



Other Features: Edge

Description

Edge is “an outer band of a patch that has an environment significantly different from the interior of the patch.” 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).” 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, good, or excellent condition in the Western Upper Peninsula since it is sufficiently abundant across the region.

Associated Natural Communities

N/A – no native natural communities

Associated Species of Greatest Conservation Need

INSECTS

large marble (*Euchloe ausonides*)
early hairstreak (*Erora laeta*)
Henry's elfin (*Callophrys henrici*)
gorgone checkerspot (*Chlosyne gorgone carlota*)
hoary comma (*Polygonia gracilis*)
Macoun's arctic (*Oeneis macounii*)
yellow-banded day-sphinx (*Proserpinus flavofasciata*)

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*)

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*)
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*)
eastern pipistrelle (*Pipistrellus subflavus*)
least weasel (*Mustela nivalis*)
least chipmunk (*Tamias minimus*)
deer mouse (*Peromyscus maniculatus gracilis*)
snowshoe hare (*Lepus americanus*)

Associated Threats

HABITAT CONVERSION

- Industrial, residential, and recreational development: Development tends to lead to “hard” edges with a lack of transition in the vertical structure between feature types.

BIOLOGICAL INTERACTIONS

- Invasive plants and animals
- Other biological interactions: White-tailed deer (*Odocoileus virginianus*) browse may hinder vegetation establishment and regeneration.

Conservation Actions Needed [Threats addressed]

LAND, WATER, & SPECIES MANAGEMENT

- Develop and implement plans for invasive species control and prevention. [Invasive plants and animals]
- Manage deer densities to allow regeneration of woody vegetation. [Other biological interactions]

EDUCATION & AWARENESS

- Provide education to landowners on the value of “soft” edges to wildlife. [Industrial, residential, and recreational development]

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. Does this vary by species?
- 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.