

RELATION OF CULTIVATION TO THE DISAPPEARANCE OF THE COLUMBIAN SHARP-TAILED GROUSE FROM SOUTHEASTERN WASHINGTON

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The Columbian Sharp-tailed Grouse, *Pedioecetes phasianellus columbianus*, declined from abundance to virtual annihilation in southeastern Washington in less than a half century. Since most of the decline occurred in a single decade, by which time three-fourths of the land was plowed, this decline is worthy of note. An occasional bird may still be encountered in southern Whitman County near the rugged bluffs of the Snake River (Yocom, 1952), but the sporadic occurrence of such records indicates that the sharptail is no longer a permanent resident of this region.

Figure 1 illustrates the decline of the sharptail in relation to the increase in land under cultivation. The latter is based on information taken from Dziedzic (1951), and from the U. S. Bureau of Census figures (1902, 1913, 1922, 1932, 1942, 1946) for Adams, Spokane and Whitman counties, Washington.

The early homesteaders began to arrive in southeastern Washington after the livestock era of 1830 to 1870. The practice of summer fallowing had begun by 1880, and by 1890 horse-drawn combines were being used for harvesting wheat. Burning and plowing wheat stubble were general practices by 1910, peas were introduced during the next decade, and by 1925 the first tractors were used. Within another decade there was a vast increase in tractors which gave impetus to wheat farming and which, by 1945, had put practically all available land under cultivation.

Information on the sharptail was obtained primarily from four sources: state and county game regulations, *The Colfax Gazette*, a weekly newspaper at Colfax, Washington, *Memoirs of a Hunter* (Myers, 1948), and a survey of approximately 200 Whitman, Spokane and Adams county farmers. Personal interviews with early settlers in the area yielded considerable valuable information.

From 1879 to 1893 the Whitman County hunting season was from August 1 to January 1 with a daily bag limit of 20 birds. When Charles E. Myers came to Washington in 1888 he reported that sharptails were plentiful. But it is evident that, by 1897, the sharptails had started to decline, because the Washington legislature passed a law in that year that limited the hunting of Sharp-tailed Grouse to August, September, October and November, and another in 1903 that limited the kill on these birds to 10 per day. In 1909 Whitman County reduced its daily limit to five birds and set the season for October, November and December. Further restrictions were imposed in 1913 when Whitman County had a season from September 15 to November 1 and allowed five birds per day. In 1919 the season was closed in Whitman County; it was never opened again.

Three counties in northern Washington (Ferry, Okanogan, Stevens) still had an open season of two to six weeks, and allowed five birds per day. Klickitat County in south-central Washington had an open season until 1924 and allowed three sharptails per day from September 1 to 10; this apparently was the last open season in southern Washington. In 1933 the state legislature closed the season throughout Washington. It remained closed until 1953 when a two-day season was opened in three counties (Douglas, Lincoln, Okanogan) of north-central Washington with an authorized season limit of one bird. In 1954 the two-day season was maintained in Douglas and Lincoln counties, and in Okanogan County the season was extended to eight days. The bag limit was raised to two grouse per day and a possession limit of four birds.

The survey of approximately 200 farmers included questions concerning why and when sharp-tails became extirpated from southeastern Washington. The majority felt that over-hunting was the most important "decimating" factor; however, a surprising number mentioned various farm practices, notably summer fallowing. Data on the chronology of extirpation were collected by asking farmers when they had last seen the bird. Analysis revealed that 85 per cent last saw sharp-tails between 1910 and 1929. The year 1920 was most significant when 25 per cent of the farmers reported seeing sharp-tails for the last time.

Sight records of birds reported later than 1920 were usually in areas where prairie and brush persisted longer. Conversely, the regions of earlier or more intense agriculture became more rapidly devoid of this species.

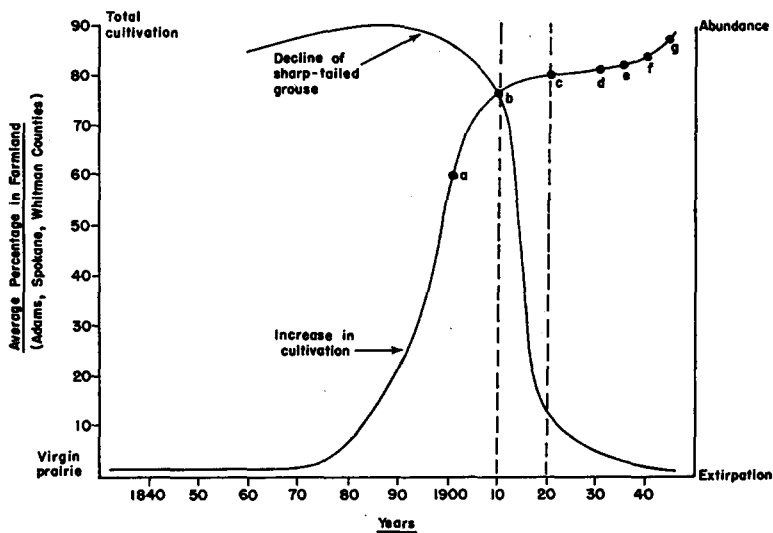


Fig. 1. Increase in cultivation and decline in population of the Sharp-tailed Grouse in southeastern Washington. Data on percentage of farmed land (points a-g) are taken from United States census figures. Total cultivation is considered 90 per cent since allowance is made for areas occupied by municipalities; census figures do not compensate for this factor.

The observations of L. E. Hall attest to the rapid decline of the sharptail between 1910 and 1920. Hall, who moved from Montana to Pullman, Washington, in 1910, remembers that from 50 to 75 sharptails lived on his ranch about two miles northeast of the airport in Whitman County. In 1914 he burned off a field and saw 15 or 16 nests, but he saw "no chickens after 1915." Numerous other reports were obtained that showed 1910-1920 to be the decade of rapid sharptail decline.

Orville Payne, who grew up on a ranch about five miles southeast of Dayton, on the South Touchet River in southeastern Washington, recalled that, about 1890, hundreds of Sharp-tailed Grouse came down in flocks to the creek bottoms three or four days after a heavy snow to feed on buds in the brush and trees. Some flocks were so large that they appeared to cover an acre of ground. Payne stated that when farming began many of the sharptails nested in the wheat stubble rather than in the bunch grass (*Agropyron spicatum*) that grew abundantly in the area. He stated further that nests

found during the spring plowing season were usually moved to the newly turned soil, but it was learned that, "The hen sharptail would not return to her moved nest, so we usually took the eggs home and used them."

Burning and plowing wheat stubble during the nesting season unquestionably hastened the decline of the sharptail, and together with other factors contributed to the extirpation of the bird from this region. Fall stubble fires destroyed much of the waste grain that provided food; pea raising increased annual cropping; enlargement and consolidation of farms involved removal of fences, timber cultures and orchards as cover; and removal of brush from stream banks and hillsides further reduced the waning cover. Rodent poisoning and hunting pressure were destructive after the sharptails reached a low level; they probably would have had little effect on populations at higher levels. These factors went hand-in-hand with the increase in cultivation which destroyed the sharptail's habitat and thereby eliminated an important species from southeastern Washington.

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