Puget Sound Steelhead Technical Recovery Team
Wednesday, May 28th, 2008
NWFSC, Auditorium, 10:00AM-4PM
Draft Agenda
5/28/2008 – draft meeting notes are in italics\

Name:John Smith
Credit card no: 5410-4555-3443-0300
Exp. Date 02/17

10:00 am Logistics, progress report, next meetings, etc. (Jeff Hard)
Attendance
TRT members:
Jeff Hard, George Pess, Bob Hayman, Robert Kope, Ed Connor, Anne Marshall, Jim Myers, Gino Lucchetti, Brad Thompson.
Other participants: Gary Winans (NWFSC), Bob Donnelly (NWR), Tim Tynan (NWR), Justin Mann (NWFSC), Jason Mulvihill-Kuntz (Puget Sound Partnership).
Our next meeting is scheduled for June 19th.
It is possible to hold future meetings in Olympia or Lacey.
Contact Jeff if interested in hosting a PSS TRT meeting.
Three goals for today's meeting:
Gary Winans is to give a presentation on his research into genetic and phenetic variation of O. mykiss above and below dams in the Green and Elwha rivers
Run through viability analyses and introduce the decision support system framework developed by the Oregon coast coho TRT
Jim Myers will introduce a framework for considering alternative strata scenarios
10:10 Recolonization of Steelhead (O.mykiss) Above Dams (Gary Winans)
See presentation:
Elwha R. & Green R.
3 data sets
Microsatellite loci
Major histocompatibility (MHC) loci
Morphological characters
Took digital measurements and noticed physical characteristic differences depending on whether the fish lived above or below dams.
Comments:
More metrics than just genetics should be used to determine viability.
Observations and field work, along with technology should be employed.
Question: where would we lose the resident fish if we didn't have the anadromous fish?
11:15 Viability Criteria and Analyses (Jeff Hard)
See presentation:
Primary Objectives
Assessment of current population analyses
Prediction of its future risk
A population's persistence depends on:

How large it is now (current status)
How fast it is capable of growing (productivity)
Key Question: how large and productive would it have to be to keep its extinction risk within a tolerable limit?
Define risk as the probability of a population falling below some threshold within a given time frame
VSP Diversity – Residency and Anadromy
Not clear how to incorporate into stratum / DPS viability; perhaps use DSS (PD criterion)
Approaches to assessing viability
General Risk of Extinction patterns for Puget Sound steelhead
For this first run through, basically split up SaSI pops for which demographic data from WDFW exist into: North Puget Sound, Central/South Puget Sound, Hood Canal, Strait of Juan de Fuca
Brightest spots in northern Puget Sound
Populations in central and southern Puget Sound are generally smaller
Hood canal populations are at high risk
Of great concern: Cedar/Lk. WA, most SPS populations, Skokomish
Biological Recovery Decision Support System
Fuzzy logic
All VSP criteria can be considered
Truth value terminology; -1 to +1
Truth Membership Function
e.g., Probability of persistence < 0.8 -> Truth value = -1
DSS Analysis Conclusions
Analysis most sensitive to assessment of abundance and productivity (especially for persistence)
Structure and diversity also play important roles (especially for sustainability)
The likelihood that the DPS will persist (i.e. NOT reach QET in 100 years) is low over a wide range of VSP conditions
Hood Canal and SJF are weakest provisional “strata” in the DPS
DPS persistence is limited by poor viability of populations in 3 or 4 strata: Central/South sound, Hood Canal and SJF
This Method:
Allows us to single out a run type
Very transparent
Easy to pick out where the real drivers are
Able to integrate information across multiple scales
Uses terminology we have to use
Will need to be very clear about the subtle differences in terminology
12:00 pm LUNCH
1:00 Population Identification Group Discussion (Jim Myers)
Presentation – see graphs
SaSI stocks on far left column

All SaSI information is on the Oracle website
Feel free to mix and match so that you come up with a combination that is most logical to you
Idea is to identify independent populations of steelhead in the DPS based on genetic, life history, and demographic similarity/difference. Then, we would like to organize these populations into 'strata' based on genetic, life history, ecogeographic, hydrological, and landform criteria, and also on consideration of catastrophic risk
Chinook salmon population identification document has useful information
Comments:
Anne wanted to put together a list of questions for the group to answer.
Brad Thompson asked if the group's objectives conflict with each other.
3:00 Goals For Next Meeting (All)
Goals:
Jeff wants to run through the fuzzy logic model with a simpler system next time to demonstrate sensitivity of output to various functional relationships.
Modify functional relationships in ways that are specific to steelhead; try to add specific elements to deal with: presence of resident fish, presence of summer-run fish, repeat spawning & kelting.
Anne may be able to get more information on summer steelhead.
The group should attempt to hash out some of the alternatives for strata during the next meeting.
3:30 ADJOURN