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The future of native trees depends on us

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When winter sheds our tree canopy of its leaves, we get a glimpse of what the southern Appalachians must have looked liked in all four seasons after timber companies removed substantially all of our old-growth forest.

Between the destruction wrought by commercial logging combined with the damage done by the chestnut blight, the entire face of the environment and the culture of this place began to change. And we can see the results through the eyes of the chestnut.

The chestnut was the most dominant tree species in the southern Appalachians.

When the Spanish conquistadors first arrived in the Appalachian Mountains in the 1500s, a member of De Soto's expedition remarked, "Where there are mountains, there are chestnuts." Chestnuts made up 20 percent of the forests here encompassing 884,000 acres in the southern Appalachians.

When some question the difference the environment makes to our economy, the chestnut blight is a textbook example of what happens when we don't protect it.

Endothia parasitica, the chestnut blight, was introduced to the United States from Japanese chestnut nursery stock at the turn of the last century. The blight is said to have spread 50 miles a year, killing every chestnut in New York City by 1912. By the 1940s, there was scarcely a chestnut tree left that was not dead or dying.

The American chestnut ranked as the most important wildlife plant in the eastern United States depended upon by squirrel, wild turkey, white-tailed deer, bear, raccoon, grouse, Cooper's hawk, cougar and bobcat.

As the stands of trees crashed to the ground, so did major populations of wildlife, leading to the extinction of seven native moths, the loss of populations of game animals and a major source of income for the southern Appalachians.

In terms of cultural history, chestnuts were a staple in the Cherokee diet as they were for the mountain folk.

The Cherokee added chestnuts into their cornmeal dough and mountain people hung cloth sacks of them outside their doors eating them until they became wormy.

Chestnuts were used as food for hogs, an unsurpassed building material that was rot resistant, and an important source of tannic acid for the leather industry.

In the 1930s, there were 21 leather tanning plants in the southern Appalachians all based on chestnut trees. By the 1940s they all needed to find other sources or close.

Of course, chestnuts were not the only tree to be damaged or destroyed by non-natives blights.

Beech bark disease is expected to cause substantial mortality to the American beech; dogwood anthracnose is leading to the widespread decline of native dogwoods; the hemlock wooly adelgid is annihilating the eastern and Carolina hemlock and the gypsy moth is expected to severely damage populations of oak.

So what can we do?

Protecting our forest canopy from further damage is critical. If you are planning work around your home, remember that approximately 90-95 percent of a tree's root system is in the top three feet of soil, so be aware that protecting root systems protects the health of the tree.

Work with your local policymakers and environmental organizations to be sure logging is done responsibly and sustainably.

If developers who protect forests are given incentives to build where building density already exists, we can prevent the loss of forest cover and open space.

Since food security is a growing concern in an energy-depleted world, consider planting a tree orchard in your yard or work together with neighbors to create a neighborhood orchard.

ECO and Transition Hendersonville will hold a series of workshops in March on this subject. If you want to get started now, ECO still has some varieties of fruit trees (heritage apples, persimmons, blueberries and peaches) as well as American hybrid chestnuts for sale, but many varieties are selling out.

This is the last week to guarantee you get the tree you want. Order online from ECO at www.eco-wnc.org or call us at 692-0385.