



Other Features: Inland rock/cliff/ledge

Description

Inland rock/cliff/ledge areas generally represent inland areas with significant rock substrate, including rock outcrops, rocky cliffs, and other areas that generally have significant rock available for wildlife use. Cliffs are geological features that form from a variety of rock types and erosion processes. Cliffs present very unique environmental conditions that allow for very specialized plant and animal associations. Rock outcrops are rocky areas that lack vegetation or differ in vegetation from the surrounding communities (these are often forest openings) due to the presence of rock on or near the land surface. Where rock isn't exposed, thin soils result in droughty conditions with sparse herbaceous communities, low shrubs, and/or stunted trees.

General Condition of Feature

Inland rock, cliff, or ledge features are generally considered to be in fair, good, or excellent condition in the Northern Lower Peninsula. Rock, cliff, or ledge features contain several natural communities that are imperiled or critically imperiled in the State.

Associated Natural Communities

Alvar [Alvar Grassland]	Moist Non-acid Cliff
Dry Non-acid Cliff	Sinkhole
Limestone Bedrock Glade [Alvar Glade]	

Associated Species of Greatest Conservation Need

SNAILS

eastern flat-whorl (*Planogyra asteriscus*)
widespread column (*Pupilla muscorum*)
spike-lip crater (*Appalachina sayana*)

REPTILES

blue racer (*Coluber constrictor foxii*)
northern ringneck snake (*Diadophis punctatus edwardsii*)
black rat snake (*Elaphe obsoleta obsoleta*)

REPTILES cont.

eastern massasauga (*Sistrurus catenatus catenatus*)

BIRDS

Northern Bobwhite (*Colinus virginianus*)
Great Blue Heron (*Ardea herodias*)
Bald Eagle (*Haliaeetus leucocephalus*)

MAMMALS

woodland jumping mouse (*Napaeozapus insignis*)

Associated Threats

HABITAT CONVERSION

- Industrial, residential, and recreational development: Housing developments near cliffs and ledges may contribute to erosion. Artificial cliffs and ledges created during the construction of limestone pits have been converted to marinas and housing developments.

OTHER

- Historic status/current abundance: This feature is not abundant within the Northern Lower Peninsula, and never has been.

Conservation Actions Needed [Threats addressed]

LAND, WATER & SPECIES MANAGEMENT

- Maintain, to the extent feasible, geologically unique areas and natural karst processes. [Industrial, residential, and recreational development; Non-consumptive recreation]
- Avoid modifying microclimate and microhabitat condition within caves, cliffs, talus slopes, and areas of exposed bedrock. [Industrial, residential, and recreational development]
- Support Landowner Incentive Programs to foster conservation on private land [variety of threats]

LAW & POLICY

- Work with municipalities to promote planning and zoning insuring adequate protection for rock, cliff and ledge features and their value to wildlife. [Industrial, residential, and recreational development]

Research and Survey Needs

- Identify and quantify recreational use and its impacts on the wildlife value of rock, cliff, and ledge systems.
- Identify the characteristics of rock, cliff, and ledge systems that provide benefits to wildlife and which species may be affected by changes in these characteristics.
- Identify the influence of landscape configuration on rock feature use by SGCN.
- Inventory rock, cliff, and ledge systems to determine location and condition.

Monitoring

- Track the use of cliff and ledge features by peregrine falcons.

- Monitor the landscape configuration of rock features.