



## *Aethodelphax prairianus* gen. et sp. nov. (Hemiptera: Delphacidae) and seven congeneric species from North American *Delphacodes*

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### Abstract

The new genus *Aethodelphax* gen. nov. is described to include one new species, *Aethodelphax prairianus* sp. nov. and 7 species transferred from *Delphacodes*: *Aethodelphax aetocephalus* (Beamer, 1948), **comb. nov.**, *A. alatus* (Beamer, 1948), **comb. nov.**, *A. caninus* (Beamer, 1947), **comb. nov.**, *A. concavus* (Beamer, 1948), **comb. nov.**, *A. megadontus* (Beamer, 1951), **comb. nov.**, *A. paraparvulus* (Beamer, 1948), **comb. nov.**, and *A. sagittatus* (Beamer, 1947), **comb. nov.** A diagnosis for all species, illustrations and an identification key is provided. All species are found in the midwestern and southeastern states of the U.S., except *A. caninus* which is recorded from Arizona and New Mexico, and are all associated with native grasslands.

**Key words:** Delphacidae, Fulgoroidea, *Delphacodes*, new genus, new species

### Introduction

This study reports a new and locally common species of Delphacidae that appears to be restricted to bluestem grasses, *Andropogon* spp., in native tallgrass prairies. It is superficially similar to the widespread bluestem specialist *Muirodelphax parvula* (Ball) (see Hamilton & Kwon 2010) and has probably been overlooked until now in grassland surveys. Its distinctive antennal and genital characters support creation of a new genus for its reception. Seven other related, but much rarer species, previously described as “*Delphacodes*” (Beamer 1947; 1948a,b; 1951), are here transferred to this new genus.

*Delphacodes* Fieber (Delphacini) has been variously defined to include many Nearctic species (Metcalf 1943; Beamer 1947, 1948a,b, 1951). Presently, it is considered to be a western Palearctic genus of 10 species (Wagner 1963; Asche 1985; Holzinger *et al.* 2003). The type specimen of the type species of *Delphacodes*, *D. mulsanti* Fieber, is a female in poor condition (China 1954). The crudely illustrated male genitalia (Fieber 1866, fig. 32) has led to a number of attempts to interpret the features of the species and the limits to the genus (e.g., China 1954; Linnavuori 1957; Dlabola 1957, 1961; Nast 1958; Le Quesne 1960a,b, 1964; Wagner 1963) culminating in Asche & Remane’s (1983) review of the genus.

In the New World, 115 species are currently assigned to *Delphacodes*. While it has been established that the New World “*Delphacodes*” is polyphyletic (Urban *et al.* 2010), and accommodates numerous autapomorphic species (Hamilton 2002), it has not been definitively established whether any of the New World species are *Delphacodes sensu stricto*. Ongoing study of the features of Nearctic *Delphacodes* fauna suggests that closely related species differ considerably in proportions (crown, face, rostrum, antennal segments, leg segments, genital processes) and can be grouped into genera based on less variable characters of antennae and color pattern (Bartlett & Deitz 2000; Hamilton 2006; Hamilton & Kwon 2010), or through synapomorphies of the tarsi and male genitalia (e.g., Bartlett 2007; Gonzon & Bartlett 2007). Recent phylogenetic results (Urban *et al.* 2010) have confirmed some expected clades among New World *Delphacodes* and question other proposed groupings based on minor genital and rostral characters such as *Paraliburnia* Jensen-Haarup, 1917, *sensu* Hamilton (2002).