



Great Lakes/Coastal: Great Lakes nearshore

Description

The area of the Great Lakes that range from 3 to 30 meters in depth. This area includes both submergent and emergent aquatic vegetation, but not marshes. Great Lakes are considered to be the Michigan waters of Lakes Superior, Michigan, Huron, Erie, and the connecting waterways of the St. Mary's, St. Clair, and Detroit rivers and Lake St. Clair.

General Condition of Feature

Most of the Great Lake nearshore area in the Northern Lower Peninsula is considered to be in fair to good condition as terrestrial wildlife habitat (~70%) and about 20% is considered excellent habitat. The remaining areas are considered degraded.

Associated Natural Communities

N/A – No defined natural communities

Associated Species of Greatest Conservation Need

BIRDS

- Common Loon (*Gavia immer*)
- Bald Eagle (*Haliaeetus leucocephalus*)

Associated Threats

MODIFICATION OF NATURAL PROCESSES

- Altered hydrologic regimes: Water level manipulations and water diversion may impact Great Lakes nearshore systems.

HABITAT CONVERSION

- Industrial, residential, and recreational development: Great Lakes shipping may impact these systems.

POLLUTION

- Urban, municipal, and industrial

CONSUMPTIVE BIOLOGICAL RESOURCE USE

- Removal of wildlife: Drifting fishing nets pose a threat to wildlife within Great Lakes nearshore systems.
- Mining practices: Oil and gas mining may impact nearshore systems.

NON-CONSUMPTIVE BIOLOGICAL RESOURCE USE

- Non-consumptive recreation: Boating and the use of personal watercraft may impact Great Lakes nearshore systems.

BIOLOGICAL INTERACTIONS

- Invasive plants and animals: Species like zebra mussels (*Dreissena polymorpha*) and round gobies (*Neogobius melanostomus*) may impact community composition.
- Other biological interactions: Cormorant (*Phalacrocorax auritus*) colonies may affect nearshore communities.

Conservation Actions Needed [Threats addressed]

LAND, WATER & SPECIES MANAGEMENT

- Manage to approximate natural disturbance regimes by restoring water flow patterns. [Altered hydrologic regimes]
- Institute invasive species monitoring, prevention and control programs. [Invasive plants and animals]

LAW & POLICY

- Develop new and enforce existing regulations for mitigation of oil and gas extraction facilities. [Mining practices]
- Develop and enforce regulations to curtail recreational activities that cause significant damage. [Non-consumptive recreation]

RECREATION

- Promote responsible watercraft use. [Non-consumptive recreation]

Research and Survey Needs

- Determine the impacts of Cormorant (*Phalacrocorax auritus*) colonies on wildlife populations and the value of landscape features to wildlife. [Other biological interactions]
- Examine the impacts of dredging, deposition of dredge spoil, recreational use, and commercial fishing on the value of these systems to wildlife.
- Identify invasive species that may degrade the value of nearshore systems for wildlife. Develop techniques to control invasive species. Common invasive species include zebra mussel (*Dreissena polymorpha*).
- Assess the impacts of contaminants on the wildlife habitat quality of nearshore systems.
- Inventory current and historic avian staging areas. Identify Important Bird Areas (IBAs) and delineate the characteristics that indicate potential IBAs.

Monitoring

- Track the usage of Great Lakes nearshore areas by migrating birds with attention to its use as a staging area.
- Track contaminant inflows and the concentration of contaminants.