

# ASIAN GYPSY MOTH

## THREAT AND OPPORTUNITY

### IN OREGON

JANUARY 2016



**THREAT:** Although Asian gypsy moths are not established in Oregon, they were detected in the summer 2015 in Forest Park, North Portland and in Washington state<sup>1</sup>. The Asian gypsy moth is an exotic pest and a closely related species to the European gypsy moth. The European gypsy moth is well known for defoliating (eating leaves off of trees) an average of 700,000 acres per year<sup>2</sup>, and as much as 12.9 million acres of forest in the eastern United States in a single year<sup>3</sup>. In the last 30 years, Asian gypsy moth has been detected in Oregon three times and successfully eradicated each time. The national policy is to eradicate Asian gypsy moth if detected, because of its ability to quickly defoliate large tracts of forest. The moths that were detected in Portland were likely from cargo or vessels originating from Asia in 2014.

A forest that has been defoliated loses its ability to provide essential ecosystem services such as air



Gypsy moth defoliation. Image ©Mark Robinson, USDA Forest Service, Bugwood.org

purification, water quality, temperature mitigation, wildlife habitat, biodiversity, and storm water interception. Trees that have been defoliated are more susceptible to disease, stress and a higher death rate. Trees are an essential part of Oregon's character, economy, landscape and ecological function. If we do not extinguish the current population, eradication of a larger population would be more expensive and more expansive. Additionally, if the moth were to become widely established, homeowners and forest land managers would experience defoliation events and rising pest control costs.

The Asian gypsy moth behaves differently and is much more difficult to control than the European gypsy moth. Asian gypsy moth female can fly, whereas European gypsy moth females do not. In addition, Asian gypsy moth caterpillars are known to feed on many more types of trees and shrubs. These two characteristics can allow the moth to easily become established, spread more quickly, and impact more types of forests. Because of this, the United States Department of Agriculture (USDA) has recognized Asian gypsy moth as a significant exotic pest of economic importance<sup>4</sup> and maintains a policy of quick response to any detections of the moth.

**OPPORTUNITY:** Since the Asian gypsy moth was just detected in the summer of 2015, we have a unique and small window of opportunity to ensure the population does not become established in Oregon. If we are able to terminate any early infestations of gypsy moth caterpillars that hatch this coming spring, then we can avoid the species establishing a population in our forest.

1 Report of the Technical Working Group for the Response to Asian Gypsy Moth Captures Washington-Oregon 2015, Published on October 30, 2015. [https://www.aphis.usda.gov/plant\\_health/plant\\_pest\\_info/gypsy\\_moth/downloads/agm-twg.pdf](https://www.aphis.usda.gov/plant_health/plant_pest_info/gypsy_moth/downloads/agm-twg.pdf)

2 USDA-APHIS-PPQ Asian Gypsy Moth Factsheet, APHIS 81-35-027. [https://www.aphis.usda.gov/publications/plant\\_health/content/printable\\_version/fs\\_phasiangm.pdf](https://www.aphis.usda.gov/publications/plant_health/content/printable_version/fs_phasiangm.pdf)

3 Forest Insect & Disease Leaflet 162, United States Department of Agriculture Forest Service. <http://www.na.fs.fed.us/spfo/pubs/fidls/gypsymoth/gypsy.htm>

4 USDA-APHIS-PPQ Asian Gypsy Moth Survey and Response Guidelines [https://www.aphis.usda.gov/plant\\_health/plant\\_pest\\_info/gypsy\\_moth/downloads/AGMSurveyResponseGuidelines.pdf](https://www.aphis.usda.gov/plant_health/plant_pest_info/gypsy_moth/downloads/AGMSurveyResponseGuidelines.pdf)

A technical working group of experts<sup>5</sup> from the United States and Canada came together in late 2015 to decide how best to respond to the threat of Asian gypsy moth. After analyzing several options, they determined that three aerial applications in the Pacific Northwest of *Bacillus thuringiensis kurstaki* (Btk) in late April of 2016 is the best option. Btk is a biological pesticide approved by the Organic Materials Review Institute<sup>6</sup> for use in the organic production of herbs, fruits, vegetables, nuts, and field crops. Foray 48B, the formulation that would be used, is specific to caterpillars. Btk has previously been used in Oregon for the purpose of gypsy moth eradication for over 30 years. In each case, the moth was successfully and safely removed from those ecosystems.

Currently, a coalition of multiple agencies in Oregon and Washington are developing a plan of action using the technical working groups recommendations. Through the National Environmental Protection Act (NEPA) process, an environmental assessment is being written and will be available for public comment in February of 2016. After the comment period is over, the Oregon Department of Agriculture will make a decision as to whether to treat a 16 square mile area over Forest Park, a portion of Linnton, the Saint Johns neighborhood, and the Port of Portland. The decision to treat will also be dependent on receiving the needed funding to conduct the aerial spray operation.



Asian gypsy moth egg masses. © William M. Ciesla, Forest Health Management International, Bugwood.org

5 Report of the Technical Working Group for the Response to Asian Gypsy Moth Captures Washington-Oregon 2015, Published on October 30, 2015. [https://www.aphis.usda.gov/plant\\_health/plant\\_pest\\_info/gypsy\\_moth/downloads/agm-twg.pdf](https://www.aphis.usda.gov/plant_health/plant_pest_info/gypsy_moth/downloads/agm-twg.pdf)

6 Organic Materials Review Institute. Search for "Foray 48B." <http://www.omri.org/>

## GET INVOLVED:

1. Comment on the environmental assessment. Sign up to receive notification that the assessment is open for public comment at [oregoninvasivespeciescouncil.org/agm](http://oregoninvasivespeciescouncil.org/agm).
2. Volunteer to have a trap placed on your property during the summer to assist with monitoring efforts. Sign up at [oregoninvasivespeciescouncil.org/agm](http://oregoninvasivespeciescouncil.org/agm).
3. Attend the public outreach events being held in February 2016. For more information visit: [oregoninvasivespeciescouncil.org/agm](http://oregoninvasivespeciescouncil.org/agm).
4. Request a briefing by contacting the Oregon Department of Agriculture to have a specialist come talk to your group about Asian gypsy moth.
5. For more information on Btk, please visit: <https://public.health.oregon.gov/HealthyEnvironments/HealthyNeighborhoods/Pesticides/Pages/btkfacts.aspx>

## CONTACT:



Oregon Invasive Species Council  
[www.oregoninvasivespeciescouncil.org](http://www.oregoninvasivespeciescouncil.org)



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