
DIETARY OVERLAP OF AMERICAN BARN OWL AND SHORT-EARED OWL IN THE MISSION VALLEY, MONTANA

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The Mission Valley is home to many species of wildlife, including the Short-eared owl. Over the last decade Barn Owl sightings have increased in the valley and nests have been discovered. We analyzed food-niche overlap between American Barn Owls (*Tyto furnata*) and Short-eared Owls (*Asio flammeus*) over one year to determine whether prey competition from the local Barn Owl population will affect the Short-eared Owl population. A total of 325 prey items (11 different species) were identified from 152 pellets; 79 Barn Owl and 73 Short-eared Owl. Diets of both species consisted primarily of *Microtus* species, although traces of additional food resources were present. Using Pianka's index the food-niche overlap was 0.658, where Pianka's index determines what proportion of the two owl species' diets overlap with a value of 0 representing total separation and a value of 1 representing total overlap. The results of this study showed a food niche overlap between the two owl species. We suggest, however, that the current population of Barn Owl in the Mission Valley is not directly competing with the established Short-eared Owl population in the Mission Valley, given the

availability of alternative food resources. The consequence of small mammal population dynamics in this study is also addressed.