

The Ruffed Grouse (*Bonasa umbellus*)

By: Karen Worthington

It's early morning in the springtime in the woods and you hear rustling and feel a booming vibe through the air. It is a difficult sound to locate; it moves quickly and eludes you. Welcome to the drama of the mating ritual of the male Ruffed Grouse, known as the 'drummer in the woods.' With claws tightly gripped on the drumming stage, they beat their wings about 50 times in 10 seconds creating miniature sonic booms and a drumming sound which can sound like an engine starting. But this skill has to be mastered. Young males will often flap their wings, but achieve no sound. The Ruffed Grouse have to be careful with their drumming practice, for they may attract predators as well as mates. As they spend more time walking the forest floor than flying, are generally secretive, non-migratory and are not songbirds, their drumming is crucial to their survival. The Ruffed Grouse is common throughout North America and will live its entire life (3-4 years) in a 40 acre area of mixed aspen forest. Their clever camouflage helps to protect them from goshawks, owls, foxes, lynx, bobcats and man. Habitat fragmentation is their biggest threat.

Characteristics

Generally, male and female Ruffed Grouse look similar. They both are shades of brown or grey, have feathers on their legs, feathers extending down their beak (to cover their nostrils to warm cold air before breathing it in), have a brown or black "ruff" of feathers around their necks and a matching dark band stripe across the end of their tail feathers. Upon closer inspection however, the band of colour on the two central tail feathers of the female will be "blurred" looking, while the males will be solid in color. This band of colour across their tail is unique to each bird, their equivalent to our individual fingerprint. Also, only a female would sit on a nest and only a male would drum.

The Ruffed Grouse can run very fast if they need to, have keen colour vision, make chirping and hissing sounds to communicate, groom and rid of parasites by preening their feathers and having dust baths. They grow rows or horny nubs on the bottom of their toes in winter in order to walk on ice and snow and to grab icy branches, and shed the nubs in the spring.

The female Ruffed Grouse takes about 17 days to lay a clutch of 14-19 eggs. She makes a shallow nest of leaves and needles on the forest floor and will sit motionless incubating the eggs for three weeks. Once hatched, she moves her young to a different brood habitat where they will stay together for about four months. If a hen's brood is under threat, she will draw attention to herself by pretending to have a broken wing to lure away the danger from her chicks.

Habitat

Ruffed Grouse dwell in young deciduous mixed temperate forests. And in general they like forests where there has been a disturbance of fire, disease or logging. Since aspen are often first on the scene when a forest is in early successional renewal after a disturbance, they say that where ever there is an aspen forest, there will likely be Ruffed Grouse. The Ruffed Grouse is actually a key indicator species for aspen-birch-forests, but they will also inhabit areas where willow, cottonwoods, or oak hickory communities dominate too. The underbrush of these younger forests is of great value to the Ruffed Grouse.

As deciduous mixed temperate forests are fairly common throughout North America, this provides the Ruffed Grouse with the largest habitat range of all grouse in North America. Approximately 12 subspecies span across Canada and thrive in at least 38 states in the US.

Since Ruffed Grouse will spend most of their entire life in a 'home range' of approximately 40 acres, their habitat must meet all of their needs throughout both summer and winter seasons. They require space and different aspects of the forest for living, mating, feeding and bringing up their young.

Food

Another important reason Ruffed Grouse like aspen forest is because the buds of the male aspen (and more specifically, the male trembling aspen) provide one of the most nutritious and abundant food supplies. The male buds have more proteins, fats and minerals than the female buds, which is very important to the Ruffed Grouse, especially in winter. They also eat the fuzzy long flowers or 'catkins' of the aspen, insects and invertebrates, green leafy vegetation, berries and ripening seeds. In all, the Ruffed Grouse will eat over 100 different types of plants over the course of the year.

Ruffed Grouse seek sturdy branches to feed upon so they can stay relatively still and not attract predators by flapping and flying to get to food. Although the Ruffed Grouse have no teeth, they grasp, nip off and separate buds, seeds and fruits with their beak. Since they are able to store undigested food in their 'crop,' an area in their esophagus, they can feast quickly at one spot, then retreat to a safer place to digest their food.

Threats and Conservation

Although the Ruffed Grouse has endured many years of hunting pressure and survived, it has to be noted that enlightened land use with a vision to intentionally ensure healthy habitats for the Ruffed Grouse and other creatures is essential for its continued survival. Although Ruffed Grouse prefer areas of disturbance, too many forest edges created by logging can leave the Ruffed Grouse too vulnerable to predators and disease due to stress.

Excessive habitat fragmentation may greatly upset the balance of what has been a relatively unthreatened bird species in the past.

Sources:

The Ruffed Grouse: Woodland Drummer
Michael Furtman

The World of the Ruffed Grouse
Leonard Lee Rue III