Kansas Department of Agriculture Plant Protection and Weed Control

Entomological News



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Winter Moth Operopthera brumata

The winter moth (*O. brumata*) is a looper moth (Geometridae) commonly found in Europe. The first North American occurrence was a confirmed infestation in the 1930s in Nova Scotia. Current infestations are found in British Columbia, Washington, Oregon, New Brunswick, Prince Edward Island, Massachusetts, and Rhode Island.

The winter moth is unusual in that the adult moths emerge in late November and can be active into January under the right weather conditions.

The mature adults are sexually dimorphic with the males being winged and the females with the wings reduced to small buds. After mating the females lay egg clusters on tree trunks and branches. The eggs are often deposited in bark crevices, under lichens or bark scales.

The larvae appear as early as March. The eggs hatch when temperatures average around 55F. Young larvae tunnel into buds, especially the flower buds of fruits, and feed inside buds. Once the initial bud has been devoured the larvae will move to another bud to feed. Older larvae are free feeders on foliage. Trees may be totally defoliated by large numbers of larvae.

The winter moth is closely related to a native species, the Bruce Spanworm (*O. bruceata*). The species look very similar and are difficult to distinguish. Studies have looked at difference in wing veination and genitalia. Another study is currently being conducted on species hybridization.

In October PPWC set out 150 wing traps baited with winter moth pheromone in nurseries and garden centers throughout the state. The lures were changed in November, and then the traps were retrieved in December. Thirty five traps were sent to the Exotic Pest Survey lab, Washington State Department of Agriculture. A total of 689 Bruce Spanworm was collected. No winter moths were collected. Some moths appeared to be

hybrids (17) and were sent for molecular testing.



Winter Moth: male and female



Winter moth early instar larvae bud feeding

Winter Moth



Winter Moth Collection Sites

Preferred Plants

Acer - Maple

Amelanchier

Betula - Birch

Calluna - Heather

Carpinus - European Hornbeam

Castanea - Chestnut

Corylus - Hazel

Cotoneaster

Crataegus - Hawthorn

Cydonia - Quince

Fagus - Beech

Fraxinus - Ash

Larix - European Larch

Malus- Apple

Myrica- Bayberry

Ostrya- Hophornbeam

Picea- Spruce

Populus - Poplar

Prunus

Pyrus - Pear

Quercus - Oak

Rhamnus - Buckthorn

Rhododendron

Ribes - Currant

Rosa - Rugosa Rose

Rubus - Raspberry

Salix - Willow

Sorbus- Mountain Ash

Tilia - Linden, Basswood

Ulmus - Elm

Viburnum

Brown Marmorated Stink Bug-Halyomorpha halys

Introduced into the United States from Asia the Brown Marmorated Stink Bug (BMSB) was first found near Allentown, PA around 2001. The stinkbug is now found in California, Connecticut, Delaware, Indiana, Kentucky, Maine, Maryland, Massachusetts, Mississippi, New Hampshire, New Jersey, New York, North Carolina, Ohio, Oregon, Pennsylvania, Rhode Island, South Carolina, Tennessee, Virginia, Washington, D.C. and West Virginia. Specimens have also been located in Florida, Illinois, Minnesota, Nebraska and Wisconsin.

BMSB feeds on a wide variety of fruits, vegetables, row crops and ornamental plants. Plants affected include corn, soybeans, raspberries, blackberries, stone fruits, apples, pears, cherries, butterfly bush and pyracantha to name a few. The damage to the fruit or plant results from the feeding stylets of the insect. Once the insect feeds, the surrounding tissue becomes necrotic. Plant Protection Weed Control plans on trapping for BSMB during the summer in 2012.





Emerald Ash Borer

Plant Protection Weed Control will again be assisting with EAB trapping in 2012. In addition to the purple prism traps, we will be employing an unusual surveillance method. A small solitary yellow jacket sized predatory wasp, *Cerceris fumipennis* preys entirely on flatheaded borers (Buprestidae). The beetles are used to provision ground nests for egg laying. The wasp has been shown to be an effective method for early EAB detection. During June and July of 2012, surveys will be conducted to locate potential nesting locations for the wasps. The wasps prefer dry sandy soil sites, such as volleyball courts, old baseball fields, etc.



