

**APPENDIX 9A**  
**COMMENTS RECEIVED AT PACIFICORP GENETIC WORKSHOP**  
**NOVEMBER 3, 2003**



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Bill Chesney, Associate Biologist (Marine/Fisheries), CDFG, Anadromous Fisheries Resource Assessment Program

In section 4, Review of Hatchery-Related Genetic Information of Klamath Salmonids, in the paragraph titled Hatchery stocks of coastal rainbow trout /steelhead, the authors state that based on recoveries of tagged fish that steelhead stocks at IGH have residualized. Last year we analyzed otoliths from IGH steelhead and observed a surprising variety of life histories. I've attached a copy of our report.

We don't know if the life histories observed are typical for wild Klamath steelhead as well. We are or were preparing additional samples from wild fish for analysis prior to the layoffs. I don't think anyone can support the claim at this time that "the IGH steelhead are likely having a negative impact on the genetics of wild steelhead". I do think that a genetic management plan would be a useful project.

Linda Prendergast, PacifiCorp

1. Spring Chinook in Klamath River are ocean-type, not stream-type. Although some ocean-type populations have some yearling migrants (type 3), all coastal populations of Chinook (falls and springs) are part of the ocean-type lineage. See NMFS status reviews and ESA listings in federal register.
2. Spring Chinook that existed above UKL would have been stream-type, like all other interior stocks east of Cascades. This is dictated by water temp regimes. I suggest that the genetics report explore the differences between coastal and interior genetics and life history differences for spring as well as fall Chinook, as this is critical regarding stock suitability for reintroduction.
3. Spring Chinook above UKL were gone "before white man came to the area". See Fortune page 17. Also, see page 4-A-4 of 1992 Task Force report, which suggests that the Klamathon Dam (1889 - 1902) and the USBCF fish racks at same local starting in 1910 were perhaps the nail in the spring Chinook coffin.
4. Steelhead: Fortune, page 17, states, "though it is possible that steelhead trout did migrate to the upper basin, no conclusive evidence of such runs can be derived from the repots". There seems to have been a belief that there were steelhead above UKL just because there was access to the ocean. The 1992 Task Force report (page 4-A-5 and -6) notes that steelhead may not have been able to compete with the large resident trout in UKL. There could also have been some temperature problems for steelhead this far up the system. The upper main river is too hot in the summer for migration (and possibly lethal) making it unlikely to support a summer run here. Also, temperatures in UKL can become too warm (>12 C) during the smolt development time in April.
5. Steelhead lineage. I suggest that the report explore the differences in coastal and interior lineages of rainbow trout/steelhead, as this would be critical regarding introduction of steelhead above Iron Gate and above UKL. All steelhead currently in the system are of coastal lineage (see status reviews: Busby et al 1994 for Klamath and Busby et al 1996 for

west coast stocks in general, and Behnke 1992). Three museum steelhead specimens from Spencer Creek were coastal as per meristics (scale counts) according to Behnke (1992). If there were steelhead above UKL, I would find it difficult to conclude that they would be "coastal", given the strong interior "redband" lineage of the stocks currently in and above UKL.

6. Resident rainbows. The Draft genetics reports states that "coastal rainbow trout are also believed to inhabit Jenny, Shovel, and Spencer Creeks". This doesn't agree with anything we've heard from agencies or seen in ODFW genetics work. It is possible (and likely in my opinion) that these streams were historically occupied by "coastal" steelhead, and redbands from upstream were able to colonize these streams and the upper main river after the dams blocked steelhead.

Kim Rushton, Fish Hatchery Manager II, CDFG, Iron Gate Hatchery

Section IV. "Coho Salmon Broodstock Practices"

Our information on the Coho Stocks released at IGH that came from out of state were from Cascade Hatchery not Williamson. They did come via TRH three years and Mt. Shasta Hatchery one year. About two-thirds of the Coho released in 1977 were of TRH origin. The other third was from IGH origin. Our records show that all Coho released in 1994 were of IGH origin. Our records do not show any Coho being released in 1966. Did Trinity do any direct Coho plants into the Klamath in 1966? The first TRH origin Coho release at IGH was in 1969 and the other being in 1977 as mentioned above.

The first eggs taken from Klamath stock returning to IGH were in 1966. These were raised and released with Cascade stocks in 1968.

Section IV. "Hybridization of Chinook and Coho Salmon at Trinity River Hatchery" in the first paragraph: I was operating the trapping facility at Camp Creek and all fish trapped for spawning were spawned at the Camp Creek Facility and not brought back to Iron Gate Hatchery. We spawned late-run Fall Chinook there in 1986 - 1990. I do not recall ever crossing any Chinook and Coho. If the 120 juvenile samples were collected in 1987, they would not have been progeny from fish spawned in November of 1987.

Section IV. Hatchery Stocks of Coastal Rainbow Trout/Steelhead":

To my knowledge IGH has only raised Klamath Stock Steelhead except as follows:

- 1966 - Eggs received from Trinity River Hatchery
- 1969 - Eggs received from Cowlitz Hatchery, WA.

Wade Sinnen, Associate Fisheries Biologist, Trinity River Project, CDFG, Northern California - North Coast District

I reviewed the report you sent and the only discrepancy I found was on page 12 where a personal communication from me was cited. The paragraph that states "In addition, an estimated 85 - 95% of in-river spawners upstream of the south fork trinity river between 1997 and 2001 were stray fish from TRH" should have said 85 - 95% of the estimated coho run (inclusive of hatchery returns) upstream of Willow Creek weir between 1997 and 2001 were of Trinity River Hatchery

origin.” Analysis of our carcass data suggests that straying of TRH coho is high and that a high percentage of in-river coho spawners are of TRH origin (76 - 92%).

