



TREES FOR TRIBS:

Linking Land, Water and People



By Rebecca Moore

Photos by James Clayton, except where noted

The regional forester notes my shoes. John Gibbs is in charge of all matters of public and private forest management for 11 counties with some of the largest acreages of working forest in the state, but at this moment, his concern is my socks becoming saturated with mud. I swap my respectable utility boots for his spare set of waders and finish unloading supplies from my vehicle. The sky is a uniform

grey, and low, but it's not raining. "Rain is good for trees," Gibbs reminds us, and we're willing to spare a little comfort for the well-being of some tree seedlings.

At a parking area next to Wentworth Bridge off NY-415 in Steuben County, the view of the wide valley is punctuated by rolling, forested uplands with steep slopes and flat tops. Today, DEC's Trees for Tribs program is restoring some

forest to a public fishing spot along the Cohocton River. "Tribes" refers to tributaries, and describes streams in the context of a whole network of water bodies and ecosystems which rely on one another. My forester colleague, a serious fisherman, calls our tree-planting effort "Trees for Trout," an equally applicable title for its benefit to fish habitat and tributary health.

The fishing is particularly fine on the Cohocton, but as our volunteers can attest, you won't find fish in these open river sections. The tree canopies that shade land and water from sunlight and keep summer water temperatures cool enough for fish to spawn are nonexistent here, and the soil appears to be ready to let go and make a trip downstream. Community members recognized they could change that by planting trees to create a riparian forest buffer: a natural filter and protective layer between land and water.

Trees for Tribes was conceived by DEC's Hudson River Estuary Program to help reverse the state of denuded streambanks and associated problems affecting the Hudson Valley. Many of these streamside corridors, like the bank we're on today, have been cleared of forest for generations for farming or development. The sight of pasture blanketing a valley right up to the water's edge is familiar to many of us, but deforestation dislevels rivers, affecting stabilization, filtration, shading and cooling, habitat, and water absorption in an area. In developed areas, the increased runoff created from buildings, driveways and yards can cause some landowners to have receding properties as once babbling creeks turn into sizable channels, jagged with exposed soil.

Planting riparian buffers is like putting up that tent rainfly you think you won't need until you wake up and realize you're in a rainstorm. Extreme weather events can cause a tremendous amount of damage to unprotected stream corridors. Trees typically help streams flow more steadily, regulating flow of water over the surface in the spring, absorbing water through roots, and keeping the ground moist in the summer. After major storms, rivers swell outside their banks in part because forests would typically retain runoff and reduce overall volume of the stream.



Trees planted along streams help regulate water flow and act as natural filters for sediments and pollutants like phosphorus and nitrogen.

Rebecca Moore



Volunteers who help plant trees in the Trees for Tribes program include local 4H groups, Cub Scouts, and school children and their parents. Many have never planted a tree before!



(L to R) Town of Keene Supervisor Bill Ferebee, DEC's Division of Lands and Forests Director Rob Davies, and State Resource Conservationist Edward Henry pose for a photo at the Lake Champlain Trees for Tribes kick-off event at Marcy Field in Keene.

Without tree roots to hold the ground in place, soil is washed away. A forested strip along a stream corridor also improves water quality. A 35- to 150-foot forest buffer acts as a filter for sediments and pollutants like phosphorous and nitrogen. These are both essential nutrients for crop growth and lawn care, but when they occur in excess these nutrients can suffocate streams, causing algae buildup that depletes oxygen.

Beyond the pavement, the ground is soft, and closer to the river not all of last week's floodwaters have receded. We step carefully until we're used to the muck shifting beneath our feet, then plod along the streamside with buckets of tree seedlings soaking in water. Gibbs gives instructions. The eight local Cub Scouts and members of the local Trout Unlimited chapter who are helping out listen intently. Most of the kids and their parents have never planted a tree, especially one along a tributary stream. We survey this zone and interpret the flood line from spring's most recent hammering of rain and thaw. Based on the low and high points, we determine which of our native tree and shrub seedlings will best survive in this landscape. Despite the rain we are all having fun, and along the way, the third-grade boys squeeze mud between their hands.

As we place each seedling into the earth, the group's sense of satisfaction grows. Last summer's floods reminded us of the importance of stream buffers. There is good sense in repairing the natural systems meant to contend with natural disasters, and we realize that our personal activity can affect larger change.

In the three short years that the Trees for Tribes program has been in existence, thousands of volunteers have planted approximately 28,000 seedlings along 70,000 feet of stream in the Hudson Valley. In 2011, DEC began expanding the program to include the Champlain, Susquehanna and Mohawk Basins.



When trees are planted along stream corridors, their roots help keep the ground in place so soil is not washed away, like what has happened here.



Saratoga Tree Nursery

DEC's Trees for Tribes program offers technical assistance and free native trees and shrubs for qualifying riparian buffer planting and restoration projects. Currently the program is available within the Lake Champlain Watershed, Hudson River Estuary, Upper Hudson Watershed, Mohawk River Basin, and Susquehanna Watershed. Landowners with a workable streambank site who are willing to find volunteers to help with the plantings simply need to submit an application. To see a map of service areas and more, visit DEC's website at www.dec.ny.gov/lands/43668.html.

Unlike the pace of our cultures's technological change, the improvements to these tributaries will take time. It may be some 40 years before these trees reach maturity, but the benefits will last for generations.

Today, we will keep planting tomorrow's trees, one seedling at a time.

Rebecca Moore is the NYS Trees for Tribes coordinator in DEC's Division of Lands and Forests.