

## How well do you know your trees?

By: Adam Downing *Virginia Cooperative Extension*

Humans have an innate curiosity about trees. We naturally recognize trees for the grand size many achieve and their longevity, with some species living hundreds of years. Trees have earned their place in American culture with sayings such as “strong as an oak” and place and street names galore. Yes, we respect trees, but do you know the ones that live closest to you?

The first step in getting to know your woods or trees a little bit better is to know their names. Is that an oak or a maple (genus level)? What exact species is it? Northern red oak or southern red oak?

Learning your trees (tree identification) can be a daunting task, especially in the Eastern United States where we have a rather wide variety of species. While there are hundreds of species in Virginia, fewer are common. Common Forest Trees of Virginia: How to Know Them (Virginia Department of Forestry, 2001) lists less than 80 different species. Of these 80 species, most areas contain fewer than half these; furthermore, probably 90% of the trees you encounter in your yard, street or woods, will be one of your areas ten most common species.

Tree id is ke anything else... equipped with the basic terminology, a discerning eye (which comes with practice) and a good tree identification guide, you can become proficient at “knowing your trees.”

A good place to start is with the leaves. Most basic is determining if the leaves are needle-like (pines, spruces, firs, etc.), scale-like (juniper, cedar, etc.) or broad and flat (like most of our deciduous trees; Figure 1). Since most trees in this part of the country have broad and flat leaves, the next set of terminology relates to how those leaves are arranged. Most tree species fall into the **alternate** category with the leaves (and therefore the buds and branches too) arranged on the

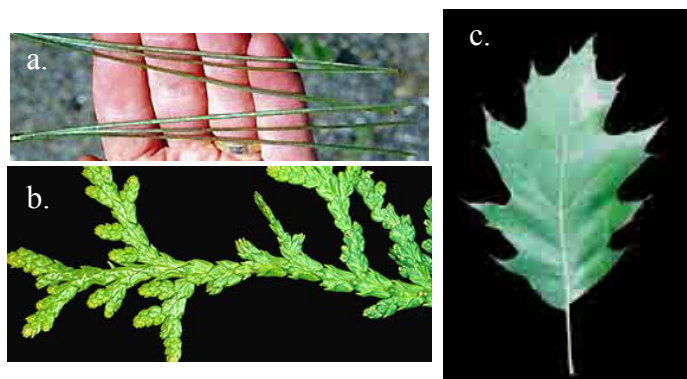


Figure 1. (a) needle-like leaves; (b) scale-like leaves; and (c) broad leaves. Photos from: [www.cnr.vt.edu/dendro](http://www.cnr.vt.edu/dendro)



Figure 2. (a) alternate leaf arrangement; (b) opposite leaf arrangement. Photos from: [www.cnr.vt.edu/dendro](http://www.cnr.vt.edu/dendro)

arranged on the twig alternately from one-another. A few trees have leaves that are **opposite** each other on the twig (Figure 2).

“M A D Cap Horse” is a mnemonic someone came up with long ago to remember the main species with opposite arrangement: M for maple, A for ash, D for dogwood, Cap for Caprifoliaceae (viburnums) and Horse for horsechestnut (buckeye). Apart from a few relatively uncommon exceptions, this is a pretty good rule.

Another bit of leaf terminology is leaf type. Leaves may be **simple**, such as oaks, maples (except boxelder), tulip tree, sweet gum, beech, redbud and dogwood, or the leaves may be **compound** with more than one **leaflet** per leaf such as hickory, ash, walnut and buckeye (Figure 3). How do you know

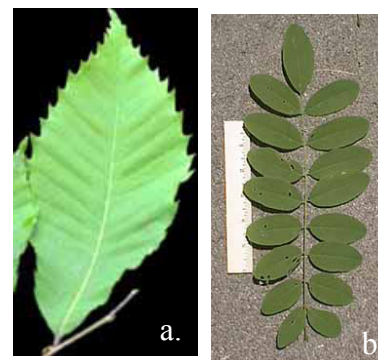


Figure 3. (a) A simple leaf; (b) a compound leaf, comprised of multiple leaflets. Photos from: [www.cnr.vt.edu/dendro](http://www.cnr.vt.edu/dendro).

if you are looking at a leaf or leaflet? This is easily determined by locating the bud. Starting at any leaf or leaflet tip, follow it back toward the stem until you encounter a bud. From the bud out is the leaf which may be comprised of many leaflets or a single simple leaf.

A wide variety of field guides and identification keys are readily available to help you learn your trees. A distinction should be made between identification keys and field guides. Field guides are primarily a listing of trees (or other components of the natural world) with pictures and information about certain species. They do not necessarily include a key. An identification key is the preferred tool for individuals to identify trees. A key guides you through a series of questions which gradually narrow the possible choices. If you work through the key properly, you will arrive at the correct species. A search in the 'Nature' or 'Regional' section of your local bookstore will reveal many good field guides and keys for your area.

An excellent on-line resource is the Virginia Tech Department of Forestry site created by Dr. John Seiler and John Peterson at: <[www.cnr.vt.edu/dendro](http://www.cnr.vt.edu/dendro)>. The home page offers several resources for tree enthusiast including fact sheets, an identification quiz, landowner fact sheets (geared toward forest management) and, perhaps the most valuable, an on-line key.

A downside of on-line resources is that you can't very easily take them out to your yard or a nearby park. From this standpoint, a pocket size tree-id field guide is often more practical. The "key" (pun intended) is to find one you like, then stick with it so you become familiar with how to use it. Some keys are much more complicated than others. I personally have found some of the most simplistic to be my favorites.

A couple of parting thoughts on tree id. Knowing the species of a tree is the first step to being able to care for that tree. And lastly, have fun with it! It can be very satisfying to be able to look at most any tree and know what it is or at least be able to figure it out.

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