
GENETIC VARIATION OF GARTER SNAKES ACROSS WESTERN MONTANA

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This study addresses the variability in garter snakes across Western Montana. Some common garter snakes in the region exhibit characteristics of the valley garter (*sirtalis fitchi*), a subspecies typically found west of the continental divide. Other specimens exhibit characteristics of the red-sided garter snake (*sirtalis parietalis*), a subspecies found east of the continental divide. Wandering garter snakes (*elegans vagrans*) across Western Montana also exhibit a great deal of variability. Using tissue samples from 108 common garters, 185 wandering garters and 3 melanistic snakes across Western Montana, we explore the effect of distance, topography and land cover on the genetic similarity between members of both species. In addition, we examine whether genetic differences account for phenotypic differences amongst species and whether microsatellite sequences indicate geographic isolation, assortative mating or inbreeding among garter snakes.