Here are over 20 insect pests that contribute to health decline and death of many of the trees in the United States. This list of tree insects cause major tree health problems and death. These insects are the cause of significant replacement expense of yard trees and the commercial expense of future losses of forest products.

1. Aphids

Virginia Tech Extension Image

Leaf-feeding aphids are usually not damaging but large populations cause leaf changes and stunting of shoots. Aphids also produce large quantities of a sticky exudate known as honeydew, which often turns black with the growth of a sooty mold fungus. Some aphid species inject a toxin into plants, which further distorts growth.

2. Asian Longhorn Beetle

USFS/FIDL

This group of insects includes the exotic Asian longhorned beetle (ALB). The ALB was first found in Brooklyn, New York in 1996 but has now been reported in 14 states and threatening more. The adult insects lays eggs in an opening in the bark. The larvae then bore large galleries deep into the wood. These "feeding" galleries disrupt the vascular functioning of the tree and eventually weaken the tree to the point that the tree literally falls apart and dies.

3. Balsam Wooly Adelgid

USFS/FIDL

Adelgids are small, soft bodied aphids that feed exclusively on coniferous plants using piercing-sucking mouth parts. They are an invasive insect and thought to be of Asian origin. The hemlock Wooly Adelgid and balsam wooly adelgid attack hemlock and firs respectively by feeding on the sap.

4. Black Turpentine Beetle


Forestpests.org

The black turpentine beetle is found from New Hampshire south to Florida and from West Virginia to east Texas. Attacks have been observed on all pines native to the South. This beetle is most serious in pine naval stores, pines stressed for lightwood production, and damaged pines in urban areas.

5. Douglas-Fir Bark Beetle


Kenneth E. Gibson, USDA Forest Service, United States

The Douglas-fir beetle (Dendroctonus pseudotsugae) is an important and harmful pest throughout the range of its principal host, Douglas-fir (Pseudotsuga menziesii). Western larch (Larix occidentalis Nutt.) is also occa-sionally attacked. Damage caused by this beetle and economic loss if Doug Fir lumber has been extensive in the tree's natural range.

6. Douglas-Fir Tussock Moth


USFS/FIDL

The Douglas-fir tussock moth (Orgyia pseudotsugata) is an important defoliator of true firs and Douglas-fir in Western North America. Severe tussock moth outbreaks have occurred in British Columbia, Idaho, Washington, Oregon, Nevada, California, Arizona, and New Mexico, but the area subject to attack is more extensive.

7. Eastern Pineshoot Borer


USFS/FIDL

The eastern pineshoot borer Eucosma gloriola, also known as the white pine tip moth, American pine shoot moth, white pine shoot borer, and Tordeuse americaine, du pin, injures young conifers in Northeastern North America. Because it infests the new shoots of sapling conifers, this insect is particularly destructive on planted trees destined for the Christmas tree market.

8. Emerald Ash Borer


USFS/FIDL

This insect was introduced into North America sometime in the 1990's. It was first reported killing ash (genus Fraxinus) trees in the Detroit and Windsor areas in 2002. Since then, infestations have been found throughout lower Michigan, Ohio, northern Indiana, the Chicago area, Maryland, and recently in Pennsylvania.

9. Fall Webworm


USFS/FIDL

The fall webworm or (Hyphantria cunea) is known to feed late in the season on nearly 100 different species of trees in North America. These caterpillars construct massive silk webs and prefer persimmon, sourwood, pecan, fruit trees and willows. The webs are unsightly in the landscape and generally more numerous when the weather has been warm and wet for extended periods.

10. Forest Tent Caterpillar


USFS/FIDL

The forest tent caterpillar (Malacosoma disstria) is an insect found throughout United States and Canada where hardwoods grow. The caterpillar will consume foliage of most hardwood species but prefers sugar maple, aspen and oak. Regionwide outbreaks occur at intervals varying from 6 to 16 years in northern areas while annual infestations occur in the southern range. The eastern tent caterpillar (Malacosoma americanum) is more a nuisance than a threat and is not considered a serious pest.

11. Gypsy Moth


USFS/FIDL

The gypsy moth, Lymantria dispar, is one of the most notorious pests of hardwood trees in the Eastern United States. Since 1980, the gypsy moth has defoliated close to a million or more forested acres each year. In 1981, a record 12.9 million acres were defoliated. This is an area larger than Rhode Island, Massachusetts, and Connecticut combined.

12. Hemlock Wooly Adelgid

Kim Nix

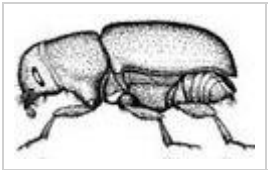
The eastern and Carolina hemlock is now under attack and in the early stages of being decimated by the hemlock wooly adelgid (HWA) or Adelges tsugae. Adelgids are small, soft bodied aphids that feed exclusively on coniferous plants using piercing-sucking mouth parts. They are an invasive insect and thought to be of Asian origin. The cottony-covered insect hides in its own fluffy secretions and can only live on hemlock. The hemlock wooly adelgid was first found on ornamental eastern hemlock in 1954 in Richmond, Virginia and became a pest of concern in the late 1980s as it spread into natural stands. It now threatens the entire hemlock population of the eastern United States.

13. Ips Beetles

USFS/FIDL

Ips beetles usually attack weakened, dying, or recently felled southern yellow pine trees and fresh logging debris. Large numbers Ips may build up when natural events such as lightning storms, ice storms, tornadoes, wildfires, and droughts create large amounts of pine suitable for the breeding of these beetles. Ips populations may also build up following forestry activities, such as prescribed burns that get too hot and kill or weaken pines and clear-cutting or thinning operations that compact soils, wound trees, and leave large amounts of branches, cull logs, and stumps for breeding sites.

14. Mountain Pine Beetle



USFS/FIDL

Trees favored by the mountain pine beetle (Dendroctonus ponderosae) are lodgepole, ponderosa, sugar and western white pines. Outbreaks frequently develop in lodgepole pine stands that contain well-distributed, large-diameter trees or in dense stands of pole-sized ponderosa pine. Extensive outbreaks can kill millions of trees.

15. Nantucket Pine Tip Moth


USFS/FIDL

The Nantucket pine tip moth, Rhyacionia frustrana, is a major forest insect pest in the United States. Its range extends from Massachusetts to Florida and west to Texas. It was found in San Diego County, California, in 1971 and traced to infested pine seedlings shipped from Georgia in 1967. The moth has since spread north and east in California and is now found in San Diego, Orange, and Kern Counties.

16. Pales Weevil


USFS/FIDL

The pales weevil, Hylobius pales, is the most serious insect pest of pine seedlings in the Eastern United States. Great numbers of adult weevils are attracted to freshly cutover pine lands where they breed in stumps and old root systems. Seedlings planted in freshly cut areas are injured or killed by adult weevils that feed on the stem bark.

17. Hard and Soft Scale Insects


Purdue University

Scale insects commonly occur on woody ornamentals where they infest twigs, branches, leaves, fruits, and damage them by feeding on the phloem with their piercing/sucking mouthparts. Damage symptoms include chlorosis or yellowing, premature leaf drop, restricted growth, branch dieback, and even plant death.

18. Shade Tree Borers


Colorado State Extension Image

Shade tree borers are insects that develop underneath the bark of woody plants. Most of these insects can attack only dying trees, felled logs or trees under stress. Stress to woody plants may be the result of mechanical injury, recent transplanting, overwatering or drought. These borers often are incorrectly blamed for damage caused by a pre-existing condition or injury.

19. Southern Pine Beetle


USFS/FIDL

The southern pine beetle (Dendroctonus frontalis) is one of pine's most destructive insect enemies in the Southern United States, Mexico, and Central America. The insect will attack all

Southern Yellow Pines but prefers loblolly, shortleaf, Virginia, pond, and pitch pines. Ips engraver beetles and the black turpentine beetle are frequently associated with southern pine beetle outbreaks.

20. Spruce Budworm

USFS/FIDL

The spruce budworm Choristoneura fumiferana is one of the most destructive native insects in the northern spruce and fir forests of the Eastern United States and Canada. Periodic outbreaks of the spruce budworm are a part of the natural cycle of events associated with the maturing of balsam fir.

21. Western Pine Beetle

USFS/FIDL

The western pine beetle, Dendroctonus brevicomis, can aggressively attack and kill ponderosa and Coulter pine trees of all ages. Extensive tree killing can deplete timber supplies, adversely affect levels and distributions of tree stocking, disrupt management planning and operations, and increase forest fire danger by adding to available fuels.

22. White Pine Weevil

USFS/FIDL

In the eastern United States, the white pine weevil, Pissodes strobi, may attack at least 20 different tree species, including ornamentals. However, eastern white pine is the most suitable host for brood development. Two other North American pine weevil species - the Sitka spruce weevil and the Engelmann spruce weevil-also should be classified as Pissodes strobi.