Invasive species: Asian gypsy moth

Asian gypsy moth (AGM), *Lymantria dispar asiatica*, is a defoliating moth that feeds on about 500 species of trees and shrubs. Asian gypsy moths are native to parts of Asia; however, this subspecies has been intercepted in the United States at ports and detected in traps on several occasions, including interceptions on ships in Southeast Alaska. So far, populations have been eradicated before the moths were able to establish. Defoliating moths may be introduced to the United States through infested shipping containers and live plants for the plant trade and as general hitchhikers.

**Description:**
Asian gypsy moth adults are medium-sized moths with considerable variation between males and females. Male moths are grayish brown while females are white and larger. Each has darker markings on the wings. Females lay eggs in masses that contain 100-1,000 eggs and are covered with buff-colored hairs. The masses are ovoid and about 1½ inches long. The larvae are approximately 2 inches long, hairy, and have distinct blue and red spots.

1. Female AGM adult
2. Male AGM adult
3. AGM egg masses
4. AGM larva

Asian gypsy moth larvae feed on the leaves of trees and shrubs. In Alaska, larch, poplar, alder, and willow are the most likely hosts for AGM; however, other native tree and shrub species are potential hosts. Minor defoliation typically causes little harm; however, widespread or outbreak-level defoliation can be devastating.

**Signs and symptoms of AGM may include:**
- Presence of larvae feeding on leaves
- Thinning of the tree canopy
- Branch dieback

Symptoms of defoliating moth activity may be more subtle than symptoms of other pests and may need to be observed over several growing seasons. The moth larvae themselves will likely be more evident than most changes in tree growth and vigor.
Pest significance in Alaska:
Asian gypsy moth establishment in Alaska could have severe economic and environmental impacts. Host species in Alaska are widespread and abundant in urban settings and natural forests. Establishment in urban and community trees would be an economic burden on private landowners and municipalities due to the cost of controlling the pest and the potential decrease in property values and aesthetics. Establishment in natural forests could impact biodiversity, ecosystem services, and the recreational value of an area. Two hosts, alder and willow, are common species near streams. Defoliation of these plants could impact fish habitat through changes in stream temperature, macroinvertebrate populations, and stream chemistry.

If you think you may have defoliating moths but are unsure what type, contact your local Cooperative Extension Service office for assistance in identifying what pest you may have and what treatments or control measures may be needed. Images may be submitted through the Pest ID Portal (www.uaf.edu/ces/ipm/cmp/sample-submission/) for identification. Specimens may also be dropped off at your local Cooperative Extension office.

Look-likes in Alaska
There are several native brown and gray moths that could be confused with Asian gypsy moth as adults; however it is the larval stage that most people are likely to notice first. The larvae of mourning cloak butterflies may be confused with Asian gypsy moth larvae.

Asian gypsy moth larvae have distinct blue and red spots and are covered with long hairs while mourning cloak butterfly larvae have orangish-red spots, no blue spots, and stout spines.

Additional information:
UAF Cooperative Extension Service IPM program can assist with pest identification and control questions. Contact the IPM program at www.uaf.edu/ces/ipm.

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For more information, contact:
UAF Cooperative Extension Service IPM Program at www.uaf.edu/ces/ipm.
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