Delineation of Pacific Salmon Conservation Units for Canada

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The Wild Salmon Policy (WSP) proposes managing Pacific salmon as aggregates of genetically distinct spawning populations termed Conservation Units (CUs). The WSP also recognizes the need for protecting critical habitat. However, this approach has failed to become an effective policy tool for two main reasons. First, there are shortcomings in both data and analytical approaches currently in use for delineating CUs. Secondly, there has been a distinct failure to develop a common framework linking stakeholders involved in wild salmon management to a common set of reference points for debating and resolving conservation issues and concerns.

We are making a significant contribution to resolving both of these issues using scientific techniques already commonly practiced by Nature Conservancy of Canada in its conservation priority setting endeavours, as well as developing new, state-of-the-art tools to bridge long-standing gaps in designing and implementing effective strategies for wild salmon conservation.

Specifically, we are developing CU delineations based on genetic survey data with physical habitat and environmental process data across several spatial scales that we believe shape the adaptive environments within which salmon have evolved. We are also incorporating local and traditional knowledge recognizing how people and salmon interact on the landscape -- a ground-breaking contribution to the sustainable management and conservation of Pacific salmon in Canada. Furthermore, we are developing a conservation-based management framework for Pacific salmon CUs that recognizes and incorporates the perspectives of all stakeholders and integrates science with local and traditional knowledge. We are working with individual stakeholders to develop objective classes and status measures within each frame of reference and developing a monitoring and assessment framework required to support conservation-based salmon management.