



**Urban Tree Threat Response Guide Website**  
*For Insect, Disease and Environmental Threats to Urban Trees  
 IN ARIZONA AND NEW MEXICO*

**[www.urbantreethreatsaznm.org](http://www.urbantreethreatsaznm.org)**

**COMPONENTS OF THE WEBSITE**

**Integrated Pest Management (IPM)**

The Integrated Pest Management framework is used throughout this Website to address management of insect, disease and environmental threats to urban trees in Arizona and New Mexico. Elements of the IPM approach including cultural, mechanical, biological and chemical control strategies are described.

**Threats Directory**

The interactive *Insect and Disease Threats Directory* describes 50 threat species and conditions that impact urban trees in Arizona and New Mexico or could impact them in the future. The Directory can be searched using common or scientific threat names, tree names and tree symptoms.

**Environmental Threats to Trees**

Detrimental environmental conditions and poor cultural practices can result in urban tree damage or death. Major environmental conditions and cultural practices affecting urban trees are described, along with recommended strategies to improve tree health.

**Urban Tree Threat Response Guide**

The 104-page *URBAN TREE THREAT RESPONSE GUIDE for Insect, Disease and Environmental Threats to Urban Trees in Arizona and New Mexico*, describes 50 insects and diseases that weaken or kill urban trees. Some are currently present in Arizona and/or New Mexico, and others could make their way here in coming years. Five environmental/cultural factors that affect urban tree health are also addressed.

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**SPECIES AND CONDITIONS ADDRESSED AT THE WEBSITE**

**Insect threats**

- Asian citrus psyllid (*Diaphorina citri*)
- Asian longhorned beetle (*Anoplophora glabripennis*)
- Cedar and cypress bark beetles (*Phloeosinus* spp.)
- Coconut rhinoceros beetle (*Oryctes rhinoceros*)
- Cottonwood borer (*Plectrodera scalator*)
- Douglas-fir beetle (*Dendroctonus pseudotsugae*)
- Emerald ash borer (*Agrilus planipennis*)
- Fir engraver (*Scolytus ventralis*)
- Goldspotted oak borer (*Agrilus auroguttatus*)
- Mediterranean pine engraver (*Orthotomicus erosus*)
- Oystershell scale (*Lepidosaphes ulmi*)
- Palo verde borer (*Derobrachus hovorei*)
- Peach tree borer (*Synanthedon exitiosa*)
- Pine beetles (*Dendroctonus* spp.) including
  - Mexican pine beetle (*Dendroctonus mexicanus*)
  - Mountain pine beetle (*Dendroctonus ponderosae*)
  - Roundheaded pine beetle (*Dendroctonus adjunctus*)
  - Southern pine beetle (*Dendroctonus frontalis*)
  - Southwestern pine beetle (*Dendroctonus barberi*)
- Pine needle scale (*Chionaspis pinifoliae*)
- Pinyon ips beetle (*Ips confusus*)
- Pinyon needle scale (*Matsucoccus acalyptus*)
- Shothole borers (*Euwallacea* spp.) including
  - Polyphagous shothole borer (*Euwallacea fornicates*)
  - Kuroshio shothole borer (*Euwallacea kuroshio*)
- Sirex woodwasp (*Sirex noctilio*)
- Spongy moths including
  - European spongy moth (*Lymantria dispar dispar*)
  - Asiatic spongy moth (*Lymantria dispar asiatica*)
- Spotted lanternfly (*Lycorma delicatula*)
- Spruce aphid (*Elatobium abietinum*)
- Spruce beetle (*Dendroctonus rufipennis*)
- Twig beetles (*Pityophthorus* spp., *Pityogenes* spp., *Pityoborus secundus*)
- Western spruce budworm (*Choristoneura* spp.)
- Western tent caterpillar (*Malacosoma californicum*)

**Fungal threats**

- Armillaria root disease (*Armillaria* spp.)
- Elytroderma needle cast (*Elytroderma deformans*)
- Ganoderma rot disease (*Ganoderma* spp.)
- Lophodermella needle cast (*Lophodermella cerina*, *Lophodermella arcuata*)
- Oak wilt (*Ceratocystis fagacearum*)
- Phytophthora root diseases (*Phytophthora* spp.)
- Powdery mildew (*Podosphaera leucotricha*)
- Sooty bark canker (*Encoelia pruinosa*)
- Sooty canker (*Natrassia mangiferae*)
- Sooty mold, multiple species
- Texas root rot (*Phymatrotichopsis omnivora*)
- Thousand cankers disease (*Geosmithia morbida*)
- Verticillium wilt (*Verticillium dahliae*)
- White pine blister rust (*Cronartium ribicola*)

**Other threats**

- Aleppo pine blight, primarily abiotic stress
- Ash decline (*Phytoplasma*), also abiotic stress in ash
- Dwarf mistletoe (*Arceuthobium* spp.)
- True mistletoe (*Phoradendron* spp.)
- Fire blight (*Erwinia amylovora*) bacterium

**Environmental/cultural factors affecting urban trees**

- Tree injuries
- Tree planting issues
- Water supply issues
- Tree selection and placement issues
- Pruning issues