



The Grand Portage Guide

Facing Forward
Superintendent Tim Cochrane

Welcome to Grand Portage. We are pleased you are here and with us. People have been coming through Grand Portage and walking up or down the Portage trail for thousands of years. *Gichi Onigaming*, the Great Carrying Place, or Grand Portage, is ancient. While almost nine miles long and requiring much toil, the Portage was better than the alternative – even longer distances and more effort, dangerous water, impassable falls. While we don’t think about an eight and one half trudge as a technological innovation – it was. Clearing the walkway of downed trees, finding the highest and driest ground around for when the rains came, and a path which minimized climbs and steep descents, was a masterful “technological” innovation. If you were carrying 90 or 180 pounds on your back you would appreciate finding a “gap in the hills” as the trail leaves the lake shore environs and then in the second half follows an ancient rocky spine that is very level and thus minimizes you steps up or down.

Even in the “olden days” technology was marching forward. Recent underwater archeological work in the Pigeon River has suggested that during the height of the fur trade voyageurs were experimenting with their paddles. Imagine paddling twelve or fourteen hours a day. Certainly you would be thinking, “How can I make this paddle lighter and the paddling effort less exhausting?” You were responsible for your own paddle, – if you broke it, you had to make a new one and quickly. You likely made it at night or if you were wind bound – stuck on land because the winds were so high that paddling a canoe was dangerous – you might carve another paddle out of cedar. Enough canoe paddles were recovered from the Pigeon River that we can compare them. And it appears that the canoe blade – the width of the paddle that moves through the water – was growing slightly narrower through time. Most blades were 4 to 5 inches wide at their widest. A wider blade has more resistance in the water. Voyageurs paddled very quickly. It would be very difficult to keep up with the rest of your canoe men with a wider blade paddle. Instead, it turns out, there is a mechanical advantage to a paddle with a narrower blade and comparatively longer shaft. There is less drag in the water. Another reason for a relatively narrow blade was that fur trade paddles were made out of one piece of wood, almost always cedar. A wider blade is not as strong as those a little bit narrower.

Technology was changing among all people involved in the fur trade. Grand Portage Ojibwe and their nearby kinsmen appear to have been masters at making cedar bark mats. There is one example of a cedar bark mat in the Heritage Center exhibits – look for it. These mats were used as flooring, or as “Ojibwe linoleum.” Some time they were woven with very elaborate designs. Interwoven with roughly an inch wide strip of cedar bark – the inner cedar bark – they were dyed with plant extracts to give them different colors – red, blue, yellow. While beautiful pieces of art, they were walked upon as

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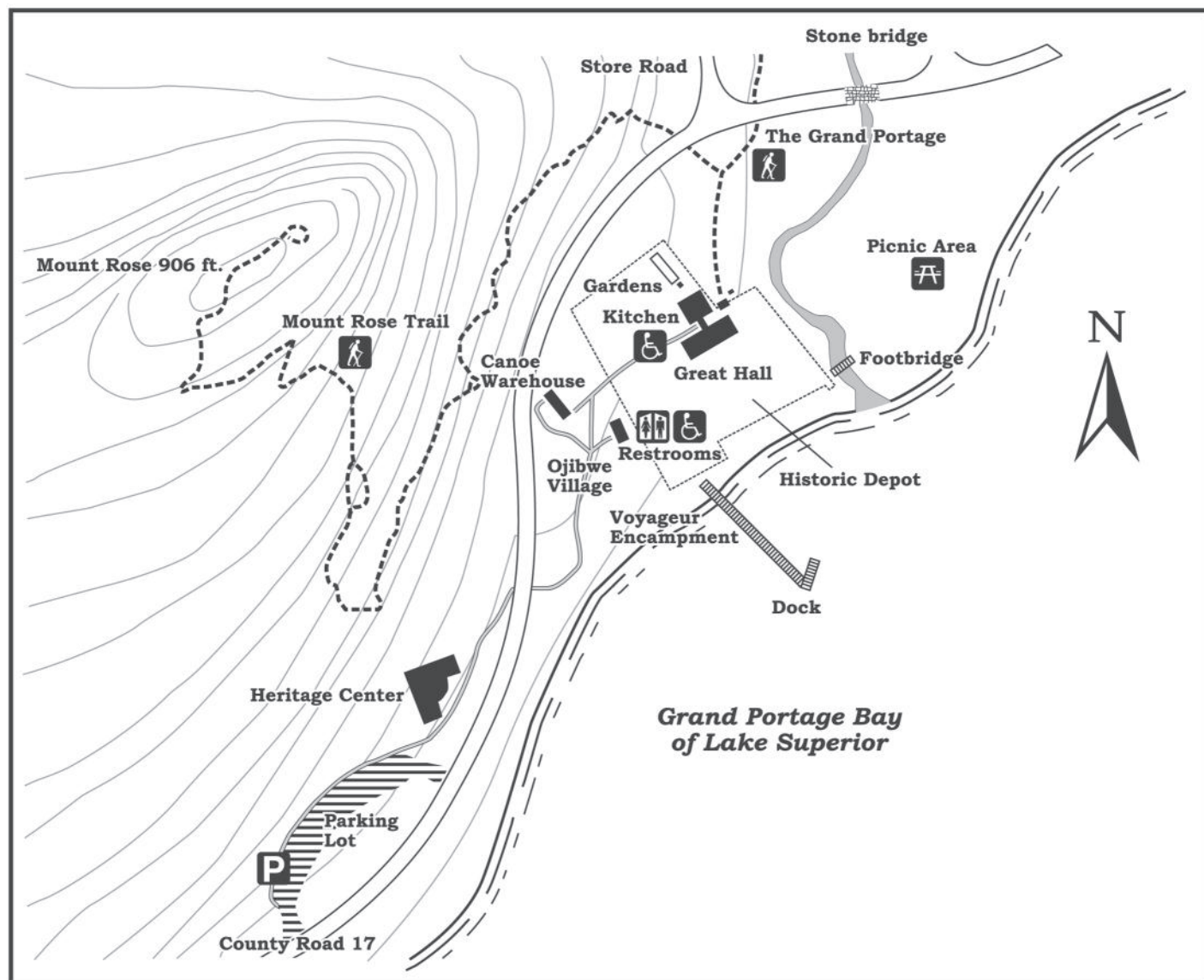
Boozhoo Bonjour Welcome

Welcome to Grand Portage. We are pleased you are here and exploring "Portage" with us. There is much to see and do. Please join our interpreters and participate in the past. Please ask us about the fur trade and its ingenious technology, or its novel customs. Or come and learn about the intrinsic links between the fur traders and the nearby residents, the Grand Portage Ojibwe.

The Staff of Grand Portage National Monument

A GUIDE TO HELP YOU FIND YOUR WAY AT GRAND PORTAGE NATIONAL MONUMENT

More than 200 years ago, the North West Company concentrated its business activities in and around the stockade. Four of the most important structures have been reconstructed on their original foundations: The Great Hall, kitchen, warehouse, and gatehouse. National Park Service employees and Volunteers-In-Parks (VIPs) staff these buildings. You will find rangers and VIPs wearing dress appropriate to the period, or in the NPS uniform.



ACTIVITIES & RANGER-CONDUCTED PROGRAMS

LIVING HISTORY DEMONSTRATIONS

Come to the Voyageur Encampment and Ojibwe Village, where you will see demonstrations of Ojibwe and voyageur life in the late 1700s. While there, see our American Indian Three Sisters garden, and view a North West Company trade gun.

Visit the Great Hall, historically furnished circa 1790s. Also in the Great Hall, there is a Try-It-On historic clothing exhibit where *you* can fit into history!

Follow your nose to the kitchen, where you can see period cooking and baking demonstrations from mid-June through early September. Don't miss our historic heirloom garden and outdoor bake oven located just behind the kitchen.



Flint & Steel Fire Starting Contest!

RANGER-CONDUCTED INTERPRETIVE PROGRAMS

History comes alive when you take part in an interpretive program here at Grand Portage. Park rangers will transport you back in time, where you can become part of the story that unfolds before you!

These programs range in length from 20 minutes to 60 minutes. Be sure and check the "Program" sign in the Heritage Center or ask information desk staff for program topics, locations, and starting times. *Please note: Our program schedule is subject to change without notice due to staffing or weather conditions.*

VIDEO PRESENTATIONS

Video programs are offered regularly in the Heritage Center classroom. There are several to choose from. *Please see "Notes" below - Schedule subject to change.*

"Rendezvous With History: A Grand Portage Story" – Running time is 23 minutes. - *Note: Shown on the hour.*

Short Subjects: "Our Home: The Grand Portage Ojibwe," "The Men of the North West Company," "The Gift of the Birch Bark Canoe," "A Gap in the Hills: Geography of Grand Portage" - Running time 24 minutes—*Note: Shown on the half hour.*

SELF-GUIDED ACTIVITIES

HIKING TRAILS

The Grand Portage: The 8½-mile *Grand Portage* is open for hiking. Two campsites are available for camping at Fort Charlotte. A free permit is required, and can be obtained at the Heritage Center or online at <http://www.nps.gov/grpo/planyourvisit/permits.htm>. For more information about camping at Fort Charlotte please see page 12.

Mt. Rose Trail: The Mt. Rose trail, located across from the historic depot, is a paved ½-mile-long nature trail which climbs 300 feet for a spectacular vista of the depot and Lake Superior. Approximate hiking time is 1 hour. A self-guiding trail brochure is available at the trail head.

BROCHURES AVAILABLE

We offer several brochures for your use and enjoyment:

- NPS Grand Portage Official Map and Guide
- Ojibwe Lifeways
- Historic Garden
- Bird Checklist
- Mt. Rose Trail

JUNIOR RANGER PROGRAM

Become a Grand Portage Junior Ranger! This program, for kids ages 7 to 13, is free. Activity guides can be picked up at the Heritage Center and Great Hall. You should allow at least 1½ hours to complete this activity. When finished, kids are awarded a Junior Ranger badge and a voyageur's contract. This is a family activity and we encourage parents to get involved and enjoy the program with their kids! Children under the age of 7, or those with special needs, will require the assistance of an adult.

BOOKS WORTH BROWSING

To help alleviate the isolation of winter posts, the North West Company provided reading materials. Daniel Harmon, a North West Company clerk wrote,

"Most of our leisure moments (and which is nearly nine tenths of our time) will be spent reading, and conversing on what we have read."



The following titles may be found in *your* local library:

- "The Ojibwe Journals of Edmund F. Ely, 1893-1840" edited by Theresa M. Schenck, 2012. University of Nebraska Press, Lincoln, NE, 487 pg.
- "Children of the Seventh Fire: An Ancient Prophecy for Modern Times" by Lisa A. Hart, 2011. The McDonald & Woodward Publishing Company, Granville, OH, 40 pg.
- "Everything You Wanted to Know About Indians But Were Afraid to Ask" by Anton Treuer, 2012. Minnesota Historical Society Press, St. Paul, MN, 184 pg.
- "Spirit of the Ojibwe: Images of Lac Courte Oreilles Elders" by James Bailey, Thelma Nayquonabe & Sara Balbin, 2012. Holy Cow Press, Duluth, MN, 261 pg.
- "Ancient Earth and the First Ancestors: A Cultural and Geological Journey" by Ron Morton & Carl Gawboy, 2011. Rockflower Press, Duluth, MN, 213 pg.
- "The Minnesota Book of Skills" by Chris Niskanen, 2012. Minnesota Historical Society Press, St. Paul, MN, 206 pg.
- "Dutch Oven" by Carsten Bothe, 2012. Schiffer Publishing Company, Atglen, PA, 174 pg.
- "The Four Hills of Life" by Thomas Peacock & Marlene Wisuri, 2006. Minnesota Historical Society Press, St. Paul, MN, 119 pg.
- "Ogimaag: Anshinaabeg Leadership, 1760-1845" by Cary Miller, 2010. University of Nebraska Press, Lincoln, NE, 328 pg.
- "Twelve Owls" by Laura Erickson, 2011. University of Minnesota Press, Minneapolis, MN, 64 pg.

These books are also available at the Eastern National bookstore in the Grand Portage National Monument Heritage Center.

The Grand Rendezvous

Ranger Karl Koster

The hustle and bustle of summer activity peaked with the North West Company Rendezvous held here at Grand Portage. This was the time when furs from wintering posts, which reached into Canada, were delivered down the historic *Grand Portage*. The annual Rendezvous is still celebrated here during the second full weekend of August. The event is held in conjunction with the Rendezvous Days and Powwow, sponsored by the Grand Portage Band of

Lake Superior Chippewa. The annual gathering is our biggest and grandest celebration of the year, a time when Grand Portage comes alive and reflects on its rich heritage. Re-enactors from across the country and Canada gather to camp and challenge each other. This is one event you do not want to miss! Music, dancing, craft demonstrations, and hands-on workshops ensure an exciting weekend at the national monument.



Now Showing! “Rendezvous With History: A Grand Portage Story”

Chief of Interpretation Pam Neil

Visitors to Grand Portage have the opportunity for an exciting interpretive experience! Grand Portage National Monument, in partnership with the Grand Portage Band of Lake Superior Chippewa, is very proud to offer a new park orientation film at the monument’s Heritage Center.

The film, entitled “Rendezvous with History: A Grand Portage Story,” is produced by Great Divide Pictures of Denver, Colorado. Shown in high definition format on a BIG screen, the new film features absolutely stunning footage of the scenic beauty within the Grand Portage Indian Reservation. The film also features an original music soundtrack, composed by Peter Kater and

is presented in 5.1 Surround Sound. Audiences might recognize the voice of the film’s narrator, well-known Ojibwe actor Adam Beach. Adam has starred in feature films like “Wind Talkers” in 2002; “Flags of Our Fathers” in 2006; and most recently, he co-starred with Harrison Ford in “Cowboys and Aliens” in 2011.

Many Grand Portage community members also have prominent roles in the film.

The film’s narrator gives voice to a contemporary Ojibwe man recalling his family’s and his peoples’ enduring culture, and brings to life a

(Continued on page 8)

Beaver: Landscape Engineers

Chief of Resources Management Bill Clayton



Beaver lodge at the Meadows along the Grand Portage Trail

Greetings and welcome to Grand Portage National Monument. We're a National Park Service unit created by Congress in 1958 to preserve the historical values "contained" in the archaeological sites, natural landscape and historic portage that make up the park. These values all pertain to the rich history of the North American fur trade. While you're here you will be learning about that rich history including the First Nations groups that participated in the fur trade like the Ojibwe community that's been here at Grand Portage for centuries.

You'll also be hearing quite a bit about European and Canadian (and American) commercial organizations that participated in the trade including the infamous North West Company that maintained shipment facilities and trading post operations here. What you won't be hearing too much about is the other side of the fur trade, the commodity or "supply" side of the trade, those critters whose very "skins" drove the economics of the trade, not to mention influenced the local ecosystems they were a part of.

Ask yourself, how would all that trapping and hunting affect animal populations and habitat?

Or would it?

I know... a bit of a job for a small newsletter article, but I think it's possible to take a quick second out of your time here and think about how profound an effect the trade had on fur-bearing ani-

mals and their habitats by taking a quick look at the annual trapping statistics of one particular species and the profound effect that species had on its habitat. I'm talking here, of course, about the mainstay "commodity" of the fur trade, that sociable rodent whose birthday suit was so much sought after, the North American beaver... or *Castor canadensis*.

Beaver are territorial, semi-aquatic mammals that live in family groups. These groups or "colonies" are headed by two adult parents and average to about 4-5 individuals per year but with the accumulation of little ones that number can range from 9 to 12 animals. Adults may or may not be monogamous. Females usually give birth in May or June to 2 or 3 "kits" at a time which depending on local habitat quality and conditions live in the lodge until their second or third year. Two-year olds, and on occasion yearlings, will leave a colony and strike out on their own to find mates and habitat suitable for starting a new colony – a tendency that can have a positive effect on population re-bounce in watersheds that have experienced heavy harvesting.

As far as food goes, beavers appear to be fairly opportunistic in their selection of fare. With the exception of evergreen or coniferous species, beavers will dine on several deciduous or broadleaf woody species that grow in northern wetland or shoreline environs. They'll also tend toward certain varieties

of aquatic vegetation if that's all there is to eat. It's all dependent on what's available, what's palatable and what they haven't gone after yet in their respective territories. With the beaver it seems the potential for eating oneself out of one's house and home is an ever-present possibility.

Beavers can live in a variety of riverine, wetland and lake shore habitats ranging from small flowages to the shores of lakes with stable water levels. In areas of low population density beavers seem to trend toward colonizing "low-order" or smaller streams. In these situations beavers can become major players in affecting landscape change through the habitual construction of dams. Dams can get huge, one particular example in Montana recorded in 1942 as being 700 meters in length. For those metrically challenged individuals, that's a whopping 765 yards plus in length. That's over seven NFL football fields lying end to end. Lotta wood and mud, not to mention painstaking hours worked for generations of beavers to get that wall up. One can only imagine the volume of water behind it.

It's the dams and the ponds that can heavily alter a local watershed. And there are many studies by wildlife biologists, ecologists, hydrologists and other natural resource scientists that have been produced over the years, on just how much and in what ways these large versions of the order Rodentia do affect the local ecosystems in which they live. In one particular example I've been reading, when a clan of beavers sets up shop on a small stream and builds a dam, they change the local hydrology and soil chemistry to the point that they can drastically alter the upstream and downstream vegetation "mosaic" or patchwork for many acres. Hopefully that change brings about more to eat. Damming and over harvesting of edible species in a beaver pond can also bring about the opposite and totally deplete the food source, which leaves the individuals in the beaver colony with little choice but to move to a more hospitable area... and try

again.

Rebound. Try again. This seems to be the mantra with beavers. Especially when considering the effects of the fur trade on beaver populations at a regional level over time. Here's some of those annual trapping statistics I mentioned earlier to get your imagination going. During a period of North West Company operations between 1785 to 1795 (minus three years that were not reported), according to one Ontario Ministry of Natural Resources fur harvest study, I counted over 1,145,000 pelts taken from the interior of Canada. That's over a million beaver removed from local habitats and adjacent watersheds in a 10-year period and that's nothing compared to harvest rates for Canada in the 20th century.



In one example, during the 1968-69 season over 437,000 beaver were taken out of Canadian lakes and watersheds.

The sudden loss of all that engineering activity must have at least some noticeable effect on local habitats caused by beaver ponding. Unfortunately I don't have numbers and studies or space in

this newsletter, to entertain that line of thinking except for an anecdotal lament from a biologist who told me recently of a failed trapping program for "controlling" a local beaver population, "I dunno they just keep on coming back." Or maybe we can see hints of those effects in an 1824 policy statement of the Hudson's Bay Company to discourage local tribal groups "...from the hunting of Beaver in Summer by convincing them of the injurious effects thereof to themselves and the country at large." It would be interesting to find out what exactly those "injurious effects" were, wouldn't it? Maybe we're seeing a hint of early conservation ethic or maybe it's just in the spirit of keeping the supply side strong for a hopefully high profit margin that year. Either way – the beavers eventually did come back – and that's a good story to hear in these days of heavy environmental change.

Thanks for your time and enjoy your park.

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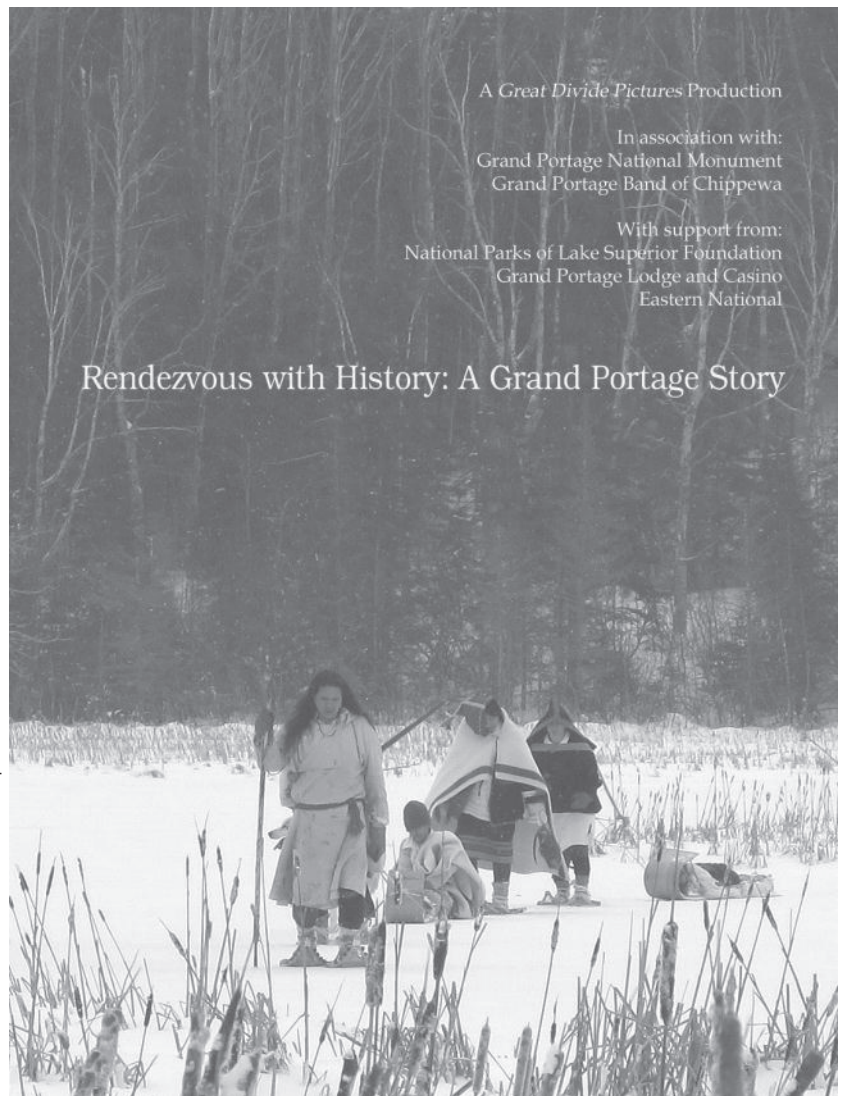
Graphic Design by Beth Drost

story of a time when the Grand Portage Ojibwe were one of the most powerful tribes on the Great Lakes and vital trading partners with the storied North West Company. Ojibwe actress Gloria Ranger portrays our storyteller's great grandmother *Adaawaweikwe*. During the fur trade era, hers was a position of power and influence. She used her skills as a guide and translator to advocate for her people. She and other Ojibwe women were influential in creating successful trading agreements between the Ojibwe and the North West Company.

"Rendezvous with History: A Grand Portage Story" is also available in *Ojibwemowin*, the traditional language of the Grand Portage people. "Gaa-Izhinagishkodaading Gichi-Onigamiing Dibaajimowin" narrated by *Maaji-igwaneyaash* (Mr. Gordan Jourdain), is likely the first film produced by the National Park Service narrated, in its entirety, in an aboriginal language.

Please, enjoy the new film! There are bonus features as well for those interested in additional information about our unique place! We offer an additional series of "mini-features" to provide more insight to the stories of Grand Portage. Each film "short" is approximately six minutes in length and provides a more in-depth perspective on story elements of the main

film. The film shorts available include: "Our Home: The Grand Portage Ojibwe," "The Gift of the Birch Bark Canoe," "A Gap in the Hills: Geography of Grand Portage," and "The Men of the North West Company."



A Great Divide Pictures Production

In association with:
Grand Portage National Monument
Grand Portage Band of Chippewa

With support from:
National Parks of Lake Superior Foundation
Grand Portage Lodge and Casino
Eastern National

Rendezvous with History: A Grand Portage Story

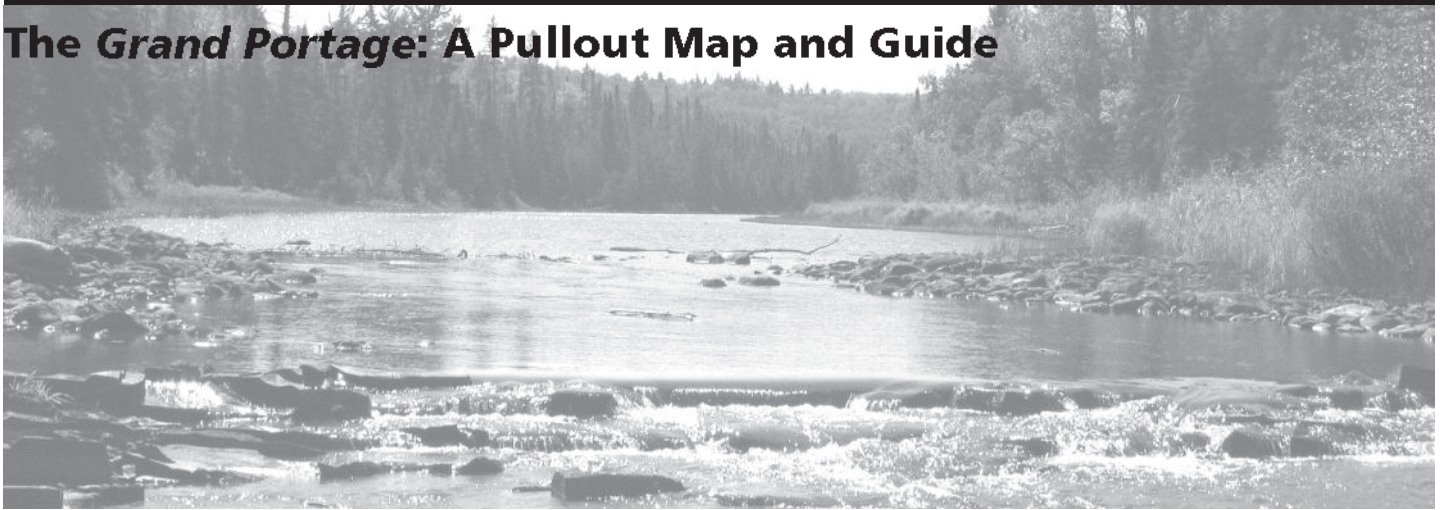
Graphic Design by Beth Drost

Grand Portage

National Park Service
U.S. Department of the Interior



The Grand Portage: A Pullout Map and Guide



History

Indian people have traveled this footpath between the Pigeon River and Lake Superior for centuries. The Ojibwe called the *Portage* “*Gichi Onigaming*,” The Great Carrying Place. *Gichi Onigaming* or the *Grand Portage*, to those from Montréal in the colony of New France, enabled Ojibwe and other Indian peoples to conduct trade with neighboring tribes and to access local hunting and gathering areas. Ojibwe people frequently traveled the *Portage* carrying birch bark canoes and baskets, fish from Lake Superior, garden seed, wild rice, copper ingots from Isle Royale and flint from Gunflint Lake.

In the late 17th century, as French trade with woodland peoples expanded, explorers such as Daniel Greysolon, *Sieur Du Lhut*, may have learned about the *Grand Portage* through contacts with Ojibwe, Cree or Assiniboine families. Explorers possibly traveled across the portage with Indian guides but no written account of such use has been uncovered.

The first documented travel along the *Grand Portage* was made in 1731. Explorer and trader Pierre Gaultier, *Sieur de la Vérendrye*, sent a son and nephew across the *portage* with instructions to establish a post on Rainy Lake. *La Vérendrye*'s account indicated that the *Portage* was well known by native people. He described it as being from three to three and a quarter *lieues* (7.5-8.1 miles). He also noted, “*all our*

people, in dismay at the length of the portage... mutinied and loudly demanded that I should turn back.”

After *La Vérendrye*, other explorers and traders traveled the Grand Portage to access the *pays d'en haut*, the vast unknown “up country” of the northwest. By 1763, after conclusion of the French and Indian War, the British had wrested control of the fur trade from the French, and trade with Ojibwe and other woodland and plains Indians continued to expand. The North West Company, in 1784, began building its summer headquarters at the eastern terminus of the *Portage*. For the next 25 years, voyageurs, clerks, guides, interpreters, wintering partners and agents of the NWC, the fractious XY Company and smaller firms routinely used the *Grand Portage*.



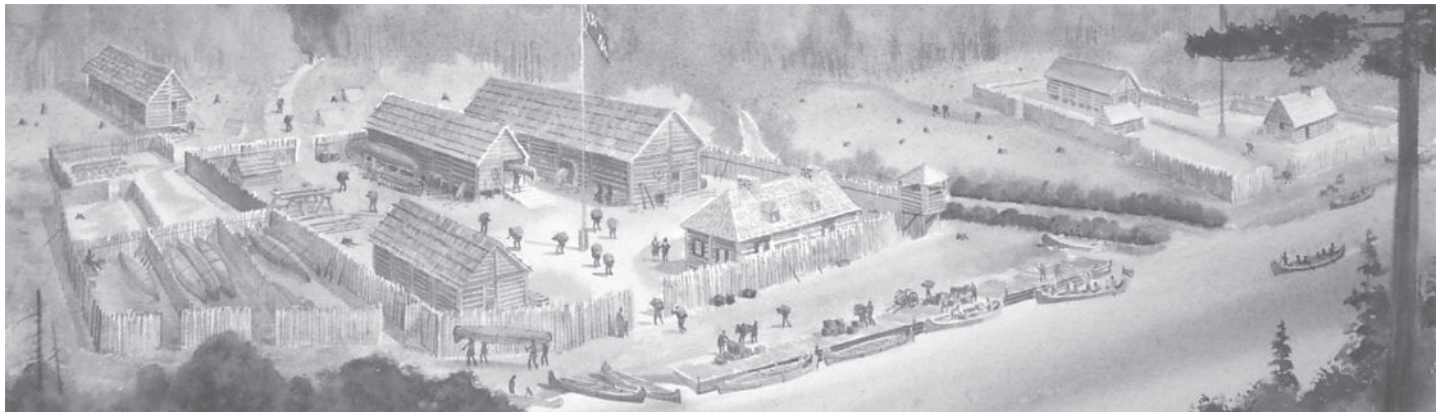
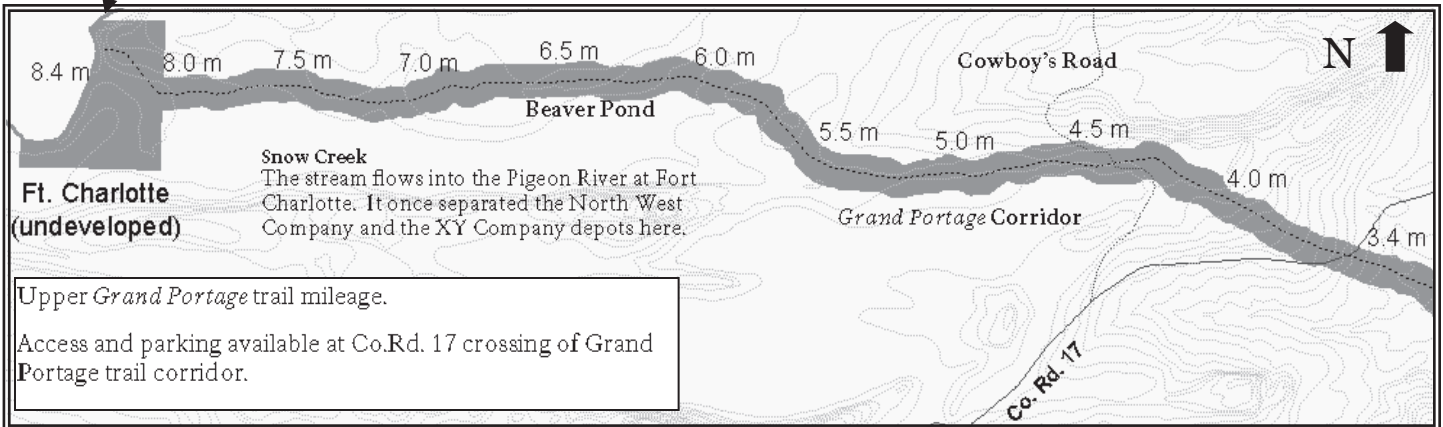
The Grand Portage goes through a gap in the hills

Pigeon River

The Pigeon River is the western terminus of the *Grand Portage* and forms part of the international border between the United States and Canada. From Fort Charlotte the river flows 22 miles east over hazardous rapids, cascades and waterfalls finally emptying into Lake Superior. To avoid these obstacles, Indian people portaged their canoes across the *Grand Portage* between the river and Lake Superior long before Europeans arrived.

Fort Charlotte

The North West Company and later the XY Company built stockade depots here. They enclosed warehouses and support buildings to temporarily store and secure trade items and furs being transported across the *Grand Portage*. Fort Charlotte was named after the wife of King George III.



During the 1790s, Fort Charlotte was such a busy depot that winterer Mr. Donald Ross was called "the governor," due to his long tenure there.
Fort Charlotte watercolor by Howard Sivertson (View original in Heritage Center at top of stairs)

Distances

Distances along the *Grand Portage* are indicated in miles by travel in both directions on the *Grand Portage* is shown below.

From Fort Charlotte to Lake Superior		From Lake Superior to Fort Charlotte
0	Fort Charlotte	8.5
2.5	Beaver Pond	6.5
4.4	Co. Rd 17	3.4
7.8	MN Hwy 61	.6
8.5	Lake Superior	0



Parking

Portage users may park vehicles at the Heritage Center parking lot or at the County Road 17 crossing. If your plans include camping at Fort Charlotte, please obtain your free permit at the information desk in the Heritage Center. Please inform a park ranger if you intend to leave vehicle(s) overnight in the parking lot.

What is a Portage?

A portage is an overland trail or pathway which permits the transport of materials such as canoes, supplies and cargo from one body of water to another.



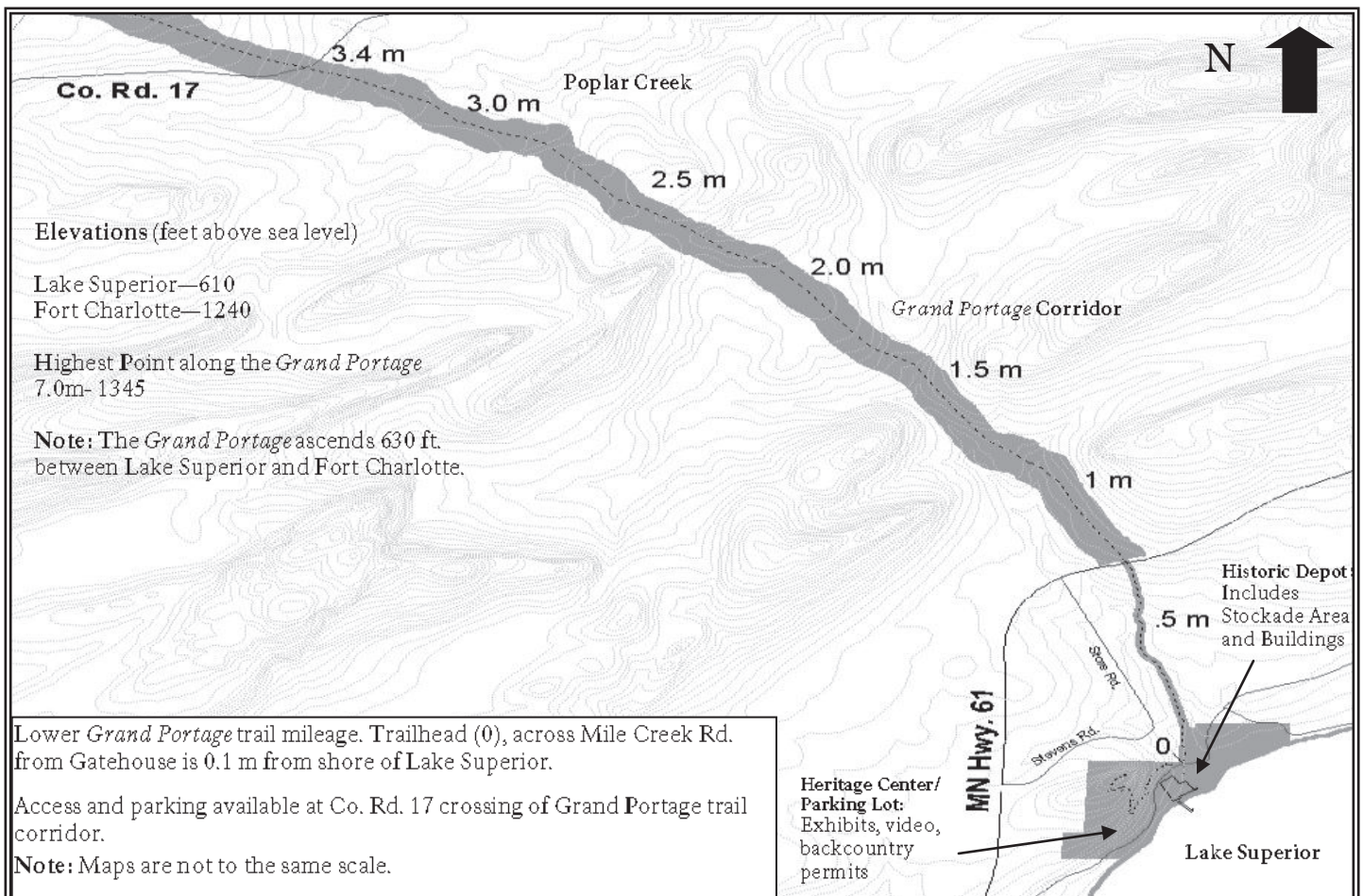
Majestic old growth eastern white pine along the Grand Portage.

Poses

During fur trade times the *Grand Portage* was divided between 16 to 18 *poses* or resting places. Such rest stops were usually located near a difficult section of a portage such as a hill or marshy area and frequently near sources of fresh water. Here voyageurs unloaded their heavy packs, waited for their strength to return and enjoyed a drink or brief smoke of their pipe before continuing.

Poses also served as temporary collection points for packs of valuable merchandise. All packs and materials being carried across a portage were assembled together before moving to the next *pose*. By moving the packs in this organized way, any loss was minimized.

The length of a portage was frequently defined by the number of *poses* it contained. They were generally one-third to one-half mile apart depending on the difficulty of the terrain. The location of a *pose* probably changed over time as the conditions in that particular area changed.



Camping/Hiking and Skiing

The *Grand Portage* is open year round for hiking, cross country skiing and snowshoeing. You may access the *Portage* from the Heritage Center parking lot overlooking Lake Superior, MN Hwy 61, Co. Road 17 or from Fort Charlotte on the Pigeon River.

The *Grand Portage* climbs 630 feet between lake Superior and the Pigeon River. Round-trip hiking time from the depot is approximately 10 to 12 hours.

Co. Road 17 crosses the *Grand Portage* at its approximate mid-point and is about 11.5 miles from the Heritage Center parking lot. Take MN Hwy 61 south from Casino Road, travel about a quarter mile to the junction of Co. Road 17. Turn right on Co. Road 17 and follow it until it meets Old US Hwy 61. Co. Road 17 continues to the right, passes Mt. Maud road on the right, and Partridge Falls road on the left eventually crossing the well marked Grand Portage mid-point trailhead.

Safety

The *Grand Portage* is often wet and muddy during late spring, summer and early fall. Terrain is uneven and there are exposed rock surfaces and tree roots. Boardwalks have been constructed over some of the wettest places, but large areas of standing water frequently remain throughout the year. Sturdy, waterproof footwear is recommended.

- Carry plenty of drinking water.
- Mosquitoes and black flies are abundant from late spring until mid-summer. Take repellent with you.
- Please stay on the *Portage*. Old logging roads and animal trails crisscross the *Grand Portage* and may lead you astray.
- Do not disturb wildlife or archeological remains.

Camping at Fort Charlotte

- Two campsites at Fort Charlotte will accommodate up to 10 people.
- Reservations for a free camping permit can be made ahead of time by calling for assistance during business hours or online.
- More information is available online at: <http://www.nps.gov/grpo/planyourvisit/permits.htm>.
- Please inform a park ranger if you plan to leave your car in the parking lot overnight or longer.

Leave No Trace Camping

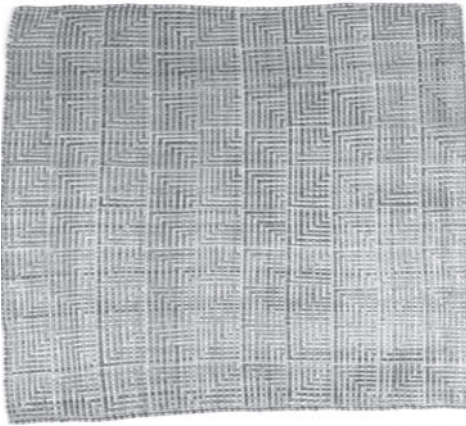
- Carrying a backpacking stove is recommended.
- Campfires are permitted only in fire grates.
- A pit toilet is located nearby.
- There is no safe drinking water at Fort Charlotte, so water must be filtered, chemically treated or boiled before drinking.
- Please pack out what you pack in. Do not bury trash or place it in the pit toilet.
- Use only dead and downed wood for campfires.
- Do not cut down trees near the campsites or peel bark from them.



Prohibited on the Grand Portage:

- Motorized Vehicles
- Motorcycles
- ATVs (All-terrain vehicles)
- Snowmobiles
- Bicycles
- Horses

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Ojibwe Cedar Bark Mat

flooring in wigwams. They were also very flexible and could be rolled up and transported from one camp to the next. They were very durable and light weight thus easy to move. When Ojibwe became more sedentary, particularly after reservations were

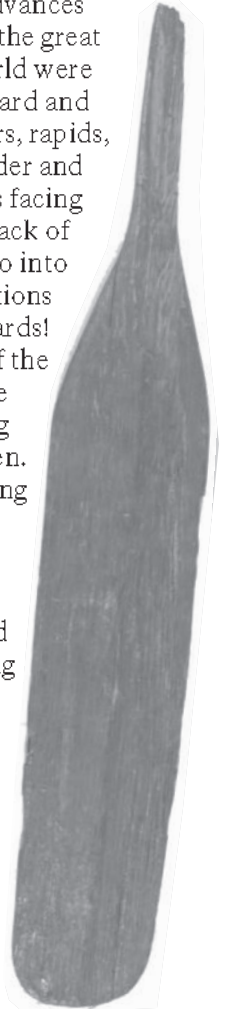
established, there was less of a need for woven cedar mats. As log cabins were built with floors and metal stoves (too heavy to move) became commonplace there was less of a need for cedar mats and they were given up. Some were sold to non-Indians, frayed ones were cast aside. Fortunately, Grand Portage National Monument has a collection of these now obsolete, but elegant, Ojibwe linoleum.

The fur trade was about technological change and communicating how to use those advances. American Indians gave us canoe technology. Euro-Americans brought guns to the continent. American Indians gave us maize or corn. Woolens were brought from England to clothe Ojibwe so they could devote more time to trapping and trapping more animals but spending less time making their own clothing. Cross cultural communication of technological advances typifies the fur trade world. This also is an apt description of the world

we live in today where technological advances come from all continents. A good idea is recognized by another.

Most of us tend to think of technology today as about computers, new phones, software “apps,” and involving micro-processors. But technological advances also come in more basic forms. One of the great technological advances in the New World were canoes in which the paddler faced forward and could more actively navigate lakes, rivers, rapids, and locate campsites. Imagine a fur trader and early explorers rowing, with their backs facing forward and their line of vision to the back of the boat. This is not a prudent way to go into country you did not know – into conditions you were unfamiliar with facing backwards! Alexander Mackenzie, then a partner of the North West Company, did not cross the continent facing backwards, but peering forward into a country he had never seen. Of course, while he was looking, scanning the horizon and perhaps taking notes, everyone else was paddling the canoe!

The fur trade seems distant to us today, but there are many lessons to be learned from understanding it, including looking forward when you are traveling. Take this challenge as you visit us today: What can you learn from Grand Portage National Monument staff or exhibits or our new movie that helps you understand some element of the world we live in today?



Cedar paddle from Pigeon River

Ojibwemodaa: Let's Speak Ojibwe

Ranger Jeremy Kingsbury

These phrases can be seen around Grand Portage, or can be used during your visit here.

Boozhoo: (Boo – Zhoo): Hello (slightly formal)

Aaniin: (Ah-Neen): Hi

Mii Gwech: (Me –Gway-ch): Thank you

Büündigen: (Been-dig- ain): Come inside

Awegonen?: (Away-gon-in): What is it?

Aaniindi?: (Ah-need-dee): Where is it?

Ganawaabi: (Gah-nah-wah-bee) Look

Ikwe: (Ick- way): Woman

Inini: (in- in- ee): Man

Abinoojiih: (Ah- Bin-oo-h-jee): Child

Bajjishka'ogaa: (Bah-Jeesh-ka-oh-gahn): Conical Lodge

Wiigiwaam: (Wee-gih-wahm): Wigwam

Nisawa'ogaa: (Nih-sah-wah-oh-gahn): Peaked Lodge

Gigawaabamin Minawaa: (Gih-gah-wah-bah-min Meen-ah-wah): See you later

Wezhibii'iged Ojibwemowin Writing the Ojibwe Language

Ranger Jeremy Kingsbury

Although it is a common misconception that no tribes in North America had a system of writing, the Ojibwe have had a pictograph writing system for hundreds of years prior to European arrival on the continent. They would use their pictographs on birch bark scrolls and wooden boards to serve as memory aids in telling important legends and songs, and for their signatures. Some scholars even think the name Ojibwe is a shortened version of Ozhibii'igewiniwok, or the writing people.

Ojibwe people identify themselves by clans; this is still done today, but during the eighteenth century, it was these clan symbols that allowed people to identify themselves in writing. In an agreement between the North West Company and the Grand Portage Ojibwe in 1798 the headmen's names are written out in English script with their clan or totem mark beside it.

Although at Grand Portage National Monument we show village life of the Ojibwe during the eighteenth century, in reality they would only live in large camps several weeks a year. As a fur trade Ojibwe family surviving off the land, movement was nearly constant; Duncan Cameron, a fur trader at Lake Nipigon, said, "They seldom remain above five days at the most at the same place." In spite of being on the move constantly, or perhaps due to it, the Ojibwe people maintained a strong sense of community and family. Cameron wrote of the importance of clans, "Whenever two strangers meets [sic], and finds [sic] themselves to be of the same mark, each of them begins immediately to trace his genealogy, at which they even beat my countrymen, the Highlanders, and the one becomes a cousin, an uncle, or a grandfather of the other immediately."

With a thorough knowledge of the clans and families in a given area, bark sheets with pictographs would be left in their wake. Cameron illuminates this practice:

By these totems they are enabled to leave letters or marks on their way as they travel, by which any other of their acquaintances who may travel the same way afterwards can immediately tell who they are and which way they went. By these means, when they wish to meet, they are never at a loss to find each other; the traveler will take a piece of birch rind, and with coal or the point of a

knife will design his totem, that of his wife and of any other person in the band, the number of males and females of such totems, designing each according to their importance. The wife never takes the husband's mark, but retains that of her family, and the children of both sexes take the father's mark.

They leave these marks fastened to a pole and pointed in the direction they are going; if in summer, they will leave a bunch of green leaves, which will, from their withered state, give a pretty good idea of the time they passed. If any of the family died lately, he is represented without a head, or lying on the side.



Photo Credit: Reproduction and Photo by Author.

In this example, an Eagle Clan father and a Fox Clan mother with three kids are represented. Thanks to everyone's deep knowledge of the community around them, the reader would be able to figure out which family had left the drawing proclaiming, "Inashke ahoow, Waagosh, gaye Baswewekwe gii-nibaa omaa," or, "Oh look, Fox, and Echo-woman camped here."

Also on this card, above the canoe is a conical lodge (called a Bajiishka'ogan in Ojibwe, not a Tipi, which is a Siouan word); in the center of the lodge a circle represents the fire, and the hash marks around the fire would indicate how many bones had been thrown into the fire, indicating how good the hunting is in that area. At the base of the lodge, a series of hash marks would inform the reader how many days the family had been there, in this case the hunting had been fairly good, and they camped for 2 days in the same spot.

Mercury Contamination At Grand Portage National Monument

Biological Science Technician Brandon Seitz

Research indicates the southern boreal ecosystem of Grand Portage is highly sensitive to mercury deposition.

Grand Portage is Sensitive?

The landscape encountered along the eight and a half miles of the Grand Portage trail is often perceived as a pristine forest ecosystem- a forest not unlike the one that would have been encountered by 18th century Euro-American fur traders and Ojibwe alike. However, upon closer investigation it has been revealed that methyl mercury, a severely toxic form of mercury, is present in the water, soil, and aquatic organisms. While the landscape from Voyageurs National Park, through the Boundary Waters Canoe Area Wilderness to Grand Portage and beyond to Isle Royale may have similar amounts of mercury deposition, the amount of methyl mercury at Grand Portage is substantially higher than many other lakes and streams of the western Great Lakes region. One main reason methyl mercury is more prevalent at Grand Portage is because there are more wetlands contributing methyl mercury and dissolved soil humus to the water. Mercury is deposited on land and water in dust and precipitation (Figure 1). Wetlands provide the necessary environment to chemically change inorganic mercury to toxic methyl mercury. The dissolved humic substances bind to mercury in the water and sediment and transport it through our watersheds. The unique character of this interface between water, soil, and wetlands makes the southern boreal ecosystem of Grand Portage highly sensitive to mercury deposition. One indication of mercury sensitivity is the color of the water. Deeply stained waters the color of tea are more likely to be sensitive to mercury deposition, while sky blue waters are likely less sensitive.

What Harm Can Methyl mercury Do?

Methyl mercury biomagnifies in organisms, increasing in concentration as it moves up the food chain (Figure 1). Therefore, methyl mercury becomes very toxic to high-level predators such as eagles, loons, and even people. What is not well known is that there are many other organisms at risk. Songbirds, for example, accumulate high levels of methyl mercury simply by feeding on spiders and insects with aquatic larval stages. Recently it has been found that dragonfly larvae at Grand Portage harbor high enough concentrations of methyl mercury to put these birds at risk. Like people, the diet of pregnant songbirds is transferred to the developing embryo, which is the most sensitive life stage. This is why human fish consumption guidelines are so important and why they are more restrictive for child-bearing women. When it comes to environmental pollution, fish, wildlife and people are all critically linked. Unfortunately, fish and wildlife cannot protect themselves from mercury poisoning. However, by following federal, tribal, and/or state fish consumption guidelines, the people in Grand Portage and across the country are protected from foodborne mercury poisoning due to eating fish.

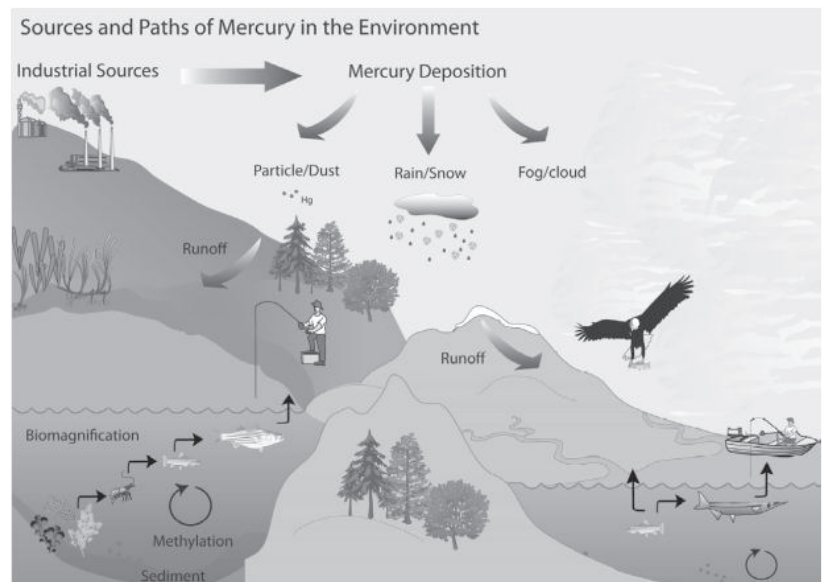


Figure 1. A very small amount of mercury can contaminate an ecosystem and become a significant health threat to humans and wildlife. Through a process called methylation, naturally occurring bacteria act on mercury to create methyl mercury, which bioaccumulates in organisms, magnifying in concentration as it rises through each level of the food chain.

What is the Source of Mercury Deposition?

Mercury has natural sources in the environment, but they are very small. The dominant source of mercury in the Great Lakes region is deposition from industrial emissions such as taconite production and coal burning power plants. While these emissions sources can be very local and have local impacts, often their mercury air pollutants can traverse the globe before being deposited as many as two years later.

Are Mercury Emissions Increasing?

The Clean Air and Clean Water Acts created pollution control laws in the United States that were implemented by the Environmental Protection Agency and carried out by individual states and tribes. As a result, substantial reductions in mercury emissions and environmental contamination were recorded across the United States from about 1977 to 2000. While this was great progress, it may be relatively short-lived. Researchers are again finding upward trends in mercury contamination.

What Will the National Park Service do to Help Protect People and the Environment From Mercury?

The National Park Service (NPS) employs scientists across the country to inventory and monitor natural resource conditions. Scientists working in parks, and in networks of parks, collaborate with universities and other agencies to gather information on mercury pollution. This scientific information tracks trends in environmental degradation that the NPS can share with the public as well as other federal, state, and tribal agencies in charge of regulating air pollution.

What Will the Monument do to Help Protect People and the Environment from Mercury?

The Monument has planned a number of research projects since we first learned in 2012 that mercury contamination was an issue. First, we began evaluating potential changes in air pollution deposition by using lichens as passive air monitors. In 2012 we learned that air pollution hasn't changed significantly enough to reduce the biodiversity of lichens since they were first studied in 1992. The next step will be to analyze these same lichens for any changes in heavy metal concentrations contributed by air pollution. Second, we have begun investigating the risk mercury contaminated aquatic browse poses to beavers and moose. While our results are still preliminary, we have found good reason to investigate this concern further. As it turns out a type of insectivorous aquatic plant called a bladderwort can bioaccumulate methyl mercury in amounts significant to the health and well-being of the mammals that feed upon them. Lastly, in 2015, we will endeavor to identify sources of mercury pollution by analyzing characteristic mercury variants found in the soil and water. You can look forward to the results of these and other scientific investigations in newsletters to come.

What Can I Do?

READ and follow federal, state, and tribal fish consumption guidelines—especially women and children.

REDUCE the amount of energy you use, both electricity and fuel.

REUSE energy-expensive consumer products; give a second thought to disposable items.

RECYCLE everything, including electronics, steel, fluorescent bulbs, and thermometers.

and **SHARE** your new knowledge of mercury with others.

Where Can I Find More Information?

Biodiversity Research Institute, The Extent and Effects of Mercury Pollution in the Great Lakes Region

<http://www.briloon.org/mercuryconnections/greatlakes>

U.S. Environmental Protection Agency, Basic Information on Mercury

<http://www.epa.gov/hg/about.htm>

U.S. Environmental Protection Agency, Fish Consumption Guidelines

<http://www.epa.gov/hg/advisories.htm>

Grand Portage Environmental Department, Guide to Eating Fish

-Send inquiries to: Grand Portage Environmental Department

27 Store Road, PO Box 428

Grand Portage, MN 55605

Minnesota Department of Health, Fish Consumption Guidelines <http://www.health.state.mn.us/divs/eh/fish/>

AREA INFORMATION:

There are a few places nearby to purchase light meals, snacks, gas, and other necessities. *The food and lodging information provided here is for the convenience of our visitors, and is not an endorsement by the National Park Service.*

SERVICES:

Grand Portage Trading Post, & Rendezvous Grill, Post Office & SPUR Gas – Drive about 1/2 mile west (a right hand turn out of Heritage Center parking lot) on Mile Creek Road. The Trading Post, Post Office and SPUR gas station are on the right between Mile Creek Road and Highway 61. Phone: 218-475-2282

Grand Portage Lodge/Gift Shop/ Island View Dining Room – Drive about 1/2 mile west on Mile Creek Road. The Grand Portage Lodge 100-room facility is on the left at the stop sign. Phone: 218-475-2401

Ryden's Border Store, Cafe Hotel & Phillips 66 Gas – Located 3 miles north of Grand Portage National Monument on Highway 61. At any junction to Highway 61 in Grand Portage, turn right (east) on Highway 61. Follow Highway 61 to Ryden's on your left. Phone: 218-475-2330

Voyageurs Marina – Located about 1½ miles from the monument. Follow Mile Creek Road east over stone bridge. Follow County Road 17 to your left, up over the hill and past the church and school. Continue to follow County Road 17 1½ miles, to the east side of the bay. The marina will be on your right. Under new management. Phone 218-475-2476

CAMPGROUNDS:

Grand Portage Marina & Campground – Marina Rd. (adjacent to Grand Portage Lodge & Casino), Grand Portage, MN, 55605. Phone 218-475-2476

Judge Magney State Park – 4051 E Hwy 61, Grand Marais, MN, 55604. Phone: 218-387-3039

Grand Marais Recreation Area – Highway 61, Grand Marais, MN, 55604. Phone: 218-387-1712

LOCAL STATE PARKS:

Grand Portage State Park – 9393 E Hwy 61, 5 miles east of Grand Portage. Offers a scenic trail to the spectacular Pigeon Falls. The park has a visitor contact station and sales area. There are no camping facilities. Phone: 218-475-2360

Judge C.R. Magney State Park – 4051 E Hwy 61, 14 miles west of Grand Portage. Offers trout fishing and white-water kayaking on the Brule River. There are 6 miles of summer hiking trails and 5 miles of winter ski trails. A well-maintained trail winds along the river to the Upper and Lower Falls and the Devil's Kettle, a large pothole into which half of the river disappears. Phone: 218-387-3039

Cascade River State Park – 3481 W Hwy 61, 45 miles west of Grand Portage. Offers spectacular waterfalls along the Cascade River. There are also scenic overlooks of Lake Superior. There are 18 miles of trails through a birch and spruce forest. The park has a 40-site campground, picnic facilities, and plenty of lake and river fishing. Phone: 218-387-3053

Need Special Assistance?


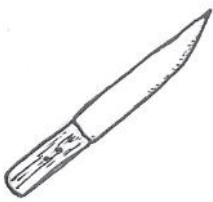


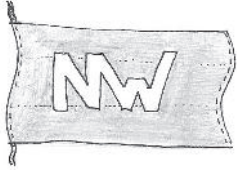

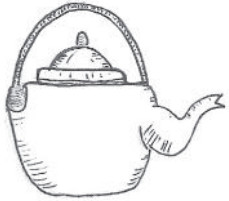


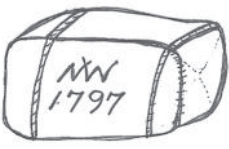

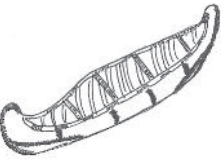
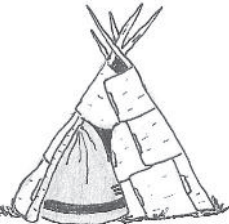





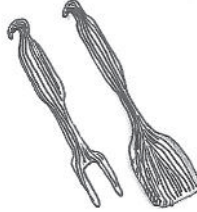



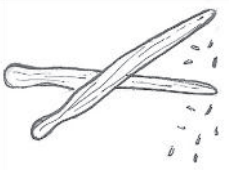

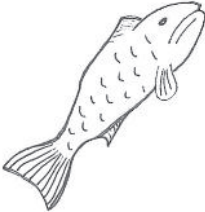
*For help or questions
concerning accessibility
at the park,
please contact
any park ranger, or
Chief of Interpretation,
Pam Neil.*

218-475-0123 Voice/TDD

GRPO_interpretation@nps.gov

KIDS PAGE: FUR TRADE BINGO

Circle objects you see in the Heritage Center, Ojibwe Village, Voyageur's Encampment, Warehouse, Kitchen and Great Hall as you tour Grand Portage National Monument. Find five objects in a row vertically, horizontally or diagonally and you win!

B	I	N	G	O
				
				
				
				
				

A FEW TIPS TO HELP YOU ENJOY YOUR VISIT

Safety Officer Sharon Walker

- Wear sturdy footwear when walking on Monument trails. Please stay on the trails. Watch closely for roots and uneven ground to avoid tripping.
 - Do not drink water from streams or lakes unless you first boil or treat it.
 - Never hike alone. Always tell a friend/relative where you are going, and when you plan to return.
 - When hiking in the backcountry during summer months, the use of insect repellent and/or head nets is strongly recommended.
-

REMINDERS AND HELPFUL INFORMATION

- Notify a park employee if you encounter any situation you feel is unsafe.
 - All plants and animals within Monument boundaries are protected. Please help us protect them by not feeding animals or picking plants.
 - Pets and smoking are not permitted inside the stockade walls or inside buildings.
 - Please keep bicycles out of the stockade and secured to the bike rack provided at the Heritage Center. Do not lock bicycles to sign posts or trees.
 - A picnic area is located east of the palisade across Grand Portage Creek, and may be reached by walking the path between the creek and the palisade and crossing the footbridge.
-

VISITING ISLE ROYALE NATIONAL PARK

For information about ferry service to Isle Royale National Park please ask park staff.

For more information about Grand Portage National Monument, contact:

Superintendent, Grand Portage National Monument

P.O. Box 426, 170 Mile Creek Road, Grand Portage, Minnesota, 55605.

Voice/TDD: 218-475-0123

Visit our website at www.nps.gov/grpo,

or contact us by e-mail at: grpo_interpretation@nps.gov

This document can be obtained in alternate formats.

Please contact the park's accessibility coordinator to make a request.