

Brief Summary of Rogue River Coho Salmon Management

The in-river sport fishery is mark selective. Harvest of naturally produced coho has not been allowed since 1994.

The focus for management over the last 25+ years is freshwater escapement, accompanied by a broadscale effort at habitat protection and restoration that began with the Oregon Plan for Salmon and Watersheds.

Abundance of the upper Rogue coho population was tracked at Gold Ray Dam from 1942-2009 (Figure 1 below). Gold Ray Dam has since been removed and the ability to monitor returns to the upper Rogue at the counting station no longer exists.

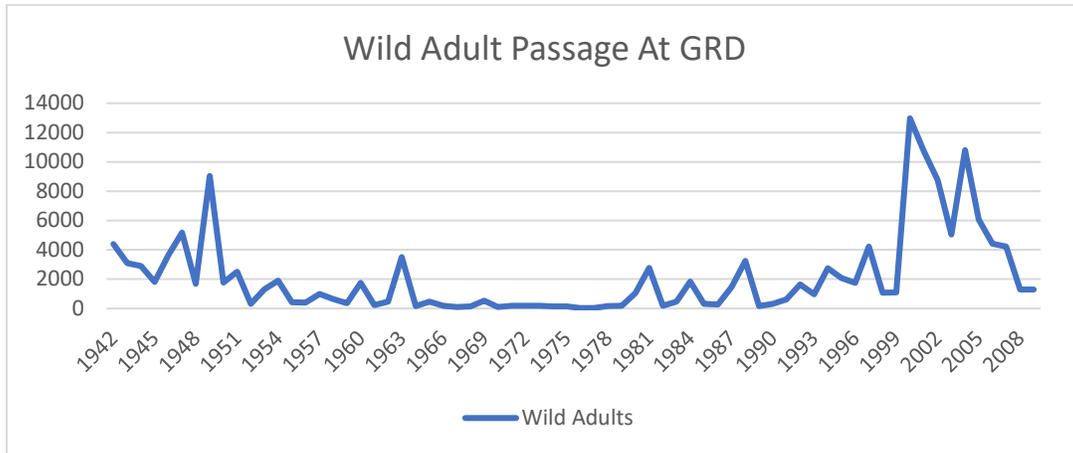


Figure 1. Wild adult passage estimates at Gold Ray Dam (GRD, 1942-2009). Note the population reached a low of 27 adults in 1976 but never zero.

An alternate method of estimating returns of coho to the entire Rogue basin does exist at ODFW's Huntley Park seining project located at river mile eight. From July through October ODFW crews conduct a seining operation at a location in the park to capture returning summer steelhead, fall chinook and coho salmon. Hatchery adult returns are utilized with the Huntley Park count for a mark/capture expansion to estimate annual returns of coho to the Rogue Basin (aggregate of all populations). Estimates of returning coho adults are shown in Figure 2.

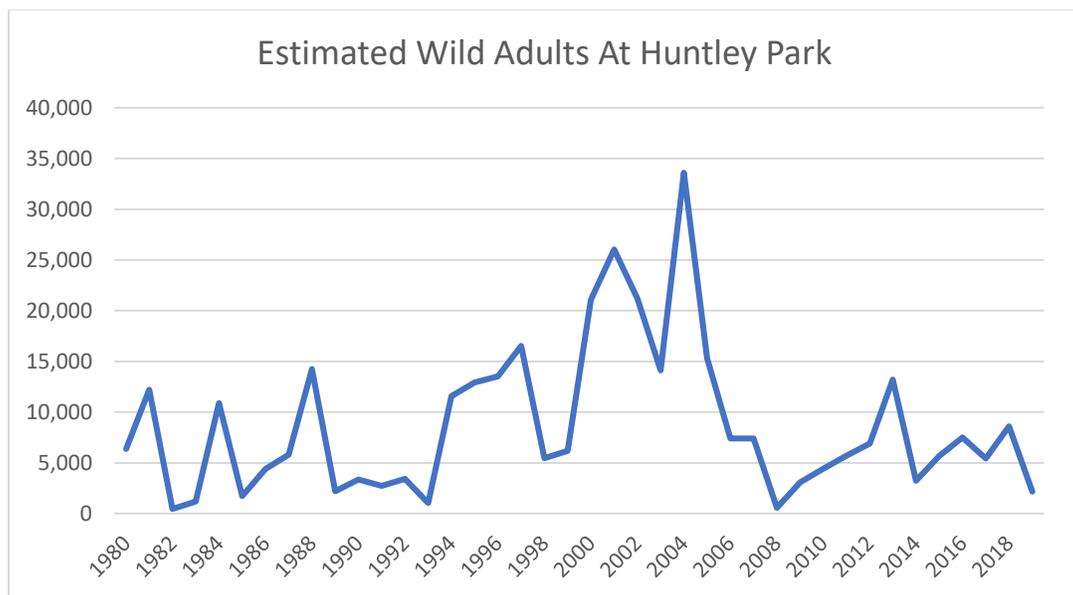


Figure 2. Estimates of returning adults to the Rogue River from the Huntley Park seining project 1980 thru 2019.

Spawner-to-spawner population dynamics since 1996 has been recently assessed using Huntley Park abundance estimation method (Figure 3). This relationship aggregates all coho in the Rogue River. It was used to drive a population viability analysis, which showed a moderate risk of extirpation.

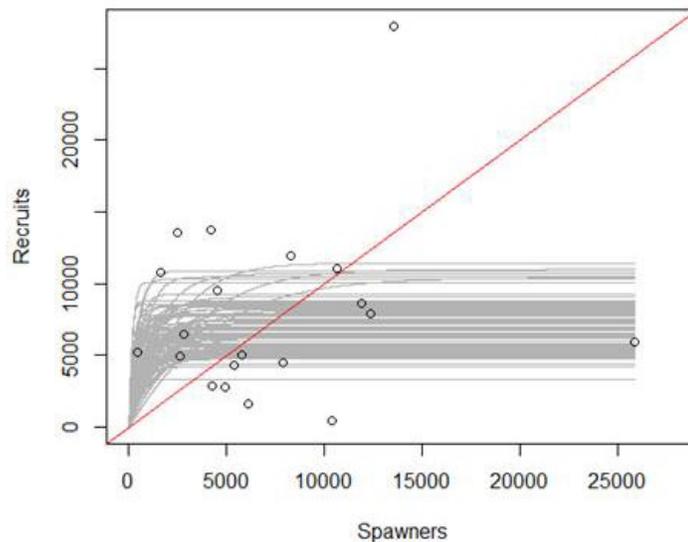


Figure 3. Spawner-recruit relationship for natural-origin coho in the Rogue River.

The coho hatchery program is a mitigation program funded by the Army Corps of Engineers. The smolt production goal was around 200,000 smolts for most years of the program, but was decreased in brood year 2013 (release year 2015) to 75,000 smolts as part of a production shift. Goals for the program in the HGMP include hatchery cwt returns providing an index of marine survival; and hatchery fish serving as an “artificial reserve” if needed for conservation purposes.

Harvest in the in-river fishery for hatchery coho occurs primarily in the lower Rogue River and estuary. ODFW harvest estimates from 1995 thru 2007 show an average of 688 adults harvested per year (minimum of 302 harvested; maximum of 3653). Estimates of harvest in more recent years from 2008 thru 2018 averaged 356 adults (minimum of 272 harvested; maximum of 681).

The coho HGMP (apparently one of the first to be developed) and supporting document outline acceptable levels of take for wild coho in the Rogue associated with (all) harvest impacts and hatchery use. Optimum use of wild coho (wild swims to the hatchery trap) in the brood is 30%. This take is allowed “...as long as the take, in combination with the incidental take in all harvests, does not exceed 15% of the total pre-harvest wild fish abundance in the Rogue basin under current marine survivals (PFMC 1997).”

Goal setting in conservation plan: ODFW is currently developing a conservation plan for coho (along with other native salmonids) in the Oregon portion of SONCC. In the current draft, the desired status for adult abundance is 10,000 adults, measured as a five-year moving average. The status level that triggers conservation concern is 1,300 adults, measured as a two-year moving average. Currently the five-year average is 5,746.

ODFW believes that the multi-species plan and its development process can serve as a framework for partnering with NOAA to reevaluate recovery criteria and continue to hone the array of management actions needed to recover the species in the Oregon portion of the ESU; **as well as begin a discussion to identify population levels or other metrics that would, if met, allow some limited opportunity for wild harvest in the Rogue River fishery.**

Coho Salmon

1,079 observations

- Hydrologic landscape
- Stream order
- Streamflow permanence
- Historical stream flow
- August temperature
- Gradient

AUC 0.936

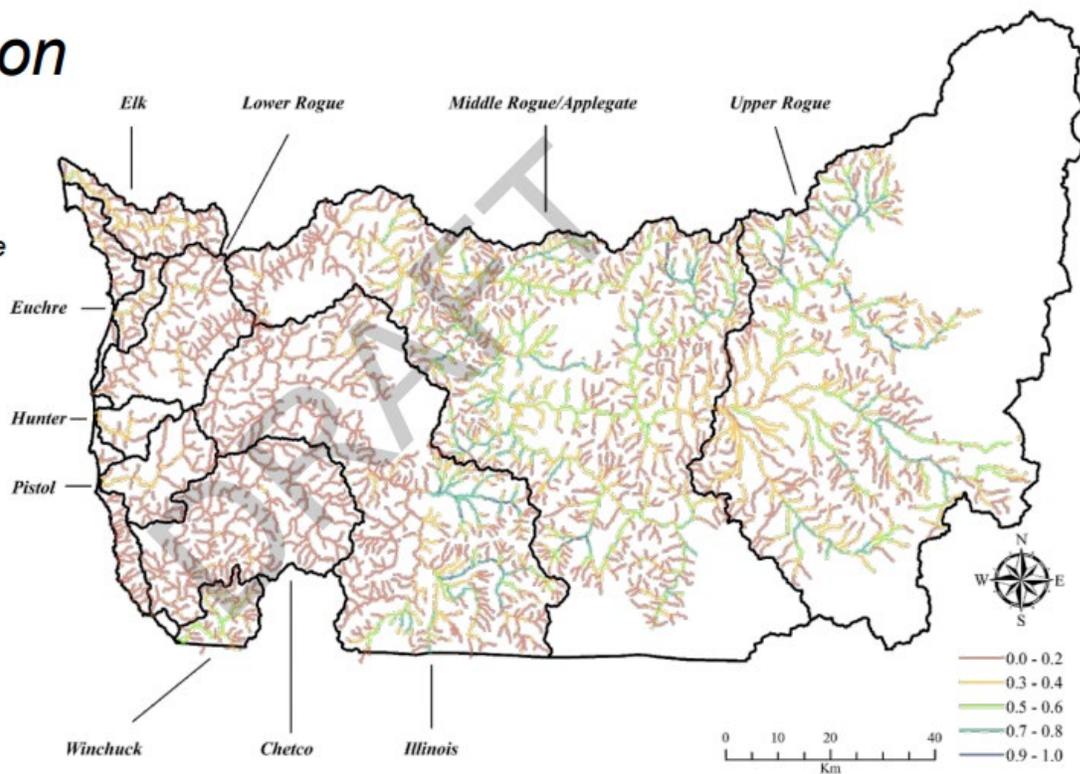


Figure 4. Species distribution model for juvenile coho.