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A New Species of *Nephus* Mulsant (Coleoptera: Coccinellidae) in Florida

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A New Species of *Nephus* Mulsant (Coleoptera: Coccinellidae) in Florida

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**Abstract.** A new species of *Nephus* Mulsant (Coleoptera: Coccinellidae) from southern Florida is described: *Nephus* (*Nephus*) *alyssae*. This represents the first member of the subgenus *Nephus* reported in the southeastern United States. Florida species previously placed in the genus *Nephus*, now placed in *Scymnobius* Casey, are compared with the new species.

**Introduction**

Gordon (1976, 1985) revised *Nephus* Mulsant (Coleoptera: Coccinellidae) for the United States, listing 5 subgenera: *Depressoscymnus* Gordon (1 species), *Nephus* Mulsant (1 species), *Scymnobius* Casey (10 species), *Sidis* Mulsant (1 species), and *Turboscymnus* Gordon (1 species). Peck and Thomas (1998) followed this arrangement in their checklist of Florida beetles, listing only three species of *N. (Scymnobius)* as occurring in Florida. Gordon and González (2002) raised *Scymnobius* to full generic rank. Specimens of an unknown species were recently collected in Florida and one was sent to Robert D. Gordon for identification. He identified it as an undescribed species of *Nephus*. The only other member of *Nephus* (*Nephus*) in North America is *Nephus ornatus* (LeConte) occurring in the northern US. The new species is described and compared with *N. ornatus* and similar appearing members of *Scymnobius* in Florida.

**Materials**

Specimens studied are deposited in the following collections: **ABSC**—Archbold Biological Station, Venus, Florida; **FSCA**—Florida State Collection of Arthropods, Gainesville, Florida; **USNM**—United States National Museum, Smithsonian Institution, Washington, District of Columbia; **VGIC**—Personal collection, Vince Golia, Wellington, Florida.

*Nephus* (*Nephus*) *alyssae* Golia and Golia, n. sp.

Figures 1, 4, 5

**Diagnosis.** The small size, elytron with single golden central spot, and dorso-ventrally flattened body distinguishes *N. alyssae* from any other US species of *Nephus*.

**Description.** Scymnini. Female. Body 1.47–1.87 mm long; width 0.88–1.15 mm (holotype length 1.65 mm; width 1.00 mm). Body oval, elongate (Fig. 1), dorsoventrally flattened (Fig. 5); entirely dark brown to black with head and legs brownish-yellow and each elytron with single golden central spot ranging from 0.66–0.95 mm on apical 2/3; dorsum of body covered with yellow and white, short semi-erect hairs. Head not concealing prosternum; antennae 11-segmented with a small, symmetrical club. Prosternum lacking coxal lines, flattened, punctate. Abdominal sternite I with post coxal lines long, curving forward laterally, but not attaining lateral or basal margins. Female spermatheca shortened, truncate (Fig. 4), similar to that of *N. ornatus* (Gordon 1985). Male unknown.

**Distribution.** Known only from south Florida.

**Type material.** Holotype, female with label data “Florida, Palm Beach Co., Lake Worth, Hypoluxo, Hypoluxo Scrub N.A.; November 10, 2009; Vince Golia; ‘sweeping’, 26.566642,-80.056759” deposited in FSCA.

Remarks. In North American Nephus and Scymnobius, the shortened truncate female spermatheca is similar only to that of N. ornatus. Even without males, N. alyssae is readily distinguishable from all North American species of Scymnini. Nephus alyssae, with a single spot on each elytron, is readily distinguished from N. ornatus which has two spots on each elytron. In the US, Scymnobius species are not dorsoventrally flattened (Fig. 6), and are easily distinguished from N. alyssae based on that character alone. In comparison with other Florida species of Scymnobius, S. bivulnerus (Horn) has one red spot on each elytron and red a pronotum and S. intrusus (Horn) is completely brown in color. Scymnobius flavifrons (Melsheimer) can be confused with N. alyssae, and can be found at the same locality. In S. flavifrons, the body is not dorsoventrally flattened and the golden to reddish-orange elytral spots vary from a small spot near the apex (Fig. 3) to occupying 2/3 of the elytra (Fig. 2) as in N. alyssae. However, the spots in N. alyssae are always the same size and golden, and the body is distinctly flattened (Fig. 1, 5).

All ten specimens of Nephus alyssae were collected while sweeping plants along roadsides where the land is disturbed in three counties known to have many exotic species. As with Nephus (Sidis) binaevatus (Mulsant) in California (Gordon 1976, 1985), N. alyssae may yet be recognized as an immigrant species. It is believed that all Nephus spp. are predators of mealy bugs.

Etymology. We name this species after my daughter and Austin’s sister, who fondly remembers the joy of finding her first lady bug. Naming this species for Alyssa will allow her to remember that joy forever.
Acknowledgments

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Literature Cited


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