RUFFED GROUSE (Bonasa umbellius)

Fish and Wildlife Habitat Management Guide Sheet

Natural Resources Conservation Service (NRCS) - Minnesota

GENERAL INFORMATION

The ruffed grouse (Bonasa umbellius) is a bird of the northern woodlands in North America. It lives in 38 states and 13 Canadian provinces. The ruffed grouse is Minnesota’s foremost game bird, and is most common in the forested northern, central and southeastern portions of the state (Fig. 1). A resident bird of aspen dominated forests, this 1 to 1 3/4 pound bird is well known for its courtship drumming and its explosive take-off when flushed from cover.

Ruffed grouse population levels are dynamic and change continually in a given year and from year to year. Food, cover, weather, and predation are all factors that influence the life--and death--of grouse. The population of Minnesota’s ruffed grouse is largely dependent on proper management of forests that are at least 25% aspen. Hazel, birch, oak, and alder are also important to ruffed grouse.

LIFE CYCLE

Trees alone do not guarantee the presence of this forest bird. Breeding, nesting and brooding cover and food for the winter are basic to grouse survival. The male also needs a well-protected area for drumming. Ruffed grouse populations are cyclic and numbers change dramatically from year to year, with a population peak occurring about every 10 years. Good grouse habitat can support as many as one bird every four acres in a peak year but only one bird per 40 acres in a down year. The causes of this natural phenomenon are not completely understood. It may be a combination of variation in weather, quantity and quality of food, and predation. Although we cannot control these natural cycles, quality habitat will support more numbers of birds regardless of the overall population trend.
Ruffed grouse don't migrate and usually spend their entire life in an area less than 40 acres. Adult males establish territories as small as 6 to 10 acres and hens range over the territories of 2 to 3 males during the winter.

**FOOD**
Aspen trees provide the most important year-round sources of food for ruffed grouse in the form of green leaves, flower buds and catkins. In most winters, the flower buds of aspen are the most important grouse food. When grouse do not have access to this food, winter catkins of hazel, birch and willow will be consumed. Green leaves or clover, wild strawberry and acorns also provide important seasonal food.

**COVER**
The best cover for ruffed grouse occurs in aspen stands regenerating from fire, windstorms or clear cut logging. Grouse prefer medium densities of slender woody stems rising vertically from the ground to give them protection from predators. Intermediate aged trees (10 to 25 years old) provide this necessary breeding and drumming cover.

In southeastern Minnesota, where oak forests are more prominent and aspen is a lesser component, cover should be provided by managing oak stands to create dense 5-15 foot tall cover.

Forests dominated by conifers are undesirable grouse habitat because pines, spruce and balsam fir provide effective screening for preying owls and goshawks.
Requirements

• Create three layers, 1) young aspen/birch, 18 years or younger, 2) intermediate a/b, 19-34 years, old a/b, 35 years or older

• Buffer @ 300m to find areas near or in all three

• Remove areas near or (within 50m) of old (105 years or older) conifer stands
Estimate the size of the prime ruffed grouse habitat at the Cloquet Forestry Center, Carlton County, Minnesota.
Estimate the size of the prime ruffed grouse habitat at the Cloquet Forestry Center, Carlton County, Minnesota.
Lab 13
Habitat

Start

Cloquet Vegetation

Select Aspen or Birch

Selected Cloquet Vegetation

Selected Conifers

157 records

Select old Conifers

21 records

30 Records
Young Aspen/Birch

Intermediate Aspen/Birch

25 Records

30 Records
Old Aspen/Birch

Old Conifers

Detail 1 of 3