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## ***Columbia River Basin: How Would Ending Fishing and Closing Hatcheries Change Wild Salmon and Steelhead Abundance?\****

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by

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### **Abstract:**

The overall public policy goal of restoring runs of wild Pacific salmon in California, Oregon, Washington, Idaho, and southern British Columbia appears to enjoy widespread public support. Billions of dollars have been spent in an apparently failed attempt to reverse the long-term, general decline of wild salmon. To answer the question of whether the effort to rebuild runs through the hatchery production of salmon, I asked 58 well-known salmon scientists to predict (anonymously) how the overall abundance of Columbia River Basin salmon (including steelhead) would change after 20 years if fishing was stopped and hatcheries were closed. About 83% predicted that current (wild plus hatchery) salmon abundance (overall Columbia Basin run) would decline without hatchery stocking and fishing. Most surveyed experts predicted that stopping fishing and closing hatcheries would not greatly change the current overall wild-only abundance in the Basin. Based on these results, salmon fishing and hatchery additions are not currently believed to be among the major drivers of the low abundance of wild salmon in the Columbia River Basin. The current overall abundance of wild salmon in the Columbia River Basin (roughly 3-5% of pre-1850s levels) is within the expected range, given the amount and availability of high-quality salmon habitat, past and current ecological changes, and overarching trends in oceanic and climate conditions. Thus, stopping fishing and closing hatcheries likely will not drastically change the current wild salmon abundance in the Basin — and it may well drive wild runs even lower, according to many experts.

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\*Presented at a Pacific Salmon Commission (Vancouver, British Columbia, Canada) seminar on November 29, 2023.