

ON SOME NORTH AMERICAN TINGIDÆ (HEMIP.)*

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During the past three years the writer has been collecting data and preparing to monograph the American species of Tingidæ occurring north of Mexico. Through the kindness of numerous workers many specimens have been studied from various parts of the United States. As this paper will not be completed for several months, it seems desirable to publish the following notes and descriptions of new species.

Corythucha montivaga, new species.

Hood moderately large, slightly constricted near the middle, the height equal to about three-fifths of its length, slightly longer than the median carina and a little more than twice as high. Median carina with large, long (mostly rectangular) areolæ, nearly straight in the female but slightly arched in the male; lateral carinæ moderately long, arched near the middle and the areolæ becoming smaller towards both the anterior and posterior ends. Paranota with the reticulations slightly smaller than those of the globose portion of the hood, the anterior margins beset with a few spines. Lateral margins of paranota and elytra unarmed. Elytra broad, the lateral margins narrowed and rounded posteriorly; costal area triseriate. Tumid elevations narrow, moderately high and pointed. The elytra (taken together) are subequal in width (near base) and length, the entire insect being broadly ovate in outline.

General color yellowish brown with fuscous markings. Greater portion of hood, part of paranota and spot on median carina fuscous. Elytra with a band across the base and apex fuscous; both bands contain partly hyaline areolæ and the apical band extends along the apex of the elytra. Sutural area with fuscous markings. Body beneath black.

Length, 3.4 mm.; width, 2.2 mm.

Type (male) and allotype (female), collected on Bear Pw. Mt., Montana, September 3 (from the late McElfresh collection). Akin to *C. padi* Drake, but readily separated from it by the slightly elevated hood, the shape of the median and lateral carinæ and the lateral margins of the elytra.

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Corythucha ciliata Say.

In Missouri Hollinger took several specimens, including both nymphs and adults, upon ash (*Fraxinus* sp.), hickory (*Carya ovata*) and paper mulberry (*Broussonetia papyrifera*). The primary food plant of this insect is sycamore, *Platanus occidentalis*.

Corythucha gossypii Fabricius.

Eggs, nymphs and adults were found upon castor bean in Florida during the summer of 1918. The reported food plants are cotton and *Ichthyonethia piscipula*. Specimens from Florida, West Indies and Mexico show much variations in color.

Corythucha celtidis Osborn and Drake.

Specimens have been examined from Ohio, Kentucky, Tennessee and South Carolina. The specimens from Tennessee are considerably darker in color and slightly larger than types or other specimens from central Ohio. The Ohio and South Carolina specimens are from hackberry.

Corythucha obliqua Osborn and Drake.

It is impossible to separate *Corythucha maculata* Van Duzee (according to *paratype* kindly sent to me by the author) from this species and *maculata* should be placed as a synonym of *obliqua*. In Prof. H. G. Barber's collection Gibson determined an almost typical form of *obliqua* from California (called *C. fuscigera* by Van Duzee and later described by him as *maculata*) *contaminata*. In my collection Gibson identified teneral or off-color forms of *obliqua* from Moscow, Idaho, as *contaminata*. *Obliqua* is somewhat variable in size and color and it is not uncommon to find both color bands of the elytra more or less evanescent. The hood varies slightly in size, but not near as much as it does in a few other species. *Contaminata* may prove to be a variation or variety of *obliqua*, but at present it seems best to consider *contaminata* a distinct species until type has been examined. *Obliqua* is one of the most common tingids in the western part of United States and feeds on *Cænothus* spp.

Gibson quite erroneously states (Trans. Am. Ent. Soc., Vol. XLIV, p. 82) that Osborn and Drake place *contaminata*

synonymous with *distincta*. In the late McElfresh collection there were many specimens of typical *Corythucha distincta* O & D under the name "*Corythucha contaminata* Uhler MS." In fact some of these specimens bear the same locality and number label ("Colo. 626") as type and were undoubtedly collected with the type. In the late Heidemann collection, now at Cornell University, there is a long series of specimens of *Corythucha pallida* O & D under the manuscript name *Corythucha contaminata* Uhl.; this label is written in Uhler's own hand writing. Furthermore, I have seen two or three other species bearing this same manuscript name. It seems entirely inept to put the "manuscript" or "cabinet" names of insects in literature, especially when there are several species under the same name or several names refer to the same species and when these names have never appeared in literature.

***Corythucha immaculata* Osborn and Drake.**

Corythucha pura Gibson is a synonym of this species. My long series of specimens from Montana connect up the two forms perfectly and *pura* cannot be considered even a variety of *immaculata*. The primary food plant is *Balsamorhiza sagittata*.

***Corythucha morrilli* Osborn and Drake.**

A common insect in Texas, Arizona, New Mexico, Colorado, California and northern Mexico. Specimens at hand bear the food plant labels "on desert plant" and "on *Helianthus*." Morrill collected specimens on beans at Yuma, Arizona. *Morrilli* is somewhat variable in size, height and width of hood, and color. *C. mexicana* Gibson is very close to the larger specimens of *morrilli* and it may prove to be identical or a variety of *morrilli*. Both insects are much alike in color pattern.

***Corythucha fuscigera* Stal.**

This insect has been much confused in literature with several other species. In examining the specimens in the National Museum and several other collections the writer found five or six different species under the name *fuscigera*. The distribution as given by Gibson (Trans. Am. Ent. Soc., Vol. XLVI, p. 78)

includes records for other forms and the insect does not range from New Jersey to Colorado. Specimens have been examined from Arizona, Mexico and Central America. Champion gives a good figure of *fuscigera* in the *Biologia Centrali-Americana* and it is not readily compounded with other species.

Monanthia (?) necopina, new species.

Pronotum coarsely punctate, tricarinate, the carinae rather thick and parallel, each with a single series of very small areolae. Median carina raised in front, forming a small rather flat hood, the lateral carinae ending anteriorly at the base of this hood. Paranota narrow, long, composed of mostly three rows of very small areolae. Bucculae closed in front. Head with five rather slender, moderately long spines. Antennae rather stout, long; first segment thicker and a little longer than the second; third segment a little thinner than the second, a little more than two and a half times the length of the fourth; fourth segment slightly enlarged towards the apex. Antenniferous tubercles moderately large. Rostral groove uninterrupted, the rostrum extending slightly beyond the mesometasternal suture. Legs rather stout. Elytra extending beyond the apex of the abdomen, the areolae very small; discoidal area marked off with strongly raised nervures, very long, reaching almost to the apex of the abdomen (about three-fourths of the total length of the elytra); costal area almost entirely triseriate; subcostal area with from two to three rows of areolae, the areolae of costal, subcostal and discoidal areas about equal in size; sutural area with the inner and distal cells becoming a little larger. Length, 3.1 mm.; width, 1.23 mm.

Color: General color light yellowish brown with a few of the veinlets brown or fuscous. Body beneath reddish brown, the thorax, coxae, trochanters and femora darker. Tarsi and rostral laminae tinged with yellowish. Head and prothorax on each side of the hood in front black, the spines on the head whitish. Antennae with the basal and second segments dark brown, the third segment light brown and the fourth blackish.

One specimen, bearing the labels Bladensburg, Md., July 27, 1890, and P. R. Uhler Collection. The insect is so very distinct from any described North American tingid that I feel entirely safe in describing the species from a single specimen. The species does not seem to be congeneric with the American species of the genus *Monanthia* and I will take up its generic position in a subsequent paper.

Leptoypha ilicis, new species.

Small, narrowly oblong, slightly constricted at the base and near the apex of the elytra, and a little narrowed behind. Surface coarsely punctured. Pronotum with median carina fairly distinct, the lateral

carinæ not traceable, even on the posterior extension. Antennæ short, first and second segments subequal, third equal to the length of the other three taken together, fourth a little shorter than the first and second conjoined. Spines on front of vertex arranged as in *L. mutica* Say, the decumbent spines from back of vertex usually a little shorter. Elytra with the areolæ in subcostal area arranged in four rows (in two or three specimens scarcely more than three), the costal area with only a few distinct cells at the constriction near the apex.

General color reddish brown, usually with blackish or fuscous areas. Legs with the tarsi fuscous. Body beneath dark reddish brown. Eyes black in fully matured specimens. Collar and apex of triangular portion of pronotum sometimes paler. In some specimens a few of the veinlets are infuscate.

Length, 2.21 mm.; width, .87 mm. Length of antennal segments; 1, .1 mm.; 2, .1 mm.; 3, .36 mm.; 4, .16 mm.

Described from numerous males and females, taken on Stone Mt., Georgia, June 8, 1917. The specimens were collected on Holly, *Ilex* sp., in company with a few specimens of *L. elliptica* McAtee by Mr. H. H. Knight. *Type* (male) and *allotype* (female). The insect is most closely related to *L. mutica* Say from which it may be separated by its much smaller size, and shorter antennæ. Long series of *mutica* from various parts of eastern United States fail to show any intermediate forms between the two species.

***Acanthocheila exquisita* Uhler.**

Uhler's types of *exquisita* are in the late Heidemann Collection, Cornell University, Ithaca, New York.