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Review of the Nearctic species of *Drusilla* Leach (Coleoptera: Staphylinidae: Aleocharinae)

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Abstract

The Nearctic members of the genus *Drusilla* Leach, 1819 are reviewed. Three species are recognized: *D. canaliculata* (Fabricius, 1787), an adventive Palearctic species, and two new species, *D. nearctica* and *D. ashei*. A key to the Nearctic *Drusilla* species is provided.

Key words: identification key, Lomechusini, new species, taxonomy, U.S.A.

Introduction

Three undescribed species of the genus *Drusilla* Leach, 1819 were first reported for North America by Ashe (Newton *et al.* 2000) from Arkansas, North Carolina and Oklahoma. Specimens that likely represent those referred to by Ashe as undescribed species were located in the University of Kansas entomological collection. Examination has revealed the unidentified specimens to represent two new species and warrants description. The two new species of *Drusilla* are described, illustrations and a key to species are provided.

Drusilla belongs to the aleocharine tribe Lomechusini, notable for the frequent associations of its species with ants and termites (from here on referred to as myrmecophilous and termitophilous, respectively; the terms are taken to represent a gradation of associations that range from intimate, obligatory social parasitism to casual inhabitants of nest vicinities). The majority of *Drusilla* species are free-living, but some are known to be myrmecophilous or termitophilous (Kistner 1993, Kistner *et al.* 1997, Maruyama & Kishimoto 2002, Maruyama *et al.* 2003, Maruyama 2004b).

Until this present study, *Drusilla* in the Nearctic was represented by a single adventive species, *D. canaliculata* (Fabricius, 1787) (Gusarov 2003). *Drusilla canaliculata* is a widespread Palearctic species that has been introduced into the Northeastern United States (Seevers 1978) where it is commonly collected in synanthropic habitats (personal observations).

Methods

Dry specimens were observed using an Olympus SZX7 stereomicroscope. Dissected structures were observed with the stereomicroscope and an Olympus BX51 compound microscope. Illustrations were made using a camera lucida, Olympus U-DA, mounted on the compound microscope. Scale bars were drawn using an Olympus slide micrometer. Body measurements were made using a stereomicroscope ocular micrometer.

Dry mounted specimens were removed from points using ethanol or a weak ammonia solution, if shellac or an adhesive similar to Elmer's glue was used, respectively. Dissections were made using pins either in water or Euparal (see Hanley & Ashe 2003, for details). Dissected parts or entire beetles were cleared in 10% KOH at ambient temperature over night; parts were then washed in distilled water and further cleared in glacial lactic acid for a variable amount of time, and again washed in distilled water. Cleared specimens were then placed in dilute

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