



## Other Features: Edge

### Description

Edge is “an outer band of a patch that has an environment significantly different from the interior of the patch” (Forman and Godron 1986). Edge areas often result in an “edge effect” or “a distinctive species composition or relative abundance in the outer band of a patch (i.e. different from the species composition or relative abundance of the patch interior)” (Forman and Godron 1986). The edge type that is most widely considered is the transitional area between forested and grassland communities.

### General Condition of Feature

Edge habitat as a landscape feature is generally considered to be in fair or good condition in the Eastern Upper Peninsula since there is plenty of this feature across the region.

### Associated Natural Communities

N/A – No defined natural communities

### Associated Species of Greatest Conservation Need

#### *INSECTS*

Hine's emerald dragonfly (*Somatochlora hineana*)  
ebony boghaunter (*Williamsonia fletcheri*)  
early hairstreak (*Erora laeta*)  
Henry's elfin (*Callophrys henrici*)  
hoary comma (*Polygonia gracilis*)

#### *REPTILES*

blue racer (*Coluber constrictor foxii*)  
northern ringneck snake (*Diadophis punctatus edwardsii*)  
western fox snake (*Elaphe vulpina*)  
eastern hognose snake (*Heterodon platirhinos*)  
smooth green snake (*Liochlorophis vernalis*)  
eastern massasauga (*Sistrurus catenatus catenatus*)

#### *BIRDS*

Northern Bobwhite (*Colinus virginianus*)  
Green Heron (*Butorides virescens*)  
Cooper's Hawk (*Accipiter cooperii*)

#### *BIRDS cont.*

Merlin (*Falco columbarius*)  
American Woodcock (*Scolopax minor*)  
Northern Flicker (*Colaptes auratus*)  
Olive-sided Flycatcher (*Contopus cooperi*)  
Least Flycatcher (*Empidonax minimus*)  
Eastern Kingbird (*Tyrannus tyrannus*)  
Northern Mockingbird (*Mimus polyglottos*)  
Golden-winged Warbler (*Vermivora chrysoptera*)  
Palm Warbler (*Dendroica palmarum*)

#### *MAMMALS*

red bat (*Lasiurus borealis*)  
hoary bat (*Lasiurus cinereus*)  
northern bat or northern myotis (*Myotis septentrionalis*)  
least chipmunk (*Tamias minimus*)  
deer mouse (*Peromyscus maniculatus gracilis*)  
snowshoe hare (*Lepus americanus*)

### Associated Threats

#### *MODIFICATION OF NATURAL PROCESSES*

- Grazing and mowing patterns
- Altered fire regime: Irregularly shaped stands and fields with “fingers” extending into adjacent areas are seen as hazardous by some fire officers since they add difficulty to burn control.

#### *HABITAT CONVERSION*

- Incompatible natural resource management: Management which favors large landscape blocks reduces the amount of edge. Tree planting within unforested feature types may result in conversion and a loss of edge. A lack of transition (i.e. a “hard” edge) between feature types may alter the value of the edge for wildlife.

### Conservation Actions Needed [Threats addressed]

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

- Manage to approximate natural disturbance regimes using prescribed fire and controlled grazing or mowing. [Altered fire regime; Grazing and mowing patterns]
- Work with land managers to develop priorities for the creation and management of edge. [Incompatible natural resource management]

### Research and Survey Needs

- Identify and quantify differences in the value to wildlife between hard edges and soft edges. Hard edges display abrupt transitions between features, often with significant structural differences, and are associated with man-made edges (e.g., row crop planted to the edge of a woodlot without intermediate height vegetation); soft edges display gradual transitions between features and are generally more typical of natural edges. Do species composition and density depend on the type of edge? Are other variables influenced by the type of edge?
- Determine whether or not edges act as sink habitats. To what extent to various SGCN?
- Determine threshold and optimal ratios of edge to interior area for wildlife species of greatest conservation need.

Monitoring

- Track the abundance and distribution of edge across the landscape.