

Beneath the Waves

"THE SEA WAS TERRIBLE, THE WAVES RUSHING in great mountains over the deck, and every few minutes the despairing shriek of some poor fellow would be heard as he was carried off and lost." After hours battling huge seas, blinding snows and hurricane force winds, the passenger steamer Algoma struck a reef off Mott Island. It was early in the morning, not yet light enough for the passengers and crew to see that they were a mere fifty feet from the shore. Not that it made a difference. The steamer with its 180 state rooms and 200 bunks for steerage passengers was well-equipped for emergencies with "six lifeboats, 600 life preservers and a liberal allowance of lifebuoys about the deck." Not that it made a difference. As the boat wrecked, those in the cabin below were swept away before reaching the upper decks. Some jumped overboard and were smashed into the rocks. Some held tight to the rigging and lifeline, but with every wave they were fewer in number as their muscles tired and they were washed away.

It was November, the end of the season, with the lightest passenger load the ship had ever carried – just thirteen persons. Only two of these, along with twelve crew members, survived. Forty-five were taken by the waves in the largest loss of life ever recorded on Lake Superior.

When we make the crossing to Isle Royale, on a ferry or smaller boat, we are inevitably reminded of Lake Superior's power. Even small waves can turn our stomachs sour and for those that have traveled in the fall...well you have your stories. And where the power of the Lake and the underwater topography of the Island collide, destruction may follow. Ten major shipwrecks and countless smaller vessels still remain in the park's waters as testament to this, their histories preserved in the frigid, deep waters surrounding the island.

But the interface of Lake and Island has another kind of story, a story of creation. The ridge and valley topography, so evident on the land, is continued under the water, creating a mosaic of depths and bottom conditions. Varied depths have varied water temperatures and both of these influence water currents that encircle the archipelago. This diversity in habitat is mirrored in the amazing diversity of fish, the most genetically diverse in all of the Great Lakes.

The diversity of Isle Royale's fish populations is not recent news. North Shore Ojibwe, who fished the Island's waters for generations, had intimate knowledge of the island fishery. In 1837, when the American Fur Company set up fishing posts on the Island, Ojibwe fisherman directed them to the most fruitful summer lake trout fishing grounds — a place called Siskwekaning (Siskiwit Bay), where an early-spawning form of siscowet lived. The historic record of the presence of this stock of siscowet, or fat lake trout, is well-documented, but the fish have since disappeared. Small discrete populations of fish are vulnerable to overfishing. Perhaps this was the fate of the Siskiwit Bay siscowet. The American Fur Company's fishing enterprise did not survive either. They caught too many fish - without enough markets to sell to.

As the American Fur Company folded, smaller family fishing operations sprung up around the island. Understanding the topography of the island waters and how it influenced fish was a key to fishing success. Through experience, observations and practical experiments, these fishermen became experts. They recognized many distinct stocks of lake trout, noting differences in color, fatness, and spawning time among a host of other details. Many island fishermen realized the island water's resources were limited and were fiercely protective of the native fish. They were supporters of and suppliers to fish hatchery programs which began in the 1890s.

A diversity of fish, a legacy of shipwrecks, these stories of creation and destruction were preserved when Isle Royale National Park was created. The park's boundaries stretch 4.5 miles from the edges of the archipelago out into Lake Superior, protecting the interface between the Island and Lake. In fact, over 75% of the park's 850 square miles are underwater.

Most visitors travel atop the waves, only a daring few dive below. But the stories that lie beneath are wondrous, and fragile. Let each of us do our part to assure that these stories continue so our grandchildren can experience them in more than just a book.

Valerie Martin, Park Ranger

Welcome to Isle Royale

National Park, an archipelago of islands whose natural and cultural history have been defined and continued to be shaped by Lake Superior.

The underwater landscape of Isle Royale is unique. Millions of native mussels and strange huge sponges inhabit its inland lakes, and genetically diverse populations of fish swim in its Lake Superior waters. In fact, the diverse genetic pool of Isle Royale lake trout may have been what allowed it to recover more quickly from sea lamprey predation than in any other place in the Great Lakes. In addition, Isle Royale is one of the last places in the United States where there are populations of coaster brook trout. An ongoing hatchery program along with protective regulation aims to reinvigorate these once abundant fish. Shipwrecks offer a glimpse into the past and embody a textbook of information on Lake Superior's maritime history.

But today, the treasures of this isolated park are threatened. Zebra mussels were documented in park waters for the first time in 2009 and the fish disease Viral Hemorrhagic Septicemia has arrived in Lake Superior. We removed every zebra mussel we found and the numbers are low enough to hope that we can stave off a full infestation through vigilance. We are consulting with fish experts to seek ways to preserve our genetic stocks of fish. Through policy, education and monitoring, the park will maintain a sharp eye, but as always our visitors make the difference in protecting the park through their own actions. Recent regulations affecting the use of bait in the park and requiring decontamination procedures for all boats before entering park waters aim to decrease the transport of invasive species to this special place. With your help, these unique waters will be preserved.

I invite you to dive in this summer and experience the waters of Isle Royale for yourself, and thank you in advance for helping preserve the natural systems on the Island.

Phyllis Green, Superintendent



4 Interpretive Activities

Educational Programs about the natural and cultural history of the park.

5–8 Wilderness Use

Pull-out section with information on Leave No Trace, hiking, camping, fishing, and boating.

11 Transport & Fees

Ferry schedules and daily fees.

12 Publications

Books and maps provided through the Isle Royale and Keweenaw Parks Association.





Contacts

Isle Royale National Park

800 E. Lakeshore Drive Houghton, MI 49931-1869 Phone: 906-482-0984 Fax: 906-482-8753

Website: www.nps.gov/isro

E-mail for General Information: ISRO_ParkInfo@nps.gov **Emergency use only:**

Isle Royale and Keweenaw **Parks Association** (Books & Maps)

800 East Lakeshore Drive Houghton, MI 49931-1869

Phone: 800-678-6925; 906-482-7860

Website:

www.irkpa.org

800-727-5847

E-mail:

irkpa@irkpa.org

Rock Harbor Lodge

Summer

P. O. Box 605

Houghton, MI 49931-0605

Phone: 906-337-4993 Winter

Isle Royale Resorts, P. O. Box 27, Mammoth Cave, KY 42259-0027 Toll-Free Reservations: 866-644-2003

Phone: 270-773-2191 Website:

www.isleroyaleresort.com

E-mail:

islerovaleresort@starband.net

Weather Forecasts for Isle Royale

Michigan

www.crh.noaa.gov/mqt

Minnesota

www.crh.noaa.gov/dlh

National Weather Service Radio Forecasts

- 162.400 MHz from Houghton, Michigan.
- 162.475 MHz from Thunder Bay, Ontario, Canada.

Keweenaw Convention and Visitors Bureau

Phone: 800-338-7982

Website: www.keweenaw.info

E-mail: info@keweenaw.info

Minnesota's Grand Marais Visitor Information Center

Phone: 888-922-5000

Website:

www.grandmarais.com

Michigan Department of Natural Resources **Fishing License Purchase** Website:

www.michigan.gov/dnre

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• Photographs from the Isle Royale National Park collection and contributing researchers.

—Printed on recycled paper—

Did You Know?

The National Park Service protects over two million acres of submerged lands. Coral reefs in Biscayne National Park, kelp forests in the Channel Islands, underwater geysers in Yellowstone and the USS Arizona in Pearl Harbor are just a few of these underwater treasures. More than sixty National Park Service units are defined as having significant underwater areas with unique biological and historical resources.

- 1) The National Park Service lists these two organisms as one of the most critical threats to the underwater resources in parks. What are they?
- 2) The Cumberland, a side-wheel passenger steamer, is the oldest of Isle Royale's ten major shipwrecks. The Emperor a steel bulk freighter is the most recent. This maritime museum of wrecks represents a time span of how many years?
- 3) For over a decade, coaster brook trout have been hatchery-raised and returned to Isle Royale to reinvigorate populations in Siskiwit Bay and Tobin Harbor. Similar efforts to stock native fish went on during the late 19th and early 20th centuries. How many lake trout fry were reported to have been planted in Isle Royale waters
- 4) The most common place name on Isle Royale honors a form of lake trout. What is it and how many places are named after this fish?

name applies to: a lake, a bay, a swamp, a campground, a high point, a mine, two waterfalls, three rivers, and 4) Siskiwit, or one of the many alternate spellings. There are more than a dozen, depends on how you count. The

- 3) Almost 1.5 million total to eleven locations around the island.
- 2) Seventy years. The Cumberland sunk off the Rock of Ages in 1877, the Emperor off Canoe Rocks in 1947. have created specific policies to slow the spread of these aggressive invaders.
- 1) Zebra and quagga mussels. These invasive animals reproduce exponentially. Parks all over the country

VINAMERS



The National Park Service

cares for special places saved by the American people so that all may

Experience Our Heritage



Rock Harbor Lodge and Windigo Store

Lodge Rooms

Sixty rooms are available; each accommodates four and offers private bath. Opens 6/8; Closes 9/11.

Housekeeping Rooms

Twenty duplex cottages accommodate six and are furnished with utensils, dishware, private bath, double bed and two bunk beds. Opens 5/28; Closes 9/II.

Gift Shop and Dockside Store

Gift Shop offers handcrafted gifts, apparel, photo supplies, postcards, souvenirs, daily fishing licenses, and tackle. The store offers groceries, freeze-dried foods, fishing tackle, stove fuel, camping, hiking, and boating accessories, showers, laundry facilities, and sundries. Gift Shop Opens 6/8 – Store Opens 5/28; Closes 9/11

Lodge Dining Room & Greenstone

Hearty meals, including fresh Lake Trout. Visitors welcome for breakfast, lunch, and dinner. Food service Opens 6/8; Closes 9/11.

Marina and Water Taxi

Offers 450 feet of dock space in Rock Harbor, accommodating boats up to 65 feet. Electrical, fresh water hook-up, sewage pump-out, gasoline, and diesel fuel, motorboat, canoe, and kayak rental available. Water taxi service drops off or picks up visitors, canoes, or kayaks at many island docks. Services Open 5/28; Close 9/11.

Fishing Charters and Sightseeing

Charters are fully equipped. For details on sightseeing trips refer to page 4.

Windigo Store and Marina

Offers groceries, cold sandwiches, camping supplies, stove fuel, daily fishing licenses and tackle, gifts and photo supplies. The marina offers gasoline, pump-out service, and motorboat, canoe and kayak rental. Shower and laundry facilities available. Services Open 6/8; Close 9/12.

The cost for utilities on Isle Royale is much higher than on the mainland. A utility surcharge will be added to the cost of some goods and services.

Contact Information to the left. www.isleroyaleresort.com



A Diversity of Fish — Investigations into Isle Royale Lake Trout Genetics

If angling is one of your reasons for of the same kind of salmon on the coming to Isle Royale, or even if it isn't, you may have heard of the diversity found in the lake trout populations around the island. Historically, different forms of lake trout have been given several different names, often based on physical features, or something that distinguishes one group of fish from another. Names such as smoky, redfin, paper belly, and even Rock of Ages trout were given to groups of fish, primarily by commercial fisherman in the past. These names are indicative of the great diversity found in the lake trout, and we hope to learn more about this diversity during a cooperative project between the National Park Service and the U.S. Fish and Wildlife Service. Lake trout, like many salmonids, return to their natal spawning grounds year after year, and after many generations what fishermen call stock differentiation can occur. Just as there are different stocks

west coast, there may be different stocks of lake trout around Isle Royale. With the study that will begin this spring, we will attempt to learn just how different the groups of lake trout around the island may be.

Historically, there may have been twelve or more "morphotypes" of lake trout around the island. Although some of the diversity found in lake trout in Lake Superior and at Isle Royale was likely lost when populations collapsed in the mid-20th century, there still appears to be a great amount of genetic diversity. Three obvious types of lake trout exist at Isle Royale. You may be familiar with them: the siscowet, the humper, and the lean lake trout. Within these three types there may be even more genetic differentiation that is not physically obvious. Some of the differences could be due to varied habitats utilized by the fish or by the differences in habitat at spawning locations around the island. In our investigations, we will document the diversity of habitat available to lake trout using sonar to determine rock and lakebed structure at several spawning locations. We will then collect genetic material from fish at those locations during or immediately after spawning to examine similarities between fish at individual sites and differences in fish between sites. The more we learn about the diversity of Isle Royale lake trout, the better equipped we will be to protect and sustain these populations for several - fish and human – generations to come.

Jay Glase **Great Lakes Fisheries Biologist** National Park Service





An Unwelcome Invader -Zebra Mussels Reach Isle Royale

Aquatic invasive species are a significant threat to the ecological, economic, cultural and physical well-being of the Great Lakes. Zebra mussels, and their relatives the quagga mussels, are among the most damaging of the over 180 aquatic invasive species found in the Great Lakes today. A 2009 discovery of small populations of zebra mussels at two locations on Isle Royale is of significant concern.

It is safe to assume that zebra musselinfested boats have been traveling to and mooring at Isle Royale for some time. Given the rapid proliferation of zebra mussels throughout the Great Lakes and their known presence in several nearby bays and harbors near Duluth, Thunder Bay and Ashland, the chance of permanent colonies in the park is becoming increasingly likely. Successful colonization is often simply a function of time and numbers of introduced animals.

It was once thought that cold water temperatures, low calcium concentrations and even bottom composition would prevent the spread of this nuisance species into many waters of the Lake Superior basin. But zebra mussels, like most successful invasive species, appear to be highly adaptable in their requirements. Late last summer, a few individual adult zebra mussels were found at Isle Royale around



the Windigo and Mott Island docks. Where these individuals had come from and how long they had been in the park remains unknown. All located zebra mussels were removed, but other individuals are likely present. If these individuals are able to persist through the winter, they could become broodstock to seed other areas. Due to the apparent isolated nature and small size of the colonies, it is possible that they can be eradicated before they become viable self-sustaining populations. Their rapid and complete removal is of paramount importance to prevent their spread around the island and into inland lakes.

A 2002 survey of Isle Royale inland lakes found native mussel (clam) populations, of sizes not seen in mainland lakes in a hundred years. Chickenbone Lake alone has over six million clams (the conservative estimate). Many of these clams are

over sixty years old, these animals predate the arrival of wolves to the island and some may have been alive before the island was established as a national park. Zebra mussels have been shown to have swift detrimental impact on native clam populations either by direct competition for food or by settling and attaching on the natives' shells. In infested waters, a single large clam might have as many as 20,000 zebra mussels attached to its shell. If zebra mussels invade Isle Royale's inland lakes, it could be as little as two to four years before the native clams are decimated.

Not only inland lake ecosystems are threatened. Native animals have adapted for generations to Lake Superior's cold, nutrient-poor waters and are able to outcompete many exotic species. Sadly, the established self-sustaining populations of zebra mussels in Lake Superior defy much of the previous decade's assumptions about their ability to thrive in these water conditions. As time progresses and the mussels adapt to their new environment, their likelihood of colonizing new area increases. While Lake Superior may never again be zebra mussel free, preventing their spread and establishment is the best way of combating their deleterious effects.

Paul Brown **Chief of Natural Resources**

Stopping the Spread of Aquatic Invasive Species -Visitor Responsibilities

Vessel owners are responsible for Aquatic Invasive Species decontamination prior to entering park waters (extending 4.5 miles from Isle Royale and the outer islands). This applies to all vessels (power and sailboats, canoes, kayaks, etc.), regardless of size or configuration.

Please take the following steps to prevent the transport of zebra mussels and other aquatic invasive species to Isle Royale waters:

Inspect for zebra mussels and other aquatic invasives attached to your trim tabs, swim platform, motor mounts, hull and equipment.

Remove all zebra mussels and other invasive species along with any aquatic plants from your boat, trailer and equipment. Treat invasives like litter. Dispose of them in a trash can.

Drain all water from your motor, livewell, bilge, transom, etc.

Wash your boat, including bilge and equipment with either: a) hot water (greater than 104 degrees F), b) high pressure water, or c) disinfectant OR

Clean and Dry your boat and equipment in the sun for five days. Rainy days don't count.

Check to see if your boat is coming from a port known to have zebra mussels. Duluth, Superior, Thunder Bay, Marquette, Ontonagon and Ashland all have documented infestations. If so, take extra measures to assure decontamination of your boat and equipment.

Interpretive Activities

Enjoyable and educational programs are offered on Isle Royale at Rock Harbor and Windigo, and they are also presented on the National Park Service vessel, $Ranger\ III.$ In addition, the tour boat MVSandy offers guided excursions. Ranger guided

programs are free, although those involving MVSandy and the Ranger III waterway cruises include a transportation fee.

Check at local bulletin boards for further details. For outdoor activities, dress for the possibility of

cold or rain and wear sturdy footwear. Trails are rocky and can be slippery during or after wet weather; wear shoes with good ankle support, weather proofing, and soles that grip well. Come join us!

- All times are Eastern Daylight Time
- \$ = transportation cost
- ** = indicates tours with a park ranger

ROCK HARBOR AREA	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
Rock Harbor Visitor Center nformation, books, maps, educational sales materials, camping permits, dive permits, user fee payments, and Ir. Ranger Program.				a.m. to 6:00 p.m. – ule possible in May,	July and August June and September		
nterpretive Programs oin a park representative for an exploration of Isle Royale's atural and cultural history.			Check the I	oulletin board for pi	rogram schedule.		
MV SANDY TOURS FROM ROCK HARBOR	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
The trails on guided tours are rocky and uneven with some steep climbs and descents; trails may be slippery. Be prepared for cold temperatures and the possibility of rain.	MV S	Sandy Tours will ope	ms involving the <i>MV S</i> erate from June 8 thro nd Rock Harbor Visito	ough September 10	. Fare rates for the va	rious tours are availa	able at the
Hidden Lake/Lookout Louise (\$)** Greenstone Shuttle A 4-mile boat trip on the MV Sandy to Hidden Lake Trailhead followed by a guiound trip hike past Hidden Lake up 320 feet to Lookout Louise. View the sou Canada and the north shore of Isle Royale. Return with the group or bring a livater and hike 9.4 miles back to Rock Harbor.	th shore of		9:00 a.m. to 12:30 p.m.		9:00 a.m. to 12:30 p.m.		
Passage Island (\$)** An 8-mile boat tour on the MV Sandy crosses one of Isle Royale's popular ship anes. The 2-mile guided round-trip hike leads to Passage Island Lighthouse a xplores an area of low moose presence.		1:30 p.m. to 6:00 p.m.				1:30 p.m. to 6:00 p.m.	
Edisen Fishery and Rock Harbor Light (\$) Visit the historic corake a quarter-mile walk to the oldest lighthouse (1855) on Isle Royale and en		ith the resident fishery chibits.	demonstrator and		2:00 p.m. to 6:00 p.m.		9:00 a.m. to 1:30 p.m.
Captain's Cruise (\$) Explore with the Captain of the MV Sandy, scenic such as Middle Island Passage, Lorelei Lane, Rock Harbor Lighthouse, Davidso	-		2:00 p.m. to 5:30 p.m.				
Raspberry Island/Sunset Cruise (\$) Fake a walk along a boardwalk through the spruce bog on Raspberry Island followed by a cruise on the MV Sandy around scoville and Blake Points to view features like the Canada horeline, the site of the Monarch shipwreck, and a Lake Supeior sunset (after Aug. 15, cruise only).			8:00 p.m. to Sunset in June-July 7:30 p.m. to Sunset in August- September			8:00 p.m. to Sunset in June-July 7:30 p.m. to Sunset in August- September	
DAISY FARM	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
nterpretive Programs Join a park representative for an xploration of Isle Royale's natural and cultural history.			Check the campgrou	und bulletin board f	or program schedule		
WINDIGO	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
Windigo Visitor Center Information, books, maps, educational sales materials, camping permits, dive permits, user fee payments, and Jr. Ranger Program.				a.m. to 6:00 p.m. – hedule in May, June			
nterpretive Programs oin a park representative for an exploration of Isle Royale's natural and cultural history.			Check the l	bulletin board for pi	rogram schedule.		
HOUGHTON	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
Houghton Information, trip planning, books, maps, and other educational sales Inaterials, Ranger III and group camping reservations, boater camping It is increased by the permits, and user fee payments.		8/16 through 9/11	open 8:00 a.m. to 6:0 open 8:00 a.m. to 4: open 8:15 a.m. to 4:1	30 p.m. Monday th	rough Friday, Saturda	y 2:00 p.m. to 4:30	p.m.
RANGER III	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
nterpretive and Educational Programs While onboard, park staff and guest speakers, weather permitting, will explore cultural history or topics related to the Lake Superior Basin. Park staff will assing questions, and issuing backcountry camping permits.	-		9:00 a.m. to 2:00 p.m. 6/1 thru 9/7	9:00 a.m. to 2:00 p.m. 6/2 through 9/8		9:00 a.m. to 2:00 p.m. 6/4 thru 9/10	9:00 a.m. to 2:00 p.m. 6/5 through 9/11
Keweenaw Cruises (\$) Enjoy an afternoon cruise along the scenic Keweenaw Waterway aboard the R For reservations call (906) 482-0984	Ranger III.				2:00 p.m. to 4:30 p.m. 7/29 8/12 and 8/26		



7/29, 8/12 and 8/26

Wilderness Use

During Isle Royale's early history, visitors risked much to get there. They did not come to vacation; they came to tame the wilderness through mining its copper, harvesting its fish, and logging its

timber. The island was never tamed, the resource never conquered, but its landscape holds the scars of these early attempts.

Today Isle Royale has reverted back to a primitive wilderness. The environmental conditions historically viewed as a burden are now attracting a new clientele. Today's visitors, as in the past, can still adversely affect this sensitive resource. To minimize your impact on park resources and other visitors, please practice "Leave No Trace" (for additional information request a copy of the park's Leave No Trace booklet or visit www.lnt.org). Where you place your feet is as important as how you treat and dispose of waste. Be part of the solution: help maintain the sense of solitude and preserve the wilderness flavor, a flavor that has the potential to change your life. Proper wilderness use begins with reading, supporting, and putting into practice the following information.

Camping

Permits are required for all overnight stays at campgrounds, cross-country sites, docks, or at anchor, regardless of group size or method of travel.

Party Size Defined

The party size for camping at Isle Royale is divided into two categories. "Small" (Individual) parties are defined as a group of six or fewer people. "Group" parties are defined as seven to ten people. There are different requirements outlined below based on party size.

Small Party Camping Permits — parties of six or fewer

Camping for individual parties is on a firstcome, first-serve basis. Individual parties can obtain permits onboard the Ranger III or upon arrival at Rock Harbor or Windigo Visitor Centers. For trip planning assistance, call (906) 482-0984; write to Isle Royale National Park, 800 East Lakeshore Drive, Houghton, Michigan 49931, or E-mail ISRO_ParkInfo@nps.gov.

Group Camping Permits - parties of seven to ten

Advance reservations are required for group camping. For reservations and trip planning assistance call (906) 482-0984; write to Group Reservations, Isle Royale National Park, 800 East Lakeshore Drive, Houghton, Michigan 49931, or E-mail ISRO_GroupReserve@nps.gov or make reservations on-line at https://www.pasty. com/isro/nps2.php. If your party exceeds ten people, you must split into two groups, each independent and traveling on completely separate itineraries. Groups shall camp in group tent site locations only (see chart on page six). Group leaders shall carry medical information for each group member including known allergies, known medical conditions, and medications currently taken. Organizations may not have more than twenty people camping on the island at any one time and are limited to eighty people per year.

For additional information, refer to the park's Group Camping brochure.

Where to Camp

All campsites on Isle Royale offer tent sites and/or three-sided shelters. Shelter and tent sites are available on a firstcome, first-serve basis. Shelters may not be reserved and may not be used solely for cooking or storage of gear. Tents may not be erected at shelter sites. Be gentle with screen doors on shelters to minimize intrusive noise and to prevent damage.

Expect crowded conditions at park campsites during mid-July through August. When sites are full, we ask campers to double up and share empty tent pad

Campers must stay in established campsites unless off-trail (cross-country) arrangements are made at the time the permit is obtained. Off-trail hiking and camping is difficult at Isle Royale, and is only recommended for experienced campers.

Commercial Groups

Organizations that charge trip participants a fee or that compensate members or trip leaders in any way are commercial groups under federal law. This applies to both nonprofit and for-profit organizations. These groups must apply for a special permit to conduct trips in the park. There is a fee for this permit. Applications are only accepted between January 2 and May 15; contact the park at (906) 482-0984.

"Quiet, Please"

Most visitors come to Isle Royale to hear the sounds of nature in a wild setting. Excessive human noise disturbs wildlife and other visitors. Sound travels easily over the water and on the trail. During quiet hours, between 10:00 p.m. and 6:00 a.m. EDT, if people in adjacent campsites can hear your activities, you are being too

Respect Wildlife

Observe, photograph, and enjoy park wildlife from a safe distance. Use binoculars or a zoom lens "to get closer" to wildlife. If animals flee, become defensive, or change their natural activities in your presence, you are too close! Loons are especially susceptible to disturbance, and may abandon their nests when approached too closely by boats. Cow moose with calves, particularly in the spring, and bull moose during the fall rut can be dangerous; give them a wide berth.

Keep wild animals wild by discouraging them from approaching humans. Practice proper food storage and keep a clean camp. To best protect your food consider storing it in a hard-sided container. It is illegal to feed, touch, tease, or intentionally disturb wildlife, their homes, nests, or activities. Animals, particularly fox and otter, when habituated to human food, may eventually overcome their natural wariness of humans and may have to be destroyed.

Human Waste

Proper disposal of human waste helps prevent pollution of water sources, minimizes aesthetic impacts to other visitors and reduces the spread of illness. Never defecate within 200 feet (at least 75 steps) of lakes, streams, trails, gullies, or campsites. In areas without outhouses, select a site that visitors are unlikely to discover. With a small trowel, dig a "cathole" 6 to 8 inches deep and 4 to 6 inches in diameter. Use toilet paper sparingly. After use, cover the "cathole" with the excavated soil and disguise it with natural materials. Urinate on durable surfaces away from campsites and water sources. Pack out all used femininehygiene products, carrying them in plastic bags, doubled to confine odor.

Showers

The concession operation offers tokenoperated shower facilities at Rock Harbor (Open 5/28; Close 9/11) and Windigo (Open 6/8; Close 9/12).

Waste Water Disposal

Cleaning Cookware

Most cookware can be cleaned with hot water, a little elbow grease, and sand or other natural scrubbers. Clean cookware at least 200 feet (75 steps) from lakes, streams, trails, gullies, or campsites. Soap is unnecessary for most dishwashing jobs. Even biodegradable soaps take a long time to degrade. Use these products sparingly and keep them at least 200 feet (75 steps) from water sources and campsites.

Use a small strainer or screen to remove food bits from the water and pack them out with your garbage. The remaining gray water should be scattered or broadcast over a wide area away from camps and

Bathing/Cleaning Clothes

When bathing use soap only if necessary and use it sparingly. Get wet, then move at least 200 feet (75 steps) away from all water sources and campsites to lather and rinse. Rinse water can be carried in collapsible containers or pots. Clothes can be cleaned by taking them away from water sources and campsites and thoroughly rinsing them with plain water.

Drinking Water

Potable water is only available at Rock Harbor and Windigo. All surface lake and stream water should be considered contaminated with natural parasites. Drinking contaminated water can make you very sick. Water collected in the park should be boiled for at least one minute or passed through a 0.4 micron water filter followed by chemical treatment. To be assured of no risk of contamination from small bacteria and viruses, all filtered water should be chemically treated. By itself, chemical treatment or filtering is not an effective method of water purification. If you boil your water, bring plenty of stove fuel. If filtering, bring a replacement cartridge for those filters that cannot be cleaned in the field. If you filter water from Lake Superior, change your filter or backflush several times with filtered water before using inland - this will assist in keeping Superior's invasive species from entering the inland lakes.

Precautions should be taken to prevent filters from becoming clogged. Filter water from a pot rather than directly from a lake or creek. Allow the sediment in the pot to settle and filter only from the cleaner water on top.

Dehydration is a factor in most medical problems experienced in the park. In hot weather the Greenstone, Minong, and

other trails become hot and dry, and creeks that once offered water may be dry. In addition, there is little or no dependable water available along many trails. To avoid dehydration, be sure to carry a minimum of 2 quarts of water per person. Drink as much water as possible while near water sources. Start hiking early before the day heats up - on ridges it starts getting hot at 10:00 a.m. on sunny days and gets hotter through late afternoon. Hike at a slower pace than usual and rest in shady spots. Dehydration is also a problem in cold weather as most people don't feel thirsty and tend to drink less. Watch for mild signs of dehydration such as thirst, fatigue, headache and dizziness. Signs of severe dehydration include nausea, reduced or no sweating, long stretches without urinating.

Hantavirus

There have been no reported cases of Hantavirus at Isle Royale National Park. The deer mouse is the primary carrier of the virus. An infected mouse carries the virus in its urine, saliva, feces, and in the carcass. The primary way humans become infected is through breathing in the virus. Infection can also occur by touching the mouth or nose after handling contaminated materials.

To minimize risk, avoid coming into contact with rodent droppings and burrows, avoid sleeping on bare ground, and store food and garbage in rodentproof containers. For additional information on Hantavirus contact the Centers for Disease Control and Prevention at 800-532-9929.

Pack It In, Pack It Out

It starts at home. Through careful meal planning and repackaging of food items, you can reduce food leftovers and trash in the backcountry. Please pack out everything you take in. Leftover food, food-scraps, orange peels, nutshells, apple cores, twist-ties, candy wrappers, fishing line, and cigarette butts must be packed out. If you have food leftovers, either save and eat them later or pack them out. Do not burn, bury or place trash, food scraps or garbage in outhouses. Please help keep the backcountry clean by packing out what you packed in.

Leave What You Find

Enjoy your discoveries and take them home via photographs, drawings, and memories. Natural objects of beauty or interest such as moose antlers, plants, driftwood, cultural or archeological resources, greenstones, agates, datolite and other minerals, including those found in Lake Superior, must be left where they are so others can experience the same sense of discovery. Removing, possessing, or disturbing park resources is prohibited. This may seem like a harmless act, but the cumulative effect of many people doing the same can be quite damaging to park resources. Picking small quantities of berries and wild edibles for personal consumption is permitted.





	CAMPGROUNDS							
WARI	NING: Depth at dock. Know your boat's draft.	,e						
KEY:	CR - Fires in community ring only S - Self-contained stoves only W - Treated water supply F - Campfires allowed or standing grills provided A - No Alcohol	Consecutive Stocking Consecutive Effection	Day Individual Individual	Shelters	Group Tent	ntes special	tion Sortindion Soci	Confordid Use Confordid Use
	Beaver Island	3	0	3	О	S	2'-5'	yes
	Belle Isle	5	I	6	0	F	13'	yes
	Birch Island	3	I	I	О	S	5'	no
	Caribou Island	3	I	2	О	CR	10'	yes
	Chickenbone E.	2	3	0	I	S	-	-
	Chickenbone W.	2	6	0	3	S	-	_
	Chippewa Harbor	3	2	4	I	F	7'	no
	Daisy Farm	3	6	16	3	S	9'	no
	Desor N.	2	3	0	О	S	_	_
	Desor S.	2	7	0	3	S	-	_
	Duncan Bay	3	I	2	О	F	6'	no
	Duncan Narrows	3	I	2	О	F	6'	no
	Feldtmann Lake	2	5	0	2	S	-	-
	Grace Island	3	0	2	О	S	2'-4'	yes
	Hatchet Lake	2	5	0	3	S	- '	_
	Hay Bay	3	I	0	0	S	3'-7'	yes
	Huginnin Cove	3	5	0	0	S		_
	Intermediate Lake	2	3	0	0	S	-	-
	Island Mine	3	4	0	2	F	-	_
	Lake Richie	2	4	0	2	S	-	-
	Lake Richie/Canoe	2	3	0	О	S	-	-
	Lake Whittlesey	2	3	0	О	S	-	
	Lane Cove	3	5	0	0	S	-	-
	Little Todd	2	4	0	О	F	-	_
	Malone Bay	3	0	5	2	F	3'-6'	yes
	McCargoe Cove	3	3	6	3	CR-A	7'	no
	Merritt Lane	3	I	I	0	S	8'	no
	Moskey Basin	3	2	6	2	S	8'	no
	Pickerel Cove	2	I	0	0	S	-	-
	Rock Harbor	I	II	9	3	W-S	-	-
	Rock Harbor Marina	Unlimited	-	_	_	F	3'-12'	yes
	Siskiwit Bay	3	4	2	3	CR-A	2'-6'	no
	Three Mile	I	4	8	3	S	9'	no
•	Todd Harbor	3	5	I	3	CR	2'	no

S-W

S

4'-20'

yes

* See Isle Royale Boating Guide for details ** Due to recent low water levels in Lake Superior, boaters should check at Visitor Centers or on the website www.nps.gov/isro for updated water depth information.

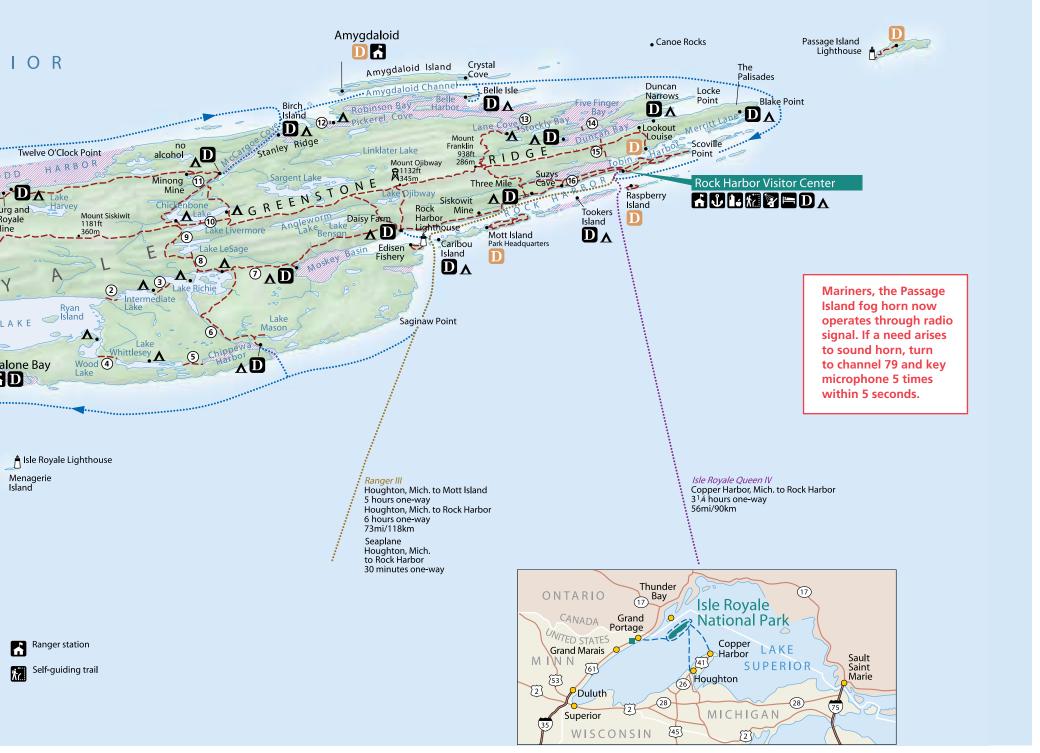
CANOE PORTAGES

 $Distance {\color{red} \bullet} Elevation {\color{red} -} Change {\color{red} \bullet} General\ Comment$

- ① Malone Bay Siskiwit Lake 3 miles, 40' Gradual Slope
- Siskiwit Lake Intermediate Lake .4 miles, 40' Gradual
- 3 Intermediate Lake Lake Richie .6 miles, 120' Hilly and wooded
- 4 Wood Lake Lake Whittlesey .6 miles, 80' Rolling
- (5) Lake Whittlesey Chippewa Harbor .6 miles, 140' Steep grades and rocky
- 6 Chippewa Harbor Lake Richie -1.2 miles, 160' Hilly
- Moskey Basin Lake Richie -2.0 miles, 120' Gradual but very long
- 8 Lake Richie Lake LeSage .6 miles, 100' Steep grades, wet
- Lake LeSage Lake Livermore –
 .4 miles, 80' Steep grades, wet
- 10 Lake Livermore Chickenbone Lake .2 miles, 40' Steep but short
- ① Chickenbone Lake -McCargoe Cove 1.2 miles, 80' Hilly lengthened for 2010
- ② Pickerel Cove .1 miles, 10' Short and sweet
- 3 Lane Cove Stockly Bay -.I mile, 8' Short and sweet
- 4 Five Finger Bay Duncan Bay .2 miles, 8' Short and sweet
- (5) Duncan Bay -Tobin Harbor .8 miles, 175' Extremely steep
- 16 Tobin Harbor Rock Harbor .2 miles, 40' Up and over
 NOTE: Because of Isle Royale's geology, north-facing
 slopes are much steeper than south-facing slopes.

Washington Creek

Windigo Dock



SAFETY TIPS

The island's Wilderness and Lake Superior present challenges and potential hazards to the inexperienced or ill-prepared.

- Basic emergency services are available on the island, but contacting rangers for assistance can be difficult. Emergency response and evacuation may take time, requiring you to rely on your own skills and equipment. Most private boaters on Lake Superior have radios and can contact park rangers in an emergency.
- Bring a good first aid kit, a sufficient supply of any needed medications, and clothing appropriate for the time of year.
- Filter with chemical treatment or boil all surface water. Drink plenty of water. When dehydrated, you tire more quickly, don't think clearly, and are more prone to fall.
- Weather and lake conditions can deteriorate quickly and unexpectedly. Hypothermia can occur any time of the year, especially near Lake Superior, where water and air temperatures are cool to cold year-round. Fog and waves can quickly create dangerous conditions for boaters, especially for paddlers.
- Many people underestimate hiking travel times and overestimate their abilities. Plan shorter, realistic travel days; don't turn your wilderness trek into a forced march.

FISHING REGULATIONS

I ISI III CO ILE	GOE/(IION)			
Species	Seasons	Minimum Size	Daily Possession Limit	Comment
Lake Trout, Rainbow Trout and Salmon Lake Superior and Siskiwit Lake	April 16 to October 31	10" except 15" for lake trout	5 in any combination, but no more than 3 of any one species	*1 *2 Artificial lures only on Siskiwit Lake*3 *4
Coaster Brook Trout Lake Superior	May 1 to Labor Day	N/A	Catch and release only in park's Lake Superior waters.	*I See Greenstone article page 10 for details *4
Brook Trout Streams and Hidden Lake	Last Saturday in April to Labor Day	N/A	Catch and release only — No possession allowed	Artificial lures *3 and barbless hooks *4 See Greenstone
Rainbow Trout Streams		7"	5 fish with no more than 3 fish over 15"	article page 10 for details
Yellow Perch Lake Superior and Inland Lakes	April 16 to October 31	No minimum size	50	Recommend daily limit of 10 *4
Northern Pike Lake Superior and Inland Lakes Walleye	May 15 to October 31	24" Lake Superior Inland Lakes - No minimum size, 30" maximum	5 in any combination, but no more than 2 Northern Pike	Artificial lures only on interior lakes *3 and streams *4 See Greenstone
Lake Superior and Inland Lakes				article page 10 for details

For additional fish species, seasons, and creel limits, please review the Michigan Fishing Guide

- * I Park boundaries extend 4.5 miles out into Lake Superior from the outermost land areas of the park.
- *2 For additional trout/salmon fishing information, review the Michigan Fishing Guide.
- *3 Artificial lure means any lure or fly manufactured in imitation of, or as a substitute for natural bait. It is unlawful to use or possess live bait, dead or preserved bait, organic or processed food, or scented material on interior lakes or streams.
- Only barbless hooks may be used for fishing the park's rivers, creeks, and streams, and all inland lakes. Barbed hooks are only allowed in Lake Superior waters.

Wilderness Use

Insects

Expect mosquitoes, black flies, gnats, and other insects to peak in June or July. During wet summers, mosquito populations can continue well into August. Bring insect repellent, netting, or other skin barriers. Dry summers will produce an abundance of yellow jackets. Bring an epinephrine kit if you or a member of your party is allergic to bee stings. For others, over-the-counter antihistamines may help counter minor swelling and itching.

Minimize Use of Fires

Campfires are permitted at only a handful of campgrounds. A backpacking stove is a must; these stoves are lightweight, dependable, easier to use, and less damaging to the park than wood fires. Where campfires are allowed, a metal fire ring is provided; never build your own ring. Gather only dead and down wood away from the camp area. Do not import firewood; insects and pathogens from an infected wood source could devastate Isle Royale's forests. Use small diameter wood no larger than an adult's wrist, as this will burn completely and will eliminate the need to pack a hatchet or saw. Collect wood from a wide area and away from the immediate vicinity of camp. This keeps the camp area from becoming depleted of wood and potential nutrients. Do not break branches or strip bark from standing trees, live or dead. Resist the temptation to gather driftwood or wood from beaver dams or lodges. Do not burn trash in any form. The fire should be kept small. Once finished, make sure the flames and coals are dead out and cold to the touch; double check before going to bed or leaving camp.

Canoeing/Kayaking

Lake Superior is well known for its cold temperatures, fog, and sudden squalls that can generate waves that could easily swamp a canoe. This along with scarce outer shore landing sites adds to the potential danger. Small, open vessels are encouraged to use the numerous miles of waterways that the inland lakes provide. Canoeists and kayakers should be familiar with weather patterns and consult the marine forecast at visitor centers before embarking. Be prepared to adjust your schedule to the weather. A portable marine radio is recommended.

Portages -

Canoe routes and portages are on the northeast half of the Island. Portages are marked with a letter "P" on a post.

PFD-

Every canoeist and kayaker must have a U.S. Coast Guard approved personal flotation device. Wear it; your life may depend on it.

Boat Rental –

Canoe, kayak, and motorboat rentals are available at Windigo and Rock Harbor. For more information contact the Rock Harbor Lodge. (refer to page 2).

Loons

Isle Royale National Park is the summer home for over 100 nesting pairs of common loons, supporting the only known population which still breeds on Great Lakes waters. These birds nest on land very close to the shoreline, making them highly susceptible to human disturbance. An adult loon who tremolos (the laughing call) is sending a

message that you are too close. From mid-May through July 15 (loon nesting season) visitors are to stay at least 150 feet away from small islands. Additional areas may be closed due to loon nesting, please check at the visitor centers for updated information.

Aquatic Invasive Species

Isle Royale waters, like all Lake Superior waters, face a growing threat from the invasion of non-native species. Once species like sea lamprey, zebra mussels, or spiny water fleas enter an area, they cause large-scale changes in the ecosystem.

Two invasive species, the sea lamprey and the spiny water flea, have already established a presence in Isle Royale waters. The spiny water flea presently is found only in Lake Superior. The park is concerned it may enter the inland lakes. Once established, its spines harm predator fish and they disrupt the zooplankton population, the basic food source for many fish species.

In 2009, zebra mussels were found on Isle Royale. Their potential to cause catastrophic change cannot be overstated. If zebra mussels were to enter the inland lakes it is estimated they would cover nearly every habitable surface on an inland lake floor within two years.

What can you do to stop the spread? Before traveling to Isle Royale

Boaters

Drain live wells and bilge on land - remove transom water, lake water, and unwanted bait from your boat. Wash your boat, including bilge and equipment with either: a) Hot (greater than 104 degrees F) water, b) High pressure water, or c) disinfectant OR

Clean and Dry your boat and equipment in the sun for five days. Rainy days don't count.

Backpackers

Prior to departure, clean your camping gear, clothing, and boots.

Canoeists and Kayakers

Remove weeds, algae, and other plant and animal materials from your boat. Wash your boat and equipment with either: a) Hot (greater than 104 degrees F) water, b) High pressure water, or c) disinfectant OR

Clean and Dry your boat and equipment in the sun for five days. Rainy days don't count.

Anglers

Clean fishing gear before island departure - When moving from Lake Superior to inland lakes, clean gear and change line spools.

Divers

Wash all dive gear in warm chlorinated tap water
- Disinfect your wetsuit with a special-purpose shampoo - dry all dive gear and wetsuit for seven days before island departure.

Wheeled Vehicles/ Devices

Wheeled vehicles (except for non-motorized wheelchairs) or other mechanical forms of transportation are not allowed on trails. This includes bicycles and portaging devices.

Weapons, Traps, & Nets

The use or possession of weapons, traps, and nets is prohibited. Weapons include any implements designed to discharge a projectile or missile in the air or water. Fireworks are prohibited.

Exception: As of February 22, 2010, a new federal law allows people who can legally possess firearms under applicable federal, state and local laws to legally possess firearms in the park. However, the use of firearms

within park boundaries is illegal.

Park User Responsibility: It is the responsibility of visitors to understand and comply with all applicable state, local and federal firearms laws before entering the park. As a starting point view the Michigan MCL Section 28.425b and visit the Michigan State Police website.

Weapons prohibited in Federal Facilities: Federal law prohibits firearms in certain facilities in the park; those places are marked with signs at all public entrances.

Weapons restrictions aboard Federal vessels and Concession vessels: Federal law prohibits firearms aboard federally-owned vessels servicing the park and restricts firearms aboard concession vessels and seaplane servicing the park; those vessels and boarding areas are marked with signs.

For more detailed information and links to legislation and pertaining laws visit www.nps. gov/isro/parkmgmt/lawsandpolicies.htm

Pets

Dogs, cats, and other pets are not allowed. This includes pets on boats within the park boundaries, which extend 4.5 miles into Lake Superior from the outermost land areas of the park. Visitors bringing pets to Isle Royale will be required to leave immediately. Pets disturb wildlife and can transmit diseases, particularly to wolves. Special conditions apply to guide dogs. Please contact the park for further information.

Boating

All boaters staying overnight at anchor, at docks, or in campgrounds must first obtain a camping permit. Lake Superior offers challenging and often dangerous weather in the form of dense fog, high winds, waves, and thunderstorms. Combine this with rocky reefs, limited safe harbors, and Isle Royale's remoteness, and it pays for you, your crew, and your boat to be shipshape. For additional information on boating and trip planning please request the park's Isle Royale Boating Guide. In addition to Houghton, Rock Harbor, and Windigo, boaters may obtain Isle Royale camping permits and pay user fees while using our on-line service at https://www.pasty.com/ isro/nps.php. Please note: the U.S. Forest Service Ranger Station in Grand Marais, Minnesota has discontinued processing permits and collecting fees for Isle Royale National Park.

Restricted Water Activities -

Water skiing and personal watercraft including vessels commonly referred to as jet skis, waverunners, sea-doos, wet bikes, or surf jets are prohibited. Since all of the park's inland lakes are located within designated Wilderness, they can only be explored by paddling. Vessels with motors (even if not in use) are prohibited on inland lakes and streams.

Portable Generators, Electronic and Motorized Devices –

Operation of electronic and motorized devices such as stereos, televisions, radios tuned to commercial stations and portable generators is not permitted except in developed and open-water motorized zones. Developed areas include the Windigo and Rock Harbor developed areas, and the Mott Island Headquarters area. Open water motorized zones include Lake Superior waters outside of designated "quiet/no wake waters".

On-Board Generators –

The operation or use of permanently installed (by the boat manufacturer) on-board vessel generators is allowed between 6:00 a.m.

and 10:00 p.m. Eastern Daylight Time in developed zones and at the following docks: Beaver Island, Belle Isle, Caribou Island, Grace Island, Hay Bay, Malone Bay, Rock Harbor, and Windigo. On-board generators may not be operated or used at the following public docks: Birch Island, Chippewa Harbor, Daisy Farm, Duncan Bay, Duncan Narrows, McCargoe Cove, Merritt Lane, Moskey Basin, Siskiwit Bay, Three Mile, Todd Harbor, and Tookers Island. Vessels at anchor within Quiet/No Wake Zones may operate on-board generators between 6:00 a.m. and 10:00 p.m. Eastern Daylight Time, except when anchored within 1/4-mile of a designated park campground.

Quiet/No Wake Zones -

These zones promote a quality visitor experience by providing relatively tranquil, natural marine surroundings. Within the zone, vessels must not exceed 5 mph or create a wake in excess of surrounding seas. Quiet/No Wake Zones include specified areas near Todd Harbor, Johns Island, Barnum/Washington Islands, Hay Bay, Wright Island, Malone Bay, Chippewa Harbor, Conglomerate Bay, Moskey Basin, Lorelei Lane, Tobin Harbor, Merritt Lane, Passage Island, Duncan Bay, Five Finger Bay, Lane Cove, Robinson Bay, Pickerel Cove, Belle Harbor, Crystal Cove, and McCargoe Cove. Consult maps and brochures available at visitor centers and on-board the Ranger III for specific information.

Alcohol Ban-

Open containers of alcohol are prohibited in campgrounds, on docks, and onboard docked vessels at both Siskiwit Bay and McCargoe Cove.

Pollution Prevention –

Head pump-out service is available at Windigo and Rock Harbor when the concession operation is open.

Vessels carrying spare fuel in portable containers must use legally approved containers. Fuel may not be stored on docks.

Customs-

All vessels arriving from Canada (U.S. or Canadian) must clear U.S. customs at Windigo or Rock Harbor Visitor Center. A valid passport, U.S Passport card, enhanced drivers license, or trusted traveler program card is required. Visitors from Canada can be cleared for Isle Royale only. For additional information go to www.cbp.gov.

Divers-

Please refer to your dive permit regulations concerning compressor use.

Fuel-

Gasoline is sold from June 8 through September 12 at Windigo; gasoline and diesel fuel are sold from May 28 through September 11 at Rock Harbor. Diesel fuel is not available at Windigo. Early and late season service or fuel may be obtained at Windigo and Mott Island if personnel are available.

Greg Blust

Supervisory Park Ranger

A Legacy of the Lake -History Protected in Isle Royale's Shipwrecks

Investigations of shipwrecks at Isle Royale National Park have added to the picture of the interconnections of the lake and daily life on Lake Superior during the late 19th and early 20th centuries. The large sunken ships found to date, all steam engine driven, span the transition from wood to metal hulls. The majority of them were propeller driven; one was a side-wheel paddle steamer. At least ten wrecks of large ships, dating from the 1870s through the 1940s, lie within the boundaries of the park. These sites comprise one of the most intact collections of shipwrecks in the National Park system. Preserved by the cold, fresh waters of Lake Superior, these shipwrecks and submerged terrestrial sites on the park's shores offer amazing insights into Great Lakes shipping, commercial fishing and the early settlement of Isle Royale.

Underwater archaeological sites are typically more difficult to access and more hazardous than terrestrial sites. At Isle Royale, notorious for its wild storms and frigid waters, this is certainly the case. Nonetheless, underwater archaeologists conduct the same types of research on archaeological sites as their counterparts do on dry land, but often under more challenging circumstances. Visibility may be limited, water currents may move objects, and the archaeologist has to track depth and time underwater, monitor air consumption and a host of other chores that ensure safety, in addition to making scientific observations.

National Park Service management of Isle Royale's shipwrecks includes identification, documentation, assessment, monitoring, and the preparation of nominations to the National Register of Historic Places. In these activities, the park's dive

team is aided by the National Park Service's Submerged Resource Center (SRC). This specialized unit assists parks with underwater archaeology projects. Divers from Isle Royale National Park and the SRC have mapped and monitored shipwrecks around the park for more than thirty years.



At work on the America

Surveying the Emperor bow

In the late summer of 2009, divers from Isle Royale National Park and the SRC spent several weeks surveying Isle Royale's underwater sites as part of a system-wide effort to collect information about the condition of cultural resources (both

above and below the water) in our

National Parks. The SRC will return to Isle Royale in 2010.

Karen Mundar Archaeologist **Washington Office**

David Conlin Chief Archaeologist Submerged Resources Center

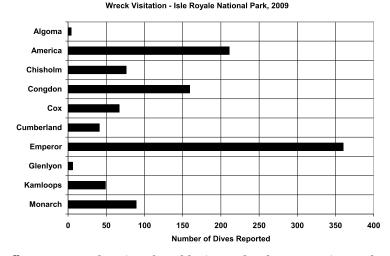
A Diver's Experience

The deafening noise of the boat's engines leaves us unable to talk, so we each retreat into the solitude of our own thoughts. I think about the last year of planning and preparation to make this trip possible. Arrangements happened so long ago that a forecast would have required a farmer's almanac. Typical lake conditions are one-to-three foot waves which can make a boat trip exhausting and a climb up the dive ladder more than a little dangerous. This is not a typical day. The morning's sun reflects off the gently undulating surface of the lake, yesterday's swells grow calmer in the absence of wind. I smile in anticipation of swimming among some truly worldclass shipwrecks.

With the Isle Royale Lighthouse in sight, we focus on rigging our dive gear. The methodical assembly and testing of equipment is as much ritual as anything else. This will not be an extreme dive by any means, but going underwater is never to be taken lightly. As I look around at the others, I am comforted to be with friends I trust my life to.

The boat noses up to a white teardropshaped mooring buoy. The skipper kills the engines and hoists the dive flag. My dive partner sits opposite of me on the rear deck as we inspect each other's gear. He is a mountain of suit, hoses, gauges and mask, leaving the barest minimum of exposed skin for the icy cold water to attack. Over we go. As I hit the water there is a predictable moment of disorientation: being upside down, looking up into the sun through a swirl of bubbles, and the shock of cold water. While the bubbles clear I check that all my gear is in place and working. Then I right myself and see my partner swimming toward the down line.

Letting air out of my buoyancy jacket, I begin to sink. The lake swallows me



In an effort to protect these irreplaceable sites and make a convenient and safe mooring for divers, the NPS provides a mooring buoy at nearly all of the ten popular wreck sites. Dive permits turned in at the completion of a visitor's trip provide information to the NPS about visitor trends and maintenance needs. In 2009 there were 1062 dives made.

whole. Now the only sounds I hear and cylinders of the triple expansion are the rush of air from my regulator as I draw breath in, and the cascade of bubbles escaping toward the surface as I exhale. The light of day fades to twilight. Slowly my eyes adjust. Already I can see the steel hull plate used to anchor the mooring line. What remains of the Glenlyon lay twisted and strewn about the reef ledges as if wrenched by the hands of Poseidon himself.

Temptation beckons me deeper, but our plan takes us up and over the reef within a few feet of the surface. After cresting the reef, I turn to the north east for several minutes of swimming to the engine. Tiring from the flutter kick, I switch to a frog kick. Is it really this far, or am I in the wrong valley? Uncertainty, doubt and then disappointment weigh on me for wasting precious time underwater. Just then more wreckage comes into view and we are rewarded with the massive gears steam engine. There is no sign of the wheat cargo she once carried, but the electrical generator and fractured engine supports are plain to see. I move along the shaft towards the propeller. Even in Lake Superior's naturally excellent clarity, I have lost sight of the engine by the time we reach the propeller.

We still have plenty of air left, so we head down to the next valley toward other remains of the stern section. I spot individual blades of a propeller, once spares carried on board. And there lies the rudder, an oddly shaped slab nearly a foot thick. My partner signals that it is time to head back to our boat. With reluctance I admit to myself that no amount of time would satisfy the desire to stay and see more.

Pete Sweger Park Ranger



Seeing the massive machinery parts of the Glenyon in their natural resting place is a profound experience.

REMINDER:

Barbless hooks and artificial lures only in all inland lakes, streams and creeks.

Fishing at Isle Royale

A Michigan fishing license is required for fishing in Lake Superior, including narrow bays and harbors, and when transporting fish from the island to the mainland. If you are under 17 years of age, you may fish without a license. Licenses are not required to fish on the inland waters of Isle Royale; possession limits are the same as those set by the State of Michigan. Also see additional information on this page regarding special brook trout regulations.

Anglers should refer to the Michigan fishing regulations for possession limits and detailed license requirements for Lake Superior (also see the chart on page 7 for a brief guide to regulations). Only 24-hour licenses are available on the island and only when concession services are open.

You may purchase a Michigan

fishing license online at

www.michigan.gov/dnr.

Special Brook Trout Regulations

Surveys indicate populations are dangerously low and may be at risk of disappearing unless they have more protection.

The National Park Service and Michigan DNRE have implemented protective regulations at Isle Royale in order to help with the recovery of this once-common fish.

Brook trout can be identified by their nearly square tail and wormlike pattern on the back and dorsal fin. If you're uncertain about the species you catch, return it to the water.

Lake Superior Waters

(extend 4.5 miles out from the island) Catch and release only for all brook trout, including all bays and harbors.

Inland Waters

Catch and release only in all lakes, streams, and creeks. Only artificial lures and barbless hooks can be used in all lakes, streams, and creeks.

Viral Hemorrhagic Septicemia

Viral Hemorrhagic Septicemia (VHS) is an exotic virus that could have severe impacts on fish in the Great Lakes.

- VHS is a disease that may affect more than 40 fish species – lake trout and coaster brook trout are at risk. The disease is often lethal, and can result in massive die-offs. Once VHS has invaded a body of water, there is no known way to eliminate it.
- VHS has reached Lake Superior.
 In 2009 researchers documented
 VHS infected fish at four locations on Lake Superior.
- VHS does not affect humans, but humans are advised against consuming any fish suspected of carrying any disease. Fish that are affected by VHS may or may not show external signs such as red blotchy areas on the skin, redness near the base of fins, and bulging eyes with redness around the eye. Internal organs

such as the liver or spleen often show signs of hemorrhaging. If you catch a fish with any of these signs at the park, please keep it, note the location and date that you caught it, and report it as soon as possible to a visitor center or park ranger.

- · Live and dead fish bait, fish parts, and fish eggs from infected fish are some of the ways that the disease can be transmitted to wild fish populations. Freezing, salting, or borax treatment of eggs does not kill the virus. The possession or use of bait for fishing within the Lake Superior waters of the park is limited to those fish and / or fish parts that are caught within Isle Royale National Park waters. Transporting fish or fish parts for use as bait to the park is prohibited.
- Boat water in bilges and live wells from waters where VHS is present can spread the disease.

Boaters should empty their bilges and live wells prior to leaving a mainland port, and again before entering park waters. Please ask for any specific updated guidelines and regulations before your trip. Boats being transported via the *Ranger III* must be decontaminated prior to being loaded at the Houghton dock.

 The following websites provide information on VHS and how you can help.

Isle Royale National Park website: http://www.nps.gov/isro/

Minnesota DNR: www.dnr.state.mn.us/fishdiseases/vhs.html

Michigan DNRE: www.michigan.gov/vhs

Fishery Conservation

With its multitude of islands and bays on Lake Superior, as well as numerous lakes and streams on the interior of the island, Isle Royale provides many opportunities for outstanding recreational fishing for wild, native fish. How can you help to conserve and minimize damage to the Isle Royale fishery?

- Catch only what you plan to keep or eat. Catch and release, while encouraged, can be damaging and very stressful on fish.
- Know the minimum and maximum legal size of fish so that if they are too small or too large they can be quickly released.
- If moving from Lake Superior to an inland lake, change to a different spool of line. This will help prevent spread of the spiny water-flea, an exotic aquatic invertebrate that competes with juvenile fish for food. It has been found in Lake Superior waters of the park but is not yet documented in inland waters. Spiny water fleas can adhere to fishing line and be easily spread to other bodies of water.
- Release larger fish and keep medium size fish to insure future productivity. Larger, more mature fish produce more offspring than smaller fish.
- Instead of killing trophy fish, consider a modern graphite mount produced from a picture of the fish.
- Return fish to the water as soon as possible. While unhooking them, keep fish in the water as much as possible.
- Try not to handle fish, but if you need to, do so with a wet hand. Release handled fish gently by allowing them to swim from your hands rather than throwing them back into the water.

- Do not squeeze the fish or place fingers in the gills, since a torn gill can cause the fish to bleed to death.
- Remove the hook gently. Pliers work best. Cut the line near the hook if a fish is deeply hooked. A steel hook will decompose in time.
- Use only artificial lures (required in inland waters) as exotic species can accidentally be introduced by using live bait. In addition, live bait is more likely to be swallowed; resulting in more damage to fish.
- Use single, barbless hooks or bend down the barbs on the hooks. Using larger spoons when fishing for larger fish will help prevent catching undersize fish.

Disposal of Fish Remains

At Rock Harbor, please use the fish cleaning station. At other locations, the preferred method is to dump remains chopped up into pieces 4" or less in deep (50' or deeper) water. This reduces the unsightly remains and odors around campgrounds and the unnaturally large gathering of gulls at these sites. At inland lakes the preferred method of disposal is to chop fish remains into pieces 4" or less and deposit into deep water via canoe. If you do not have a canoe, you could request the assistance of a canoeist. The alternate method is to chop up remains into pieces 4" or less and move at least 200 feet (75 steps) from campground and throw remains as far as possible into deep water. These steps will eliminate the potential for attracting and feeding wildlife at campgrounds. Please clean fish away from docks and campgrounds. Do not throw remains in shallow water near shore or throw remains to gulls or other animals.

Transporting Fish to the Mainland

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You are allowed only one day's catch in your possession. While the license holder remains on the Island, Michigan Department of Natural Resources and the Environment (DNRE) allows those with DNRE permits to ship legally-taken fish on the Ranger III, Isle Royale Queen IV, Wenonah, Voyageur II and the seaplane. This one-a-year permit covers up to a single day's catch limit. Fish must be claimed when the ferry service arrives at their destination. Permits may be obtained by writing: Department of Natural Resources, 427 U.S. 41 North, Baraga, Michigan 49908-9627 or calling (906) 353-6651. Fishermen returning on the Ranger III must check in their fish with the ship's purser. Fish cannot be transported in coolers on private boats onboard the Ranger III.

Fish Consumption Advisory

Contaminants discovered in the Park ecosystem remind us that although Isle Royale is remote, it is part of a global system. Ongoing research in six inland lakes (Sargent, Siskiwit, Eva, Shesheeb, Wagejo, and Angleworm) shows fish with mercury levels exceeding the State of Michigan fish consumption advisories.

For information on fish consumption advisories check with park staff or visit the Michigan Department of Community Health website at: http://www.michigan.gov/mdch

Jay Glase Fishery Biologist

Transportation Services

Rates and schedules are subject to change.

FROM HOUGHTON. **MICHIGAN**



RANGER III **National Park Service owned and**

operated. 5 hours one-way to Mott Island 6 hours one-way to Rock Harbor, 165 ft., 128 passenger vessel

SCHEDULE (Eastern Daylight Time)

6/1 thru 9/11

- Houghton to Rock Harbor Tues. and Fri. 9:00 a.m.
- Rock Harbor to Houghton Wed. and Sat. 9:00 a.m.

New for 2010

Keweenaw Waterway Cruise

(2 1/2 hours) 7/29, 8/12, and 8/26 Depart from Houghton 2:00 p.m.

FARES	ONE-WAY
Low Season Prior to 7/9 and afte	r 8/28
Adults	\$50.00
High Season 7/9 thru 8/28	
Adults	\$60.00
All Season	
Children (7 thru 11 years)	20.00
Children (age 6 and under)	
Boat (less than 18'01")	85.00
Boat (18'01" to 20'00")	137.50
Disabled boat (20'01" to 26'00")	350.00
Canoes/Kayaks (hand-loaded)	20.00
Canoes/Kayaks over (20'00" or 90 l	bs.) 50.00
Outboard Motor	15.00
100 lbs. gear per passenger	FREE
Additional freight after 100 lbs	\$9.00/100wt

GROUP RATES	ONE-WAY
(A party of seven or more)	
Adults	\$50.00
Children (7 thru 11 years)	\$20.00

SPECIAL RATES Ranger III Birthday Special

Adult round-trip of \$60.00 if round-trip is scheduled between 6/15 and 6/26, Children round-trip of \$20.00, if round-trip is scheduled

between 6/15 and 6/26 Ranger III Lodge Packages

6/8 thru 7/3	
==	ınt
15% lodging discoເ	un
7/6 thru 9/1020% Passenger Discou	un
10% lodging discoເ	un

For reservations contact the Rock Harbor Lodge at 866-644-2003.

Keweenaw Waterway Cruises

Adults	\$20.0
Children and Youth (age 1 through 1	5) \$5.0
Infants (under 1 year)	FRE

RESERVATIONS

Full payment required for confirmed reservation. National Park User Fee is payable at time of ticket purchase. Major credit cards accepted. Reservations accepted on or after January 2.

CANCELLATIONS

Refunds, minus a 15% processing fee, if cancellation is received 3 days prior to sailing and tickets are returned. No refund within 3 days of sailing.

AMENITIES

Free parking • Largest of the ships • Crew of 9 • Two decks for passenger use • Three staterooms available • Ranger III Grill • Interpretive Programs • Backcountry Permits issued and orientation given onboard • Four lounges • Handicap Accessible Bathroom

FOR INFORMATION OR **RESERVATIONS CONTACT**

Isle Royale National Park 800 East Lakeshore Drive Houghton, MI 49931-1869

On-line Reservations https://www.pasty.com/isro/nps3.php

Phone: (906) 482-0984 Fax: (906) 482-8753

E-mail: ISRO_Ranger3Reserve@nps.gov Website: www.nps.gov/isro

FROM COPPER HARBOR, **MICHIGAN**



ISLE ROYALE QUEEN IV

3 hours one-way, concession operated, 100 ft., 100 passenger vessel

SCHEDULE (Eastern Daylight Time)

Copper Harbor 8:00 a.m.	
■ Rock Harbor 2:45 p.m.	
5/14 thru 5/31	M & I
6/1 thru 6/12	M, W, F, Sa
6/13 thru 6/30	M, T, Th, F, Sa
7/1 thru 7/31	M, T, Th, F, Sat, Sur
8/1 thru 8/31	Every Day
9/1 thru 9/5	M, T, Th, F, Sat, Sur
9/6 thru 9/27	M & I

9/1 thru 9/5 9/6 thru 9/27	
FARES	ONE-WAY
5/14 thru 7/14 & 8/16 thru 9/	27
Adults	\$57.00
Children (1 thru 11)	28.50
7/15 thru 8/15	
Adults	\$65.00
Children (1 thru 11 year	rs)32.50
Infants (under 1 year)	FREE
Canoes/Kayaks	
Double Kayaks	30.00
Motors (under 5 hp)	
Motors (5 hp and over)	15.00
Air Tanks (each)	5.00
70 lbs. gear per person	FREE

RESERVATIONS

A full-fare deposit is required for each reservation. All canoes and kayaks require advance reservations. Most credit cards

CANCELLATIONS

There is no refund if canceled less than 3 days before sailing. Cancellations received with more than 3 days notice will be sent an 85% refund. If canceling a group of 10 or more, two weeks notice is required.

MISCELLANEOUS

Parking fee • Limited snacks • Freight, canoes. etc. carried for our passengers only • Due to weight restrictions, luggage limited to 70 lbs. per passenger • Phone and letter reservations only • Email and faxes are for information requests only • The \$4 per day National Park User Fee is collected on the Oueen IV as she sails to Isle Royale and is payable in cash, check, or money

Motor Boaters be advised that the Queen IV is presently not equipped to carry motor boats. Boaters should contact the Ranger III for passage.

FOR INFORMATION OR **RESERVATIONS CONTACT**

The Isle Royale Line, Inc. P.O. Box 24, Copper Harbor, MI 49918

(906) 289-4437

Fax:

(906) 289-4952 E-mail:

Captaink@pasty.net

www.isleroyale.com

FROM GRAND PORTAGE, **MINNESOTA**



VOYAGEUR II

Grand Portage to Windigo - 2 hours one-way, Windigo to Rock Harbor - 5 hours one-way, concession operated, 60 ft. vessel

SCHEDULE (Central Daylight Time)

Schebber (central bayinghe filling
■ Grand Portage to Rock Harbor via Windigo/N
Cargoe Cove/Belle Isle
5/8 thru 5/29W & Sat 7:30 a.r
5/31 thru 9/18 M, W & Sat 7:30 a.r
9/22 thru 10/13
■ Rock Harbor to Grand Portage via Daisy Farm
Chippewa Harbor/Malone Bay/Windigo
5/9 thru 5/30Th & Sun. 8:00 a.r
(9:00 a.m. ED

irand Portage to Windigo	8·00 a m	
Vindigo Round-Trip – Sat. &	Sun. 9/25 thru 10/17	
	(9:00 a.m. EDT)	
/23 thru 10/14	Th 8:00 a.m.	
	(9:00 a.m. EDT)	
/1 thru 9/19Tu	e, Th & Sun 8:00 a.m.	
	(9:00 a.m. EDT)	

Grand Portage to Windigo	8:00 a.m.
Windigo to Grand Portage	1:00 p.m.
	(2:00 p.m. EDT)
FARES	ONE-WAY
Grand Portage to Windigo	\$63.00
Children (4 thru 11 years)	43.00
Grand Portage to McCargoe Cove	e/Belle Isle/Rock

Harbor/Daisy Farm/Chippewa	
Harbor/Malone Bay	75.00
Children (4 thru 11 years)	51.00
Inter-island travel between various	same day
designated island stops	46.00 - 58.00
Inter-island travel for child	.31.00 - 40.00
Canoe, Kayak	32.00
Additional freight	

. \$32.00/100 lb.

RESERVATIONS

after 40 lbs.

Full payment required for confirmed reservations. Major credit cards accepted. National Park User Fee is payable at time of ticket purchase. Refund is 85% of fare, provided cancellation is received at least 2 full weeks prior to departure.

MISCELLANEOUS

• Parking fee • Hot coffee available • Freight shipments must be arranged in advance • Fuel surcharge • Fishing poles must be in protective cases • Hard gear must be in securely closed

FOR INFORMATION OR **RESERVATIONS CONTACT**

Grand Portage-Isle Royale Transportation Line, Inc. P.O. Box 10529, White Bear Lake, MN 55110

Phone: (888) 746-2305 or (651) 653-5872 - Oct thru April (218) 475-0024 - May thru Oct

E-mail: reservations@isleroyaleboats.com Website: www.isleroyaleboats.com

FROM GRAND PORTAGE, **MINNESOTA**



WENONAH

3 hours one-way, concession operated,

SCHEDULE (Central Daylight Time)

Grand Portage to	
Windigo	departure 8:30 a.m.
6/18 thru 7/10	W, Fri, Sat
	W, Th, Fri, Sat, Sun
8/18 thru 9/4	W, Fri, Sat
■ Windigo to	
Grand Portage	daily 2:00 p.m.
	(3:00 p.m. EDT)
6/18 thru 7/10	W, Fri, Sat
	W, Th, Fri, Sat, Sun
	W, Fri, Sat
FARES	ONE-WAY
	\$63.00
	/ears)43.00
,	32.00
40 lbs. Gear per pas	sengerFREE
Additional freight	
after 40 lbs	\$32.00/100 lb.

Children (4 thru 11 years)

SAME DAY ROUND-TRIP

RESERVATIONS
Full payment required for confirmed reservations.
Major credit cards accepted. National Park User
Fee is payable at time of ticket purchase. Refund

85% of fare, provided cancellation is received at

least 2 full weeks prior to departure. **MISCELLANEOUS**

Parking fee • Hot coffee available • Limited snacks • Sightseeing en route • Fishing poles must be in protective cases • Hard gear must be in securely closed packs • Fuel surcharge

FOR INFORMATION OR **RESERVATIONS CONTACT**

Grand Portage-Isle Royale Transportation Line, Inc. P.O. Box 10529, White Bear Lake, MN 55110

Phone: (888)746-2305 or (651) 653-5872 - Oct thru April

(218) 475-0024 - May thru Oct

reservations@isleroyaleboats.com

Website:

www.isleroyaleboats.com

FROM HOUGHTON, **MICHIGAN**



SEAPLANE

Air service to Isle Royale operates from the Houghton County Airport from mid May through mid September.

The seaplane accommodates up to four persons. Baggage is limited to 40 pounds per person. The plane cannot carry stove fuel. Selected fuels are available upon arrival at the Park.

Schedule

5/14 – 9/17 Visit website for available dates.

rates	
Round trip	\$290.00
One Way	195.00
Inter-island	100.00

FOR INFORMATION OR **RESERVATIONS CONTACT**

Royale Air Service, Inc P.O. Box 15184 Duluth, MN 55815

Phone: (218) 721-0405

(877) 359-4753 Fax: (218) 721-0409 (877) 359-4754

.\$52.00

E-mail: Royaleairservice@aol.com Website:

www.rovaleairservice.com

WATER TRANSPORTATION ON THE ISLAND

VOYAGEUR II

During its clockwise circumnavigation of the Island, the Voyageur II provides drop-off and pick-up services at several areas. Please refer to their schedule and rates.

ROCK HARBOR LODGE **WATER TAXI**

Provides drop-off and pick-up services between Rock Harbor and McCargoe Cove on the north shore and Rock Harbor and Malone Bay on the south shore. Opens 5/28; Closes 9/11. For contact information refer to page 2.

GENERAL INFORMATION

- No alcohol consumption on passenger ferries.
- Pets and wheeled devices are not allowed. Wheelchairs are allowed. • Stove fuel can be carried in approved containers on ferries, but not on the seaplane. • Lake Superior weather is cool throughout the year; for comfort bring a warm jacket.

Isle Royale's Recreation Fee Program		
Fee Categories	Rate and Explanation	
Daily User Fee	\$4.00 per person per day. Children 11 and under are exempt from the fee.	
(Optional): Individual Season Pass	\$50.00 This pass is valid from April 16 through October 31 of the year indicated. The pass covers the User Fee for the person whose signature appears on the pass.	
(Optional): Season Boat Rider Pass	\$150.00 This pass is valid from April 16 through October 31 of the year indicated. The pass covers the User Fee for all persons onboard, when affixed to the private boat. When camping, the pass is only valid for passengers included in and following the itinerary of the vessel.	

Join the Isle Royale & Keweenaw Parks Association & Support Isle Royale National Park Programs

The Isle Royale & Keweenaw Parks Association, in partnership with the National Park Service, promotes the public's understanding and appreciation of Isle Royale National Park and Keweenaw National Historical Park through education and research.

By publishing and selling products about Isle Royale National Park and Keweenaw National Historical Park, we educate people about these special places and raise funds that are re-invested in the parks to support research and interpretive programs.

Every year the Isle Royale & Keweenaw Parks Association contributes approximately \$25,000 in cash and in-kind aid to Isle Royale National Park.

YOU CAN HELP....

You can support the work of the Isle Royale & Keweenaw Parks Association and our partner parks by becoming a contributing member of our organization. Your tax-deductible contribution will help us share the stories of Isle Royale National Park and Keweenaw National Historical Park with people of all ages, around the world.

Membership levels are:

Life	\$1200	(Payable in 4 installments)
Patron	250	
Sustaining	100	
Supporting	50	
Household	35	
Individual	25	

Member benefits:

- · a 10% discount on all purchases from IRKPA outlets and many other National Park Visitor Centers throughout the U.S.,
- three issues of Wolf's Eye newsletter,
- copies of park newspapers, The Greenstone and the Keweenaw Guide,
- invitations to park programs, trips, and events,
- monthly e-mail park news updates.

Become a member today!

Call us at 800-678-6925, or join online at **www.irkpa.org**

The Isle Royale and Keweenaw Parks Association:

Offers books and other educational products

in visitor centers at Rock Harbor, Windigo and Houghton;

> **Rock Harbor** Visitor Center





Produces park signs and brochures;

> Invasive species sign.

Conducts field trips and workshops;

> 2009 Isle Royale Photography Workshop





Provides funding for Isle Royale's Artist-in-Residence Program.

Painting by artist-in-residence Judith Corning

BOOKS, MAPS & MORE Your purchases help support Isle Royale National Park!

COMING SUMMER 2010!! Becoming Wilderness: Nature, History, and the Making of Isle Royale National Park

The story of how Isle Royale became a national park, and the people and politics behind the decision to make a remote island in Lake Superior the first wilderness park.

Author: Amy Baldwin

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A View from the Wolf's Eye

Carolyn Peterson's memoir of her 37 summers on Isle Royale as wife of long-time wolf/moose researcher Rolf Peterson. An uplifting and inspiring chronicle of day-to-day life in a very special wilderness. 102 pages. Author: Carolyn Peterson

Island Life: An Isle Royale

Isle Royale National Park:

Nature Guide A complete guide to the common flora and fauna of Isle Royale in one easy-to-use and easy-to-carry volume. Over 350 species of mammals, birds, fish, reptiles, trees, and flowers, each

illustrated with a color photograph or drawing. 168 pages. Authors: Ted Gostomski & Janet Marr

Foot Trails and Water Routes The park's authoritative illustrated guidebook. All the information you need to plan everything from a series of day hikes to a two-week trek that circles the park. A must for planning your backpacking or canoeing trip to Isle Royale. 136 pages. Third edition. Author: Jim DuFresne

The Wolves of Isle Royale:

A Broken Balance This classic firsthand account of the Isle Royale predator/prey study is back in print in a new paperback edition. Illustrated with over 100 photographs, this book reveals the true nature of the little-understood wolf and some of the secrets of this one-

of-a-kind 50-year study. 192 pages. Author: Rolf Peterson

NEW!! Ecological Study of Wolves

on Isle Royale 2009-2010 This year's report from the winter study on Isle Royale. Includes latest information on the island's wolf and moose populations. Annual Reports from 1989-2007 also available.

Superior Wilderness:

Isle Royale National Park

Author: Rolf Peterson & John Vucetich

\$16.95 A natural history of Isle Royale for the layperson, emphasizing the ecology of the island, the relationship between its plants, animals and physical environment. Color photographs and an extremely readable text. Maps, photos, charts, illustrations. 171 pages. Author: Napier Shelton

Fishes of Isle Royale

\$3.95 This complete fishing guide includes information on the five fish habitats on Isle Royale, a full description of all major species with illustrations, keys to fish identification, and an annotated list of fishes. Charts, maps. 58 pages. Authors: K.F. Lagler & C.R. Goldman

Isle Royale: A Photographic History \$29.95 The history of Isle Royale from early exploration in the 1600s to the birth of the national park as told through historical photos and maps. Chapters: Exploration, Copper Mining, Navigation, Commercial Fishing, Recreation, and Creating a National Park. 160 pages. Authors: Tom & Kendra Gale

Diaries of an Isle Royale Fisherman

Reproductions of the journals and correspondence of Elling Seglem who fished from Isle Royale's Fisherman's Home between 1920 and 1932. These newspaper-format letters were sent home to his family in Chicago. Historic photos and cartoons. 185 pages.

Editors: Jill Burkland & Robert Root

Trails Illustrated Map Topographic map includes valuable wilderness tips and Leave No Trace guidelines, along with updated trails, trailheads, points of interest, campgrounds, and much more. Printed on waterproof, tear-resistant material with a plastic coating with one half of the island on each side. Measures 4" x 9" folded and 38" x 25" fully opened. Scale = 1:50,000. Updated 2006.

NOAA Lake Charts

mammals, and rocks.

Official navigation charts for Isle Royale, Lake Superior, Grand Portage, the Great Lakes, Keweenaw Peninsula, and Portage Canal. Soundings in feet. Folded or rolled. Add \$3.00 for

mailing tube if rolled. **Exploring Isle Royale** DVD \$21.95 This orientation video produced by the National Park Service shows how to best enjoy the island's many attributes, including its trails, lakes, and campsites. Winner of the 1995 Michigan **Outdoor Writers Association Best Outdoor Travel Program.** 28 minutes.

Isle Royale Wolf T- Shirt \$16.95 Heather gray heavy cotton short-sleeve T-shirt with new wolf design in tones of black, gray and brown. Adult sizes M to XXL.

Special Value Package

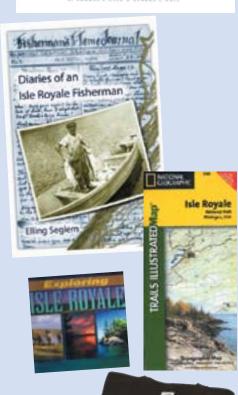
Hiking & Canoeing Package \$30.00 Includes the Trails Illustrated map, the book Isle Royale National Park: Foot Trails and Water Routes, and the park checklists of birds,

> www.irkpa.org 800-678-6925

IRKPA members receive a 10% Discount on all purchases!

Visit our sales outlets at Isle Royale National Park Visitor Centers, on the waterfront in Houghton, Michigan, and on the island at Rock Harbor and Windigo.





Shipping Charges/US Mail: Up to \$5.00 \$5.01 - \$10.00 \$4.00 \$10.01 - \$20.00 \$5.00 \$20.01 - \$30.00 \$7.00 \$8.00 \$30.01 - \$50.00 \$50.01 - \$75.00 \$9.00 Over \$75.00 free Priority Mail: Add \$4.00 Additional Charges outside U.S.