



Featured Species Habitat Management Guidance for Goshawk

Latin Name: *Accipiter gentilis*

Scope: Upper Peninsula

Rationale - *why we value the species and the problem for the species:*

The northern goshawk is listed in Michigan as a species of special concern and a SGCN (Michigan DNR 2015). Michigan goshawk populations have not fully recovered from early timber practices and the “big cut”. It is thought that past declines were probably caused by the loss of forest cover, fragmentation of forests, and the loss of preferred nest trees (Brewer et al. 1991), which affected both nesting and post-fledging use as well as indirectly influencing prey abundance.

Habitat Need - *the cause & effect relationship between habitat and species and its primary limiting habitat need:*

Fragmentation of mature forest stands (Cooper 1999) and the creation of larger openings favor nest competitors and predators such as the red-tailed hawk and great-horned owl (Brewer et al. 1991). Grouse and snowshoe hare are most important prey species (USFS 1993).

Habitat Objectives - *the treatment or management to address the primary limiting habitat need:*

The DNR Woodland Raptor Guidelines identify the following habitat objectives (MDNR, 2015):

- 1) (a) Active nests will be buffered with a five-chain radius protection zone, in which there will be no cutting or new road construction; (b) an additional five-chain zone will be established, in which there will be no management activity from: February 15 to July 1 in the SLP, March 15 to July 15 in the NLP, and April 1 to July 30 in the UP; (c) within this 10-chain zone retain at least one-third of residues as per the Woody Biomass harvesting Guidance (MDNR IC4069 2010).
- 2) Inactive nests will be protected with a one-chain no harvest buffer.
- 3) In uneven-aged management, (a) encourage large contiguous blocks (usually >300 acres comprised of one or more stands) of relatively mature, northern hardwood and mixed hardwood-conifer with moderate (about 70%) canopy closure; (b) retain as within-stand retention (MDNR IC4119 2012) mature trees for future nests, existing stick nests, snags, and coarse woody debris. Where possible retain a minimum of one large-diameter deciduous tree (other than beech) per 5 acres, and with a preference for multi-crotched trees high in the canopy.
- 4) In even-aged management, apply Within-Stand Retention Guidance, retaining patches of several large-diameter deciduous trees (especially multi-crotched trees high in canopy).
- 5) Manage prey base by maintaining appropriate levels of coarse woody debris as per Within-Stand Retention Guidance (MDNR IC4119 2012).

Priority Geographic Areas – *the specific geographic areas where we should focus management for the species:*

The 17 UP Regional State Forest Management Plan Management Areas (Brule-Iron River Tracts, Cassidy Creek, Central Houghton, Central Keweenaw, Chain Lakes Moraine, Chatham/Autrain Moraines, Covington/Ned Lake, Groveland, Nathan/Banat Moraines, Michigamme Reservoir, Peshekee Highlands, Ralph Ground Moraine, County Line Hardwoods, Cusino Complex, Drummond Island, Fox River Complex, and Pictured Rocks Buffer), which list northern goshawk as a featured species.

Priority Landscapes – *the landscape, setting, or cover-type where we should focus management within the areas above:*

Boreal, dry-mesic northern, or mesic northern forest stands.

Population Goal - *the goal for the species, its habitat, or a stakeholder's actions:*

Propose presence of northern goshawk within the designated landscapes at 75% of the sites.

Evaluation Method - *the monitoring method to measure progress towards the goal above:*

Propose nesting and productivity surveys conducted by the Michigan Natural Features Inventory (MNFI) and opportunistic field surveys of known nest locations by local field staff. Propose standardized surveys conducted by MNFI, wildlife division staff, or a university every 2-5 years.

Incidental Species – *other species which may benefit from management for this species:*

American marten; black bear; pileated woodpecker; red-shouldered hawk; and wood thrush

References - *citation for documents referenced in this guidance:*

- Brewer, R., G.A. McPeck, and R.J. Adams, Jr. 1991. Atlas of Breeding Birds of Michigan. Michigan State University Press, East Lansing, MI 590pp.
- Cooper, J.L. 1999. Special animal abstract for *Accipiter gentilis* (northern goshawk). Michigan Natural Features Inventory, Lansing, MI. 3 pp.
- Michigan Department of Natural Resources. 2010. Michigan Woody Biomass Harvesting Guidance. IC4069. Michigan Department of Natural Resources, Lansing, MI. 39pp.
- Michigan Department of Natural Resources. 2012a. Interim Guidance for Red-Shouldered Hawk and Northern Goshawk on State Forest Lands. Michigan Department of Natural Resources, Lansing, MI. 2 pp.
- Michigan Department of Natural Resources. 2012b. Within-Stand Retention Guidance. IC4119. Michigan Department of Natural Resources, Lansing, MI. 18pp.
- Michigan Department of Natural Resources (DNR). 2015. Michigan Department of Natural Resources (DNR) online list of Frequently Asked Questions on the 2009 Revision of the State Endangered Species List. < http://www.michigan.gov/dnr/0,1607,7-153-10370_12141-213610--,00.html >. Accessed 9 Sept. 2015.
- U.S. Forest Service. 1993. Management recommendations for the northern goshawk on the Huron-Manistee National Forests.