

SHARP-TAILED GROUSE RETURN TO MINED LAND¹

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Abstract: Columbian Sharp-tailed Grouse (CSTG) were once considered among the most abundant game bird species in the United States. By the mid 1900's, the CSTG sub-species had become so reduced in population size and distribution that it was considered the rarest of all the sharp-tailed grouse sub-species. Since early settlers often preferred CSTG habitats for farming and ranching, the CSTG suffered greatly due to agricultural expansion, over-grazing, alterations in natural fire regimes, and historical over-hunting. Today, CSTG are found in only three counties in Colorado: Moffat, Rio Blanco and Routt. In the early days of mined land reclamation science, many wildlife experts predicted the decline of CSTG numbers to be caused by mining operations.

For the past thirty years, Peabody reclamation scientists have established landscapes and vegetation communities beneficial to both wildlife habitat and livestock grazing. CSTG have, in particular, benefited from reclaimed mine land.

Fitness and sustainability of the CSTG population is met by the characteristics of the reclaimed land. Reclaimed lands are dominated by dense herbaceous vegetation with inclusions of big sagebrush and snowberry. Horizontal structure or canopy cover of 75 percent is desirable while at least 30 cm of vertical structure provides good visual cover. Vegetation monitoring data shows that reclaimed areas fit these criteria well. These characteristics provide excellent nesting habitat and necessary cover from predators and weather. The herbaceous dominated reclaimed area vegetation contains important food from forbs and grass seed. Brood rearing success is greatly enhanced by the many forbs and grasses in the reclamation. During the brood rearing season, cool season vegetation produces an abundance of succulent shoots and buds high in nutrition. The increasing structure from seasonal plant growth provides cover for foraging birds. The increased natality and reduced mortality facilitated by the reclaimed lands has resulted in positive population benefits for CSTG in the region.

Additional Key Words: reclamation, wildlife, birds

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