

History of Wisconsin's Forests

Forests at the Time of European Settlement

At the time of European settlement forests covered almost eighty-six percent of the area that would become the State of Wisconsin. Between 22 million and 30 million acres were covered with forests. A complex variety of habitats support wildlife, plants, and humans.

Before the Euro-American settlement, Wisconsin's forests included two major forest divisions, the southern broadleaf forest and the northern mixed forest, with several ecosystems represented (Wisconsin Department of Natural Resources [WDNR], 1995) (see Wisconsin Forest Types), in the southern part of the state, the broadleaf forests included the oak-hickory and maple-beech forests. The southern and western parts of the state supported oak savanna and prairie habitats. Moving north, the native vegetation became more cold tolerant and the northern mixed forest prevailed. Pines, spruce and tamarack became more abundant. The forests of northern Wisconsin were composed of sugar maple, hemlock and yellow birch. Pine was, also, an important tree. Acid bogs were a significant ecosystem in the northern Wisconsin forest. Forested and non-forested wetlands were found throughout the state (Finley, 1976).

The last glaciers receded out of northern Wisconsin between 12,000 and 10,000 years ago. Their departure opened up the area for colonization by plants, animals, and humans. There is evidence of human presence in Wisconsin as early as 11,000 years ago. Thus we know that the post-glacial ecology of Wisconsin was influenced by humans from its very beginning (WDNR, 1995).

Before European colonization, Wisconsin was the home of a variety of American Indian nations. They included the Winnebago, Ojibwe, Menominee, Dakota, Illinois, and Cheyenne. However, some of these tribes have stories of migrating from other areas into Wisconsin. For example, the Ojibwe tell of their migration in the 1400's from the eastern ocean, a time that corresponds to a significant cooling of the North American climate (Sultzman, 1998). Many eastern tribes migrated to Wisconsin to escape a variety of conflicts. These conflicts included encounters with Europeans armed with steel weapons and gunpowder. The other factors which encouraged Native American migration were European's diseases, the fur trade, and dependence on trade goods. These factors created tensions in the Great Lakes area, and produced several decades of war, epidemic and human starvation in Wisconsin's forests (Sultzman, 1998).

Forests Since Settlement

Forests are significantly different today than they were before European settlement, and are likely to continue to evolve. A variety of historical reasons can account for the difference. In 1634, Frenchman Jean Nicolet landed on the southern shore of Green Bay, with the express goal of contacting and establishing fur trading with the Winnebago. This was the first direct European influence felt on the land that would become the state of Wisconsin (Sultzman, 1998). However, for two hundred years, the forests remained sparsely settled and provided a setting for the lucrative fur trade and continued to support native peoples (Wisconsin Conservation Department [WCD], 1955).

Various treaties in the early 1800's, which either removed or confined native populations, opened up Wisconsin to intensive Euro-American settlement (Sultzman, 1998). With the dramatic increase in human population came increasing demands on resources. Much of the southern part of the state was cleared for agriculture. The fertile soil in this area, including much that was previously forested, became the base for some of the most successful farms in the growing nation. During this process, southern forests were cut and burned to aid in clearing the land and to create, nutrient-rich ash to fertilize crops. Timber was not a major economic contributor until the 1870's (WCD, 1955).

After the Civil War in the late 1860's, logging became an important component in Wisconsin's economy. By 1899 Wisconsin had reached its logging zenith and was a world leader in lumber production with over 3.5 billion board feet produced. Pulpwood consumption was about 216,000 board feet. Sawmills sprang up everywhere along Wisconsin's many rivers. The rivers transported logs to the mill and transported the finished products to the growing cities to the south and west.

In 1898 the federal government conducted a survey of Wisconsin's forest resources. At this time, the first wave of cutting was well underway, and the second cutting was beginning. B. E. Fernow, estimates that the original red and white pine volume was 130 billion board feet. By 1898, all but 17 billion board feet had been removed, and cutting was continuing at a rate of 2 billion feet per year (Fernow, 1898).

By the 1930's, most of the valuable timber was removed or destroyed by fire from the northern area of the state. This harvest occurred in two waves. The first wave included valuable pines, large oaks and other extremely valuable trees. The other, less economically desirable trees were cut second.

Harvest techniques varied in cutover lands. Some were clear-cut, but most were high-graded. In this practice the largest and most valuable trees are removed, leaving those species less suited to the site, deformed and stunted trees to re-seed an area. In 1936, there were approximately 16 million acres of forest in the state. However, this forest was actually young, early succession second growth (WCD, 1955).

This harvest led to a variety of problems, challenges during this era. Not least among the challenges was the wave of forest fires that destroyed millions of acres of forests and took thousands of human lives. The fuel for these fires was the dead waste material from logging operations, called slash, and it burned easily and quickly. Fires spread unchecked over large areas. (Held, 1994).

Another result of the extensive removal of timber in the Northwoods during this time period was the land boom of the early 1900's. In northern Wisconsin, logging companies sold cut over land to speculators who purchased sizable tracts and then sold smaller farms to the immigrant population who came to Wisconsin enticed by the promise of land. Farmers diligently removed stumps left in the cleared areas, sometimes disposing of them through fire, further contributing to the frequent and intense forest fires of the era (Held, 1994).

Finally, in the late 1920's and 1930's, professional foresters and conservationists evaluated their goals for the remaining forests. Most of the forests were in the northern part of the state. During this same period many northern farmers realized that the land and climate were not well suited to agriculture. Many of them abandoned their land and were bankrupt. A new concern for conservation and an understanding that the forest resource is finite formed the backbone of a conservation movement for Wisconsin forests.

The State Constitution was amended in 1924 to allow state funds to go toward acquisition, development, and preservation of forest resources. The Northern Highland State Forest, still the largest state forest, was the first created under the new amendment. The Forest Crop Law, a precursor to our current Managed Forest Law, was passed in 1927, making it easier for landowners to conserve forest resources for future use. In 1928 the first national forest land was purchased, creating the Nicolet and Chequamegon National Forests. County forests became preserves as a result of the tax delinquency of failing farms (Held, 1994).

In the 1930's and early 1940's, a notable influence on Wisconsin's forests was the Civilian Conservation Corps. As in other areas, the "CCC boys" planted trees, built park buildings, and worked on other conservation projects. Reforestation efforts commenced, with the hope that one day Wisconsin's majestic forest beauty and productivity would be renewed (WCD, 1955).

The harvesting in the early part of the century dramatically changed the composition, structure, and function of the forests. The extensive clearing and large fires caused species like aspen and paper birch to become prevalent encouraging large populations of white tail deer and other wildlife that thrive in the early successional habitat. Foresters began managing for specific timber species like red pine or, managed the habitat for a favored wildlife species like grouse (WDNR, 1995).

A forest inventory of Wisconsin was conducted in 1938. It revealed a very young forest, with aspen-birch as the most prevalent forest type. Aspen-birch were 40% of the mix followed by northern hardwoods at 20%, oak at 13% with small percentages for other types.

For decades, very little timber was harvested in Wisconsin. Many communities that had relied on the lumber companies for their existence were stranded in a wasteland of stumps and unemployment. Many years passed before the forests recovered sufficiently to offer a harvest for loggers. Fortunately, by this time there was a better understanding of the need to conserve forest resources and employ sound forest management. In many instances, professional foresters from lumber companies and government agencies worked together to better manage the growing forests. (WCD, 1955).

Forests are gaining ground and increasing in age. The timber industry is thriving. Timber companies are managing their forests with an eye to future productivity. They are employing many of the local residents. Since 1925, Wisconsin's forests have recovered dramatically and are steadily increasing in volume and average size.