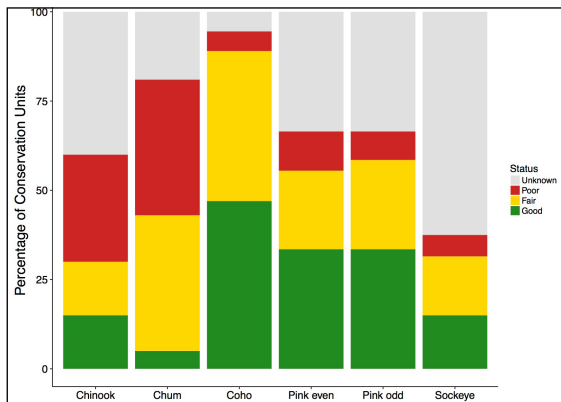


Canada's slow progress towards conserving wild salmon

Price, M.H.H., English, K.K., Rosenberger, A.G., MacDuffee, M., and Reynolds, J.D. 2017. Canada's Wild Salmon Policy: an assessment of conservation progress in British Columbia. *Canadian Journal of Fisheries and Aquatic Sciences*.

The rich ecological and cultural legacy of Canada's Pacific coast is shaped, if not defined, by wild salmon. Salmon contribute "identity" to coastal indigenous peoples, deliver essential nutrient subsidies to watersheds, and are important to coastal economies through nature-based tourism, fishing, and processing.

To ensure that wild salmon persist in abundance for future generations, Canada developed the Wild Salmon Policy (WSP). When introduced in 2005, the WSP was considered transformative and timely: transformative by setting out a new conservation ethic that placed its highest priority on the conservation of salmon above all other uses, and timely in that it was a much-needed policy developed



Status of spawning salmon 2009-2014

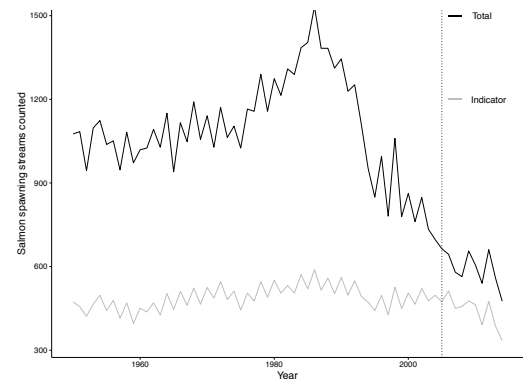
the status of most salmon Conservation Units - genetically distinct populations - either are of concern or unknown, and 42% of the Conservation Units that we assessed as *Poor* would have improved in status had fisheries been reduced.

Why are visits to spawning streams important?

A key commitment of the WSP is to assess the health of salmon populations, and to increase the abundance of those populations deemed "threatened". Visits to spawning streams provide relevant information on trends over time, and biological status required to guide the decision-making process related to salmon populations, fisheries, and conservation. Without such information, fisheries may continue to catch vulnerable populations and drive them towards extirpation without the necessary

in response to the eroding abundance of salmon, salmon habitat, and information required to assess population health. Because 12 years have elapsed since the adoption of the WSP, and changes to the policy currently are being considered by Fisheries and Oceans Canada (DFO) we felt it was timely to understand whether the policy in its current form has made progress towards conserving wild salmon in British Columbia.

We show that implementation of the WSP has been slow. Based on data for all species, we found that visits to spawning streams is at an all-time low, salmon abundance has significantly declined for several species,

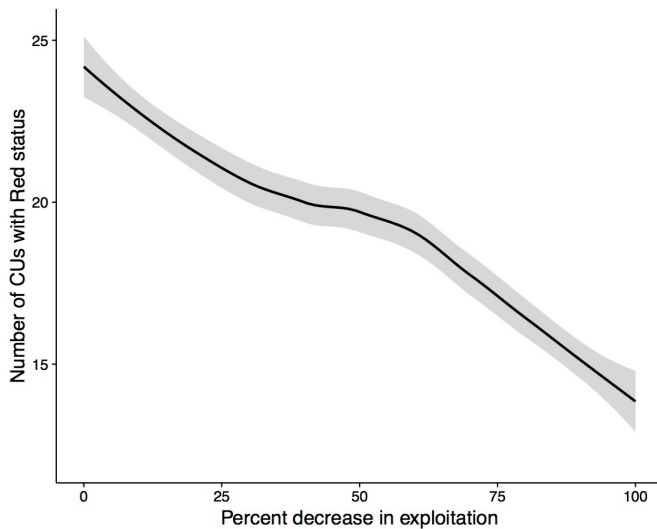


Annual visits to spawning streams 1950-2014

warning bells being sounded. Our results show that 50% of all Conservation Units have inadequate information to determine biological status, and many of these populations continue to be caught in Canadian fisheries.

What can fisheries managers do?

With climate change arguably the greatest threat to the future of wild salmon, one of the simplest management approaches to improve the health of populations is to reduce catch in Canadian fisheries. We show that 10 of 24 Conservation Units assessed as Red (*Poor*), would have improved in status had



Relationship between Red status and Canadian fisheries exploitation 2005-2014

Canadian fisheries been reduced over the last decade. One way to maintain commercial fisheries for large salmon producing systems such as the Fraser, Skeena, and Nass Rivers, yet protect threatened fish, is to move fisheries further upriver so as to target abundant populations while allowing vulnerable populations to spawn.

What can the Canadian government do?

While we make several key recommendations to DFO on how best to implement the WSP, we strongly urge our federal government to create an implementation fund to support the science required to adequately assess population health, and the restoration of habitats where recovery of salmon Conservation Units is required.