**Life History Diversity of Puget Sound Steelhead**

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Abstract

Steelhead are known to have diverse life history patterns that vary by watershed and geographic location. The Puget Sound Steelhead Distinct Population Segment (DPS) has streams and rivers that cover a range of habitat attributes that include high elevation streams with cooler water and hydrographs dominated by snow melt as well as low elevation warmer streams with rain dominated hydrographs. WDFW and other organizations are operating fish traps on many different streams in the Puget Sound area collecting abundance, age, size and timing information of steelhead smolts. This presentation will investigate differences in smolt age composition and migration timing across the different habitat attributes in Puget Streams. We hypothesize that patterns of age, size at age and migration timing will be driven by habitat attributes of each stream. The results presented will demonstrate the life history variation in Puget Sound Steelhead and suggest that monitoring and maintaining this life history diversity is important for recovery, recovery planning, and population stability with changing environmental conditions.