Evaluating the Effects of Salmon Fisheries on Southern Resident Killer Whales

Introduction to the 3rd Workshop

Sept 18-20, 2012

Renaissance Seattle Hotel,
515 Madison Street, Seattle WA

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Outline

- Where we are in workshop process
- Objectives & agenda for workshop 3
- Principles, procedures, roles

http://www.kunamoksttmural.com/
June 2011: Select Science Panel (SP) and participants

Aug. 2011: NOAA/DFO analyses

Workshop 1: Sept 21-23, 2011 (Seattle)

Oct 2011 - Mar 2012
Participant comments
SP suggests analyses
Participants identify & do analyses

By March 7, 2012:
NOAA, DFO, others complete / post additional analyses, metrics

Workshop 2: March 13-15, 2012 (Vanc)
SP & participants review new analyses
SP starts draft report

April 30, 2012: SP produces first draft
June 15, 2012: deadline for public comments on draft SP report

By Aug. 15, 2012:
- NOAA/DFO comments on SP Draft, analyzes fishing scenarios
- Public comments compiled/categorized

Workshop 3: Sept 18-20, 2012 (Seattle)
- Review comments on SP Draft, fishing scenarios analyses
- Identify gaps, new evidence


By Mar. 31, 2013 NOAA initiates or reinitiates ESA fishery consultations if necessary
OBJECTIVES (see agenda for details)

1. Summarize highest priority agency comments (Tues am)
   - Existing evidence not mentioned in report
   - Inappropriate weighting or assessment of existing evidence
   - New evidence

2. Present / discuss *syntheses* of evidence on themes discussed in Panel report & comments (Tues, Wed am)
   - Status & Growth rates of SRKW (Tues)
   - Feeding Habits and Energetic Needs of SRKW (Tues)
   - Fisheries and Prey Availability (Wed)
   - Projected Future Status and Recovery of SRKW (Wed)
   - Causation vs. Correlation (Wed)

3. Present / discuss NOAA/DFO analyses of fishing scenarios (Wed); next steps (Thurs am).

4. Science Panel & Facilitator meet to synthesize ideas and begin writing their final report (Thurs).
What the workshop IS and ISN’T

- **It is meant to provide:**
  - rigorous examination of Panel report & evidence relevant to key questions
  - collaborative discussions of future steps to reduce uncertainties

- **It is not meant to address:**
  - policy implications of scientific findings
  - recommended management actions
  - management agreements
PRINCIPLES

- Be hard on the problem, easy on the people
- Succinctly summarize evidence pro & con
- Be explicit about assumptions & uncertainties
- Be open to alternative approaches
- Respect agenda time lines
- Speak as concisely as possible during discussion
QUESTIONS & DISCUSSION

- Questions and Discussion
  - After presentations and/or after set of presentations
  - Science Panel priority for first half
  - Discussion open to all participants for second half

- Discussion of Next Steps on Day 3
ROLES

- **Facilitators**
  - Keep group focused on agenda topics and on schedule
  - Facilitate and track discussion
  - Facilitate report-writing with Science Panel

- **Presenters**
  - Present your findings to the group
  - Respect timelines

- **Science Panel**
  - Provide constructive feedback; probe evidence/analyses
  - Suggest other analyses, future steps
  - Collaboratively review & synthesize research presented

- **Participants**
  - Provide constructive feedback in discussion
  - Provide written feedback if desired
KW Prey Consumption / Foraging Efficiency / Energy Budget
KW Growth / Condition
KW Survival / Reproduction
Annual KW Pop Growth Rates
KW Abundance over Time
KW Population Viability

Factors other than fishing (vessels, toxic chemicals)
Nutrition & Cumulative Effects
Diet / Daily Prey Energy Req.’s
Distribution of Chinook and KW
Factors other than fishing (hydro, habitat, hatcheries, climate)

Chinook Fisheries
Delta Chinook Abundance
Delta KW Prey Consumption / Foraging Efficiency / Energy Budget
Delta KW Growth / Condition
Delta KW Survival / Reproduction
Delta KW Abundance over Time
Delta KW Population Viability

LOGIC DIAGRAM
Q1. What’s strength of evidence that changes in Chinook abundance cause or do not cause changes in SRKW vital rates (i.e., survival, reproduction and population growth rates)? [5 min each]

Q2. What’s strength of evidence that changes in fisheries in the future would cause or would not cause changes in Chinook salmon abundance sufficient to affect SRKW vital rates? [5 min each]

Q3. For Q1 and Q2, what are: [2 min each]
   - most critical data needs, analyses to reduce key uncertainties affecting management decisions?
   - types of evidence to alter / strengthen conclusions?
Q1. Things to consider.


Q2. Things to consider

a. expected changes in Chinook abundance w changes in harvest
b. form of relationship between abundance and SRKW vital rates.

c. effects of pinnepeds and other competitors on SRKW response