

EFFECTS OF FLUSHING ON SHARP-TAILED GROUSE NEST SURVIVAL (POSTER)

Megan Milligan*, Dept of Animal and Range Sciences, Montana State University, Bozeman
Lorelle Berkeley, Wildlife Division, Montana Fish, Wildlife & Parks, Helena
Lance McNew, Department of Animal and Range Sciences, Montana State University, Bozeman

*Indicates Presenter

**Indicates Student Presentation

Intensive demographic studies of prairie grouse provide valuable information to guide management recommendations. However, field techniques are frequently invasive, often necessitating concentrated capture efforts and frequent flushing of females from nests, which could potentially bias estimates of nest survival by altering either bird or predator behavior. Researcher-induced biases in vital rate estimation has serious implications when those estimates are used to inform management. As part of a larger study on the effects of grazing management on sharp-tailed grouse, we monitored 102 radio-marked females in eastern Montana for two years to better understand the effects of flushing on nest survival. A randomly selected subset of radio-marked females were flushed from nests 1-2 times by researchers using standard protocols for game bird nesting studies, while the remainder were never flushed during the nesting season. Daily nest survival was significantly reduced for birds that were flushed from the nest, but the effect was mediated by the amount of precipitation received during the nesting period. A significant negative effect was only observed during periods with little precipitation, with reduced nest survival due almost entirely to predation rather than nest abandonment. Overall, our results suggest that research activities can introduce bias into demographic estimates, but that the effect depends on weather conditions.