

NEW SPECIES OF *EMPOASCA* AND *XESTOCEPHALUS*
(HOMOPTERA: CICADELLIDAE) FROM PERU

Dwight M. DeLong

Department of Entomology, Ohio State University.
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ABSTRACT

Two new species of *Empoasca*, *E. quadra* n. sp. and *E. rubricunda* n. sp. and two species of *Xestocephalus*, *X. variarius* n. sp. and *X. sinchonus* n. sp., all from Peru, are described.

Introduction

Four species of Peru leafhoppers (Homoptera: Cicadellidae), 2 species of *Empoasca* and 2 species of *Xestocephalus*, all 4 of which can easily be separated from related species because of their brilliant colors or distinct color markings, are described. All types are in the DeLong collection, Ohio State University.

Empoasca quadra n. sp.
(Figs. 1-6)

Length of male 4 mm, female unknown. Crown broadly rounded, more than twice as wide at base between eyes as length at middle. Color pale greenish brown with arcs and irregular spots of dull yellow. Margin of crown with two rather large squarish black spots, each containing a large squarish, median white spot, occupying almost all of the marginal arc between eyes. Black spots separated at middle by a narrow yellowish band. Pronotum and scutellum same general color as crown. Forewings subhyaline, scarcely colored.

Male genital plates more than twice as long as width at middle, apical portion twisted, apex narrowed and rounded. Styles long, slender, with sharp pointed apices. Aedeagus twisted so as to form two parts, a basic broadened portion which bears a long slender process extending dorsally and an apical portion which bears a long slender tapered apical process which extends apically.

Holotype male, Sinchona, Peru, November 1943, J. G. Sanders Coll. Paratypes: 3 males same data as holotype.

E. quadra is placed in the subgenus *Kybos* and can easily be separated from all described species by the coloration of the head and the male genital structures.

Empoasca rubricunda n. sp.
(Figs. 7–9)

Length of male 3.2 mm, female 3.5 mm. Crown produced and rounded $2/3$ as long at middle as width at base between eyes. Color, bright red. Crown with two round black spots on margin about equidistant from each other and from eyes. Margin white between ocelli and eyes, red between black spots. Pronotum bright red unmarked. Scutellum bright red with slightly paler basal angles. Abdomen bright red giving hyaline wings reddish appearance.

Female 7th sternum with posterior margin almost truncate, slightly roundly produced, broadly, very shallowly notched at middle.

Male plates elongate triangular. Style rod-shaped, slender, elongate. Aedeagal shaft in ventral view narrow, slightly pointed apically and basally, bearing two dorsal processes near middle which extend dorsally. The basad process bends caudally, is slender and curved apically, the more apical process is broader and is truncate apically, with apical margin pointed.

Holotype male, Machu Picchu, Peru XI–25–1967, DeLong coll. Paratypes 3 females same except XI–23, 28–1967.

E. rubricunda is placed in the subgenus *Empoasca*. It can easily be separated from all described species by the red coloration, and the two black spots on the crown, and by the structure of the aedeagus.

Xestocephalus variarius n. sp.
(Figs. 10–11)

Length of female 5 mm, male unknown. Crown produced, conical, $3/4$ as long at middle as width between eyes at base. Color, crown pale brownish with a black spot at middle near anterior margin. Pronotum pale brownish with a pair of proximal round black spots at middle near anterior margin. A large black area, $1/3$ length of pronotum, extends behind each eye from near round black spots to lateral margin. These areas are irregular in shape and enclose two proximal large, pale brown spots behind each eye. Scutellum pale brown with dark brown basal angles. Forewings pale whitish brown subhyaline with a large brown spot on middle of clavus at commissure. Four prominent dark brown spots about equidistant on costa.

Female 7th sternum with posterior margin broadly, convexly rounded each side of a median V-shaped notch.

Holotype female, Sinchona, Peru, J. G. Sanders coll. November 1943.

The distinctive color markings on the pronotum will easily distinguish this species from all other described *Xestocephalus*.

Xestocephalus sinchonus n. sp.
(Figs. 12–13)

Length of female 4.5 mm, male unknown. Crown produced and rounded, half as long as width between eyes at base. Color pale golden brownish yellow on crown and pronotum. Scutellum same with basal angles slightly darker brownish. Forewings pale brownish subhyaline, a darker brown spot on costa at about 1/5 length of wing. A prominent transverse, dark brown spot on corium at half its length. Pale brownish spots at apex of clavus and on apex of wing.

Female 7th sternum with posterior margin convexly rounded each side of a broad shallow, median notch.

Holotype female Sinchono, Peru, November 1943, J. G. Sanders coll.

X. sinchonus can be separated from all described species by the uniformly colored crown and pronotum and the prominent transverse dark brown spot on the corium.

Resumen

Se describen cuatro nuevas especies de cigarrillas peruanas: *Empoasca quadra*, *E. rubricunda*, *Xestocephalus variarius* y *X. sinchonus*.

Figs. 1–6. *Empoasca quadra* n. sp.: 1. head, pronotum and scutellum; 2. aedeagus ventrally; 3. aedeagus laterally; 4. plate ventrally; 5. style laterally; 6. forewing apical portion. Figs. 7–9. *Empoasca sinchona* n. sp.: 7. head, pronotum & scutellum; 8. aedeagus laterally; 9. aedeagus ventrally.

Figs. 10–11. *Xestocephalus variarius* n. sp.: 10. head, pronotum and scutellum; 11. female 7th sternum. Figs. 12–13. *Xestocephalus sinchonus* n. sp.: 12. head, pronotum and scutellum; 13. female 7th sternum.

