

SOME NEW SPECIES OF IDIOCERUS (HOMOPTERA— CICADELLIDAE) FROM THE UPPER MISSISSIPPI VALLEY

DWIGHT M. DELONG AND RUTH V. HERSHBERGER,
Ohio State University,
Columbus, Ohio

The species of *Idiocerus* have been distinguished primarily upon the basis of color markings. Some significance has been given to the size and type of antennal discs which are differential in the males. In view of the use of color characteristics it is apparent that two or more species which have no color markings or which are very similarly marked have been included under a single name. During the past few years the genital structures of the males have been used to separate these similar forms into species but it has been necessary to determine or select the species already described. Through the assistance and cooperation of Dr. Paul Oman, Curator of Hemiptera, U. S. Nat. Museum, lectotypes have now been selected from the type series and specific morphological characters have been established for *I. pallidus*, *nervatus*, *alternatus* and *lachrymalis*. Illustrations of these characters will be published in a subsequent article.

In order that the names of six of these new species previously placed under the names mentioned above may be used in a completed manuscript covering the faunal study of a geographic area it seems advisable to describe this limited group of species at the present time and illustrate the characters by which they may be recognized.

Idiocerus telus n. sp.

Resembling *pallidus* in form and appearance but with different male genitalia. Length, 5 mm.

White tinged with green without dark markings, basal angles of scutellum yellowish. Elytra subhyaline, veins tinted with green. Face pale. Antennal discs large, black, ovate.

Genitalia: Male plates elongate, rather narrow. Styles slightly broadened near apex, then rapidly narrowed to a pointed apex. Each style bears a prominent spine just before apex. Ventral portion of aedeagus tapered from base to apical fifth which is broadened by a pair of prominent spines which are "webbed" to the main aedeagus shaft. These spines slope almost to apex giving the head portion a triangular appearance, with a blunt apex. The dorsal portion is shorter and constricted at middle between a rather broad base and a broader, diamond shaped apex. The latter has a pointed apical margin, and a broadened pointed lateral margin on each side.

Holotype male and paratype male collected at Pike, Ill., June 28, 1934, by DeLong and Ross. Holotype in Illinois Natural History Survey Collection.

Idiocerus incomptus n. sp.

Resembling *nervatus* in form and coloration but with distinct male genitalia. Length 4.5 mm.

Color pale green to yellow green without markings except pale brownish spots on basal angles of scutellum. Elytra subhyaline with pale veins. Dark veins of under wings conspicuous from above. Face pale, slightly infuscated above.

Antennal discs slightly enlarged, elongate, black at apex.

Genitalia: Male plates elongate, rather narrow, apices broadly rounded. The styles are rather narrow and are tapered about two thirds of their length to form pointed apices each of which bears a large spine. The ventral portion of the aedeagus is only slightly narrowed from base to apex, the latter of which is rounded and bears a short spine either side about one fifth the distance from the apex. The dorsal portion of the aedeagus is constricted at the middle forming a rounded portion at the base which is distinctly wider than the ventral process and a

smaller rounded portion just slightly wider than the ventral process at the apex; this terminates just anterior to the spines of the ventral process.

Holotype male collected from cypress at Horseshoe Lake, Illinois, July 11, 1935, by DeLong and Ross.

Holotype in Illinois Natural History Survey Collection.

***Idiocerus apertus* n. sp.**

Form and general appearance of *nervatus* but pale brownish in color. Length male 4.5 mm.

Vertex broadly rounded, a little shorter at middle than next the eyes. Color, yellowish tinted with brown. The central portion of vertex brownish. Disc of pronotum, basal angles of scutellum, and basal portion of elytra tinted with brown. Elytra subhyaline with pale brownish veins.

Genitalia: Male plates elongate, rather narrow, apices broadly rounded. Styles strongly curved outwardly, apex bluntly pointed and bearing a pair of conspicuous spines. Aedeagus with the ventral portion forming a slightly enlarged apical head with a barbed spine at the base on either side; the dorsal portion is not quite as long as the ventral and is broadened at the apex to form a pointed protrusion at either side and a broad, slightly produced apical margin.

Holotype male collected at Covington, Tenn., June 18, 1915.

Holotype in the collection of the senior author.

***Idiocerus apache* var *juniperus* n. var.**

Resembling *alternatus* in form and general appearance but with larger antennal discs and distinct genitalia. Length 4.5-5mm.

Face pale, lorae and genae with heavy brown longitudinal stripes. Upper portion of face with a large median dark area which extends across vertex as in *alternatus*. Vertex pale brown with a round black spot each side not far from eye and just above margin. Pronotum pale brown tinted with gray and with dark brown markings on anterior portion. Scutellum cream to pale brown, black spots in basal angles and a broad longitudinal white stripe on apical half. Elytra brownish subhyaline, veins dark brown interrupted by white portion at middle of clavus and apex of clavus. Male antennal discs black, elongate, ovate.

Genitalia: Female last ventral segment scarcely produced posteriorly, almost truncate. Male plates elongate, rather narrow. Styles tapered, apical half rather slender, bearing a pair of spines near apex on dorsal portion. Ventral portion of aedeagus rather straight and slender with a pair of short barb like spines a short distance from apex. Dorsal portion of aedeagus broadened gradually then abruptly to form a broad apex which is slightly trilobate on apical margin and forms broad pointed lateral processes.

Holotype male taken at Mahomet, Ill., April 30, 1936, Frison and Ross. Allotype female from Golconda, Ill., June 22, 1932 (Ross, Dozier and Park). Paratype males and females collected at Golconda, Ill., Urbana, Ill., April 6, 1900; Horseshoe Lake, Ill., July 11, 1935, by DeLong and Ross. Also Kampville, Ill., June 27, 1934, by DeLong and Ross.

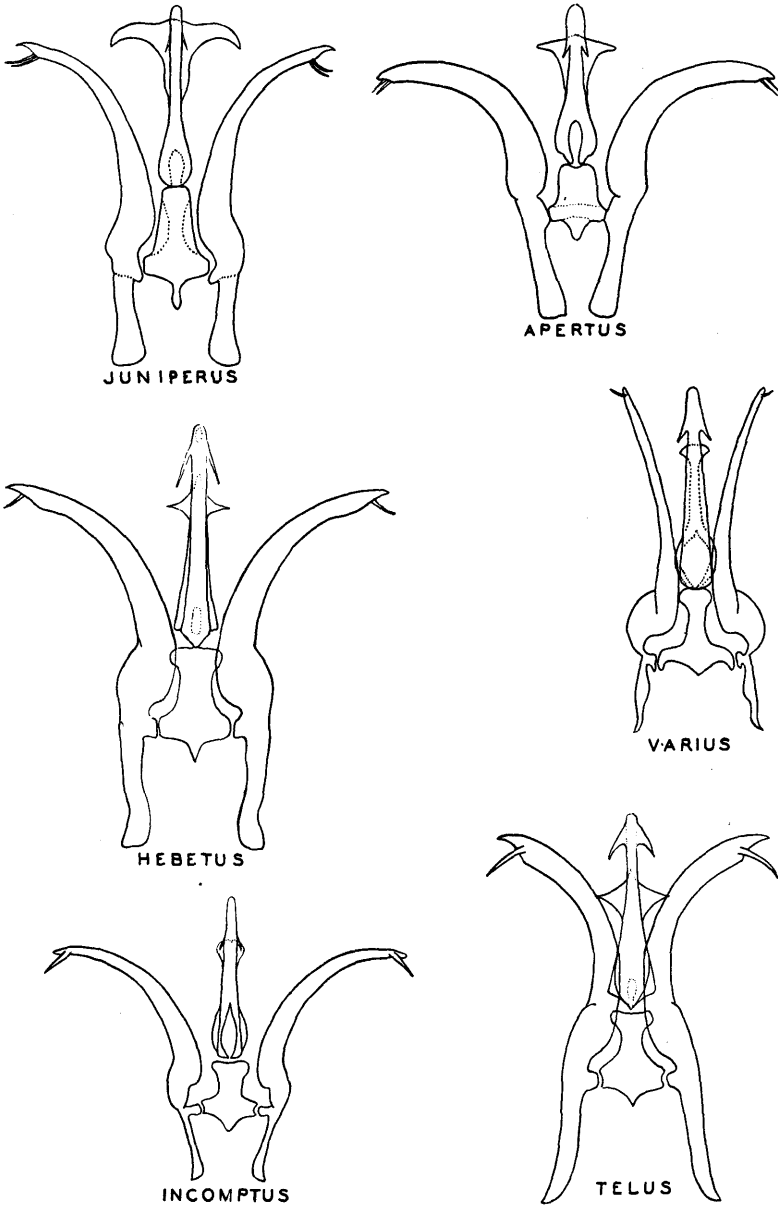
Holotype, allotype and paratypes in Illinois Natural History Survey Collection. Paratypes in senior author's collection.

This species was in manuscript before the recent publication of the species in the Ball collection. In view of its similarity to *apache* Ball and Parker, it is being placed as a variety of that species until further comparison can be made with the type.

***Idiocerus varius* n. sp.**

Resembling *alternatus* in general coloration and appearance but with distinct male genitalia, and large antennal discs. Length 5-5.5 mm.

Face marked as in *alternatus* with a large median dark area on upper portion extending across vertex. The vertex is marked with an elongated brown spot next each eye and a large round black spot not far from each eye just above margin. Pronotum brown with heavy dark markings. Scutellum pale brown with black spots in basal angles and a series of small connected black spots across middle. Elytra pale brownish subhyaline, veins dark brown interrupted by white veins at the middle of clavus and across elytron at apex of clavus. Male antennal discs broad, ovate and black.



Ventral views of aedeagi and styles of species of *Idiocerus* as labeled.

Genitalia: Female last ventral segment slightly roundedly produced posteriorly. Male plates elongate and narrow. Styles long and slender with a spine on each near apex. Ventral portion of aedeagus rather broad at base and tapered to form a rather narrowed head with a barb-like spine either side about one fourth the distance from apex. The dorsal portion of the aedeagus is broad at base, constricted on median portion and narrow to apex which is broadened to the width of the projecting spines on ventral portion. The apex is convexly rounded.

Holotype male collected at Paris, Tennessee, June 16, 1915 (DeLong). Allotype female from Dyersburg, Tenn., June 17, 1915 (DeLong). Male and female paratypes from Clarksville, Tenn., June and July, 1915; Cranberry Lake, N. Y., July 8, 1920 (R. J. Sim); Jemez Springs, N. Mex., June 16 and Sept. 15, 1919; Algonquin, Ill., July 1895 and July 1896; Golconda, Ill., June 22, 1932, by Ross, Dozier and Park; Castle Rock, Grand Detour, Ill., July 2, 1932, by Dozier and Mohr; Shawneetown, Ill., June 14, 1934 (DeLong and Ross); Karnak, Ill., June 14, 1934 (DeLong and Ross); Vienna, Ill., June 14, 1934 (DeLong and Ross); Rock Island, Ill., July 7, 1934 (DeLong and Ross); Jeff, Ill., June 12, 1934 (DeLong and Ross); Apple River Canyon State Park, Ill., July 11, 1934 (DeLong and Ross); July 16, 1936, by Mohr.

Holotype, allotype and paratypes in senior author's collection. Paratypes in Illinois Natural History Survey Collection.

Idiocerus hebetus n. sp.

Resembling *lachrymalis* in form and appearance but paler in color and male genitalia different. Length 6-7 mm.

Face pale, ocelli dark. A broken dark brown band on margin forming a dark spot next each eye, and a band produced upward on each end to include the round spot which occurs on *lachrymalis*. Pronotum cream to dark gray, median anterior portion pale brown. Scutellum white to cream, basal angles brown. A transverse line at middle brown. Elytra brownish subhyaline, darker on anterior half of clavus and apical portion. Male antennal discs narrow, elongate, black.

Genitalia: Male plates elongate and rather narrow. The styles are rather broad and only slightly tapered to near apex then pointed and bearing a prominent spine near apex. Ventral portion of aedeagus stout with a pair of rather long basally directed spines just before apex. Dorsal portion of aedeagus broader at base than ventral portion, narrowed, then broadened at apex to form a diamond shaped tip with a pointed apex and the lateral margins sharply angled.

Holotype male, allotype female and male and female paratypes collected from Aspen at Galena, Ill., June 28, 1935 and July 16, 1934, by DeLong and Ross.

Holotype male, allotype female and male and female paratypes in Illinois Natural History Survey Collection. Paratypes in senior author's collection.

This species can easily be distinguished from *lachrymalis* by the paler, more uniform, color; the smaller diamond shaped terminus of the dorsal aedeagus; and the single instead of the double spines at the apices of the styles.