Washington Birder

Volume 14 Number 3

Fall 2006

Blue Grouse divided by two equals Dusky and Sooty Grouse

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The state of Washington has a new species of grouse, at least according to the American Ornithologists Union (Auk, 2006, Pages 926-936). *Dendragapus obscurus* (formerly known as the Blue Grouse) has now been split into 2 species based on genetic, morphological, and behavioral evidence; the Dusky Grouse (*Dendragapus obscurus*) and the Sooty Grouse (*Dendragapus fuliginosus*). This split is actually a reversion to the previous situation during the early 1900s when the Dusky and Sooty Grouse were considered distinct.

As a group, Dusky and Sooty Grouse are widely distributed in the mountainous portions of western North America. Although they generally winter in coniferous forest, their breeding habitats are quite varied. The nesting habitats include shrubsteppe, steppe, mountain shrub, open coniferous forest, clearcuts, old growth forest, and alpine tundra. Dusky and Sooty Grouse nest on the ground, usually protected by shrub and/or herbaceous cover, and within 1 mile of conifers. The nesting habitats tend to be more open for Dusky Grouse than for Sooty Grouse.

The current distribution of both Sooty and Dusky Grouse in North America appears to be relatively unchanged from historical levels. Nevertheless, their populations have been greatly reduced in localized areas, such as the human population centers west of the Cascades. Sooty and Dusky Grouse have also been reduced in areas where native habitat has been converted for crop production or degraded by abuse. The current North American population of both species combined is estimated to be about 1,000,000, with 400,000 in the United States and 600,000 in Canada. Neither species is listed by any state, provincial, or federal government as threatened or endangered.

Sooty and Dusky Grouse differ with respect to their breeding habitats, and consequently in their management considerations. Because the Sooty Grouse tends to live in forested habitats throughout the year, it appears to be vulnerable to variations in forest practices. For example, research on Sooty Grouse in British Columbia indicated that their populations fluctuated dramatically depending on the age of the forest following clear-cutting. Unfortunately, there has been little effort to evaluate the relationship between forest management practices and Sooty Grouse populations. In contrast to Sooty Grouse, Dusky Grouse tend to be adapted to relatively open habitats in forest openings or close to forest edges. Because these open habitats are preferred areas for livestock production and development, it is necessary to understand the relationships between land use and grouse populations. The human population increase in the breeding range of Dusky Grouse is likely to be dramatic in the next few decades (e.g., the Methow Valley).

How can you tell which species is which? The range map will provide some indication. In general, the coastal birds are Sooty Grouse and the interior birds are Dusky Grouse. The demarcation line for the two species is just east of the crest of the Cascades in north-central Washington. For example, the birds on Harts Pass appear to be Sooty Grouse and the birds a few miles east at Cache Creek appear to be Dusky Grouse. The birds in between appear to be mixed or hybrids. The situation appears to get messier near Ellensburg. The birds to the south and west of Ellensburg appear to be mostly Sooty Grouse. However, the birds I have seen on the lower ridges immediately south of Ellensburg appear to be hybrids. The birds in the Colockum Wildlife Area appear to be more like Dusky Grouse, but with some hybrid characteristics. This zone of confusion extends westward into the Teanaway Valley, beyond which Sooty Grouse appear to be dominant.

How can you tell which species is which, based on appearance alone? With females, this is difficult. Both males and females of the Sooty Grouse tend to be darker in (Continued on page $4 \sim$ Schroeder)

(Continued from page 1 ~ Schroeder)

appearance than males and females of the Dusky Grouse. Admittedly this is a challenge to assess, unless you are used to seeing males and females of each species. There aren't any field guides that do the grouse justice, though in fairness, Sibley at least split the Sooty and Dusky Grouse. I have summarized some of the general differences between Sooty and Dusky Grouse below.

Table of differences between Sooty and Dusky Grouse

Characteristic	Sooty Grouse	Dusky Grouse
General appearance	Darker	Lighter
Typical number of tail feathers	18	20
Appearance of tail, particularly in male	Gray, subterminal band	Solid dull black
Cervical apteria (air sacs visible during male display)	Yellow	Red
Volume of hooting sound made during display	Loud (1/2 mile)	Quiet (100 yards)
Typical display location	Trees	Ground

It is difficult to count tail feathers unless you are holding the bird. However, males sometimes make this easy by fanning their tails during display. It is also important to understand the difference between the apteria (air sacs), and the eye combs. Males of both species have yellow eye combs that will turn reddish when they are in peak display near a female. Dusky Grouse males also have a single 'whoot' note that they utter when they are displaying to a female. This note can be heard from a mile away, even though the normal territorial hooting can only be heard from about 100 yards away.

Of course, identification of these species is not that simple everywhere. In portions of southeastern Alaska, the Sooty Grouse have red apteria (instead of yellow), and in Colorado and New Mexico, the Dusky Grouse have gray, subterminal bands (instead of black). Could you tell a bird from New Mexico from a southeastern Alaska bird? Probably. The bird in Alaska would be darker and the gray band on the tail would be thinner. Nevertheless, because of the small seasonal movements of Sooty and Dusky Grouse, this type of confusion is not likely to be an issue.

More information is needed on the range of Sooty and Dusky Grouse in Washington. If you observe a displaying male, particularly in the Cascades, information on the specific location, as well as the color of the apteria (red or yellow) and appearance of the tail (gray band or black) would be quite useful. Perhaps these locations can be plotted on a future map, thus making the job of identifying these species easier.

(Continued on page 5 ~ Schroeder)



Mark Houston and Tom Munson found this female *Dusky Grouse*, August 31, 2006 on Calispell Peak

Photo © Tom Munson



(Continued from page 4 ~ Schroeder)



Male *Dusky Grouse* observed in southwestern Alberta. Note the red apteria and solid black tail. Photo © Michael Schroeder



Male Sooty Grouse observed in western Washington. Note the yellow apteria and banded tail. Photo © Michael Schroeder

