A Forest of Balance: Student Page *(3 pages)*

In Minnesota, indigenous people have used many renewable natural resources—wild rice, maple sugar, trees, abundant clean water, bison, moose, and white-tailed deer—for as long as they have lived here. These resources provide places to live, ways to travel, tools for survival and art, and food and medicines. Some of these resources have been used by both the Ojibwe and the Dakota, while some are uniquely used by one or the other.

Water. Minnesota's thousands of lakes, streams, and rivers provide water necessary for the survival of nearly every living being. It is important to maintain this resource and not overuse it. Among Native communities in Minnesota, water takes on another level of significance by having spiritual importance. For example, when the Dakota lived along the shores of modern-day Mille Lacs Lake, they revered the lake for being sacred, calling it Mde Wakan, which means Spirit Lake.

Today the contemporary Dakota community, the Shakopee Mdewakanton Sioux Community[i], are the descendants of this band of Dakota. The Ojibwe called Lake Superior *gichigami*[ii], its massive size referred to being like an ocean rather than a lake.

Fishing continues to sustain Native communities. Historical treaties retain certain rights for Native people in Minnesota to hunt, gather, and fish, including using nets for fishing in specific waterways within ceded treaty territories[iii]. Like many other Minnesotans, Native people also enjoy swimming, boating, canoeing, kayaking, and relaxing around water.

Today, environmental change and human impact are the biggest threats to the water resources in Minnesota. In recent years, algal blooms dangerous to humans and animals alike have become more common because of climate change and human impact[iv].

Mining and pipeline projects also threaten waterways within Native communities. Native community members (as well as other Minnesotans) have opposed such projects for years, citing concerns about spills degrading drinking water quality and affecting other resources such as fish and wild rice.

Maple syrup and sugar. Historically, the Ojibwe and Dakota both relied on maple trees to harvest sap and produce maple syrup and sugar. The city of Chanhassen derives its name from the Dakota word *Çaåhasaå Paha*[v], which refers to the area's trees of "white bark," meaning either sugar maple or birch.

When the Dakota began transitioning to the prairie regions of the state, they lessened their reliance on this resource. The Ojibwe, however, continue to rely on maple products. Sugar maple trees, or *ininaatig*[vi] in Ojibwe, are relatively widespread in the eastern part of Minnesota[vii].

When conditions in the spring are right (warm, sunny days and nights below freezing), the sap begins to run in the tree. People tap maple trees to release and collect the sap. Then, sap is boiled in baskets or iron kettles to remove moisture and concentrate the sugar into syrup. Boiling syrup further creates maple sugar.

Historically, both of these products were important for both trade and as a staple food source. Maple syrup (*zhiiwaagamizigan*[viii]) requires an average of 40 gallons of sap to produce 1 gallon of syrup. For Ojibwe who followed a seasonal-round lifestyle, maple sugar (*ziinzibaakwad*[ix]) was highly prized because it was easy to carry. Maple sugar was used to season food, sweeten beverages, and preserve meats.

Today, maple syrup is a big business. In 2018, Minnesota ranked twelfth in the nation for syrup production[x]. Maple products are produced using a combination of traditional and modern harvesting and processing techniques. Maple products are a good source of income for Native communities through businesses such as Native Harvest Ojibwe Products, Spirit Lake Native Farms and Red Lake Nation Foods.

Some Minnesota students participate in the activities at a sugar bush (*iskigamizigan*[xi]). The South

Minneapolis High School has formed partnerships to make many cultural traditions accessible to Native students who live in urban areas, including participating in a sugar bush in the neighborhood around their school[xii]. Among the Ojibwe, maple syrup and sugar are so important culturally that they feature in a traditional story.

Trees and forests create habitats for different animals and provide resources for people. While contemporary Native peoples in Minnesota no longer build traditional dwellings like wigwaams or bark lodges for permanent homes, timber still features prominently in the construction of modern homes. In the state, the forest products industry is the fifth largest employer with over 60,000 jobs[xiii]. Some Native people use wood products today to continue traditional forms of arts and crafts. Pat Kruse of the Mille Lacs area uses birch bark to produce beautiful pieces of art that are a mix of modern and traditional. John Hunter (founder and coach for Twin Cities lacrosse) relies on ash trees to create traditional Ojibwe and Dakota lacrosse sticks for program participants.

Ojibwe lacrosse stick made from ash wood

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Bison, moose, and white-tailed deer. Before the Ojibwe moved into the area, the Dakota relied on wild herds of buffalo (bison) for their prime source of meat and for their hides, bones, and other tools. While wild herds are gone, Native communities and the Minnesota Department of Natural Resources maintain numerous domestic herds.

Buffalo, or *tataŋka*, continues to be an important resource to the Dakota communities in the state. The Prairie Island Indian Community began their Buffalo Project in 1992. Currently, their herd is an aspect of educational outreach, spiritual connection, and a traditional, high quality source of meat for Prairie Island and Shakopee[xiv].

The Ojibwe never hunted buffalo in Minnesota. Instead, they hunted moose (*mooz*[xv]) when they were more prevalent, and later white-tailed deer (*waawaashkeshi*[xvi]). Moose and deer provide meat, hides for leather and drums, and bones for tools.

Historically, moose hunting has been available to anyone with the proper license. Today, moose populations have dwindled, and moose hunts in the state have been limited to Native peoples exercising treaty rights under the guidance of state and tribal biologists. The warming climate, prevalence of ticks, and the growing white-tailed deer population are the biggest causes for declining moose population.

White-tailed deer hunting in Minnesota is extremely popular, and a huge source of revenue for the state, with over $500,000 in license sales in 2018[xvii]. Additionally, hunting provides a lot of money to communities as hunters travel and spend money on lodging, food, and supplies. Many Native people in Minnesota rely on deer hunting as a way to provide for their families cheaply and ethically.

Wild rice is perhaps one of the most well-known resources used by both groups. The Ojibwe called it *manoomin*[xviii] and the Dakota called it *psiŋ*[xix]. Historically, wild rice could be found in every corner of the state and in over half of its counties[xx], which might explain why it is Minnesota's state grain. Ripening in late August to early September, we harvest and process this resource over stages to produce a staple food that can last throughout the winter, spring, and summer months. Wild rice requires very specific conditions to be successful: consistent shallow to moderate water depth, natural water movement, soft

marine bottoms, and the absence of competing vegetation (both native and invasive).[xxi] Wild rice is therefore extremely sensitive to changes in the environment that can affect its growth, including extreme weather (high winds, severe thunderstorms, heavy rains), pollution (chemical runoff, chemical spills, agricultural runoff), and human impact (introduction of invasive plants and animals, disturbance from recreation, and intentional removal of vegetation along shorelines).

The stages of wild rice harvesting haven't changed too much over the years. Collecting wild rice involves pushing a canoe (*jiimaan*[xxii] in Ojibwe and *wata*[xxiii] in Dakota) through the rice. Gentle pushing prevents damaging the plants from paddles or oars. People remove rice from the plant by gently bending it over the canoe and using ricing flails, or knockers (*bawa'iganaakoog*[xxiv] in Ojibwe). Flails are still made of a lightweight wood like cedar, that, when used correctly, won't damage the plant. Next, people remove the rice from the canoe and spread it out on a tarp to remove debris and any number of insects[xxv], including rice worms.

The next step is roasting or *parching.* People may leave the rice on the tarp to dry in the sun, although for many communities and families, parching (*gaapizan*[xxvi] in Ojibwe) is still done the old way: rice is placed in a large cast iron pot over a hot fire and stirred with a special paddle. However, there are also commercial ways to process rice now that involve the use of large dryers. Parching makes it easier to remove wild rice's protective outer sheath. Parching also helps to dry and harden the rice itself so it can be stored long term.

After parching, the sheath of each grain must be cracked so it can be removed. This is often done through jigging (*mimigoshkam*[xxvii] in Ojibwe), in which smaller (often children) community members gently "dance" on the rice while wearing soft leather moccasins.

The final step in processing is winnowing (*nooshkaatoon*[xxviii] in Ojibwe) the rice to remove the cracked outer sheath. Winnowing is done in small batches using a special wild rice tray called *nooshkaachinaagan*[xxix] by gently tossing rice in the air and allowing a breeze to sweep away the lighter sheath. Larger batches are often gently dropped in front of large commercial fans that blow away the sheaths. When processed correctly, wild rice can last for years if stored properly.

In Minnesota, several Native communities process wild rice to sell commercially: Red Lake Nation Foods[xxx], Leech Lake Band of Ojibwe Natural Wild Rice[xxxi], White Earth Wild Rice[xxxii], Native Harvest Ojibwe Products[xxxiii], Spirit Lake Native Farms[xxxiv], Nett Lake Wild Rice[xxxv], and Lake Region Wild Rice Company[xxxvi]. Among the Ojibwe, wild rice is an extremely important part of their culture that features in their historic migration story.