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**NEW SPECIES OF CHLOROTETTIX (Homoptera:  
Cicadellidae) FROM ARGENTINA, BOLIVIA,  
BRAZIL AND MEXICO<sup>1</sup>**

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ABSTRACT

Eight species of *Chlorotettix* are described: *C. liquarus* n.sp. and *C. duospinus* n.sp. from Argentina, *C. boliviella* n.sp. and *C. malevius* n.sp. from Bolivia, *C. cuneus* n.sp. and *C. lingulus* n.sp. from Brazil, and *C. guerrerus* n.sp. and *C. spinellus* n.sp. from Mexico.

Some 80 recognized species of *Chlorotettix* have been described to date at least 40 of which occur in North America, north of Mexico. Several have been described from portions of Central and South America, most of which probably do not occur in North America. The entire distribution of most of the species of *Chlorotettix* is not known although a few are quite widely distributed. The species known to have the widest distribution is probably *C. minimus* Baker. It occurs in the southern United States, throughout Central America and is widely distributed in South America. Both the male and female genital structures of *C. minimus* vary considerably. Eight species are described at

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this time, two from each of four countries: Argentina, Bolivia, Brazil and Mexico.

*Chlorotettix liguarus* n.sp.  
(Figs. 1-4)

Length of male 6 mm. Crown produced, rounded appearing almost parallel margined, almost twice as wide between eyes at base as median length. Color pale green tinged with yellow, without definite color markings.

Male genitalia with plates about one and one half times as long as broad, broadest at two thirds their length, apices rounded. Style appearing fused with plate along outer margin of plate, extending to almost apex of plate then bent abruptly inward and extending well beyond the inner margin of plate; apex of style pointed. Aedeagus thick at base, shaft short pointed at apex with subapical spines on dorsal margin. Pygofer narrow, bluntly rounded at apex.

Holotype male, labeled "Santa Fe, Ville Guillermina, Argentina, 11-25-46 (Willink-Hayward) Collection: Inst. Miguel Lillo Tucuman," in the University of Kansas Collection.

This differs from all other species of the genus by having a long slender angled style which is apparently fused with the plate.

*Chlorotettix duospinus* n.sp.  
(Figs. 5-9)

Length of male 6.5 mm. Crown produced and rounded, more than twice as wide between eyes at base as median length. Color greenish yellow without specific markings.

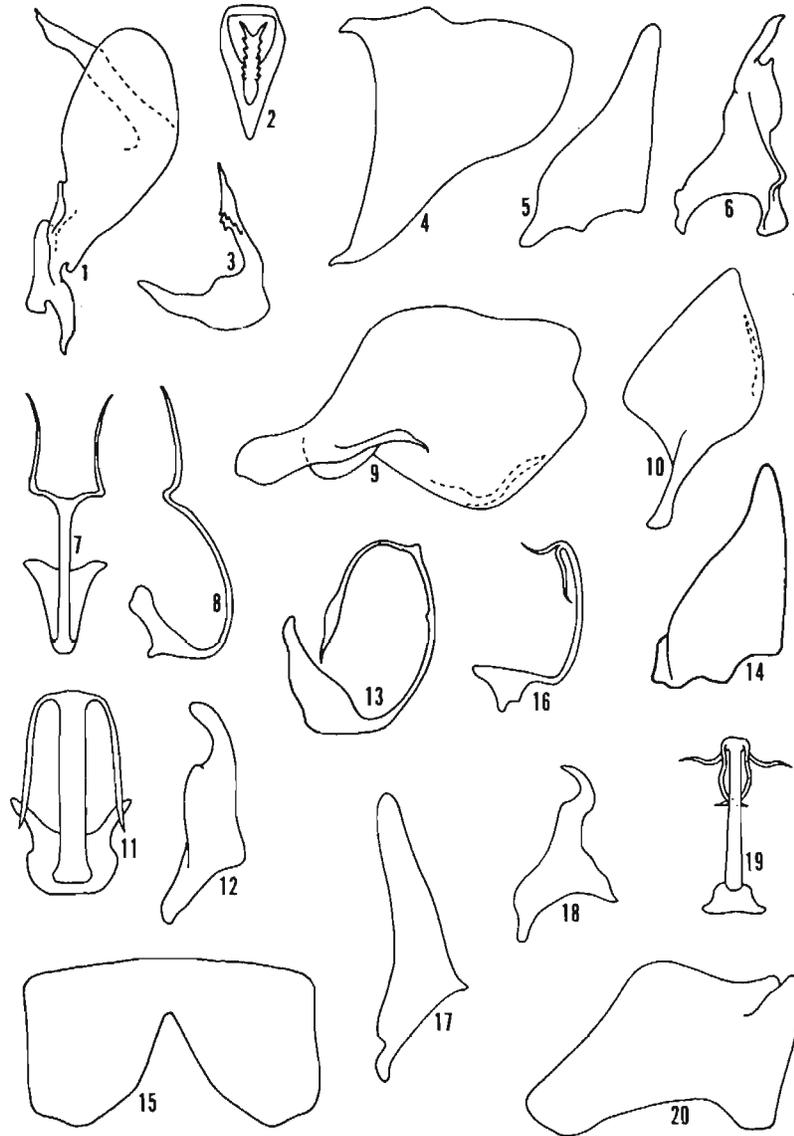
Male genitalia with plates almost half as long as wide, apices narrow with rounded tips. Style with apex finger-like, sharply pointed, slightly notched on inner margin at base. Aedeagal shaft narrow, broadened at apex bearing a pair of slender widely separated, parallel apical processes more than one half length of shaft, extending apically. Pygofer broadly rounded apically with two pairs of ventral spines; one spine each side arises ventrally near base and extends dorsocaudally, a second spine arises at middle of pygofer on ventral margin and extends along ventral portion of ventrocaudal margin.

Holotype male, labeled "Villa Padre Monti Tucuman, Arg. IV-25-1948 (R. Goldbach) Collection: Inst. Miguel Lillo, Tucuman," in the University of Kansas Collection.

*C. duospinus* is most closely related to *C. kassiphone* Linnavuuri. The aedeagus is similar to the aedeagus of *C. kassiphone* and *C.*

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FIGS. 1-4. *C. liguarus*; 1—plate and stylet, fused, ventrally, 2—aedeagus, ventrally, 3—aedeagus, laterally, 4—pygofer, laterally. Figs. 5-9 *C. duospinus*; 5—plate, ventrally, 6—style, ventrally, 7—aedeagus, ventrally, 8—aedeagus, lat-



erally, 9—pygofer, laterally. Figs. 10-15 *C. boliviella*; 10—pygofer, laterally, 11—  
 aedeagus, ventrally, 12—style, ventrally, 13—acdeagus, laterally, 14—plate, ven-  
 trally, 15—♀ seventh sternum, ventrally. Figs. 16-20 *C. malevius*; 16—acdeagus,  
 laterally, 17—plate, ventrally, 18—style, ventrally, 19—acdeagus, ventrally, 20—  
 pygofer, laterally.

*giganteus* Linnavuori but in *C. duospinus* n.sp. the pygofer has two slender pygofer spines while in *C. kassiphone* the pygofer bears a short thick serrated apical spine and the pygofer of *C. giganteus* bears no spines.

*Chlorotettix boliviellus* n.sp.  
(Figs. 10-15)

Length of male, 6.5 mm; female, 7 mm. Crown broadly rounded, more than twice as long at middle as width between eyes at base. Color yellowish green without distinct markings.

Male genitalia with plates triangular, apices bluntly pointed more than half as wide at base as median length. Style with apophysis rather narrow, blunt at apex, preapical angle broadly curved. Aedeagal shaft broad in ventral view bearing two stout lateral processes at apex; the processes are as long as aedeagal shaft and are broadened and spear-like on apical third. Pygofer side lobe with an apical spine arising on ventrocaudal margin, each side and extending dorsocaudally. Female genitalia with lateral angles of seventh sternum produced, broadly rounded to posterior margin which is broadly, deeply, roundedly notched almost to base. The rounded margins of the V-shaped notch extend to the rounded angles.

Holotype male, labeled "Bolivia: San Esteban 49 km N. Sta Cruz. 26-IX-59 El. 1120 ft (R. Cumming Coll.)" Female allotype, same data as holotype. Paratypes: 8 ♀ same data as holotype. All types in the DeLong Collection.

This species is apparently related to *grandis* but *boliviellus* has a prominent pygofer lobe appendage and *grandis* has no pygofer appendages.

*Chlorotettix malevius* n.sp.  
(Figs. 16-20)

Length of male 6 mm. Crown produced, rounded at apex and rounded to front, two thirds as long at middle as basal width between eyes. Color, face pale yellow; crown dull yellow, basal half bright yellow. Pronotum dull yellow with bright yellow markings at median portion and on apical portion. Scutellum bright yellow with black markings in basal angles. Forewings yellow, tinted with brown with two bright yellow spots along commissure on apical half of clavus.

Male genitalia with plates three times as long as broad, apices narrow, tips rounded. Style with apical half narrowed, tip slender, curved outwardly. Aedeagus with shaft slender with a pair of apical processes one fifth the length of shaft which extend laterally; each process is bifid near base, the basal branch of which is a little longer than the lateral portion and extends basad along the shaft. Pygofer with a narrow, rounded apex. Female unknown.

Holotype male, labeled "Bolivia: San Esteban 49 km N. Sta. Cruz.

7-XII-59 El. 1120 ft (R. Cummings Coll.)." Paratypes 4 ♂, same data as holotype. Holotype and paratypes in the DeLong Collection.

*C. malevius* is distinguished from other known species by the aedeagal processes which are branched at their origin on aedeagal shaft.

*Chlorotettix cuneus* n.sp.

(Figs. 21-25)

Length of male, 5.5 mm. Crown broadly rounded, produced at middle, more than twice as wide at base as median length. Color: crown and pronotum yellow tinged with green, scutellum pale green. Forewings yellow, subhyaline. The only color marking is a small, black wedge shaped spot, broadest at front, on middle of crown.

Male genitalia with plates two and one half times as long as broad, apices broad, slightly rounded. Style with apophysis broad and blunt, without a preapical angle. Aedeagal shaft short, rolled, trough-like, tapering from base to pointed apex. Pygofer side lobe with spine arising from a protrusion at apex, curving dorsad.

Holotype male, labeled "Piracicaba, Sao Paulo, Brazil I-4-66 (C. A. Triplehorn Coll)" in the DeLong Collection.

This species seems distinct from related species in having a prominent caudal, pygofer appendage, and an aedeagus without either terminal or lateral processes.

*Chlorotettix guerrerus* n.sp.

(Figs. 26-29)

Length of male, 7 mm. Crown produced, bluntly rounded, almost half as long at middle as basal width between eyes. Color yellow, slightly tinged with green, without distinct color markings.

Male genitalia with plates two and one half times as long as broad tapering to narrow rounded apices. Style with apophysis thin, setaceous. Preapical angle small, acute. Aedeagus with shaft slender, curved, bearing four slender, thread-like apical processes, two long, two short; the longer processes exceed the shaft in length, the shorter pair are one half length of shaft. Pygofer with side lobes broadly rounded at apex, without appendages.

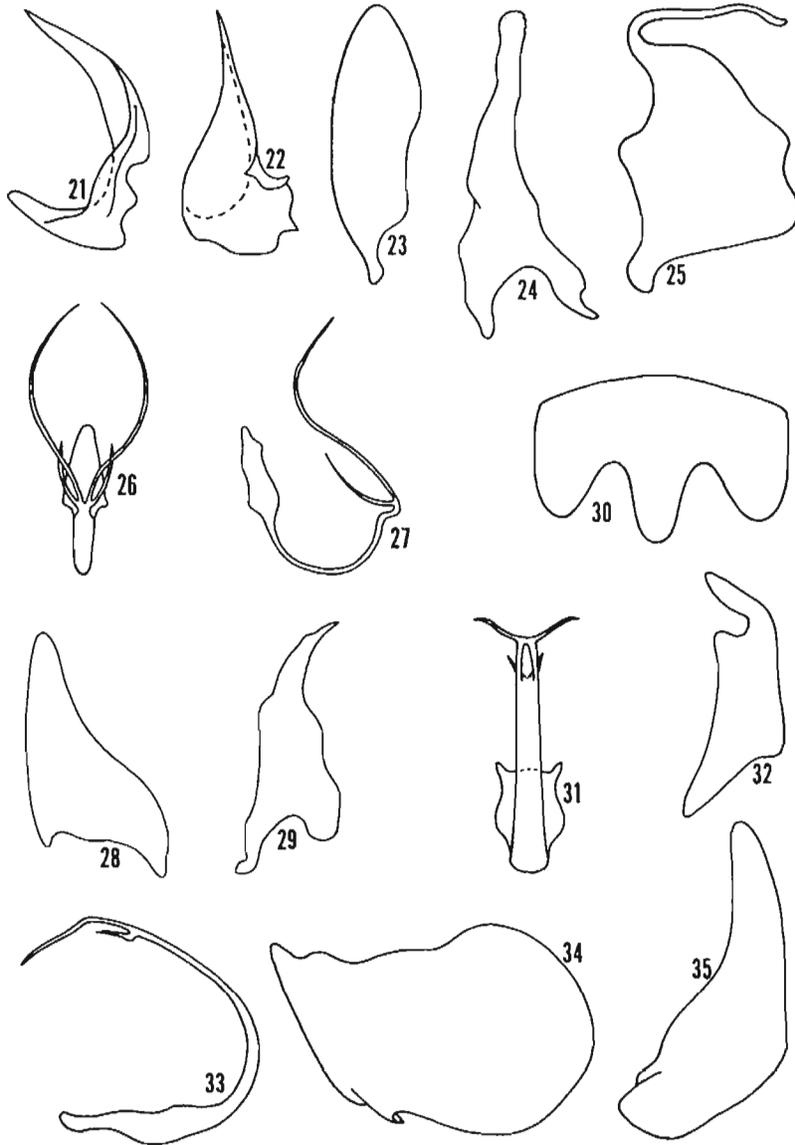
Holotype male, labeled "Buena Vista, Guerrero Mexico IX-11-39, (DeLong and Plummer)" in the DeLong Collection.

This species has an aedeagus similar to *minimus* Baker and *nimbuliferus* (Berg) but does not have pygofer appendages as found in both of those species. Also the pygofer terminal processes in *guerrerus* are much longer proportionately than in either *minimus* or *nimbuliferus*.

*Chlorotettix lingulus* n.sp.

(Fig. 30)

Length of female, 7 mm. Crown broadly rounded, almost three times as broad between eyes at base as median length. Color grey



FIGS. 21-25. *C. cuneus*; 21—aeedeagus, laterally, 22—aeedeagus, ventrally, 23—plate, ventrally, 24—style, ventrally, 25—pygofer, laterally. FIGS. 26-29 *C. guerrierus*; 26—aeedeagus, ventrally, 27—aeedeagus, laterally, 28—plate, ventrally, 29—style, ventrally. FIGURE 30 *C. lingulus*; ♀ seventh sternum, ventrally. FIGS. 31-35 *C. spinellus*; 31—aeedeagus, ventrally, 32—style, ventrally, 33—aeedeagus, laterally, 34—pygofer, laterally, 35—plate, ventrally.

tinged with green with three round, black spots on crown; one is at middle and one each side at base, nearer proximal eye than median line. Pronotum, scutellum and forewings greenish grey without definite markings.

Female genitalia with lateral angles of seventh sternum produced and broadly rounded to posterior margin which is deeply excavated more than one third way to base each side of a median produced spatulate process which extends well beyond the apex of the lateral angles. The median produced process is about one fourth the width of the segment.

Holotype female, labeled "Piracicaba Sao Paulo, Brazil XI-16065 (C. A. Triplehorn Coll)." Paratypes: 1 ♀ same data as holotype; 1 ♀ "Bolivia, San Esteban 49 km N. Sta Cruz, XII-7-59, El. 1120 ft (R. Cumming Coll)." Holotype and paratypes in the DeLong Collection.

*C. lingula* has a distinctive female seventh sternum which is very similar to *Neocrassana undata* Linnavuori, but does not have the coloration of *undata*. Most of the species of *Chlorotettix* have been described as males and the female specimens of *lingulus* cannot be associated with the few species where the females are unknown, in view of its size and coloration.

*Chlorotettix spinellus* n.sp.

(Figs. 31-35)

Length of male, 7.5 mm. Crown produced, rounded at apex, more than one third as long at middle as width between eyes at base. Color: crown and pronotum pale yellowish brown; pronotum with darker brownish areas. Scutellum pale brown with darker brown basal angles. Forewings pale brownish, hyaline, commissure appearing darker brown. Veins inconspicuous.

Male genitalia with plates two and one half times as long as median width, apices narrow, rounded. Style with apophysis fingerlike, bluntly pointed, preapical angle narrow. Aedeagal shaft bearing a pair of apical, and a pair of subapical, spines. The apical spines are about one fourth the length of shaft; the subapical spines are near apex and are very short. The pygofer bears no appendages.

Holotype male, labeled "Hidalgo, Mich. Mexico IX-29-45 (DeLong, Hershberger, Elliott, Colls)" in the DeLong Collection.

*C. spinella* is most closely related to *bipartitus* and *latocinctus* but neither of those species have subapical aedeagal processes.