

Status, Trends and Evaluation Criteria for LCR Populations of Salmon and Steelhead



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VSP-Viable Salmonid Populations: Tracking 3 metrics and comparing versus delisting scenario goals

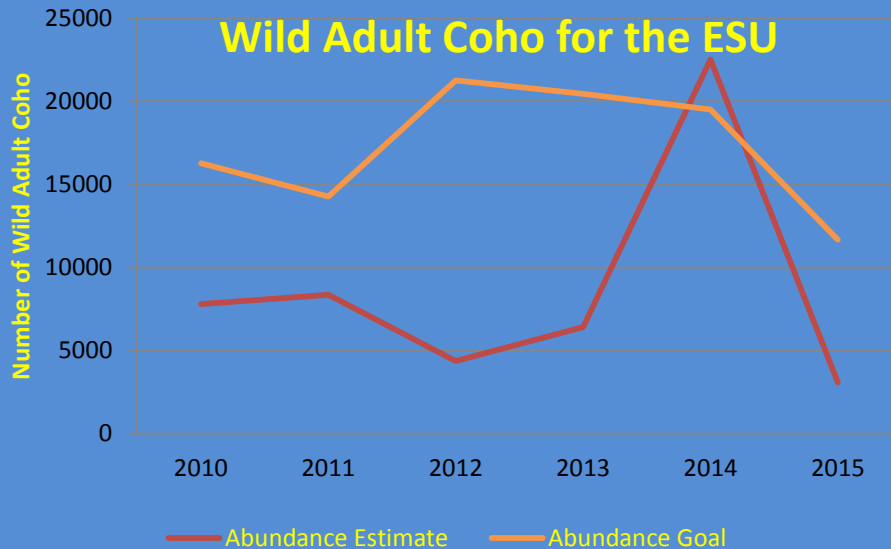
- **A/P**: an abundance based measurable criteria that takes into account both the abundance and productivity.
- **SS**: Spatial structure-a measure of juvenile or adult occupancy of habitat.
- **Diversity**: a measure of percent hatchery fish on spawning grounds.



7 species/runs ODFW is attempting to monitor

- Coho
- Fall Chinook
- Late Fall Chinook
- Spring Chinook
- Winter Steelhead
- Summer Steelhead
- Chum

Coho



A/P

- Metric is measured at population level.
- Evaluation threshold is, abundance level higher than goal in 6/12 years.
- All pop's except YB and BC have not met goal in 5/6 or 6/6 years.

Spatial Structure evaluation threshold is at the population level too.

Evaluation Threshold is, same as A/P, is SS greater than goal in 6/12 years?

All pop's except YB, BC and LG have not met the goal in 4/6, 5/6, 6/6 years.

Diversity-the percent hatchery fish on spawning grounds is based on a 9 year average and measured at the population level.

All populations except Clackamas, LG and Hood (5/8) are passing the evaluation threshold.

*As of 2015 the number of hatchery smolt releases within the gorge population strata has been reduced from 1.2M to 100k

Fall Chinook



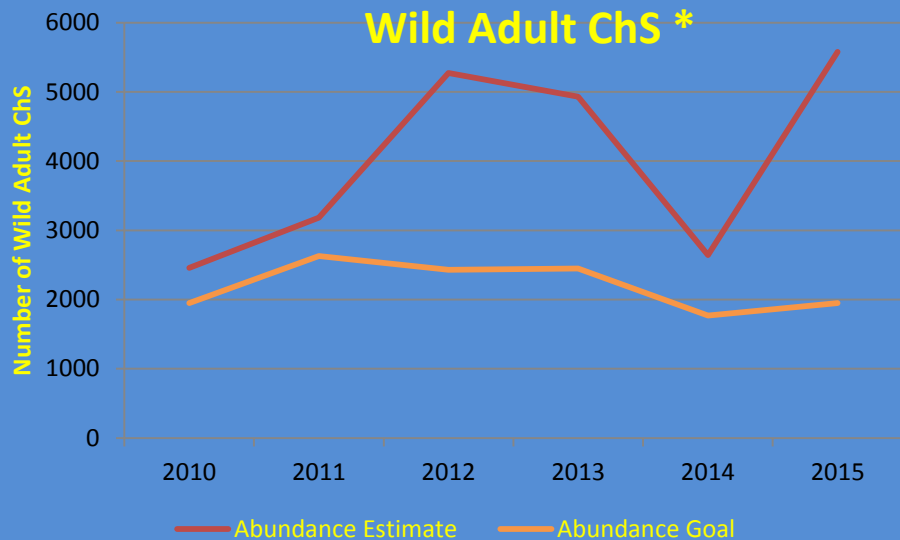
- Due to budget constraints Fall Chinook are only monitored in the Coast and Cascade strata.
- We have not monitored any population long enough to determine abundance goals.
- No Fall Chinook have been observed in the Scappoose population from since plan adoption.
- No techniques have been developed at this time to determine SS.
- We are meeting all goals for diversity for the populations we are monitoring.



*Monitoring note:

- Most challenging species to monitor.
- Non-wadable spawning locations
- Turbidity issues
- Spatial and temporal overlap with Late ChF in the Sandy.

Spring Chinook

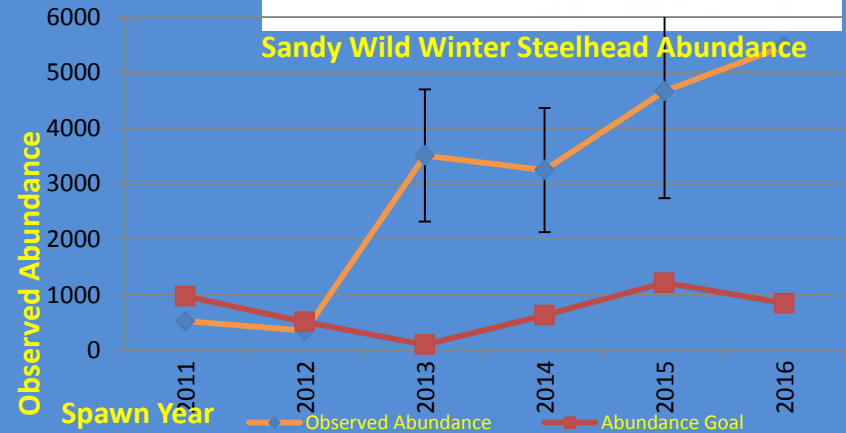
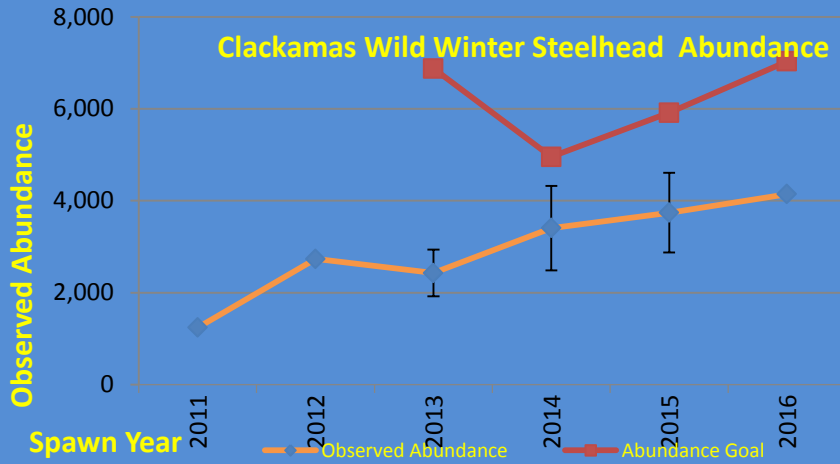


- ChS are native to Clack, Sandy, Hood.
- Clackamas ChS are w/in UW ESU, but still monitored and reported within the LCR.
- Graph is a Clack and Sandy combined.
- Trend data is collected in the Hood when visibility allows, but not a pop. estimate.

SS: there is no current methodology developed to measure spatial structure.

Diversity: The Clackamas pop is meeting the objectives while the Sandy can not. When Marmot Dam was removed in 2007 the strategy for removing hatchery adults was eliminate. Stray rates became very high, but multiple actions to reduce these rates have been implemented since 2010. Since 2013, average stray rates have been less than the goal of 10%.

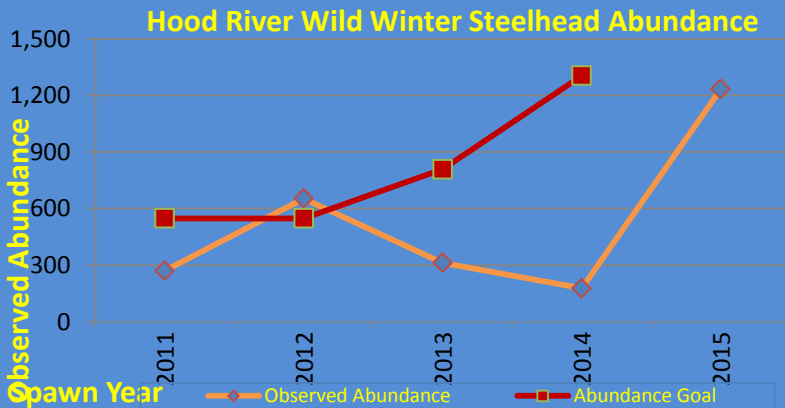
Winter Steelhead



A/P: The Clackamas and Hood are not currently meeting the measurable criteria while the Sandy is tracking way above (344%) the abundance goals.

SS: there is no methodology developed to determine spatial structure.

Diversity: good in the Sandy and Clack but needs improvement in the Hood.



Summer Steelhead-only native in the Hood. Trend monitoring but no accepted VSP monitoring.

So what does all this monitoring tell us in terms of the evaluation criteria?



AM=Adaptive Mangement



Action Prioritization

Questions?

