

ADULT BULL TROUT RESPONSE TO RELEASE ABOVE A DAM ON THE CLARK FORK RIVER, MONTANA^{AFS}

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Electrofishing and a fish ladder/trap were used to capture 129 adult bull trout in the Clark Fork River downstream of Cabinet Gorge Dam, Idaho, from 2001 through 2004. A portion of these fish were presumed to have migrated downstream as juveniles from Montana tributaries through or over the dam and reared in Lake Pend Orielle, Idaho (16 km downstream of Cabinet Gorge Dam). Captured adult bull trout were surgically implanted with radio transmitters, transported upstream by fish tank truck, and released at two sites in Cabinet Gorge Reservoir, Montana (13 and 20 km upstream of the dam). Of the 129 bull trout successfully released in Montana, 78 were detected in tributaries to Cabinet Gorge Reservoir during the spawning season, September and October. A total of 26 bull trout transported from Idaho were recaptured in spawning tributaries, transported downstream, and released in the Clark Fork River, Idaho. Another 37 bull trout were documented to have volitionally passed downstream through turbines or over Cabinet Gorge Dam, a minimum of 23 of those that likely survived turbine passage. Genetic assignments to tributaries of origin were accomplished for most fish captured over the 4-yr study. Of the 112 viable genetic samples collected below Cabinet Gorge Dam, 90 percent were assigned to upstream tributaries. Radio receivers at Noxon Rapids Dam (31 km upstream from Cabinet Gorge Dam) detected 40 of the 129 bull trout in the dam tailrace area, 70 percent of these fish originated upstream of the second dam on the Clark Fork River. In 2004 a "Rapid Response Genetic Analysis" was employed to determine natal tributary of origin of captured fish prior to transport above Cabinet Gorge Dam.