

RESOURCE SIMILARITY BETWEEN SAUGER AND WALLEYE IN THE MISSOURI RIVER, MONTANA: IMPLICATIONS FOR DECLINING SAUGER POPULATIONS

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Sauger (*Sander canadensis*) populations throughout Montana and North America have exhibited declines over the past few decades. Various factors may be contributing to the reduced population abundance of sauger in Montana, including interspecific competition with walleye (*Sander vitreus*). To assess competition potential, movement, habitat use, and food habits of both species were compared in the Missouri River, Montana. Sauger and walleye were tracked using radio telemetry to establish and compare seasonal movement patterns. Habitat was quantified at fish locations and food habits were collected on fish sampled using electrofishing. Prior to the spawning period, all sauger and 57 percent of the walleye migrated downstream as far as 273 km. After spawning, both species returned to previously occupied river reaches and demonstrated site fidelity during the summer. Habitat use and selection by sauger and walleye was similar. Diet overlap (Pianka Index) was high during the spring [0.72 (SE = 0.003)] and summer [0.95 (SE = 0.0008)] and moderate during autumn [0.49 (SE = 0.003)]. These results suggest that sauger and walleye in the Missouri River, Montana exhibit similarities in movement, habitat use, and food habits. Thus, the potential for competition between these two species is high, which may preclude the recovery of native sauger populations if resources are limiting.