



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 or good condition in the Northern Lower Peninsula since there is generally an abundance of this feature across the region.

Associated Natural Communities

N/A – no native natural communities

Associated Species of Greatest Conservation Need

INSECTS

Hine's emerald dragonfly (*Somatochlora hineana*)
ebony boghaunter (*Williamsonia fletcheri*)
post-oak grasshopper (*Dendrotettix quercus*)
grizzled skipper (*Pyrgus wyandot*)
early hairstreak (*Erora laeta*)
Karner blue (*Lycaeides melissa samuelis*)
Henry's elfin (*Callophrys henrici*)
gorgone checkerspot (*Chlosyne gorgone carlota*)

REPTILES

blue racer (*Coluber constrictor foxii*)
northern ringneck snake (*Diadophis punctatus edwardsii*)
black rat snake (*Elaphe obsoleta obsoleta*)
eastern hognose snake (*Heterodon platirhinos*)
smooth green snake (*Liochlorophis vernalis*)
eastern massasauga (*Sistrurus catenatus catenatus*)
eastern box turtle (*Terrapene carolina carolina*)

BIRDS

Northern Bobwhite (*Colinus virginianus*)
Green Heron (*Butorides virescens*)

BIRDS cont.

Cooper's Hawk (*Accipiter cooperii*)
Merlin (*Falco columbarius*)
American Woodcock (*Scolopax minor*)
Northern Flicker (*Colaptes auratus*)
Olive-sided Flycatcher (*Contopus cooperi*)
Least Flycatcher (*Empidonax minimus*)
Eastern Kingbird (*Tyrannus tyrannus*)
White-eyed Vireo (*Vireo griseus*)
Ruby-crowned Kinglet (*Regulus calendula*)
Northern Mockingbird (*Mimus polyglottos*)
Golden-winged Warbler (*Vermivora chrysoptera*)

MAMMALS

red bat (*Lasiurus borealis*)
hoary bat (*Lasiurus cinereus*)
northern bat or northern myotis (*Myotis septentrionalis*)
eastern pipistrelle (*Pipistrellus subflavus*)
least weasel (*Mustela nivalis*)
deer mouse (*Peromyscus maniculatus gracilis*)
snowshoe hare (*Lepus americanus*)

Associated Threats

MODIFICATION OF NATURAL PROCESSES

- Grazing and mowing patterns: A lack of disturbance may lead to succession and a loss of edge.
- Altered fire regime: A lack of disturbance may lead to succession and a loss of edge.
- Altered hydrologic regimes: A lack of disturbance may lead to succession and a loss of edge.

HABITAT CONVERSION

- Incompatible natural resource management: Management for large contiguous landscape features reduces edge.

BIOLOGICAL INTERACTIONS

- Invasive plants and animals: Edge may act as a corridor to allow the movement of invasive species.

Conservation Actions Needed [Threats addressed]

LAND, WATER & SPECIES MANAGEMENT

- Manage to approximate natural disturbance regimes using prescribed fire, water flow patterns, and managed grazing or mowing. [Grazing and mowing patterns; Altered fire regime; Altered hydrologic regimes]
- Institute invasive species monitoring, prevention and control programs. [Invasive plants and animals]

EDUCATION & AWARENESS

- Work with land managers to develop priorities for creation and maintenance of edge. [Incompatible natural resource management]

Research and Survey Needs

- Identify and quantify differences in wildlife value 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

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(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 for 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.