Stop The Invasion

Green Budworm - Photograph courtesy of Gyorgy Csoka, Hungary Forest Research Institute, Bugwood.org and Eric Lagasa Washington State Department of Agriculture, Bugwood.org

Exotic Leafrollers

Apple Tortrix, Apricot Moth, Garden Rose Tortrix, Green Budworm, Barred Fruit Tree Tortrix, European Fruit Tree Tortrix Moth, Dark Fruit Tree Tortrix, European leafroller, and the Carnation Tortrix

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Dark fruit tree tortrix

European leafroller

Garden rose tortrix

What are they?

Exotic leafrollers are pests of fruit trees and ornamentals. They damage trees by rolling and eating leaves, conifer needles, and shrubs. The name leafroller comes from the larvae's habit of rolling or tying leaves together when building feeding sites or shelters.

There are several exotic leafrollers of concern that are present in Washington. Some of these species include the apple tortrix (*Archips fuscocupreanus*), apricot moth (*Ditula angustiorana), garden rose tortrix* (*Acleris variegana*), green budworm (*Hedya nubiferana*), barred fruit tree tortrix (Pandemis cerasana), European fruit tree tortrix moth (Archips podana), dark fruit tree tortrix (Pandemis heparama), European leafroller (Archips rosanus), and the carnation tortrix (Cacoecimorpha pronubana).

Are they here yet?

Yes. These species all can be found in Washington. Many of them were introduced to our state in the 1970s, others were introduced as recently as 1995.

Why should I care?

Exotic leafrollers cause considerable damage to tree and shrub leaves. In addition to feeding on foliage, leafrollers injure trees by pruning leaves, flower parts, or fruit to construct shelters in which they live. When they are abundant, leafrollers can defoliate fruit trees completely.

What should I do if I find one?

Report online at www.invasivespecies.wa.gov.

How can we stop them?

Do not transport infested plant or tree materials to non-infested areas.

Please contact the Washington State Department of Agriculture or your local Washington State University Extension office (online at extension.wsu.edu/locations/Pages/default.aspx) for specific management approaches or prevention techniques. Some approaches may include removing host trees or pruning infested parts of the tree.

The Washington State Department of Agriculture and other organizations have ongoing surveys and traps set up to monitor spread and plan control of these species.

Apple Tortrix - Photograph courtesy of Eric Lagasa, Washington State Department of Agriculture

What are their characteristics?

- Defoliators pass through four main life stages: eggs, larva (caterpillar), pupa, and adult.
- In the early larva stage, most defoliators are a light green with a dark head. As they grow, colors and patterns develop, which make them easier to identify.
- It is during larval development that the larva roll, twist, fold, or wad leaves for protection from predators. Next, the larva will form a pupa in the leaf shelter they've constructed.
- The adult defoliator emerges from the pupa within two to three weeks.

How do I distinguish them from native species?

For identification of these varied species, contact your local Washington State University Extension office or master gardener. Also, visit the links below for additional images and identification resources.

Where do I get more information?

- Natural Resources Canada – red barred tortrix, https://tidcf.nrcan.gc.ca/en/insects/factsheet/12045
- National Agricultural Pest Information Center –apple tortrix, http://pest.ceris.purdue.edu/pest.php?code=ITBUQEA
- University of Iowa's BugGuide – apricot moth, bugguide.net/node/view/133933
- Washington Department of Agriculture – Species of Concern, agr.wa.gov/PlantsInsects/insectpests/Exotics/SpeciesOfConcern.aspx
- Washington State University, Entomology – leafrollers, entomology.tfrec.wsu.edu/Cullage_Site/Arthro_LR.html
- Washington State University, tree fruit research and extension, invasives.wsu.edu/defoliators/species_faqs.html

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