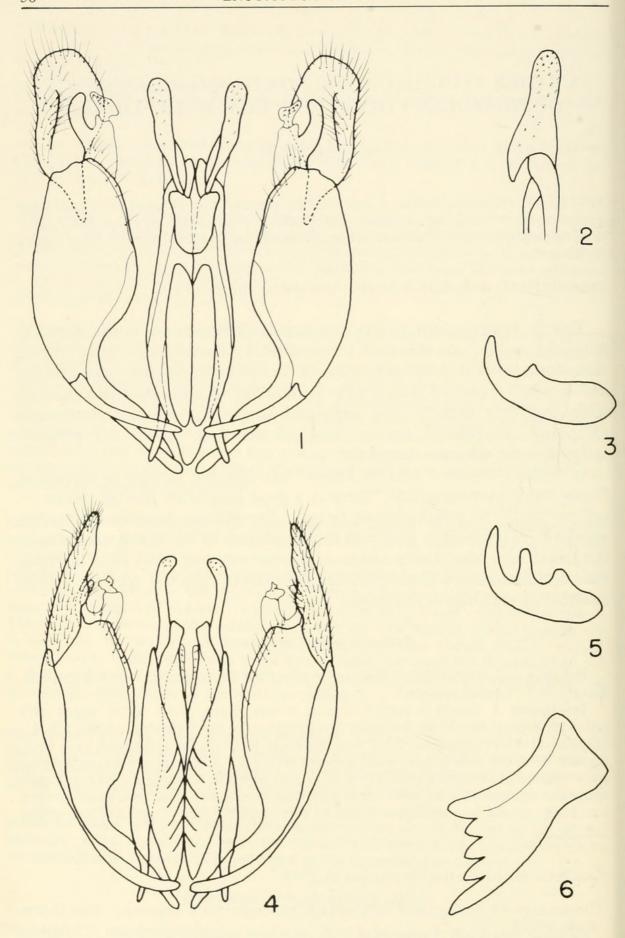
Holotype. – & MISSOURI: Columbia, 20 July 1967 (Malaise trap, 7 am – 4 pm, F.D. Parker) (U.S. National Museum).

Description. – Length 8 mm; fore wing 5 mm. Black, wings lightly tinged with yellowish brown. Mandibles 5-dentate (essentially as in the following species, Fig. 6). Clypeus weakly emarginate. First four antennal segments in a ratio of 14:3:10:8, segment three 2.4 X as long as wide, segment eleven 3.4 X as long as wide; pubescence erect, setulae of segment eleven one third as long as width of segment. Eyes with very sparse but moderately long setae. Head with large, contiguous punctures, space between punctures reduced to a reticulum. Width of front 1.56 X height of eye; width of ocellar

<sup>&</sup>lt;sup>1</sup>Accepted for publication: September 28, 1976

<sup>&</sup>lt;sup>2</sup>Department of Zoology and Entomology, Colorado State University, Fort Collins, Colo. 80523

<sup>&</sup>lt;sup>3</sup>Research supported by the National Science Foundation, grant DEB75-17142



Figs. 1-3. *Pristocera parkeri* new species. Fig. 1, genitalia, ventral aspect. Fig. 2, apex of aedeagus, lateral view. Fig. 3, hind tarsal claw.

Figs. 4-6. Pristocera dreisbachi new species. Fig. 4, genitalia, ventral aspect. Fig. 5, hind tarsal claw. Fig. 6, mandible.

triangle 0.8 X ocello-ocular line. Pronotum with irregular transverse rugae (less pronounced than in armifera) between which are large, transverse punctures; posterior margin not depressed or preceded by a groove or ridge. Mesoscutum with punctures similar to head but slightly more widely spaced. Propodeum with basal triangle coarsely reticulate, not strongly set off from postero-lateral portions, which are transversely reticulate. Mesopleura with coarse punctures separated by narrow, polished ridges, much like head. Claws dentate (Fig. 3). Wing venation as in armifera. Subgenital plate truncate. Genitalia with parameres short and blunt; aedeagus complex, terminating in two long, widely separated processes which are somewhat produced ventrad at base (Figs. 1, 2).

Paratypes. – MISSOURI: 256, same data as type except 22 Sept., 15 Oct. 1967; ARKANSAS: 1 6, Conway Co., 3 July 1959 (on alfalfa); LOUISIANA: 1 6, 7 mi. S DeRidder, 13 June 1956 (G.R. Ferguson); TEXAS: 1 6, Matagorda, 5 May 1953 (R.H. Beamer, on *Monarda pectinata*) (U.S. Nat. Mus., Univ. Calif. Davis, Univ. Arkansas, Univ. Kansas).

Variation. – The specimens from Louisiana and Texas have the wings nearly hyaline, only very weakly tinged with brown at the radial vein. There are no noteworthy differences in size, sculpturing, or standard measurements, and the genitalia are consistent with those of the type.

Remarks. – This species runs reasonably well to armifera Say in my 1963 key, except that the eyes have a few moderately long hairs, the flagellar pubescence is slightly shorter, and the aedeagus of very different form. The female is unknown, as in most species of this genus.

#### Pristocera dreisbachi new species

Holotype. – & MEXICO: Veracruz, 28 July to 11 Aug. 1956 (R. & K. Dreisbach) (Michigan State University).

Description. - Length 7 mm; fore wing 4.5 mm. Black, except antennae, legs, and abdomen very dark brown; wings subhyaline. Mandibles 5-dentate (Fig. 6). Clypeus broadly truncate. First four antennal segments in a ratio of 11:3:8:7, segment three 2.2 X as long as wide, segment eleven 2.6 X as long as wide; pubescence suberect, setulae of segment eleven 0.3 X as long as width of segment. Eyes with only sparse, minute setae. Head with large, subcontiguous punctures, space between them reduced to narrow, flat-topped, shining ridges, center of front longitudinally grooved. Width of front 1.30 X eye height; width of ocellar triangle 0.95 X ocello-ocular line. Pronotum with irregular transverse rugae between which there are a few large, transverse punctures; posterior margin depressed, the depression preceded by a low but rather broad, transverse elevation. Mesoscutum polished, with small punctures which are separated by 1.0 - 1.5X their own diameters. Propodeum shining, basal triangle and posterior margin of dorsum with very coarse reticulations, sides of dorsum with weak, arching striae. Mesopleura with coarse punctures which are separated by narrow, flat-topped ridges. Claws trifid, middle tooth truncate, subparallel to but shorter than outer ray (Fig. 5). Wing venation as in armifera. Subgenital plate very weakly emarginate. Parameres tapering, subacute; aedeagus complex, ventral valves acuminate, middle valves truncate, apical lobes slender and widely separated, slightly curved (Fig. 4).

Paratype. – 1 d, same data as type (U.S. Nat. Mus.).

Remarks. – This species runs reasonably well to *bridwelli* Evans in my 1963 key. It differs in having the pronotum less strongly transversely elevated and in having trifid claws. In the genitalia, the parameres are more tapered and the ventral and middle valves of the aedeagus differently shaped. I would, however, regard *bridwelli* and *dreisbachi* as closely related species.

#### Pristocera cockerelli Evans

This species can now be recorded from BAJA CALIFORNIA SUR: 1 &, Comondu, 22 July 1938 (Michelbacher & Ross) (Calif. Acad. Sci.). In this widely distributed species, color of the mandibles, antennal bases, and legs varies from castaneous to black, but there is little variation in the distinctive structural features.

## Pristocera atra Klug

The late R.R. Dreisbach collected 3 33 of this species in VERACRUZ: 28 July 1956 (Michigan State Univ.). This is the first record of this species from Mexico.

## Pristocera hyalina Brues

The range of this species can now be extended to include ARKANSAS: 1 &, Union Co., April, and 1 &, Sevier Co., April (Univ. Arkansas).

## Pristocera varidens (Cameron)

This species is widely distributed in Mexico and can now be recorded from SINALOA: 3 &&, 15 mi. W El Palmito, 5000 feet, 8 Aug. 1964 (W. Mason) (Canad. Nat. Coll.).

#### Pristocera rugifrons (Cameron)

I have recently studied an additional series of 5 & from EL SALVADOR: Quezaltepeque & vicinity, June-Aug. 1961-63 (M. Irwin) (Calif. Acad. Sci. & Univ. Calif. Davis). One of these males has the abdomen entirely red, as I reported from this locality in 1967.

#### LITERATURE CITED

Baker, G.L. 1976. The biology of *Pristocera rufa* Kieffer (Hymenoptera: Bethylidae), a parasite of *Pantorhytes szentivanyi* Marshall (Coleoptera: Curculionidae) in Papua New Guinea. Jour. Australian Ent. Soc., 15: 153-160.

Evans, H.E. 1963. A revision of the genus *Pristocera* in the Americas (Hymenoptera, Bethylidae). Bull. Mus. Comp. Zool. Harvard, 129: 243-290, 5 pls.

Evans, H.E. 1964. A synopsis of the American Bethylidae (Hymenoptera, Aculeata). Bull. Mus. Comp. Zool. Harvard, 132: 1-222.

Evans, H.E. 1967. Notes on Mexican and southwestern U.S. Bethylidae (Hymenoptera): Part I, Pristocerinae. Ent. News, 78:13-23.



Evans, Howard E. 1977. "Further Studies On The North American Species Of Pristocera Hymenoptera Bethylidae." *Entomological news* 88, 57–60.

View This Item Online: <a href="https://www.biodiversitylibrary.org/item/55166">https://www.biodiversitylibrary.org/item/55166</a>

Permalink: <a href="https://www.biodiversitylibrary.org/partpdf/57301">https://www.biodiversitylibrary.org/partpdf/57301</a>

## **Holding Institution**

Smithsonian Libraries and Archives

### Sponsored by

Smithsonian

#### **Copyright & Reuse**

Copyright Status: In copyright. Digitized with the permission of the rights holder.

Rights Holder: American Entomological Society

License: http://creativecommons.org/licenses/by-nc-sa/3.0/

Rights: <a href="https://biodiversitylibrary.org/permissions">https://biodiversitylibrary.org/permissions</a>

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at https://www.biodiversitylibrary.org.