

Case 11: Isle Royale Wolves

Isle Royale is a remote and rugged island in northwestern Lake Superior, located near Michigan's northern border with Canada. Isle Royale, together with more than 400 surrounding islands and associated waters, make up Isle Royale National Park. In 1976, Congress recognized the park — a mosaic of forests, wetlands, lakes and waterways — as wilderness under the Wilderness Act of 1964. [1] This is the highest level of protection for federal land; areas designated wilderness are preserved and protected in their natural condition, their ecosystems undisturbed by human activity.

Isle Royale National Park is particularly well known for its moose and wolf populations and is one of the few locations where these species' predator-prey dynamic can be observed free of human influence. As a mostly closed system with limited migration, it is a unique natural laboratory where scientists have studied the moose and wolf populations, and their relationship, since 1959.

Although wolves and moose are two of the iconic species of Isle Royale, the once-thriving wolf population is on the brink of disappearing. For the last two years, only a pair of wolves has remained. These wolves, which are highly inbred, are not expected to reproduce. [2] The decline of the island's wolf population is due to climate change: at one time, winter ice bridges allowed them to cross to the mainland in search of mates. These bridges once appeared seven out of every ten winters; their frequency is now closer to once per decade. [3] As the wolves disappear, the moose population grows unchecked, devouring vegetation and further impacting the island's ecosystem.

Study Questions:

1. Should the National Park Service, who manages Isle Royale National Park, intervene and reintroduce wolves to the island? Why or why not?
2. Would your answer to the previous question change if the wolf population were declining for purely natural reasons, rather than due to human-caused climate change?

3. Would your answer to the first question change if wolves had been originally introduced to Isle Royale by humans, rather than migrating there naturally?
4. Why is the preservation of nature valuable?

[1] The Wilderness Act of 1964. <http://www.wilderness.net/NWPS/WhatIsWilderness> & <http://www.wilderness.net/nwps/legisact>

[2] Science. April 18, 2017. Two wolves survive in world's longest predatory prey study. <http://www.sciencemag.org/news/2017/04/two-wolves-survive-world-s-longes...>

[3] Los Angeles Times. February 28, 2014. Isle Royale wolves at risk from climate change, isolation. <http://www.latimes.com/nation/nationnow/la-na-nn-isle-royale-wolves-clim...>