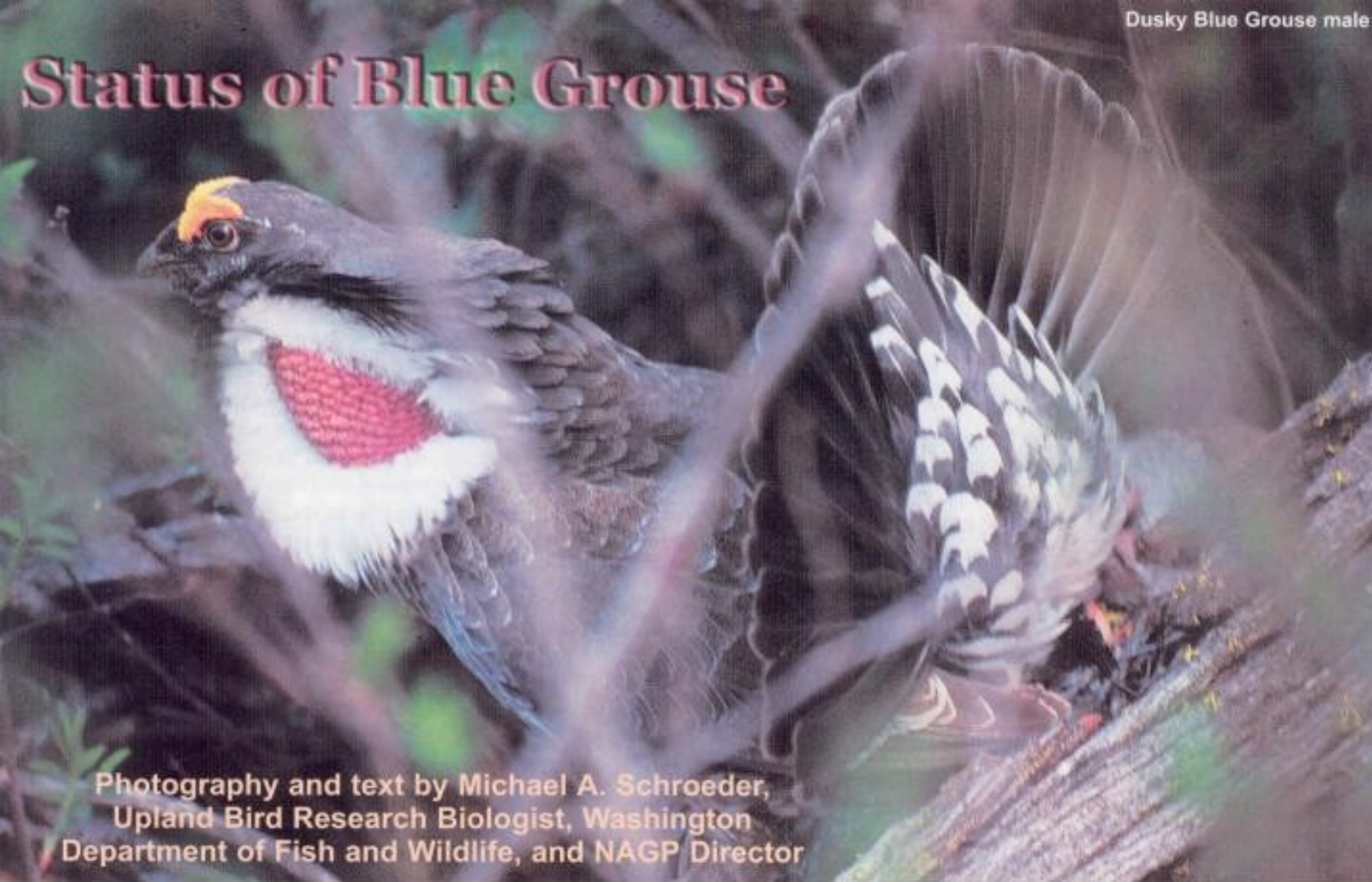


Status of Blue Grouse



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Blue Grouse (*Dendragapus obscurus*) 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 (Zwickel 1992, Blue Grouse, The Birds of North America, No. 15). Blue 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 birds in the interior regions (east of the Oregon/Washington Cascades).

There are very few systematic surveys being conducted to evaluate population trends for Blue Grouse in North America. Although many states use wing barrels, check stations, transects, and hunter questionnaires to monitor grouse populations, the data for Blue Grouse are usually insufficient to provide reliable indications of population change. One of the reasons for this lack of data is that Blue Grouse regularly migrate into forested winter habitats at relatively high elevations. Because these winter habitats are relatively inaccessible to hunters, the harvest rate in many populations appears to be low.

The current Blue Grouse distribution appears to be relatively unchanged from historical levels. Nevertheless, Blue Grouse populations have been greatly reduced in localized areas, such as the human population centers west of the

Cascades. Blue 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 is estimated to be about 1,000,000, with 400,000 in the United States and 600,000 in Canada (Storch 2000, Grouse, Status Survey and Conservation Action Plan 2000-2004). Because the overall population and distribution of Blue Grouse appears to be relatively secure at the present time, Blue Grouse are not listed by any state or federal government as threatened or endangered.

There is a possibility that the American Ornithologists'

Union will redefine the Blue Grouse as 2 separate species; a coastal species and an interior species. Research by R. Gutiérrez and others (2000, Wildlife Biology, Volume 6, Pages 205-211) has indicated that coastal and interior Blue Grouse differ in morphology, behavior, and genetics. For example, coastal birds tend to have 18 tail feathers with a distinct grayish band while interior birds have 20 tail feathers with variable tail bands. In addition, the bare patch of skin that is exposed during the male's breeding display is yellow for coastal birds and reddish for interior birds.

Coastal and interior Blue Grouse also differ with respect to their breeding habitats, and consequently in their management considerations. Because the coastal Blue Grouse tend to live in forested habitats throughout the year, they appear to be vulnerable to variations in forest practices. For example, research on Blue Grouse on Vancouver and Hardwick Islands in British Columbia indicated that Blue Grouse populations fluctuate dramatically depending on the age of the forest following clear-cutting (Zwickel 1992). Unfortunately, there has been little effort to evaluate the relationship between forest management practices and Blue Grouse populations.



breeding range of interior Blue Grouse is likely to be dramatic in the next few decades. The interior Blue Grouse is basically a 'prairie grouse' during the breeding season. Sage-grouse and/or Columbian Sharp-tailed Grouse are endemic within large portions of the distribution of interior Blue Grouse. In Colorado, Idaho, and Washington (prior to 1988) it has not been uncommon for hunters to harvest Sharp-tailed Grouse, sage-grouse, and Blue Grouse from the same areas. In many portions of this overlapping range, sage-grouse and Sharp-tailed Grouse populations have plummeted or been extirpated while Blue Grouse populations have remained. For the sake of all three of these species of prairie grouse, it may be important to understand the reasons for this difference. This understanding may help us deal with some of the Greater and Gunnison Sage-Grouse and Sharp-tailed Grouse problems and at the same time prevent Blue Grouse from following their downward course.

Sooty Blue Grouse male



In contrast to coastal Blue Grouse, interior Blue Grouse tend to be adapted to relatively open habitats in forest openings or close to forest edges. Because these open habitats are optimal areas for crop and/or cattle production, it is necessary to understand the relationships between land use and grouse populations. These open forest margins are also prime areas for development. The human population increase in the