Basic Leaf Identification Key to Common West Virginia Trees

Compiled by John Northeimer, West Virginia State Parks Traveling Naturalist
This key uses leaf shape almost exclusively to assist in the identification of the tree from which the leaf originated. You will answer a series of questions that gradually eliminate possibilities. Illustrations are provided with most questions to help you select the correct answer. You will eventually reach a tree or group of trees that match your leaf shape characteristics. You can then check your favorite tree field guide to verify your selection (or select among a group of listed possibilities).

The key starts by separating simple leaves from compound leaves.

Simple leaves are leaves with a single leaf blade per stem. The blade may be divided into rounded or sharp-pointed lobes of varying shapes, but there is still just one leaf blade per stem. Examples include birches, dogwoods, elms, magnolias, maples, oaks, and sassafras.

Compound leaves have more than one leaflet per stem. They may be singly compound, with leaflets arranged along a single leaf stem (hickories, ashes, sumacs, locusts, and walnuts) or doubly compound, with leaflets arranged along a branched leaf stem (Hercules club and Kentucky coffeetree). It is important to observe the entire compound leaf. If you pick up the single detached leaflet of a compound leaf, you could confuse it with a simple leaf.
When a measurement is given it refers to the leaf blade not including the leaf stem. Descriptive terms are provided in parenthesis.

If you know which tree the leaf came from, make a few notes on the color and texture of the bark (smooth, scaly, rough, or furrowed). Also look at the way the twigs are arranged on the branch. If they branch in pairs, across from each other, the branching is opposite. If they are staggered along the branch (on one side and then the other), the branching is alternate. Ashes, buckeyes, and maples have opposite branching.

These additional characteristics may help you in a final identification.

The links in this document are active, so anytime you see blue type you can click to advance to that section of the identification key.

**Go to key.**
Basic Leaf Identification Key

Is the leaf a simple leaf?
Go to A

—or–

Is the leaf a compound leaf?
Go to G
Is the leaf undivided?  
Go to B

—or—

Does the leaf have clefts, lobes, or other divisions?  
Continue below.

___________________________________

Is the leaf star shaped?  
Check *Sweet Gum*.

if not

Are some of the leaves glove or mitten shaped?  
Check *Red Mulberry* and *Sassafras*.

if not

Is the leaf tulip shaped?  
Check *Tulip Poplar*.

if not

Go to C
Is the leaf oval, elliptical, oblong, or linear in shape?  
Go to D —or—

Is the leaf heart-shaped (cordate) or nearly heart-shaped?  
Continue below.

Is the leaf stem (petiole) strongly flattened? Check the Aspens.

if not

Does the edge (margin) of the leaf have saw-like teeth (serrate)? Check the Basswoods.

if not

Is the leaf large (7–14 inches long) and fuzzy (pubescent) underneath? Check Catalpa.

if not

Is the leaf under 7 inches in length? Check Redbud.
Is the leaf about as wide as it is long, with three to five lobes? Check the *Maples* and *Sycamore*.

—or–

Is the leaf longer than it is wide, with three or more lobes? Check the *Oaks*. (lobes can be rounded or pointed on the ends)
Does the edge (margin) of the leaf have saw-like teeth (serrate)? Go to E

—or–

Are the teeth rounded (crenate)? Go to F

—or–

Is the edge (margin) smooth (entire)? Continue below.
Is the leaf large (over 5 inches in length) and either wider at the tip end (obovate) or oval-shaped? Check *Pawpaw* and the *Magnolias*.

if not

Does the leaf smell sweet or spicy (aromatic) when rubbed? Check *Spicebush*.

if not

Do the veins of the leaf curve or arch towards the edge of the leaf (arcuate)? Check the *Dogwoods*.

if not

Check *Black Gum*.
Are there teeth only at the end of each leaf vein? Check *American Beech* and *American Chestnut*.

—or–

are there teeth at and between the leaf veins? Continue below.

Is the leaf long and narrow (linear)? Check the *Willows*.

if not

Does the edge (margin) of the leaf have teeth on teeth (doubly serrate)? Check the *Elms, Birches, American Hornbeam* and *Hop-Hornbeam*.

if not

Does the leaf have single teeth spaced evenly along the edge? Check the *Cherries* and *Serviceberries*. 
Is the leaf just a little longer than it is wide? Check *Witch Hazel*.

—or—

Is the leaf about twice as long as it is wide? Check *Chestnut Oak*. 
Do the leaflets come from the stem at the same point in a hand shape (palmate)? Check the Buckeyes.

—or–

Are there 3 to 5 coarsely toothed leaflets? Check Box Elder.

—or–

Is the leaf doubly compound (bipinnate)? Check Hercules Club and Kentucky Coffeetree.

—or–

Is the leaf singly compound (pinnate)? Continue below.
Are the edges (margins) of the leaflets smooth (entire)?
Check Black Locust.

—or–

Do the edges (margins) of the leaflets have a few or many saw-like teeth (serrate)?
Continue below.

Are the last three leaflets larger than the others, and do they originate at the same point on the leaf stem?
Check the Hickories.

if not

Are most of the leaflets about the same size and evenly distributed on the stem?
Check the Ashes, Sumacs, and Walnut.