INSECTA MUNDI A Journal of World Insect Systematics

0372

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Date of Issue: August 29, 2014

CENTER FOR SYSTEMATIC ENTOMOLOGY, INC., Gainesville, FL

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Insecta Mundi 0372: 1–3

ZooBank Registered: urn:lsid:zoobank.org:pub:6823DD59-E0F6-4B7E-A939-A1C4A13C08CC

Published in 2014 by
Center for Systematic Entomology, Inc.
P. O. Box 141874
Gainesville, FL 32614-1874 USA
http://centerforsystematicentomology.org/

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Layout Editor for this article: Eugenio H. Nearns

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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.

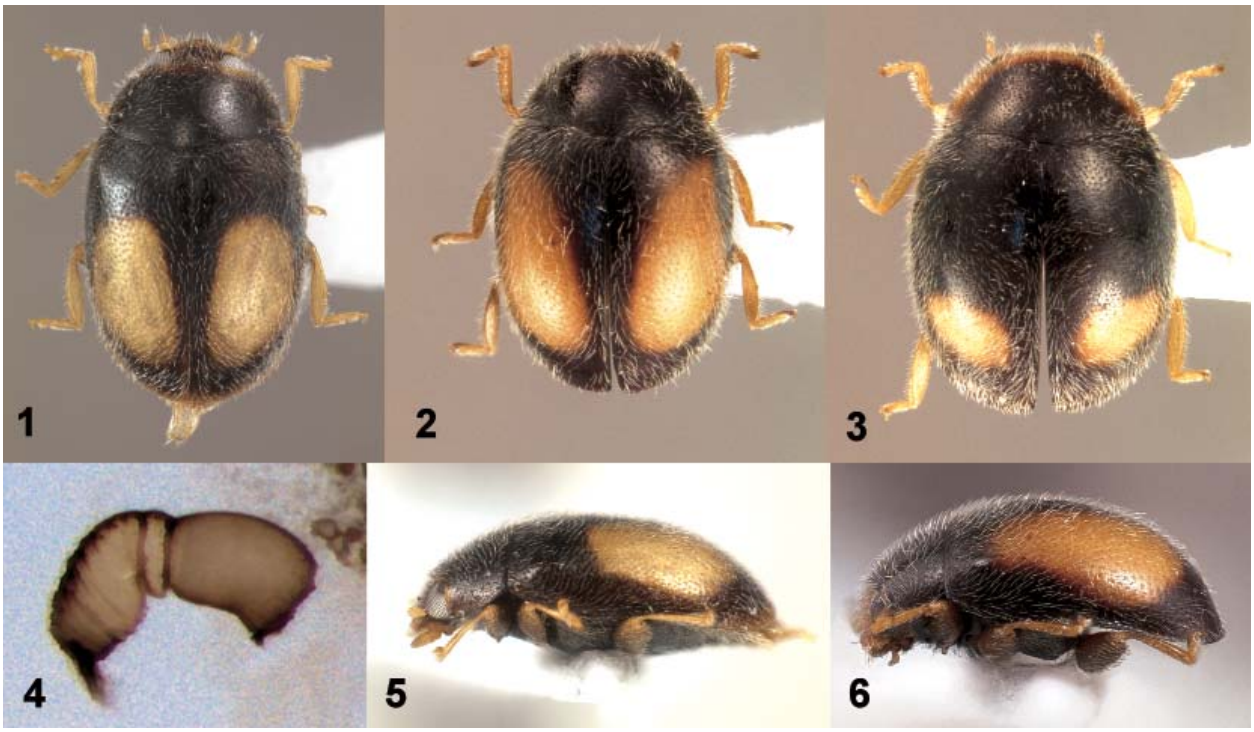
Type material. Holotype, female with label data "Florida, Palm Beach Co., Lake Worth, Hypoluxo, Hypoluxo Scrub N.A.; November 10, 2009; Vince Golia; 'sweeping', 26.566642,-80.056759" deposited in FSCA.

Paratypes . Nine females total: Florida. Palm Beach County. Lake Worth, Hypoluxo Road & Edisto Drive. August 29, 2006, Vince Golia; 'sweeping', 26.571885,-80.161352 (1 female; USNM). FLORIDA. Palm Beach County. Lake Worth, Hypoluxo Road & Lyons Road, September 16, 2011, Vince Golia; 'sweeping', 26.568505,-80.191304. (1 female; FSCA). Florida, Broward Co., Fort Lauderdale, Macintosh Road; July 12, 2013; Stephen Beidler; 'sweeping', 26.08179,-80.126356 (2 females; FSCA). Florida, Broward Co., Fort Lauderdale, Macintosh Road; October 17, 2013, Vince Golia; 'sweeping', (26.077443,-80.124391) (4 females; ABSC; FSCA; VGIC). Florida. Dade County, Miami. NW 2nd Avenue & NW 161 Street. April 10, 2010, Vince Golia; 'sweeping', 25.922244,-80.203580, (1 teneral female; 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.



Figures 1-6. 1) *Nephus alyssae,* dorsal habitus. **2)** *Scymnobius flavifrons*, dorsal habitus, Archbold Biological Station, Highlands Co., FL. **3)** *Scymnobius flavifrons*, dorsal habitus, Lake Worth, Palm Beach Co., FL. **4)** *Nephus alyssae*, spermatheca. **5)** *Nephus alyssae*, lateral habitus. **6)** *Scymnobius flavifrons*, lateral habitus, Archbold Biological Station.

Acknowledgments

Many thanks to Paul Skelley (FSCA), Mike Thomas (FSCA), Ian Stock (FSCA), Mark Deyrup (ABSC), and Robert Gordon (Northern Plains Entomology, Willow City, ND) for their time and expertise. We thank Andrew Cline, California State Collection of Arthropods, Sacramento, California, for loan of *N. binaevatus*. We thank Mark Deyrup, Archbold Biological Station, and Robert Gordon, Northern Plains Entomology, for reviews of the manuscript.

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Received July 17, 2014; Accepted August 20, 2014
Review Editor Paul Skelley