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A New *Crataegus*-feeding Plant Bug of the Genus
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ABSTRACT

The new species *Neolygus crataegi* is described from two counties in southwestern Virginia where it was collected in June on flowers of hawthorn, *Crataegus* spp. Dorsal and lateral digital images and a habitus illustration of the adult, scanning electron photomicrographs of selected structures, and illustrations of male genitalia are provided to help distinguish *N. crataegi* from other species of the genus.

Key words: Insecta, Hemiptera, Heteroptera, *Neolygus*, new species, *Crataegus*, United States, Virginia

Henry & Wheeler (1988) listed 38 species of *Neolygus* Knight (as a subgenus of *Lygocoris* Reuter) from North America. In his North American monograph, Knight (1917) established *Neolygus* as a subgenus of *Lygus* Hahn for six previously known and 17 new species. Subsequently, Knight (1918, 1919, 1925, 1939, 1941, 1953) added nine new species. Knight (1941) gave *Neolygus* generic status, but Leston (1952) reduced it again to a subgenus of *Lygus*. Kelton (1955), in his revision of the *Lygus* complex, maintained the subgeneric status of *Neolygus*, but transferred it to *Lygocoris*. In the last comprehensive treatment of *Neolygus* (as a subgenus of *Lygocoris*), Kelton (1971) added four new species and provided a key to the Canadian and most species occurring in the United States. Other useful regional treatments containing keys to species of *Neolygus* include Knight's Miridae of Connecticut (1923) and Miridae of Illinois (1941).

Nearly all recent authors have maintained *Neolygus* as a subgenus of *Lygocoris*—see recent catalogs by Schuh (1995) and Kerzhner & Josifov (1999). Clayton (1982), in an unpublished Master's thesis, and Yasunaga et al. (2002) in their study of the Japanese "Lygus complex," however, considered genitalic differences and host preferences compelling enough to warrant generic status for *Neolygus*. More recently, Henry et al. (2005) listed 10 species of *Neolygus* from Kentucky. In conjunction with my own studies, I concur with these investigations and support the elevated status of *Neolygus*.

In this paper, I describe the new species *Neolygus crataegi* found on one or more species of hawthorn (*Crataegus* spp.), in southwestern Virginia to provide a name for a forthcoming catalog of the Heteroptera of Virginia initiated by Dr. Richard Hoffman (Virginia Museum of Natural History, Martinsville). Dorsal and lateral digital images and a dorsal habitus illustration of the male, photomicrographs of selected structures, and illustrations of male genitalia are provided to facilitate recognition of this new species.

Neolygus crataegi, new species

Figs. 1–15

Diagnosis: *Neolygus crataegi* (Figs. 1–4) can be distinguished from all other species of *Neolygus* by the uniformly fuscous to black dorsum, including the head, antennae, pronotum, hemelytra, and apical two thirds of the hind femora.

Neolygus crataegi will key roughly to *N. caryae caryae* in Knight (1941) based on the dark pronotum without distinct rays and the dark hind femora, but differs in having uniformly dark hemelytra, including a dark cuneus that is clear (except for the apex) in *N. caryae*. It also keys to *N. caryae* in Kelton (1971) based on the complete carina between the eyes; the pale or brown tibial spines; the uniformly black or dark brown pronotum, scutellum, and hemelytra; and the black second antennal segment, but differs in having the cuneus, as well as the remainder of the antennal segments and head, uniformly dark brown or black. The left paramere (Fig. 13) is similar to several of the more widespread species, such as *N. atrinotatus* (Knight), *N. fagi* (Knight), *N. invitus* (Knight), *N. inconspicuus* (Knight), *N. univittatus* (Knight), and *N. viburni* (Knight). The right paramere (Fig. 14) is most similar to *N. invitus*, *N. univittatus*, and *N. viburni*. External characters, however, easily distinguish *N. crataegi* from all of these species.

Description: *Male* (n=10; holotype in parentheses): Length 4.90–6.08 mm (6.08 mm), width 2.24–2.50 mm (2.50 mm). *Head:* Width 1.01–1.14 mm (1.10 mm), vertex 0.24–0.25 mm (0.25 mm). *Labium:* Length 1.80–1.92 mm (1.92 mm), extending to bases of hind coxae. *Antenna:* Segment I, length 0.53–0.70 mm (0.67 mm); II, 1.96–2.34 mm (2.34 mm); III, 1.06–1.16 mm (2.34 mm). *Pronotum:* Length 1.15–1.25 mm (1.15 mm), basal width 2.08–2.14 mm (2.08 mm).

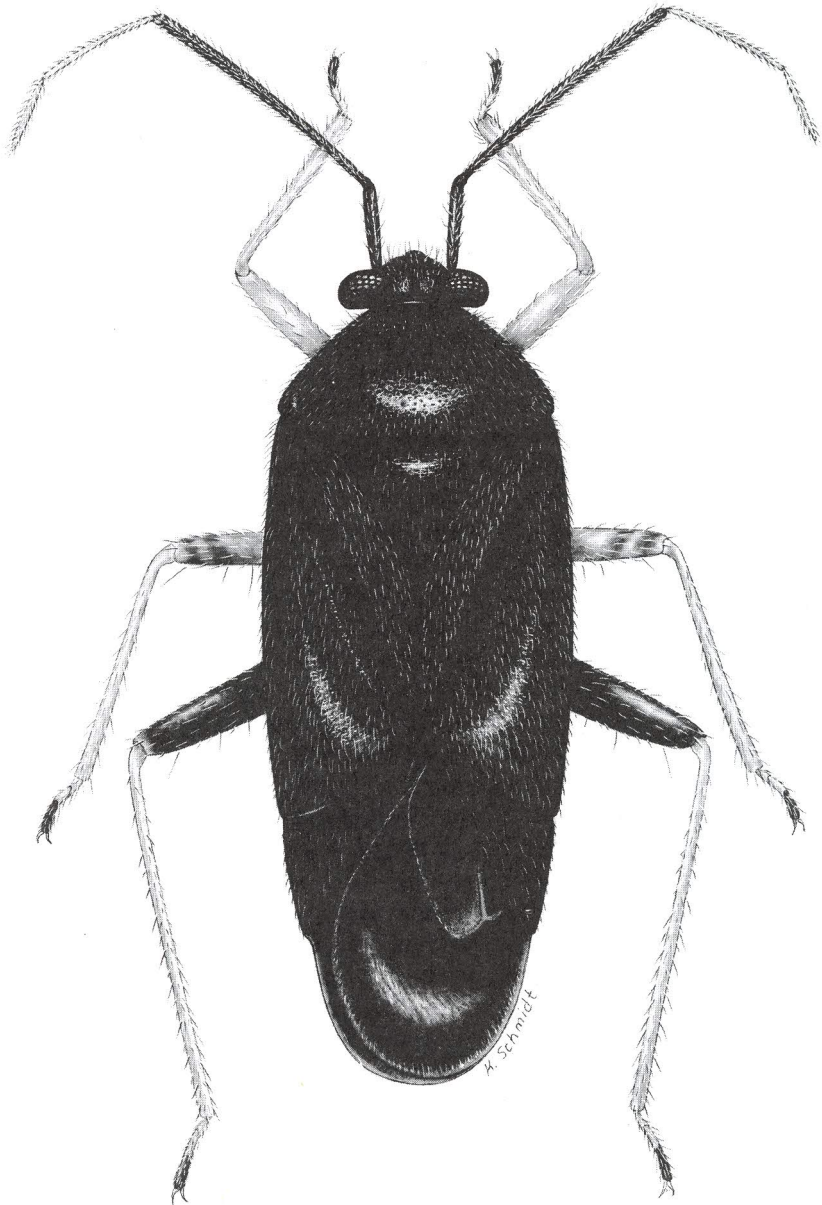


Figure 1. *Neolygus crataegi*. Adult male, dorsal aspect.

