

Medicinal and Consumption Utilization in Plant Species of the UNDERC Property According to
Ojibwa Cultural Knowledge

BIOS 33502-01: Practicum in Environmental Field Biology

Dana J. Lee

Advisor: Michael Cramer

2008

Abstract

Historically, Anishinaabe or Ojibwe have migrated across the northern portions of North America, as well, as into Southern Canada. The UNDERC property lies in the area known to have been home to the Anishinaabe, who used their natural environment as resources for survival. This study was to examine the potential of Ojibwe activity of the UNDERC property through validation from tribal interviewees, collected material from tribal informants, observations from a pow-wow, videos, and theoretical assumptions. It was determined from available information that the possibility of Ojibwe's using UNDERC property may have true. Although the number of informants were low and lack of participation may have contributed to an irrational conclusion of activity, further collected could attest Ojibwe migration in the area by additional study.

Introduction

People who lived in the area of the Ottawa National Forest are descendents of the Ojibwa, Chippewa tribes. They call themselves the Anishinaabe. These native inhabitants used their natural environment to balance a form of survival, including dependence on the properties of various plant species. Some wild plants are nutritionally rich with vitamins and micronutrients. Traditional native peoples in the area view their environment with respect to their culture.

Traditional Ecological Knowledge (TEK) represents experience acquired over thousands of years of direct human contact with the environment. (Berkes 1993). Although the term itself is not absolute due to the ambiguous definitions of the term traditional and ecological knowledge, for this study I inferred that traditional will represent those of cultural knowledge of Anishinaabe heritage. Ecological knowledge is an approach that focuses on the conceptions of ecological

relationships help by a people or a culture, in which I used in reference to the Anishinaabe (Berkes 1993). According to the Great Lakes Indian Fish and Wildlife Commission 2002 Threats to Wild Plants in the Ceded Territories report, traditional ecological knowledge is teaching the use and proper gathering techniques of wild plants to younger generations as being an integral part of life (White and Danielson 2002).

In general, Native Americans used different plant parts for the treatment of various ailments, combined with several botanicals for specific therapeutic purposes, and recognized toxic plants both as actual poisons and for medicinal purposes (Borchers et al. 2000). This may or may not affect the Northwoods region as to how the Anishinaabe people grazed plants for consumption or medicinal purposes.

Studies have been done to identify if Native Americans pick plants from the same family in order to access any medicinal properties that exists within each plants. The purpose of the study was to generate a conception of selectivity for a common plant ancestor and defenses plants have generated from herbivores. The study concluded that there was a significant relation to Native Americans and their use of medical plant species (Moerman and Estrabrook 2003).

I studied and recorded the methods current members of the Ojibwa Tribe from the Lac De Flambeau reservation have toward plant use for ingestion and medicinal purposes. I made a collection of the types of plants used on the basis of tribal perspective. My study was carried out with the partnership of the Tribal Historic Preservation Office of the Lac du Flambeau Band of Lake Superior Ojibwa Indians of Wisconsin, the Great Lakes Indian Fish and Wildlife Commission, and further assistance from individuals. I related cultural knowledge shared about the region in regards to the utilization of the property under the University of Notre Dame Environmental Research Center (UNDERC). With the assistance of tribal informants, I

attempted to theorize the migration pattern of the Anishinaabe through UNDERC property and whether it may have been feasible for the Ojibwe to use the land.

Traditional medicine refers to any ancient, culturally based healthcare practice different from scientific medicine and it is commonly regarded as indigenous, unorthodox, alternative or folk and largely orally transmitted practice used by communities with different cultures (Cotton 1996). My aim was to document and evaluate the traditional Ojibwa knowledge of plant utilization in the Northwoods of Wisconsin and the Michigan Peninsula, in which the UNDERC property lies. The study was based on recording traditional testimonies on the practices and use of plants. The study was taken with sensitivity for respect of tribal traditions.

Methods

This study abided by the Code of Ethics of the International Society of Ethnobiology.

Interviews and readings were collected over the period of May 19, 2008 to July 18, 2008. Despite the small geographical area under study, the area is characterized by variations in habitat environment. Information was collected mostly by individual research gathered by books, videos, and electronic database from the Great Lakes Indian Fish and Wildlife Commission. One interview was video recorded to preserve integrity of tribal perspective but upon technical difficulties experienced with the camcorder, I was not able to video record the interview, thus was a written interview. Both interviews had a verbal waiver of release. I used information collected from those knowledgeable of traditional Anishinaabe heritage for consent to share knowledge only for the purpose of this study, Nick Hockings who is a cultural consultant and owner of the Waswagoning Recreated Village; and Joseph Chosa who is an Lac du Flambeau tribal elder.

These informants were of sound traditional knowledge of Anishinaabe heritage and locally born. Although purpose of this study was to be in contact with informants with specific knowledge of plant usage, none were available or could not be contacted. Questions to informants about plant consumption and medicinal use were in regards to traditional purposes, knowledge about the past and present use, mode of consumption and preparation, mode of medicinal use and preparation, the manner of maintenance, parts of the plants used, place of collection and habitat, perceived threats and conservation status, data/season of collection, method of storage, and period of storage.

The Anishinaabe compilation of plants from UNDERC property were taken from the UNDERC website combined with information from the Great Lakes Indian Fish and Wildlife Commission Non-Medicinal Uses of Plants by the Great Lakes Ojibwe database and The Classic Guide to Ojibwe Uses of Native Plants by Frances Densmore (1928). Data was entered into an excel file. Further information was gathered from videos.

Results

Interview

During interviews, informants constantly referred to the importance of offering tobacco before any process of taking any plant material from its habitat. The offering represents the respect and remembrance of historical and religious value (Johnston 1982).

Joseph Chosa (2008) stated the period of boarding school and forced assimilation on members of tribe led to an inclination for people to distant themselves from their culture and their children to also be detached as well. Therefore the practices of would-be normal activities are no longer part of the daily lives of the Lac Du Flambeau tribe and knowledge of traditional plant usage is limited.

His knowledge of plants and their properties come from memories he has from his grandmother and was in doubt if he would be able to remember what she had taught him. Most of his experience with plants came from working and collecting wild rice, manoomin. He stated that a major component of Ojibwe lifestyle is harvesting wild rice. Chosa also said that he was involved as a rice chief and carried out decisions of rice cultivation and conservation. Rice paddies were selected on the bases of yearly distribution and conserved through a series of three years of harvesting and two years of rest.

When asked, Chosa remarked that the UNDERC property may have been used since his people lived throughout the area historically. His perception of attractiveness for the area in which a piece of land would be utilized would depend on season and availability of resources. Such as the presence of wild rice paddies that only grow in flowing waters and areas that had a significant amount of maple trees or sugar bushes.

The next interviewee, Nick Hockings, reflected on the traditional stories and reflections of past elders and teachings (2008). In reference to historic practices of the Anishinaabe, he mentioned several uses of different plants. He stated that the people designed pits lined with birch bark and a lid made of cedar were storage units for food. The purpose was that the birch bark and cedar were insect repellents that attributed to keeping their food undisturbed.

As far as selection of camping sites for the migratory people, Hockings said that Anishinaabe would be looking for good birch stands, berry patches, and water during the summer season. As the season progressed towards fall, the people would leave for a short period of time from their camp site to wild rice paddies for harvesting. Rice Chiefs were also present during these times to ensure the availability of wild rice to last through the winter seasons.

When walking around the forest that was present at Hockings place of business, clovers were identified as being a drink to boil for digestive problems. The white milk from sumac or milkweed would be applied to warts to aid in healing. The fiddlehead fern or bracken fern were used for eating as it was still a young plant out of the ground, because it was rich in vitamins. Wintergreen berries were eaten and crushed leaves were used as a tea to relieve an upset stomach. The Partridgeberry was made into a tea to assist women experiencing cramps during their menstrual cycle. Sweet fern was crushed and used as an insect repellent. Cedar leaves were boiled to help digestive problems. Trailing arbutus flowers were used for perfume. Blackberry leaves were boiled for diarrhea. The leatherleaf was used as a tea. Sphagnum moss was used as an antiseptic resource for baby diapers. And the Labrador Tea leaves were used for tea.

Hockings had also stated that the amount of elder input for the usage of habitat areas was essential and a part of the culture. Even to this day, rice chiefs and elders are delegates for decisions of maple syrup and rice paddy collection. Another culturally significant asset of Anishinaabe tradition is to acknowledge and to pay respect to the collected items and tribal deities with tobacco. Therefore when maple trees are selected for tapped or when rice paddies are about to be harvested, tobacco is offered.

As far as current plant usage, there has been a significant decrease to the lack of knowledge no longer passed down through Traditional Ecological Knowledge and the effects of people today having a different immune system and digestive system than historically known. These changes are due to the presence of diseases from the European contact period and the current diet of the Ojibwe. The diet has changed significantly where food is no longer gathered but bought to satisfy hunger and other factors of acculturation.

Hockings had lastly stated that the Anishinaabe people have a close relationship with the environment. The people were made to use, care, and conserve the natural environment, as was one of their purposes of creation. Because the Anishinaabe believe to be spiritual by nature and not defined by physical boundaries, there needs to exist a complete paradigm shift in order to fix current problems of the natural environment in the land of the Ojibwe.

Mr. Hockings further stated that it was important that the people were an integral part of maintaining the balance of the natural environment through the means of harvesting, burning, cutting, and other means of maintenance. This process allowed for healthy reproduction of resources and cultural balance of responsibilities.

29th Annual Bear River Pow-Wow

During observation of plant resources available for sale during the Bad River Pow-Wow, I assumed the current use of widely used plants by tribal members and close tribal relatives. Plants for sale were tobacco, red willow, marshmallow, red cedar, bear berry, juniper, kinnickinnick, lavender, osha, deertongue leaf, yenta serba, saw palmetto, bloodroot, bitter root, star anise, black cohosh, saffron, pokeroak, mullin, peppermint, red sumac, spearmint, pinion pine needles, valerian root, cherry bark, wild anise seed, myrrh, pinion pine copal, dark copal, ponderosa pitch, clear copal, grey sage, sweet grass, and deer fur.

Excel

I used the UNDERC plant list that was available online and duplicated the list in correspondence to Densmore work on plant usage of Ojibwe (2005) and the more current version of the Great Lakes Indians and their usage of non-medicinal plants (2002). I listed the scientific name, common name, Densmore's Ojibwe translation of the word along with how she recorded

the plant being used (Table 1), and the Great Lakes Indian Fish and Wildlife Commission's Ojibwe translation of the word and how the plant was used (Table 2).

Videos

Wild rice is a culturally significant staple of Ojibwe culture (Album: Wild Rice Harvest). And according to the medicine wheel that is comprised of four components, it creates four parts of a whole. The first direction represents sweet grass entailing gentleness. The second direction representing forests or trees teaches honesty. The third direction represents deer teaching the importance of sharing. And the last direction representing stone teaches the people to be strong (Ojibwe Bimaadiziwin 2002).

Another example of tobacco offering is during the production of maple syrup. During the early Spring, tribal members go out to sugar bushes to collect maple sap. The sugar is said to be a sacred item and is used for a seasoning and ceremonial use. The production of maple syrup in sugar bushes are governed by tribal elders that say that a single sugar bush can be tapped for three years and must rest for five years (Album: Honoring the Maple Syrup). Elders from the Lac du Flambeau tribe said that families would all come out to collect sap in which warm days and cold nights encouraged sap flow. The various stages of boiling the sap created different products: ishigamizigan (maple syrup), ziigai'iganan (maple sugar cakes), and then anishnaabe ziinzibaakwad (maple sugar). And sometimes bigiw (maple taffy) with snow (ed. Tornes 2004).

Selection of migration sites of camps vary on the resources available during the season. The diet of the Ojibwe was a varied one, as much of that they ate depended on the season of the year (Kohl 1985). Therefore, I can assume theoretically that the UNDERC property area would have been of some use. UNDERC property has streams, lakes, and bushes of maple trees and

birch trees. According to testimonies of the interviewees and related resources from videos, these things were attractive to migrating Anishinaabe and survival patterns.

Discussion

Contribution to the limited amount of information gathered from informants and tribal affiliates may be from several factors. One may be that I was not a member of the Tribe under study, which may have limited the amount or willingness to share tribal knowledge due to secrecy or historic negative relationship between my tribe, Navajo and of the Anishinaabe.

Another contributor may be that active informants were of limited knowledge concerning the use of wild plants due to negative historic assimilation experienced by the tribe which promoted an incomplete information concerning plant utilization. Also, plant utilization may have changed over the years due to the impact of European diseases introduced. Plants may have not been as affective for medicinal purposes anymore and therefore were of no use. Thus knowledge of wild plants may have been lost over time.

Wild rice currently does not exist on UNDERC property, which is an integral part of attraction for Anishinaabe. Lack may be due to the change in climate and habitat over the years along with federal treaties that limited the use of land to reservations (Danielson 2007). Further study of this analysis will be needed in order to explain the presence of wild rice cultivation and utilization of UNDERC property for wild rice harvest. This may be done in collaboration with the Tribal Historic Preservation Office.

But any further study, in respect to ethnobiology in collaboration with Anishinaabe tribal affiliates, will require a more close relationship and availability. This will greatly affect the possibilities of future researchers to gain a conceptual analysis of a the highest mean cultural

importance value (mCI) for each habitat area and for each plant categorized as medicinal or edible, in which some plants may be categorized as both.

Also, with further participation from tribal informants could attest the perceived abundance, threat levels, and conservation status through a numerical value index. Ethnobotanical data could then be entered into SYSTAT 12. The data filtered would be able to determine the source of collection, degree of scarcity, and proportion of plants collected for medicinal and consumption relationships.

References Cited:

1. Album: Honoring the Maple Sugar. DVD. PBS Eight Production.
2. Album: The Wild Rice Harvest Part 1. DVD. PBS Eight Production.
3. Album: The Wild Rice Harvest Part 2. DVD. PBS Eight Production.
4. Berkes, F. 1993. Traditional Ecological Knowledge and Cases. Ed. Inglis, J.T. International Program on Traditional Ecological Knowledge. Ottawa, Ontario.
5. Bimaadiziwin: A Healthy Way of Life. Prod. Lorraine Norrgard. Videocassette. PBS Eight Production, 2002.
6. Borchers et al. Inflammation of Native American medicine: the role of botanicals. *American Journal of Clinical Nutrition*. 72: 339-47.
7. Chosa, J. Personal Interview. 18 July 2008.
8. Cotton, CM. 1996. *Ethnobotany: Principles and applications*. John Wiley and Sons Ltd. Chichester, New York.
9. Danielson, K. 2007. Tribal Wild Plant Gathering on National Forest Lands Harvest Season 2005-2006. Great Lakes Indian Fish and Wildlife Commission. Odanah, WI.
10. Densmore, Frances and Child, Brenda J. 2005. *Strength of the Earth: The Classic Guide to Ojibwe Uses of Native Plants*. Minnesota Historical Society Press, St. Paul.
11. Hockings, E. D. N. Personal Interview. 23 July 2008.

12. International Society of Ethnobiology (ISE): The Code of Ethics of the International Society of Ethnobiology.
[http://ise.arts.ubc.ca/_common/docs.ISECodeofEthics2006_000.pdf]
13. Johnston, Basil. 1982. *Ojibway Ceremonies*. University of Nebraska Press, Lincoln.
14. Kohl, J. G. 1985. *Kitchi-gami: Life Among the Lake Superior Ojibway*. Minnesota Historical Society Press. St. Paul.
15. Moerman, D. E. and Estrabrook, G. F. 2003. Native Americans' choice of species for medicinal is dependent on plant family: confirmation with meta-significant analysis. *Journal of Ethnopharmacol.* 87(1): 51-9
16. "Non-Medicinal Uses of Plants by the Great Lakes Ojibwe." *Onjiakiing: From the Earth*. CD-ROM. Great Lakes Indian Fish and Wildlife Commission.
17. Tornes, Elizabeth M. (Ed.). 2004. *Memories of Lac du Flambeau Elders*. University of Wisconsin Press.
18. University of Notre Dame Environmental Research Center: vascular plants and non-vascular plants.
[<http://www.nd.edu/~underc/east/about/documents/UNDERCplantlist092806.xls>]
19. White Jr., S. W. and Danielson, K. C. 2002. *Threats for Wild Plants in the Ceded Territories*. Great Lakes Indian Fish and Wildlife Commission. Odanah, WI.

Acknowledgments

Firstly, I would like to thank the Bernard J. Hank Family Endowment for their continued support of ethnobiology with local American Indian tribes. I also would like to thank the encouragement and guidance from the UNDERC staff, Gary Belovksy, UNDERC director; Michael Cramer, UNDERC Assistant Director; Heidi Mahon, Research Technician. The teaching assistants, Michael McCann and Michael O'Brien, were also invaluable contributing further guidance. I am very pleased to have had the pleasure to sit down with Joseph Chosa, Lac du Flambeau tribal elder, and Ernest D. Nick Hockings, cultural consultant, for their participation in the interview process. I would like to also thank Karen Danielson, Forest Ecologist of the Great Lakes Indian Fish and Wildlife Commission; Giiweegiizhigookway

Martin, Cultural Historic Preservation Officer of the Lac Vieux Desert Band of Lake Superior Chippewa Indians; and the Historic Preservation Office of the Lac du Flambeau Band of Lake Superior Ojibwa Indians of Wisconsin for their contribution of gathered material used for this study. The Lac du Flambeau Library was gracious enough to allow me to use their facility for research, along with the Land O'Lakes Museum and Lac du Flambeau Museum. I would like to thank the assistance given to me by Mia Puopolo, Erica Scott, Nebeesh Shognosh, Bernadette Goudreau, Tamara Miyasiato, Frank Bartley, and Leah Lussier. And I would lastly like to thank my fellow UNDERC interns for their constant support and interest in American Indian perspective of the environment. Aye'hee.