



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

www.urbantreethreatsaznm.org

*Major funding provided by the Arizona
Department of Forestry and Fire Management's
Urban and Community Forestry Program
and USDA Forest Service. These institutions
are equal opportunity providers.*



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 24 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/scientific threat names, tree names and/or 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 50-page *URBAN TREE THREAT RESPONSE GUIDE for Insect, Disease and Environmental Threats to Urban Trees in Arizona and New Mexico*, describes 24 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.

SPECIES AND CONDITIONS ADDRESSED AT THE WEBSITE

Insect Threats

Asian longhorned beetle (*Anoplophora glabripennis*)
Coconut rhinoceros beetle (*Oryctes rhinoceros*)
Emerald ash borer (*Agrilus planipennis*)
Mediterranean pine engraver (*Orthotomicus erosus*)
Oystershell scale (*Lepidosaphes ulmi*)
Pine beetles (*Dendroctonus* spp)
 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*)
Pinyon Ips beetle (*Ips confusus*)
Shothole borers (*Euwallacea* spp)
 Polyphagous shothole borer (*Euwallacea fornicates*)
 Kuroshio shothole borer (*Euwallacea kuroshio*)
Sirex woodwasp (*Sirex noctilio*)
Spongy moths
 European spongy moth (*Lymantria dispar dispar*)
 Asiatic spongy moth (*Lymantria dispar asiatica*)
Spotted lanternfly (*Lycorma delicatula*)

Fungal Threats

Ganoderma rot disease (*Ganoderma zonatum*)
Oak wilt (*Ceratocystis fagacearum*)
Sooty mold (multiple species)
Texas root rot (*Phymatotrichopsis omnivora*)
Thousand cankers disease (*Geosmithia morbida*)

Other Threats

Aleppo pine blight (Primarily abiotic stress)
Ash decline (*Phytoplasma*), Abiotic stress in ash

Environmental/cultural factors affecting urban trees

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