THREE NEW SPECIES OF DELTOCEPHALUS

By E. D. Ball and D. M. DeLong

The specimens described here as new species were collected by the senior author and have been in his collection for several years. Although not described they have been previously considered as belonging to *Lonatura*. Since this genus has recently been revised by the junior author it seems best to describe these species treating them as *Deltocephalus*.

Deltocephalus plagus new species.

In coloration resembling bilineatus, but with shortened elytra, and apparently related to the collinus group. Length, 3.5 mm.

Vertex bluntly angled, slightly longer on middle than width between eyes. Pronotum shorter than vertex, more than twice a wide as long. Elytra short as in *collinus*, exposing last three dorsal segments of abdomen.

Color: Buff, with a pair of approximate brown stripes arising at apex of vertex and extending across basal angles of scutchus. Also a pair of brown stripes on pronotum just back of each eye. Elytra subhyaline, infuscated, nervures pale. Dorsum of abdomen with four slightly broken longitudinal stripes. Face with several pairs of rather indefinite arcs, one pair extending over margin of vertex and conspicuous from above.

Genitalia: Female last ventral segment slightly longer than preceding, posterior margin sinuate either side of a slightly produced rounded median lobe which occupies the median third. Ovipositor exceeded by pygofers in length.

Described from a single female collected by the senior author at Madison, Wisconsin, September 21, 1917. Type in Ball Collection.

Deltocephalus perpusillus new species.

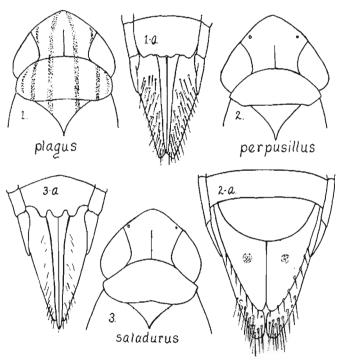
A very minute species closely resembling auratus in form and coloration. Length, 1.8 mm.

Vertex very blunt, a little longer on middle than width between eyes at base. Pronotum two-thirds as long as vertex and more than twice wider than long. Elytra almost as long as abdomen but of the brachypterous wing type.

Color: Orange yellow as in auratus. Ocelli and a spot on disc of each male plate black. Elytra subhyaline, nervures yellow.

Genitalia: Male valve strongly produced and convexly rounded. Male plates produced the length of valve beyond its apex, gradually narrowed to blunt and rather broad tips. Plates greatly exceeded by pygofers.

Described from a single male specimen from Sidney, Montana, collected June 14, 1913, and now in the Ball collection.



DELTOCEPHALUS.

Deltocephalus saladurus new species.

In general appearance resembling *striatus* but with head much narrower between eyes, blunt and bulbous, rounding to front and with distinct genitalia. Length, 3 mm.

Vertex longer than basal width between eyes, very blunt and almost rounded at apex. Pronoton as long as vertex, strongly rounded before and behind so that the lateral margins are very short. Elytra rather broad, shortened, not covering abdomen, exposing last two segments.

Color: Dirty white to brownish. Occili and impressed line on vertex black, reflexed area of front conspicuous on margin of vertex. Elytra gray subhyaline, nervures paler. Dorsal margins of abdominal segments brownish. Face dull brownish yellow with pale area. Ovipositor brown.

Genitalia: Female last ventral segment long, side margins rather short, posterior margin concavely produced from the side margins to form three prominent rounded lobes which are almost equal in size and occupy the median half of the posterior margin.

Described from a series of five female specimens from Wells, Nevada, collected by the senior author July 20, 1912, and now in his collection.