Carlton County's Forest story

White pines once flourished in Carlton County, making it the lumbering center of the state.
Mike Creger / Pine Knot News

I was taught at an early age that land, for the most part, does not change. It is the forest and the plants that naturally grow there that always are adapting to the natural forces of the earth. Tornadoes, wind shears, fire, heavy snow and ice, groves of trees past their maturity, and disease will thin the timber and, at times, clear the land regardless of what man tries to do.

The last of the glaciers left 15,000 to 20,000 years ago, retreating north. All vegetation had been ground off with a mile-high sheet of ice moving over the land. Huge seas and lakes covered the landscape until the glacial melt moved even farther north. The bedrock and the stone outcroppings, many like teeth, are considered the oldest on the North American continent, surviving moving land masses and changing oceans and temperatures.

COMMUNITY COLUMNIST

Dan Reed

It is hard to imagine but in the last 1 million years of earth's existence our region has been covered with a glacial ice sheet repeatedly. There is a good reason why most of the deeply fertile soil has ended up south in the corn belt.

Slowly the forests and other vegetation came back and spread north, following the receding glacial ice pack. It took a long time for shallow lakes to become tamarack and spruce bogs and higher ground to grow the terminal forest groves found here in the 1800s.

It is a misconception that when the early trappers and pioneers came to the area that there was huge white pine covering the county and stretching to the West Coast. Some lower areas have always been simply brushy. I remember two areas in my hunting days that were called, in Finnish, "kipunoja," meaning a painful ditch or small creek.

The brush was half dead and to cross you jumped from one moss hump to another to avoid the bramble. I asked the old ones if these spots had always been there. Yes, they replied, they were the same before the Fire of 1918.

The Native Americans who were here long before European immigrants moved in used burning to clear out places to pick berries and improve game hunting. Some areas of old, unhealthy timber and undergrowth caught fire to start the process of brush to poplar and birch to evergreens and hardwood and finally to a mature stand of trees that flourishes in the right type of soil and the right amount of moisture.

Timber

"Old growth," or mature forest, did cover many areas of the county. Huge white or red pine forests flourished in the sand and gravel country of large parts of the county. So thick was the canopy that there are stories of travelers passing through and using lanterns in the daytime. Ground fires came naturally to these stands, gobbling pine needles and smaller trees.

The largest pine sawmill operation in the world at one point, around 1900, was centered in Cloquet and Scanlon, benefactors of the St. Louis River. Barnum, Moose Lake and the Cromwell area also became centers as railroads took hold.

Milo Rassmusen, a longtime Carlton County land commissioner, once told me that the hills to the north of Cloquet and along the river were noted as being the finest stand of white pine harvested in the North American continent. All of them were processed in the Cloquet-Scanlon mills, moved with log drives down the St. Louis and Cloquet River watersheds.

Major log drives were conducted on the Kettle River watershed and using the St. Croix water corridor to mills in Stillwater and down the Mississippi River to load on rail cars to ship to Chicago.

White pine logs were sought for lumber because it had few knots or blemishes. This grade of lumber doesn't exist today. The early harvesting took from the trunk to the first branch, cutting the rest of the tree off to rot in the woods.

The harvest for furniture and flooring grade wood centered on the plentiful supplies of yellow birch and hard maple. Many of the larger hardwoods like oak, maple, ash and white birch were sawed into squared off timbers to be processed elsewhere.

Before the 1918 Fire, black spruce from the big bog areas brought a premium price, cut into 100 inch lengths and moved by log drives to a rail head. Rutledge was one of the places that had a log boom catching the timber as it floated down the Kettle River. Ties and some pine also made the trip.

The Soo Line began in 1909 and opened the bulk of western Carlton County.

Logged over areas that had not been cleared for farming by the slash-and-burn method were left with limb and treetop debris. Ground fires occurred quite often during a dry spring or summer while farmers were clearing land.

Inferno

The year 1918 was a particularly dry one and had a hot, windy fall that was ideal for a major fire. The war in Europe created demand for timber products. Steam locomotives provided the power for transport and sparks from the engines started fires. County residents repeatedly called for state and federal help with fires but most manpower was either overseas or dedicated for war supplies.

Railroads were not the only source of uncontrolled fire. Lightning, land clearing, burning piles of debris, and even recreational parties had some fault leading to the big fire.

A wall of flames swept over Carlton County on Oct. 12 and leveled about half of the county. Many areas had smaller ground fires.

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Some sections were left untouched, such as a corridor from the Salo post office in Kalevala Township to Cromwell and lands to the southeast — Barnum and Mahtowa to Holyoke — and Carlton Junction east through Jay Cooke State Park.

The areas that escaped the major flames continued to have evergreen trees – balsam, pine, cedar, and spruce – and large acreages of harvestable hardwoods and pine. To this day, the topsoil is thicker in those untouched areas.

In the heavily burned area, most of the forested land was mostly leveled.

Two things happened in the fire that changed the type of forest that regrew. Most of the evergreen tree types needed for natural regeneration were destroyed and the soil of the forest land burned to the subsoil.

My father told the story of Andrew Newman, who owned the farm I grew up on in Kalevala Township. Newman told of clearing about seven acres of land during the previous hot summer before the fire, pulling stumps, picking rocks and plowing the ground for spring planting. The fires came and burned about 5 feet of the top soil and exposed more rocks and stumps to pull the next summer to finish a field to plant.

The first years after the fire saw the land fill with fireweed and ferns, and, in time, brush and saplings creeped in. Few trees of any type were planted. Stocks of willows and cottonwood seedlings were given to local survivors to plant near houses.

Slow return

Some rural people found evergreen trees to plant around house sites. No large shelterbelts were planted, by and large, until after World War II. When I was a child Norway pine plantings were still quite small. Farmyards of my youth were mostly willow trees, cottonwood and some crab apples. Slowly, more fruit trees came and more pine plantings.

The forests of my childhood were mostly poplar and brush with some areas of birch. Elm recovered quickly from the fire and found a home along rock fences and in lowlands. Dutch elm disease finished them off by the late 1980s. Wild evergreen trees were scarce until you got to an area not scarred in 1918.

One evergreen — black spruce — flourished in the swamps of the burned over area. There were enough seeds left in the moss to start a new growth of spruce and tamarack. Tens of thousands of the black spruce trees were cut for southern markets, and in later years they were flocked and put in a small stand by Roy Halverson to be shipped worldwide. Artificial trees and Christmas tree farms put an end to that venture.

This photo from the Kathryn A. Martin Library photography archive at the University of Minnesota Duluth shows the landscape found after the 1918 fires.

Some pine planting has been done to reforest the burned over area. I can still see cigar-chomping Ray Smith, the Carlton County land commissioner, planting evergreens in every tax-forfeited farm clearing affected by the fires.

To this day, the burned over forest land of western Carlton County provides a steady stream of popple pulpwood for the mills such as Cloquet's Sappi. Past land use — including clearcutting whole swaths of land — has left us with a forest where aspen is more common.

And Mother Nature continues to reclaim old farmsteads and land that was heavily scorched more than a 100 years ago. I asked the old ones long ago, after seeing farmland in the neighborhood being planted with Norway pines, "Why are the fields being planted with trees now when they took so much work to clear, picking the stones and pulling the stumps?"

Those who had been raised on the dairy farms that have almost disappeared from our area, spoke of how hard it was to keep the land open and productive. Willow was creeping in all the time and beavers were plugging the ditches. They said Mother Nature was always taking back, taking back.