

**Interior Columbia Technical Recovery Team meeting #16, May 12<sup>th</sup> and 13<sup>th</sup>, 2003  
Portland, OR**

Members present: Carmichael, Cooney, Hassemer, Howell, McClure, McCullough, Petrosky, Schaller, Spruell, Utter

Non-members present: Carson, Holzer, McElhany

### **I. Population Identification: Historic Chinook Populations**

Historic or Extirpated populations will be included on population maps with a different color scheme than current populations, and a referral to the text.

1) Panther Creek: Most likely independent historically, due to sufficient capacity and geographic isolation. Endemic run believed to have been extirpated, current returns are likely from hatchery plants. The IDFG members will look into the origin of the hatchery outplants which now exist in the drainage, possibly McCall, Rapid River, or Sawtooth Fish.

2) Asotin Creek: Questions persist:

- What is the origin of these fish?
- Was the population historically independent?
- If so, how was it extirpated?

Some information may exist in the Asotin Creek Subbasin Summary, the SASSI document, or Lyons Ferry hatchery reports.

3) Hell's Canyon tributaries: juvenile fish detected are most likely offspring from Hell's Canyon or Oxbow hatchery fish. This area is not large enough to be independent, but may have been historically when combined with one or more tributaries above the upstream mainstem dams (anadromous blocks).

4) Okanogan: Are or were the fish in this drainage spring run (listed) fish, or only summers (not currently listed)?

5) Little Salmon: Heavily influenced by Rapid River stock. Is this stock part of the ESU? Broodstock intercepted at Hell's Canyon bound for tributaries upstream (Powder R., Weiser R., etc.) would have been in the ESU. Also, the Upper Little Salmon is currently inaccessible due to road construction- this area, called "Salmon Meadows" may have been historically abundant and independently viable.

6) Clearwater: Population(s) thought to be extirpated by Lewiston Dam- might a historical remnant exist? Where did the reintroduced stock come from? Answers could be found in 1990 Clearwater Subbasin Plan. The TRT should propose a historical population structure within the Clearwater and include a note in the "data needs" section for issues in need of further exploration.

### **II. Population Substructure**

1) Questions:

- Does a subpopulation section belong in the Population identification document, or is it better left to the Viability document?
- Or should substructure be described in the population identification document without judgment of each part's contribution, then readdressed during viability?
- Is the current observed diversity within populations simply a snapshot of shifting metapopulations over time?

2) Definition:

Subpopulations are important substructure features such as core spawning areas or differences in spawn timing. Subpopulations can be separated by:

- a) Consistent Genetic or
- b) Life History differences
- c) Geographic separation during spawning or rearing

- d) Significant or unique habitat
- 3) Trial Run: Grande Ronde Populations
  - a) Wenaha River: Spawning occurs in the mainstem, South fork, North fork and Butte Creek, with some degree of geographic separation. The two core spawning areas for this population are the South Fork and Mainstem Wenaha.
  - b) Wallowa River: Spawning occurs in both the mainstem Wallowa and Lostine River, with little or no geographic separation between them. There are some apparent unique genetic characteristics in Lostine River samples, and the Migration and Spawn timing of the Wallowa mainstem spawners is generally later than the Lostine fish. However, it is possible that the life history difference is in response to environmental factors and not historic (temperature and flow moderation from Wallowa Lake).
- 4) Next Step:

Michelle will circulate a table template to the various local experts on the TRT to make attempts at characterizing the substructure of the populations in their area. Some information, such as the unique characteristics of some subpopulations, may fit better in the text than in a table.

### **III. Snake River Sockeye Population Identification**

Pete Hassemer and Fred Utter presented an overview of the history and known genetic information about this species. Important issues in this ESU include:

- Determining the existence/history of remnant riverine sockeye populations- non-kokanees and non-anadromous *O. nerka* which spawn on lake beaches and interbreed with anadromous sockeye.
- Determining the historic status of sockeye in lakes other than the Stanley Basin lakes: Wallowa, Warm and Payette lakes. Separate populations or separate ESUs?

Next Steps:

- Conduct a literature search on the homing fidelity of lake sockeye to determine the potential inter-connectedness of the Stanley Basin lakes populations.
- Conduct a literature search on the genetic relatedness between lake and riverine sockeye spawners. (Paul Spruell)

### **IV. Snake River Fall Chinook Population Identification**

Tom Cooney and Fred Utter reviewed what is known about the current and historic spawning distribution and genetic characteristics of this ESU. An important issue in this ESU is the historic population structure of the extensive (over 500 km) stretch of usable habitat blocked by the Hell's Canyon complex. At least one core spawning area existed here, at Marsing, ID.

1) Suggestions for more information:

- A series of reports from the late 50's and early 60's by Monty Richards
- An Oregon Fish Commission report on Oxbow by Bob Gonzales

2) An examination of the population structure of the un-listed Columbia River Summer/Fall Chinook might give insight into historic Snake River Fall Chinook populations. Check a report by the USGS Cook Lab comparing the Hanford reach to the blocked snake. (Howard Schaller)

3) Suggestions for Fall Chinook straying information:

- MacIsaac and Quinn paper
- Lyons Ferry hatchery reports
- Search for straying rates for out of basin ocean-type fish

## V. Population Identification Draft Review

Suggestions for inclusion:

- A statement about the relative availability of data (i.e. Steelhead vs. Chinook)
- The chart developed early on in the process outlining the relative weights of each data type used
- A section on future data needs
- Information on the relative confidence levels in population decisions
- A conclusion which compares the document to previous Pop ID efforts
- A statement justifying the '500 spawners' criteria
- A geographic information chart: basin size, ecoregion, etc.
- Population substructure information, core spawning areas, and genetic legacy populations

## VI. Viability

- 1) Overview and discussion on the Willamette-Lower Columbia TRT viability draft led by Paul McElhany, WLC TRT chair
- 2) Review of draft table of productivity and abundance viability measures with Tom Cooney.
- 3) Viability tasks for the June meeting:
  - Review viability report outline (to be circulated by Tom C.)
  - Summarize results from alternative PVA models for selected areas
  - Explore Smolt-to-Adult returns and Smolts-per-Spawner information for use in PVAs
  - Decide on core spawning areas and genetic legacy populations (data summaries to be circulated by Tom C./Henry C.)
  - List of ideas for the basin's potential sources of catastrophic risk

## VII. Case Studies/Assessments

- 1) Overview and discussion of Grande Ronde Basin Spring Chinook EDT effort with Rich Carmichael
- 2) Discussion: Case study elements – potential emphasis for initial TRT efforts
  - Appropriate reach structure 'rules' and applications for case study areas
  - Review habitat-fish survival functions used in ongoing EDT, other analyses

## VII. Future Meetings

June 3<sup>rd</sup> – 5<sup>th</sup>, 2003      Warm Springs, OR

June 30<sup>th</sup> – July 2<sup>nd</sup>, 2003      Missoula, MT

August 18<sup>th</sup> and 19<sup>th</sup>, 2003      Boise, ID

September 16<sup>th</sup> – 18<sup>th</sup>, 2003      Location TBA, with the goal of a field trip in the Methow/Okanogan region