

DESCRIPTION OF THE MALE GENITALIA OF
HOLCOSTETHUS HIRTUS (VAN DUZEE)
WITH A REVISED KEY TO NORTH AMERICAN
SPECIES (HEMIPTERA: PENTATOMIDAE)

F. J. D. McDonald

Abstract.—A description of the male genitalia of *Holcostethus hirtus* is given and an emended key to the species of the genus is provided.

At the time McDonald (1974) revised the genus *Holcostethus* in North America, the male of *H. hirtus* was unknown. This paper provides a description of the male genitalia of *H. hirtus* and an emended key. Specimens of this species that have lost their long, grey, dorsal setae do not run to the correct name in the original key.

Holcostethus hirtus (Van Duzee, 1937)

Ventral border of pygophore (Fig. 1) sinuous with very shallow notches. A pair of small triangular flap-like pseudoclaspers (Fig. 3), one on each side, within dorsal surface of pygophore. Proctiger box-like (Fig. 2) with vertical sides, distal margin produced into a distinct lip. Claspers L-shaped (Fig. 4) with a basal thumb-like tubercle; inner surface of apex finely serrate; a number of stout setae on outer margin. Theca small, cylindrical with a pair of small tubercles one on each side at base. Conjunctival appendages membranous (Fig. 5), bilobed, bluntly rounded, fused basally onto a thecal shield. Median penial lobes (Fig. 6) plate-like, apically acute, centrally fused together by a stout cross bar. Ejaculatory duct sinuous, projecting beyond median penial lobes.

Key to the Species of *Holcostethus* in N. America

1. Ventral surface of abdomen dark chocolate brown, sometimes mottled, margins may be outlined in yellow 2
 - Ventral surface of either yellow, buff or reddish brown with or without black markings 5
2. Anterolateral margins of pronotum straight or only very slightly concave; scutellum with a distinct yellow tip; male theca lacking apical tubercles *piceus* (Dallas)
 - Anterolateral margins of pronotum distinctly convex; scutellum concolorous or at most with a very faint white tip; male theca with apical tubercles 3

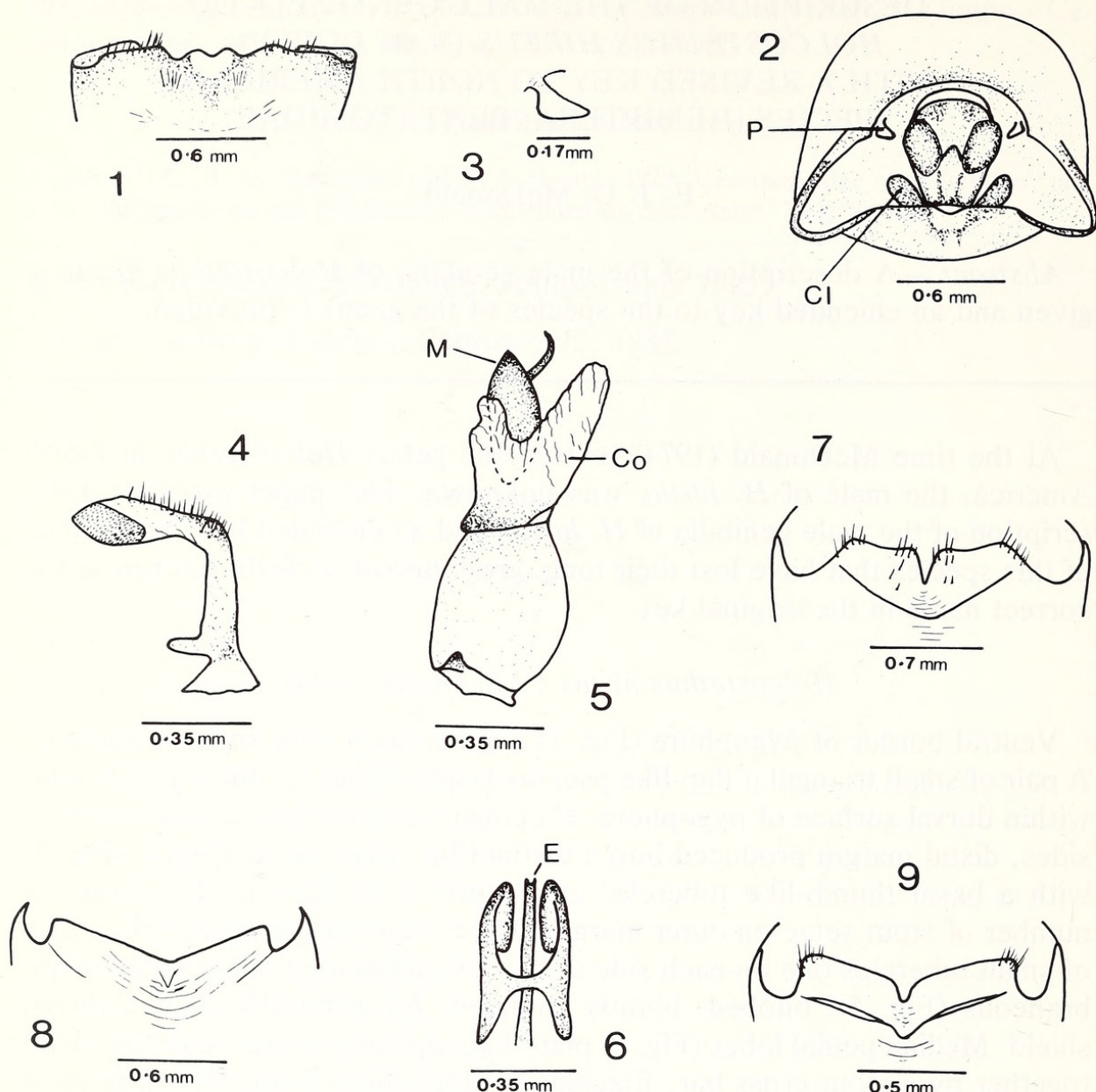


Fig. 1-6. *Holcostethus hirtus*. 1. pygophore ventral border; 2. pygophore, dorsal; 3. left pseudoclasper; 4. left clasper, ental; 5. aedeagus, lateral, co-conjunctival appendage, M—median penial lobe; 6. median penial lobes, E—ejaculatory duct.

Fig. 7-9. Pygophore, ventral border; 7. *H. tristis*; 8. *H. abbreviatus*; 9. *H. limbolarius*.

3. *Connexiva* fuscous with continuous narrow yellow border; long grey setae usually present on dorsum especially pronotum; male ventral border of pygophore as in Fig. 1 *hirtus* (Van Duzee)
- *Connexiva* checked black and yellow; dorsum without long grey setae; male pygophore with a distinct V-shaped notch centrally (Fig. 7)
4. Small species, not more than 7.5 mm long (apex of head to tip of membrane) and 4.00 mm wide (between lateral angles of pronotum);

- male ventral border of pygophore with a small protuberance below median notch *ruckesi* McDonald
- Larger species, over 7.5 mm long and 4.00 mm wide; male ventral border of pygophore without protuberance *tristis* (Van Duzee)
5. Reddish brown species with distinctive zig-zag black markings on abdominal sterna; jugae not meeting in front of tylus; restricted to E. States *fulvipes* (Ruckes)
- Brown colored species without distinctive markings on abdomen 6
6. Dark punctation on pronotal dorsum continuing irregularly to edge of anterolateral margins; latter submarginally impressed; connexiva with distinct checked pattern of yellow and black; male ventral border of pygophore as in Fig. 8; dorsal border bearing a large pair of spines *abbreviatus* Uhler
- Anterolateral margins of pronotum calloused and without dark punctures, lacking submarginal impressions; connexival margin yellow; male ventral border of pygophore as in Fig. 9; dorsal border without spines *limbolarius* (Stal)

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Literature Cited

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Department of Plant Pathology and Agricultural Entomology, University of Sydney, N.S.W. Australia.

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