



Featured Species Habitat Management Guidance for Ruffed Grouse

Latin Name: *Bonasa umbellus*

Scope: Statewide

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

The ruffed grouse is an important game bird in Michigan with a strong contingent of stakeholders who support management. Approximately 85,000 Michigan hunters spent 615,000 days hunting grouse in 2010 (Frawley 2012). In spite of Michigan being one of the top grouse producing states, their numbers have been in thirty-year decline, particularly in areas where young-forests have declined (Association of Fish & Wildlife Agencies, 2006).

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

Optimum habitat includes young (6 to 15 year old), even-aged deciduous stands that typically support 20-25,000 woody stems/ha (Kubisiak & Hine, 1985). Although ruffed grouse use many different forest types (aspen, birch, oak-hickory), aspen can support higher densities than those attained in other forest types (Thompson and Dessecker, 1997). Commercial timber harvests and other management practices should be implemented at regular intervals, approximately every 10 - 15 years, to ensure a continuous supply of aspen across the landscape. Even-aged silvicultural systems (clearcut, seed tree, shelterwood) are the most beneficial methods to maintain grouse (Association of Fish & Wildlife Agencies, 2006). Aspen managed on a 40-year rotation in small 10-acre harvest units maintained more grouse than larger harvest units (Gullion 1984). The juxtaposition of different age classes allows for different life history requirements to be met within a small area, and promotes higher grouse densities.

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

- 1) No net-loss of the aspen cover type by 2012 and an increase in aspen by 2022 by maintaining or expanding existing aspen/birch stands and increasing the aspen component in mixed stands;
- 2) Balance the age class distribution of aspen/birch and oak/hickory cover types to maintain young forests across the landscape;
- 3) Focus on private lands; and
- 4) Ideally aspen stands of 40 to 160 acres under a 40-year rotation with staggered harvests of 25% every ten years in 10 to 40 acre harvest units. Larger harvest units should have irregular boundaries and include one or two 1 to 3 acre un-harvested inclusions.

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

Public (State and Federal) and private forests in the NLP and UP; the 60 Regional State Forest Management Plan Management Areas (12 WUP, 16 EUP, and 32 NLP) and 30 WLD project areas (1 UP, 6 NLP, 10 SELP, and 13 SWLP), which identify ruffed grouse as a featured species.

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

Aspen/birch and oak/hickory stands.

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

Restore ruffed grouse populations to 1970 levels, which will require maintaining 3.5 million acres of small-diameter forest (Association of Fish & Wildlife agencies, 2006).

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

- 1) Annually assess population densities via drumming counts, small game surveys, and hunter cooperator surveys. 2) Assess changes in small-diameter forest as measured by the Forest Inventory Analysis every five years.

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

American woodcock; black bear; elk; golden-winged warbler; snowshoe hare; wild turkey; and white-tailed deer.

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

- Association of Fish & Wildlife Agencies Resident Game Bird Working Group. 2006. Ruffed grouse conservation plan. Edited by D.R. Dessecker, G.W. Norman, and S.J. Williamson. Washington, D.C., USA.
- Frawley, B. J., 2012. 2010 Small Game Harvest Survey - Wildlife Division Report No. 3542 Michigan Department of Natural Resources, Lansing, MI.
- Gullion G. 1984. Grouse of the North Shore Willow Creek Press. Oshkosh, Wisconsin. 136 pp.
- Kubisiak, J.F., and Hine, R.L., Editor. 1985. Ruffed grouse relationships in aspen and oak forests of central Wisconsin (Technical bulletin. (Wisconsin Department of Natural Resources), No. 151) Wisconsin Department of Natural Resources. 22pgs.
- Thompson, F.R., and D.R. Dessecker. 1997. Management of early successional communities in central hardwood forests. U.S. Dept. Ag. Forest Service, Gen. Tech. Rpt. NC-195, St. Paul, MN.