



Shenandoah Chapter
Virginia Native Plant Society
November 2008

Mission Statement:

We are a conservation organization dedicated to conserve Virginia's native plants and their ecosystems through education, advocacy and activities that promote appreciation, stewardship and appropriate use.

Next Meeting: November 13, 7:30 at BRCC Plecker 124

Guest Speaker: Dr. Wayne Teel will give a presentation on "Native trees and stormwater: enhancing the site of the new Rockingham Memorial Hospital."

He will bring along two JMU students who assisted him in the project, Nicolas Jaramillo and Bonnie Tang. He will provide the background for the project and the reasoning behind their emphasis on native plant species. They will give the details on their planting, who did the work, and some pictures of what the site looks like now. Nearly 500 trees are in the ground as of last week.

Calendar 2008

December: No Chapter meeting or newsletter.
Monthly meetings resume Thursday January 9, 2009.
Happy Holidays!

Wind Power and George Washington National Forest

This commentary was written by Chris Bolgiano and distributed by Bay Journal News Service. September 2008

In a 21st century version of traditional Appalachian exploitation, industrial wind developers have arrived in the mountains where I live. Developers themselves called it "a gold rush" at a recent wind industry conference, referring to the nearly 50 percent nationwide increase in wind electricity installations over the past year.



At the same conference, I saw a state wind resources map. Thin red currents of air along the highest ridges west of Virginia's Shenandoah Valley were ranked as possibly strong enough to power turbines. Similar currents are stirring on maps all along the Appalachian Mountains.

Some of those ridges happen to be national forest, where native plants should take precedence over industrial plants.

The million acres of the George Washington National Forest, like millions more acres of national forest to the south, were left burning and eroding by private timber companies during the "cut out and get out" logging in the early 1900s. Authorized by the Weeks Act of 1911, the U.S. Forest Service bought the land for the public and stopped erosion and arson, planted millions of trees, and built outdoor facilities enjoyed

by millions of people annually. Millions more depend on the clean water and air that come out of the national forests, and local timber industries benefit from regulated harvests. The steep slopes and slender ridgelines are healing from old abuse and have become a refuge for people and wildlife, as landscapes develop all around.

In the roughest, least accessible places left unlogged for a century, oaks have time to mature into heavy acorn producers. Black bears that eat the acorns prefer to den about a mile from any road, 50 feet up in the cavities of big old trees. That real estate is difficult to find except in national forests, and industrial wind development will destroy it there.

Every turbine – hundreds are proposed, each over 400 feet tall – will require clear-cutting as many as five acres of forest. Many miles of new, extra wide roads (to accommodate turbines around curves) and transmission lines will slash open the forest interior to poachers and pests like Japanese stilt grass, a highly invasive nonnative. The bald eagles that began nesting and over-wintering here in 1981 and that rise on warming updrafts could get smacked at ridge-crest, like more than a thousand eagles, hawks, and owls killed every year at California's notorious Altamont Pass. Migrating songbirds get hit, too.

Caves in these ancient mountains host bats of many species, including two endangered species. Bats are attracted to clearings around turbines to eat huge quantities of flying insects, including disease-carrying mosquitoes. Bats may also be lured by night lights required by the Federal Aviation Administration. Some four thousand bats were killed in one year – the most ever documented worldwide – at Florida Power and Light's installation in Mountaineer, WV. Maybe the strobe effect of the blades, called shadow flicker, simply drove them batty.

Low frequency sounds from turbines can keep humans within a mile or two from sleeping and cause other symptoms, according to medical literature. A doctor in New York State named it "Wind Turbine Syndrome."

Death, destruction and insomnia are marketed as "renewable electricity" to urban consumers. The federal production tax credit drives it all, with additional subsidies on national forest, where no property taxes are levied. In the three years that the tax credit wasn't reauthorized since first enacted in 1992, the skyrocketing industry plateaued like a mountaintop-removal coalmine.

Coal is our major electricity-generating fuel, and using it is massively destructive to forests. But destroying more forests in order to stop destroying forests is, well, batty.

Because wind is capricious, turbines produce 30 percent or less of their maximum capacity and must be permanently backed-up by coal or other fuel. We'd have to replace nearly every tree with a turbine to offset even a small amount of coal's impact, devastating the forest in the process. Without a national policy on energy conservation and efficiency, we're whistling in the wind anyway.

Industrial-scale turbines may work well in vast Midwestern croplands, where they require no logging, mining, drilling, or water for processing, and emit no pollutants. Offshore may also be appropriate. There winds are strong and promising, although little research has been done on wildlife impacts.

In richly forested Appalachia, a community-scale approach using solar panels and small turbines, with few environmental impacts, better suits the landscape. And in national forests, which are dedicated by law to "outdoor recreation, range, timber, watershed, and wildlife and fish purposes," the green forest is itself the gold.

Chris Bolgiano is the author or editor of five books, including *Living in the Appalachian Forest: True Tales of Sustainable Forestry*, which won the Southern Environmental Law Center's Reed Memorial Award. She recently installed a solar photovoltaic system that makes 90% of her household electricity.

Books to Check out

American Chestnut The Life, Death, and Rebirth of a Perfect Tree by Susan Freinkel 2007

This book was recommended by our speaker and his associate from the American Chestnut Foundation. The book chronicles the loss of and efforts to restore the American Chestnut to health in a very reader-friendly way. The author does a good job of explaining hypovirulence, backcrossing and some of the biotech projects involving *Castanea dentata*.

Oak The Frame of Civilization by William Bryant Logan 2005

This gem of a book covers a wide span of history looking at how oaks have impacted humans and humans have impacted oaks. There is detail on shipbuilding from the vikings to the European ships of the line as well as trades involving oak such as barrel making, inks and tanning.