

Ash Tree Identification

The emerald ash borer, a tiny Asian insect responsible for the deaths of tens of millions of trees since its accidental introduction to the United States sometime prior to 2002, was confirmed in Southwest Arkansas in July, 2014. In North America, the emerald ash borer has only been found in ash trees. Ash species attacked by the beetle include green (*Fraxinus pennsylvanica*), white (*F. Americana*), Carolina (*F. caroliniana*), pumpkin (*F. profunda*) and blue (*F. quadrangulata*), as well as horticultural cultivars of these species. Green and white ash are the most commonly found ash species in Arkansas.

There are several trees and shrubs that resemble ash on first glance. Most of them can be distinguished from ash with a quick second look. Ash trees have leaves that are opposite and compound, a characteristic shared by few other trees in Arkansas' forests. We'll use those two characteristics to recognize a few look-alike trees and shrubs.

Definitions

Opposite leaves vs. alternate leaves. Leaves attach to twigs at a point called a node. In the case of alternate leaves, there will be one leaf at each node. Most of the time there is enough space between nodes to easily distinguish one node from the next. In the case of opposite leaves, there will be two leaves on opposite sides of the twig at each node. This characteristic is very consistent. A tree with opposite leaves will always have opposite leaves.

Simple leaves vs. compound leaves. Many trees have leaves that are divided into leaflets; that is, each leaf is divided into small leaf-like units. If you aren't sure whether you are looking at a leaf or a leaflet, look at the base of the leaf (or leaflet) stalk. Trees and shrubs will almost always have an easily identifiable bud at the base of the leaf stalk (it might be pretty small). No bud will be present at the base of a leaflet stalk.

What's in a name? While other woods plants, such as prickly ash, *Zanthoxylum americanum*, have "ash" in their name, they are not true ash or *Fraxinus* species. So far, only true ash are susceptible to attack by the emerald ash borer.

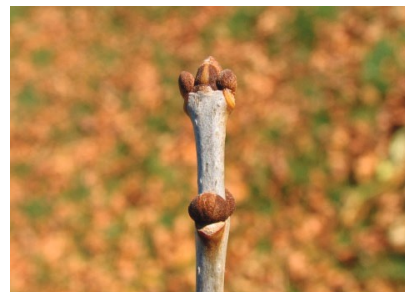
The properly identify ash trees, use the following criteria.



UGA5078096

Leaf Arrangement

Opposite



UGA5032094



Paul Wray, Iowa State University, Bugwood.org

Green ash (5 leaflets)

Leaves

Leaves are compound.

Typically have 5-11 leaflets.



Paul Wray, Iowa State University, Bugwood.org

White ash (11 leaflets)



Bark

On mature trees (left), the bark is tight with a distinct pattern of diamond-shaped ridges.

On young trees (right), bark is relatively smooth.



Seeds

Dry, oar-shaped samaras.

Occur in clusters and typically hang on the tree until late fall or early winter.

UGA0008014

UGA5468526

UGA0008168

Here are the trees and shrubs most often mistaken for ash.

Similar trees and shrubs with alternate leaves



Walnut

- Alternate leaves
- 11-23 leaflets
- Leaflets are toothed
- Fruit is a large nut



Hickories

- Alternate leaves
- 5-17 leaflets
- Leaflets are toothed
- Fruit small to large nut



Black Locust

- Alternate leaves
- 7-19 leaflets
- Thorns at nodes
- Fruit resembles a bean pod



Prickly Ash

- Alternate leaves
- 7-17 leaflets
- Leaflets are toothed
- Stem and leaves have prickles



Sumacs

- Alternate leaves
- 5-30+ leaflets
- Leaflets are toothed
- Fruit is a cluster of hard berries

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Similar trees and shrubs with opposite leaves



Boxelder

- 3-5, sometimes 7 leaflets
- Leaflets are coarsely toothed, sometimes nearly lobed
- Fruits are a samara with a curved wing (contrasted to ash's straight wing)

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Elderberry

- 5-11 leaflets
- Leaflets have abundant teeth
- Large shrub

UGA1553081

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