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**Presentation Title: Genetic influence from out-of-basin hatchery stocks on Upper Willamette River steelhead**

Abstract for the 2018 Pacific Coast Steelhead Management Meeting

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Both resident and anadromous *Oncorhynchus mykiss*, respectively known as rainbow trout and steelhead, are native to Oregon’s Upper Willamette River (UWR).  Native UWR steelhead return from the ocean as adults during the late winter and early spring to spawn in the eastern tributaries of the basin that drain the Cascade Mountains.  UWR steelhead are listed as “threatened” under the U.S. Endangered Species Act, and their recovery may be limited by effects from high-head dams, intense predation from pinnepeds, as well as ecological and genetic risks from hatchery-produced summer steelhead.  In this study, we used baseline genotypic data from native UWR and non-native hatchery-stocked steelhead to investigate genetic influence from the latter, as observed among unmarked juvenile samples collected at Willamette Falls (2009-2011) and throughout the UWR basin (2014).  Our results suggest a relatively low, but constant signal of natural production and hybridization from hatchery-stocked summer steelhead, originating from UWR tributaries with ongoing or past stocking histories.  We discuss our ability to infer whether the patterns we observed can best be explained through ongoing introgression from hatchery steelhead, or whether past hatchery practices have left a genetic legacy in the UWR basin.