



Terrestrial characteristics: Down woody debris

Description

Down woody debris refers to large woody material lying on the ground. This usually refers to tree trunks, boles, or large limbs lying on the forest floor. Down woody debris tends to be more prevalent in mature forests that do not regularly experience understory fire.

General Condition of Feature

The status of down woody debris as a landscape feature in the Eastern Upper Peninsula is considered to be degraded or very degraded over much of the region (~45%) due to a predominance of early successional forests within the region. About 40% of the region contains enough down woody debris to be considered of fair or good condition.

Associated Natural Communities

N/A – No defined natural communities

Associated Species of Greatest Conservation Need

INSECTS

- zigzag damer (*Aeshna sitchensis*)
- arrowhead spiketail (*Cordulegaster obliqua*)

AMPHIBIANS

- blue-spotted salamander (*Ambystoma laterale*)
- spotted salamander (*Ambystoma maculatum*)
- four-toed salamander (*Hemidactylium scutatum*)
- boreal chorus frog (*Pseudacris triseriata maculata*)
- western chorus frog (*Pseudacris triseriata triseriata*)
- pickerel frog (*Rana palustris*)
- blue racer (*Coluber constrictor foxii*)

REPTILES

- 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*)

REPTILES cont.

- wood turtle (*Glyptemys insculpta*)

BIRDS

- Spruce Grouse (*Falcapennis canadensis*)
- American Woodcock (*Scolopax minor*)

MAMMALS

- smoky shrew (*Sorex fumeus*)
- pygmy shrew (*Sorex hoyi*)
- water shrew (*Sorex palustris*)
- lynx (*Lynx canadensis*)
- American marten (*Martes americana*)
- least chipmunk (*Tamias minimus*)
- northern flying squirrel (*Glaucomys sabrinus*)
- woodland jumping mouse (*Napaeozapus insignis*)
- southern red-backed vole (*Clethrionomys gapperi*)
- southern bog lemming (*Synaptomys cooperi*)
- deer mouse (*Peromyscus maniculatus gracilis*)
- snowshoe hare (*Lepus americanus*)

Associated Threats

MODIFICATION OF NATURAL PROCESSES

- Altered fire regime: Woody debris may be removed to help prevent fires.

HABITAT CONVERSION

- Incompatible natural resource management: There is a lack of knowledge in personnel who set up timber sales as to the value of down woody debris to wildlife. Agency personnel may instruct loggers to leave woody debris while other personnel are issuing firewood collection permits on the same property.

CONSUMPTIVE BIOLOGICAL RESOURCE USE

- Forestry practices: The economic market for wood chips encourages whole tree harvesting.
- Removal of non-timber flora: Firewood collection removes woody debris.

Conservation Actions Needed [Threats addressed]

LAND, WATER & SPECIES MANAGEMENT

- Work with land managers to develop priorities for retention and creation of down woody debris. [Incompatible natural resource management; Forestry practices]
- Develop and implement forestry best management practices which address the value of down woody debris for wildlife. [Incompatible natural resource management; Altered fire regime]

Research and Survey Needs

- Document the historic and current range of variation of down woody debris. This includes variables such as species composition and size.
- Develop a methodology for quantifying down woody debris.
- Identify the characteristics of down woody debris that contribute to its value to wildlife and which species may be affected by changes in these characteristics.

MICHIGAN'S WILDLIFE ACTION PLAN
TERRESTRIAL SYSTEMS: EASTERN UPPER PENINSULA

Monitoring

- Track the abundance and distribution and wildlife use of down woody debris across the landscape with attention to individual characteristics such as woody plant species and structural components.