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## A COMPARISON OF OCCUPIED AND UNOCCUPIED SHARP-TAILED GROUSE HABITAT IN MONTANA

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The sharp-tailed grouse (*Tympanuchus phasianellus*) was once present throughout the state of Montana. The species was extirpated in Montana west of the Continental Divide by the late 2000's, while healthy populations still exist east of the Continental Divide. We compared key habitat components important to sharp-tailed grouse survival in occupied areas east of the Divide to unoccupied areas west of the Divide. We measured vegetative variables related to nesting, brood-rearing, and wintering habitat requirements in 3 occupied study areas and 4 unoccupied study areas during the spring of 2015. Habitat Suitability Index scores were calculated for nesting and brood-rearing. Habitat Suitability Index averages show habitat in the Blackfoot valley to be most suitable for sustaining a sharp-tailed grouse population, habitat in the Bitterroot valley to be potentially suitable, and habitat in Drummond and in the Mission Valley to be unsuitable at this time. These results suggest that the Blackfoot and Bitterroot valleys may contain suitable habitat for a potential sharp-tailed grouse reintroduction.