ROYAL BEGINNINGS

One billion years ago, Earth's crust ripped open here and released lava, which hardened into a slab of basalt rock. This cycle repeated more than four hundred times over millions of years, creating a giant layer cake of rock. Later, massive geologic forces cracked and shifted the basalt layers, tilting them upward *(see illustration at right)*.

Huge, miles-thick ice sheets advanced and retreated during the last three million years. The crushing, dragging action of the ice cut deep gouges into the softer rock in between the harder basalt layers. As the last major glacier retreated from the region around 11,000 years ago, it left a pattern of parallel ridges and valleys.

A deep basin surrounding the rock layers trapped the glacier's melting ice. Meltwater filled the basin, creating one of Earth's largest lakes and immersing all but the upper edges of some layers. These "shards of the continent" that rise from Lake Superior form the Isle Royale archipelago. Despite the islands' isolation from the mainland by the lake's deep, icy water, life took hold.

Cross-section of Isle Royale's ridge and valley topography, formed by tilted basalt layers.

An archipelago is a group or chain of islands. Isle Royale National Park is made up of more than 400 small islands.

Blake Point at Isle Royale's eastern end, viewed from the air.
© E. NEIL HARRI

Sugar maples densely cover some upland slopes.
© VIRENS

ABOVE THE SHORELINE

Explore rugged, exposed shoreline.
© TOM BEAN

More than 600 types of lichen, grow on exposed bedrock and dangle beardlike from trees.
© RAYMOND T. DUMAS

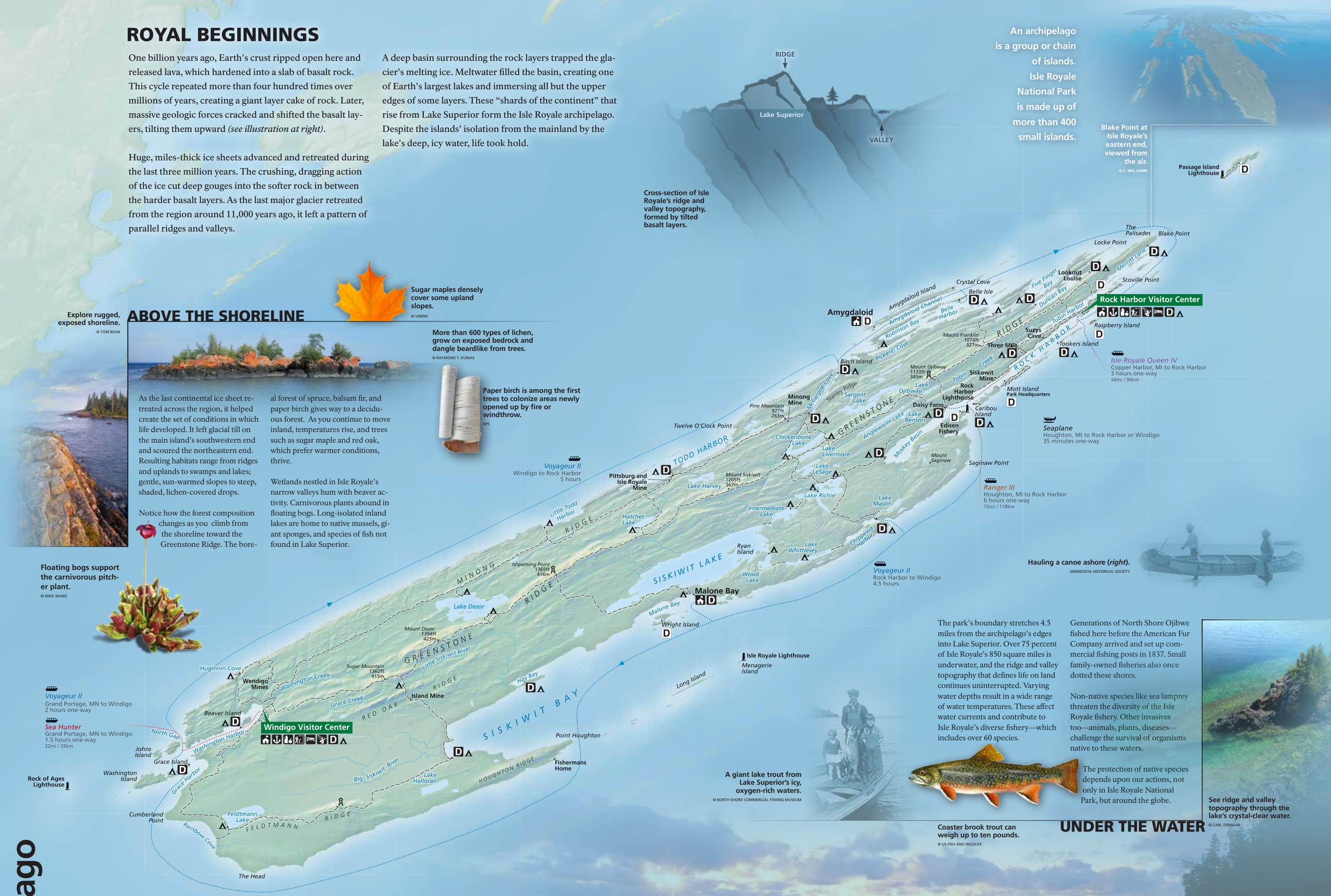
Paper birch is among the first trees to colonize areas newly opened up by fire or windthrow.
NPS

As the last continental ice sheet retreated across the region, it helped create the set of conditions in which life developed. It left glacial till on the main island's southwestern end and scoured the northeastern end. Resulting habitats range from ridges and uplands to swamps and lakes; gentle, sun-warmed slopes to steep, shaded, lichen-covered drops.

Notice how the forest composition changes as you climb from the shoreline toward the Greenstone Ridge. The boreal forest of spruce, balsam fir, and paper birch gives way to a deciduous forest. As you continue to move inland, temperatures rise, and trees such as sugar maple and red oak, which prefer warmer conditions, thrive.

Wetlands nestled in Isle Royale's narrow valleys hum with beaver activity. Carnivorous plants abound in floating bogs. Long-isolated inland lakes are home to native mussels, giant sponges, and species of fish not found in Lake Superior.

Floating bogs support the carnivorous pitcher plant.
© MIKE WANG



Hauling a canoe ashore (*right*).
MINNESOTA HISTORICAL SOCIETY

The park's boundary stretches 4.5 miles from the archipelago's edges into Lake Superior. Over 75 percent of Isle Royale's 850 square miles is underwater, and the ridge and valley topography that defines life on land continues uninterrupted. Varying water depths result in a wide range of water temperatures. These affect water currents and contribute to Isle Royale's diverse fishery—which includes over 60 species.

Generations of North Shore Ojibwe fished here before the American Fur Company arrived and set up commercial fishing posts in 1837. Small family-owned fisheries also once dotted these shores.

Non-native species like sea lamprey threaten the diversity of the Isle Royale fishery. Other invasives too—animals, plants, diseases—challenge the survival of organisms native to these waters.

The protection of native species depends upon our actions, not only in Isle Royale National Park, but around the globe.

Coaster brook trout can weigh up to ten pounds.
© US FISH AND WILDLIFE

A giant lake trout from Lake Superior's icy, oxygen-rich waters.
© NORTH SHORE COMMERCIAL FISHING MUSEUM

See ridge and valley topography through the lake's crystal-clear water.
© CARL TERHAAR

UNDER THE WATER

Islands upon islands on the horizon.
QT LUONG/TERRA GALLERIA

Wild Archipelago

North

0 — 4 Kilometers
0 — 4 Miles

- Hiking trail
- Ferry route
- Ranger station
- Marina
- Store
- Self-guiding trail
- Showers
- Meals and lodging
- Overnight dock
- Day-use only dock
- Campsite
- Lighthouse
- Lookout tower

GETTING HERE The park is open April 16 through October. Public transportation is by boat or seaplane only. Reservations are always required. Passenger ship service is available from Copper Harbor and Houghton, MI, and Grand Portage, MN. Seaplane service is available from Houghton, MI. See the park website for more information.

CUSTOMS US citizens returning from Canada and Canadian visitors to the park are required to clear US Customs at Windigo and Rock Harbor ranger stations.

FOR YOUR SAFETY AND TO PRESERVE YOUR ISLAND WILDERNESS No pets within park boundaries. • No wheeled vehicles (except wheelchairs), bicycles, or portaging devices on trails. • Observe park wildlife from a safe and respectful distance. Keep wildlife wild; secure your food. • Enjoy the thrill of discovery, but leave all park resources where you find them for others to experience. • Permits are required for all overnight stays at park campgrounds, docks, and anchorages. The park is remote. Plan carefully and exercise caution to prevent accidents or injuries. • Lake Superior waters are dangerously cold and unpredictable. • Boaters should carry appropriate lake charts. Many shoals and reefs are hazardous to navigate. • Stay hydrated. All water not from a spigot must be treated by filtering or boiling.

FISHING A fishing license is not required for inland lakes, ponds, and streams, but you must have a Michigan license for all Lake Superior waters.

FIREARMS For firearms regulations check the park website.

ACCESSIBILITY We strive to make our facilities, services, and programs accessible to all. For information contact the park prior to your visit.

EMERGENCIES **Check the park website for current emergency numbers.**

National Park Foundation
Join the park community.
www.nationalparks.org

MORE INFORMATION
Isle Royale National Park
800 E. Lakeshore Dr.
Houghton, MI 49931
906-482-0984
www.nps.gov/isro

Isle Royale National Park is one of over 400 parks in the National Park System. To learn more about national parks and National Park Service programs in America's communities, visit www.nps.gov.

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