



Other Features: Inland Rock/Cliff/Ledge

Source: Associated Natural Communities data - Michigan Natural Features Inventory Biotics database.

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

Rock/cliff/ledge areas are generally considered to be in fair, good, or excellent condition in the Eastern Upper 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 Acid Cliff
Dry Acid Cliff	Moist Non-acid Cliff
Dry Non-acid Cliff	Sandstone Bedrock Glade
Limestone Bedrock Glade [Alvar Glade]	Sinkhole

Associated Species of Greatest Conservation Need

SNAILS

eastern flat-whorl (*Planogyra asteriscus*)
a land snail (*Vallonia gracilicosta albula*)
lambda snaggletooth (*Gastrocopta holzingeri*)
widespread column (*Pupilla muscorum*)
delicate vertigo (*Vertigo bollesiana*)
a land snail (*Vertigo cristata*)
Hubricht's vertigo (*Vertigo hubrichti*)
a land snail (*Vertigo paradoxa*)
a land snail (*Guppya sterkii*)
cherrystone drop (*Hendersonia occulta*)

INSECTS

northern blue (*Lycaeides idas nabokovi*)

REPTILES

blue racer (*Coluber constrictor foxii*)
northern ringneck snake (*Diadophis punctatus edwardsii*)

REPTILES cont.

western fox snake (*Elaphe vulpina*)
eastern massasauga (*Sistrurus catenatus catenatus*)

BIRDS

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

MAMMALS

smoky shrew (*Sorex fumeus*)
least chipmunk (*Tamias minimus*)
woodland jumping mouse (*Napaeozapus insignis*)

Associated Threats

CONSUMPTIVE BIOLOGICAL RESOURCE USE

- Mining practices: Mining may impact these systems and contribute to erosion.

NON-CONSUMPTIVE BIOLOGICAL RESOURCE USE

- Non-consumptive recreation: Uncontrolled ATV and ORV use may impact these systems. Rock climbers may impact these systems. Vandals leave graffiti on exposed cliff faces.

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

- Maintain, to the extent feasible, geologically unique areas and natural karst processes. [Non-consumptive recreation]
- Avoid modifying microclimate and microhabitat condition within caves, cliffs, talus slopes, and areas of exposed bedrock. [Non-consumptive recreation]

LAW & POLICY

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

MICHIGAN'S WILDLIFE ACTION PLAN
TERRESTRIAL SYSTEMS: EASTERN UPPER PENINSULA

RECREATION

- Promote responsible ATV and ORV use and rock climbing. [Non-consumptive recreation]

Research and Survey Needs

- Identify and quantify recreational use and its impacts on the value to wildlife 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.
- Inventory rock, cliff, and ledge systems to determine location and condition.

Monitoring

- Track the use of cliff and ledge features by peregrine falcons.
- Track changes in adjacent vegetation and canopy cover.