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Velvet Ants

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Introduction

Velvet ants (Hymentoptera: Mutillidae) are medium-sized insects that resemble colorful ants but are actually wasps (Fig. 1). A dense clothing of hair gives their bodies a velvety appearance. Most of the velvet ants found in Virginia are brightly colored reddish orange and black.

Figure 1. Female velvet ant, *Dasymutilla occidentalis* (Johnny N. Dell, Bugwood.org).

Description

The wingless females are often mistaken for large hairy ants (Figs. 1 & 2). Velvet ants are usually black and shades of red, orange, or brown. Some species have contrasting black bands or light-colored markings on the abdomen. The common eastern velvet ant, *Dasymutilla occidentalis* (Fig. 1), is the largest species of velvet ant found in Virginia, measuring about 19 mm (0.75 inch) long. Most species of velvet ants are significantly smaller.

Male and female velvet ants usually differ in size and coloration. Male velvet ants have wings and more closely resemble a typical wasp but rarely attract notice (Fig. 3). Like all male wasps, ants, and bees, they cannot sting. The males are typically seen on flowers where they feed. The wingless females often attract attention as they run rapidly across bare ground searching for host nests to lay their eggs.

Figure 2. Female velvet ant, *Pseudomethoca* sp. (Joseph Berger, Bugwood.org).

Figure 3. Male velvet ant, *Dasymutilla* sp. (Whitney Cranshaw, Colorado State Univ., Bugwood.org).

Life History

Velvet ants have a complete life cycle consisting of egg, larval, pupal, and adult stages. A female velvet ant usually invades a nest of ground nesting wasps or bees to lay her eggs among the mature host larvae and pupae. Sometimes the nests of bumble bees are attacked. Velvet ant larvae parasitize and eat the host larvae and pupa before pupating within the host nest. They emerge from the host nest as adults and seek mates. Adult velvet ants live solitary lives and do not form hives or live in groups. The adults are usually seen during the warmer months of the year.

Habitat

Velvet ants are not uncommon insects but they often go unnoticed. In Virginia, velvet ants can be found near bare or sandy soil in open fields and pastures where their hosts nest, or as adults on flowing plants where they feed on pollen and nectar. Numerous species of velvet ants occur in North America, with a large majority of them found in the desert and other arid regions.

Damage

Velvet ants are not considered pests and are not threats to people or animals. Adult females are not particularly aggressive and sometimes make a squeaking or chirping noise when handled. However, picking up a velvet ant is unadvised as they can inflict an extremely painful defensive sting.

Treat velvet ant stings like bee stings. An ice pack will help reduce swelling, and creams and lotions containing steroids will lessen the discomfort and promote healing. People known to be sensitive to insect stings should take precautions against adverse reactions to velvet ant stings.

Control

If necessary, individual velvet ants can be killed with an aerosol spray or a fly swatter. Because host nests containing developing velvet ants cannot be readily identified, no control measures are suggested for controlling immature velvet ants.

Interesting Facts

Velvet ants are sometimes called “cow killers” because of their extremely painful sting, although it’s very unlikely that their venom would kill a large animal.

Velvet ants have an unusually strong exoskeleton. Entomologists preparing velvet ants for placement in an insect collection often have difficulty piercing the exoskeleton with an insect pin. This tough, durable exoskeleton likely protects the female velvet ant from attack by ants or female wasps defending their colony or nests from the invading velvet ant looking for hosts for her eggs.

Revised

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2023 ENTO-22NP (ENTO-539NP)