Natter's Notes

Winter Damage: Caterpillars vs Slugs

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The Winter Cutworm, *Noctua pronuba, w*as officially identified by Oregon Department of Agriculture (ODA) as an invasive pest in Oregon during 2012. Even so, the metro Master Gardener offices had been receiving complaints about their activity since 2001.

Plants were nibbled and/or destroyed from fall through the winter. At first, most folks assumed the damage was due to slugs and snails. However, the mutilation was different than the shredded tissue left behind by slugs and snails. Seedlings were toppled; emerging bulbs lost their heads and sometimes flower buds; and hostas lost emerging leaf tips or leaves had gaping holes. At my place, the pests would climb my 3- to 4-foot tall delphiniums to eat the flower bud at the tip of the stalk, sometimes settling down for a snooze.

To accurately identify the culprits, MGs in the offices had to activate their Master Gardener CSI mode.

The Winter Cutworm, *Noctua pronuba*

As you likely recall, caterpillars (Order Lepidoptera) have complete metamorphosis, with 4 life stages. After the adult moths mate, the female lays several hundred eggs in a large tidy patch, most often covering, or nearly so, the surface of a leaf. The larvae (youngsters) hatch in 2 to 4 weeks. These caterpillars have different habits than most you are familiar with because they feed at night, whenever the temperature exceeds 40F, from fall through winter.

Caterpillar damage reveals tiny scallops at the edge of the larger wound. (Image: Client *2020-02)*

Perhaps the most effective treatment strategy is to go outdoors about 10 pm or so, with a cup of soapy water and tongs or a pair of gloves. As you trek through your plantings keep any eye out for caterpillars chomping at your expense. They may be anywhere from ¾ to 1.5 inches long, the size depending on their age. They're often aligned with the edge of a leaf, or out-of-sight among the leaves. Hand pick and drop into the cup.

During the day, the larvae hide just under the soil surface, typically quite close to the stem of the victimized plant. Disrupting a bit of soil often reveals their hiding place.

The caterpillars of the Winter Cutworm (*Noctua pronuba*, aka the Large Yellow Underwing) appear bright green (L) after they have molted; the color will gradually change to varied browns (R) within hours. (Image: http://www.wildlifeinsight.com/british-moths/large-yellow-underwing-moth-and-caterpillar-noctua-pronuba/)

Fun for gardeners: Rear a pupa

This spring, as you prepare your garden, it's very likely you'll find a number of Lepidoptera pupae in the soil. Rearing the pupa is the best way to determine the parent moth's identity.

To rear pupae, place in clear container with a porous lid, such as paper toweling secured with a rubber band. Set the container somewhere you'll see it, but not in the sun, then wait for the adults to emerge.

(continued)

Iris reticulatum seedling, clipped by the winter cutworm, *Noctua pronuba*. (Image: Client 2020-02)

The Gray Garden Slug

Slugs, especially gray garden slugs (*Deroceras reticulatum)* thrive throughout the northwest, feeding in gardens, greenhouses, roadsides and fields.

Gray Garden Slug, Deroceras reticulatum, is perhaps the most damaging slug in local gardens. Damage often avoids leaf veins. (Image: https://idtools.org/id/mollusc/factsheet.php?name=Deroceras reticulatum)

Slug damage (here, the gray garden slug, *Deroceras reticulatum*) is often limited by veins as on this corn leaf. (Image: Forestryimages.org)

Gray garden slugs are omnivores which feed on live plant material and much more, including mushrooms, dead slugs, earthworms. They have the ability to detect predatory carabid beetles through the use of olfactory cues. And, because slugs are hermaphrodites, reproduction is by cross-fertilization which may occur year-round when conditions are favorable. Mating occurs mainly at night with each animal capable of laying approximately 60-75 eggs (4 mm each) in a clutch, totaling about 700 eggs per year per slug. Each slug may live a year or two. (More details at https://idtools.org/id/mollusc/factsheet.php?name=Deroceras reticulatum)

Fun for gardeners: Rear slug eggs

If you happen upon a clutch of slug eggs – they're transparent and either round or tear-drop shape - scoop them up with a bit of surrounding soil, put them in a clear container with a porous lid, and wait.

Resources

"Winter Cutworm: A New Pest Threat in Oregon" - https://catalog.extension.oregonstate.edu/sites/catalog/files/project/pdf/em9139.pdf

"Slugs and Snails in Oregon" (ODA) - https://agsci.oregonstate.edu/sites/agscid7/files/vlach-2016-odaguidemolluscs-forweb.pdf

"Snails and Slugs" - http://ipm.ucanr.edu/QT/snailsslugscard.html

"Cornu aspersum" [The Brown Garden Snail, formerly *Helix aspersa*] an invasive snail in Oregon. - https://idtools.org/id/mollusc/factsheet.php?name=Cornu%20aspersum

"Terrestrial Mollusc Tool" (USDA, University of Florida, & Lucidcentral: Incudes Fact Sheets with images; and a Glossary - https://idtools.org/id/mollusc/glossary.php

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