

In 1805, Lewis and Clark wrote that the Columbia River was thick enough with salmon to walk across it. Today, the salmon population is dwindling. The dramatic decrease in salmon survival and rising ocean temperatures are symptoms of the climate crisis. According to the State of Salmon in Watersheds—Washington State's official biennial report—the climate crisis severely impacts salmon in just about every phase of their lives. Global warming causes warmer water and early floods that flush out eggs. Fires linked to global warming cause an increased amount of sediment in spawning grounds and damage native plants that provide vital protection for salmon. A salmon's place in the food web is threatened by warm-water fish and plankton blooms at unlikely times and locations due to the increasing ocean temperatures.

At the state level, solutions include policy decisions promoting green infrastructure, updating regulations for construction near salmon waters, invasive species mitigation, and investing more in stormwater management so it no longer affects water quality. Washington State must also pave the way for cross-jurisdictional boundary protection plans across the Pacific Northwest and the whole West Coast to increase salmon survival long term (State of Salmon). Policy action should be coupled with robust research because currently, the literature on salmon in warming oceans is filled with massive caveats and the different factors of ocean conditions' varied effects on salmon are difficult to isolate and attribute to specific causes (NOAA).

Ultimately, global cooperation is what can do the most for our salmon by reducing the effects of climate change. According to the United Nations, worldwide actions to mitigation include countries upholding their climate pledges, reducing greenhouse gas emissions, and “engaging women, youth, local and marginalized communities in climate-change planning.” This last goal is often missing within salmon discussions, which fail to fully acknowledge and respect Native American treaties and perspectives. Decolonial ecology asks us to consider solutions that rethink the relationship between humans, history, and land by looking to valuable centuries-old Indigenous sustainability knowledge. Washington can significantly benefit from collaborating with tribes on terminal fisheries, traditional-inspired fishing tools, and Indigenous co-governance (Atlas et al.)

The most crucial way scientists, policymakers, and community members can aid salmon survival is to consistently elevate Indigenous voices while expanding research and building partnerships for global systemic changes, investing in long-term solutions instead of bandaid-over-bullet-hole dam removals that ignore the root causes. As per the United Nations climate crisis goals, we must grow transdisciplinary partnerships that highlight marginalized youth voices such as the Confederated Tribes of the Umatilla Indian Reservation Youth Leadership Council, who in the summer of 2021 wrote a letter to President Biden voicing their concerns for salmon, or “*Wy-kan-ish*.” We must tackle the root of the salmon deaths and poor ocean conditions—global warming—on a worldwide scale. Only then can we honor treaties and ensure our heritage is preserved for future Washingtonians.

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