



Times-News

Not losing our forests or our tree canopies

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ECO NOTES



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“I THINK that I shall never see
A poem lovely as a tree.” — Joyce Kilmer

In Brooklyn, N.Y., where I was born, our native tree was called a telephone pole, with a smattering of Dutch Elms thrown in every here and there to break up the monotony. Yet as a child, when my family would go to the local park with its large stand of trees, I’d notice a dramatic difference, not just in the geography, but also in me. The air would be cooler, fresher. My heart would slow down and I felt profoundly different until I returned to the “pole forest” of my neighborhood.

Scientists in the 19th century began to study why trees (the ones without the wires on the top) had such a profound effect on man and his psychological well-being. J.O. Quantz did anthropological studies on a number of indigenous societies around the world.

According to Quantz, “Through the period of a few thousand generations during which the surest means of safety from enemies was flight into the trees, there would gradually grow in the human race an instinctive feeling for trees as natural protectors.” His fascinating research documents man’s genetic response, over many millennia, to certain environmental stimuli. The belief in tree spirits and trees looming large for mankind continues today even in our children’s lullabies, “rock a bye baby, in the tree top.”

One might say that trees help keep us sane. And conversely, it would be insane not to protect one of our most important natural resources.

As it turns out, trees have more beneficial effects than on man’s mental health. They stabilize the soil and prevent erosion. They reduce stormwater runoff by intercepting rainfall, promoting infiltration and lowering the water table through transpiration. They moderate temperature changes, promote shade, and reduce the force of wind. They provide buffers and screens against noise and visual disturbances. They filter pollutants and remove carbon dioxide from the air and produce oxygen. They provide a habitat for animals and birds. They increase property values and improve site aesthetics. They provide food, cover and nesting sites for wildlife. Evergreen trees are important for cover during the winter months, while hardwoods are more valuable for food.

Hemlocks, the new American chestnut?

Western North Carolina’s legacy is its rich canopy of trees: hardwoods forests, hickory, evergreen, hemlocks, oak and more. Although it may not seem so, the Southern Appalachians are losing their forests at a startling rate. A recent USDA Forest Service Assessment forecasts that the South could lose about 12 million forest acres (about 8 percent of forest land) to urbanization through 2020.

The American chestnut was a vital part of southern Appalachian biodiversity and it was the single most important food source for a wide variety of wildlife from bears to birds. The loss of the chestnut to the Asian borne chestnut blight was a major blow to rural communities who depended upon the annual nut harvest as a cash crop to feed livestock, to produce high quality lumber and more.

According to the Southern Research Center of the USDA Forest Service, the eastern hemlock, a keystone species in the streamside forests in the southern Appalachian region, is experiencing widespread decline and mortality and may be decimated by the hemlock woolly adelgid (a tiny nonnative insect) within the next 10 years.

As a native evergreen capable of maintaining year-round transpiration rates, eastern hemlock plays an important role in the ecology and hydrology of mountain ecosystems. Hemlocks provide critical habitat for birds and other animals. Their shade helps maintain the cool water temperatures required by trout and other aquatic organisms in mountain streams. “No other native evergreen in the southern Appalachians will likely fill the ecohydrological role of eastern hemlock if widespread mortality occurs,” according to Chelcy Ford, ecologist with the Otto, N.C., unit. If the hemlock is lost, there is probably no other native tree species that can fill these roles.

Currently neither Henderson County nor the city of Hendersonville have tree ordinances that provide much or any protection to our area’s canopy. Hendersonville requires tree surveys for large development, but no protection once the survey is completed. The county’s Land Development Code requires some tree planting for large development and stream buffer zones but little protection against clear-cutting the indigenous plants and trees on the land. Even when landowners mean to protect trees during development, construction activities can significantly injure or kill trees unless protective measures are taken. Although direct contact by equipment is an obvious means of damaging trees, the most serious damage is caused by root zone stress from compacting, filling, or excavating too close to the tree.

This makes it even more important that our region takes immediate steps toward tree preservation given the many threats to our canopy. We need tree ordinances that insure that our natural heritage, our diversity of trees and tree canopies, do not disappear in a generation. We need ordinances that encourage conservation subdivisions that protect open space and preserve our natural jewels.

Fortunately the Hendersonville Tree Board and the Henderson County Environmental Advisory Committee are both urging the city and county to adopt tree ordinances. ECO has invited forest service personnel, naturalists and county and city officials to a special forum titled “Losing the Forest and the Trees? A Tree Preservation Forum,” at 7 p.m. Thursday, March 27, at the Hendersonville Public Library to discuss tree preservation, the need for clear public policies and how the public can get involved to help guide tree ordinance passage. For more information about this and other programs, contact ECO at www.eco-wnc.org or call us at (828) 692-0385.

Editor's Note: ECO Notes is provided by the Environmental and Conservation Organization, a nonprofit organization dedicated to clean air, clean water, recreation, and the conservation and preservation of the natural heritage and resources of the mountain region. ECO can be reached at (828) 692-0385 or on-line at www.eco-wnc.org.