



Evaluation of number of tags for Chinook indicators in Washington and Oregon

Mark Meeting 2012

Goal and Objective

- Evaluate how large PSC indicator stock group releases should be to achieve precision standards
- Objective and precision standard
 - Estimate number of tagged fish landed in a fishery so that the $CV \leq 30\%$

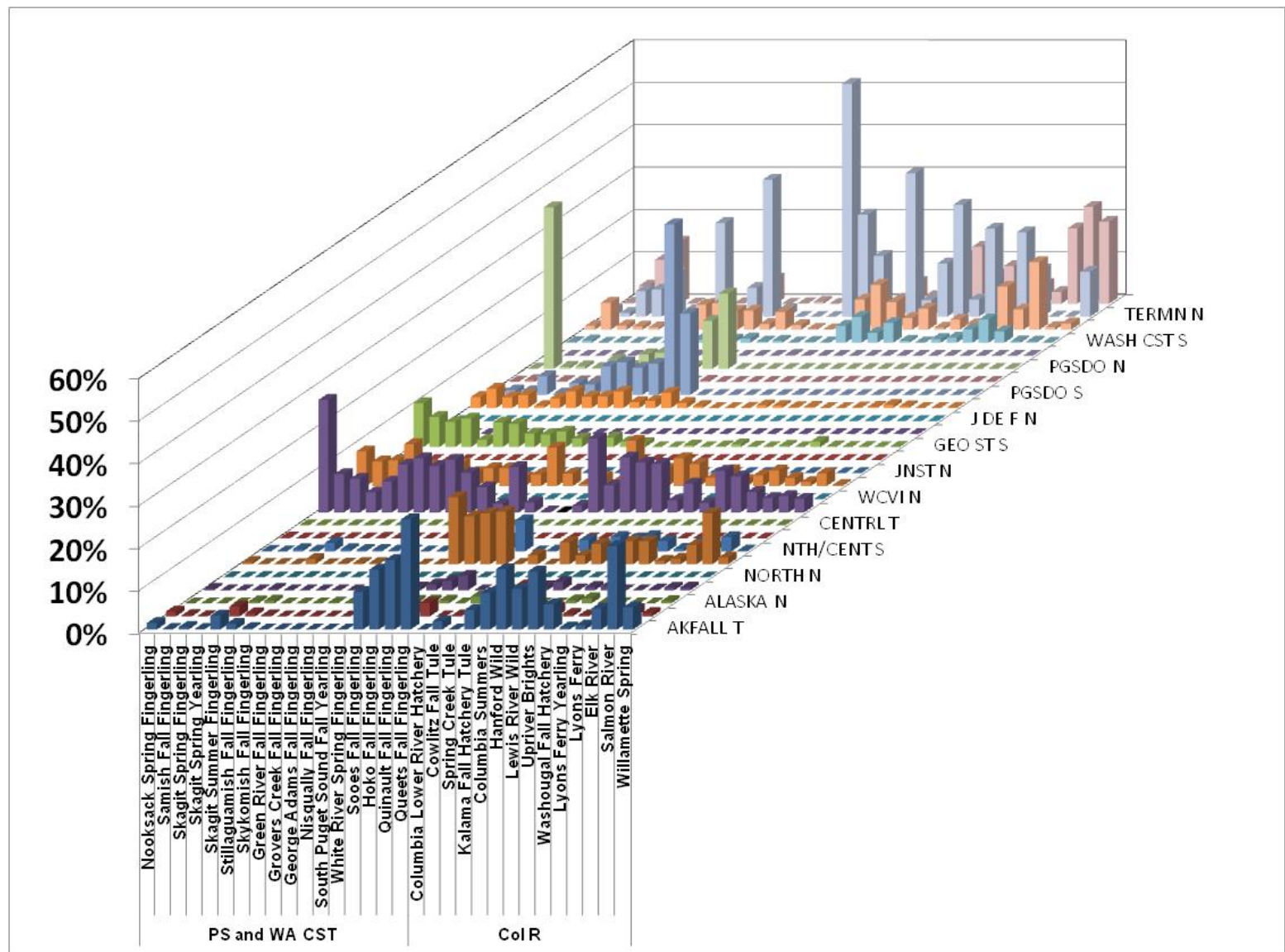
Need a framework

- Criteria - previous work indicates that 10 observed tags or more will produce estimates that meet this standard for a fishery stratum
- Perspective – restricted analysis to PSC fisheries where the % of the total landed+escapement is 2.5% or higher for age 4's

Approach - Empirical

- CTC Chinook tag database
- Brood years 2001-2005
 - Used age 4's
- Estimated % total return to fisheries
 - Used fisheries where $\geq 2.5\%$

% of total return by stock and fishery



How many should we release?

- Calculated how many would have to be released in each fishery ($\geq 2.5\%$ return)
- Maximum release for each brood necessary to meet criteria (10 tags observed) in all fisheries
- Normalized to account for differing survivals between broods
- Dropped the brood with highest maximum release

Average Annual and Max IO

