



## 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 compositions.

### General Condition of Feature

No data available.

### Associated Species of Greatest Conservation Need

#### *INSECTS*

ocellated darter (*Boyeria grafiana*)

#### *MAMMALS*

water shrew (*Sorex palustris*)

### Associated Threats

#### *MODIFICATION OF NATURAL PROCESSES*

- Altered hydrologic regimes

#### *POLLUTION*

- Altered sediment loads: Road development; Bridge development and maintenance; Erosion

### Conservation Actions Needed (Threats addressed)

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

- Maintain or establish riparian buffers of at least 50 ft., but 500 ft. or wider maximizes conservation benefits (altered sediment loads)
- Maintain or rehabilitate river to original flow paths and hydrologic functions, i.e., seasonal flooding, connect meanders, throughflow, wetlands (altered hydrologic regimes)

#### *LAW & POLICY*

- Encourage sound water withdrawal practices that take into account all species needs (altered hydrologic regimes)
- Ensure the use of sediment barriers and best management practices during road siting, construction, and maintenance (altered sediment loads)
- Manage or modify lake-level controls and water releases of dams to mimic natural river conditions (altered hydrologic regimes)
- Protect and rehabilitate groundwater recharge by requiring that all development-related runoff be captured by infiltration basins (altered hydrologic regimes)
- Remove dams to rehabilitate natural hydrology (altered hydrologic regimes)
- Work with road commissioners and forest management agencies on the placement and maintenance of new bridges (altered sediment loads)

### Research and Survey Needs

- Determine the amount and condition of rock banks in Lake Superior 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
- Survey sediment loadings within watershed and develop strategies to reduce identified problems

### Monitoring

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