
Abstract: Because of high nest predation and long-term declines in sage grouse (*Centrocercus urophasianus*) productivity in Oregon, we assessed the effects of vegetational cover and height on predation of artificial sage grouse nests (n = 330). Artificial nest fate was positively associated with tall grass cover and medium-height shrub cover collectively (P = 0.01). No other vegetation, predator, temporal, or spatial variables explained any additional variation in the probability of predation. This study supports the hypothesis that greater amounts of tall grass and medium-height shrub cover at nest sites lower risk of nest predation for sage grouse. Management practices that increase cover and height of native grasses in sagebrush communities with medium-height shrubs are recommended to enhance sage grouse productivity.