

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 260 kilometers (160 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. Commerical 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 a few fishermen and in historical 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 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 over the frozen lake waters 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? Siskiwi 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.

Black and white photos courtesy Michigan Technological University Archives

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 and it continues by special permit today.

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.



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, three more packs have become established here either as offshoots of the original pack, or possibly through some emigration from Canada. Individual wolves number approximately 25 to 40.

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, a few wolves might leave the island, crossing the ice to Canada in search of



better hunting, or the pack's reproduction and survival rates may fall off dramatically. So wolf and moose are held in balance.

Wolves are highly intelligent and social

animals that form extremely 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). Their 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 3 to 20 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

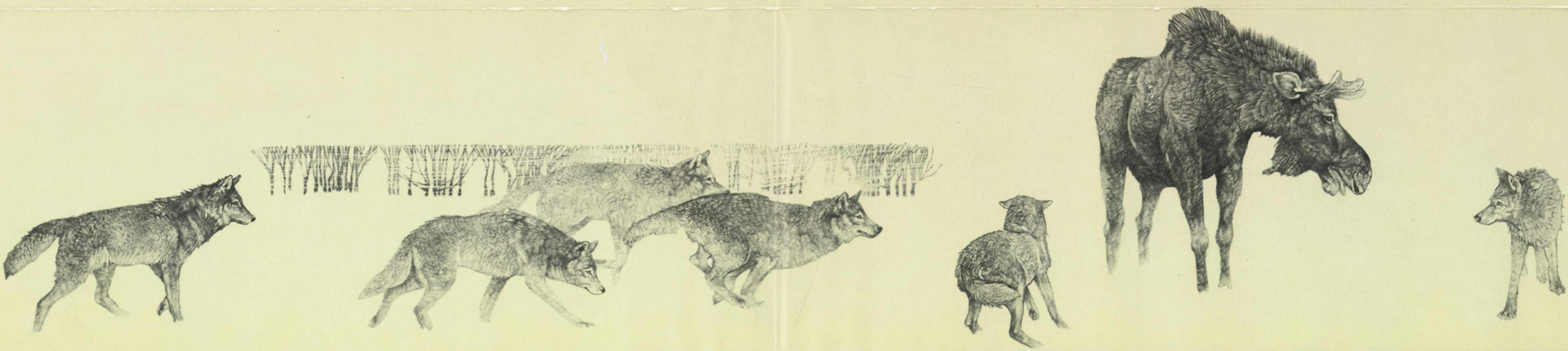
island's uniqueness lies in its complex yet simple system of natural processes, a system in which moose are dependent upon both wolves and beaver—wolves to control their numbers and beaver to

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 sys-

tem a delicate balance is struck in which no one animal or organism is more important than another.

And what part does man play? In this natural ecosystem we must leave this balance to natural law. We observe but do not manipulate the process.

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) 482-3310.

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 (Late June to Labor Day) and **Grand Portage to Rock Harbor via Windigo** (Mid-May to October). Write: Sivertson Brothers, 366 Lake Avenue South, Duluth, Minnesota 55802. Phone (218) 722-0945.

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 remain flexible when you visit Isle Royale.

You can visit Isle Royale National Park from mid-May through mid-October. Summer day-time 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: Rock Harbor Lodge, Houghton, Michigan 49931. Off season lodging information is available from: National Park Concession, Inc., Mammoth Cave, Kentucky 42259.

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 30 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 5 minutes.

Hiking. Isle Royale has more than 260 kilometers (160 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. Boat gasoline

and oil are available at Rock Harbor and Windigo from mid-May through mid-October. Most park docks accommodate cruisers of moderate draft. Holding tank pump-out stations are located at Mott Island 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 available during normal

working hours at Rock Harbor, Mott Island, 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. Michigan fishing regulations apply and a state license is required in all Lake Superior waters. No license is required for Isle Royale's inland lakes and streams.

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. While there are no venomous snakes,

other 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 items off.

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

To help you enjoy the park, park rangers offer guided walks and interpretive programs. These programs are free; obtain schedules at ranger stations. Self-guiding trails with interpretive signs and exhibits also help you understand and enjoy Isle Royale. Publications about the park, topographic maps, and other information are sold by the Isle Royale Natural History Association. A free pricelist is available by writing to the park.

The superintendent's address is 87 North Ripley Street, Houghton, Michigan 49931.

Reprint 1981
For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. Stock Number 034-005-007 6-2. GPO: 1981-341 578/10



Campsite Access (B-boat, T-trail, C-canoe)

Beaver Island B	Caribou Island B	Chippewa Harbor B T C	Duncan Bay B C	Grace Island B	Huginn Cove B T	Lake Desor/No., & So. T	Malone Bay B T	Moskey Basin B T C	Siskiwit Bay B T	Tookers Island B
Belle Isle B C	Chickenbone Lake/East T	Conglomerate Bay C	Duncan Bay Narrows B C	Hatchet Lake T	Intermediate Lake C	Lake Richie/West C	McCargo Cove B T C	Pickering Cove C	Three Mile B T	Windigo B T
Birch Island B C	Chickenbone Lake/West T C	Daisy Farm B T C	Feldtmann Lake T	Hay Bay B	Island Mine T	Lake Richie/East T C	Merritt Lane B	Rock Harbor B T	Todd Harbor B T	Wood Lake C