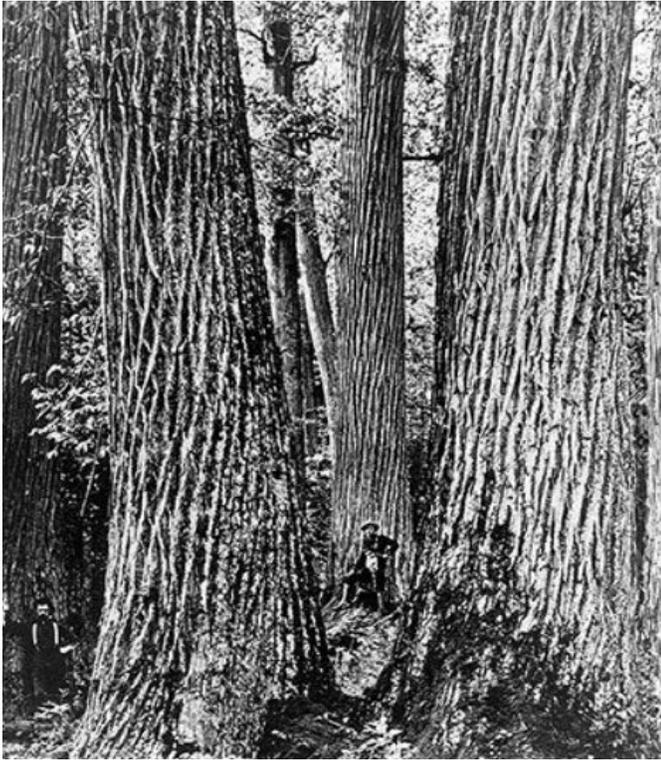


Hybrid American-Chinese chestnut trees are growing along the Cape Cod Canal. Here's why...



Historic photo of mature American chestnut trees

The American chestnut (*Castanea dentata*) was once a dominant tree species along the Eastern seaboard. One out of 4 trees in many mature forests stretching from Mississippi to Maine were American chestnuts. Reaching heights of over 120 feet (36m), with similar canopy spreads, their trunks could grow to diameters of 10 feet (3m) or more! As a late-flowering, reliable and productive tree, it served as a very important food source for a wide variety of wildlife from bears to birds. Humans found great utilitarian value in its straight-grained and rot resistant lumber, along with its sheer abundance.

The Problem

All of this began to change at the turn of the 20th century with the introduction of an invasive fungus from Asia. This fungus blight keeps the chestnut tree from growing into maturity. Within fifty years, the blight virtually wiped out a billion American chestnut trees from its native range.

Along the Bournedale Interpretive trail, before you get to the large glacial boulder, you will encounter two American chestnut trees that are infested with this fungus. You can see how the larger central trunk has died, with only smaller sucker shoots remaining.

One of the Solutions

Knowing that native Chinese chestnut trees have evolved coexisting with this pathogen, people set out to introduce into the American chestnut the genetic material responsible for the blight resistance of the Chinese tree. The chestnut tree planted here is a 50/50 cross breed between the two species.

This tree is only the first step in a long process. That is because the Chinese chestnut is a low-growing, spreading tree in comparison to the tall, straight and strong American chestnut. To retain the characteristics of the American chestnut, future generations will be backcrossed with American chestnuts to eventually achieve a tree with all the traits of an American chestnut that is blight resistant.



Chestnuts are a valuable food source for a variety of wildlife

In support of regional restoration efforts, more than 100 chestnut trees of various stages of backcrossing have been planted by Park Rangers and volunteers along the Cape Cod Canal.

To find more information about the American chestnut tree and the backcross method, please visit the American Chestnut Foundation's website at www.acf.org.