



## **Great Lakes/Coastal: Great Lakes island**

### Description

Islands located in the Great Lakes.

### General Condition of Feature

About three quarters of the Great Lakes island area in the Northern Lower Peninsula is considered to be in fair, good or excellent condition. The remaining areas are degraded or very degraded.

### Associated Natural Communities

N/A – No defined natural communities

### Associated Species of Greatest Conservation Need

#### *INSECTS*

Lake Huron locust (*Trimerotropis huroniana*)  
aweme borer (*Papaipema aweme*)

#### *REPTILES*

northern ringneck snake (*Diadophis punctatus edwardsii*)  
eastern fox snake (*Elaphe gloydi*)  
queen snake (*Regina septemvittata*)

#### *BIRDS*

Bald Eagle (*Haliaeetus leucocephalus*)  
Piping Plover (*Charadrius melodus*)  
Caspian Tern (*Sterna caspia*)  
Common Tern (*Sterna hirundo*)  
Forster's Tern (*Sterna forsteri*)  
Black Tern (*Chlidonias niger*)  
Northern Parula (*Parula americana*)

### Associated Threats

#### *MODIFICATION OF NATURAL PROCESSES*

- Altered fire regime: There is a lack of ability to suppress and contain fire on islands due to issues of equipment transport.
- Altered hydrologic regimes: Water diversion and extraction may impact Great Lakes islands.

#### *HABITAT CONVERSION*

- Industrial, residential, and recreational development: Recreational development is a threat to Great Lakes islands.

#### *POLLUTION*

- Urban, municipal, and industrial

#### *NON-CONSUMPTIVE BIOLOGICAL RESOURCE USE*

- Non-consumptive recreation: Boating may impact Great Lakes islands.

#### *BIOLOGICAL INTERACTIONS*

- Invasive plants and animals: Islands may be particularly sensitive to invasive species when they become established.
- Other biological interactions: White-tailed deer (*Odocoileus virginianus*) browse may hinder regeneration and impact vegetation community composition. Cormorant (*Phalacrocorax auritus*) colonies may alter community composition.

### Conservation Actions Needed [Threats addressed]

#### *LAND & WATER PROTECTION*

- Expand conservation easement programs [variety of threats]
- Support and expand conservation purchase of high quality occurrences [variety of threats]

#### *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]
- Manage white-tailed deer densities to allow for regeneration of vegetation on islands. [Other biological interactions]
- Where possible, motorized vehicle trails should be located a minimum of 100 feet (and preferably more than 500 feet) from rivers, streams, lakes and other wetlands except at designated crossings. [Non-consumptive recreation]
- Use best management practices for development, management, and recreational activities around lakes, streams, and wetlands to maintain natural shoreline stability (thereby reducing the need for restoration or artificial structures). [Industrial, residential, and recreational development, Non-consumptive recreation]

#### *LAW & POLICY*

- Work with municipalities to promote planning and zoning insuring adequate protection for Great Lakes islands. [Industrial, residential, and recreational development]
- Develop new and enforce existing regulations restricting contaminant deposition in the Great Lakes. [Urban, municipal, and industrial pollution]
- 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

- Evaluate the use of Great Lakes islands as migratory stopover habitat. Are there characteristics of islands that increase their value to migrating wildlife?
- Evaluate the use of Great Lakes islands as nesting habitat. Are there characteristics of islands that increase their value to nesting wildlife?
- Develop research projects which use islands as control treatments to determine the efficacy of management practices. The natural isolation of islands tends to protect an undisturbed state and they may act as a controllable microcosm of the larger ecoregion.
- Develop best management practices for development, management, and recreational activities around lakes, streams, and wetlands to maintain natural shoreline stability (thereby reducing the need for restoration or artificial structures).
- Assess the use of Great Lakes islands by cormorants (*Phalacrocorax auritus*) and the impacts of cormorant use on the value of islands for other wildlife species.

Monitoring

- Identify and track floristic composition and diversity.
- Track the density and distribution of development along lake shorelines.
- Track the presence and abundance of invasive species.