

DISTRIBUTION AND MOVEMENT OF ADULT YELLOWSTONE CUTTHROAT TROUT IN THE UPPER YELLOWSTONE RIVER DRAINAGE

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Yellowstone cutthroat trout were historically the most widely distributed subspecies of cutthroat trout in the world, but now occupy less than 10 percent of their historic range. The largest remaining population of genetically pure, adfluvial Yellowstone cutthroat trout is found in the Yellowstone Lake basin. The Yellowstone River is the largest of 127 tributary streams in this system, providing over 30 percent of the water that enters Yellowstone Lake. While long-term data exists for several tributaries in the northern portion of the lake, prior to this study, no comprehensive fisheries assessment had been conducted on the upper Yellowstone River and its tributaries. We surgically implanted radio transmitters into 151 adult cutthroat trout in the Yellowstone River drainage. Fish were tracked weekly during the spawning season (May- Aug) and monthly for the rest of the year over a 3-year period. These data will be used to help determine the contribution of the upper Yellowstone River to the Yellowstone Lake cutthroat trout population and identify resident versus migratory populations of cutthroat trout within the system.