THE GENUS ELYMANA IN NORTH AMERICA

(Homoptera, Cicadellidae)

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The genus Elymana DeLong was recently described to include the pointed-headed species of the inornatus group previously included in Thamnotettix. The habitat of the eastern species is usually quite restricted and they are normally found on Elymus grasses growing in a rather well shaded area of the flood plain woods. Previously only one species, inornatus, has been known in this group. It is common throughout the northeastern United States. Four others are described at this time, three from the eastern United States and one from the southwest. All of these are quite similar in form and type. The females are much alike in the character of the last ventral segment, the posterior margin of which is usually sinuate. The males bear a pair of prominent long black spines on the dorsal caudal extremity of the ninth segment. Another pair of prominent spines is found on the dorsal median portion of the ninth segment. These latter spines are not present, however, in the Arizona species. The oedagi of the males vary only slightly, but the styles are quite different in the several species and these together with the length and angle of the vertex offer good diagnostic characters for separation of the species of this genus.

KEY TO SPECIES

1.	Vertex bluntly angled, recurved markings of face conspicuous between
	ocelli above margin on apex. Median dorsal portion of ninth segment
	without spines. Known only from Arizona, ritana
1'.	Vertex without recurved markings at apex of vertex. Ninth segment
	bearing prominent spines on median dorsal surface, known only from
	the eastern U. S
2(1').	Ninth segment produced into a sharp pointed spine at apex. Spines
	on median dorsal portion, visible in lateral view, directed caudad 3
2'.	Ninth segment tapered but blunt at apex, apical spines above apex of
	segment. Median dorsal spines, not visible in lateral view, directed
	laterally into genital chamber
3(2).	Styles of male constricted between base and enlarged apex which is
. ,	sharp pointed on outer margin and slopes outwardlyacrita
3'.	Styles constricted near base and slightly tapered to almost truncate
	apices which are not enlargedacuma
4(2').	Vertex almost rounded at apex, three-fifths as long as wide. Styles of
` ,	male constricted near apex then strongly curved outwardly, enlarged
	and truncate on outer margin
4'.	Vertex more angled, three-fourths as long as wide, styles constricted
	near apex but not enlarged, produced as parallel sided apices directed
	slightly obliquely and truncate at apexinornata
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Elymana inornata (Van Duzee)

Thamnotettix inornatus V. D. Trans. Am. Ent. Soc. 19: 303, 1892

Vertex bluntly angled, one-fourth wider between eyes than length at middle.

Color dull yellow tinged with green.

Genitalia: Female segment almost truncate, a brown spot either side of middle causes it to appear notched. Male with dorsal portion of ninth segment convexly rounded to posterior spine. Anterior spine extending inwardly and not seen in lateral view. Styles long, outer margins sloping inwardly to near apex where they are notched and the apices are produced as short rather narrow, parallel margined and divergent processes.

This is the most common and widely distributed of the northern species and occurs from South Dakota to Maine.

Elymana acuma n. sp.

Resembling *inornata* in general form and appearance but with vertex more strongly produced and with distinct genitalia. Length, 5 mm.

Vertex rather sharply angled, only slightly wider between eyes than length at middle.

Color yellowish, ocelli black.

Genitalia: Female segment truncate with heavy brown spots either side of middle. Male ninth segment with anterior spine prominent in lateral view, the dorsal margin beyond this is strongly concavely rounded to form the posterior spine. Styles in ventral view rather short, not notched on outer margin, slightly convexly rounded on inner margin, sides almost parallel, apex truncate.

Holotype male (Clarksville, Tennessee); allotype female and male and female paratypes in author's collection. A large series of male and female specimens from Clarksville and Knoxville, Tennessee, collected in July, August and September, 1915 and 1917 are in the type series.

Elymana acrita n. sp.

In form and general appearance resembling *acuma* but smaller and with distinct genitalia. Length, 4.75–5 mm.

Vertex sharply angled, almost as long as basal width between eyes.

Color yellowish, ocelli black.

Genitalia: Female last ventral segment shallowly, roundedly emarginate with the dark spot either side of middle. Male ninth segment sloping to posterior spine, scarcely concave, anterior spine prominent. Styles in ventral view with outer margins sinuate and tapered to a constricted portion anterior to an enlarged apical process which is truncate at apex.

Holotype male (Oakwood, Ill.); allotype female and male and female paratypes in Illinois Natural History Survey collection. Male and female paratypes in author's collection. A large

series of specimens collected at Eichorn, Norris City, Kampsville, Rock Island, Vienna, Dolson, Port Byron, Shawneetown, Monticello, Oakwood, Danville, and Kankakee, Illinois, during June, July and August, 1934 and 1935, are in the type series.

Elymana caduca n. sp.

Resembling *inornata* in general appearance but with vertex shorter and more bluntly angled. Length, 5 mm.

Vertex bluntly angled, length at middle three-fifths the basal width. Color yellow, wings tinged with green, ocelli black, veins of elytra

lighter and conspicuous.

Genitalia: Female last ventral segment truncate or slightly emarginate. Male ninth segment strongly convex and rounded dorsally, anterior spine hidden in lateral view, extending inwardly. Posterior spine prominent. Styles in ventral view rather deeply notched on outer margin, inner margin strongly convex and curved, apices turned outwardly with pointed tips.

Holotype male (Merillan, Wisconsin); allotype female and male and female paratypes in the author's collection. A series of twenty-four male and female specimens collected at Merrillan, Ladysmith, Bayfield and Amery, Wisconsin, by the author in August and September, 1916, are in the type series.

Elymana ritana n. sp.

Resembling *inornata* in general appearance but more robust and with distinct genitalia. Length, 5-5.5 mm.

Vertex bluntly angled, about one-fifth wider between eyes than

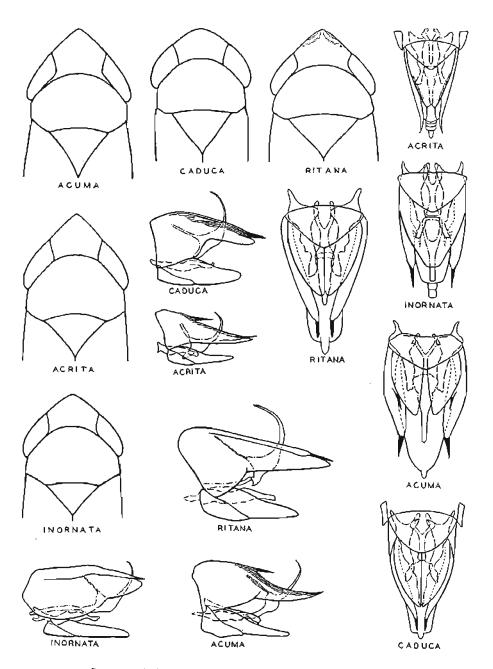
length at middle.

Color green tinged with yellow, arcs of face conspicuous as they extend up over margin of vertex. A broad, pale curved band extending from apex of vertex to ocelli. Elytra subhyaline, veins yellowish,

conspicuous.

Genitalia: Female last ventral segment broadly roundedly and rather strongly emarginate. Central portion with heavily embrowned coloration extending toward base on either side of middle. Male ninth segment sloping almost straight on dorsal margin to prominent posterior spine. Anterior spine wanting. Styles in ventral view tapering and sinuate on outer margin to a rather deep notch about one-third the distance from apex, which apical portion is enlarged and rounded on inner margin to form an outwardly turned bluntly pointed apex.

Holotype male (Santa Rita Mts.); allotype female and male and female paratypes in collection of E. D. Ball. Male and female paratypes in author's collection. A series of eleven male and female specimens from Santa Rita Mts., Arizona, collected by Dr. E. D. Ball, July 13, 1930, and September 5, 1933, and the Huachuca Mts., August 2, 1931, comprise the type series.



Structural characters of species of the genus Elymana.