Emerging Threats

Emerging threats are not known to be present in the United States, but if introduced, they could threaten our native plant resources.

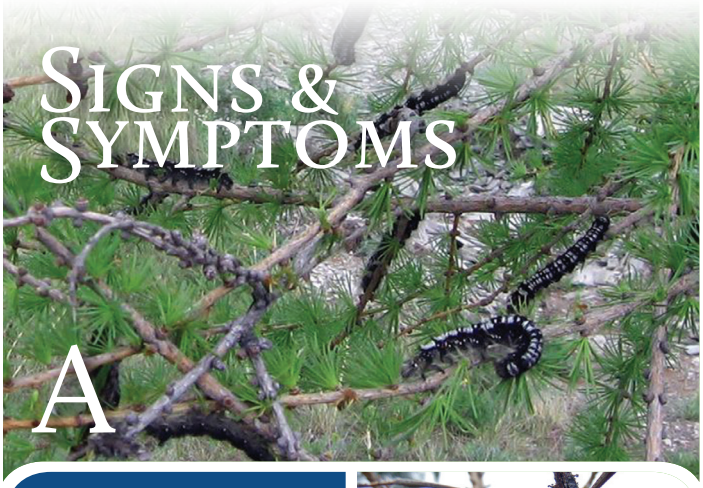
Siberian Silk Moth

Dendrolimus sibiricus

The **Siberian silk moth** (SSM) is a defoliating pest native to Russia and China. Larvae eat the foliage of many conifer species and are known for killing trees over very wide areas. SSM larvae attack healthy trees and have a voracious appetite. In outbreak years, this moth has caused significant environmental damage and economic loss within its native range and in countries where it has invaded.

Siberian silk moth has several relatives that also feed on conifers. Currently, there are no species of *Dendrolimus* in North America.

Signs & Symptoms



A	Larvae feeding
B	Adult on larch
C1–4	SSM larvae & related species

Photos A & B (cc) Yuri Baranchikov, Inst. of Forest SB RASC, bugwood; C1 © John Ghent; C2 (cc) Cai Liang; C3 © Siegfried Ihle; & Hannes Lemme, BSRCA, bugwood.org

Pathways

Siberian silk moth, and other *Dendrolimus* species, could be introduced to the U.S. on plant material originating from infested countries.

All stages of the insect can be transported on plants moving in trade, particularly plants for planting, plants with soil in tact, on cut branches, foliage and logs.

Hosts

Dendrolimus spp. feed exclusively on conifers. Siberian silk moth favors larch and Douglas fir but also feeds on pine, spruce, fir, cedar and hemlock. The Masson pine moth (*D. punctatus*) feeds exclusively on pines.

On conifers, look for...

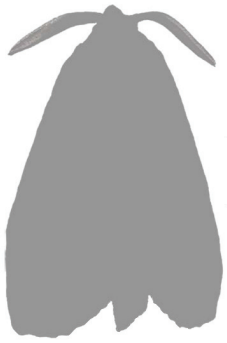
- Defoliation, sometimes severe
- Adult moths resting on foliage or trunks
- Voracious larvae (caterpillars) feeding on foliage

Larvae

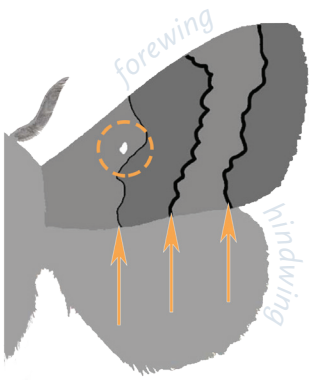
- Large caterpillars some reaching over 3" in length
- Hairy, often with alternating patterns of light grey and black with orange markings

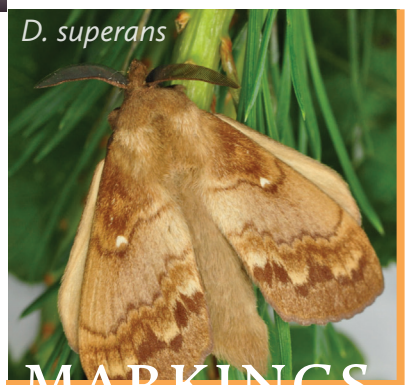
Identifying *Dendrolimus* spp.

The genus *Dendrolimus* consists of ~ 30 species of moths; currently, there are no species living in North America. The following features are representative of the genus and any moths with these features should be sent to an expert for identification.



Dendrolimus are large moths averaging 1.3–2.2" at rest.





MARKINGS

Forewings grey and/ or brown with variable markings, often three distinct dark or dotted lines, and a prominent white spot on the forewing.

Hindwings typically solid brown or grey.

Photos clockwise from top left: H. Lemme, BSRCA, bugwood; T. Gilligan, Screening Aids, USDA APHIS PPQ, bugwood; Siegfried Ihle; V. Petko, V.N. Sukachev Institute of Forest SB RAS, bugwood; & T. Gilligan, Screening Aids, USDA APHIS PPQ, bugwood.org.

If you think you've found this pest in your landscape,

immediately follow instructions online to find out how to report its presence! Awareness, early detection, and rapid reporting are essential to prevent this exotic moth from establishing.

Identification must be confirmed by USDA National Identification Services (NIS). You can ensure they are informed by reporting at: https://firstdetector.org/report-pest

Take Action!

1. Know the Threats

Learn more about Siberian silk moth and other emerging threats including:

Tremex wood wasp

Scots pine blister rust

oak splendor beetle

2. Learn to Report

You can easily and rapidly report the presence of Siberian silk moth and other pests and pathogens online! Use the reporting link above to access our online report form.

Learn more about identifying and reporting signs and symptoms of an invasive pest outbreak by taking free online First Detector courses at www.firstdetector.org.

3. Prevent Spread

To avoid spreading harmful pests and diseases, don't move plants or plant parts to new locations. When traveling, buy local fruit/ vegetables and firewood, and always check your vehicle for stowaway pests!

FIRST DETECTOR PROGRAM www.firstdetector.org

You can protect our plant resources from introduced pests and diseases by becoming a First Detector.

Learn more and get involved!

www.firstdetector.org

reporting tools • pest profiles • e-learning courses
identification guides • educator resources