

Historic Steelhead Abundance:
Washington NW Coast and Puget Sound
(With Particular Emphasis on the Hoh River)

Prepared for the Wild Salmon Center
May 2006

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Acknowledgments

This paper was the vision of Pete Soverel, founder of the Wild Salmon Center. He was concerned that recent Hoh River land purchases made on Washington's Olympic Peninsula (through the coordinated efforts of the Western Rivers Conservancy and Wild Salmon Center with the support of Washington Department of Natural Resources through Section 6 funding under the supervision of the U.S. Fish and Wildlife Service) may ultimately fail to help restore Hoh River steelhead populations back to anything like historic numbers. He felt one reason for this may be the lack of an appropriate history from which to assess the present status of Hoh River steelhead, and for want of that history steelhead managers may not provide sufficient escapement for effective restoration to occur even if all available habitat were returned to a high level of salmon and steelhead productivity. Knowing that Puget Sound steelhead were petitioned for listing with growing evidence its steelhead populations were but small fractions of their former abundance, he felt comparisons with Puget Sound rivers and other Olympic Peninsula rivers may help to fill in historic gaps in the Hoh River historic record.

The resulting Hoh River steelhead history is a work in progress. Over time some of the present gaps may fill with new findings. A number of people provided sources of data to draw from:

Of particular importance were copies of older historic documents provided by Jim Myers, Research Fishery Biologist in the NOAA Conservation Biology Division at the Northwest Fisheries Science Center in Seattle. These included reports from the U.S. Commission of Fish and Fisheries with information on Washington fisheries dating to 1888, somewhat later U.S. Bureau of Fisheries Reports, and the earliest reports of the State of Washington Department of Fisheries and Game. Jim also provided an unpublished analysis of some of that older historic data which was immensely helpful.

Bill Gill, Fish and Wildlife Biologist with the Steelhead Section of the Fish Program of the Washington Department of Fish and Wildlife in Olympia, went to great effort to provide steelhead tribal catch records dating to 1934, sport fishing records to 1947, hatchery smolt release records to the early 1950s, and managed to put together a steelhead database updated to 2004 or 2005 for all of the Puget Sound and North Coast Olympic Peninsula streams.

Nick Gayeski, Resource Analyst for Wild Fish Conservancy in Duvall, provided many connections and pertinent suggestions and authored the detailed section on escapement goals and stock recruitment analysis provided in the Appendix.

Glenn Thackray, Department of Geology at Idaho State University in Pocatello, provided his 1996 PhD dissertation regarding glaciations of the western Olympic Peninsula as well as other papers and geologic maps.

Nate Mantua, with the Climate Impacts Group of the Department of Atmospheric Sciences at the University of Washington, provided copies of several pertinent papers and figures and patient explanations of PDO cycles and their relationship to salmon productivity.

George Pess, Stream Ecologist with NOAA Fisheries at the Northwest Fisheries Science Center in Seattle, provided numerous papers regarding geology, habitat relationships to fish populations, and salmon and steelhead colonization and evolutionary considerations.

Sam Brenkman, Chief Fisheries Biologist for Olympic National Park at Port Angeles, provided a summary of physical characteristics of Olympic Peninsula river basins and the data from snorkel surveys he has led to count steelhead in Olympic National Park.

John McMillan, Salmon Ecologist, and James Starr, Fisheries Biologist, out of the Forks office for the Wild Salmon Center provided much information regarding the extensive snorkel surveys they have done on the Hoh and Quileute river systems and detailed steelhead, salmon, and habitat information regarding those same streams.

Kurt Beardslee, Executive Director of Wild Fish Conservancy in Duvall, provided numerous ring binders filled with steelhead resource material from the Wild Fish Conservancy library.

Xan Augerot, Director of Science for the Wild Salmon Center in Portland, provided much relevant information through her book *Atlas of Pacific Salmon* as well as reviews of the drafts.

And Bill Bakke, Executive Director of the Native Fish Society in Portland, provided many helpful literature suggestions.

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