

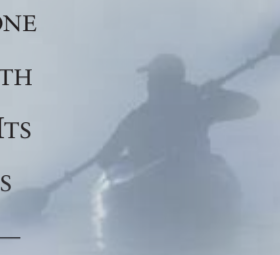


Common loon
© DAVE OSTROM

This shard of a continent becalmed in the green fresh-water sea is indeed royal, isolate, and supreme.

T. Morris Longstreth
The Lake Superior Country, 1924

FROM THE NORTHWEST CORNER OF LAKE SUPERIOR A ROCKY ARCHIPELAGO RISES. THE COLD, DEEP WATERS OF ONE OF THE WORLD'S LARGEST LAKES BOTH ISOLATE AND PROTECT THIS PLACE. ITS DISTANCE FROM THE MAINLAND HAS LIMITED THE DIVERSITY OF SPECIES— ONLY THOSE ABLE TO MAKE THE CROSSING CAN CALL THE ISLAND HOME. HUMANS TOO MUST MAKE THE CROSSING, AND HAVE BEEN DOING SO FOR AT LEAST 4,500 YEARS. ISLE ROYALE'S GEOGRAPHIC SEPARATION PROTECTS IT FROM OUTSIDE INFLUENCES, BUT IT IS NOT IMPENETRABLE. HIGH CONTAMINANT LEVELS IN INLAND LAKES AND REDUCED WINTER ICE COVER REMIND US THAT ACTIONS ELSEWHERE CONNECT ISLE ROYALE WITH THE REST OF THE WORLD. HOWEVER ISOLATED, ISLE ROYALE IS NOT IMMUNE TO HUMAN-DRIVEN CHANGE.



Kayaker on Lake Superior
© THOMAS AND DIANNE JONES



Isle Royale

Range of devil's club
Disjunct plant species are closely related but widely separated from each other geographically.



Devil's club
© MARTHA DE JONG LANTINK

From Isolation, Novelty

You will see the red squirrel more often than any other mammal on Isle Royale. How did it make the crossing from the mainland? No one knows—but because of its long isolation from its relatives the Isle Royale red squirrel is now considered a subspecies. Smaller and less red than its mainland counterparts, it makes different sounds. Its subspecies name, *regalis* (regal) suits its self-important behavior. Other mammals on Isle Royale, like the American marten, are also genetically distinct from mainland species.

Evolving Wilderness

Early human crossings of Lake Superior to Isle Royale presented both risks and rewards. Pre-contact cultures, and later the Ojibwe, harvested copper deposits, an abundant fishery, and other resources. Commercial fishermen and copper miners, lumberjacks, and lighthouse keepers depended upon the island for their livelihood. Cool summer temperatures and wilderness pursuits enticed vacationers in the early 1900s. Today Isle Royale National Park is a designated wilderness and biosphere reserve, attracting hiking, paddling, and backpacking enthusiasts as well as boaters, divers, and others.



Isle Royale red squirrel
© JOHN AND ANN MAHAN

Plants Far from Home

Some plant species that thrive along Isle Royale's cooler shores are not typically found this far south. Northern paintbrush and three-toothed saxifrage, both arctic disjuncts, were probably stranded when the last continental ice sheet retreated.

Other species, like Isle Royale's iconic thimbleberry shrub, are western disjuncts. Thimbleberry is typically found west of the Rocky Mountains.



Thimbleberry
© TONY ERNST

Three-toothed saxifrage
NPS

Northern paintbrush
© MARK EGGER

Island Laboratory

Scientist Durward Allen, who founded the Isle Royale Wolf-Moose Study in 1958, expressed one value of islands as laboratories when he described them as places "where the animals you are counting and studying do not wander away."

Isle Royale's isolation shapes its ecosystem. It excludes some species. Others arrive by chance. Some that could make the trip rarely do so. As a result, less than half of the over forty mammal species on the surrounding mainland have populations on Isle Royale today. Fewer species result in fewer relationships among species—creating opportunities for research and long-term monitoring in a relatively simple ecosystem.

Studies on the island have increased our understanding of predator-prey interactions and their cascading effects

on other species. Monitoring of bird and fish populations, water levels, and water quality sheds light on the consequences of global changes. Research revealing a rainbow of colors in the island's garter snake population rekindles our wonder for the vibrancy of the natural world.

Nothing stays the same for very long on an island. A little over a hundred years ago, a survey of Isle Royale's mammals would have resulted in a list quite different from the present one. Moose would be noticeably absent. Caribou would represent the large prey species, while coyote and lynx would serve as the predators.

This ecosystem may not be as simple as it first appears. On Isle Royale, a world within our world, all life exists in a dynamic web.



Moose
© CARL LINDBLOOM



Chippewa Harbor
© JOHN AND ANN MAHAN