

FOUR NEW SPECIES OF JORUMA FROM MEXICO
(HOMOPTERA: CICADELLIDAE)

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The genus *Joruma* is readily differentiated from the other typhlocybinae leafhoppers by its open anterior apical cell with the other apical cells of the hind-wing closed. (i.e., the submarginal vein does not extend to the radius of the wing.) The median length of the vertex is equal to its basal width between the eyes and is bluntly angulate. The eyes are very large and ocelli are present and conspicuous. R-m cross vein of the hind wing is present, the anterior transverse vein of the elytron is evascent, the second apical cell of the elytron is quadrate, and the posterior margin of the elytron is serrate. Anal hooks present, pygofers rounded and without processes; plates long and slender; styles short with their preapical lobes poorly developed.

Species of the genus have been described previously by McAtee (1924, 1926), DeLong (1923), Osborn (1928), Oman (1937), and Lawson (1930). Some new species of *Joruma* from Mexico are described below. Types of these species, unless otherwise indicated are in the DeLong collection.

Joruma aurea n. sp.

An ivory-colored species which stands in contrast to the somber colors of the remainder of the species; with unique male genital structures. Length 3.2 mm.

Color: The vertex is ivory with a small orange patch on its disk next to each eye. The pronotum and scutellum are ivory with the basal angles of the pronotum yellow. The elytra are ivory their commissural margins golden. The ventral half of the face is orange, while its dorsad half and the venter of the body are ivory.

Genitalia: Anal hooks short, with their apices turned inwardly. The pygofers are short and rounded apically, and bear a tuft of long hairs on their apical margin. The first extension of the style is very slender and its ventral margin is serrate. The base of the aedeagus appears clavate in ventral view, its dorsal processes are slender, and the phallicata is broad, depressed, and expanded at its apex into a pair of flap-like lateral lobes.

Holotype male labeled Mexico (MB 148) from Plancha Piedra, Guatemala, Oct. 27, 1925 collected by Dr. Dampf from virgin forest area at the Guatemalan Custom Station between Guatemala and British Honduras.

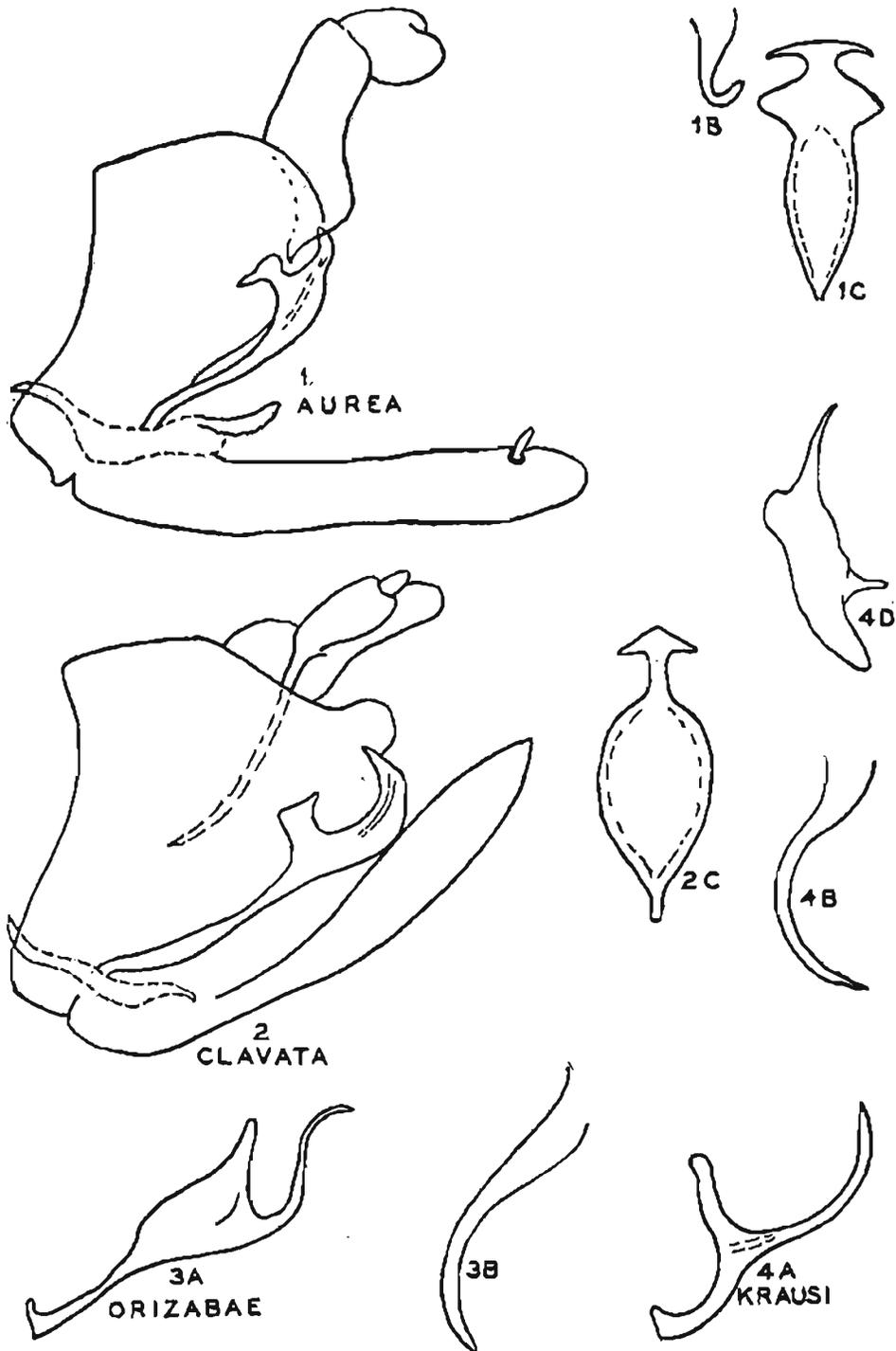
Joruma clavata n. sp.

Strongly resembling *ascripta* McAtee in general appearance, but the cubitus of the hind-wing is unbranched and the male genitalia are unique. Length 3.2 mm.

Color: The vertex, pronotum, and scutellum are cream with the lateral margins of the vertex tinged with red. The elytra are golden with their bases and apical cells smoky. The face and venter are cream with the dorsal portion of the face red.

Genitalia. The apices of the pygofers are turned up into small, sharp points. The anal hooks are long and straight and extend ventro-anteriorly. The base of the aedeagus is depressed and long, appearing clavate in ventral view. The phallicata is slender and curves dorsad with its apex bearing a pair of short, triangular lateral processes.

Holotype male collected at San Jacinta, D. F., June 23, 1932 (MF 2589), by Dr. Dampf; male paratype collected same place, same collector, May 16, 1932 (MF 2551); paratypes Mexico City, D. F., June 12, 1924 (MB 62), Dampf; same locality, Sept. 5, 1939, D. M. DeLong; Vergel, Chis., May 19, 1935 (MF 4201), Dampf; Tamazunchale, S.L.P., Nov. 2, 1945; DeLong, Hershberger, and Elliot.



1—*Joruma aurea*—lateral view of genital capsule; 1b—lateral anal hook; 1c—caudal view of aedeagus. 2—*J. clavata*—lateral view of genital capsule; 2c—caudal view of aedeagus. 3a—*J. orizabae*—lateral view of aedeagus; 3b—lateral anal hook. 4a—*J. krausi*—lateral view of aedeagus; 4b—lateral anal hook; 4d—ventral view of left style.

Joruma orizabae n. sp.

A somber colored species which superficially resembles *Neojoruma adusta* (McAtee) but which has the conical head characteristic of *Joruma*. Length 2.8 mm.

Color: The vertex is black with its posterior margin bordered with a fine olive line which broadens toward the eyes. The pronotum and scutellum are olive with the anterior margin of the pronotum bordered with black. The elytra are a translucent olive-green with their bases and their apical cells smoky. The dorsad half of the face is black, while the ventral half is olive.

Genitalia: The anal hooks of the male are long, rather broad, and curve sharply caudad near their apices. The base of the aedeagus is broad and clavate in ventral view, the dorsal processes are thick, and the phallicata is very slender and recurved.

Holotype male labeled Mexico (MF 4239) from Vergel Chiapis, May 21, 1935, collected by Mrs. Dampf; paratypes collected at Orizaba, V. C., Oct. 17, 1941 by DeLong, Good, Caldwell, and Plummer; Finca Prusia, Chis., Dec. 4, 1932 (MF 2843), Dampf.

Joruma krausi n. sp.

A small cream and tan colored species which resembles *curvata* Osborn in general form but has distinctive coloration and genitalia. Length 2.6 mm

Color: The vertex is cream with median, longitudinal line, a pair of spots at the apex, and a spot near the anterior corner of each eye brown. The pronotum is dark olive with its lateral margins pale and with a pair of median, indistinct, brown spots on its disk. The scutellum is tan with its basal angles brown. The elytra are hyaline with their commissural margins golden and apical cells and costal margins smoky. The face is tan flecked with brown between the eyes. The venter is completely black.

Genitalia: The plates are broad at their bases and narrow abruptly near their centers to long, slender apices. The anal hooks are long and slender and curve mesad. The style is short with its preapical lobe spine-like and the first extension rather broad and short. The base of the phallicata is long and cylindrical and the phallicata is long, slender, curved dorsad, and evenly tapered to a pointed apex.

Holotype male, allotype female, and paratypes collected at Cuernavaca, Mor., April, 1945 by N. H. L. Kraus; paratypes, Chiltepec, Oax., Aug. 10, 1937 (MF 6338), Dampf; Cordoba, V. C., Aug. 15, 1924, A. Dampf. Holotype, allotype, and paratype in the U. S. National Museum. Paratypes in the DeLong collection.

LITERATURE CITED

- DeLong, D. M. 1923. In Wolcott "Insectae Portoricensis." Jour. Dept. Agric. Porto Rico, 7(1): 1-312.
- Lawson, P. W. 1930. Three new leafhoppers from the South-west (Homoptera: Cicadellidae). Pan-Pacific Ent., 6: 135-138.
- McAtee, W. L. 1924. Notes on eupterygid leafhoppers with descriptions of a few forms. Florida Ent., 8: 33-39.
- McAtee, W. L. 1926. Notes on neotropical Eupteryginæ, etc. Jour. New York Ent. Soc., 34: 141-175.
- Oman, P. W. 1937. New eupterygine leafhoppers from Porto Rico (Homoptera—Cicadellidae). Jour. Agric. Univ. Porto Rico, 21: 567-572.
- Osborn, H. 1928. Neotropical Homoptera of the Carnegie Museum. Ann. Carnegie Mus., 18: 253-298.