

FORESTS AND FRESH WATER FOOD SYSTEMS

Northern Ontario's Foodshed

Forests and fresh water food systems – comprised of plants, animals, birds, fish and fungi – are vital sources of nutrition for the nearly 800,000 residents of northern Ontario. Typically, a northern Ontario diet can include caribou, moose, deer, geese, fish, blueberries, wild rice, tea, fiddleheads and mushrooms.

Unlike southern Ontario where agri-business, aquaculture and hydroponics play the most important role in food production, many people in northern Ontario also depend on local forests and fresh water for food. However, in recent decades, communities have become increasingly dependent on less nutritious, imported food. This is for several reasons:

- Resettlement has estranged some communities from the traditional ecological knowledge that enabled them to live off the land.
- Assimilative pressures, whether through economic development or cultural force (e.g. residential schools, American popular culture), introduced a money-based economy and a preference for western food practices, such as food produced from refined sugar and flour.
- Industrial development has negatively impacted fish and wildlife habitats and polluted water bodies, eliminating or contaminating once common dietary staples.

- People in northern communities are becoming more sedentary and spending less time outdoors.

Historically, natural resource policy and planning has failed to account for forest and fresh water food systems. Industrial needs have been prioritized over community needs and our environment. In addition, mineral exploration and mining, hydroelectric development, timber harvesting, and other types of development are ongoing without consideration of the community food security values of forests, rivers and lakes.

Northern Ontario's remote, rural and urban communities have long endured the ups and downs of resource-based economies. Booms are followed by busts that bring job losses, out-migration, deflated housing markets and social disruption. With a limited loyalty to their host communities, resource extraction companies often leave an environmental legacy of habitat fragmentation, ecological degradation and pollution that have far-reaching consequences for communities that rely on a healthy environment for food, income, recreation, cultural heritage and spiritual connection.

Human Health Benefits

Communities in northern Ontario have experienced the health consequences of the dietary shift towards Euro-American eating habits. More than 30 remote communities in northern Ontario are accessible only by air and sometimes water or via ice roads in the winter. Recent decades have seen a much higher reliance on foods made from refined flours and sugars – lacking nutritional value, but relatively inexpensive to ship and store. In addition, advanced medical facilities are located far from these communities, and travel is time-consuming and expensive. The proximity and low-cost of forest and fresh water food systems is a valuable asset for under-served communities.

Health challenges such as heart disease, obesity and diabetes place a huge financial burden on the Canadian healthcare system. According to the Canadian Diabetes Association, diabetes treatments will cost taxpayers \$16.9 billion per year by 2020. In 2004, the World Health Organization rated Sandy Lake First Nation as having the third highest prevalence of type 2 diabetes in the world. A healthy diet is an important preventative measure.

The physical exertion associated with harvesting foods such as blueberry picking and moose hunting can contribute to a healthy and active lifestyle. A harvesting lifestyle also contributes to psychological and emotional well-being. Harvesting forest and fresh water foods can bolster personal and community well-being by helping maintain personal fitness and cultural traditions, fostering a greater connection to the land, and supporting intergenerational relationships. Food harvesting requires specific knowledge of the ecology and geography of the land, knowledge that is deeply rooted for many residents of northern Ontario. By supporting the sharing of this knowledge, protecting and promoting forest and fresh water food systems help maintain cultural heritage and diversity.



Economic Benefits

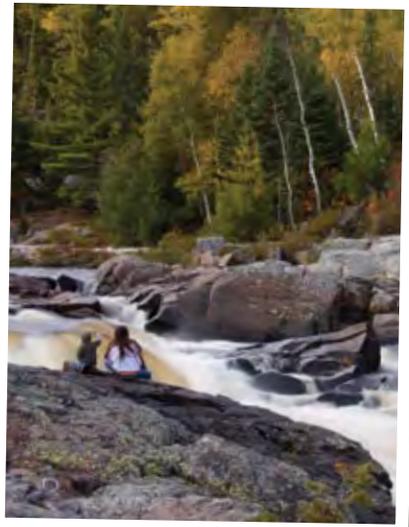
An ecological economics approach recognizes that human society, industry and infrastructure *depend* on ecosystem functions for our food, water, air, soil, and energy. This approach can formally acknowledge the cost of environmental destruction by putting a dollar value on the services provided by ecosystems. The value of the world's various ecosystem functions have been estimated at approximately US\$33 trillion per year (roughly twice the value of the world economy).

Local Food

Supporting the use of local and fresh water foods helps reduce the cost of transporting foods to remote northern communities. A study of the Omushkego Cree of Hudson and James Bay lowlands (Moose Factory, Moosonee, New Post, Fort Albany, Kashechewan, Attawapiskat, Peawanuck and Fort Severn) demonstrated that wild meats contributed an equivalent monetary value of \$7.8 million. In addition, a 1991 study of the Ojibwe community of Webequie demonstrated that fishing generated approximately half a pound of fish per person per day, a significant contribution of protein to people's diets. A 3 pound bag of apples can cost upwards of \$10 in remote communities, compared to blueberries, which are harvested locally, and have the highest anti-oxidant levels of all fresh fruits.

Commercial Fisheries

In 2010, Fisheries and Oceans Canada recorded that over 11,298 tonnes of fish were landed in Ontario commercial fisheries, valued at more than \$31 million. Fisheries in Thunder Bay and Black Bay account for 90 percent of the lake herring that's commercially harvested in the Canadian waters of Lake Superior. Lake trout, walleye and yellow perch also contribute to the commercial fishery, and there are at least two small-scale commercial fisheries outside of the Great Lakes – one on Lake of the Woods and the other on Lake Nipissing.



Foods of the Forest

Blueberries: There is a thriving summer market for blueberries across northern Ontario. Pricing normally ranges from \$7.50 – \$10 per litre.

Mushrooms: The wild mushroom market in northern Ontario is modest – generally restricted to fine dining restaurants and some specialty grocers – but there is room for growth. Popular varieties are morels, chanterelles and oyster mushrooms. Pine mushrooms can sell for as much as \$25 per pound.

Fiddleheads: Lasting for only 3 to 4 weeks in the spring, the fiddlehead season is short, but it supports a small fiddlehead market in restaurants and grocers.

Tea: Wild rose hips, high bush cranberries, Labrador tea, wild mint, stinging nettle, raspberries and various tree barks are just some of the forest foods that can be used to make tea. At least two northern Ontario tea producers incorporate local forest products into their teas.

Wild Rice: Much of Ontario's original wild rice habitat was destroyed by hydro dams and pollution; however, a small market remains and is growing. In 2006, Canada produced over 1 million kilograms of wild rice, 12 percent of which was from Ontario. Manomin Canadian Wild Rice, a commercial wild rice producer based out of Dryden, was pricing wild rice at \$8 per pound in July 2012.

Ecological Benefits

Protecting and promoting forest and fresh water food systems can help overall ecosystem health by reducing greenhouse gas emissions and food industry pollution. In fact, the health of forest and fresh water food systems is a good indicator of the ecological integrity of ecosystems as a whole.

Conventional industrial agriculture can damage water, soil and air as a result of pollution caused by the high volume of animal waste, pesticides and petroleum-based fertilizers. These contaminants move through food webs, bio-accumulate (increase as they move up the food chain) and overwhelm aquatic habitats with excessive nutrients. Consumption of forest and fresh water foods reduces the reliance on foods grown with intensive inputs.

The global food system features many food sources with extremely high (and unnecessary) food-miles that result in additional greenhouse gas emissions. Eating local foods reduces the number of miles food has to travel. Moreover, promoting our engagement in forest and fresh water food systems improves our capacity to observe, understand and manage the environmental consequences of our activities.

Ontario Nature, Environment North and the True North Community Co-op are undertaking a Forest Food project. We would like to share information about the importance of forest and fresh water foods with northern communities. If you are interested in participating or learning more about the project, please contact Julee Boan, Boreal Program Manager, 807-286-1789, juleeb@ontarionature.org.



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