

A New Nearctic Leafhopper of the Genus *Flexamia* (Hemiptera: Cicadellidae)¹

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When studying the comparative geographic ranges of species of *Flexamia*, we discovered a morphological segregate close to but different from *F. sandersi* DeLong. This segregate we are considering a distinctive species described below.

Flexamia delongi new species

Length of male 3.4–4.1 mm, of female 3.5–4.2 mm. Head with proportions variable, but median length of crown usually about one-fourth to one-half greater than interocular width and six-tenths to seven-tenths transocular width. Hind wing exceeding claval apex, but not attaining apex of forewing. Face varying from dark above and shading to paler apically to brown or black throughout, in former case with dark area fading gradually along lower margin, not appearing as definite interocular band.

Male genitalia as in Figs. 1–4. Pygofer with posterior lobe produced posteriorly and truncate or slightly concave on dorsal portion of posterior margin. Connective in lateral aspect with keels flared dorsally. Aedeagus asymmetrical; shaft elongate, not cylindrical, gradually tapered; gonopore at base of apical third of length of shaft on dorsolateral surface at base of retrorse process, which extends basad to midlength of shaft; pair of lateral apical retrorse processes extending more than one-third, but less than one-half length of shaft, each with a distinct coarsely serrate margin and with very acute apex; apex of aedeagus broadly rounded.

Female seventh sternum with broad, convex, median posterior projection slightly notched at middle.

HOLOTYPE ♂, ALLOTYPE ♀.—Zion, Ill., Aug. 7, 1935, DeLong and Ross. Paratypes.—ILLINOIS: Elgin, Aug. 7, 1955, GL 537, H. H. Ross, 2 ♂, 1 ♀; Zion, July 25, 1934 to July 27, 1966, 32 ♂, 42 ♀. INDIANA: Tremont, Aug. 26, 1959, 4 ♂. WISCONSIN: nw of Eagle (Waukesha Co.), July 15, 1963, Stannard and Smith, 3 ♂; nw of Arena (Iowa Co.), July 17, 1963, Stannard and Smith, 1 ♂. Types in the collection of the Illinois Natural History Survey.

Comparisons.—In the Young and Bierne (1958) revision of the genus, males of *F. delongi* will key to *F. sandersi*, to which it is indeed most closely related and of which it has previously been considered a variant. The two may be separated by the following couplet.

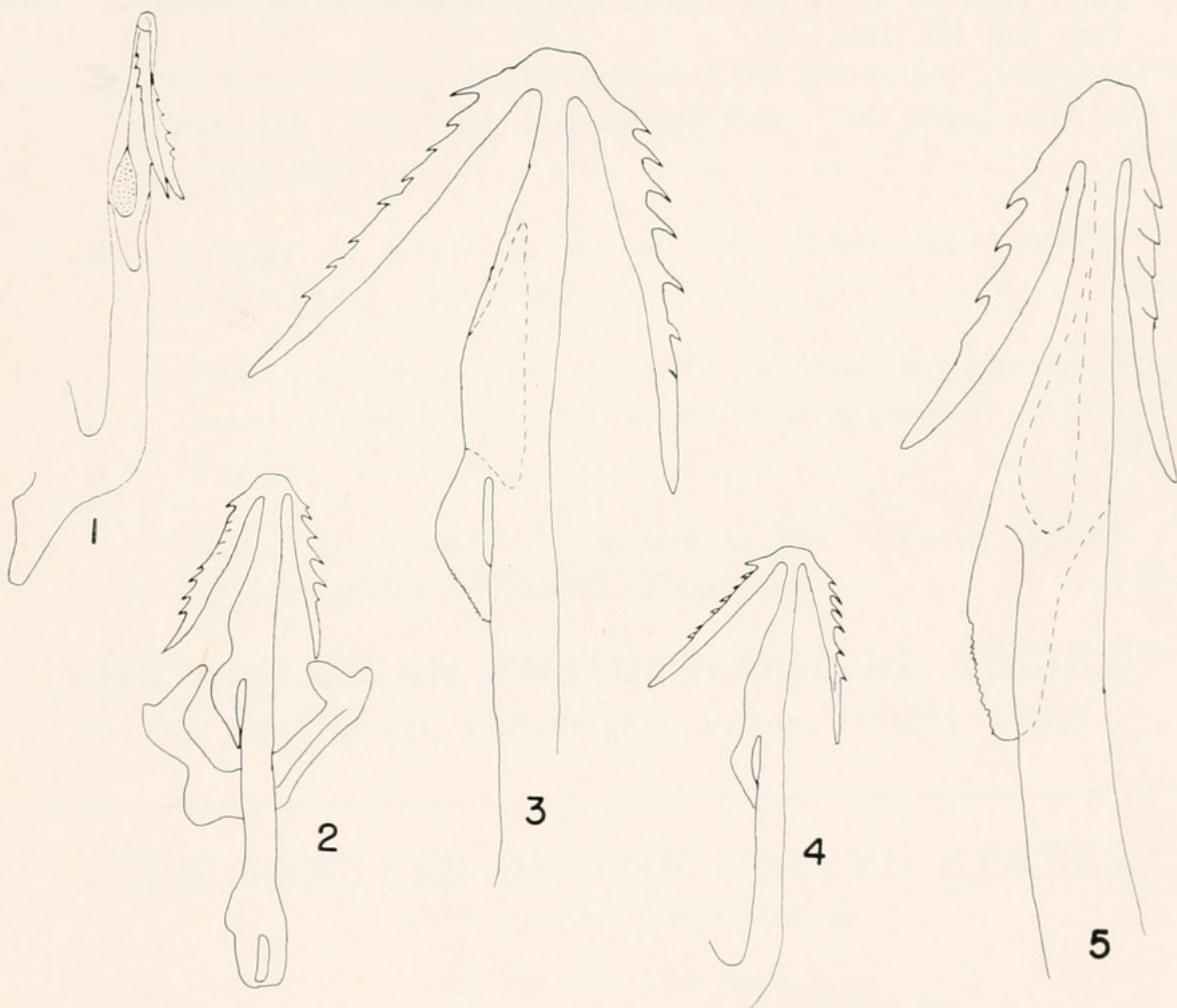
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Apical processes of aedeagus more divergent, each with 6-9 teeth; when viewed in a position with the apical processes horizontal, a space is visible between the base of the gonopore extension and the shaft (Figs. 1-4)*delongi*
 Apical processes of aedeagus less divergent, each with 3-5 teeth; when viewed as above, no space is visible between the base of the gonopore extension and the shaft (Fig. 5)*sandersi*

To date no differences have been found that separate females of *F. delongi* from *F. sandersi*.



FIGS. 1-5. Aedeagus of species of *Flexamia*. 1-3, holotype of *F. delongi*; 4, paratype of same species; 5, holotype of *F. bidentata*. 1, aspect showing full view of gonopore (stippled); 2-5, aspect showing greatest divergence of lateral process. 3 and 5 about twice magnification of 1, 2, and 4.

Distribution. We have personally examined specimens of *F. delongi* and *sandersi* from Alabama, Illinois, Indiana, Louisiana, Massachusetts, Missouri, Virginia, and Wisconsin. On the basis of these records it appears that *F. sandersi* extends from the Gulf coast northward to central Illinois in the west and to Massachusetts in the east. In the Midwest *F. delongi*

replaces *sandersi* in the *Andropogon* prairies of northern Indiana, northern Illinois and Wisconsin. Western records of *F. sandersi* from the Dakotas, Nebraska and Kansas have not been re-examined by us and their identity needs reconfirming. The type of *F. sandersi* is from Chain Bridge, Va., and the type of its synonym *F. bidentata* DeLong is from Wellesley, Mass.

REFERENCE CITED

- YOUNG, D. A., JR. and B. P. BEIRNE. 1958. A Taxonomic Revision of the leafhopper genus *Flexamia* and a new related genus (Homoptera, Cicadellidae). USDA Tech. Bull. No. 1173: 1-53.



Ross, Herbert H. and Cooley, T A. 1969. "A New Nearctic Leafhopper Of The Genus *Flexamia* Hemiptera Homoptera Cicadellidae." *Entomological news* 80, 246–248.

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