POPULATION CHARACTERISTICS AND STATUS OF SMALLMOUTH BASS IN THE MISSOURI RIVER, MONTANA

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Non-native smallmouth bass were first sampled in the Missouri River, Montana downstream of Morony Dam (river km 3386) in 1993. Since then, anecdotal evidence indicated that the smallmouth bass population was expanding; however, an analysis of the population data was lacking. Thus, data from Montana Fish, Wildlife and Parks and diet data from 2004 and 2005 were analyzed to evaluate the population characteristics of smallmouth bass in the Missouri River. Catch per effort varied from 0.5 in 1996 to 19.2 in 2003. Mean relative weight of smallmouth bass varied from 112 to 128. Total annual mortality rate varied from 25 percent in 2001 to 38 percent in 2002. Smallmouth bass most frequently consumed longnose dace and mottled sculpin. These data suggest that the smallmouth bass population has expanded over the last decade and will likely continue given the high relative weight values and low mortality. The expanding smallmouth bass population provides an additional angling opportunity. However, the increase in density of the smallmouth bass population may become problematic given that smallmouth bass may compete for similar resources with native species.