

Giri & Freytag 1983

Some delphacid planthoppers of Kentucky (Homoptera).¹—The delphacid fauna of Kentucky is poorly known. Among the few published records are *Stobaera tricarinata* Say (Slosson, Ent. News 7:262-265, 1896), *Liburniella ornata* Stal (Forbes and Hart, Bull. II. Agric. Exp. Sta. 60:397-532, 1900) and *Delphacodes puella* Van Duzee (Osborn, Ann. Rept. Ohio St. Acad. Sci. 8:65, 1900 according to Metcalf, General Catalogue of Hemiptera, Ed China, 1943). We verified and failed to find any mention of Kentucky in the reports of Forbes and Hart and Osborn. Sperka and Freytag (Trans. Ky. Acad. Sci. 36(3/4):57-62, 1975) reported collecting *Delphacodes* spp. including *Delphacodes lutulenta* (Van Duzee), in connection with the parasitism by mermithid nematodes.

Delphacids were collected using D-Vac sampler and an insect net in pastures of Fayette and other counties of Kentucky from May to October of 1980 and 1981. The collected specimens were killed and preserved in 75% ethyl alcohol until sorted and identified. Confirmation of many identified specimens was made by J. P. Kramer, U.S. National Museum, Washington, D.C.

Adult delphacids were found in pastures from the early part of May to the end of October. By early May, the delphacids began reproduction as evidenced by the presence of nymphs by early June. *Delphacodes lutulenta* was the most abundant delphacid in this area (unpublished data). During the 2 collecting seasons, a total of 6 genera and 14 species were collected, including 8 *Delphacodes*, 1 *Liburniella*, 1 *Sogatella*, 1 *Euides*, 2 *Pissonotus* and nymphs that looked like *Stenocranus*. Among these, *Delphacodes campestris*, *D. lateralis*, *D. mcateei*, *D. andromeda*, *D. uhleri*, *D. montezumae*, *Sogatella kolophon*, *Euides weedi*, *Pissonotus flabellatus* and *P. marginatus* are new records for the state. The counties where *D. lutulenta* and *D. campestris* were collected are shown in Fig. 1. Other species were collected in Fayette County. *Stobaera tricarinata* was collected from Bullitt County.

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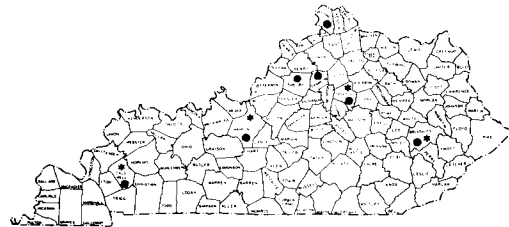


FIG. 1. Map of Kentucky showing counties where *Delphacodes lutulenta* (●) and *Delphacodes campestris* (*) were collected.

TABLE 1.—LIST OF KENTUCKY DELPHACIDS WITH ADDITIONAL DATA

Taxa	Collection dates	Sex collected	Wing forms*		Identification confirmed by:
			B	M	
<i>Delphacodes lutulenta</i> Van Duzee	May 1–Oct 30	Both	X	X	Freytag & Giri
<i>D. campestris</i> (Van Duzee)	May–Oct	Both	X	X	Kramer
<i>D. puella</i> (Van Duzee)	July–Oct	Both	X	X	Kramer
<i>D. lateralis</i> (Van Duzee)	Sept 25	♂	X	X	Kramer
<i>D. andromeda</i> (Van Duzee)	Aug 14–21	♂	X	X	Kramer
<i>D. mcateei</i> Muir & Giffard	Aug 14–Sept 18	♂	X	X	Kramer
<i>D. uhleri</i> Muir & Giffard	Aug 21–Sept 25	♂	X		Kramer
<i>D. montezumae</i> Muir & Giffard	June 3	♂		X	Freytag & Giri
<i>Liburniella ornata</i> (Stal)	May–Nov	Both	X	X	Kramer
<i>Liburniella</i> sp.	Aug 28	♀		X	?
<i>Sogatella kolophon</i> (Kirkaldy)	Sept 18–Oct 23	Both		X	Kramer
<i>Euides weedi</i> (Van Duzee)	July 24–Oct 23	Both	X	X	Kramer
<i>Pissonotus flabellatus</i> (Ball)	Aug 7–Oct 10	Both	X	X	Kramer
<i>P. marginatus</i> Van Duzee	Sept 4	♂	X		Kramer
<i>Stenocranus</i> sp. ?	June 17–Aug 21	Nymphs			Kramer
<i>Stobaera tricarinata</i> (Say) ¹	?	?			Metcalf (1943)

* B = Brachypterous, M = Macropterous.

¹ Slosson 1896.

Some of the planthoppers showed wing dimorphism of short wing (Brachypterous) and long wing (Macropterous) the time of occurrence, sexes, wing-forms and the persons who confirmed the identification are summarized in the Table 1. Most species were collected from pastures dominated by tall fescue (*Festuca arundinacea* Schreb.), orchardgrass (*Dactylis glomerata* L.) and Kentucky bluegrass (*Poa pratensis* L.), with green foxtail (*Setaria faberi* Herrm.), Nimbwill (*Muhlenbergia schreberi* Gmel.), hairy crabgrass (*Digitaria sanguinalis* L.)

appearing in the later part of the summer or fall, either in pure stand or mixed with broadleaf weeds.

We attempted to colonize the species of planthoppers in which both males and females were collected. *Delphacodes lutulenta* and *D. campestris* were colonized on the following plants: *F. arundinacea*, *D. glomerata*, *P. pratensis*, *S. halepense*, *D. sanguinalis*, *Triticum aestivum* L. Var. Abe (wheat) and *Avena sativa* L. (oats). *Delphacodes puella* colonized on *D. sanguinalis* while *L. ornata*, *S. kolophon* colonized on *T. aestivum* and *A. sativa*.

TABLE 2.—SPECIES OF DELPHACIDS TESTED FOR COLONIZATION ON GRASSES

Species of Delphacids	Plants tested	Colonized on grasses indicated ¹
<i>Delphacodes lutulenta</i>	1. <i>F. arundinacea</i> , 2. <i>D. glomerata</i> , 3. <i>P. pratensis</i> , 4. <i>D. sanguinalis</i> , 5. <i>S. halepense</i> , 6. <i>T. aestivum</i> , 7. <i>A. sativa</i>	1, 5, 6, & 7
<i>D. campestris</i>	1. <i>F. arundinacea</i> , 2. <i>D. glomerata</i> , 3. <i>P. pratensis</i> , 4. <i>D. sanguinalis</i> , 5. <i>S. halepense</i> , 6. <i>T. aestivum</i> , 7. <i>A. sativa</i>	1, 5, 6, & 7
<i>D. puella</i>	4. <i>D. sanguinalis</i> , 6. <i>T. aestivum</i> , 7. <i>A. sativa</i>	4
<i>Liburniella ornata</i>	1. <i>F. arundinacea</i> , 6. <i>T. aestivum</i> , 7. <i>A. sativa</i>	6 & 7
<i>Sogatella kolophon</i>	6. <i>T. aestivum</i> , 7. <i>A. sativa</i>	6 & 7
<i>Pissonotus flabellatus</i>	1. <i>F. arundinacea</i> , 6. <i>T. aestivum</i> , 7. <i>A. sativa</i>	—
<i>P. marginatus</i>	1. <i>F. arundinacea</i> , 6. <i>T. aestivum</i> , 7. <i>A. sativa</i>	—

¹ The numbers correspond to the numbers on the column of plants tested.

Methods of colonization are discussed by Giri (dissertation, Univ. Kentucky, 1982). Colonization was considered successful if oviposition and development of immatures to adults took place. All species tested except the 2 *Pissonotus* spp. colonized on one or more of the tested plants (Table 2).—M. K. Giri and P. H. Freytag,² Dept. of Entomology, Univ. Kentucky, Lexington, Kentucky 40546, USA.

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