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### A NEW GENUS (TUMEUS) AND SIX NEW SPECIES OF LEAFHOPPERS CLOSELY RELATED TO CLOANTHANUS (HOMOPTERA, CICADELLIDAE).

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The Platymetopius group of leashoppers seem to be well represented in the southwestern and Mexican fauna. In recent work upon this material many species have been identified or described in Cloanthanus, but a small group treated in this paper do not seem to belong to any described genus. A new Genus, Tumeus, is, therefore, being erected to contain Platymetopius majestus Ball and Platymetopius limbatus Osborn. Also, six other species are described as new at this time.

#### Genus Tumeus nov.

Related to Cloanthanus but with a flat, more broadened and bluntly angled vertex with the sides convexly rounded to form a narrow, rounded tip. The face is broader than in Cloanthanus, but the angled line just beneath the apex of vertex resembles the markings of the species of that genus. The venation is similar in type to Cloanthanus, the costal veinlets are of the same type and the first anteapical cell is usually decidedly shorter than the second anteapical cell. Genotype Tumeus serrellus n. sp.

The holotype, allotype and paratype specimens are in the private collection of the author unless otherwise designated.

### Tumeus serrellus n. sp.

Resembling majestus in form and general appearance but with distinct male genitalia. Length 4.5-5 mm.

Vertex strongly produced and bluntly angled, about one-third longer on middle than basal width between eyes.

Color: Vertex dull yellowish tinged with brown, an elongated, white wedge-shaped spot just back of apex. A pair of proximal longitudinal white stripes bordered with brown lines on either side of median line. Margin white, bordered above and below by a brown line. Face dark brown with an angled, narrow white line just a little below margin. Pronotum dark brown on disc. Scutellum pale brown, central portion mottled with pale. Elytra white subhyaline, veins dark brown, brown vermiculate markings on clavus, disc and apical portions of elytra.

Genitalia: Female last ventral segment sloping from base to form a produced lobe-like posterior margin on the median half of segment. The underlying segment is visible on either side of last ventral segment. Male plates rather short, triangular. bluntly angled at apex. Style with a long, slender, curved, finger-like process arising on inner margin at apex which is almost as long as basal portion. Aedeagus composed of a ventral and a dorsal portion. The ventral portion is long, slender, indented on dorsal side near middle and bearing three short prominent teeth at middle on ventral side. The dorsal portion is sickle-like, with the handle, which is bifid, on the dorsal side and the tip of blade extending caudally.

Holotype male and paratype male from Vergel, Chiapas, Mexico. June 3, 1935 (M.F. 4418) Dampf. Allotype female and paratype male from Tehuacán, Puebla, Mexico, October 17, 1941 (Plummer, Caldwell, Good, DeLong). Paratype female from Iguala, Gro., Mexico, October 25, 1941 (Good, DeLong). Paratype male from Mexico (M.F. 4269) and paratype female from Tlatlaxco, Oax., Mexico, June 22, 1935, collected by Dr. Dampf.

# Tumeus majestus (Ball).

Platymetopius majestus Ball, Ent. News, 20: 164, 1909.

A brown species with a pale longitudinal stripe on the middle of vertex. Length 4-4.5 mm.

Vertex produced and bluntly angled almost twice as long on middle as basal width between the eyes.

Color: Vertex pale brown with a median white longitudinal stripe which is narrow at apex, broadened just back of apex and divided by a median dark brown line. Margin white with a brown line just above and the dark face below which is marked by a narrow angular white transverse band a little below marginal band. Pronotum and scutellum pale brown. Elytra brownish subhyaline, veins in anterior portion and costal veinlets dark brown. Apical margins of elytra broadly embrowned.

Genitalia: Male plates rather elongated with apices well rounded. Style with a very short, sharply curved, finger-like process on inner apical portion which is curved sharply outwardly. Aedeagus with a ventral portion which is narrow at base, expanded at middle and deeply notched to form a pair of short proximal teeth, one either side of a deep median notch. Either side of these a deep excavation forms a pair of long slender processes extending far beyond the proximal teeth and curving slightly inwardly. The dorsal process has a single broad caudal portion and a pair of short thick basal processes which are separated.

This species was originally described by Ball from two male specimens collected at Pasadena, California. One of these, collected June 17, 1908, has been kindly loaned for this study by Dr. Oman. The illustration and description have been made from this type specimen.

## Tumeus elongatus n. sp.

Resembling majestus in form and coloration, but larger with sides of vertex more convexly rounded and costal veinlets different. Length, female 5 mm.

Vertex with sides convexly rounded to form a blunt apex, more than one-third longer on middle than basal width between eyes.

Color: Vertex pale brown with a paler median longitudinal stripe which is broadened a short distance from apex and divided by the darker median line. Margin of vertex pale with a black line bordering it above and dark band below. The face is black with a narrow white band on upper portion next the marginal black band. Pronotum and scutellum dark brown. The elytra brownish subhyaline, apical veinlets dark brown and apical margin broadly brown.

Genitalia: Female last ventral segment broadly, concavely emarginate either side of a small median produced tooth which is notched at middle forming a pair of pointed apical teeth.

Holotype female collected at Guadalajara, Jal., Mexico (Km. 645), October 3, 1941, by C. C. Plummer, E. E. Good, J. S. Caldwell and the author.

#### Tumeus texanus n. sp.

Resembling majestus in form and general appearance but with distinct male genitalia. Length 4.5 mm.

Vertex produced and bluntly angled, almost twice as long on middle as basal width between the eyes.

Color: Vertex pale brown with a pale median stripe which is narrow at apex, but broadened and divided by the median dark line just behind apex. Margin white bordered above and below by a black line. Pronotum dark brown, scutellum pale brown. Elytra pale brown with veins dark brown and with brown markings on clavus and disc, some of which appear to be cross veinlets. Costal veinlets few, but conspicuously brown

marked. First anteapical cell and apical margin dark brown. Face brown with an angular white transverse band not far below margin of vertex.

Genitalia: Female last ventral segment sloping from base to a produced posterior margin which is almost truncate, slightly indented either side of a short, blunt, median tooth. Male plates short convexly rounded, apices bluntly angled. Style with apical finger-like process arising on inner margin which is almost as long as the basal portion. Aedeagus consisting of a single process which is broad at base, extending erect, from the middle portion of which a long process extends caudally, is narrowed from a broad base to a slender apex. The apex bears a pair of short slender apical, ventrally directed processes.

Holotype male and allotype female collected at Brownsville, Texas, on the Mexican border May 8, 1935, by Professor J. N. Knull.

## Tumeus divisus n. sp.

In general form resembling majestus but with different coloration, vertex more convexly rounded before the eyes and with distinct female genitalia. Length, female 4.5 mm.

Vertex twice as long at middle as basal width between the eyes, sides of vertex anterior to eyes strongly convexly rounded to form a narrow, rounded apex.

Color: Vertex dirty white with a large round black spot just back of apex almost reaching lateral margins which is divided at middle by a narrow wedge-shaped white line. A pale reddish brown spot is between eyes at their anterior margins. Pronotum dull greenish. Scutellum yellow, basal angles reddish brown. Elytra pale brownish subhyaline, costal veinlets numerous and dark brown, a brown diagonal stripe from costal across first anteapical cell and apical margin broadly brown. Veins on apical portion dark brown, bordered with pale brown. Face black with a small white spot just a little below apex.

Genitalia: Female last ventral segment sloping from base to posterior margin which occupies the central half of the segment and is twice notched to form a trilobate posterior margin. Portions of the underlying segment are visible at either side of the last ventral segment.

Holotype female collected at Peto, Yucatan, August 9, 1925 (M.F. 604), by Dr. Dampf. This species is very different from any of the other species examined.

### Tumeus dilatus n. sp.

In form and general appearance resembling *limbatus* but with more sharply produced vertex, different coloration and distinct male genitalia. Length, male 4 mm.

Vertex strongly produced and sharply angled, twice as long on middle as basal width between the eyes in male.

Color: Dirty white marked with brown, orange and yellow. Vertex with a dusky ring just back of white spot on apex and an orange blotch either side of middle between anterior portion of eyes, margin white either side of middle with a black line above. Pronotum brown. Scutellum with brown basal angles, median portion yellow. Elytra pale subhyaline marked with brownish irrorations. Veins and reflexed veinlets dark brown. A pale arc on apical costal margin and another on the posterior apical cell. Two pairs of round areolar spots on clavus. Face brown with a narrow, angled white transverse marking not far below margin.

Genitalia: Male plates short and broad, apices broad and rounded. The finger-like process at apex of style is broader and longer than in any of the allied species. Aedeagus composed of a ventral pair of long slender processes which extend to apex of pygofer, are pointed at apex and enlarged just before apex by a broad tooth-like structure formed on the ventral margin. The dorsal portion is small, right triangular, concavely excavated on caudal margin and the portion extending dorsally is bifid.

Holotype male collected at Panama City, Canal Zone, March 2, 1921, by J. G. Sanders.

### Tumeus latidens n. sp.

In form and general appearance resembling *limbatus* but with darker coloration and distinct male genitalia. Length 4-4.5 mm.

Vertex bluntly angled, sides convexly rounded, almost twice as long at middle as basal width between eyes.

Color: Vertex pale, a dusky area surrounding a white wedge-shaped mark at apex, a broken dull orange band between the anterior margins of the eyes and a brown line either side of middle, parallel to and close to median line. Margin pale, bordered with a black line above and another just beneath. Face dark brown with a narrow, angled, white, transverse mark just below margin. Pronotum mottled with brown. Scutellum paler brownish. Elytra white, heavily marked with dark brown, veins dark brown.

Genitalia: Female last ventral segment with posterior margin slightly shallowly excavated either side of a rounded median tooth which is produced beyond the lateral angles. Male plates short, broad at base, triangular, apices blunt and rounded. Style with a long, stout, finger-like process on inner margin which is almost as long as the basal portion. Aedeagus composed of a ventral and dorsal portion attached at base. The ventral portion is blade-like and in lateral view appears to have a broad, pointed spine-like structure at about two-thirds its length, and the apex is slender, curved ventrally and pointed. The dorsal portion is broad with a long ventral spine-like process directed ventrally and caudally.

Holotype male from Flores, Guatemala, November 11, 1925 (M.F. 792). Allotype female from Vergel, Chiapas, Mexico, May 22, 1935 (M.F. 4259). Both were collected by Dr. Alfons Dampf.

## Timeus limbatus (Osborn)

Platymetopius limbatus Osb., Anns. Ent. Soc. Amer., 19: 343, 1926.

A pale species with banded vertex and mottled elytra. Length 4-4.5 mm.

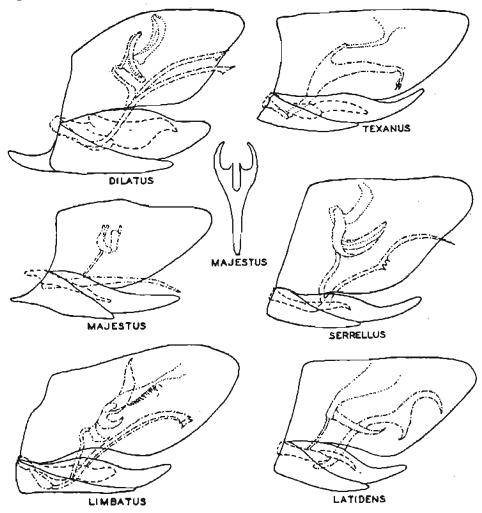
Vertex produced and bluntly angled, male vertex shorter and blunter than in female. Vertex one-third longer at middle than basal width between eyes in male and more than one-third longer in female.

Color: Cream to yellow, darker coloration varying in intensity. Vertex with a broad curved brownish band just back of apex and a broad broken brown band between the anterior margins of the eyes. A narrow brown longitudinal line parallel to median line and not far from it on either side. Margin pale, bordered above and below by a narrow brown line. Face dark brown with a narrow angled white line just a little below margin. Pronotum pale with disc brown to gray. Basal angles brown, central half paler, often with a pair of small round brown spots on disc. Elytra white subhyaline, clavus marked with brown, anterior half unmarked on basal two-thirds. Veins on apical third dark brown, anterior apical portion marked with dark brown.

Genitalia: Female last ventral segment with posterior margin gradually produced from lateral margins to form a pair of rounded, slightly produced lobes either side of a short narrow median V-shaped notch at middle. The lobes are black marked. Male plates broad, short, scarcely longer than broad.

convexly rounded on outer margin, apices broadly rounded. Style with a broad and rather long apical finger-like process arising on inner margin. Aedeagus composed of a pair of rather long slender ventral processes which are enlarged and truncate at apex and a dorsal portion composed of three pieces arranged like the vertebrae of a spinal column.

This species was originally described from specimens collected at Ermita, Cuba, by Prof. Osborn. Specimens are at hand from Plancha, Piedro (M.F. 750), and Flores, Guatemala (Dampf); Tamazunchale, San Luis Potosí, Valles, San Luis Potosí and Iguala, Gro., Mexico (Plummer and DeLong).



Lateral views of male genital structures as labeled except central figure which is the ventral view of aedeagus of majestus.