
USING REMOTE CAMERA TECHNOLOGY TO SURVEY SHARP-TAILED GROUSE LEKS IN MONTANA

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Some of the biggest challenges in conducting lek surveys for sharp-tailed grouse in Montana are weather-related road access, distance between leks, visibility, and determining the maximum number of males and females at the lek. The optimum time to survey peak dancing displays on leks is during the first few hours of morning daylight in April. Surveys are traditionally conducted by biologists with binoculars or scopes in vehicles racing between distant leks to count sharptails before the dancing stops for the day. Vehicular access to private land, snowstorms, muddy roads, and difficult hiking create problems in reaching leks during the peak mating season, and thus limit the efficacy and scope of sharp-tailed grouse surveys. Biologists have used aircraft to locate new sharp-tailed grouse leks but this method is costly and not commonly employed. The authors found no reports of remote cameras being used to count sharp-tailed grouse on leks. The objective of this study was to determine if remote cameras would be an accurate and cost-effective tool to survey sharp-tailed grouse leks. The resulting camera images recorded more birds at a lek than ocular estimates or flushing counts yielded. Additionally, the cameras worked well in all types of weather conditions, were low maintenance, reduced human disturbance to leks, and were cost-effective. Incidental data collected included visitation to leks by predators, length of lek abandonment post-disturbance, and effects of weather conditions on dancing.