

SOME NEW SPECIES OF TEXANANUS AND PHLEPSIUS
FROM THE UNITED STATES

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Certain species of the Phlepsius group of genera have been confused and often two or more placed under a single name as a result of the use of external characters alone for the separation of species. The characters presented by the oedagus alone are excellent for the separation of these species and are frequently quite diverse in closely related species or two which may appear superficially to belong to the same species.

Texananus superbus Uhler

This species was described from specimens from North Carolina and Arizona. Two species were undoubtedly confused in this type series. The North Carolina specimens are therefore designated as the types and North Carolina is specified as the type locality. The oedagus is composed of three processes. The lateral pair are rather long, straight processes broadened on the basal two-thirds as seen in lateral view with the apical third tapering and decidedly narrowed. Other specimens have been examined from Tennessee and southern Illinois.

Texananus gladius n. sp.

Resembling *ovatus* in general appearance but with a long, broad, blade-like ventral oedagus process. Length, 5 mm.

Vertex bluntly angled, two-thirds as long on middle as width between eyes at base.

Color: Vertex, pronotum and scutellum yellowish, a pair of dark spots on disc of vertex. Elytra heavily marked with ramose pigment lines, posterior margin along scutellum and commissural line pale.

Genitalia: Female last ventral segment broadly, shallowly excavated with a short V-shaped notch at center. Male valve short, broadly triangular, male plates broader than long, broadly rounded. Oedagus composed of a dorsal process which is twice curved concavely upward. The caudal half more strongly curved with a slender upturned apex. Ventral portion protruding beyond apex of abdomen. In lateral view broad, blade-like and slightly concave upward.

Holotype male from Huachuca Mts., Arizona, August 18, 1936; allotype female, Gillespie Co., Texas, June 14, 1934, and male and female paratypes, Gillespie Co., same date, all collected by J. N. Knull, are in the author's collection.

Texananus angus n. sp.

Resembling *superbus* in form and appearance but narrower, paler in color and with more slender lateral processes in oedagus. Length, 6-6.5 mm.

Vertex as in *superbus* roundly angulate, produced, one-third longer on middle than next the eyes.

Color paler than in *superbus*. Ramose lines on elytra pale and fewer in number. Dark marking at end of claval veins paler.

Genitalia: Female last ventral segment broadly angularly excavated almost to base. Male valve short, narrow, and rounded. Plates broad, rather short and bluntly pointed at apex. Oedagus with three processes as in *superbus* but side processes shorter and much narrower in lateral view. Pygofers shorter and more rounded at apex.

Described from a series of male and female specimens from Uvalde, Texas, May 23, 1935; Gillespie Co., Texas, May 2, 1935, collected by J. N. Knull; Wellington, Kansas; and Roff, Cheyenne, Elser, Lebanon, and Page, Oklahoma, collected by Standish and Kaiser.

Holotype male, Uvalde, Texas; allotype female, Cheyenne, Oklahoma, and male and female paratypes in author's collection.

Texananus vermiculatus n. sp.

Resembling *superbus* in form and coloration but with long vermiculate forked lateral processes on oedagus. Length, 6 mm.

Vertex produced, blunt, rounded, almost twice as wide between eyes as median length.

Color: Yellow reticulate with brown, three brown spots on disc of scutellum and posterior ends of claval veins black.

Genitalia: Female last ventral segment rather long, deeply rather sharply excavated almost to base forming a V-shaped notch which is widened at apex. Male valve broadly triangular, male plates broad, strongly rounded to slightly pointed apices. Oedagus with three processes. The central process is short and curved dorsally, the lateral processes are long curved dorsally then ventrally at apex. A short, branched process arises at about one-third the distance to apex.

Holotype male and allotype female, Chiricahua Mts., Arizona, July 14, 1936, by J. N. Knull. Paratypes same place and date. Also from Davis Mts., Texas, August 22, 1936; Tucson, Arizona, July 27, 1936, and Wickenburg, Arizona, July 8, 1937, all collected by J. N. Knull, and in the author's collection.

Texananus manus n. sp.

Resembling *superbus* in general form and appearance but with broadened apices on lateral processes of male oedagus. Length, 6.5 mm.

Vertex produced and bluntly angled, two-thirds as wide between eyes as median length.

Color paler than *superbus* with black markings at ends of claval veins along posterior margin of elytra.

Genitalia: Male valve triangular with blunt apex, plates broad, rounded, pygofers longer than plates. Oedagus with a central dorsal

process as in *superbus*, lateral processes wide and in lateral view with apices broadened and notched producing finger-like processes which extend dorsally, ventrally, and caudally.

Described from a series of male specimens from Hualpai Mts., Arizona, July 4, 1937, collected by D. J. and J. N. Knull; Huachuca Mts., Arizona, June 9, 1935, by J. N. Knull; and one specimen labeled California without date.

Holotype male, Hualpai Mts., and male paratypes in author's collection.

Phlepsius rossi n. sp.

Resembling *fulvidorsum* in color and general appearance but slightly larger and with distinct genitalia in both sexes. Length, 7.5 mm.

Vertex produced and bluntly angled, one-half longer on middle than next the eyes, margin of vertex sharply angled with front.

Color: Vertex, pronotum and scutellum buff or dull yellow. Vertex rather heavily irrorate with brown on margin at apex and either side of middle. Pronotum rather heavily irrorate, especially on disc. Scutellum scarcely irrorate, two conspicuous brown spots on lateral margin at either side. Elytra pale, heavily irrorate, appearing brown. Inner ends of anterior claval veins white along commissural line.

Female last ventral segment rather long, posterior margin produced and margined with brown either side of a rather broad, shallow V-shaped notch. Male valve triangular, plates long, gradually tapering to narrow blunt apices. Oedagus in ventral view rather broad, apical half directed dorsally, apex with four terminal slender processes. The central pair are long and form the terminal portion of the oedagus, the lateral pair are short. A heavy process arises at the apex of each pygofer and curves across the opposite side, the apex of which is enlarged and bears a spine which extends ventrally and anteriorly.

Described from a series of one female and five male specimens collected at Herod, Illinois, August 4, 1934, by H. H. Ross, C. O. Mohr and the author, and one male specimen collected at Portland, Connecticut, July 24, 1921, by B. H. Walden. Male holotype, Portland, Connecticut, and male paratype in author's collection. Female allotype and male paratypes from Herod, Illinois, in Illinois Natural History Survey Collection.

I take pleasure in dedicating this species to Dr. H. H. Ross.

Phlepsius electus n. sp.

Resembling *irroratus* in size and general appearance, but paler in color and with distinct male genitalia. Length, 5 mm.

Vertex produced and bluntly angled, one-half longer at middle than next the eyes. Margin thin, vertex sharply angled with front.

Color: Vertex, pronotum and scutellum cream colored, rather evenly mottled with light brown. Elytra white, sparsely irrorate with dark brown.

Genitalia: Male valve broadly triangular, plates about as long as combined width at base, gradually tapered to blunt apices. Oedagus with a ventral and dorsal portion. The ventral portion in lateral

view is narrow at base and strongly abruptly broadened on apical third with a short dorsal process at apex. The dorsal portion is directed dorsally at base, then curved posteriorly and consists of two lateral pieces which diverge at apex and exceed the ventral portion in length. Pygofer with a short, erect spine on dorsal apical margin, either side.

Described from two male specimens collected in Shannon Co., Missouri, September 8, 1930, and Apple River Canyon State Park, Illinois, July 11, 1934, the latter by T. H. Frison and the author.

Holotype male (Missouri) in author's collection. Paratype male, Apple River Canyon, Illinois, in Illinois Natural History Survey collection.

Phlepsius certus n. sp.

Resembling a pale *irroratus* in general appearance but with vertex more evenly rounded and oedagus entirely different in form. Length, 5.5 mm.

Vertex almost parallel margined, three times as wide between eyes as median length, bluntly angled with front.

Color dull yellow, rather evenly marked by pale ramose pigment lines. Two darker spots along posterior margin of elytra. One is located at end of claval suture and one about half way between this and apex of scutellum.

Genitalia: Male valve short, broadly bluntly angled. Plates long, broad at base, slightly concavely narrowed about half way to apex which is bluntly pointed. Oedagus in lateral view curved upward near base, then bifurcate, a short process extending dorsally and a broad longer process directed caudally, the latter narrowed near apex. Pygofers with a long spine at the ventral caudal margin of each which is directed dorsally.

Holotype male, Wingra Lake, Wisconsin, July 8, 1916, collected by H. K. Harley, in the collection of the author.