

**Six new Species of Graminella and Chlorotettix  
(Homoptera Cicadellidae) from the eastern United  
States.**

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**Graminella mohri** n. sp.

In form and general appearance resembling *T. pallidula* Osborn, but smaller and with distinct genitalia. Length 2- 2.5 mm.

Vertex bluntly angled, almost one-third wider between eyes than length at middle, elytra rather long and narrow.

Color: Straw yellow without definite markings. Elytra venation paler.

Genitalia: ♀ last ventral segment with lateral margins very short then obliquely produced inwardly to rounded lobes, between which the posterior margin is concavely rounded to a median rounded and slightly produced tooth. Margin rather broadly embrowned either side.

♂ plates rather long and pointed, combined width at base a little more than length. Style long and narrow, basal narrow inner portion almost as long as apical half. Oedagus entirely different from that of *pallidula*. In ventral view bifurcate at apex, so as to form a pair of vertical plates. In lateral view with a rounded, bulbous apex then slightly constricted between this and a broader basal half. The lateral spines at apex are on dorsal portion.

Type locality Erie, PENNSYLVANIA. *Holotype* male; *allotype* female and male and female *paratypes* in author's collection. Male and female *paratypes* in Illinois Natural History Survey collection.

Described from a large series of specimens from Presque Isle (Erie) Pa., collected by the author, July 4, and 21; August 1 and 29, and Sept. 5, 1919; a series from Clay County, KANSAS, collected August 1, 1906; a large series of specimens from Zion, ILLINOIS, collected July 25, 1934, by Dr. T. H. Frison, Dr. H. H. Ross and the writer, and a large series of specimens collected from a sand prairie at Thompson, Illinois, June 30, 1935, by Dr. H. H. Ross and the writer. This species occurs abundantly upon the sand plain of the margins of the Great Lakes and apparently it is widely distributed. It has been previously confused with *pallidula*. I take pleasure in

naming this species for Dr. Carl Mohr, who has given valuable assistance during the past two seasons in studies of the Cicadellidae of Illinois.

**Graminella oquaka** n. sp.

In form, size and coloration resembling *pallidula* Osborn, but with fainter markings and distinct genitalia. Length 2.5 and 2.7 mm.

Vertex bluntly angled, about one-fourth wider between eyes than length at middle. Elytra longer than abdomen.

Color dull yellowish, vertex with four black or brownish spots just above margin between ocelli. These are frequently very faint. Ocelli black. Veins of elytra pale.

Genitalia: ♀ last ventral segment with lateral margins extending about half the length of the segment, then obliquely sloping to broadly rounded lobes between which the posterior margin is concavely rounded to a median slightly produced blunt tooth.

♂ plates rather broad and short, combined width at base greater than length, outer margins rather broadly, convexly, rounded at base then sloping to blunt apices. Styles only a little longer than broad, the basal narrow inner portion short. Oedagus appearing similar to *mohri* but narrower and deeper cleft at apex in ventral view. In lateral view with a much larger apical portion broader and not constricted at base. Lateral spine at apex at ventral edge of oedagus.

Described from a large series of male and female specimens collected at Oquaka, ILLINOIS, July 3, 1934, by Dr. H. H. Ross and the author, from bunch grass on a sand prairie, and a series of specimens collected at Thompson, Illinois, June 30, 1935, by the same collectors and from a similar habitat. This species is a Mississippi sand prairie form and might easily be mistaken superficially for *pallidula*. It can, however, be easily separated by the structures of the internal genitalia.

Type locality Oquaka, ILLINOIS. Male *holotype*, female *allotype* and male and female *paratypes* in the Illinois Natural History Survey Collection, Urbana, Illinois. Male and female *paratypes* in the author's collection.

**Chlorotettix brevidus** n. sp.

Resembling *unicolor* in general appearance but smaller darker green in color and with distinct male genitalia. Length 4.5 mm.

Vertex broadly rounded, about three times as wide between eyes as length at middle.

Color dark green tinged with yellow, veins of elytra especially dark green.

Genitalia: ♀ last ventral segment almost twice as long as preceding. Posterior margin shallowly concave between a pair of broad, slightly produced lobes. Between the inner pair the segment is deeply notched more than one-third the distance to the base. The sides of the v-shaped notch are straight and the apex is embrowned.

♂ plates triangular, sharply angled at apices, a little longer than combined width at base. Ventral margins of ninth segment not overlapping but forming a keel which is conspicuous caudal to the plates. Also the caudal notch in the pygofer near the posterior margin is shorter and more sharply notched at base than in the case of *unicolor*. The oedagus is the same form and type as *unicolor* but the terminal processes are proportionately shorter, in every case being conspicuously shorter than the basal portion of the oedagus.

Type locality Thompson, ILLINOIS. Described from a series of four male and nine female specimens collected at Thompson, Illinois, July 8, 1934, by Dr. H. H. Ross and the author, one male specimen from Oak Lawn, Illinois, July 27, 1934, taken by the same collectors and one specimen from Zion, Illinois, collected July 25, 1934, by Dr. H. H. Frison, and the author. Male *holotype*, female *allotype* and male and female *paratypes* in the collection of the Illinois Natural History Survey, Urbana, Illinois. Male and female *paratypes* in the author's collection.

**Chlorotettix obsenus** n. sp.

Resembling *unicolor* in form and appearance but smaller and with distinct genitalia. Length 4.5 mm.

Vertex broadly rounded but produced at middle about two thirds its length before anterior margins of the eyes. Not quite three times as wide between the eyes as length at middle.

Color pale green tinged with yellow.

Genitalia: ♀ last ventral segment more than twice as long

as preceding. Lateral margins produced about two-thirds its length, then gradually obliquely sloping to form produced lobes of the last ventral segment, between which the margin is excavated about one-third the distance to the base. The posterior margin is gently sloping to the central fourth which is more abruptly and almost concavely notched. The base of the broad v-shaped notch is embrowned.

♂ plates triangular, about as long as combined basal width, greatly exceeded in length by the pygofer. Oedagus in ventral view constricted at about two-thirds its length then bifurcate forming two slender terminal processes which are not more than half as long as the basal portion. In the case of *unicolor* these are as long as basal portion.

Type locality Zion, ILLINOIS. Described from five male and five female specimens collected at Zion, Illinois, from grasses and sedges in a marsh habitat by Dr. T. H. Frison, Dr. H. H. Ross, and the author, and one male specimen from St. Anne, Illinois, July 20, 1934, by Dr. H. H. Ross and the author. Male *holotype*, female *allotype*, and male and female *paratypes* in the Illinois Natural History Survey collection. Male and female *paratypes* in the author's collection.

**Chlorotettix filamenta** n. sp.

Resembling *balli* in general form and appearance but with distinct genitalia. Length 4 mm.

Vertex produced, bluntly angled, twice as wide between eyes as medium length.

Color green tinged with yellow, without darker markings.

Genitalia: ♂ plates triangular, outer margins convexly rounded at base then concavely rounded before apices which are narrow but bluntly rounded. Combined width at base a little greater than length. Oedagus similar to that of *balli* in type, but differing by having the inner branch of each bifurcate process at the apex at least twice as long as the corresponding branch in *balli* and the outer branch is at least four times as long as the corresponding portion in the case of *balli*.

Type locality Marshall, ILLINOIS. Described from two male specimens collected at Marshall, Illinois, September 27, 1934, by Dr. T. H. Frison, and Dr. H. H. Ross, and one male specimen collected at Havana, Illinois, August 30, 1917. *Holotype* and *paratype* males are in the Illinois Natural History Survey collection, Urbana, Illinois. *Paratype* male in the author's collection.

**Chlorotettix serrata** n. sp.

In coloration and general appearance resembling *scutellatus* Osborn, but with more rounded head and distinct genitalia. Length 4 mm.

Vertex rather broadly rounded, about three times as wide as length at middle. Pronotum more than twice as long as vertex. Ventro-caudal edge of pygofer with a row of conspicuous saw teeth.

Color: Yellow with brown markings. Vertex with a transverse brown band between anterior margins of eyes sometimes interrupted at middle. A pair of dark spots on basal angles of scutellum visible as they extend anteriorly under the pronotum. Inner margin of claval area with a faint brown line.

Genitalia: ♀ last ventral segment rather long, posterior margins broadly rounded, deeply broadly notched at middle more than half way to base.

♂ plates longer than combined width at base, gently convexly rounding from base to apices which are acutely angled. Oedagus short, in lateral view thickened on basal two-thirds, apical third narrowed, curving abruptly dorsally and anteriorly. Another portion arises about the middle dorsally and extends anteriorly with the apex curved dorsally.

Type locality Brownsville, TEXAS. Described from a series of four female specimens collected at Brownsville, Texas, November 22, 1910, and Mission, Texas, December 4, 1910, and two males collected at Tampico, MEXICO, December 29, 1908. Male *holotype*, female *allotype* and female *paratypes* in collection of Illinois Natural History Survey, Urbana, Illinois. Male and female *paratypes* in the author's collection.