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# SUMMER NOTES ON THE SOOTY GROUSE OF MOUNT RAINIER.

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### Plates XII–XIII.

DURING the summer of 1926, between the dates of June 15, and September 20, frequent observations were made on the habits of the Sooty Grouse (*Dendragapus f. fuliginosus* Ridgw.) of Mount Rainier, Washington. The summer range of this species is restricted to the alpine meadow zone, a habitat extending around the mountain approximately between the elevations of five thousand and six thousand five hundred feet. The ground cover of this habitat consists largely of heather meadows, small mountain ash, and mountain willow thickets interspersed with clumps and individual trees of alpine fir (*Abies lasiocarpa*) and mountain hemlock (*Tsuga mertensiana*), the branches of which usually droop so that the lowest ones touch the ground.

The 1926 season was two or more weeks early for the wild flowers, the snow having disappeared in Paradise Valley by June 15. Such an unusually early season may have affected the breeding season of the birds although I consider it doubtful.

During the latter part of June I saw several individual female Sooty Grouse around Paradise Valley and Paradise Camp. These birds moved about leisurely, quietly feeding, and seemingly unafraid of man. If pursued, they usually made their get-away on foot and were only induced to flight by a close chase and even this flight terminated in the branches of a nearby tree. THE AUK, VOL. XLVI.

PLATE XII.



UPPER.-MALE SOOTY GROUSE, PERFORMING. LOWER.-SAME BIRD ONE MINUTE EARLIER.

The male Sooty Grouse, commonly called "hooter" because of the character of his call, is seldom seen with the female after the egg laying season, except in instances where a second brood is raised. Often the "hoot" of the male is mistaken for that of an Owl. It is made after the bird has assumed a half strutting attitude with the air sac on each side of the neck inflated, so that he resembles somewhat a cooing Pigeon. During an extended observation of one of these males I noticed that each performance consisted of five distinct hoots, the first and the last of which were of two syllables, and the three intervening ones of one syllable, thus: "Ooh-whoo, whoo, whoo, whoo, ooh-whoo." The bird is perfectly willing to be disturbed. It will fly to the branch of a nearby tree, or walk a few yards to one side and then, often quite unconcerned in the presence even of a considerable audience, inflate the large air sacs of the neck and utter this guttural hoot, which, because of its peculiar quality sounds far distant even though it may be uttered only a few yards away.

With regard to the broods of the Sooty Grouse I may mention the following records from my notebooks.

On June 28, a brood of chicks just out of the nest was sighted.

On August 4, a female and five chicks one third grown were found feeding near Sluskin Falls; elevation 6000 feet. In these chicks the main tail feathers of the adult plumage were beginning to show.

On August 11, a female and three half grown chicks were seen at an elevation of 5300 feet. The chicks were feeding on insects. Their adult tail feathers were half way out. On the same date, a female with three small chicks, estimated to be ten days old, and evidently a second brood, was found feeding on insects at an elevation of 5300 feet.

On September 3, a female with seven young about threefourths grown was seen at an elevation of 5000 feet. The young resembled young Turkeys with adult tail plumage complete, and feathered tracts on the necks.

On September 6, I observed a brood of Sooty Grouse going to roost. I located them by their low cackling noise which is often heard at such times. This cackle is a subdued one and is somewhat similar to that of the domestic fowl, except for the absence of THE AUK, VOL. XLVI.



FEMALE SOOTY GROUSE IN TREE.

the outbursting notes with which the domestic hen ends her performance. In going to roost each bird settled upon a thick mat of branches about eight feet from the trunk of the tree and from twelve to thirty feet from the ground. In this position their dusky color blended somewhat with the moss and lichen-covered branches. The birds settle singly, usually with the head turned toward the tip of the broad frond-like branch upon which they perch, yet concealed for the most part by overhanging branches.

With regard to local distribution, several broods were successfully reared in Paradise Valley and the outskirts of the large Paradise Camp grounds, but I saw the Sooty Grouse seldom in other parts of its natural range.

I believe that there was an unusual concentration of birds within a narrow zone around the camp ground, and that probably the birds were there enjoying the measure of protection from their natural enemies which they found in the shadow of this human habitation. Certainly these birds were not attracted by food for not once did I see them come to secure any food distributed by man.

On September 8, eight inches of snow fell in the habitat zone of the Sooty Grouse. This remained and increased to ten inches on September 17. When the snow fell the broods were still together, but as the snow deepened they immediately exhibited a certain confusion by aimlessly wandering about. By September 20, broods had lost their identity and the birds were found for the most part singly or in pairs, perched among the higher branches in the clumps of alpine fir and hemlock.

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