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SCIENTIFIC NOTE

**BILLBUGS (COLEOPTERA: CURCULIONIDAE) NEW TO
ORCHARDGRASS (*DACTYLIS GLOMERATA*)
GROWN IN VIRGINIA¹**

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Orchardgrass (*Dactylis glomerata* L.) is an important crop in Virginia, contributing significantly toward the commonwealth's \$448-million hay industry (NASS 2011). Weevils of the genus *Sphenophorus* (Coleoptera: Curculionidae, called "billbugs") are major pests of this and many other commercially grown grasses (Satterthwait, 1931; Vittum et al., 1999; Watschke et al., 1995); however, few billbug species have been reported to feed on orchardgrass.

Satterthwait (1931) found that orchardgrass was among a variety of host plants for *S. parvulus* Gyllenhal (the bluegrass billbug), Kamm (1969) found *S. venatus confluentis* Chittenden to be a pest of orchardgrass in the Pacific Northwest, and Kuhn et al. (in review) reported *S. venatus vestitus* Chittenden (the hunting billbug) as a pest of orchardgrass in Virginia. In addition to the bluegrass and hunting billbugs, Satterthwait (1931) listed five *Sphenophorus* species for Virginia: *S. aequalis* Gyllenhal, *S. callosus* (Oliver), *S. melanocephalus* (Fabricius), *S. minimus* Hart, and *S. zaeae* Walsh. It is likely that some of these species feed, at least occasionally, on orchardgrass.

We conducted a survey over a two-year period (2009–2010) on farms containing orchardgrass fields in Fauquier and Loudoun counties in northern Virginia. A total of 12 fields (8 in 2009, 10 in 2010, with 6 used both years) were used in this study. Two barrier pitfall traps (Durkis and Reeves, 1982), each consisting of a 0.9 m × 10.3 cm aluminum-flashing barrier placed between two 0.9 L circular pitfall traps, were installed in each field in early March and checked weekly for billbug adults until mid-May. Specimens were identified, vetted by J. Prena of the Systematic Entomology Laboratory (Agriculture Research Service, USDA, Washington, DC), and deposited at the insect collection at Virginia Tech in Blacksburg.

In total, 72 billbug adults were collected from five species (Table 1). These included all of the species listed for Virginia (Satterthwait, 1931), except

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S. aequalis and *S. melanocephalus*. Satterthwait (1931) listed orchardgrass among 12 species of host plant for *S. minimus*, but not among the 15 host plants for *S. callosus* or 2 host plants for *S. zaeae*. All of the orchardgrass fields used in this study contained other plant species as well, including alfalfa (*Medicago sativa* L.), bluegrass (*Poa pratensis* L.), clover (*Trifolium* sp.), crabgrass (*Digitaria* sp.), dandelion (*Taraxacum officinale* F. H. Wigg.), fescue (*Festuca* sp.), foxtail (*Alopecurus* sp.), henbit (*Lamium amplexicaule* L.), onion (*Allium* sp.), and wild rape (*Brassica napus* L.). It is likely that *S. callosus*, *S. minimus*, and *S. zaeae* were incidentally present in our fields and were feeding on other plants besides orchardgrass; however, additional studies are needed to determine if these species are feeding on orchardgrass, the extent to which this is occurring, and their likelihood of becoming pests of orchardgrass.

Table 1. Abundances of billbug adults collected in barrier pitfall traps in a two-year field survey of orchardgrass in northern Virginia.

Species	2009	2010
<i>Sphenophorus callosus</i> (Olivier) (southern corn billbug)	11	12
<i>S. minimus</i> Hart (lesser billbug)	2	7
<i>S. parvulus</i> Gyllenhal (bluegrass billbug)	8	23
<i>S. venatus vestitus</i> Chittenden (hunting billbug)	4	3
<i>S. zaeae</i> Walsh (Timothy billbug)	0	1
<i>S. sp.</i>	1	0

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