Data Submitted (UTC 11): 3/11/2023 11:28:09 PM
First name: Stephen
Last name: Leslie
Organization:
Title:
Comments: Forest ecologists estimate that if you let a New England farm field go fallow, it takes natural succession about 120 years to re-establish a healthy soil biome, but even that will be but a pale shadow of the mature complex food web that once existed under the bowers of the ancient giants. The diverse deciduous and evergreen forests that blanketed the hills and basins of our region were a species of super-organism and the keystone species that bound all this biodiversity together were the mychorryzal fungi. These trees could live 400-500 years and were enormous---with red oaks and hard maples at 150 feet and white pines reaching 200 feet or more. Hardwoods could have boles 9 feet in diameter. But all this biomass above ground was dwarfed by the more than 60% of the total---the food web underground. For all the tons of carbon held in the trunks and branches---the real long term stable carbon was built up over centuries in a substrata of deep humus. That is the carbon bank our farmers are still drawing on.
50% of the carbon stored in a forest is held by the top 1% of the biggest trees. New findings show that, although it is not as rapid as in young trees, sequestration is greatest from the growth period of 50 years to 150 years of age and is continuous after that. There are innumerable benefits accruing to old forests in terms of healthy landscape function and biodiversity---not to mention the aesthetics. You simply can't put a dollar value on the recreational benefits of an area like Telephone Gap (area in the GMNF slated for clear cut and shelter wood cuts in the Forest Service plan). These are places that can begin to heal your soul if you let them.
Over the course of the 20th century, as farmland was abandoned, our forest cover returned to 80% of the land base. However, in the last ten years the tide has turned again and we are now losing an estimated 10,000 acres of forest every year, mainly to development. Clear-cutting and fragmentation also increasingly threaten habitat for a wide swathe of our wildlife dependent on deep forest and corridors to thrive.
At the same time, there is growing recognition that our mature forests are our greatest asset to mitigate and even reverse the worst effects of abrupt climate change. There is a promising approach to management taking hold in our state called Ecological Forest Management. This comprises practices that aim for the complexity of canopy and varied tree age range found in old forests. It includes identifying legacy trees, establishing gaps, freeing mast trees, leaving snags and standing dead, and more. Although managing for old growth characteristics while still harvesting timber can reduces yield on average to 60% of what it would be from a typical selection commercial cutting, the real world benefits of carbon sequestration, infiltration and retention of water, and restoration of biodiversity, far outweigh the loss.
70% of our forest is in family ownership. We need to understand the forest as a system and grant incentives to woodland owners who manage for long term health and adaptability. This doesn't have to entail the "not-in-my-backyard" syndrome. We can sustain a local harvest while managing for enhanced complexity. In fact, promotion of ecological forestry could help jump start a "localvore" movement in the timber and wood products industries. After all, do we really want new decks and home renovations to be built from old growth lumber imported from British Columbia? If we really care about our own forests we need to reduce waste and over-consumption.
The current prevalent practices of shelter wood and clear cuts may have made sense in our region in the 20th century but with the advent of climate change, with flash droughts, extreme precipitation events, wind shears, invasive pathogens and pests, we have no guarantee that regeneration will occur on such sites as it once could reasonably be expected to do.