



## OREGON DEPARTMENT OF FORESTRY

### *Gypsy moth update:*

### *Project background and status of 2016 eradication*

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#### Introduction

**Gypsy moth (*Lymantria dispar*)** is an eastern hemisphere defoliating insect whose larvae feed upon over 500 known tree and shrub species, mostly hardwoods but also conifers like Douglas-fir. There are several subspecies of gypsy moth that threaten Oregon's forest resources.

The **European gypsy moth, or EGM**, (*L. dispar dispar*), is native to temperate forests of western Europe and was introduced to Massachusetts in 1869. It has since spread to 19 states, the District of Columbia, and four Canadian provinces. EGM primarily moves across the U.S. as egg masses that are stuck on household articles (e.g. patio furniture) or vehicles.

Since 1970, over 80 million acres, or roughly 700,000 acres per year, have been defoliated by EGM in the eastern U.S. with control and suppression costs exceeding \$300 million. Repeated defoliation of eastern U.S. hardwood forests has resulted in species turnover in 20% of the stands. Ecological effects of defoliation in western forests would be more pronounced as conifers have extremely low tolerance for complete defoliation. If epidemic conditions were to occur in Oregon, affected conifer stands would be replaced by alder and maple, which are more tolerant of defoliation.

The **Asian gypsy moth, or AGM**, (*L. dispar asiatica*) is native to southern Europe, northern Africa, Asia and parts of the Pacific. AGM is not established anywhere in the United States and is considered a **much higher risk to the Pacific Northwest**, due to its broader host range and larger dispersal potential compared to EGM. AGM is primarily vectored by international trade on vessels and cargo contaminated with egg masses.

As the lead agency for insect and disease quarantines, Oregon's forest landowners and land managers rely upon the Oregon Department of Agriculture (ODA) for early detection and rapid response to gypsy moth and other exotic pests. ODF works cooperatively with ODA, USDA-Animal and Plant Health Inspection Service and the U.S. Forest Service to survey the state for the presence of gypsy moth and to mount a suitable response. Surveys have been conducted annually since 1979. Several eradication programs for gypsy moth have successfully occurred in Oregon, including the 1984-1985 interagency response to 19,000 moths captured and 225,000 acres treated in Lane County.

### **Situation:**

In August of 2015, officials from Oregon Department of Agriculture reported 14 gypsy moths captured during their routine annual statewide survey. Two of the moths captured in Portland (Forest Park and St. Johns) were the AGM subspecies.

A national Technical Working Group comprised of experts from various federal, state and academic institutions convened in October of 2015. The Working group recommended an eradication project for 2016 to target AGM captures. Three treatments of the organic insecticide, Btk, on approximately 9,000 acres in Forest Park, north Portland and Vancouver, WA were prescribed by the Working Group. After a public comment period, an Environmental Assessment concluded in February with a Finding of No Significant Impact (FONSI) and the three insecticide treatments occurred on April 16-18, April 25-26 and May 1-2, 2016. Over 3,000 gypsy moth traps have been placed in the project area to detect any escaped gypsy moths. Trapping will be completed by September 2016. Total project costs are estimated at \$2.1 million with over half coming from the USDA-APHIS. ODA received funds from Oregon's emergency board for a portion of the project costs.

Since the detections of AGM and EGM were made in August of 2015, cooperating agencies held numerous planning meetings on how to address the pest and the public outreach. Oregon Department of Agriculture, the lead agency for the project, requested assistance from ODF for training in the Incident Command System. Personnel from ODF's Fire Prevention Program assisted in this training in staff from both Oregon and Washington Departments of Agriculture, where AGM was also detected in 2015. There were over 90 agencies and institutions on the intra-agency gypsy moth team. Specific positions where ODF served an integral need included forest entomology, invasive species biology, public information, air operations branch director, helicopter manager, air base radio operator, safety officer and finance. ODF participated in two public town hall meetings in Portland and created a new fact sheet on gypsy moth.

### **Outlook:**

Unlike most invasive forest pests, there are very good detection and eradication tools for gypsy moth. Oregon has successfully detected and eradicated every gypsy moth population since trapping began in 1979, including the 1984 incident when over 19,000 moths were trapped in Lane County. USDA-APHIS deems Oregon free of AGM once there are three consecutive years of negative trap data. There are currently no federal or state quarantines for AGM or EGM in Oregon.

The focus will now be on southern Oregon where EGM has been captured near Grants Pass for three consecutive years, indicating an establishing population that will likely need to be treated in 2017.

### **Attachments:**

1. Proposed treatment and delimitation area (Source: USDA Technical Working Group)
2. Gypsy moth fact sheet (Source: Oregon Department of Forestry)

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