



About the Initiative

The Healthy Trees, Healthy Los Angeles initiative is a program to improve the health of Los Angeles' urban trees by engaging people in early pest detection, tree health monitoring, tree-planting and stewardship.

Spotting & Reporting Pests

When you identify tree damage or a worrisome pest:

- Take pictures and write down the location and pest/damage information
- Report online: <http://www.cdfa.ca.gov/plant/reportapest>
- Contact USDA APHIS at (916) 930-5500
- Download the **Report a Pest** app for iPhone to report your findings.



Scan this QR code with your smartphone to download the app!



Protecting nature. Preserving life.®

nature.org/California

ASIAN LONGHORNED BEETLE (ALB)



How to Identify

- Large 1 – 1 ½ inch long body, with six legs
- Shiny black with approximately 20 white spots
- Very long white and black striped antennae
- Six legs
- Can have bluish feet
- Beetles most often seen in late summer (July and August)
- Larvae are white, about 2 inches long, and found deep in the tree's wood



How to Spot Symptoms

- Dime-sized exit holes chewed into trees
- Eggs are found in small oval depressions chewed in trunks
- Exit holes are easier to find than egg-laying sites
- Damage is easiest to spot in the sun
- Trees usually die back first along the center & top branches
- The rest of the canopy dies as the infestation moves into the outer branches
- Can cause patches of trunk to appear black and covered in sap
- Sawdust may accumulate at the holes, the base of tree or in the branch crotches

Threatened Trees (ordered by threat level)

- Maples (most common)
- Horse Chestnut
- Box Elder
- Buckeye
- Willows (most common)
- Elm
- Aspen
- Ash
- Birch
- Katsura
- London Planetree
- European Mountain Ash
- Poplar (Cottonwood)
- Mimosa



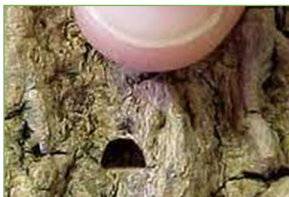
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EMERALD ASH BORER (EAB)



How to Identify

- Small ½ inch long beetle
- Bright metallic green color
- Coppery-red underside
- Larvae are flat, white, and approximately one inch long
- Adults usually emerge during late spring and summer



How to Spot Symptoms

- D-shaped exit holes
- Splits or cracks in bark and larval tunnels under bark (caused by larvae feeding on inner bark)
- Thinning and dead patches in upper third of tree
- Leafy, misplaced sprouts at base of the tree or roots
- Abundant woodpecker activity
- Wilting and yellowing leaves

Threatened Trees

- North American Ash (all)*

* Mountain ash isn't a true ash and cannot be infested with EAB



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POLYPHAGOUS SHOT HOLE BORER



How to Identify

- Very small beetle – smaller than a sesame seed
- Beetle larvae live in galleries within tree and feed on fungus



How to Spot Symptoms

- On avocado trees, small mounds of white powdery substance on the bark surrounding single beetle exit holes
- Holes may be dry or surrounded by wet discoloration
- On other trees, wet "bleeding" appearance around exit holes and fluid may drain down trunk
- If bark is scraped off, rotten discolored fungal canker may be seen



Threatened Trees (ordered by threat level)

- Coast Live Oak
- California Sycamore
- Big Leaf Maple
- Box Elder
- American Sweet Gum
- Avocado

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GYPSY MOTH (EUROPEAN, ASIAN AND ROSY)



How to Identify

European Gypsy Moth

- Eggs are buff-colored velvety masses and caterpillars are 1 ½ - 2 ½ in. long with dark tufts of hair on each segment and blue and red dots on backs
- Male moths have 1 ½ in. wingspan - light tan to brown wings with dark wavy bands
- Female moths have a 2 ½ in. wingspan and are off white (flightless despite their wings)



Asian Gypsy Moth

- Egg masses covered by yellow fuzz
- Adult females can fly and are creamy-white with a wingspan up to 3 ½ in.
- Adult males are grey-brown with a wingspan of 2 in.

Rosy Gypsy Moth

- Male wingspan 1 ½ - 2 in. – forewings brown and hind wings yellow
- Female wingspan 3 – 3 ¾ in. – forewings are white with dark markings, hind wings pink
- Egg masses are flat with irregular edges. At a distance, eggs are visible as white, fluffy patches against dark-colored bark.



How to Spot Symptoms

- Whole trees may be defoliated
- Eggs can be found stuck to outdoor objects such as rocks, trees, cars, etc.
- Up to 1,000 eggs can hatch in April or May

- Small holes in leaves chewed by young larvae
- Older larvae consume entire leaves except for larger veins and midribs

Threatened Trees

(ordered by threat level)

- Oak
- Apple
- Alder
- Basswood
- Birch
- Poplar
- Sweet Gum
- Willow
- Hawthorn
- (Less favored – hickory, maple, cherry, cottonwood, elm, black gum, larch, sassafras, hornbeam, white pine)



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SUDDEN OAK DEATH



How to Identify

- The most useful diagnostic symptom is the development of cankers on the trunk
- Cankers have red-brown to black discoloration and seep dark black to red or amber sap and usually develop 3 – 6 feet off of the ground
- In later stages, the bark can fracture and exudation occurs both through broken and intact bark
- Complete browning of the crown usually takes place after an extended period of disease and perhaps more than two years from the onset of infection

How to Spot Symptoms

- Infested oaks develop cankers on trunk with red-brown to black discoloration or oozing, usually 3-6 feet off of the ground
- Rapid browning of leaves
- Shrubs and non-oak trees are affected differently
 - Leaf browning
 - Twig and stem dieback



Threatened Trees

(ordered by threat level)

- White Oak
- Northern Red Oak
- Chestnut Oak
- Sassafras
- Redbud
- Dogwood
- Red Maple

Threatened Shrubs

- Viburnum
- Common Lilac
- Camelia



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HUANGLONGBING/ASIAN CITRUS PSYLLID (HLB/ACP)



How to Identify

- Insect is no bigger than the head of a pin
- Adults, eggs, larvae or pupae of Asian Citrus Psyllid may be on leaves or stems

How to Spot Symptoms

- Leaves develop a yellowed blotchy appearance
- Trees look unhealthy and yellowy with sparsely leaved branches
- Infected citrus trees produce fruits that are green, misshapen and bitter

Threatened Trees

- All Citrus species and hybrids

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GOLDSPOTTED OAK BORER (GSOB)



How to Identify

- Adult oak borers are a dull green color with dark metallic sheen and have 6 yellow/gold spots on their wings
- Adults have a bullet shape, 3/8th in. long and 1/16th wide.
- Larvae are slender, white and legless
- Larvae emerge from the tree through small D-shaped holes.

How to Spot Symptoms

- Look for red or black staining in dime-sized to half-foot sections of bark
- Blistering and oozing on the surface of the tree
- Outer bark chipped by woodpeckers feeding on larvae
- Crown thinning
- Twig and branch dieback
- Premature leaf loss or damage to leaves
- Outer bark chipped by woodpeckers feeding on larvae



Threatened Trees (ordered by threat level)

- Coast Live Oak
- Canyon Live Oak
- California Black Oak



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LIGHT BROWN APPLE MOTH (LBAM)



How to Identify

- Adult is 0.4 in. long and light yellow-brown with darker brown marks on the wings
- Flat, pebbly eggs are laid on tops of smooth leaves of host plants
- Caterpillars are light yellow-green with light brown head
- Yellow-brown moths with dark markings (Female)
- Lower half of wings dark brown (Male)

How to Spot Symptoms

- Look for rolled leaves closed by webbing
- Distorted leaves with some webbing
- ¼ in. yellow green caterpillars with light brown heads

Threatened Trees (ordered by threat level)

- Redwood
- Oak
- Willow
- Poplar
- Walnut
- Cottonwood
- Conifers
- Cypress
- Apple
- Pear
- Avocado
- Citrus
- Cherry
- Plum
- Peach



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RED & SOUTH AMERICAN PALM WEEVIL



How to Identify

- Large insects up to 2 in. long
- Red Palm Weevil adults are dusty red or black with red markings
- S.A. Palm Weevil adults are completely black and may appear velvety
- Females bore into palm trees and lay eggs

How to Spot Symptoms

- Look for fallen pupal cases made from palm fibers and dead adult weevils around the base of heavily infested trees
- Holes may have brown liquid oozing from them and chewed fibers
- Look for 'collapsed' crowns in palm trees

Threatened Trees (ordered by threat level)

- Date Palm
- Coconut Palm
- Washington Palm

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GLASSY-WINGED SHARPSHOOTER (GWSS)



How to Identify

- Adults are ½ in. long
- Top of the insect is dark brown while underside is white
- Underside of the head is orange
- Wings are translucent brown with red veins
- Lays eggs inside of the underside of leaves
- Egg masses usually composed of 10 – 20 eggs and most have waxy coating

How to Spot Symptoms

- One of first symptoms of GWSS infestation caused by large quantities of sticky fluid emitted as fine droplets
- Droplets can appear like rain but only under the infested tree. When liquid dries, it appears similar to white-wash
- Insect excretions harden on fruit causing fruit discoloration



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Threatened Trees (ordered by threat level)

- All Citrus species and hybrids
- Almond
- Apple
- Avocado
- Blueberry
- Grape
- Papaya
- Orange
- Sunflower

LAUREL WILT



How to Identify

- Disease transmitted through Redbay Ambrosia Beetle. It is a small, black or amber-brown, cigar-shaped beetle under 1/16th in. in length.
- Dorsal surface is mostly hairless and shiny

How to Spot Symptoms

- Wilted stems and leaves and dark streaking in the wood
- Leaves of affected trees droop and take on a reddish/purplish discoloration
- Wilted foliage may occur in part of crown at first, but eventually entire crown wilts and reddens
- Compacted sawdust may protrude from bore holes along tree trunk and limbs

Threatened Trees (ordered by threat level)

- Avocado
- Redbay
- Swampbay
- Sassafras
- Camphor
- Pondspice



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