



Nearctic species related to *Diogmites angustipennis* Loew (Diptera: Asilidae)

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Abstract

Diogmites bilobatus **sp. nov.** is described from museum specimens collected in the south central and southwestern United States and northern Mexico. Its close resemblance to the widespread *D. angustipennis* Loew is established. *Diogmites grossus* Bromley **syn. nov.**, *D. pulcher* (Back) **syn. nov.**, and *D. symmachus* Loew **syn. nov.** are synonymized with *D. angustipennis*, and lectotypes are designated for *D. angustipennis* and *D. symmachus*. Notes on morphological variation, habitat, prey, distribution, and phenology are provided for *D. bilobatus* **sp. nov.** and *D. angustipennis*.

Key words: Brachycera, Dasypogoninae, Nearctic, new species, robber flies

Introduction

In the middle and western United States, some of the most common species of the robber fly genus *Diogmites* (Diptera: Asilidae: Dasypogoninae) can be recognized by the prominent, oblique, dark, lateral patches subtended by silver or golden pollen on abdominal tergites 2–5 (Fig. 1); the narrow and lightly infuscate wings; and usually a lack of distinct dark markings on the golden brown to dark brown scutum. When the dark abdominal patches are not connected across the surface of the tergites, the abdomen has a bright golden orange appearance. However, the patches in many specimens are connected across the tergites by diffuse brown to nearly black bands, giving the abdomen a dark disposition. *Diogmites angustipennis* Loew was the first species to be described in this group, but now there are five nominal species recognized as belonging in the *D. angustipennis* complex.

Loew (1866, 1872) named and described two species from material collected in Kansas and Texas. He first described *Diogmites angustipennis* Loew in 1866 from two relatively robust and dark colored females collected in Kansas (Loew 1866). A few years later, he described *D. symmachus* Loew from two smaller, light colored specimens collected in Texas, both a male and a female (Loew 1872). Back (1909) later described *Deromyia pulchra* Back (= *Diogmites pulcher* (Back)) from a single large, darkly pigmented, male specimen collected in Los Angeles County, California. In his revision of the genus *Diogmites* in the United States, Bromley (1936) described *D. grossus* Bromley from some large specimens with pale thoracic and abdominal “sheen”. They were collected in Arizona, California, Colorado, Idaho, and Utah.

After inspecting male genitalia and ovipositors from collections of ca. 2000 specimens I have concluded that there are only two valid species in the *D. angustipennis* complex. It appears that *D. symmachus* is merely a color variant of *D. angustipennis*. *D. pulcher* and *D. grossus* are merely size and color variants of *D. angustipennis*. *Diogmites bilobatus*, a new species described herein, has distinct ovipositor vestiture and phallus morphology. Both *D. angustipennis* and *D. bilobatus* are highly variable in size and color. Without examining ovipositors and phalli it is impossible to distinguish them morphologically.