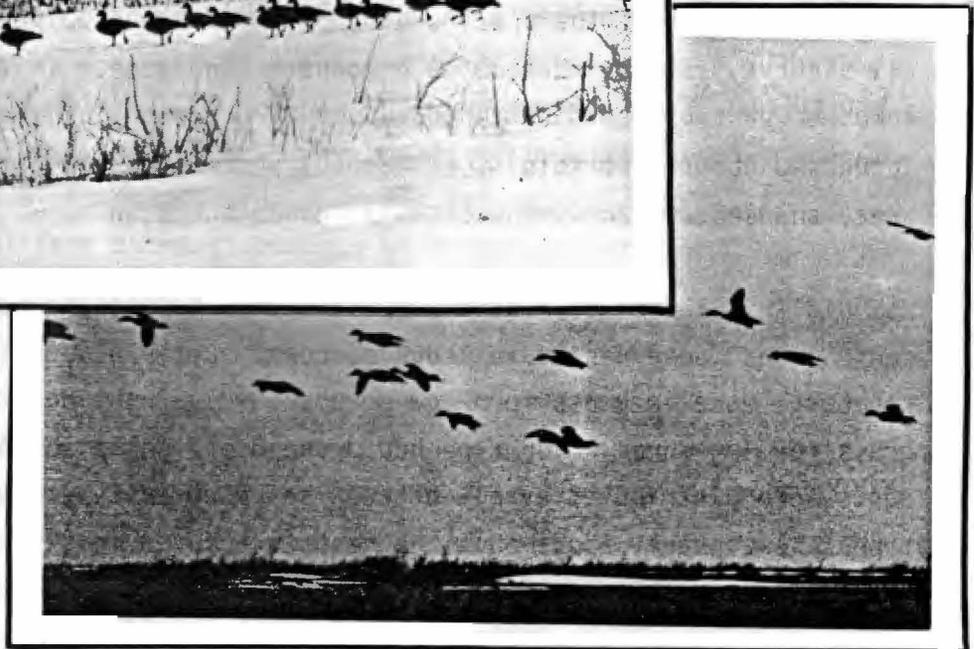


The Status of the Dusky Canada Goose on the Copper River Delta

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I will briefly summarize the status of the dusky Canada goose, and bring you up to date on what has taken place recently on the wintering grounds in Oregon. There are at least 12 species of the Canada goose in North America (depending on what authority you subscribe to). These geese range in size from the 2 to 3 pound Aleutian Canada goose to the 12 pound giant Canada goose. There are five sub-species nesting in Alaska of which the dusky is next to the largest.



*Dusky Canada
Goose in Alaska*

The dusky Canada goose is a unique subspecies of the Canada goose. The dusky Canada goose is unique because its nesting and wintering areas as well as the migration route between the two areas are well defined and confined. We know a lot about them because they have been studied for more than three decades.

Status of the Dusky Canada Goose/Nesting Habitat

As a result of the dramatic ecological changes on the wintering ground and on the Copper River Delta much of the dusky Canada goose nesting habitat is changing. One obvious change is an increase in the amount of alder and willow cover on the outer delta where the goose has traditionally nested. Habitat changes have apparently influenced production. Our slide summarizes a 1959 study, prior to the earthquake; a study done in 1974 and 1975, and some work we did this past summer. The slide presents the distribution of nests by three general cover types. The cover types defined in the 1959 study were grass forbs from the sedge meadow and tall shrubs. The 1975 and 1982 information is the distribution of nests by these cover types.

Prior to the earthquake nearly all the nests occurred in the grass forb low shrub cover type. We do not know what it was like back in 1959 and we do not have actual numbers. In 1974 and 1975 grass forb low shrub cover type covered about 44 percent of the area, sedge covered about 53 percent of the area, and all shrub types covered about 3 percent of the area. In 1982 grass forb low shrub cover type had declined to about 25 percent of the area, tall shrubs had increased about threefold; from about 3 percent to about 21 percent of the area, and sedge meadows basically remained the same.

How did this influence nest distribution? Before the earthquake only 3 percent of the geese nested in sedge meadows. By 1974 to 1975, the majority of the nests were in grass forb low shrub. By 1982 the number of nests in the grass for low shrub cover type had dropped off while about 82 percent of the nests were distributed evenly between sedge cover type and tall shrub cover type. Now, nearly about half the nests are found in the sedge and tall shrub cover types.

The goose is trying to use the habitat that is available. With the exception of grass-forb-low-shrub, the distribution of nests is about equal to and remaining the same as the habitat availability. Consequences with the shifts in distribution of the nests illustrates some nesting changes in habitat. The only major shrub, the darker shrub, is sweet gale. By 1974 and 1975, the areas had been invaded by alder and willow. Many of the areas reflected something in the habitat seen in nest densities about 10 years after the earthquake.

The Alaska Department of Fish and Game and members of the Cooperative Wildlife Research Unit from the University of Alaska in Fairbanks established a series of long-term nest study plots. These were stratified into three stata: the coastal, middle, and upper zones, and based a distance from the coast and predominate cover type.

Since about 1979 the density of nests per square mile has dropped about 59 percent on the coastal area, 25 percent on the middle area; and although the upper zone lacks a lot of data, it has dropped about 52 percent. Low nest densities were reflected in poor nesting success this last year. We do not have nest success for 1978 to 1981. Last year's nesting success averaged about 48 percent. There was a 76 percent success during the 1970s when the population was maintaining itself at high levels. The decline in nesting success can be attributed to changes of nest distribution by cover type, cover type jeopardation, and a 48 to 49 percent range of predators.

This past year we have established two new nest quads--one on Egg Island and one at the mouth of lower Eyak River. The number of nests were not nearly as high in the Alaganik Slough study area. On Egg Island, 70 percent of the nests were successful (the success rate may have been higher), and nest losses to predators were on an average of 13 percent. All of the nests that we could determine were destroyed by avian predators, primarily gulls.

The reasons for low nest losses to predators probably differ from year to year. The low shrub habitat is used on Egg Island. The nesting habitat used on the mouth of the Eyak River is similar to that used on Alaganik Slough study plots. The majority of the nests occur on the sedge meadow, however, the number of predators (or their signs) this past year at the mouth of Eyak

River was much lower than in the Alaganik Slough area. We collected nesting successes and nesting densities in young production. During our July production surveys, we observed a 23.7 percent young in a population. This compares to about 17.9 percent last year and is still below the 28 percent average from an 11-year average. The dusky Canada goose population is declining, at least, since the 1979 year average.

Situation in the Wintering Grounds

The most obvious thing here is the varying length in season. If you are losing over 70 percent of your birds harvested during the last 3 weeks of the season, then, my first recommendation is to cut those 3 weeks off. There are other ways you could change the season to hopefully protect the population.

My second recommendation is to vary open or closed areas by sub-species distribution: three sub-species of Canada geese that winter in any number in Oregon are the lesser, taverner, and the dusky Canada goose. This recommendation is saying that the areas used by the dusky should be restricted while hunting continues at present levels on the other areas. The third recommendation, again based on distribution of subspecies, regulates bag composition by the weight of the dusky since it is the largest of the three subspecies in Oregon. This recommendation says a hypothetical situation is to allow one heavy goose in the bag and one, two, three, and four or whatever light birds. This recommendation permits hunts.

The fourth recommendation is hunter education. The U.S. Fish and Wildlife Service had a series of news releases this past fall which informed the waterfowl hunter in Washington and Oregon of the situation involved with the dusky population and requested they make an attempt to distinguish between the subspecies and refrain from shooting the dusky Canada goose.

One thing to keep in mind, the wintering population of geese in Oregon has increased from about 30,000 in 1978 to more than 70,000 at the present time. This is a result in changing farm practices and types of crops that are growing. A lot of the taverner Canada geese and lesser Canada geese that were going on to California before the farm methodology was changed are now stopping

in Oregon. So the problem is to try to convince the people in Washington and Oregon that they have got to cut out their goose hunting when they are seeing more than double the goose population in the last 10 years. We will have to start pushing for these recommendations.

Predator control is the single most important action that could be done on the breeding grounds. The Dusky Canada Goose Management Plan calls for banding geese every 3 years, and conducting nest quad searches and production surveys every year. But if funds and resources allow, we would like to band more frequently--maybe for the next few years.



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Tenth Copper River Delta Conference Proceedings
Cordova, Alaska

Fish and Wildlife Habitat Protection and Management
in the Face of Increasing Demands for Land Use

Conference Proceedings
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