Genetic Comparisons Between *Oncorhynchus mykiss* Juvenile Migrants and Mature Residents From the Upper Yakima River

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Previous genetic studies in the Yakima Basin have documented genetic differences among the anadromous *Oncorhynchus mykiss* (i.e., steelhead) populations; however, limited information is available regarding the genetic affinities between anadromous and resident forms of *O. mykiss* in the Yakima River. In 2008, an initial study was conducted evaluating genetic affinities among known adult steelhead spawners, juvenile migrants, and mature residents. Genetic relationships among mature resident collections were ambiguous due to insufficient sampling, cutthroat trout admixture, and relatedness. The present study extends last year's work by analyzing additional mature resident (N=269) *O. mykiss* from tributaries to the upper Yakima River, along with newly identified juvenile migrants (N=71). Mature residents were collected from middle fork Teanaway River, north fork Teanaway River, Swauk Creek, Taneum Creek, and Umtanum Creek. Juvenile migrant *O. mykiss* were analyzed from middle fork Teanaway River, north fork Teanaway River, and Taneum Creek. We evaluated the genetic similarities between collections with the same life history type, and between collections differing in life history.