



The ruffed grouse (*Bonasa umbellus*) is called the “king of upland game birds” and named for its distinct, dark neck ruff. Their protective coloration, shy behavior and ability to explode from cover once flushed offer wing-shooters a challenging and satisfying hunting experience.

BIOLOGY

Although males and females are similar in appearance, males generally have longer tails and a more pronounced neck ruff. Drumming - beating the wings while standing on a stump or horizontal log - begins in March. This uniquely male behavior is used to call mates and defend territories within a range of about 5 acres. Females build simple, bowl-shaped nests at the base of a tree or stump in early April. Only the females incubate eggs and brood young. They sometimes even feign a broken wing to distract predators from their chicks. While hens can average 11 eggs per nest, actual brood sizes in North Georgia average five eggs or less due to natural mortality and predation. Hens may cover over 25 acres while foraging with their insect-eating chicks as they feed in relatively open areas. Estimates based on hunter harvest data, drumming surveys and field observations show significant population decline since the mid-1990s due to loss of young forest habitat.

HABITAT AND RANGE

Habitat suitability limits the ruffed grouse population to a range extending from Canada to North Georgia. Early stage (i.e. young) hardwood forest mixed with some mature mast trees provides ideal habitat. Adult ruffed grouse are opportunistic feeders, foraging on over 300 different plant species. Early-stage forests with a dense growth of small trees interspersed with shrubby vegetation and some larger mast trees provide the best source of food. Diverse, mixed-forest vegetation also provides concealment from predators (mainly owls and hawks), good nesting and brood rearing habitat, and protection from winter weather. In the Southern Appalachians, where there is insufficient snowfall for grouse to burrow into, conifers and other evergreen plants may provide protection from the cold. Evergreen plants found in Georgia, such as mountain laurel and rhododendron, are consumed by grouse during the winter, but are relatively low in nutritive value.

HABITAT IMPROVEMENT

Altering the habitat to create not only better foraging conditions, but also better sites for breeding, nesting, brood rearing and winter protection may increase existing grouse populations. Stands of mixed hardwoods between 7 and 15 years old provide the best overall habitat. For this reason, ruffed grouse are dependent upon periodic forest manipulation and renewal from either fire or logging.



MANAGEMENT RECOMMENDATIONS

Management recommendations on large parcels of land where a ruffed grouse population already is established include prescribed burning or clear-cutting areas of 5 to 20 acres. Oak seedlings and saplings as well as clumps of other food producing trees or shrubs should be left standing when possible. Seeding old roadbeds with mixed clovers, salvaging oak saplings in clearcuts, creating shrubby edge zones and establishing or fertilizing fruit producing vegetation such as grape-thickets, dogwoods, blueberries, and hawthorns may help improve grouse survival and reproduction.

Smaller acreage may be improved by a variety of methods. Clearing 2 to 3 acre openings while allowing a few mast trees to stand can create patchy shade that encourages the growth of herbaceous sprouts. Clear-cutting strips of land 60 to 90 feet wide also is beneficial if brushy undergrowth is allowed to regrow. These strips should periodically be cut on a ten-year rotation to maintain quality habitat for grouse.

An alternative is to create 30-foot wide bands that gradually increase in tree density from field to forest. This creates variable sun-shade areas that will support a wide variety of plants beneficial to grouse and other wildlife. Management practices that enhance plant diversity and provide both open areas and brushy edge zones also will benefit white-tailed deer, black bears and rabbits as well as many nongame species and songbirds.

In general, open areas can be improved by allowing woody vegetation to invade naturally, especially along streams. Some food producing trees should be left standing in clearcuts. Cutting single trees or limited thinning of woodlots to selectively improve timber stands is of little benefit to grouse.

PREFERRED PLANTS

Although chicks eat insects, spiders and snails, adult grouse feed almost exclusively on plant material. Soft, fleshy fruits, buds and hard mast such as nuts and acorns are eaten when available. During the fall and winter a grouse's diet consists mainly of leafy material and some twigs. Mountain laurel and other evergreen leaves are foraged as a last resort, although these leaves may comprise more than 20 percent of the overall volume consumed by birds in the winter. The following includes a variety of preferred plants:

Oak (acorns)	Wild grape	Greenbrier	Aster
Hazelnut	Blueberry	Christmas fern	Beech
Foam flower	Chokecherry	White clover	Sumac
Hawthorn	Gooseberry	Viburnum	Birch
Dogwood	Elderberry	American holly	Apple
Buttercup	Wild rose	Blackgum	Crabapple
Mountain laurel	Serviceberry	Hophornbeam	
Cinquefoil			