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Game Information Leaflet

Number 111

IDENTIFICATION OF GROUSE SPECIES BY HUNTERS IN NORTHWESTERN COLORADO: IMPLICATIONS FOR MANAGEMENT

Until 1955 there was an aggregate bag limit for all species of grouse harvested in Colorado. From 1956 through 1981, there were aggregate bag and possession limits for sage grouse (*Centrocercus urophasianus*) and Columbian sharp-tailed grouse (*Tympanuchus phasianellus columbianus*). Historically, management and enforcement personnel supported aggregate bag limits on sage and sharp-tailed grouse because they believed that many hunters could not distinguish between them. Because the ranges of these 2 species overlap in Routt and eastern Moffat counties and they may be found in similar habitats during the hunting season, there is potential for misidentification.

Columbian sharp-tailed grouse (Fig. 1) currently have a low harvest rate in Colorado (Colo. Div. Wildl. 1983). To increase hunter recreational opportunity and harvest of this species, a separate bag limit was considered as one management alternative. A survey was designed to measure the ability of hunters to identify the species they bagged and to learn if species-specific harvest regulations could be implemented.

Data were collected in Routt County from 1981 through 1983 at hunter check stations during the initial weekend of the grouse season each year. Check stations were located primarily to survey sharp-tailed grouse hunters, but it was also possible for hunters to harvest sage grouse and blue grouse (*Dendragapus obscurus*) in the same areas. All successful hunters were asked to identify the species of grouse they had shot.

Seventy-five of 148 hunters (50.7%) contacted in 1981 were successful in harvesting at least 1 grouse. Of 25 hunters with an aggregate bag of sage and sharp-tailed grouse, only 1 (4.0%) could not differentiate between the 2 species. However,

3 of 31 hunters (9.7%) were unable to correctly identify blue grouse. Because most hunters (>90%) surveyed in 1981 were able to identify the grouse they harvested, the 1982 and 1983 grouse harvest regulations specified separate bag limits for sage and sharp-tailed grouse.

All hunters encountered at grouse check stations in Routt County in 1982 and 1983 were asked if they were aware of the separate bag limit regulations and were also asked to identify the



Fig. 1. The Columbian sharp-tailed grouse offers additional recreational opportunity for small game hunters who are able to distinguish it from sage grouse. (Photo by K. Giesen)

grouse they harvested. Sixty-five of 74 hunters (87.8%) and 49 of 52 hunters (94.2%) in 1982 and 1983, respectively, were aware of the separate bag regulations. In 1982, 59 of 74 hunters (79.7%) were successful in bagging at least 1 grouse and all but 3 hunters were able to identify the species of grouse they bagged. These 3 hunters were unable to identify blue grouse.

In 1983, 38 of 52 hunters (73.1%) interviewed were successful in harvesting grouse and only 3 (7.9%) were unable to identify the species of grouse they bagged. These hunters had a combination of blue and sharp-tailed grouse but misidentified the birds as juvenile sage grouse.

Of 55 hunters who had both sage and sharp-tailed grouse in the bag in 1981-83, only 1 (1.8%) could not distinguish between the species. Thus, most hunters can differentiate between sage and sharp-tailed grouse (Fig. 2) and can potentially take advantage of separate bag limits.

More hunters ($N = 9$) were unable to correctly identify blue grouse than sage grouse (3 hunters) or sharp-tailed grouse (5 hunters) (Table 1). Most

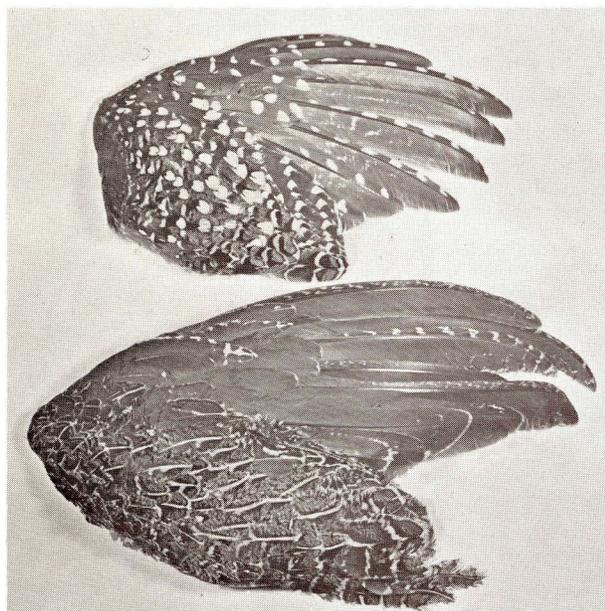


Fig. 2. Wings of sharp-tailed grouse (top) and sage grouse (bottom) are easily differentiated on the basis of size and plumage characteristics. (Photo by G. Tischbein)

Table 1. Hunter identification of grouse species in Routt County, Colorado, 1981-83.^a

Species	Successful hunters, N	Hunters misidentifying species	
		N	%
Blue grouse	91	9	9.9
Sage grouse	96	3	3.1
Sharp-tailed grouse	144	5	3.5

^a172 of 274 hunters contacted were successful in harvesting at least 1 grouse.

hunters who actually harvested sharptails were apparently hunting specifically for them, whereas some hunters were hunting for "grouse" in the forested areas of Routt County and only encountered blue grouse.

These data indicate that most successful hunters are able to identify the species of grouse they harvest and can benefit from specific regulations for each species. Because the number of grouse hunters in Colorado has remained relatively stable in the last decade, even when grouse seasons have generally become longer (Colo. Div. Wildl. 1983), the separate bag limit regulations may be an effective method of increasing harvest and hunter recreational opportunity.

ACKNOWLEDGMENTS

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LITERATURE CITED

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