



Parsleyworm

Authored by Theresa A. Dellinger, Diagnostician, and Eric Day, Lab Manager, Insect Identification Lab, Virginia Tech

Introduction

Parsleyworm is the larval form of the eastern black swallowtail butterfly, *Papilio polyxenes* (F.). Parsleyworm goes by several different names, including carrot caterpillar, celeryworm, dillworm, and fennelworm. Although considered a pest, many people deliberately grow parsley to attract and encourage populations of the adult butterflies. Parsleyworm belongs to the butterfly family Papilionidae in the order Lepidoptera.

Description

Young parsleyworms are bristly, blackish-brown caterpillars with orange spots and a white band encircling the body (Fig. 1). As they mature, they turn into green caterpillars with multiple bands of yellow, white, and black spots (Fig. 2). Mature larvae are up to 5 cm (2 inches) long. Some full-grown larvae are much darker in color than others.



Figure 1. Young parsleyworms (Ansel Oommen, Bugwood.org).

When parsleyworms are disturbed, they can suddenly inflate two orange fleshy "horns" normally hidden just behind the head. They will attempt to smear a chemical repellent from these "horns" on any animal attacking it.

Adult parsleyworms, known as the eastern black swallowtail, are showy butterflies commonly seen on flowers in the summer (Fig. 3). They are black with conspicuous rows of yellow spots at the bottom of the wings. Females have larger blue patches on the wings than the males, and males have larger yellow markings. Two tails project from the hind wings. The underside of the wings is marked with orange, yellow, and blue spots, and there are yellow spots on the head, thorax, and abdomen.



Figure 2. Parsleyworm (Steven Katovich, Bugwood.org).



Figure 3. Eastern black swallowtail (David Cappaert, Bugwood.org).

Life History

After the adult butterflies emerge in the spring, the females deposit round, yellow eggs singly on the foliage of plants in the carrot family. The small, young caterpillars are dark colored and may not be noticed as readily as the large, striped caterpillars. Larval development may take several weeks and occurs faster during warmer temperatures. When mature, the caterpillar forms a chrysalis in which it pupates. The chrysalis can be green or brown and is attached to a stem with silk threads spun by the caterpillar. The adult butterflies feed on flower nectar and pollinate flowers. There are two or more generations annually. Parsleyworm overwinters as a pupa on the host plant or nearby vegetation.

Common Host Plants

Cultivated hosts include carrot, celery, parsley, dill, fennel, parsnip, and other umbellifers. Parsleyworm also feeds on wild members of this group of plants, including Queen Anne's lace and poison hemlock.

Damage

Parsleyworms chew foliage before stripping the leaves and consuming the petioles and small stems. They will also feed on flowers and developing seeds. Although parsleyworm will destroy the tops of plants, the caterpillars are seldom numerous enough to reduce yield. Consider planting some extra plants to share with the caterpillars and make up for any yield loss due to their feeding.

Distribution

Parsleyworm is a common butterfly species found throughout the United States.

Cultural Control

Handpicking and destroying these caterpillars when seen on plants is usually sufficient if control is desired.

Organic/Biological Control

Bacillus thuringiensis (Bt) for caterpillars will control parsleyworm, but it does not have quick knockdown and control may take time. Bt is more effective against small caterpillars still feeding voraciously than those that are nearly full-grown and not feeding as much. It is not necessary to wait before harvesting after an application of Bt.

Parsleyworm is parasitized by several species of flies and wasps in both the caterpillar and the pupal stages. Other generalist predators, such as predatory stink bugs and assassin bugs, also feed on caterpillars.

Chemical Control

If cultural control fails, treat infested plants with an insecticide registered for caterpillars. As with all pesticides, follow the label instructions carefully with regards to rates and precautions.

Revised

Theresa A. Dellinger, December 10, 2021.

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