

Isle Royale

National Park
Michigan

National Park Service
U.S. Department of the Interior



In Lake Superior's northwest corner sits a wilderness archipelago, a roadless land of wild creatures, unspoiled forests, refreshing lakes, and rugged, scenic shores—accessible only by boat or floatplane. Travel on and around the island is by foot, boat, or floatplane. There are 267 kilometers (166 miles) of foot trails on Isle Royale and the island boasts numerous inland lakes. And for more seaworthy craft there is, of course, Lake Superior itself.

Isle Royale exists as an island in many ways. It is an island of wilderness and home to wolves in a modern world. It is an island in time, a natural space in which you operate on natural time and experience the rhythms of light and dark. Days are measured by footsteps, possibly under a backpack. Walking the island you are struck by its striated layout, its elongated forested-rock and lake patterns that parallel its backbone, the Greenstone Ridge. The island, it seems, must have been forcibly combed from northeast to southwest. The surface scene you see from the island's heights is the product of 10,000 years of natural sculpting, soil-building, and plant-pioneering and succession. Back then—actually not long ago by nature's standards—the island appeared beneath glacial ice, rising as the lake level dropped. The island developed soil and was colonized by plants and animals. Its many

inland lakes first formed, in basins gouged out by glaciers, and then began to shrink, as lakes and ponds inevitably do. Beneath the ponds, the forests, and the light soil covering, however, is a story which must be told not in increments of centuries, but by millions and billions of years. The ridge-and-trough pattern of the rocks is the work of millions of years, pre-dating even the formation of Lake Superior and its islands. The story begins some 1.2 billion years ago with a great rift in the earth's crust which may have extended from here southward all the way to the Gulf of Mexico. As this series of cracks poured forth molten lava covering thousands of square kilometers, the land along the rift zone sank to form the Superior Basin, which has shaped all subsequent geological events in the region. The rock record of this cataclysmic happening—the volcanics, sandstones, and conglomerates—forms Isle Royale's bedrock today. Clues to the island's past abound. Smoothed, rounded, and even grooved rock belies the crushing power of the last major glaciation, known as the Wisconsin. It ended here only a few thousand years ago. On the southwestern part of the island, where this glacier paused in its retreat, are small linear hills made of its deposits. On the Stoll Trail out toward Scoville Point you pass three small pits in the rock. These form another clue, a clue to the Indians who

mined copper on the island. The Indians came to the island only in mild seasons, taking what resources they could, and leaving before winter. The Indians mined here by about 2000 B.C., continuing for 1,000 years, and Isle Royale and Superior area copper made its way by trade as far as New York, Illinois, and Indiana. Indians were probably most active here from 800 to 1600. By the 1840s, the only Indian encampments white miners encountered were a maple sugaring camp on Sugar Mountain and a seasonal fishing camp on Grace Island.

Aquatic environments abound both on and around the island. In fact, some 80 percent of the national park is underwater, as shallow warm water ponds, streams, and rivers, and the deep, cold, foreboding Lake Superior waters. Commercial fishing has been one of the mainstay economic activities on the island throughout historic times. It began before 1800, to feed the fur traders. Since about 1840, it has been a largely individual enterprise. The major economic species were lake trout, whitefish, and herring lurking in the range of water depths and bottoms along kilometers of Isle Royale shoreline. Most of the commercial fishing enterprises had closed by mid-century; that world is now preserved by the historic Edison Fishery and programs conducted by the National

Park Service. Sport fishing has now replaced commercial fishing. Species sought are lake, brook, and rainbow trout; northern pike; walleye; and the yellow perch. Spring and fall produce the biggest catches, but fishing is considered good throughout the season.

Isle Royale's animal life also expresses its island nature. In the recent past, both wolf and moose have come in search of better hunting and browsing grounds, as recounted in this folder. Other animals you might expect here are missing, however, although it is but 24 kilometers (15 miles) to the Canadian shores where they are found. But even what is missing, like the black bear and white-tailed deer, somehow enriches the sense of Isle Royale's wild solitude.

Isle Royale is indeed an island of superlatives for wilderness and beauty. Or how about this superlative? Siskiwit Lake's Ryan Island is the largest island in the largest lake on the largest island in the largest freshwater lake in the world! You will find your own superlatives here as you meet the island on its own terms: fishing, boating, hiking, backpacking, taking a guided interpretive walk or hike, or just relaxing, which are what vacations are for.

Man at Isle Royale

Long before Europeans saw Isle Royale, Indians mined copper here. Using hand-held beach cobbles they hammered out chunks of pure copper from the hard bedrock. Archeologists have excavated their

shallow mining pits, some dating back 4,500 years. The French claimed possession of the island in 1671. In 1783, it became a U.S. possession; it was identified as Chippewa Territory until 1843.



"Modern" copper mining took place off and on from the mid-1800s until 1899. During that era large areas were burned, the forest was logged, and settlements developed. The 1830s saw the advent of commercial fishing.

The American Fur Company used the ancient method of gill netting to take whitefish, lake trout, and siskiwit. This tradition has been handed down through the fishermen's families. Early this century Isle Royale became popular

for summer homes, excursions, and as a wilderness retreat. Detroit journalist Albert Stoll sparked the fight for the national park, established in 1940.



Black and white photos courtesy Michigan Technological University Archives

Isle Royale's Wilderness World

Had we visited Isle Royale at the turn of this century, we would have found it quite different. We would have seen no wolves or moose. Instead, we might have seen a herd of caribou or glimpsed a lynx, no longer seen today. The forest undergrowth would be thick with American yew rather than thimbleberry. Since the turn of the century, the coyote has come and

gone. The white-tailed deer was introduced and has since disappeared. Sometime early in this century, moose immigrated to the island, probably swimming from Canada's mainland. With abundant food and no predators, the moose population grew unmolested. By the early 1930s the moose had destroyed their food supply and began to die off in great numbers.

A fire in 1936 burned browse over a quarter of the island and by 1937 the moose population crashed. But the fire stimulated growth of new browse and the unchecked moose population began to grow, only to crash again when the food ran out. During the cold winter of 1948-49 an ice bridge formed between Canada and the island, and a small pack of Eastern Timber

Wolves crossed to Isle Royale. Since then, additional packs have become established here as offshoots of the original pack. Individual wolves have ranged from 12 to 50. The population is now at the low end of that range.

The wolves are important in maintaining a healthy moose population. The very young, the very old, and those

moose prone to predation because of illness or injury are the most likely prey. By culling weak and old, wolves contribute to the health of the moose population. When predators decrease, the number of prey increases and the dynamic cycle begins again. In lean years, the pack's reproduction and survival rates may fall off dramatically, but they usually increase when



the moose in an aging population are more easily caught. So wolf and moose are held in balance.

Wolves are highly intelligent and social animals that form ex-

tremely organized packs. Every individual from the dominant pair to the weakest pup has a specific place in the pack hierarchy. Wolves are distinguished from other wild canines by their size. An adult male, bigger than a large German shepherd, may weigh close to 45 kilograms (100 pounds). Its size is accentuated by the heavy grey coat of fur and mane-like ruff

around the head. A wild wolf's normal life-span is 6 to 8 years and some individuals may live 12 years. Pack size varies from 2 to 15 individuals.

As parents, few wild animals can match the wolf's devotion to its young. In late spring the pregnant female will dig a den and prepare it for the pups. Before and after the pups are born, the pack

remains close to the den, supplying food to the female. When the pups are able to leave the den, they assume special status and are cared for by all pack members.

As a wilderness, Isle Royale is more than just a sanctuary for wolves and moose. As a national park it is more than a pleasuring ground for humans. The island's uniqueness lies



in its complex yet simple system of natural processes, a system in which moose are dependent upon both wolves and beaver—wolves to control their numbers and beaver to provide dams and in

turn the aquatic vegetation upon which moose feed. The beaver also serve as a summer food for the wolf and the beaver ponds eventually become meadows that support a variety of smaller animals. The red fox eats the hare who, if left unchecked, would destroy the forest that supports the moose that supports the wolf. In such a system a dynamic equilibrium is struck in which each species has an important role. And man's part? We must leave this balance to natural law, observing but not manipulating. Isle Royale has been designated an international biosphere reserve under the Man and the Biosphere (MAB) program. Ninety-nine percent of the park's land area is legally designated as wilderness.

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Drawings by George Founds

Isle Royale

National Park Michigan



Access and Accommodations

Transportation from the mainland to the park is by boat or floatplane. Reservations are always required. **Houghton to Rock Harbor.** (June to Labor Day) Via the passenger vessel, *Ranger III*. For rates, schedules, and information, write: Superintendent, Isle Royale National Park, Houghton, Michigan 49931. Phone (906) 482-0984.

Houghton to Windigo or Rock Harbor. (Mid-May through October) Via floatplane, write: Isle Royale Seaplane Service, Box 371, Houghton, Michigan 49931. Phone (906) 482-8850.

Copper Harbor to Rock Harbor. (mid-May to late September). Write: Isle Royale Queen, Copper Harbor, Michigan 49918. Phone (906) 289-4437.

Grand Portage to Windigo (mid-June to Labor Day) and Grand Portage to Rock Harbor via Windigo (mid-May thru October). Please write to: GPIR Transport Lines, 1332 London Road, Duluth, Minnesota 55805. (218) 728-1237. One boat circumnavigates Isle Royale and will drop off and pick up passengers at various points around the island.

Be Prepared. Weather and rough seas may delay your departure to and from the islands, sometimes for days at a time. Allow extra time and be flexible. You can visit Isle Royale National Park from mid-May through mid-October. Summer daytime temperatures rarely exceed 27° C (80° F); evenings are cool. Dense fog is common in spring and thunderstorms may occur throughout the season.

Accommodations. Lodge and housekeeping facilities are available at Rock Harbor. For reservations, rates, and information

during the summer season, write: National Park Concessions, Inc., Box 405, Houghton, Michigan 49931. Off-season lodging information is available from: National Park Concessions, Inc., Mammoth Cave, Kentucky 42259.

Information. For information write: **Superintendent, Isle Royale National Park, Houghton, MI 49931.** Phone (906) 482-0984. Books, maps, and other publications are sold by the nonprofit Isle Royale Natural History Association. Write to the park for a free brochure.

Recreation Activities

Camping. Anyone planning to camp, including boaters, is required to obtain a camping permit available free at any ranger station. There are no entrance or camping fees, and campsites cannot be reserved. Please bring a self-contained fuel stove. Open wood fires are prohibited in most campgrounds; they cause damage and rob the forest of precious minerals. You may also wish to carry a water filter capable of filtering to 25 microns. **All surface water must be considered contaminated with the eggs of the hydatid tapeworm. Chemical purification**

will not kill the eggs, and all water should be filtered, or boiled for at least 2 minutes.

Hiking. Isle Royale has more than 267 kilometers (166 miles) of foot trails. Cross-country, off-trail travel is not recommended because of dense vegetation, bogs, and swamps. A number of combination trips—boat or fly one way and hike the other—can be arranged with commercial boat/plane operators.

Boating. The marina at Rock Harbor Lodge is open from about mid-May through mid-September. Diesel fuel,

gasoline, and oil are available at Rock Harbor; gasoline and oil only at Windigo. Most park docks accommodate cruisers of moderate draft. Holding tank pump-out stations are located at Rock Harbor and Windigo. **Boaters Note:** Discharging human waste into Lake Superior violates State and Federal laws. **Don't Pollute!**

All boaters should carry Lake Survey Chart 14976, "Isle Royale," which may be purchased from the park. Boaters wanting to cross from the mainland to Isle Royale should have an FM radio of sufficient

power to reach shore. Channel 16 FM is monitored by Mott Island and Windigo Ranger Stations during the day and constantly by the U.S. Coast Guard. **Caution:** It is recommended that boats less than 6 meters (20 feet) in length **do not** cross Lake Superior from the Keweenaw Peninsula. Boats up to 6 meters (20 feet) in length may be transported on the *Ranger III*.

U.S. citizens returning from Canada, and Canadian visitors to the island, must clear U.S. Customs. A U.S. Customs and Immigrations Officer is usually avail-

able during normal working hours at Rock Harbor, Amygdaloid, and Windigo Ranger Stations.

Swimming is not popular at Isle Royale because of the extremely cold water of Lake Superior and the leeches in the warmer inland lakes. Scuba diving activities require pre-registration at a ranger station.

Fishing. A Michigan fishing license is required in all Lake Superior waters. None is required in inland lakes and streams, but Michigan regulations apply.

Health and Safety

Medical Services. Medical services are not available in the park. Seriously ill or injured persons must be transported to the mainland at their own expense. All campers, hikers, and boaters should carry a good first aid kit and be prepared to handle their own emergencies.

Communications. Isle Royale is a wilderness. There is no public telephone service, and emergency messages can only be sent through the park's radio system.

Insects and Other Pests. There are no venomous reptiles or

spiders on the island. Mosquitoes, black flies, and gnats can be a problem to the unprepared. Commercial insect repellent works well in keeping most insects away. Hikers and backpackers note: **Do not** leave personal items, packs, or food unattended. Foraging squirrels and red foxes can quickly damage or carry off items. Please do not feed the wildlife.

Pets, even those kept aboard a boat, are not allowed at Isle Royale National Park.

Isle Royale National Park is a unit of the National Park System, which consists of more than 350 parks representing important examples of our country's natural and cultural inheritance.



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