

SOME NEW SPECIES OF BOLIVIAN *AMPLICEPHALUS* (HOMOPTERA : CICADELLIDAE : DELTOCEPHALINAE)

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Eight species of *Amplicephalus*, *A. apertus* n. sp., *A. latus* n. sp., *A. santanus* n. sp., *A. boliviellus* n. sp., *A. laxus* n. sp., *A. similis* n. sp., *A. buenus* n. sp., and *A. cruzus* n. sp., all from Bolivia, are described.

INTRODUCTION

The genus *Amplicephalus* was described by DeLong (1962) and *Deltocephalus osborni* Ven Duzee (1892) was designated as the type species. Linnavuori (1959) described several neotropical species. Kramer (1971) treated the North American species.

The neotropical species differ somewhat from the American species but have the same type of male genital structures and have been placed in *Amplicephalus*. Eight species of Bolivian *Amplicephalus* are described at this time. All types are in the DeLong collection, Ohio State University.

Amplicephalus apertus n. sp.

(Figs. 1-3)

Length of male 4 mm, female unknown. Crown bluntly angled, a little broader between eyes at base, than long at middle. Color, crown yellowish with 6 marginal black spots. The 2 at middle are slightly larger than the approximate spots and much larger than the 2 smaller spots next to the eyes. Pronotum yellow-

wish with 6 pale brownish, broad, longitudinal stripes. Scutellum yellowish with basal angles pale brownish. Forewings pale brownish subhyaline, veins yellowish.

Male genital plates triangular, $1, 1/2$ X as long as wide at middle. Style with apophysis short with bluntly pointed apex. Aedeagus, in ventral view, broadened apically, with a median U-shaped notch, narrowed to about half apical width at base. In lateral view, the apical portion is narrow and curved dorsally, with apex narrowly rounded, slightly broadened and extending ventrally at middle with basal portion slightly wider than apical portion. Pygofer rounded apically.

Holotype male, Cochabamba, Bolivia IV-4-1981, Donald Foster coll. Paratype males: 1 Portachuela, Bolivia V-10-1980, Donald Foster coll; 2 males Santa Cruz, Bolivia VLLL-14-1980, same collector.

A. apertus differs from all described species by the broadened apical portion (ventral aspect) which tapers to the narrower rounded base.

Amplicephalus latus n. sp.

(Figs 4-6)

Length of male 3.5 mm, female unknown. Crown bluntly angled, about $1/3$ wider at base between eyes than long at middle. Color, crown dull yellowish with 2 round black spots near apex and with a short curved line above margin, close to each eye. Black coloration from face extending up over margin each side. Pronotum dull yellow, basal angles brown. Forewing brownish. Scutellum dull yellow, basal angles brown. Forewings brownish yellow subhyaline, veins whitish, margined with brown.

Male genital plates elongate, triangular, $1, 1/2$ X as long as wide at middle style with a short, narrow apophysis which is straight and bluntly pointed apically. Aedeagus appearing rather broad in ventral aspect, narrowed apically with a short V-shaped notch. In lateral view narrow, gradually curved dorsally, apex pointed.

Holotype male, Santa Cruz, Bolivia 21-VII-1980 Donald Foster coll.

A. latus is related to *A. faminei* (Stal) (1859 p. 293) from which it can be separated by the more uniform width of the aedeagus (ventral aspect) and by the smaller, shorter excavation at the apex of the aedeagus.

Amplicephalus santanus n. sp.

(Figs. 7, 8)

Length of male 3.5 mm, female 4 mm. Crown produced and bluntly angled, length equalling width between eyes at base. Color, crown white on apical third with 2 large round black spots at apex. Black of face extending up on margin each side of apex. A faint brownish transverse band across crown at 1/3 its length. Basal portion whitish yellow with 4 broad longitudinal brown bands. Scutellum whitish. Forewings pale brownish, subhyaline, veins white.

Female 7th sternum with posterior margin slightly, concavely excavated

Male genital plates triangular 1 1/2 X as long as median width, apices narrow, rounded. Style with apophysis median length; apex rounded. Aedeagus broad, in ventral view, rounded apically with a U-shaped notch which is narrowed apically. In lateral view narrow with apical third narrowed, tapered to a blunt apex and curved dorsally. Pygofer curved dorsally.

Holotype male, Santa Cruz, Bolivia 17-VIII-1980 Donald Foster coll.

A. santanus is related to *A. latus* (previous description) from which it can be separated by the much wider aedeagus (in both ventral and lateral aspects).

Amplicephalus boliviellus n. sp.

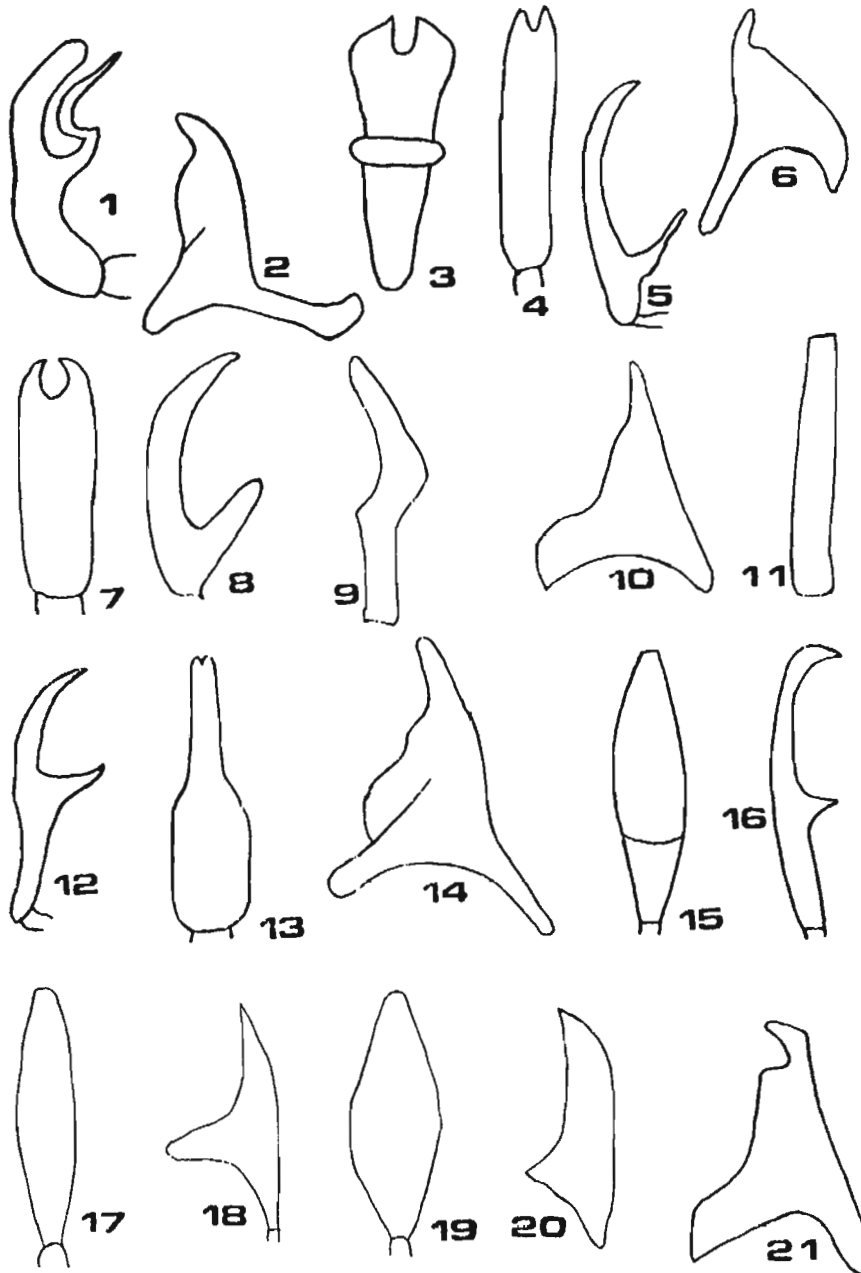
(Figs. 9-11)

Length of male 3.5 mm, female unknown. Crown bluntly angled, 1/3 wider between eyes at base than long at middle. Color, crown with apical portion yellowish with a pair of small black spots at apex and an elongate black spot on margin next to each eye. Remainder of crown, caudad to black spots, pale brown. Pronotum pale brownish, apical 2/3 darker brown. Scutellum paler brown with dark brown apex. Forewings brownish subhyaline, veins pale yellowish.

Male genital plates elongate triangular, style with apophysis narrow, rounded apically. Aedeagus straight and rather slender, in ventral view, apex blunt. In lateral view rather narrow, apical third slightly narrowed, apical portion bent dorsally, apex blunt. Pygofer curved apically.

Holotype male, Bolivia, Santa Cruz, VI-21-1980, Donald Foster collector.

A. boliviellus is related to *A. latus* (previous description) from which it



Figs. 1-21 *Amplicephus apertus* n. sp. 1. aedeagus laterally, 2. style ventrally, 3. aedeagus ventrally. *A. lastus* n. sp. 4. aedeagus ventrally, 5. aedeagus laterally, 6. style ventrally. *A. santanus* n. sp. 7. aedeagus ventrally, 8. aedeagus laterally. *A. boliviellus* n. sp. 9. aedeagus laterally, 10. style ventrally, 11. aedeagus ventrally. *A. laxus* n. sp. 12. aedeagus laterally, 13. aedeagus ventrally, 14. style ventrally. *A. similis* n. sp. 15. aedeagus ventrally, 16. aedeagus laterally. *A. buenus* n. sp. 17. aedeagus ventrally, 18. aedeagus laterally. *A. cruzus* n. sp. 19. aedeagus ventrally, 20. aedeagus laterally, 21. style ventrally.

can be separated by the concavely rounded apex of the aedeagus (not excavated) and the dorsally curved middle portion of aedeagus (lateral aspect.)

Amplicephalus laxus n. sp.

(Figs. 12-14)

Length of male 3 mm, female 3 mm. Crown produced and rounded, 1/3 wider between eyes at base than long at middle. Color, black of face visible on margin of crown. Crown yellowish, a broadened black line extending between apical spot and each eye. Pronotum yellowish, mottled with dark brown. Scutellum yellowish. Forewings grayish subhyaline, veins yellowish

Female 7th sternum with posterior margin broadly concavely rounded, with a short, broad median tooth at middle of excavation.

Male genital plates elongate triangular 1, 1/2 X as long as wide at middle. Style with apophysis rather long and rounded apically. Aedeagus, in ventral view, narrowed on apical half and slightly notched at apex. Basal half twice as broad as apical half and rounded at base. In lateral view, with aedeagal shaft quite narrow, curved ventrally and pointed at apex, enlarged at middle than tapered to a narrow width at base. Pygofer rounded apically.

Holotype male, Buena Vista, Bolivia V-14-1980, D. M. DeLong coll.

A. laxus is related to *A. latus* (previous description) but is not of uniform width. The apical half is narrower and the basal half is wider than the aedeagus of *A. latus*.

Amplicephalus similis n. sp.

(Figs. 15, 16)

Length of male 4 mm, female unknown. Crown produced and bluntly angled, a little wider between eyes at base than long at middle. Color, crown, pronotum and scutellum pale whitish yellow. Crown with 4 black spots just above margin. The 2 at middle are a little larger than the other 2 which are half way between apex and eye, each side. Forewings pale yellowish subhyaline, veins white,

Male genital plates triangular. Style with apophysis straight and narrow. Aedeagus short and broad in ventral view. In lateral view curved dorsally and pointed at apex. Pygofer broadly rounded apically.

Holotype male, Santa Cruz Bolivia 20-IV-1980 Donald Foster coll

Paratypes : 2 ♂ Peguipaua Bolivia 12-X-1980; 1 ♂ Buena Vista Bolivia 14-V-1980
DeLong coll.

A. similis is related to *A. latus* (previous description) from which it can be separated by the more narrowed apex and base, and the broadened median portion of the aedeagus (in ventral view).

Amplicephalus buenus n. sp.

(Figs. 17, 18;

Length of male 4 mm, female unknown. Crown bluntly angled, length at middle equating the width at base between eyes. Color, crown yellow, tinted with orange, with 4 small black spots just above margin on median 2/3 of margin. Pronotum same color as crown. Scutellum yellowish. Forewings yellowish subhyaline, veins whitish.

Male genital plates elongate triangular, 1 1/2X as long as width at middle. Style with a broad, apically pointed apophysis. Aedeagus elongate, in ventral view broadened at middle and narrowed at apex and base, apex appearing blunt. In lateral view aedeagus appears sharp pointed at apex, narrow at base and greatly broadened at 1/3 its length. Pygofer rounded apically.

Holotype male, Buena Vista, Bolivia V-14-1980, D. M. DeLong coll.

A. buenus is related to *A. similis* (previous description) from which it can be separated by the distinctly wider median portion of the aedeagus (in lateral aspect).

Amplicephalus cruzus n. sp.

(Figs. 19-21)

Length of male 3.7 mm, female unknown. Crown bluntly angled, a little wider between eyes at base than long at middle. Color, crown pale yellow, with 6 black marginal spots. The 2 at apex are slightly larger than the other 4. Two broad longitudinal pale yellow with 4 broad longitudinal stripes. Scutellum pale yellow. Forewings pale brownish subhyaline; veins white.

Male genital plates triangular, almost twice as long as wide at middle. Style with apophysis rather broad, sharp pointed laterally, apex truncate. Aedeagus in ventral view greatly broadened at middle and narrowed to a slender blunt apex, and a narrow pointed base. Pygofer rounded apically.

Holotype male, Santa Cruz, Bolivia VI-1-1980, Donald Foster coll.

A. cruzus is related to *Amplicephalus buenus* (previous description) from which it can be separated by the broader aedeagus (lateral view).

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