

NEW FULGOROIDEA FROM NORTH AMERICA (HOMOPTERA)

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Oliarus acicus n. sp.

Length, male, 5 mm.; female, 5.8 mm. Black over all with pronotal and facial carinae dark brown. Elytra with veins and stigma black in male; veins brown in female with apex of claval suture blackened.

Vertex long, narrow, deeply notched caudad. Profile rounding. Face polished, tumid, oval in outline; median carina prominent on frons and clypeus. Mesonotal carinae prominent but concolorous with mesonotum. Elytra with veins scarcely punctate; claval veins united in basal fourth; five anteapical cells present. Post tibiae each with two preapical spurs.

Anal segment of male with long, acute, apical tooth projecting inward to genital cavity. Pygofers with either lateral margin produced caudad and basad in lateral aspect. Forceps not greatly enlarged apically; apices recurved, acute in lateral aspect. Aedeagus with two processes; the more apical process long, recurved.

Male holotype and paratype, Brownsville, Texas, 2-19-46, (Caldwell); female allotype and eleven paratypes, and one male paratype, Hermosillo, Sonora, 3-23-27, (MF 1220, Dampf); one female paratype and two male paratypes, Yaqui Valley, Sonora, 11-19-35, (MF 3980, Dampf); and a female paratype, El Dorado, Sinola, 1-22-30, (MF 1566, Dampf).

This species is common in insect collections from southwestern United States under the name *complectus* Ball from which it differs by having a longer tooth on the anal segment, a smaller periandrium without processes, and only two aedeagal processes.

Oliarus ecologus n. sp.

Length of male, 4.5 mm.; female, 5.5 mm. General color black. Carinae of face and median carina of mesonotum red; pronotal carinae light yellow. Elytra yellowish; veins and stigma yellow.

Vertex about twice as long as broad, trough-like, with median carina in basal half. Profile rounding. Median and lateral carinae of face elevated. Intermediate carinae of mesonotum curved, closer to outside than to median. Four anteapical cells present in either elytron.

Anal segment of male hood-like. Pygofer with either posterior margin evenly produced in lateral aspect; medioventral process short, triangular. Forceps broadened, evenly recurved apically. Genitalia illustrated in Ohio Biol. Sur. Bull. 35, vol. 6, no. 6, p. 301, figs. C, C 1, 1935. (Fig. C is mirror image of true position.)

Male holotype, female allotype, and many paratypes of both sexes from Pickaway Co., 7-1-36; paratypes same locality, 6-16-34, 7-8-36; Ross Co., 7-3-38; Jackson Co., 7-22-38; Licking Co., 6-16-34; and Lawrence Co., 6-24-34, all in Ohio. (Caldwell.)

Usually identified as *franciscanus* Stal but the distribution is entirely different since *ecologus* does not occur west of the Mississippi River. I have been unable to recognize *franciscanus* but it is probably one of the more common species occurring in California as an unrecognized synonym.

Oliarus zyxus n. sp.

Length of male, 5 mm. General color black with brown carinae; carinae of mesonotum reddish. Stigma and veins of elytra fuscous.

Vertex long, narrow, deep, trough-like. Face twice as broad at widest point as at apex; median carina prominent. Elytra little over twice as long as broad; punctations on veins scarcely visible; five anteapical cells present. Post tibiae with three anteapical spurs.

Anal segment of male short, hood-like. Lateral margins of pygofer greatly produced caudad; medioventral process narrow, rounded apically. Forceps long; flattened, recurved apically.

Periandrium produced into broad, flat, S-shaped structure on the left side; without a small median spur on inner margin; aedeagus with two apical and one subapical process in addition to three basal processes.

Male holotype and paratype, Nuevo Laredo, Nuevo Leon, 9-22-41, (DeLong, Good, Caldwell, and Plummer). Male paratype, El Torreon, Coahuila, (M B 237, Dampf). I have also seen examples of this species from Texas and Arizona in various collections.

Resembling *concinulus* Fowl. and *littoralis* Ball, but differing from either by a slightly narrower vertex and in details of the male genitalia.

Cixius diastus n. sp.

Length of male, 6 mm.; female, 7 mm. Male flavous over all with black punctations on veins of elytra. Female generally flavous with lateral compartments of mesonotum slightly infuscate and with basal and apical areas as well as a median transverse stripe on elytra flavous. (Elytra is male sometimes faintly marked as in female.)

Vertex narrow, U-shaped; apical compartments transverse as in *basalis* V. D. Face narrow with median carina greatly elevated. Mesonotum longitudinally flat; median carina little evident posteriorly. Elytra almost three times as long as broad; veins densely punctate, punctations mostly paired. Post tibiae with two prominent antepical spurs.

Anal segment of male enlarged basad. Pygofer evenly rounded on either side; medioventral process very broadly triangular. Forceps obliquely truncate apically. Aedeagus with three subapical processes.

Male holotype, female allotype, seven male, and thirteen female paratypes from Mexico, D. F., 9-1-39, West 18 Km., (DeLong & Plummer).

Resembling the male of *flavo-brunneus* Fowl. but according to Mr. W. E. China of the British Museum, ". . . is quite different in structure of pygofer, styles, and aedeagus."

Gaetulia obtusa n. sp.

Length of male, 7 mm.; female, 8 mm. General color green with two longitudinal dorsal stripes beginning light yellow on vertex and deepening to dark red on mesonotum. Veins on elytra black, marginal veins yellow, stigmal area clear.

Vertex much broader than long; apex obtuse. Frons narrow, little broadened apically. Facial carinae distinct. Male with latroposterior margins of pygofer truncate. Aedeagus with one lateral and one median process projecting from theca, these processes long and slender; a pair of small acute processes present at apex. Last ventral segment of female roundedly produced caudad with small rounded median notch in posterior margin.

Male holotype, female allotype, and a male and a female paratype from Tamazunchale, S. L. P., 11-15-38, (Caldwell). Two male and three female paratypes, same locality, 8-29-39, (DeLong). One male paratype, Valles, S. L. P., 12-1-38, (Caldwell).

Resembling *plennipennis* (Walk.) in size but lacking the colored stigmal areas on the elytra and with the shorter, broader vertex.

Gaetulia vulgaris n. sp.

Length of male, 6 mm.; female, 6.5 mm. Light green in color with a pair of longitudinal dorsal stripes of varying intensity. Cephalic carina of vertex and median carina of frons black. Veins yellowish, stigmal areas clear.

Vertex as long as broad, parallel sided. Frons little longer than broad, slightly narrowed basad. Latroposterior margins of male pygofer obtusely produced. Aedeagus with broad, blunt process projecting from left side of theca; a process present on left side half distance to apex; and a pair of short, broad processes present apically. Last ventral segment of female truncate apically with a small median notch in apical margin.

Male holotype, female allotype, twenty male and twenty female paratypes from Santa Engracia, Tamps., 11-9-39, (Caldwell). Very common on grass in an orange grove.

Resembling *nigrocarinata* Fowl. but smaller and without three black mesonotal carinae.

***Pseudhelicoptera protubera* n. sp.**

Length of female, 5.5 mm. Face yellow except black apex; sides of head yellow with a broad, ragged edged, fuscous stripe present on either side from eye to apex. Vertex black; lateral margins yellow interrupted by three black dashes on either side. Pronotum fuscous, striped with white. Elytra ferruginous, spotted with small white callouses; veins more red than membranous areas.

Vertex long, narrow, trough-like; acute apically; lateral margins thin, much elevated. Frons narrowed basally, pinched laterally at base. Pronotum projected into vertex half length of eyes. Mesonotum tricarinate. Elytra lapped apically; veins regular, parallel. Hind tibiae with small basal spur. Last ventral segment of female with large, rounded, median notch on posterior margin.

Female holotype from Suchilapa, Oaxaca, 10-11-41, (DeLong, Good, Caldwell, & Plummer). (All types are in the writer's collection.)

Resembling *nasuta* Fowl. but with vertex less declivient and with narrower face.