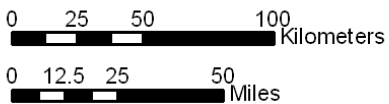
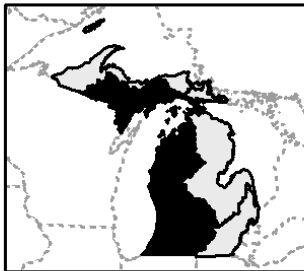


## River Characteristic: Rock Banks



## **River Characteristic: Rock Banks**

### Description

Banks are the Ground bordering a channel above the streambed and below the level of rooted vegetation that often has a gradient steeper than 45° and exhibits a distinct break in slope from the stream bottom; the portion of the channel cross section that restricts lateral movement of water during normal streamflow. Rock banks are predominantly composed of a mass of stone of any size, consolidated or unconsolidated, of various mineral composition.

### General Condition of Feature

This habitat is considered 40% in good to excellent condition, 25% in fair condition, and 35% in degraded to very degraded condition.

### Associated Species of Greatest Conservation Need

#### *FISH*

lake sturgeon (*Acipenser fulvescens*)

#### *MAMMALS*

water shrew (*Sorex palustris*)

### Associated Threats

#### *MODIFICATION OF NATURAL PROCESSES*

- Altered hydrologic regimes: Due to road crossings and culverts
- Fragmentation: Road crossings and culverts can be barriers to fish

#### *HABITAT CONVERSION*

- Dams
- Riparian modification: Riparian and shoreline development; Bank stabilizations; removal of rock in stream to armor shorelines; Seawalls

#### *CONSUMPTIVE BIOLOGICAL RESOURCE USE*

- Forestry practices (low threats)
- Mining practices: (low threat)

### Conservation Actions Needed (Threats addressed)

#### *LAND, WATER & SPECIES MANAGEMENT*

- Allow seasonal flooding (altered hydrologic regimes)
- Decrease amount of impervious surfaces (altered hydrologic regimes)
- Maintain or rehabilitate river to original flow path and hydrologic functions, i.e., connect meanders, throughflow, wetlands (altered hydrologic regimes)
- Soften or remove hard river structures (riparian modifications)
- Work with road commissions on siting and maintenance of stream crossings (altered hydrologic regimes, fragmentation)

#### *LAW & POLICY*

- Limit water withdrawals in flow-limited or groundwater-fed systems (altered hydrologic regimes)
- Protect the natural seasonal flow patterns of the river by incorporating best management practices (altered hydrologic regimes)
- Remove dams to rehabilitate natural hydrology (altered hydrologic regimes, dams, fragmentation)
- Work with local governments to develop and refine planning and zoning regulations and ordinances that consider natural processes
- Work with local officials on setback and buffer ordinances (riparian modifications)

### Research and Survey Needs

- Determine the amount and condition of rock banks in this basin
- Determine the amount of use by SGCN of rock banks
- Determine what other species require rock banks for all or part of their life history
- Inventory rock removal operations in each watershed
- Inventory stream crossings and their condition

### Monitoring

- Riparian modification
- Rock removal operations
- Shoreline modification
- Species that require rock bank habitat
- Stream crossings