

Isle Royale

Mammals

National Park Service
U.S. Department of the Interior

Isle Royale National Park



Many common mammals found along the shores of Lake Superior are conspicuously absent from Isle Royale. Fewer species means fewer relationships between species. Isle Royale has only one large prey species, the moose, with only one predator, the wolf. This simple ecosystem provides an ideal laboratory for scientists to study and monitor the interactions of these animals.

A Difficult Journey

The answer to the park's simple ecosystem is found in what surrounds Isle Royale – Lake Superior. Any mammal that has reached the island must cross the Lake's icy waters, a trip of at least 14 miles. Some mammals are better adapted to making such a crossing than others. Bats can fly. Good swimmers, like moose, may swim to Isle Royale. Mammals that can walk long distances, like wolves, can cross Lake Superior when (and if) it freezes. Mammals you may expect, like bears, do not swim long distances and are sound asleep through the coldest months, and porcupine, skunks, and racoons, while awake all winter, have not made such a long journey, especially over miles of ice. Today, only 18 species of mammals can be found on Isle Royale, compared to more than 40 on the surrounding mainland.



A Unique Tale

If you venture to Isle Royale, you may not get a glimpse of a wolf or moose. But you would almost certainly encounter a red squirrel scolding you loudly for invading its territory. The red squirrel is the most abundant mammal on Isle Royale. How did a squirrel make the challenging crossing to the Island? No one knows for sure, but these squirrels have been isolated from their relatives for so long, that they were once considered a distinct subspecies, being smaller and less red than its mainland counterparts. A study in 2018 revealed that their genetic sequencing had more in common with red squirrels from north-eastern North America and the Great Lakes region. Though not a subspecies upon themselves, the red squirrels of Isle Royale have taught us that even a seemingly isolated place like Isle Royale is more connected to the rest of the globe than is obvious.



MAMMAL	ABUNDANCE	BEHAVIOR
Carnivores		
Eastern Timber Wolf (<i>Canis lupus</i>)	Rare	Crepuscular/nocturnal
Red Fox (<i>Vulpes vulpes</i>)	Common	Crepuscular
Marten (<i>Martes americana</i>)	Rare	Nocturnal
Short-Tailed Weasel (<i>Mustela erminea</i>)	Uncommon	Nocturnal
Mink (<i>Mustela vison</i>)	Uncommon	Nocturnal
River Otter (<i>Lutra canadensis</i>)	Common	Crepuscular
Bats		
Little Brown Bat (<i>Myotis lucifugus</i>)	Common	Nocturnal
Northern Long-Eared Bat (<i>Myotis septentrionalis</i>)	Common	Nocturnal
Big Brown Bat (<i>Eptesicus fuscus</i>)	Common	Nocturnal
Red Bat (<i>Lasiurus borealis</i>)	Uncommon	Nocturnal
Hoary Bat (<i>Lasiurus cinereus</i>)	Uncommon	Nocturnal
Silver-Haired Bat (<i>Lasionycteris noctivagans</i>)	Uncommon	Nocturnal
Rodents		
Red Squirrel (<i>Tamiasciurus hudsonicus</i>)	Abundant	Diurnal
Beaver (<i>Castor canadensis</i>)	Common	Nocturnal
Deer Mouse (<i>Peromyscus maniculatus</i>)	Common	Nocturnal
Muskrat (<i>Ondatra zibethicus</i>)	Uncommon	Nocturnal
Rabbits/Hares		
Snowshoe Hare (<i>Lepus americanus</i>)	Common	Crepuscular
Deer		
Moose (<i>Alces alces</i>)	Abundant	Crepuscular
Extirpated Species – no longer occurs on Isle Royale		
Coyote (<i>Canis latrans</i>)	Last recorded sighting - 1950s	Crepuscular
Lynx (<i>Lynx canadensis</i>)	Last recorded sighting - 1981	Nocturnal
Norway Rat (<i>Rattus norvegicus</i>)	Last recorded sighting - ?	Crepuscular/nocturnal
White-Tailed Deer (<i>Odocoileus virginianus</i>)	Last recorded sighting - 1930s	Crepuscular
Caribou (<i>Rangifer tarandus</i>)	Last recorded sighting - 1927	Crepuscular

The Ever-changing Web

Mammals of today's Isle Royale may be gone tomorrow. Nothing stays the same for very long on an island. A little over a hundred years ago, a survey of the Island's mammals would have resulted in a list quite different from the present. Wolf and moose would be noticeably absent. Caribou would represent the large prey species while coyote and lynx would serve as the predators. More study is proving that this ecosystem may not be as simple as it first appears and that life on Isle Royale is ever-changing.

