

Microsatellite Analysis of Yakima Basin Bull Trout
(*Salvelinus confluentus*)

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Abstract

The objectives for this study were to: 1) Develop a standardized microsatellite DNA baseline for Yakima Basin bull trout, 2) Examine genetic population structure, and 3) Determine population of origin for unknown fish from Mizell and Anderson 2006, WDFW radio telemetry study. A total of 190 bull trout samples from the Yakima River Basin were analyzed at 16 standardized microsatellite loci. Genotypic data for these fish are now available for addition to a comprehensive bull trout microsatellite baseline to be used in future studies. Tests of genotypic differentiation indicated highly significant differences among collections, with the exception of those from the American River and Union Creek, which support the data from the radio telemetry study. Genetic data was used to infer population of origin for 29 individuals with unknown population membership collected as part of this WDFW telemetry study of bull trout movement.