Population Structure And Seasonal Habitat Use Of The Northern Pike Population Of Cabinet Gorge Reservoir, Montana

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Northern pike (*Esox lucius*) have been shown to impact salmonid communities in many areas where this predatory species has become established. The potential for such impacts to limit the effectiveness of native salmonid management and mitigation programs for Cabinet Gorge Reservoir and its tributaries provided the impetus for this study. This study employed active and passive capture techniques to characterize the northern pike population and to provide fish for radio-tagging. A total of 51 northern pike were radio-tagged and tracked over the course of this study (Apr 2003-Jul 2005) to ascertain habitat use and possible overlap with native salmonids. Telemetry depicted northern pike closely associated with shallower habitat characterized by abundant aquatic vegetation. Hard part aging found most northern pike cap-tured were between 4 and 6 yrs of age. Proportional stock density and relative weight indices averaged 85 and 141, respectively. Opportunistic angler surveys portrayed a northern pike-based recreational fishery of increasing popularity. Extensive efforts to document reproduction suggested that water level fluctuations negated successful spawning. Although no bull trout Salvelinus confluentus or westslope cutthroat trout (*Oncorhynchus clarkii lewisi*) were found in 66 stomachs sampled or 19 instances when gastric lavage was performed, the preponder-ance of northern pike detections in Bull River Bay represented a significant opportunity for predation of migratory native salmonids from this important nursery tributary. Based on the history of impacts northern pike have had on native salmonids in other systems, possible cor-rective fisheries management measures may be warranted.