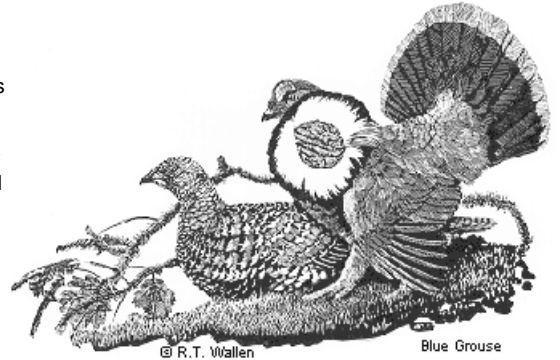


Grouse

Blue grouse (*Dendragapus fuliginosus*), sooty grouse, or “hooters,” are restricted in Alaska to the southeastern part of the state. They occur from Glacier Bay southward, with the exception of Prince of Wales Island. Dense, coastal forests of tall Sitka spruce and hemlock are the usual haunts of this grouse, but they are often found near timberline among dwarfed alpine firs. Muskeg and alpine meadows are important summer and fall feeding areas for these birds.

The blue grouse is the largest upland game bird in Alaska with the males sometimes attaining weights of 3½ pounds (1.6 kg). This grouse can be distinguished not only by its large size but also by the pale band of gray on the tip of its otherwise blackish tail. In spring, the skin on each side of the male's neck develops a deep yellow air sac that becomes encircled with a frill of white feathers when inflated. These air sacs produce the “hoot” of the male, a ventriloquial call sometimes heard over a mile away.

Hens lay 7 to 10 eggs, sometimes as many as 12. The nest is only a depression scratched out on the ground, often located in a grassy opening. As hens begin incubation, the males gather into small flocks. In fall, these flocks disband and the males join the hens and broods. In winter, the birds spend most of their time in coniferous trees where the winter diet of hemlock and spruce needles is obtained.



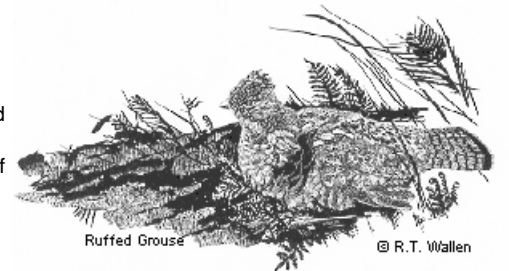
Spruce grouse (*Falciennis canadensis*), popularly known as spruce hens or spruce chicken, are forest dwellers, and they occur throughout Alaska. They are most common around Bristol Bay, on the Kenai Peninsula, and in wooded valleys along the upper Kuskokwim, Yukon and Tanana rivers. The usual habitat in Alaska is a spruce-birch forest with a lush understory of mountain cranberry, blueberry, crowberry, and spiraea growing on a thick carpet of mosses.

The spruce grouse of southeastern Alaska differs from other Alaska spruce grouse. Those in Southeast have white-tipped feathers overlying the base of the tail and do not have a band of rusty brown on the tip of the tail. In Interior and Southcentral Alaska, the brown-tipped tail distinguishes the spruce grouse from the ruffed and sharp-tailed grouse.

The cock spruce grouse begins his courtship display during the first warm days of April. He struts pompously in a tree or on glistening snow with bright red eye combs erect, stiffened wings dropped at his sides, tail elevated and fanned, and neck and upper breast feathers ruffed. In May, he also begins to perform peculiar aerial displays by flying steeply downward from a tree and settling to the ground on rapidly beating wings, producing a muffled drumming audible for 100 to 200 yards.

During May, the hen lays five to nine eggs in a shallow nest lined with twigs, leaves and a few feathers. The nest is usually at the base of a spruce tree but is sometimes beneath a log. The male avoids the hen during incubation and the brooding/rearing period, but he often accompanies the hen and brood in late August. During summer and fall, the birds feed on a variety of flowers, green leaves and berries—particularly blueberries and mountain cranberries. Insects are an important food for newly hatched chicks. In late August, they begin frequenting stream sides, lakeshores and roads in early morning to secure grit for the coming winter months. The sharp, hard particles of rock are apparently essential for grinding the fibrous spruce needles that are the main source of nourishment in winter. During the short winter days, the birds rest and feed in spruce trees. At night, they roost either on the snow beneath spreading spruce boughs or burrow into a “snow roost,” taking advantage of the insulating quality of the dry snow.

Ruffed grouse (*Bonasa umbellus*) in Alaska are found in woodlands along the Yukon, Porcupine, Tanana, Kuskokwim and Upper Copper rivers, the Kenai Peninsula, and in the Taku and Stikine river drainages in southeastern Alaska. Recently, they have been introduced into the Matanuska and Susitna river valleys in Southcentral Alaska where they are flourishing and spreading along the west side of Cook Inlet. In summer and fall, these birds are often found in alder thickets and willow bottoms, as well as in spruce-birch forests and aspen groves. In winter, aspen-dominated forests are preferred. The species can be recognized by the broad black band near the tip of the tail, the dark-colored ruffs on each side of the neck, and the slight crest on top of the head. Two color phases, red and gray, occur.

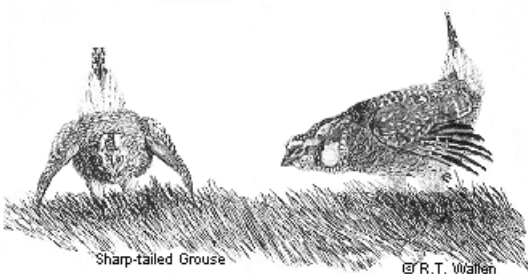


The male begin the loud “drumming” in April, marking his breeding territory and the onset of the breeding season. The cock drums while leaning back on the support provided by the fanned tail and beating the wings with quick forward and upward strokes. The sound is produced by the cupped wings striking the air. Hens lay six to 14 eggs in a simple depression on the ground, often located at the base of a tree. Males do not incubate or help rear the young and do not associate with the broods until fall. Probably no other grouse defends its young with such intensity as the ruffed grouse hen. If her shrill cry and bold rush in ruffed plumage are not sufficient to ward off a predator, she feigns a broken wing and flutters along the ground in an attempt to distract attention from the concealed chicks. Males sometimes drum in the autumn also as young males disperse.

Principal fall foods include blueberries, high bush cranberries, rose hips, and aspen buds. In winter, the buds and twigs of aspen, willow, and soapberry are major foods. Ruffed grouse also use snow burrows in extreme cold.

Sharp-tailed grouse (*Tympanuchus phasianellus*) are found in the Yukon River Valley from Canada to Holy Cross, and in the valleys of the Upper Koyukuk, Upper Kuskokwim, Tanana, and Upper Copper rivers. Fire is important in the ecology of the sharp-tail, since fire maintains the brushy grasslands that are one of the preferred habitats. Other rather open vegetation types are also used, such as spruce bogs, scrubby woodlands, and birch-aspen parklands.

Distinctive field marks are the short pointed tail and the white spots on the wings. The two sexes can be distinguished by close examination of color patterns on feathers of the tail and breast. Courtship displays occur in late April and early May and are performed at dawn on communal dancing grounds called leks. During the displays, cocks produce a hollow booming sound with inflatable air sacs on the neck. The cocks also indulge in much strutting and frenetic dashing about, while the hens wander around the dancing ground with apparent disinterest. Males may mate with several females, and a hen may mate



with more than one male. In late May, hens lay 6 to 15 eggs in a shallow nest on the ground, often far from the lek. In early fall, family groups of sharp-tails gather

into flocks. When snow cover persists, the flocks move about a large area. However, males seem to remain quite close to leks in winter. Sharp-tails burrow into snow at night for insulation and concealment. Paper birch buds and catkins are a staple part of their winter diet. Grass seeds, leaf fragments, insects, aspen buds, and berries are consumed when available. Because they prefer grass and shrub habitats to forests, sharp-tail abundance may be closely linked to wildfires and the occurrence of early seral plant communities that recolonize and dominate recent burns. Timberline and muskeg habitat are a more stable source of habitat for sharp-tailed grouse in Alaska.

Population fluctuations: Abundance of Alaska game birds varies widely over the years, but rarely are these fluctuations in the classic “10-year cycle.” The blue grouse of southeastern Alaska and the spruce grouse of coastal areas apparently never drop to low levels like the spruce, ruffed, and sharp-tailed grouse of Interior Alaska. Causes of the fluctuations are not understood but may involve recurrent changes in climate, food and cover conditions, predator abundance (which can be related to snowshoe hare cycles), or genetic makeup of the bird populations. Cold wet springs can cause high mortality in young birds. Heavy hunting pressure is never exerted over a large enough area to be responsible for the widespread changes.

Hunting: Although a large portion of the grouse harvest occurs incidental to other hunting, some specialized methods are used in taking the individual species. One of the more rewarding and sporting means of hunting blue grouse is to stalk “hooting” males in April and May. Spruce grouse hunters generally try to be out on the clear frosty mornings of September and October, when birds are seeking grit at locations where bare soil or gravel is exposed. Ruffed grouse and sharp-tails are more difficult to hunt, unless one has a dog. However, these species can sometimes be found “budding” in the tops of aspens and birches in late fall and winter.

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