

**Northwest Indian Fisheries Commission  
Washington Sea Grant Hershman Fellowship 2021-2022**

**Host Organization**

Northwest Indian Fisheries Commission  
6730 Martin Way E., Olympia, Washington

**Fellowship Location**

Northwest Indian Fisheries Commission Office, pending COVID-19 guidance.

**Fellowship Mentor/Supervisor**

Dr. Ken Currens, Conservation Scientist (kcurrens@nwifc.org, 360-528-4374)

*Other Key Mentors*

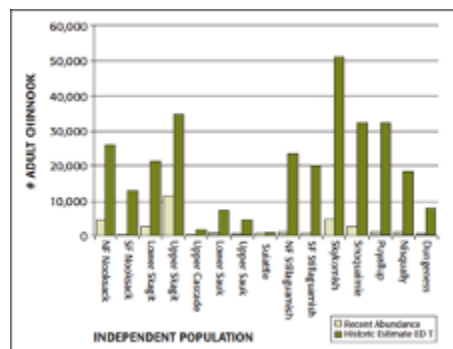
Craig Bowhay, Fisheries Program Director  
Fran Wilshusen, Habitat Program Director

**Position Description**

The Northwest Indian Fisheries Commission (NWIFC) is a support organization for the 20 western Washington treaty Indian tribes headquartered in Olympia, Washington. It assists member tribes in their roles as natural resources co-managers by providing policy and scientific analyses on harvest, hatchery, and habitat issues. The NWIFC coordinates the development of regional management plans for tribes under the Endangered Species Act, Clean Water Act, and Forest & Fish Law. The NWIFC also provides a forum for tribes to address shared natural resources management issues with state and federal agencies and to speak with a unified voice in Washington, D.C.

The 2021-2022 Washington Sea Grant Hershman Fellow will have an opportunity to advance conservation planning and policy to support tribes in preserving the four values associated with treaty-reserved fishing rights: 1) resource conservation, 2) ceremonial, religious, and spiritual values, 3) subsistence values, and 4) commercial values. A key priority identified by the tribes that the Fellow will be engaged in is compiling and describing the benefits and ecosystem services that salmon and salmon hatcheries provide. Current abundances of salmon are a tiny fraction of historical abundances. For some species, such as Chinook Salmon, 80-90% of the fish and their associated benefits are now supported by hatcheries because their habitat has been lost or modified (Figure 1).

Although risks associated with hatcheries have been well described, advancement of hatchery and conservation policy in the face of climate change and increasing human population growth would benefit from similar focus on the socio-ecological benefits. For example, in recent State policy Washington Department of Fish and Wild (WDFW), was directed to develop a risk-benefit framework with tribes, but WDFW acknowledged they do not have a good description of hatchery benefits beyond those associated with preventing extinction or providing commercial harvest. The fellow will also support policy analysis and planning at the intersection of habitat, climate change, and hatchery strategies, including coordinating with NWIFC staff and tribal policy leaders on the Tribal Habitat Strategy



(in Lushootseed, *gʷədʷədad*), which is a tribal approach to identifying and protecting the lands, waters and ecological processes critical to tribal rights, resources and homelands.

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### *Specific Tasks and Major Project Components*

The 2021-2022 Fellow will have opportunities to learn and contribute through a variety of activities. Activities would include those described below, but the fellow would have a key role in revising or shaping these, depending on the kind of expertise and experience he or she brings to the project.

Components of the project include:

- Compiling and describing benefits and ecosystem services of salmon and salmon hatcheries.
- Supporting tribal policy leaders in developing a joint tribal-state vision for hatcheries in the 21<sup>st</sup> Century with WDFW.
- Supporting tribal staff, policy leaders, and WDFW in developing a risk-benefit framework for hatcheries, especially that application of structured decision making.
- Coordinating with NWIFC staff and tribes to build opportunities to integrate work on the Tribal Habitat Strategy, *gʷədʷədad*, with hatchery strategies. Opportunities range from advancing climate change analyses to support hatchery-wild adaptation strategies, supporting tribes and the Environment Protection Agency (EPA) in developing National Pollutant Discharge Elimination System (NPDES) permits for small tribal hatcheries consistent treaty-right obligations, and riparian and nearshore protection efforts.

### *Networking and Professional Development Opportunities*

During this project, the Fellow will have the opportunity to meet and work with a variety of different groups. The principal groups will be the 20 Western Washington Treaty Tribes (Lummi, Nooksack, Swinomish, Upper Skagit, Sauk-Suiattle, Stillaguamish, Tulalip, Muckleshoot, Puyallup, Nisqually, Squaxin Island, Skokomish, Suquamish, Port Gamble S'Klallam, Jamestown S'Klallam, Lower Elwha Klallam, Makah, Quileute, Quinault, and Hoh), state agencies working on recovery planning and implementation (especially Washington Department of Fish and Wildlife, but also Puget Sound Partnership and its associated leadership and science boards, Department of Ecology, Department of Natural Resources, Department of Health), federal agencies involved in recovery consultations and funding (e.g., National Marine Fisheries Service, U.S. Fish and Wildlife Service, Environmental Protection Agency), and non-governmental organizations, such as Long Live the Kings. We also work with experts from academic and research institutions and consulting groups as needed, such as the Northwest Fisheries Science Center and University of Washington.