

Forest Pests Entomology Collection

	Scientific name	Common name	BQB #	Significance
1	<i>Agilus planipennis</i>	Emerald Ash Borer	110C1148A	Emerald ash borer (EAB) is a significant invasive pest of ash trees for North America and Europe. Originating from north-eastern Asia, this invasive pest has spread nearly halfway across North America since 2021.
2	<i>Dendroctonus valens</i>	Red turpentine beetle	133C0035A	The red turpentine beetle is one of the most widely distributed bark beetle species in North America. This beetle causes secondary stress to pine trees and are usually a sign that the tree is stressed from other causes such as environmental conditions or other beetles.
3	<i>Enaphalodes niveitectus</i>	Oak borer	126C4704	This species of borer beetle targets varieties of oak species like the northern red oak, black oak, and scarlet oak. It causes large patches of discoloration on the tree and exit holes likely leading to further infection from other insects or disease.
4	<i>Malacosoma disstria</i>	Forest tent caterpillar	18H0004M	This species of moth causes large amounts of defoliation on many hardwood species when congregating to molt or rest. Because of these large congregations, many trees can lose the majority of their leaves causing occasional dieback for trees affected.
5	<i>Lymantria dispar (Male)</i>	European gypsy moth	14H0010M	
6	<i>Lymantria dispar (Female)</i>	European gypsy moth	14H0010F	
7	<i>Lymantria dispar (Egg)</i>	European gypsy moth	14H0010EA	
8	<i>Lymantria dispar (Caterpillar)</i>	European gypsy moth	14H0010NA	
9	<i>Lymantria dispar (Pupa)</i>	European gypsy moth	14H0010HA	This species of moth causes large amounts of defoliation on many hardwood species when congregating to molt or rest. Because of these large congregations, many trees can lose the majority of their leaves causing occasional dieback for trees affected.
10	<i>Dendroctonus frontalis</i>	Southern pine beetle	133C0036A	This species of beetle has caused billions of dollars of damage to pine species in the southern U.S. This beetle species typically has large outbreaks when overstocked or aged pine stands are available. Without an abundance of pine stands, this insect is not a major threat.
11	<i>Operophtera brumata</i>	Winter moth	23H0150	This species of moth causes massive defoliation of trees and shrubs annually during the fall and winter months. Oddly enough, this invasive species is one of the few that operates during these months. Originally from Europe, this species made its way to the northeastern U.S. via Canada and has since been a major pest of many deciduous tree species reducing the foliage to near nothing.
12	<i>Lycorma delicatula</i>	Spotted lanternfly	25F0096	The spotted lanternfly is an invasive species of planthopper introduced in Pennsylvania where it has increased its spread both south and west as well as northeast. Spotted lanternfly host plants include grapes, stone fruits, and Malus species, although its preferred host is Ailanthus altissima (Chinese sumac or tree of heaven). In its native habitat, spotted lanternfly populations are kept in check by specific species of parasitic wasps which are absent in North America, which is allowing this pest population to grow to epic numbers and expand the range unchecked.
13	<i>Thyridopteryx ephemeraeformis</i>	Bagworm	28H0005	The bagworm is a moth species in the family Psychidae which entails 1,000 species. Several species are common defoliators of various tree species all creating a characteristic bag made up of various materials. The bag is often created with strong silk and is hard to break open. The caterpillar stage crawls with the bag on its body as it searches for more food before pupating. Evergreen species are the most susceptible to bagworm feeding and often can lead to death of the tree if a large infestation is established.
14	<i>Oncideres boliviana</i>	Twig girdler	126C1190	Twig girdlers are longhorned beetle species that cause damage to a variety of lumber trees and pecan plantations. The adult eats around a twig until it is girdled. There, the branch dies and falls off the tree where the eggs will hatch and eat the remainder of the twig. The adult can cause major damage to plantation trees especially due to its late season appearance during harvesting.
15	<i>Chrysomphalus aonidum</i>	Florida red scale	61F0001	Like many scale insects, the adult is microscopic and hides in the scale protection it creates. The Florida red scale is widely distributed in many tropical and subtropical regions in North and South America, Africa, the Mediterranean Basin, the far East, Pacific Islands and Australia. It has been recorded as a serious pest of citrus in Florida, Texas, Brazil, Mexico, Lebanon, Egypt, Israel. It is also known to damage bananas in Central America, and coconut palm in the Philippines.

16	<i>Eriosoma lanigerum</i>	Woolly apple aphid	57F0012A	The woolly apple aphid is an especially important pest of apple orchards as well as pear and crabapple species. The aphid is a sap-sucking insect and can ultimately kill trees if a large enough infestation occurs. The aphid is attracted to sites where perennial canker fungus, <i>Cryptosporiopsis perennans</i> , occurs and usually feeds from there. When feeding, the aphid produces honeydew that drops onto apples and promotes the growth of sooty mold. This eventually decreases the saleability of the apples. Feeding also occurs near the roots of trees and if left unchecked, can cause severe growth restraints or death of the tree.
17	<i>Prionus californicus</i>	California root borer	126C1810M	The California root borer occurs widely in western North America from Alaska to Mexico. It spends most of its life underground feeding on the roots of most deciduous trees and shrubs, as well as some conifers, brambles, and agricultural crops such as hops and grape vines.
18	<i>Popillia japonica</i>	Japanese Beetle	1C3620A	While the subterranean larvae feed on the roots of grasses. The adult beetles damage plants by skeletonizing the foliage (i.e., consuming only the material between a leaf's veins). The Japanese beetle feeds on a variety of trees, including: Elm, Willow, Poplar, Oak, Maple, Chestnut, and Walnut.
19	<i>Magicicada septendecim</i>	Periodical Cicada (Adult)	1F0015	Adult females lay eggs in the 2-3 year old stems of deciduous woody plants, especially oaks. It is this extensive oviposition that kills the shoots. It has long been believed that this is the only injury caused by these insects but in recent years there is evidence that the immatures in the soil may cause injury to landscape trees growing on stressful sites, such as in compacted soils.
20	<i>Magicicada septendecim</i>	Periodical Cicada (Nymph)	1F0015NA	
21	<i>Magicicada septendecim</i>	Periodical Cicada (twig with egg damage)	1F0015OA	
22	<i>Grylloprociphilus imbricator</i>	Beech Blight Aphid	56F0161A	The aphids do not usually cause much damage to overall tree health, but dieback is occasionally seen on very heavily infested branches. If infestations are heavy, twigs may die, but damage to the tree is usually minor. They feed primarily on the sap of American beech trees. The aphids form dense colonies on small branches and the undersides of leaves.