

**ORTHOTYLUS ROBINIAE: A GLEDITSIA RATHER THAN ROBINIA
SPECIALIST THAT RESEMBLES THE HONEYLOCUST PLANT BUG,
DIAPHNOCORIS CHLORIONIS (HETEROPTERA: MIRIDAE)**

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Abstract.—A little-known plant bug, *Orthotylus robiniae* Johnston, is reported as the eighth mirid species that specializes on honeylocust (*Gleditsia triacanthos*). It has gone unnoticed on native and ornamental honeylocust because nymphs and adults are remarkably similar to those of the more abundant *Diaphnocoris chlorionis* (Say), the honeylocust plant bug, and because it has a similar seasonal history. Seasonality of a Pennsylvania population of *O. robiniae* is reported, and 18 new state records are given. Diagnoses are provided to allow the adult and nymphs of *O. robiniae* to be separated from the pestiferous *D. chlorionis*.

Key Words: Heteroptera, Miridae: *Orthotylus robiniae*, hosts, misnomer, *Robinia*, *Gleditsia*, biology, distribution

Honeylocust, *Gleditsia triacanthos* L. (Fabaceae), is a leguminous tree native to much of eastern North America. Fruitless and thornless cultivars have been widely planted as ornamentals. A diverse plant bug or mirid fauna is associated with this plant, both in its natural habitat (usually rich woods, bottomlands, and flood plains) and in the urban and suburban landscape. In addition to several species that use honeylocust as an occasional or adventitious host, seven species apparently are restricted to this tree. These specialists include the mainly flower-feeding mirines *Lygocoris tinctus* (Knight) and *Taedia gleditsiae* (Knight) and phylines *Plagiognathus delicatus* (Uhler) and *P. gleditsiae* Knight; the foliage-feeding orthotyline *Diaphnocoris chlorionis* (Say) and *Lopidea incurva* Knight; and a mainly predatory phyline *Pilophorus walshii* Uhler (Wheeler and Henry 1976).

An overlooked honeylocust specialist is

Orthotylus robiniae Johnston. This green orthotyline is easily confused with the honeylocust plant bug, *D. chlorionis*, an important pest of ornamental honeylocust. Herein we give new state records of *O. robiniae*; summarize our biological observations, comparing and contrasting what is known of its seasonality and habits with those of *D. chlorionis*; and provide diagnoses that allow the adult and nymphs to be separated from those of the honeylocust plant bug.

Orthotylus robiniae Johnston

This mirid was described from Natchez, Mississippi, based on 18 specimens collected 15 May 1931, on "locust (*Robinia pseudo-acacia*), which is no doubt the host plant" (Johnston 1935). Knight (1941) added Illinois to the known distribution and, apparently based on Johnston's statement, listed black locust, *R. pseudoacacia* L., as