Northwest RiverPartners
For salmon, our economy and quality of life

Salmon for Harvest

Salmon fishing has a long history in the Columbia River Basin, from ancient tribal fisheries at Celilo Falls to booming 19th-century commercial canneries at Astoria. Harvesting salmon is a time-honored activity in the Northwest. Harvest is governed by a complex network of federal and state laws, as well as international and tribal treaties. The federal government has a "trust" responsibility to Northwest tribes to ensure ceremonial and commercial fishing opportunities. Harvest is one of the four "Hs" – along with habitat, hatcheries and hydropower – that must be addressed in salmon recovery.

Managing the Catch

Salmon stocks from the Columbia River system are harvested in the ocean from California to Alaska, and in the river and its tributaries. Every year, federal, state, and tribal agencies up and down the Pacific Coast draw up plans for the commercial, recreational, and tribal salmon harvest.

- Columbia River salmon are caught in three distinct ocean fisheries – Southeast Alaska; Canada; and, off the coasts of California, Oregon and Washington, the latter is managed by the Pacific Fishery Management Council (PFMC). Each fishery is managed separately.
- Harvest limits are based on estimates of adult salmon abundance, as well as species conservation and the Endangered Species Act (ESA).
- NOAA Fisheries plays a key role in managing ocean and in-river fisheries setting overall in-river and ocean harvest catch rates that aim to prevent overfishing and distribution of the catch.
- Within the Columbia River system, salmon fisheries are co-managed by Washington, Oregon, and Idaho, four treaty Indian tribes, and other tribes that have traditionally fished in the waters. A federal court oversees management of harvest in the Columbia River as a result of proceedings in a 40-year-old lawsuit, *U.S. v. Oregon*.
- The 1985 Pacific Salmon Treaty between the United States and Canada also addresses harvest. That treaty is implemented by the Pacific Salmon Commission.

Weighing the Economics

Commercial salmon harvest has been an important industry in the Pacific Northwest since the 1860s. In 1866, salmon canning began in the Northwest, which spurred the commercial fishery.

- Between 1883 and 1925, the salmon and steelhead harvest often exceeded 40 million pounds.

- In the 1990s, harvest in some years fell below 1 million pounds due to low numbers of fish.

- The regional economic impact of salmon and steelhead fishing is estimated to be about $142 million annually, according to a 2005 analysis by the Independent Economic Advisory Board.

Overall, commercial landings of salmon have fallen steadily since the early 1940s, a response to declines in abundance. Recreational fishing opportunities also rise and fall with abundance. Over the past 20 years, angler trips have ranged from under 10,000 to over 185,000 annually.

Focusing on the Endangered Species Act

The ESA has added another layer to the already complex business of managing salmon harvest. With the listing of 13 species of Columbia River salmon and steelhead for ESA protection, the scope of NOAA Fisheries' responsibilities over harvest expanded significantly.

- NOAA Fisheries must assure that ocean and in-river harvest plans do not jeopardize the continued existence of a listed species or its critical habitat. Both ocean and in-river harvest are subject to an ESA-specific review and approval by NOAA.

- The agency can authorize "take" of a listed salmon as long as it is incidental – not the prime target – of the fishery. However, the take of ESA-listed salmon occurs in mixed-stock fisheries, where the gear used, largely nets, does not distinguish among hatchery or ESA-listed stocks.

NOAA Fisheries has stated that the reasons for salmon decline are many and not solely a result of harvest impacts. At the same time, the agency acknowledges that the indirect impacts of harvest aimed at other hatchery salmon significantly affect many listed salmon.

The Role of Harvest in Recovery

Harvest occurs at a critical time in the salmon life cycle. Adults are caught as they head for their spawning grounds – with females carrying as many as 5,000 eggs – to propagate the next generation. No adult caught in the harvest can contribute to species recovery.

- Despite efforts to target catches toward hatchery runs, the harvest rate on some ESA-listed fish is still nearly 50 percent or more; for example, Snake River fall Chinook. Upper Willamette Chinook and Lower Columbia Chinook and Coho also get caught up in the harvest.

A report from the Independent Scientific Advisory Board (ISAB), experts who advise the region on fish and wildlife issues, said in 2005 that while fishery impacts on Columbia River salmon have been reduced since the mid-1980s, it is not possible to determine whether current harvest management adequately protects ESA-listed spawning populations. ESA recovery plans and a quantitative risk standard are needed for that determination.

The ISAB stated that "harvest management is much more likely to be capable of preserving options for recovery than other types of measures. . ., such as habitat improvements or modification of flows and dam passage facilities." "In the absence of adequate data, managers should reduce impacts on the resource to ensure its continuance and future productivity," the ISAB recommended.