



## Tree Ring Exploration

Most people know that you can figure out how old a tree is by counting the rings, but fewer know why this is the case. Simply put, tree rings are caused by different seasonal growth rates. In the spring, trees grow quickly, so the wood that is laid down has large cells, is relatively lightweight, and is light in color. In the summer and fall, when trees grow more slowly, the wood has smaller cells, is relatively dense, and is darker in color. So, when calculating the age of a tree, you should only count either the dark rings or the light rings, as one dark ring and one light ring together denote one year.

But age is not the only thing that's revealed by examining a tree stump. In fact, the details of tree rings hold tons of information about what happened in that environment in the past: scars are evidence of forest fires and areas of very little growth indicating insect infestations, droughts, or over-crowding. Uneven growth on two sides of a tree can even indicate something pushed against the tree as it grew, causing the tree to build "reaction wood" to support the side that was leaning. Check out our visual guide to see if you can find signs that any of these events occurred in the past in your tree:

