

THE TEXANANUS (HOMOPTERA, CICADELLIDAE)
SPECIES OF THE MAJESTUS GROUP WITH THE
DESCRIPTION OF FOUR NEW SPECIES

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Texananus majestus O. & B. was described as a species of *Phlepsius* by Osborn and Ball in 1897¹. The male type in the Osborn collection is from Philadelphia, Pennsylvania. In 1918 Ball² described *handlirschi* from Mexican specimens which he stated was "slightly smaller and with a narrower vertex" than *majestus*. The writer has not had an opportunity to examine the types of *handlirschi* nor specimens from Mexico, but specimens from Texas compared with the Ball types have been examined through the courtesy of Dr. Beamer, and the characters used for this species in the present treatment are based upon those specimens. An examination of a large number of specimens of this group from various parts of the eastern United States indicates that there are several species which have been placed under the name *majestus*. An attempt has been made, and a key provided to separate these on the basis of the male genital structures. The female genitalia are similar in type but the males offer several diagnostic characters for the separation of these species. The male pygofer each bear a distinct apical lobe which varies in different species. The male plates and styles vary in length, curvature and width. The aedeagus is composed of a ventral and dorsal portion, the dorsal portion bearing a dorso-anterior lobe which is distinctive in certain species and the ventral portion furnishes characters especially in the comparative length, width, and the structure of the branches or forked apex.

KEY TO MALES OF SPECIES OF THE MAJESTUS GROUP

1. Apex of each fork of ventral portion of aedeagus bifid. **dicentrus**
- 1'. Apex of each fork of ventral portion of aedeagus pointed, not bifid. 2
- 2(1'). Ventral aedeagus portion sharply bent ventrally and produced for more than one-third its length at apex. **horrori**
- 2'. Ventral portion of aedeagus with the apical portion not sharply bent ventrally or bent portion very short. 3
- 3(2'). Dorso-anterior lobe of dorsal portion of aedeagus broadened apically, constricted at base. Apical pygofer lobe broadly rounded, as broad as long, constricted at base. **bullatus**
- 3'. Dorso-anterior lobe of dorsal portion of aedeagus narrowed at apex, not constricted basally. Apical pygofer lobe elongate or short, not constricted at base. 4
- 4(3'). Apical pygofer lobe appearing short in lateral view, bent inwardly, not constricted basally, Apical branches of ventral aedeagus slender, elongate, in lateral view appearing bent twice. **caducus**
- 4'. Apical pygofer lobes elongate, ovate, constricted at base. Apical branches of ventral aedeagus short, thick and curved ventrally. 5
- 5(4'). Dorso-anterior lobe of dorsal aedeagus short, gradually broadened to base by an anterior sloping margin which extends to the basal portion of dorsal aedeagus. **majestus**
- 5'. Dorso-anterior lobe of dorsal aedeagus long, rather narrow. Anterior and posterior margins almost parallel, scarcely widened basally, anterior margin not sloping to basal portion of dorsal aedeagus. **handlirschi**

¹Proc. Iowa Acad. Sci. 4: 229, 1897.
²Ann. Ent. Soc. Amer. 11: 383, 1918.

Texananus majestus (O. & B.)

P. majestus (O. & B.). Proc. Ia. Acad. Sci. 4: 229, 1897.

Male pygofer with an elongate ovate apical lobe which is constricted at base. Ventral portion of aedeagus cleft at apex forming two processes which are tapered and curved ventrally for a short distance at tip. Dorsal portion of aedeagus with a long slender apical process which curves dorsally and extends almost to dorsal wall of pygofer. A basal lobe is shorter, pointed on caudal margin and gradually broadened to base by the sloping anterior margin which reaches base of dorsal portion. The apical two-thirds of styles almost parallel margined, scarcely notched before outwardly bent, blunt apices. Plates gradually narrowed to bluntly pointed apices.

Type locality Philadelphia, Pennsylvania.

Texananus handlirschi (Ball)

P. handlirschi Ball. Anns. Ent. Soc. Amer. 11: 383, 1918.

Male pygofer lobe elongate, ovate, proportionally broader than in *majestus*. Ventral portion of aedeagus with apical processes thicker than *majestus*, curved ventrally. Dorsally portion of aedeagus similar to *majestus* but with dorso anterior lobe longer, more narrowed, scarcely widened basally, styles distinctly notched and narrowed on outer margins near apex.

Type locality Omilteme, Mexico.

This species appears to be very similar to *majestus* in form and is more difficult to separate from it than the other species here described.

Texananus dicentrus n. sp.

Resembling *majestus* in form and coloration but with each terminus of forked aedeagus bifid at apex. Length male 8.5 mm.

Vertex angularly produced, three fifths as long at middle as width between eyes.

Color: Vertex with a pair of conspicuous spots just above apex. Transverse band between eyes interrupted at middle forming a right triangular spot on either side, with the base along median line. Pronotum with dark median vermiculate markings just back of vertex.

Genitalia: Male plates long, narrowed to bluntly rounded apices. Pygofer shorter than plates, the caudal lobe elongate and narrow. The ventral portion of the aedeagus is forked for about one-fourth of its length at apex and each branch is conspicuously bifid at apex bearing a prominent dorsal and a ventral tooth. The dorsal portion of the aedeagus composed of a long slender process which curves caudally then dorsally almost to dorsal wall of pygofer and a shorter dorsal process arising at the base and tapered to a blunt apex.

Holotype male collected at Fern Cliff, Illinois, by the author and Dr. C. O. Mohr, August 3, 1934, in the Illinois Natural History Survey Collection. This species can be distinguished from all others of this group by the bifid apices of the branched processes of the ventral portion of the aedeagus.

Texananus bullatus n. sp.

Resembling *majestus* in form and coloration but with male plates shorter than pygofer and convexly rounded and with basal lobe of dorsal portion of aedeagus broadened. Length, male 9 mm.; female 10 mm.

Vertex rather broadly, bluntly produced, more than half as long as basal width between eyes.

Color: Vertex with a pair of dark points above apex and a broad straight interrupted dark band between the eyes. Pronotum rather heavily mottled with brown.

Genitalia: Female last ventral segment rather deeply broadly emarginate either side of a pair of approximate produced median teeth separated by a deep narrow incision extending half way to the base. Male plates shorter than pygofer and almost half as broad as long. Ventral portion of aedeagus cleft for a very short distance at apex forming a pair of blunt teeth which are slightly curved ventrally. Dorsal portion of aedeagus with a long slender process curving caudally then dorsally from which arises a dorsal process at base which is rather broad forming a rounded lobe. The caudal process of the pygofer is short and broad, and broadly rounded.

Holotype male and allotype female from Jemez Springs, New Mexico, collected June 15, 1919, in the author's collection.

Texananus borrori n. sp.

Resembling *majestus* in form and coloration but with bent terminal processes of aedeagus more than one third as long as basal portion and terminal lobe of pygofer longer. Length 9.5 mm.

Vertex broadly bluntly produced, almost twice as wide between eyes as median length.

Color: Dark points on vertex above apex, faint. Transverse band dark, broad, interrupted at middle and each portion broadened at either end. The end next either eye bifid. Pronotum with the darker markings on anterior half.

Genitalia: Female last ventral segment with prominent rounded lateral angles between which the posterior margin is concavely rounded either side of a rather long, sharp, pointed tooth produced on each side of a U-shaped notch which extends half way to the base of segment.

Male plates long and slender about as long as pygofer which bear a long, rather broad caudal lobe. Ventral portion of pygofer short and robust. The apical third bent abruptly ventrally, cleft and forming two long apical, widely separated spines. The dorsal portion with a long slender curved ventral process from which arises an elongate, broader dorsal process at the base.

Holotype male and paratype male, Bellefontaine, Ohio (D. J. Borror) and a female allotype from Woodruff, Wisconsin, Sept. 3, 1916 (DeLong) in author's collection; a paratype male, from Western Springs, Illinois, collected by G. T. Reigel, August 16, 1935, in the Illinois Natural History Survey collection and one male paratype Le Seuer Co., Minnesota, July 28, 1922. (W. E. Hoffman) in the University of Minnesota collection.

I take pleasure in dedicating this species to Dr. Donald J. Borror who has collected many interesting species of leafhoppers including the holotype specimen of this species.

***Texananus caducus* n. sp.**

Resembling *majestus* in form and coloration but with apical lobe of pygofer short, blunt and not indented dorsally or ventrally at base. Length, male 8 mm.; female 9–9.5 mm.

Vertex broadly bluntly produced, more than half as long at middle as basal width between the eyes.

Color: Vertex with the two small brown spots above apex. The transverse band on disc decidedly interrupted at middle forming a short band either side. The end next each eye is widely bifurcate, the middle portion is narrowed and the portion next the middle line is greatly enlarged caudally. Pronotum heavily infuscated on anterior margin.

Genitalia: Female last ventral segment scarcely concave between lateral angles and a slightly produced blunt tooth either side of a rather narrow U-shaped notch reaching one third the distance to the base.

Male plates long, tapered to rather narrow, rounded apices exceeding pygofers in length. Pygofers with very short rounded caudal lobes which are not constricted or notched at base. Ventral portion of aedeagus long, apical fourth bent abruptly ventrally and cleft, forming two apical processes which are more slender than basal aedeagus body and are separated. Dorsal portion with a ventral, long, curved, slender process from the base of which arises a short broader dorsal process.

Holotype male, allotype female. Ada, Oklahoma, July 16, 1937, collected by Standish and Kaiser.

Male and female paratypes, Lebanon, Okla., Hinton, Okla., and Grant, Okla., July, 1937; Clarksville, Tennessee, August, 1917 (DeLong); High Knob, Ill., October, 1934; Anvil Rock, October, 1934; Havana, Ill., Nov., 1912, and August, 1934; and Fern Cliff, Ill., August, 1934 (Frison, Ross, Mohr and DeLong).

Holotype allotype and paratypes in the author's collection. Paratypes in the Illinois Natural History Survey collection and the collection of the Oklahoma A. & M. College.
