SPONGY MOTH (FORMERLY KNOWN AS GYPSY MOTH)

(*Lymantria Dispar dispar*)

NEW YORK STATE | Department of Environmental Conservation

What are spongy moths?

Spongy moths are defoliating insects native to France that were first introduced to the United States in 1869. They are now widespread in the Northeast and considered "naturalized," meaning they will always be a part of our ecosystem. Spongy moth populations rise and fall in cycles, varying over the years from very few (most years) to large numbers, which cause very noticeable leaf damage and tree defoliation. In New York, we tend to see regional outbreaks, or large spikes in population numbers, every 10–15 years. Outbreaks usually end when disease and predator populations increase to a level at which they can naturally control the LDD population.

New Common Name

The Entomological Society of America removed the former common name from its Common Names of Insects and Related Organisms list in July 2021 due to it being a derogatory term for the Romani people.

Identification

Spongy moth caterpillars (larval stage) can be seen starting in early to mid-May, grow to about 2.5 inches in length, and are black and hairy, with five pairs of raised blue spots followed by six pairs of raised red spots along their backs. Adult moths can usually be seen starting in July. Females are white with brown markings, have a 2-inch wingspan, and cannot fly. Males are brownish, have a 1.5-inch wingspan, and have feathery antennae.

Egg masses are light brown and covered with a dense mat of fine hairs. They are often laid on tree trunks and branches, but can also be found on sheltered surfaces, from firewood to lawn furniture.

Caterpillars start off completely black, with the blue and red spots showing up after their second molt. Photo by Karla Salp, Washington State Department of Agriculture, Bugwood.org

What Do They Do?

Spongy moth caterpillars feed on more than 300 species of trees and shrubs, eating the young, tender leaves in the spring. In New York, they are known to feed on oak, maple, apple, crabapple, hickory, basswood, aspen, willow, and birch, although oak is their preferred species. When populations of spongy moths are high, or when oak and other preferred trees are limited, they will eat conifer species, including pine, spruce, and hemlock. During outbreaks, they can damage thousands of acres of trees.

Adult female moths lay egg masses on trees and other hard surfaces.

Can Trees Recover?

While the caterpillars pupate and turn into moths, a healthy tree that has been fed on will grow new leaves and have a full canopy again within a few weeks. However, defoliation (loss of leaves) can reduce the health and vigor of a tree, causing it to become more susceptible to other stressors such as extreme drought, flooding, or attacks by disease or other insects. Tree death can occur when one or more of these stressors is present at the same time as spongy moth caterpillars. Long-term damage depends on the type of tree, as well as the amount of defoliation.

- **Conifers:** If a needle-bearing tree loses more than 50% of its needles, it probably won't recover. Check it for new needle growth in the months after the caterpillars are gone.
- **Hardwoods:** If there are no other stressors, deciduous/hardwood trees can usually withstand 2–3 successive years of defoliation, though new leaves will probably be smaller than usual. If a tree loses ALL its leaves and does not grow any new ones in late summer, it could still be alive. Check it in the spring, and if it still does not leaf out, it has died.

Control Options for Landowners

Note: Although these options may help protect individual trees or small areas, they will not eliminate a local spongy moth population. In most cases, spongy moth outbreaks end naturally as disease becomes more prevalent and predator populations increase in response to the larger amount of available host/prey.

Egg masses can contain 600–700 eggs, so destroying them when you see them can have a big impact. Photo by Karla Salp, Washington State Department of Agriculture, Bugwood.org

Squishing and Scraping

You can help decrease future spongy moth populations by squishing the caterpillars and moths and destroying egg masses when you see them. To make sure an egg mass is destroyed, scrape the mass into a bucket of warm, soapy water and then leave it overnight before discarding it in the trash.

Using Traps

In late April, before spongy moth eggs hatch, you can place sticky/barrier bands around a tree's trunk to prevent the caterpillars from crawling up the tree and into the canopy. You can buy these bands or make them at home using common household materials. Check sticky/barrier bands often, in case unintended wildlife, such as birds and small mammals have been caught; to remove debris that would act as a bridge for caterpillars over the band; and to replace as needed, such as after rain events. The hairs on the caterpillars can cause skin irritation, so wearing gloves is recommended when handling used traps.

In mid-June, when caterpillars are larger, replace sticky/barrier bands with a burlap trap. These traps do not prevent the caterpillars from going into the canopy but provide excellent shelter when they rest during the day, making it easier to collect and destroy the caterpillars, pupae, adults, and eggs found in the burlap. This should be done at least several times a week so that the trap doesn't just become a shelter for them. Detailed instructions for making your own sticky/barrier bands and burlap traps are available on DEC's website: https://www.dec.ny.gov/animals/83118.html.

Insecticide Options

Treating an individual property with an insecticide is unlikely to impact a larger, regional outbreak, but may impact other invertebrates. **Carefully consider these potential impacts prior to application.**

Microbial insecticides are biopesticides made from naturally occurring bacteria, viruses, fungi, or protozoans that can be targeted to a specific pest. The most common of these is *Bacillus thuringiensis* (Bt), which occurs naturally in soil and on plants. The Bt subspecies kurstaki (Btk) is the most appropriate to use for spongy moth control and works best on young caterpillars since they become more resistant to treatment as they mature. When a caterpillar eats Btk, it becomes paralyzed, stops feeding, and dies of starvation. Btk is harmless to people, animals, and plants, but does affect other young moth and butterfly larvae. Proper timing of application will help limit exposure to non-spongy moth larvae.

Horticultural oil insecticides (aka dormant oils) are solutions refined from petroleum or plants, and when applied, can smother insects or disrupt the protective coating around their eggs. Horticultural oils will impact any insects that they are sprayed on, not just spongy moths, but they are relatively safe for humans and other wildlife. The oils should be applied to egg masses in late March–early April before caterpillars emerge, and again in October–early November after adults have ceased activity.

Chemical insecticides are contact poisons. These chemicals can have a serious impact on a variety of beneficial, native insects (such as bees), as well as nesting birds and other wildlife, **so use should be limited**. Spraying is not effective against spongy moth pupae or egg masses, and it is less effective once caterpillars reach one inch in length.

More Information

Visit DEC's spongy moth webpage for more information, including how to help trees recover from spongy moth damage, how to help predict next year's caterpillar populations, and annual outbreak updates: https://www.dec.ny.gov/animals/83118.html.

CONTACT INFORMATION

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Updated December 10, 2021

SOUTHERN PINE BEETLE

Dendroctonus frontalis

NEW YORK STATE | Department of Environmental Conservation

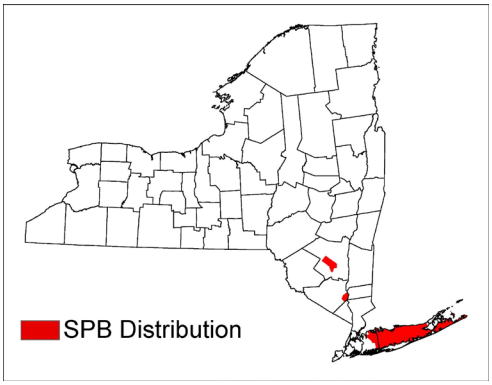
What is the southern pine beetle (SPB)?

The southern pine beetle, or SPB, is a bark beetle that infests pine trees. The beetle is small, only 2-4 mm in length, about the size of a grain of rice, and is red-brown to black in color. SPB is native to the southeastern United States but has been expanding up the Eastern Seaboard in recent years. Warming of winter temperatures has most likely contributed to this range expansion.

Southern pine beetle
USDA Forest Service, Bugwood.org

Where is SPB located?

SPB was first reported in New York in late September, 2014 in Suffolk County on Long Island. It has now been found throughout Suffolk County, but the largest infestations are located in Wertheim National Wildlife Refuge, Connetquot River State Park, and the Henry's Hollow Pine Barrens State Forest. SPB has also been found in Bear Mountain State Park in Orange and Rockland Counties and in Minnewaska State Park in Ulster County.



What does it do to trees?

The adult beetle enters the tree through crevices in the bark and then creates S-shaped tunnels in the cambium tissue, just beneath the bark. This disrupts the flow of nutrients, killing the tree in typically 2-4 months. Most trees resist the initial attacks by secreting resin that can "pitch out" some adults and slow the entry of others, but trees almost always die as their defenses are overwhelmed by thousands of attacking beetles.

SPB has always been the most destructive pest of southern pine forests. From 1999-2002, an outbreak of the beetle in the southeastern US resulted in more than one billion dollars in loss for the timber industry, according to the US Forest Service. SPB populations naturally rise and fall. The beetle can persist for years at very low numbers, sometimes going unnoticed. At other times, however, the population can explode, rapidly killing pine trees across the landscape, as is currently occurring on Long Island. This switch between high and low population numbers is influenced by the availability of dense pine stands, the number of natural enemies, the types of fungus present, tree defenses, and changes in climate.

What trees are affected?

All pine trees are susceptible, including pitch pine, white pine, and red pine. In addition to pines, hemlocks and spruce may also be affected in highly infested areas. No hardwood tree species are affected.

Dead pitch pine trees

What are the signs of an infestation?

- Pitch tubes, or popcorn-shaped clumps of resin on the exterior of the bark
- Shotgun patterned holes on the exterior of the bark
- S-shaped tunnels under the bark
- Pine tree that have recently died; characterized by reddish-brown needles

What is being done?

SPB entering pitch tube

SPB has existed for many years in other regions of the country, and information sharing has been very valuable in creating a plan to address this pest and minimize its impacts on our forests. DEC has reached out to experts including state, federal, and local agencies with SPB experience, as well as academic experts to apply the best and most up to date science to determine priorities for management activities.

Eradication of this pest is not feasible because it is widespread, moves quickly, and is present in neighboring states. As a result, forest health management conducted by the State is focused on protecting the large forested blocks and unique habitats, such as the Core Preservation Area of the Long Island Central Pine Barrens. Management efforts include aerial and ground surveys, cutting infested trees, and thinning uninfested trees. So far, more than 8,000 trees have been cut in the Core Preservation Area in suppression efforts to slow the spread of SPB and protect surrounding trees.

Why do trees need to be cut if the goal is not eradication?

Cutting infested trees in the winter can reduce the SPB population by killing the brood that was overwintering within the tree. Thinning tree stands is also beneficial because increasing the distance between the trees disrupts the beetles' ability to communicate using pheromones, making it more difficult for them to attack trees in great numbers. Thinning also reduces competition among trees, creating a healthier stand that is better able to fend off attack by SPB and other pests.

What can I do?

SPB tunnels, or “galleries,” under the bark

- If you have dead pine trees, consider risk and liability. Remove standing dead trees if they have the potential to fall on people, structures, roads or utility lines. Dead trees no longer have living SPB in them so they can be left standing if they do not pose a threat.
- If you have living infested trees, surrounding uninfested trees are at risk. To keep SPB from spreading, remove and dispose of infested pines. Infested trees should not be cut and moved to new areas during the summer unless they will immediately be destroyed.
- If you have uninfested trees, you may choose to protect them with preventive insecticides. Recommendations can be obtained by contacting Cornell Cooperative Extension of Suffolk County.
- Consider contacting a certified arborist for a consultation.
- Report recently dead pine trees with the infestation signs listed above to the NYS DEC Forest Health. Sending pictures of suspect pine trees with something included for scale, such as a penny, will help in identifying potential problems.

Is there funding for tree removal on private property?

There are currently no state or federal funds available to provide financial assistance to private homeowners for the removal of individual trees attacked or killed by SPB.

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Updated February 29, 2016

NEW YORK STATE | Department of Environmental Conservation

OAK WILT

A Disease of Oak Trees

NEW YORK STATE | Department of Environmental Conservation

What is oak wilt?

Oak wilt is a disease that affects oak trees. It is caused by *Bretziella fagacearum*, a fungus that develops in the xylem, the water-carrying cells of trees. All oaks are susceptible to the fungus, but the red group oaks (with pointed leaf tips) often die much faster than white group oaks (rounded leaf tips).

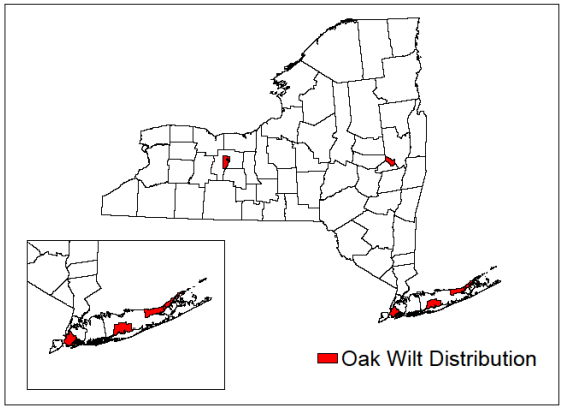
Oak tree killed by oak wilt
Steven Katovich, USFS, Bugwood.org

Why is oak wilt a problem?

The oak wilt fungus blocks the flow of water and nutrients from the roots to the crown, causing the leaves to wilt and fall off, usually killing the tree. Red group oaks (scarlet oak, pin oak, black oak, etc.) can die within a few weeks to six months, and the disease spreads quickly from tree to tree. White group oaks (bur oak, swamp white oak, etc.), however, often take years to die and the disease rarely spreads to additional trees.

Where does it come from?

Oak wilt was first discovered in Wisconsin in 1944, but where it originated is still unknown. It has spread throughout the Midwest and Texas, killing tens of thousands of trees.



Where has it been found in New York State?

In 2008, a small infection was discovered in Glenville, NY. Despite a quick response to remove and destroy the infected trees, the disease resurfaced in the same location five years later and additional infection sites have been found within a few miles of the original location. Oak wilt has also been discovered in Islip, Riverhead, and Southold in Suffolk County; Brooklyn in Kings County; and Canandaigua and South Bristol in Ontario County.

How does it spread?

There are two main ways oak wilt is spread: 1) above ground by beetles, and 2) below ground through tree roots.

Root graft
Ronald F. Billings, Texas A&M Forest Service, Bugwood.org

Fungal spore mats form just under the bark of infected red group oaks after they have died from the disease. During the warmer months, these spore mats emit a sweet odor that attracts sap-feeding beetles and bark beetles, which can pick up fungal spores as they crawl around. The beetles are also highly attracted to fresh tree wounds—such as those caused by pruning. In this way, they spread the fungus from infected trees to healthy trees sometimes miles away. Infected firewood and other wood materials also pose a threat because they can harbor the fungus and/or beetles that can spread the disease.

Spread underground occurs when roots of nearby red group oaks graft to each other (fuse together), creating a connection through which nutrients and the disease can move. In the Midwest, large blocks of red oak forests have died from the disease in a single season due to their vast network of interconnected roots. In contrast, *white* group oaks are much less likely to create root grafts, and spore mats rarely form under their bark, significantly reducing the chance of spread from these trees.

What are the symptoms?

Symptoms of oak wilt infection are often very noticeable in red group oaks, but aren't easily seen in white oaks.

Diseased red oak leaves

Fungal spore mat under bark

- Brown coloration develops on leaves starting at the outer edge and progressing inward toward the mid-vein of the leaf.
- Branch dieback may be visible starting at the top of the tree's canopy and progressing downward.
- Leaves suddenly wilt in the spring and summer and may fall while there is still some green on them.
- Fungal spore mats may develop under the bark of infected trees.

What is being done?

- During the growing season, DEC will take samples from oak trees around the infection sites to look for additional signs of the disease.
  - These areas will continue to be monitored using aerial and ground surveys for at least five years after the last oak wilt detection.
- Established quarantine districts will prohibit the movement of potentially diseased oak wood including firewood.
- DEC is attempting to eradicate the disease in Glenville, Canandaigua, South Bristol and Brooklyn using the following methods:
  - Oak-free zones will be established where infected and surrounding oak trees will be removed.
  - Where possible, trenching will be used to break root connections to lower the chance of spread.
- In Suffolk County, DEC will only attempt to contain the disease due to the number of infection sites and distribution across Long Island. Only infected trees will be removed.

Trenching to break grafted roots

What can I do?

- Learn to recognize the symptoms of oak wilt including leaf discoloration, rapid leaf loss, and fungal spore mats. If you think your tree is infected with oak wilt, contact DEC (see below).
- Avoid pruning or wounding oak trees in the spring and summer, when spore mats are present and beetles are the most active. If an oak wound occurs during spring or summer, it should be sealed immediately with wound covering. This will slow wound recovery, but also deter beetles from landing on those areas – which will lower the spread of oak wilt.
- Adhere to the NYS firewood regulation which limits untreated firewood movement to no more than 50 miles and obey the rules of the quarantine districts which prevent firewood or oak wood from leaving those areas.
- Visit www.dec.ny.gov/lands/46919.html for more information.

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Updated June 14, 2019

NEW YORK STATE | Department of Environmental Conservation

HEMLOCK WOOLLY ADELGID

Adelges tsugae

NEW YORK STATE | Department of Environmental Conservation

What is the hemlock woolly adelgid?

The hemlock woolly adelgid, or HWA, is an invasive, aphid-like insect that attacks North American hemlocks. HWA are very small (1.5 mm) and often hard to see, but they can be easily identified by the white woolly masses they form on the underside of branches at the base of the needles. These masses or ovisacs can contain up to 200 eggs and remain present throughout the year.

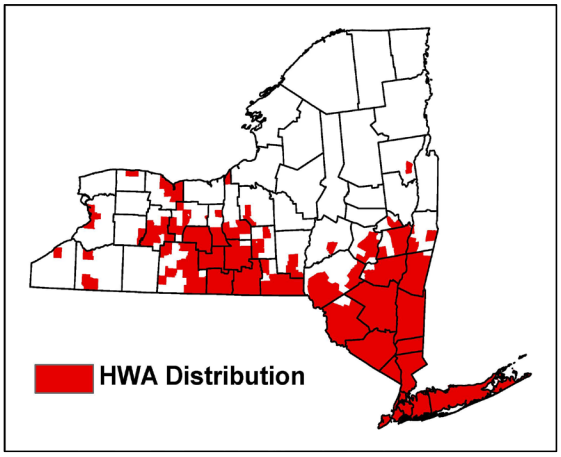
White woolly ovisacs on an eastern hemlock branch
Connecticut Agricultural Experiment Station, Bugwood.org

Where is HWA located?

HWA was first discovered in New York State in 1985 in the lower Hudson Valley and on Long Island. Since then, it has spread north to the Capitol Region and west through the Catskill Mountains to the Finger Lakes Region, Buffalo and Rochester. In 2017, the first known occurrence in the Adirondack Park was discovered in Lake George.

Where does HWA come from?

Native to Asia, HWA was introduced to the western United States in the 1920s. It was first observed in the eastern US in 1951 near Richmond, Virginia after an accidental introduction from Japan. HWA has since spread along the East Coast from Georgia to Maine and now occupies nearly half the eastern range of native hemlocks.



What does HWA do to trees?

Once hatched, juvenile HWA, known as crawlers, search for suitable sites on the host tree, usually at the base of the needles. They insert their long mouthparts and begin feeding on the tree's stored starches. HWA remain in the same spot for the rest of their lives, continually feeding and developing into adults. Their feeding severely damages the canopy of the host tree by disrupting the flow of nutrients to its twigs and needles. Tree health declines, and mortality usually occurs within 4 to 10 years.

What trees are affected?

All species of hemlock are vulnerable to attack, but severe damage and death typically occurs in eastern (Tsuga canadensis) and Carolina (Tsuga caroliniana) hemlocks only. Eastern hemlock is the most common species of hemlock in New York State.

HWA damage to needles and branches
Chris Evans, University of Illinois, Bugwood.org

What are the signs of an infestation?

- White woolly masses (ovisacs) about one-quarter the size of a cotton swab on the underside of branches at the base of needles
- Needle loss and branch dieback
- Gray-tinted foliage

What is the impact on NYS ecosystems?

Hemlocks are ecologically important due to the unique environmental conditions they create under their dense canopies. These cooler, darker and sheltered environments are critical to the survival of a variety of species that rely on them for food, protection, and ideal growing conditions. Moose, black bears, salamanders, and migrating birds, as well as unique lichen and plant communities, are all closely associated with the hemlock ecosystem. Well suited for growing on steep slopes where not many other species can grow, hemlocks stabilize shallow soils and provide erosion control. In addition, they are often found along streams, where their shade helps moderate water temperatures, maintaining a suitable environment for cold-water species such as trout. Removal of hemlocks from NYS ecosystems can dramatically change ecosystem processes and may result in the loss of unique plants and wildlife.

What is being done?

Biological Control

Several predators from Asia have been successfully introduced in HWA- infested areas. In addition, Laricobius nigrinus, a beetle native to the Pacific Northwest, has been released at various locations in the Finger Lakes region with promising results, though more controls are needed to stop HWA.

Laricobius nigrinus feeding on HWA
US Forest Service, Bugwood.org

Chemical Control

Chemical insecticides can be used to treat an already infested tree or as a preventive measure in a high-risk infestation area. They are useful for treating individual, ornamental, or high-value trees, but are not practical or economical in a forest setting. Two insecticides that have shown promising results are Imidacloprid and Dinotefuran. Both must be applied by a licensed pesticide applicator, and either can kill HWA on its own. Applying both insecticides to an infested tree, however, combines the immediate effectiveness of the fast-acting Dinotefuran with the long-term protection of Imidacloprid, leaving the tree adelgid free for up to seven years.

Integrated Pest Management

The most effective management strategy for controlling HWA combines the short-term protection of insecticides with the long-term solution of biological control agents. As research continues on the effectiveness of natural enemies to control HWA populations, chemical insecticides can keep trees alive and free of infestation until natural enemies take over.

What can I do?

If you believe you have found HWA…

- Take pictures of the infestation signs as described above (include something for scale such as a coin or ruler).
- Note the location (intersecting roads, landmarks or GPS coordinates).
- Contact DEC (see below) or your local Partnership for Regional Invasive Species Management (PRISM) by visiting www.dec.ny.gov/animals/47433.html.
- Report the infestation to *i*MapInvasives at www.NYiMapInvasives.org.
- Slow the spread of HWA in our forests by cleaning equipment or gear after it has been near an infestation, and by leaving infested material where it was found.

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Updated January 8, 2018

NEW YORK STATE | Department of Environmental Conservation

ASIAN LONGHORNED BEETLE

Anoplophora glabripennis

NEW YORK STATE | Department of Environmental Conservation

What is the Asian longhorned beetle?

The Asian longhorned beetle, or ALB, is an invasive wood-boring insect that feeds on a variety of hardwoods including maple, birch, elm, ash, poplar, horse chestnut and willow, among others. Native to China and Korea, the beetles are approximately 1.5 inches long and shiny black, with white spots on their wing cases. They have black and white antennae that can be up to twice as long as their body.

An adult ALB
Joe Boggs, Ohio State, Bugwood.org

What are the signs of an infestation?

Trees being attacked by ALB often have wilted foliage and canopy dieback, but the main signs to look for include:

1. Round, ½ inch exit holes from adults emerging from trees beginning in late July.
2. Round, ½ inch depressions (egg-laying sites) in the outer bark.
3. Sap oozing from egg-laying sites and exit holes.
4. Deep exit holes, insert a pencil to determine if the hole is at least an inch deep.
5. Sawdust, or frass, collecting at the base of the tree or on branches.

Dennis Haugen, USDA Forest Service, Bugwood.org

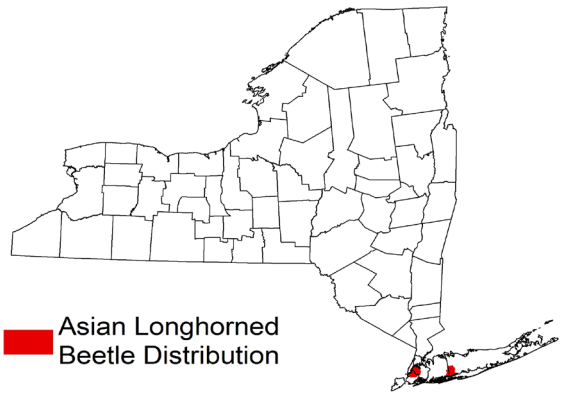
Dennis Haugen, USDA Forest Service, Bugwood.org

Joe Boggs, Ohio State, Bugwood.org

Robert A. Haack, USDA Forest Service, Bugwood.org

Where are ALB located?

In 1996, ALB were found infesting Norway maple trees in Brooklyn. Larvae and pupae likely hitchhiked from China in wooden packing material, and the adult beetles emerged after the materials reached the New York Harbor. Additional infestations were later discovered in Manhattan, Queens, Staten Island, Islip and central Long Island. To date, the Manhattan, eastern Queens, Staten Island and Islip infestation sites have been eradicated.



For more information, or to sign up for email updates from NYSDEC, visit our website: **www.dec.ny.gov**

What do they do to trees?

Females often chew depressions in the bark where they deposit one to two eggs at a time, laying up to sixty eggs on average. After they hatch, the larvae bore into the tree and begin feeding on the living tissue just underneath the bark which disrupts the nutrient and water flow within the tree. The larvae then continue deep into the heartwood where they continue to feed until they are ready to pupate. Repeated attacks from scores of larvae, generation after generation, eventually girdles the tree and kills it. Tree death usually occurs 7-9 years after the initial infestation, depending on site conditions and the tree's overall health.

What is the risk to NYS?

Since maples are a preferred host for ALB, the spread of the beetle into the rest of the state would mean devastating impacts to the maple syrup industry through the loss of healthy sugar bush. Maples are also a valuable hardwood for furniture, flooring, and other uses. Larval galleries through the heartwood may degrade the wood enough to make it useless for milling, costing the forest products industry billions of dollars. The larval galleries also compromise the structural integrity of the tree, resulting in falling limbs and trunks under heavy rain, snow or wind pressure. Removing these hazard trees in parks and towns would be expensive and have serious impacts on property values and tourism.

Before and after the removal of
ALB infested trees in Worchester, MA.
Kenneth R. Law, USDA APHIS PPQ, Bugwood.org

What is being done?

- International standards require wooden packing materials to be chemically treated or kiln dried to help stop new introductions from occurring.
- Quarantines have been established around infested areas to prevent the movement of infested materials.
- The NYS Department of Agriculture and Markets has taken the lead on surveying for infested trees, tree removal and tree treatment to eradicate the ALB populations in New York City and on Long Island.

What can I do?

- Adhere to the NYS firewood regulation which limits untreated firewood movement to no more than 50 miles and obey the rules of the ALB quarantines (https://www.agriculture.ny.gov/PI/alb.html), which prevent regulated materials from leaving those areas.
- If you have a pool, you can participate in the ALB Swimming Pool Survey. Whenever you clean your pool, check your filter and skimmers for anything that resembles an ALB. Send a photo of what you find to foresthealth@dec.ny.gov.

If you believe you have found an ALB…

- Take pictures of the infestation signs as described above (include something for scale such as a coin or ruler).
- Note the location (intersecting roads, landmarks or GPS coordinates).
- Contact DEC (see below) or your local Partnership for Regional Invasive Species Management (PRISM) by visiting www.dec.ny.gov/animals/47433.html.
- Call the ALB tip line at 1-866-702-9938.
- Report the infestation to *i*MapInvasives at www.NYiMapInvasives.org.

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Updated November 15, 2018

NEW YORK STATE | Department of Environmental Conservation

THE INVASIVE
SPOTTED LANTERNFLY

NEW YORK STATE | Department of Environmental Conservation | Agriculture and Markets

SPOTTED LANTERNFLY (SLF) IS AN INVASIVE PEST from Asia that prefers to feed on tree-of-heaven, an invasive tree species, but will also feed on - and harm - important New York State crops and plants. Grapes, hops, fruit trees, maples, and walnuts are all at risk. We need your help to protect agriculture in New York State, so please report SLF if you see it.

SLF life cycle stages from nymph to adult:

EARLY NYMPH
Seen from May until July

LATE NYMPH
Seen from July until September

ADULT-WINGS FOLDED
Seen from July until December

SPOTTED LANTERNFLY (SLF)
(Lycorma delicatula)

If you believe you've seen the invasive spotted lanternfly, please send a photo and the location to:
spottedlanternfly@agriculture.ny.gov

To find out more, please visit:
www.agriculture.ny.gov/spottedlanternfly

Look-Alikes: SLF is often misidentified as these other common insects

FIGURED TIGER MOTH
(Apantesis figurata)

GYPSY MOTH
(Lymantria dispar)

LARGE MILKWEED BUG
(Oncopeltus fasciatus)

EASTERN BOX ELDER BUG
(Boisea trivittata)

AMERICAN DOG TICK
(Dermacentor variabilis)

BUCK MOTH
(Hemileuca maia)

PINK UNDERWING
(Catocala concumbens)

GRAPEVINE EPIMENIS
(Psychomorpha epimenis)

SLENDER CLEARWING
(Hemaris gracilis)

WHITE-LINED SPHINX
(Hyles lineata)

TREE-OF-HEAVEN
(Ailanthus altissima)

Image: Matt Ritter, Cal Poly