Chapter 2: Menominee Forests and Environmental History before 1890

Introduction

In 1854 and 1856 the Menominee people signed their final treaties with the United States government. These treaties ceded the remainder of their ancestral territories—which had once totaled more than 11 million acres—and defined the boundaries of a permanent reservation within 10 Wisconsin townships. In exchange for the territory, the U.S. government was to provide the Menominee people with, among other things, food rations, money, education, a sawmill, and the means to operate the sawmill.¹ The Menominee people fought to retain a homeland within their ancestral lands and to obtain the means to develop a forest-based economy.² Since 1856, the Menominee tribe has actively logged the forest, wind and fire have opened and cleared out sections of the forest, and the federal government has even mismanaged portions of the forest through unsustainable timber harvesting and failing to regenerate trees after harvest. Despite this history, the Menominee Forest currently stands out—both literally and figuratively—as one of the most diverse and well-managed forests in the United States (see Figure 1). Although the Menominee tribe has harvested millions of board feet of timber from the forest, the standing volume is larger today than when the first inventories were completed in the 1800s.³

In this chapter I argue that the Menominee Forest stands as a testament to Menominee tenacity and political astuteness. In particular, the forest’s current ecological condition reflects the Menominee cultural vision of the importance of territory as well as the tribe’s belief that they can maintain and enhance their forest while harvesting and milling trees into lumber. I ask the following questions: How has the Menominee Forest changed over time? How have people perceived and conceptualized the forest and forest management at different points in Menominee
history? How were the Menominee people able to maintain and profit from forest management throughout their history even though most of Wisconsin’s forests were cleared in the 1850s and federal Indian policy focused on farming as a pathway to assimilation? Finally, has the management of the Menominee Forest influenced conservation and forestry outside the Menominee reservation? To answer these questions, I examine changes in the forest between the 1850s, when the reservation was established, and the passage of the 1890 Forest Act, which enabled commercial forest harvesting to become the established livelihood of the Menominee people.

**Glaciers and Forests: 10,000 Years of Forest Development**

The physical process of glaciation influenced the forests of the Menominee reservation. Beginning two to three million years ago, glaciers repeatedly advanced and retreated across the landscape of what is now northern Wisconsin.4 The glaciers flattened hills, scraped away vegetation, and prevented new vegetation from growing; when they retreated, they exposed bedrock, deposited sand and rocks, and formed new hills with materials that had accumulated underneath the ice sheet. Glacial meltwater formed lakes and rivers, and as sunlight reached the newly exposed rocks and soils, vegetation recolonized the new landscape.

Ten to fifteen thousand years ago, the glaciers began their most recent retreat in what is now the Menominee Forest in Wisconsin.5 The glaciers’ retreat followed the southeast sloping bedrock and created numerous moraines (unconsolidated rock forming an irregular band of hills that outlines the glacier’s margin) along the way.6 The retreat formed a series of linear northeasterly hills in the Menominee Forest as well as sandy outwash valleys in the southeast portion of the reservation.7 In some areas the glaciers left behind exposed bedrock while in others they deposited sand, silt, clay, and rocks (called glacial till). Glacial meltwater left sand
and gravel, and created the lakes and rivers that currently occupy the landscape.\(^8\) Below these glacial deposits lies extremely hard granite bedrock—the Wolf River batholith—that is part of the Canadian shield, which formed hundreds of millions of years ago during the Precambrian period.\(^9\) Above the glacial deposits, organic soils have developed over the past ten thousand years, as vegetation began to recolonize the area.

Plant species migrated into the area at different rates, establishing dynamic mixes of individual species.\(^10\) The first plants to recolonize the area were tundra species living on the margin of the glacier: mosses, lichens, shrubs, and small flowering plants.\(^11\) Spruce (\textit{Picea sp.}), tamarack (\textit{Larix laricina}), ash (\textit{Fraxinus sp.}), elm (\textit{Ulmus sp.}), and oak (\textit{Quercus sp.}) quickly followed approximately ten thousand years ago.\(^12\) White pine (\textit{Pinus strobes}) arrived in the area around eight thousand years ago followed by maple (\textit{Acer sp.}) seven thousand years ago. Hemlock (\textit{Tsuga canadensis}) arrived approximately three to four thousand years ago.

Two distinct vegetative and ecological areas have developed in the Menominee Forest since the retreat of the glaciers. To the east and south of the Menominee reservation, species such as pine and oak now dominate the sandy outwash and shallow exposed soils. These sandy soils dry easily and are relatively infertile because sand does not hold water and nutrients well. On the north and west of the reservation, the soils are more finely textured and fertile loams and silt, which are able to hold moisture better than the sandy soils in the southeast. Tree species such as maple, elm, and hemlock, which thrive in the richer soils, dominate the northern and western areas. Throughout the reservation, the glacier created small depressions that became kettle lakes and wetlands. Tree species that prefer swamps and water, such as tamarack, cedar, and alder, became established along the riverbanks and lakes, and in marshy wetlands.
**Influences on the Menominee Forest Composition and Ecology**

In Wisconsin, forest dynamics and disturbance regimes—the process of tree and forest regeneration, growth, and death—have been a complex interaction among tree species, soil, climate, topography, and scale. With regard to larger events, although catastrophic wind events are common across the Wisconsin landscape, for any given forest stand wind storms occur, on average, only once every 1,200 years. Neither forest type nor species composition has a strong influence on the outcomes of catastrophic wind events. Tornados and other wind disturbances have impacted the Menominee Forest through the centuries, but because of the small size of the forest, these are not frequent events.

The impact of small-scale wind events is much more dependent upon species composition and forest type. In maple/hemlock forests growing in mesic and nutrient-rich loams, small-scale wind throw dominates. Trees in these forest types fall because of age, insect stress, drought stress, ice damage, or local wind events, which create gaps in the forest canopy. Seedlings from tree species that can regenerate in partial shade emerge in the canopy gap and utilize the extra sun, nutrients, and moisture that is no longer taken up by the fallen trees. Over time, this process creates an unevenly aged forest structure, with trees of many ages. Studies estimate that 5-7% of the forest canopy becomes a gap each decade. Small-gap dynamics dominate the closed canopy maple/hemlock forests common in the western and northern portions of the Menominee reservation.

Fire is another disturbance process that has shaped the composition and ecology of the Menominee Forest. Although fire was probably not an important factor in the more mesic maple/hemlock forests, it was a critical factor in pine, oak, and aspen forests. In these forest types, fires historically occurred every 6-18 years. These frequent fires maintained open forest
conditions by burning the understory and young seedlings, but not killing all of the canopy trees. Forests that regenerate after fires have a mosaic of same-aged forest stands across the landscape.

Since the glaciers retreated, the Menominee people have lived in the area of what is now the State of Wisconsin and their current reservation. According to tribal oral traditions, the Menominee people have always resided in this area of the Great Lakes, and they have hunted, fished, planted crops, harvested rice, played, and prayed together. Archeological evidence from more than twelve thousand years ago indicates that the indigenous people of what is now Wisconsin lived on the glacial margins. The Menominee believe these people were their ancestors.

More recent archeological evidence, from just before the time of Europeans’ arrival in North America, shows that for hundreds of years the Menominee people planted large expansive gardens and occupied seasonally permanent village sites along the Wolf River corridor. These sites generally included conical and linear mounds, storage pits, raised-bed fields, and village sites replete with pottery shards. The Menominee cultivated corn and other crops in numerous raised-bed gardens. Corn cultivation could not have occurred under a forest canopy, suggesting that these areas were not entirely covered by dense forest. Archaeologists and Menominee cultural resource managers have investigated several sites along the Wolf River that contained garden beds totaling over 250 acres. However, research has not yet revealed how many total acres of land the Menominee cultivated before Europeans arrived in North America and what influence that cultivation had on forest composition and extent.

Like other forests across the world, the Menominee Forest is a cultural landscape and the Menominee people played an important role in ecological processes and vegetation management. The tribe cultivated fields, established village sites, and used fire to manipulate forest
composition. Menominee oral traditions contain stories about fire and its uses. Thus, geology, ecology, and the Menominee people collectively produced the culturally significant landscape and forest that the Menominee people would fight to retain during nineteenth-century treaty negotiations.

**The Treaty Era 1817-1856: Perceptions of Menominee Forests and Homeland**

The Menominee tribe’s ancestral territory encompassed approximately eleven million acres, stretching from what is now northeast Wisconsin (west of Lake Michigan), north to the upper peninsula of Michigan, and west to the Mississippi River. Between 1817 and 1856, the Menominee people signed seven treaties with the federal government. By the time the final treaty was signed in 1856, the Menominee had ceded all but 230,400 acres of their estate to the US Government.

Even though much of their territory was eventually lost, the Menominee were strong negotiators throughout the treaty era. Historian David Beck detailed Menominee treaty negotiations, showing that the tribe worked within the US treaty-making system to negotiate terms that would foster the long-term survival of the tribe. Similarly, a tribal history of the Menominee noted that strong tribal leadership helped the tribe through the difficulties of the treaty period. These histories describe difficulties including interpreters not speaking the Menominee language, US officials negotiating treaties with Menominee who were not tribal leaders, and the use of unethical methods to coerce tribal leaders to sign documents. Nevertheless, the Menominee were able to negotiate terms with the US government that would allow them to remain on land within their ancestral territory—a rare accomplishment for tribes in the region.
David Beck and the Menominee Tribe have compiled comprehensive histories of the treaty era. The current analysis, therefore, is not a comprehensive history of Menominee treaty negotiations, but rather an exploration of the Menominee’s perceptions of their forest, natural resources, and land use changes during this time of rapid political change; neither Beck nor the Menominee Tribal Historic Preservation Department focused explicitly on these aspects. I use several sources to examine these issues: I analyze the congressional record, accessed through the LexisNexis Congressional Hearings Digital Collection, focusing on timber and forestry laws and documentation of the treaties and negotiations with the Menominee tribe (from 1833-1910). I also use the Jay P. Kinney Papers (1836-1941), the Robert M. La Follette Papers (1879-1910), and Menominee Tribal Councils records (1866; 1941-1942; and 1953-1959) maintained by the Wisconsin State Historical Society in Madison and Green Bay. In addition, I draw upon the autobiography of Robert La Follette. Finally, I use National Archive documents from the Office of Indian Affairs (1893-1911, 1910-1939) including annual reports, inspectors’ reports, and other federal documents pertaining to the Menominee tribe.

**Treaty Negotiations: 1831-1832**

In October of 1832, Menominee tribal members met with US government officials in Green Bay to negotiate changes that the US Senate had proposed to a treaty signed a year earlier in Washington DC. The 1832 negotiations focused on more clearly defining the lands the Menominee agreed to cede to the United States government for settlement and for eastern Indian nations who were being removed from their own homelands by the US government. Records indicate that these negotiations were tense and fraught with emotion. The 1832 treaty negotiations provide insight into how Menominee tribal members expressed their concerns about
land use changes, Menominee livelihoods, and natural resources. The negotiations also reveal
that the Menominee’s reluctance to relinquish their land was based on cultural connections to the
land.

During the negotiations, Menominee tribal members stressed their long-standing familial
ties to the land. Because of these ties, the Menominee were reluctant to cede their land to the US
government. Menominee leaders asserted that the Menominee people had occupied the land that
the government wanted the tribe to cede for generations. For example, a Menominee tribal leader
named Mahkeemeeteuv, who others referred to as Grizzly Bear, tied his relationship to the land
to his family history. Grizzly Bear said, “I told our great father, the President, that my village
was at the Buette des Morts…My father lived and died there; I live there, and the principal chief
lives there too.”33 In other words, according to Grizzly Bear, the Menominee have a legal right to
the land because they have continually occupied and lived there for generations.

Menominee treaty negotiators also explained that their connection to the land was
profound and that their community was defined by the land and the forest. As Grizzly Bear
concluded, “[t]he forest is our life, and, as you perceive, we do not like to part with it, or any of
our land, as we said to you [the Indian commissioner] before.”34 This deep connection between
the Menominee community and the forest permeated all of the treaty negotiations.

In the early 1830s, logging and American settlement was just beginning in Northeast
Wisconsin.35 At the time, most of what is now Wisconsin was controlled by several Indian tribes,
including the Menominee. Between 1829 and 1848, the tribes ceded a majority of their lands to
the US government.36 Despite the limited logging and settlement at the time, Menominee treaty
negotiators were already expressing their views that the settlement and subsequent land clearing
was impacting their people. For example, the Menominee were particularly concerned about
logging practices and the effects they were having on the availability of fish. Settlers and loggers had constructed dams in streams and rivers to facilitate the movement of timber to sawmills. Addressing Territorial Governor George Porter and US Agent George Boyd during 1832 treaty negotiations, a Menominee band leader named Pe-wait-e-naw described the impact of these dams on the livelihood of Menominee tribal members, “I do not like to have the Menominee river damed [sic] up…. I think these men should be satisfied with cutting down all our best timber and sawing it up, without stopping the fish…. [A]ll I wish is, that the channel of the river may be left open, so that the fish can go up and down, and that we may catch them, as heretofore, to subsist on.” Pe-wait-e-naw expressed the belief that the tribe had not ceded the right to hunt, fish, and gather food on the ceded lands. He also illustrated which natural resources were important to the tribe’s survival and world view; fishing was their “principal means of subsistence,” and logging was impacting the tribe’s fisheries. Thus, the long-term survival of the tribe, according to Pe-wait-e-naw, depended on reducing the impact of logging in order to maintain a fisheries resource.

The Menominee were concerned about the impact of non-Menominee settlement on their resources, particularly tribal sugaring and hunting. The Menominee argued that the trees they had used for sugaring were now being used and cut by others. For example, Grizzly Bear, discussing a land dispute with New York tribes that had recently relocated to Wisconsin, stated, “we did not think that we were to give these New York Indians a right to make sugar on our land, and cut down our maple trees.” He continued, “[t]hey want to take our land from us without paying for it. They hunt on our land and kill our deer. Have they any right to do so? We are becoming angry—mad.”
One Menominee leader, Cheno-ma-bee-mee, suggested a way in which the Menominee people could manage these changes in land use. He stated, “Father, I want to tell you something about the saw mills on our land. The object of our great father [the President] in granting mill privileges, we understand is, that we might derive some benefit from it; that, by having lumber sawed, we could get some of it to have houses made for ourselves…. Look at all these new buildings you see in this country; all the lumber for them was made at Arndt’s mill. He must make a great deal of money; will get rich [sic]…. We do not complain of his having the mill; we only complain that he does not pay us, as he promised.” This statement reveals that Cheno-ma-bee-mee did not believe that lumbering and milling timber were contrary to Menominee values, as long as the benefits accrued to the tribe. Indeed, he was suggesting that lumbering and milling could be important activities for the Menominee as they transitioned to a limited land base.

Like Cheno-ma-bee-mee, Menominee tribal leaders consistently argued that the tribe should manage its own affairs and resources as they dealt with social, ecological, and economic changes. For example, Grizzly Bear believed that the US Government should give the tribe money—cash—so that they could manage their own affairs without the presence of white farmers, carpenters, and mill operators. He noted that the great father (the President) “wished us to have mills; and to make these it will require mill-wrights and carpenters; and we are told that, with these mills, the boards will be sawed to make houses for us. Now, father, we do not want these mills, nor any mechanics among us: we can build our own houses… tell our great father to give us the money—the cash…. Our people know what to do with money.” However, in response to claims that white men, especially farmers, would bring unwanted influences to the Indians, Governor Porter responded with the paternalism common in the 1800s, “your great father knows better than you do what will be for your good.”
1848 Treaty Negotiations

As American settlement and logging expanded throughout Wisconsin, the US government pressured the Menominee to cede their remaining land. The Menominee, however, remained reluctant to relinquish their land. In 1848, unable to forestall a land cession, leaders of the Menominee tribe signed a treaty with the federal government in which they exchanged the last of their ancestral land in Wisconsin for non-Menominee land along the Crow Wing River, west of the Mississippi River in what is now Minnesota.

Almost immediately after signing the treaty, however, the Menominee raised questions about the validity of the document. The Menominee leaders argued that they had been forced into signing “by means of fraud, imposition, and violence practised [sic] upon [them] by the Indian commissioner.” Using their political savvy, the Menominee attempted to convince the US government that the 1848 treaty was unjust and that a new treaty should be negotiated.

Although Menominee leaders felt forced to sign the 1848 treaty, they were able to negotiate an important stipulation: tribal leaders would be allowed to visit Minnesota to decide whether this new land would be suitable for their people. If they felt it was not suitable, the tribe had the right to demand that the 1848 treaty be nullified. The Menominee leaders made the trip to Minnesota and deemed the land unacceptable for their people; they refused to relocate and successfully negotiated a new treaty with the United States, which allowed them to remain in Wisconsin on their ancestral lands. As in the treaty negotiations of the 1830s, the Menominee people’s ties to their ancestral land and resources were of paramount concern in the negotiations.

For the Menominee, tribal identity was intertwined with their ancestral homelands. The Menominee argued that staying in Wisconsin “was the most important object to be gained by our
nation. The tribe argued through a lawyer that “they would not have signed the [1848] treaty…if they had not been induced to believe that, if they did not, they would be removed to the west of the Mississippi, which they dreaded more than all other things, and which was a matter of far more moment to them then money.” Skee-o-ni-ni, a Menominee leader, highlighted the link between Menominee identity and their lands in Wisconsin when he asked, “Now if we should go away, what will become of us?” Skee-o-ni-ni’s question revealed that the fate of the Menominee people and their homelands were intertwined—one could not exist without the other.

The prospect of being forced out of their ancestral homeland weighted heavily on the hearts of the Menominee people. Sworn eyewitness testimony from the October 1848 treaty negotiations shows that during a tribal council meeting the Menominee Chiefs told William Medill, US Commissioner of Indian Affairs, that “the hearts of the [Menominee] people were loaded with grief” at the prospect of having to leave their homelands. Chief Oshkosh, a Menominee leader, summarized the tribe’s predicament when he concluded, “My friends, we cannot do otherwise, we are forced into it.” For the Menominee, their tie to their ancestral homeland was the most important issue, and the tribe once again employed their political savvy to negotiate a new treaty that would provide them with a permanent home in Wisconsin.

After intense negotiations, the leaders of the Menominee tribe signed a new treaty with the United States government in 1854 ceding all but twelve townships—432 square miles or 276,480 acres. Language in the treaty indicated the strength of the Menominee desire to remain within their ancestral homeland: “And whereas, upon manifestation of great unwillingness on the part of [the Menominee] Indians to remove to the country west of the Mississippi River, upon Crow Wing, which had been assigned them, and a desire to remain in the State of Wisconsin, the
President consented to their locating temporarily upon the Wolf and Oconto Rivers… for the purpose of giving [the Menominee people]… a permanent home.” The treaty also promised the Menominee people a sawmill, technical assistance in running the mill, and money in exchange for the cession of their remaining land in Wisconsin. Under these treaty provisions the Menominee retained some degree of control over their own lands and, for the first time, were able to use forestry, lumbering, and milling to maintain their newly established reservation.

In 1856, the Menominee signed a final treaty that ceded two townships to the Stockbridge and Munsee Indians and established the current reservation boundaries. Although the new reservation was small—only ten townships, or around 234,000 acres, compared to the original 11 million acres—the land contained trees, plants, animals, fish lakes, rocks, and rivers that would allow the Menominee people to sustain themselves not only physically, but also spiritually, culturally, and economically. The negotiations of the Menominee leaders in the mid-1800s set the stage for the tribe to sustain themselves during times of significant change in the nineteenth century and beyond. The Menominee leaders had clearly articulated the importance of their forest and its natural resources. The tribe emerged from the treaty era with a reservation that contained clear boundaries and natural resources and was a contiguous piece of their ancestral lands. Some of the major issues the tribe raised during negotiations concerned land use changes, access to natural resources, and the connection between Menominee identity and their lands. Throughout the treaty era, the Menominee fought hard to remain in Wisconsin because they were concerned about losing control of and access to their forest resources, including fish, game, and trees.
Perceptions of the Menominee Reservation Resources

In the 1850s, the US government signed treaties with Indian tribes to gain land for white settlement. The government also believed that establishing reservations for the tribes would civilize and assimilate Indian people. Indian tribes often entered into treaties because they believed that they had little choice and viewed reservations as a way to provide resources and protection for their people. In addition, for the Menominee, a primary goal was to maintain land within their ancestral territory in Wisconsin.55 Therefore, while the Menominee interpreter and the US Commissioner described the Menominee Forest and the wildlife resources in a similar way, their perceptions of what these resources meant for the Menominee people differed.

The US government wanted to provide the Menominee with a reservation that would not be impacted by white settlement. The superintendent believed in giving the Menominee land that white settlers would not desire; he wrote, “I consider the country of little value for a white settlement, but well adapted to the Menominie [sic] Indians. A portion of those are inclined to cultivate the soil for their support, and a sufficient quantity of pretty good land will be found for their use. The game and fish will sustain the hunters.”56 The superintendent also made the suggestion of logging as a means for the Menominee to sustain themselves. He described a sawmill “built on a rock foundation” whose owners were willing to “sell it to the Indians.”57 However, the way in which the superintendent thought the tribe would ultimately use the mill was unclear, as he also stated, “I am inclined to think they [the Menominee people] may all be persuaded eventually to seek subsistence from agriculture.”58 The superintendent may have believed that the sawmill would help the tribe clear the land and therefore facilitate the
establishment of agriculture among the Menominee. Throughout the 1800s and early 1900s government officials constantly urged the Menominee to become settled agriculturists.⁵⁹

Archival evidence does not allow a detailed understanding of the Menominee people’s view of the area that became their permanent reservation in 1856. However, one insight comes from the records of United States Interpreter William Powell. In an 1851 letter to the Commissioner he described the forest and resources as abundant and diverse, and stated “The chiefs are highly pleased with the country, and they say they hope the president will give it to them for a home, where they can live in peace from their enemies.”⁶⁰ According to Powell, the Menominee leaders were “pleased” because the area contained animals, plants, and trees important to their physical and cultural survival. In other words, the forest was diverse and contained important resources for the tribe’s cultural and physical survival. The area was also important to the Menominee because it was in their ancestral territory; this part of the Wolf River was a major spawning grounds for sturgeon, the lakes contained fish, and the area was close to the location of their creation story.⁶¹

When the reservation was established via treaties in 1854 and 1856, the US government considered the Menominee Forest isolated and marginally valuable. The commissioner of Indian Affairs stated that, with the consent of the State of Wisconsin, the Menominee people were “removed to a remote portion of the extensive tract [of land] they had ceded.”⁶² The commissioner continued, “this location is, in all respects, suitable for them; and that they can probably remain there for many years without interference with the advancement or interests of the white population.”⁶³

Despite their view of the land as marginal, US Government officials believed that the reservation would facilitate the “civilization” of the Menominee people. To encourage this
transition, they believed that Congress should “provide for their educational and agricultural improvement, for the erection of a grist and saw-mill, a manual labor school, and the employment of other means of education.” The government’s goals for the Menominee were similar to its goals for most Indian tribes: to “civilize” and assimilate Native Americans, and to bring the economic and cultural norms of tribes into line with those of dominant white society. Government officials believed that timber, forests, and sawmills would be a part of this process.

The transition to the new reservation over the next 20 years was not an easy one for the Menominee; their resource base—originally millions of acres—had been greatly diminished. After moving to the new reservation, Chief Oshkosh summarized the feeling of his tribe when he told the Indian Commissioner, “You are aware, I have no doubt, of our present situation of starvation; we have never been so poor and destitute of provisions as we are this year [1853], after the solemn promise of the agents of the government made to us to effect [sic] our removal. It was well understood, when we acceded to the proposition of the government to remove, that we were to be supplied a whole year with provisions, but, as it happened, the provisions lasted only about six months; and even our three thousand dollars of provisions of last year are gone.”

Although the reservation was within their ancestral territories and contained diverse resources, the area did not contain sufficient resources for the Menominee people to continue to live as they had in the past. In this context, logging would to emerge as a way for the Menominee tribe to continue to sustain its people on a small portion of their ancestral homeland. Ironically, logging would also provide the Menominee people with a means to maintain their forest and its diversity.

Menominee Forests in the 1850s

By the 1850s, logging began in earnest on the newly ceded lands as loggers, land speculators, and American settlers moved in to stake their claims. The initial logging focused
on white pine located close to Wisconsin’s large river systems: the St. Croix, Chippewa, Menominee, Wisconsin, and Wolf rivers. Loggers and settlers cleared Wisconsin forests at an exceptional rate, and by the early 1900s, the pine forests were nearly exhausted. Despite its location on the Wolf River, which was the site of some small sawmills and early logging, the Menominee reservation was not logged as heavily as the surrounding areas during the 1850s. In this section, I explore 1) the state of the Menominee Forest and natural resources in the 1850s as ecological and social changes began to Wisconsin’s forests and landscapes, and 2) the ways in which the US government and the Menominee people viewed these resources.

To gain an understanding of the composition and state of the Menominee Forest at the time, I analyzed general descriptions of the area in original land survey notes (1839-1854) for the land that would eventually become the Menominee reservation. The Wisconsin Board of Commissioners of Public Lands, and the University of Wisconsin Board of Regents digitized and maintained the land survey records. I also analyzed photographs taken by the Smithsonian Institute’s Bureau of Ethnology in the late 1800s, and a 1914 forestry planning map recreated by Menominee Tribal Enterprises. While historians, ecologists, and forest managers have examined these documents separately in the past, no one has yet analyzed them collectively.

**Descriptions of the Forest**

In September 1851, a group of Menominee leaders, Na-Motte, Wan-ke-cheon, and Oshke-hi-na-new, joined Superintendent of Indian Affairs Elias Murray to explore the area designated as the new permanent Menominee homeland in Wisconsin. The inspection journey was part of the agreement the Menominee were attempting to reach with the US government to
be allowed to remain in a portion their ancestral territories, despite the 1848 treaty that ceded all their Wisconsin land in exchange for a new home in Crow Wing, Minnesota.

To help them access this very remote portion of Wisconsin, the group hired a boat owner, four rowers, a cook, a hunter, and interpreter William Powell. The group explored a 540-square-mile area, starting from what is now Oconto Falls and traveling in a rectangular pattern. They traveled west 26 miles, crossed the Wolf River, and continued about six more miles. The group then traveled north 18 miles, east 30 miles, and south 18 miles back to their starting point. The trip covered almost half of the present day reservation—the area east of the Wolf River—as well as several townships to the east of the present day reservation.

After returning from the 96-mile journey, Superintendent Elias reported, “I find the country, generally, to be a dry, sandy soil, covered with low scrubby pines, and occasionally a swamp of tamarack and cedar. There is a small portion of good land for agriculture, and a few good sugar camps. There are a great many small lakes, abounding with fish and wild fowl; and bears, foxes and martins appear to inhabit these swamps. The deer are numerous on the plains. There is also some good pine timber.”

The 1853 Report of the Commissioner of Indian Affairs also provided a description of the landscape as seen during the 1851 journey. This account described the area as sandy, open, devoid of good timber, and unfit for agricultural cultivation. The report stated that the land “is a succession of dry sandy ridges, unfit for cultivation, and only thinly timbered with oak and spruce, with the exception of some narrow pine groves and sugar maple bottoms bordering the Wolf River…. The only redeeming quality which this portion of the tract possesses is the numerous beautiful small lakes, or ponds, of clear pure water, which are to be found within sight
of each other for many miles in extent. These lakes abound in fish, and afford great relief to the Indians settled about them.”

The interpreter on the trip, William Powell, described the land in a similar manner: “dry and sandy but with little timber. It is well watered; may be properly termed pine barrens. The trees are low and scrubby, mixed with the small poplar, or quaking asp[en]. We found a number of small lakes, and a few lots of good lands, and well timbered. We also found a number of cedar and tamarack swamps, there are many signs of bears, deer, and other game. The lakes abound with fish and wild duck.” The Menominee Forest that would become the reservation was sandy and dry, but contained abundant habitat for wildlife and fish.

**General Land Office Surveys**

The 1851 exploration provided the general impression that the Menominee reservation land was sandy, infertile, and filled with lakes and wildlife. However, the exploration was not a systematic survey. Further, the group described only six of the ten townships that would eventually become part of the Menominee reservation—there were no descriptions of the four western townships. Surveyors from the General Land Office (GLO) of the United States Government conducted the first systematic assessments of the land that would become the entire reservation between 1839 and 1854; they surveyed the exterior boundaries of each six-mile-by-six-mile township.

Between 1853 and 1854, government surveyors divided and surveyed the interior sections of each township that would become the Menominee reservation. The surveyors recorded trees, made observations along each section line, and wrote general summaries describing each township. According to these data, the forest to the south and east of the Wolf River contained
mostly scattered oak and pine (Figure 2). Maple, beech, and birch dominated the area west of the Wolf River. There were several large non-forested openings in the southern portion of the reservation on both sides of the Wolf River. Finally, there were low-lying swampy areas dominated by spruce, fir, and cedar across the reservation.

After completing the surveys, the General Land Office surveyors wrote general descriptions of each township, which included additional details about the suitability of farmland, the amount of swamp land, and the character of the timber for harvesting. The surveyors described the swamp lands that were scattered throughout most of the townships as dominated by cedar, tamarack, fir, and black alder trees. The reports characterized all of the swamp lands as “unfit for cultivation.”

GLO surveyors stated that the southern lands around the Wolf River had “no pine for lumbering and but little that is first rate for farming.” Regarding the land near what is now Legend Lake, the surveyors summarized that “the banks of these lakes are generally high with very little timber…” They noted, however, that the northern lands bordering the Wolf River were “heavily timbered. The soil is generally sand 2\textsuperscript{nd} or 3\textsuperscript{rd} rate. Considerable good pine is scattered throughout.” In addition, the surveyors characterized portions as “heavily timbered… [with] a large amount of pine valuable for lumbering purposes.” The surveyors did not view any of the eastern or southern land as good farming land, but they considered the trees a valuable source of timber.

The GLO surveyors described the western townships of the Menominee Reservation as containing abundant hardwood and softwood timber, areas with young trees, and swamps. The survey notes indicate that portions of the western townships were covered by “thickets of aspen and birch” and other sections had “2\textsuperscript{nd} rate soils [and] an abundance of timber consisting chiefly
of elm, maple, hemlock, and [lind].”85 Some portions were “heavily timbered with a growth of hemlock, maple, elm, and [lind]” and had “thickets of aspen pine and white birch.”86 The presences of forest thickets indicated that there were areas of young trees that were regenerating after recent disturbances. The surveyors also noted that “the timber (of which there is an abundance) consists of elm, maple, hemlock, [lind], and birch.”87 Further, they wrote that “timber is abundant in all parts of the township [T30R14] and consists of maple, elm, hemlock, and [lind], [tamarack], and white birch trees are found along the margins of swamps.”88

These descriptions of the Menominee Forest in the mid-1800s consistently described the eastern portions of the reservation as having sandy soils, lakes, and areas of open land. The reports characterized the western portions of the Menominee Forest as containing hardwoods and softwoods in various stages of succession. There were swamps and lowlands throughout the forest. While the 1851 journey and the GLO surveys resulted in similar descriptions of the Menominee Forest, US Government officials and the Menominee leaders had very different perceptions of what the forest would mean for the Menominee reservation.

**Descriptions of the Menominee Forest in the Late 1800s and Early 1900s**

After the establishment of the reservation in 1854, Menominee people moved to the area from throughout Wisconsin.89 The resources on the reservation, however, were not sufficient to provide for the needs of all of the tribal members. To rectify this situation, Menominee leaders inserted stipulations into the treaties that required the US government to provide the means for agricultural development, education, and logging. Using these resources, Menominee tribal members harvested timber and used small mills to process timber on the reservation. Treaty rules required that the Menominee only harvest timber that they would use on the reservation, as a non-commercial venture.90 In 1865, the US government allowed the Menominee tribe to harvest
“dead and down” timber on the reservation. Records show that from 1865 through 1889, the Menominee harvested over 100 million board feet of timber.\textsuperscript{91} In 1890, the federal government passed a law that allowed the Menominee to harvest 20 million board feet of timber per year. From 1890 to 1910, the Menominee people harvested almost 400 million board feet of timber, averaging around 20 million board feet per year, as the law specified.\textsuperscript{92}

Next, I examine whether the assessments of the Menominee Forest conducted in the late 1800s and early 1900s, after several decades of timber harvesting on the Menominee reservation, differed from descriptions in the 1850s. To compare the characterizations from the two times, I use written descriptions, photographs, and paintings from an 1893 report on the Menominee completed by the Smithsonian Institute’s Bureau of Ethnology. I also use descriptions found in the reports of federal foresters and a 1914 forest planning map.

In 1893, Walter James Hoffman, MD compiled a report for the Smithsonian Institute’s Bureau of Ethnography based on field work he had conducted on the Menominee reservation beginning in 1890. Hoffman’s report primarily documented Menominee oral traditions and religious customs. He did, however provide several written descriptions of the Menominee Forest. These descriptions provide one perspective on the Menominee Forest four decades after the reservation was established. In a description of the Keshena area west of the Wolf River, Hoffman stated that “pine oak and other trees grow plentiful all over the area.”\textsuperscript{93} He added that “north of the village is a high ridge covered in immense pines and oaks” and noted that the ridge “separates the valley of the Wolf River from some marshy lakes to the south.”\textsuperscript{94} Hoffman’s descriptions are very similar to the descriptions of the same area in the mid-1800s. While this comparison does not provide enough evidence to show that there were no significant changes in the forests, it does reveal that perceptions of the eastern reservation forests were similar.
Hoffman’s report also included the earliest visual representations of the Menominee Forests in the form of photographs and paintings. These photographs and paintings illustrate what the open scattered pine forests looked like on the east side of the Wolf River. Figure 3 is a painted depiction of a woman constructing a “medicine lodge” and Figure 4 is a photograph of a similar structure. In both images the forest in the background contains scattered open pine—the sky can be seen through the trees and branches—that mirrors the verbal descriptions of area. In Figure 5, the “Camp of Berry Pickers” photograph, the sky is again visible through the trees and branches and a very sparse open forest in the background. Shrubs — presumably berries such as blueberries, blackberries, and strawberries — are also present in the understory of the open forest. These berries typically prefer open habitats and do not usually grow in the shade of a dense forest.

The 1893 report also contains a painting that provides a visual depiction of the closed-canopy sugar maple hardwood forest of the 1890s. While the site of the painting is unknown, this forest type would have been common on the Menominee reservation west of the Wolf River—areas described as having maple forest for sugaring. The painting, titled “Camp of Sugar Makers,” shows Menominee people gathering and processing maple sap into maple sugar (Figure 6). The forest contains large hardwood trees spaced much closer together than those depicted in the photographs above. Further, the sugar camp is located under a closed-canopy forest, while the “medicine lodge” and the berry picker camp are both located in very open areas that are almost devoid of trees. While these photographs and paintings were created to showcase a nineteenth century ethnographic perspective on the Menominee people, they also provide important insight into the appearance of the Menominee Forest in the late 1800s. The variety of habitats shown in these pictures emphasize the diverse nature of the Menominee Forest.
The reports of federal officials living and working on the Menominee reservation provide insights into the state of the Menominee Forest in the early 1900s, just as they did in the mid-1800s. For example, in 1914, US Indian Commissioner Edward Ayers noted that “the forest is distributed in two parts…the east portion of the reserve being of open nature, pine, and Norway, while the western part has a very dense stand, principally hardwoods, hemlock and scattering pine…[A] considerable portion of the reserve [is] good grass land.” The commissioner described two distinct sections of the reservation: one composed of open forest and the other composed of dense closed forest. Ayers also highlighted the presence of grasslands in the open forest because he thought that although this area of the reservation that did not have soils suitable for intensive agriculture, it would be suitable for grazing. At the time, Indian agents were still focused on assimilating the Menominee people through agriculture.

Maps from the early 1900s provide further information about the forest, forest disturbance, and forest ecology. A reproduction of a 1914 forest management planning map provides evidence of the presence of forest disturbances, specifically wind and fire (Figure 7). The map coincides with other descriptions of the Menominee reservation in which closed canopy hardwoods and hemlock dominate the area west of the Wolf River while open scattered pine dominates the area east of the Wolf River. The 1914 map explicitly marks disturbances by outlining areas of “young pine,” “blow down,” “scattered open pine,” and “burned.”

The 1914 planning map differs slightly from the GLO survey maps (see Figure 2). The 1914 map depicts a larger portion of the land west of the Wolf River as scattered open pine, characterizes more area as either “burned” or “young pine,” and shows “pine sawtimber” adjacent to burned areas and within both the hemlock hardwood west of the Wolf River and the open areas to the south east.
There are several possible explanations for the differences between the two maps. The differences could be due to different sampling strategies used to create the maps; they could also be due to the fact that by the early 1900s, the Menominee tribe had harvested around 400 million board feet of timber from reservation forests—the majority was pine. Fires and logging may also have led to the presence of more of young pine, open pine, and burned area in 1914. Throughout the rest of Wisconsin, heavy logging and the construction of railroads were commonly followed by fire; this may have been the case with the Menominee forests as well.\textsuperscript{96} In addition, US Indian Agent reports indicate that the Menominee may have been purposefully setting fire to forested areas so they would be allowed to log the fire-killed timber.\textsuperscript{97} While the Menominee people contested these claims, fire may still have been more frequent on the reservation than in earlier times. No matter the reason, the forest appears to have changed only slightly from the 1850s to the early 1900s.

Because these maps were created with different methods and at different times, quantifying this analysis with GIS techniques would be difficult. However, these maps are valuable because they provide a visual depiction of the state of the Menominee Forest in the late nineteenth century and the early twentieth century. Despite some minor differences, there is a general continuity in the descriptions of the Menominee Forest between the 1850s and the early 1900s. The descriptions of the Menominee Forest in the early 1900s show that the Menominee reservation was dominated by diverse forest types, large areas of the forest were closed canopy, large areas contained open and scattered pines, and wind and fire had shaped the forest. Photographs, maps, and descriptions collectively report and provide visual representations of the open forest in the eastern portion of the reservation and the closed forest to the west. These documents do not provide evidence that the forest had changed significantly since the reservation
was established in the 1850s; however, they do reveal that, compared to the current forests, the
land of the middle-to-late nineteenth century contained less open forest and grassland habitat. As
I illustrate in the next chapter, this transition had implications for forest management, forest
restoration, and community perceptions.
Endnotes – Chapter 2

1 United States Statutes At Large, "Treaty with the Menominee Indians," (1854); United States Statutes At Large, "Treaty with the Menominee Indians," (1856).

2 David Beck argued that the Menominee people were able to achieve their own goals as a result of their tenacity, political astuteness, and ability to work with non-Menominee people. See David R.M. Beck, The Struggle for Self-Determination: History of the Menominee Indians since 1854 (Lincoln: University of Nebraska Press, 2005); David R.M. Beck, Siege and Survival: History of the Menominee Indians, 1634-1856 (University of Nebraska Press, 2002).


5 ibid.

6 ibid., 195.

7 M.J. Mitchell et al., Soil Survey of Menominee County, Wisconsin (USDA Natural Resources Conservation Service, 2004), 13. The lowest point of elevation on Menominee reservation is 841 feet above sea level and is located in the southeastern sandy outwash valley. The highest elevation on the Menominee reservation is 1,433 feet above sea level and is located among the northeastern hills.

8 ibid., 153; Schultz, Wisconsin's Foundations: A Review of the State's Geology and Its Influence on Geography and Human Activity, 4.


10 M.B. Davis, "Quaternary History and the Stability of Forest Communities," Forest succession: concepts and application. Springer-Verlag, New York, New York, USA (1981). This research shows that plant communities as researchers currently understand them did not migrate together as groups of species, but rather that individual species migrated at different rates. There is a scientific debate about the rates of migration for species with large seeds. The debate focuses on the fact that large-seeded plants should not migrate as quickly as they appear to have migrated in the Holocene period. Research on this phenomenon has focused on plant dispersal, animal dispersal, water dispersal, and wind (and storm) dispersal. There is, however, another factor that has not been investigated: human seed dispersal. There is a need to investigate the possibility that human communities, such as the Menominee, living on the margins of the glaciers aided the migration of certain plant species. For information surrounding this debate see James S. Clark et al., "Reid's Paradox of Rapid Plant Migration," Bioscience 48, no. 1 (1998).

11 Schultz, Wisconsin's Foundations: A Review of the State's Geology and Its Influence on Geography and Human Activity, 23.

12 Davis, "Quaternary History and the Stability of Forest Communities."


21 ibid.

22 ibid. Dr. Overstreet has several maps in this publication. The cultivated sites are generally one square kilometer, or around 250 acres. The site sizes are incomplete, however, because they have not been fully mapped.


25 ibid. The treaties included statements of peace and friendship, descriptions of lands ceded by the Menominee to the United States, and provisions to be paid by the United States in return for the land cessions.

26 For details on the Menominee treaty era see Beck, *Siege and Survival: History of the Menominee Indians, 1634-1856*.

27 ibid.

29 ibid.


31 Edward E. Ayer, Report on Menominee Indian Reservation (Board of Indian Commissioners, 1914); Menominee Tribal Council, "Menominee Tribal Council Notes," in Green Bay SC138 (Wisconsin State Historical Society Green Bay Archive, 1866); JP Kinney, "Timber Cut on the Menominee Indian Reservation (Compiled from Reports of Agents since 1865. Timber Principally White and Norway Pine)," in Jay P. Kinney Papers, 1836-1941 (Madison, WI: Wisconsin State Historical Society Archives, 1836-1941); Robert M. La Follette, "Register of the Robert M. La Follette Papers, 1879-1910," in Robert M. La Follette Papers (Madison: State Historical Society of Wisconsin); Robert M. La Follette, La Follette's Autobiography: A Personal Narrative of Political Experiences, Third edition ed. (The Robert M. La Follette Co., 1911; reprint, Third edition); Robert La Follette, "Robert M. La Follette Papers," in Robert M. La Follette Papers (Madison, WI: Wisconsin State Historical Society Archives, 1879-1910); Robert La Follette, "Cutting and Sale of Timber on the Menominee Indian Reservation, Wis.," ed. Report from the Committee on Indian Affairs (59th Congress Second Session, 1907); United States Senate, "Treaty with the Menominee Indians, and the Journal of the Commissioner," in Ex. Doc. 72, ed. Twenty Second Congress Second Session (1833); United States Senate, "Message of the President of the United States," in Ex. Doc. 72, ed. Thirty Fourth Congress First Session (1856); United States Senate, "Condition of Indian Affairs in Wisconsin," in Senate Resolution 263, ed. Hearings before the Committee of Indian Affairs (1908); United States, "Annual Report of the Commissioner of Indian Affairs, for the Year 1851," (G.P.O., [1851], 1851); United States, "Exterior Field Notes T28 R15 - General Description," (General Land Office, 1852); United States, "Interior Field Notes T28 R16 - General Description," (General Land Office, 1853); United States Statutes at Large, "An Act to Authorize the Sale of Timber on Certain Lands Reserved for the Use of Menominee Tribe of Indians, in the State of Wisconsin," (1890); United States Statutes at Large, "An Act to Authorize the Cutting of Timber, the Manufacture and Sale of Lumber, and the Preservation of the Forests on the Menominee Indian Reservation in the State of Wisconsin," (1908); United States Statutes At Large, "Treaty with the Menominee Indians."; United States Statutes At Large, "Treaty with the Menominee Indians." I used Nvivo 9 research analysis software to organize and help analyze the qualitative data. I used the software mainly to organize historical documents and my research notes, just as historians use note cards for historical analysis. I “coded” each section of every document, which allowed me to display all of the sections labeled with a particular code for my historical analysis. I coded 42 separate themes, including “Menominee Perceptions,” “Non-Menominee Perceptions,” and “La Follette Perceptions.” Non-Menominee Perceptions were generally those of government officials. I specifically coded La Follette Perceptions so I could examine every instance in which Robert La Follette described his intentions, thoughts, or perceptions.

32 Beck, Siege and Survival: History of the Menominee Indians, 1634-1856, 111.


34 ibid., 87.


36 See ibid., 162.
United States Senate, "Treaty with the Menominee Indians, and the Journal of the Commissioner." The full quote is “Father, I do not like to have the Menominee river damned [sic] up…. We need to catch plenty of fish; it was our principal means of subsistence. Father, I think these men should be satisfied with cutting down all our best timber and sawing it up, without stopping the fish. I have nothing to say against the grant [treaty land cessions]; our chiefs gave their permission…. Father, did we ever sell all the fish? I have no recollection of doing this. Father, this man says he owns all the fish in that river, and all the cranberries. We never sold all these, did we? Father, all I wish is, that the channel of the river may be left open, so that the fish can go up and down, and that we may catch then, as heretofore, to subsist on.” Also quoted in Beck, Siege and Survival: History of the Menominee Indians, 1634-1856, 113.


United States Senate, "Treaty with the Menominee Indians, and the Journal of the Commissioner."


ibid., 83.

ibid., 85.

ibid., 86.

ibid., 88.

United States, "Annual Report of the Commissioner of Indian Affairs, for the Year 1851," 291; United States Senate, "Message of the President of the United States," 47. The Menominee leaders noted that the Indian commissioner negotiating the treaty had told the Menominee people that they “had no just title to any of these lands, and that their great father, the President, could drive them off whenever he pleased; and that if their nation did not then agree to make a treaty, he would drive them off to make room for the whites, and then they would get nothing if they did not sign the treaty.” The Menominee leaders argued that they were never paid an amount equal to the actual value of their land. In a general council meeting in 1866, the Menominee Chief reflected on the treaties, saying, “We now understand that in all the treaties from 1836 to this time we have not been allowed the value of our lands.” Menominee Tribal Council, "Menominee Tribal Council Notes."


United States Senate, "Message of the President of the United States," 24.

ibid., 10.


United States General Land Office, "Wisconsin Public Land Survey Records: Land Survey Information," (Wisconsin Board of Commissioners of Public Lands and the University of Wisconsin Board of Regents). One township is 36 square miles and one square mile is 640 acres.
In several books, David Beck has argued that the Menominee people worked well with non-Menominee people to achieve favorable outcomes for the tribe.


United States, "Annual Report of the Commissioner of Indian Affairs, for the Year 1851," 308.

See the annual reports of the Commissioner of Indian Affairs between 1851 and 1911; also see Beck, *The Struggle for Self-Determination: History of the Menominee Indians since 1854*; T. Holm, *The Great Confusion in Indian Affairs: Native Americans & Whites in the Progressive Era* (Univ of Texas Pr, 2005).

United States, "Annual Report of the Commissioner of Indian Affairs, for the Year 1853," (G.P.O., [1853], 1853), 244.

In fact, the reservation was remote and serviced only by marginal roads that were impassable in certain seasons of the year until well into the 1930s.


**See Chapter 10 "Logging the Pineries" in Wyman, *The Wisconsin Frontier*.**

71 J. W. Powell, "Fourteenth Annual Report of the Bureau of Ethnology to the Secretary of the Smithsonian Institution 1892-1893," (G.P.O., [1896], 1893); ibid; United States, "Exterior Field Notes T28 R15 - General Description."; United States, "Interior Field Notes T28 R16 - General Description."; United States, "Interior Field Notes T30 R15 - General Description."; United States, "Interior Field Notes T30 R16 - General Description," (General Land Office, 1853); United States, "Interior Field Notes T30 R13 - General Description," (General Land Office, 1854); United States, "Interior Field Notes T30 R14 - General Description," (General Land Office, 1854); United States, "Interior Field Notes T29 R13 - General Description," (General Land Office, 1854); United States, "Interior Field Notes T29 R14 - General Description," (General Land Office, 1854).

72 Powell also interpreted for the Menominee on the trip to Crow Wing Minnesota. Powell believed that the Menominee—particularly the hunters—would not fare well in Minnesota due to a lack of game and suitable land for farming. He also believed that the Menominee on the trip were deeply disappointed with the land in Minnesota, despite the fact that the tribal members never spoke to him about it. See Beck, The Struggle for Self-Determination: History of the Menominee Indians since 1854, 175-76.

73 United States, "Annual Report of the Commissioner of Indian Affairs, for the Year 1851," 308.

74 ibid., 308.


77 The Menominee reservation consists of 10 townships. Townships T30N R13E, T30N R14E, T30N R15E, T29N R13E, T29N R14E, and T29N R15E were first surveyed in October and November 1852. Township T28N R15E was first surveyed in March 1845. Townships T30N R16E and T29N R16E were first surveyed in June 1839. Township T28N R16E was first surveyed in December 1845. Most of the interior section lines within each township were surveyed in 1853 and 1854. See United States General Land Office, "Wisconsin Public Land Survey Records: Original Field Notes and Plat Maps," (Wisconsin Board of Commissioners of Public Lands and the University of Wisconsin Board of Regents).

78 Each township is divided into 36 one-square-mile sections.

79 See GLO Field Notes

80 United States, "Exterior Field Notes T28 R15 - General Description."

81 United States, "Interior Field Notes T28 R16 - General Description."

82 United States, "Interior Field Notes T30 R15 - General Description."

83 United States, "Interior Field Notes T30 R16 - General Description."

84 It is generally accepted that the use of the term “timber” was used by the GLO surveyors meant pine at that time. I have added commas within the Government Land Office quotations for clarity.

85 United States, "Interior Field Notes T29 R13 - General Description." The word “lind” is illegible but probably means linden or basswood.

86 United States, "Interior Field Notes T29 R14 - General Description." The word “lind” is illegible but it probably means linden or basswood.
87 United States, "Interior Field Notes T30 R13 - General Description." The word “lind” is illegible but it probably means linden or basswood.

88 United States, "Interior Field Notes T30 R14 - General Description." The word “lind” is illegible but it probably means linden or basswood. The word “tamarack” is illegible but it probably means tamarack.


91 Kinney, "Timber Cut on the Menominee Indian Reservation (Compiled from Reports of Agents since 1865. Timber Principally White and Norway Pine)."

92 ibid.


94 ibid., 38.

95 Ayer, Report on Menominee Indian Reservation.

96 Wyman, The Wisconsin Frontier, 275-76.

97 See, for example, United States Senate, "Condition of Indian Affairs in Wisconsin," 954-56. David Beck also addressed this topic in Beck, The Struggle for Self-Determination : History of the Menominee Indians since 1854. Before the 1890 act authorized the Menominee to harvest 20 million board feet of green timber per year, the Menominee were only allowed to harvest dead and down timber. The reports of Indian Agents refer to the Menominee purposefully starting fires to kill trees so they could legally harvest the timber.
Figure 1. Satellite image of Wisconsin. Lake Superior is visible to the north, Green Bay to the east, and the Menominee Reservation is in the south central portion of the image. Image used according to Google's Terms of Conditions.
Figure 2. Forest vegetation based on Government Land Office surveys from 1839-1852. Map shows the Menominee reservation as clipped from data contained in the “Wisconsin Original Vegetation” map created for the Great Lakes Forest Assessment. The water layer shows contemporary water bodies (Legend Lake and Neopit Mill Pond) and is for reference only. Map created by Menominee Tribal Enterprises and the US Forest Service.
Figure 3. Smithsonian Institute's Bureau of Ethnography 1893 drawing of a Menominee woman building a "medicine lodge." The painting shows scattered open pine in the background illustrating what this forest type would have looked like in the late 1800s.
Figure 4. Smithsonian Institute’s Bureau of Ethnography 1893 photograph of a Menominee man in front of a traditional building. The photograph shows scattered open pine in the background and gives insight into what this forest type looked like in the late 1800s.
Figure 5. Smithsonian Institute’s Bureau of Ethnography 1893 photograph of a Menominee family at their campsite in a scattered open forest with brushy undergrowth. The photo is titled “Camp of Berry Pickers” and shows another type of open forest on the Menominee reservation in the late 1800s.
Figure 6. Smithsonian Institute's Bureau of Ethnography 1893 painting of a group of Menominee at their sugar camp processing maple sap into sugar. The painting is titled “Camp of Sugar Makers” and shows the maple hardwood forest type common west of the Wolf River.
Figure 7. Menominee Tribal Enterprise’s recreation of a 1914 forest planning map. This map shows much of the forest to be open, burned, blowdown, or regenerating pine. The dark green areas indicate “pine sawtimber.” The other portions of the forest are closed canopy dense hemlock and hardwood forests. Map created by Menominee Tribal Enterprises.