**Genetics 101 for Managers – An Introduction to GSI and PBT Technologies in Fisheries**

As background for fish managers, this presentation provides an overview of the methodologies and applications of genetic stock identification (GSI) and parentage-based tagging technologies (PBT).  Genetic stock identification allows estimation of stock proportions within mixed stock fisheries and can be used on wild stocks and hatchery stocks that are sufficiently differentiated.  Parentage-based tagging is especially useful for differentiating closely related hatchery stocks and allows the identification of the exact parents of an individual fish, thus identifying their stock of origin and age.  Together, these technologies have provided the Idaho Department of Fish and Game and the Columbia River Inter-Tribal Fish Commission powerful new tools for managing wild and hatchery steelhead populations in the Columbia River basin.

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