

Reprinted from the
JOURNAL OF THE KANSAS ENTOMOLOGICAL SOCIETY
Vol. 46, April, 1973, No. 2
pp. 151-154
Made in United States of America

**THE GENUS *KNULLANA* (Homoptera: Cicadellidae)
WITH THE DESCRIPTION OF A NEW
MEXICAN SPECIES¹**

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ABSTRACT

Three previously described species of *Knullana*, *K. perexigua* (Ball), *K. huachuca* DeLong and *K. plummeri* DeLong, are illustrated in order to compare the aedeagal structures with the newly described species *K. krameri* n. sp.

The genus *Knullana* DeLong was described in 1941, at which time three species, *K. perexigua* (Ball), *K. huachuca* DeLong, and *K. plummeri* DeLong, were placed in the genus. Mexican collections made in 1945 revealed a fourth species, *K. krameri* n. sp. which is described at this time.

¹This work was sponsored by The Ohio State University Development Fund. Manuscript received September 6, 1972.

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All known species of the genus are rather large, 7.5 to 9 mm, and robust, and have similar color patterns consisting of a narrow, prominent, black, transverse band just above the margin of the crown and a similar black transverse stripe just beneath the margin. These border a white marginal band just the width of the enclosed ocelli. In well marked specimens of *plummeri* and *huachuca* the crown and face are tinted with orange-brown, causing the white marginal band to appear conspicuous. In the other species the crown and face are usually yellow or pale green.

All four species occur in Mexico, but only one, *K. huachuca*, has been collected in the United States, in Arizona. *K. perexigua* has been collected in the Mexican states of Morelos and Guerrero; *K. plummeri* has been collected in Morelos and Mexico, D.F.; *K. huachuca* is known to occur in Mexico, D.F. and Michoacan in addition to Arizona, and *K. krameri* has been collected in Morelos and Michoacan. With limited present collections the total distribution of any species is not known, but all may be widely distributed if we may judge from the known range of *K. perexigua*.

All four species can easily be identified by reference to the accompanying illustrations.

Knollana krameri n. sp.

(Figs. 5, 6)

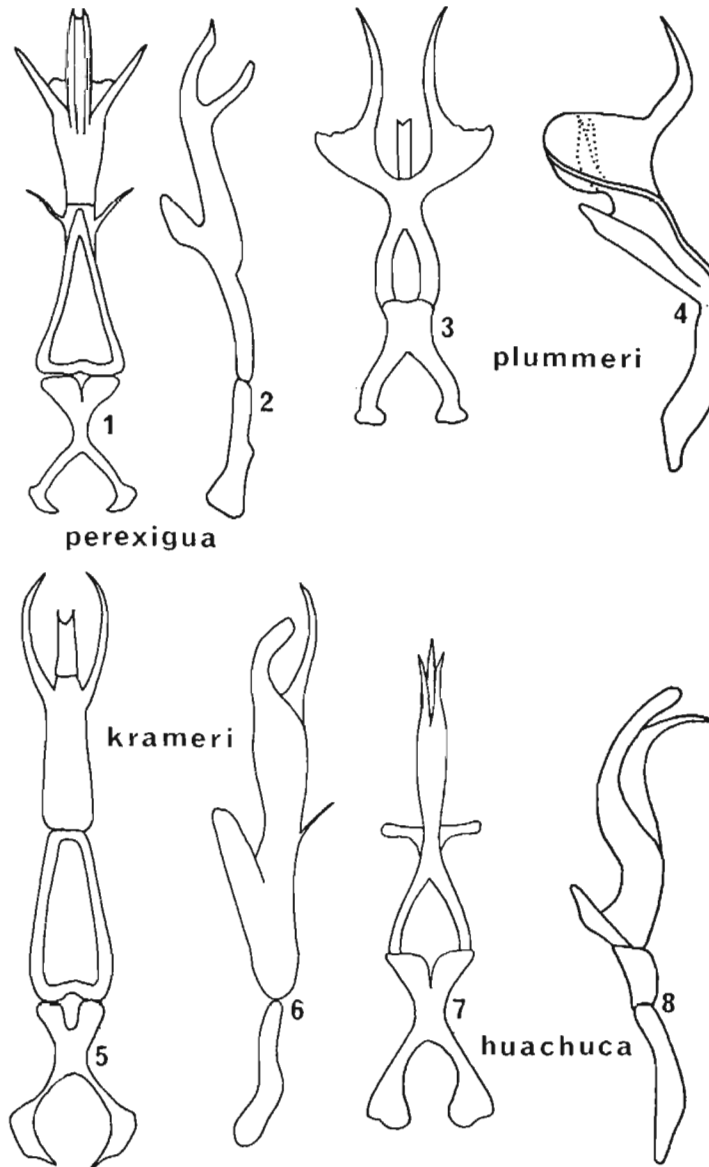
Length of male 8 mm, female 9 mm. Crown produced, rounded, more than half as long at middle as basal width between eyes. Color: crown yellow tinted with green, with a narrow dark brown transverse band between eyes, just above margin, and a dark brown transverse line just beneath margin, forming a white marginal band between the dark lines. Face yellow with pale brown arcs. Forewings subhyaline with yellow veins.

Female genitalia: with posterior margin of seventh sternum sloping from the lateral angles and producing two proximal, short, slender, blunt, apical spines, with brown apices, which are separated by a narrow, concave, median notch.

Male genitalia: with plates proper two and one-half times as long as broad, apices narrow, terminating in long, slender, hair-like filaments two-thirds the length of plates. Style elongate, curved, narrowed to apex which is slightly enlarged. Aedeagus with a narrow, blunt, ventrally curved apex. Two subapical processes arise at three-fourths length of shaft, on ventral margin, curve slightly apically and exceed length of shaft.

Holotype ♂, allotype ♀ and 6 ♂, 9 ♀, paratypes, Rio Tuxpan, Mich. Mexico IX-29-45 (Plummer, DeLong, Hershberger, Elliott). Additional paratypes: 1 ♂, Moralia, Mich. Mexico IX-30-45 (Plummer, DeLong, Hershberger, Elliott); 19 ♀, Tepotzlan, Mor. Mexico, IX-11-41 (DeLong, Good, Caldwell, Plummer).

This species is most closely related to *K. perexigua* (Ball) but can



FIGS. 1-2. *Knullana perexigua* (Ball): 1. aedeagus, dorsally; 2. aedeagus, laterally. Figs. 3-4. *K. plummeri* DeLong: 3. aedeagus, dorsally; 4. aedeagus, laterally. Figs. 5-6. *K. krameri* n. sp.: 5. aedeagus, dorsally; 6. aedeagus, laterally. Figs. 7-8. *K. huachuca* DeLong: 7. aedeagus, dorsally; 8. aedeagus, laterally.

easily be separated from *perexigua* by the terminal portion of the aedeagus.

We take pleasure in naming this species for Dr. James P. Kramer, one of the prominent workers on world Homoptera.

LITERATURE CITED

- DeLong, Dwight M. 1941. A New Genus (*Knollana*) and two new species of leafhoppers (Homoptera: Cicadellidae) from Mexico. Ohio Jour. Sci. 41: 86-88.