TRRP Fish Workgroup Meeting Summary
AFWO, Arcata, CA
Tuesday, April 4, 2017

Participants

Core members: Todd Buxton (FWS), George Kautsky (HVT), Kyle De Juilio (YT), Seth Naman (NOAA), Ken Lindke (CDFW)

Others in attendance: Joe Polos (FWS), Jennifer Norris (FWS), Billy Matilton (HVT), Steve Gough (FWS),
Note taker: Todd Buxton

Actions Items

- Lindke will provide a revised draft CWT/scale analysis paper to the FWG by 4/11.
- A conference call is scheduled for April 18 for FWG members to discuss findings in Lindke's CWT/scale analysis paper so that a recommendation to Norris can be made as to whether to continue both aging methods at the hatchery.
- Buxton, Dejuilio, Lindke, and other interested parties will discuss methods for fry stranding and stranding pool monitoring during the WY17 high flow release after the above action item is completed in the conference call on 4/18.

Notes

The potential for fry stranding during the 2017 high flow release from Lewiston dam was discussed by the group. A question that arose is whether stranding in floodplain areas of the Trinity River is still a problem given that restoration activities are believed to have substantially reduced riparian berms that caused stranding to be a problem in the first place. Naman asked whether stranding is currently significantly higher on the Trinity River than non-regulated streams in general, and the group briefly discussed how this could be determined before concluding the question was too complex to address this water year. A regulatory requirement is that channel reconstruction areas built the past three years are required to be monitored for fry stranding during the high flow release. If fry are found in water that is isolated from the mainstem flow in reconstruction areas, they are required to be removed and placed in the mainstem flow. The group agreed this requirement ignores the early life strategy that involves fry rearing in isolated, off-channel areas where they often grow faster than in mainstem areas due to increased water temperatures and access to terrestrial food. Buxton has proposed a monitoring plan for rehabilitation areas that enables fry to be left in place when found, but monitored to ensure they are not endangered by desiccation or low dissolved oxygen. Additional measurements were proposed to occur when monitoring for fry stranding, and the group discussed what measurements would be important, including water temperature, chlorophyll *a*, pond depth and duration of wetting, and pond area. DeJuilio and Lindke noted their supervisors volunteered staff time to assist in monitoring fry stranding and potentially other parameters in stranding areas during the high flow release. There was a brief discussion of the hypothesis of increased chlorophyll *a* in off-channel areas and its importance to productivity and it was suggested that this be discussed at the next Fish WG meeting.

Polos updated the FWG on the effort to conduct cohort analysis for Trinity River fall Chinook. A synthesis report proposal for this work was submitted to the TRRP for FY18, and the principal investigators in the proposal (Polos, Kautsky, Lindke) met in May to discuss their approach to this analysis. Specific methods have not yet been identified. Buxton mentioned that the current cohort subgroup was to address comments in Kautsky et al.'s draft paper that proposes a method for separating Trinity fall Chinook from Klamath fall Chinook in harvest estimates for the lower Klamath River. However, this task was accomplished by the authors and the paper has been recirculated for comment. Polos mentioned that the cohort subgroup actually first formed in 2010, but Kautsky recognized that because many the subgroup members in the original formation were no longer present, new members should be identified. The updated membership for the cohort subgroup was not formed in the current meeting, but will be addressed in the next FWG meeting. Additionally, FWG members will reach out to individuals from their asking for individuals that would like to be kept in the loop of the cohort reconstruction efforts.

The FWG discussed Lindke's draft report on CWT and scale age analysis for Trinity River hatchery. Lindke has been provided comments on his draft report by several WG members and is in the process of addressing those comments. A question arose as to whether the report should focus on years back to 2004 when constant proportional CWT marking of hatchery fall Chinook began, or extend the analysis further back in time. A clear decision did not arise from the discussion, but the general understanding was that analysis for the 12 years back to 2004 was sufficient to answer the question of whether CWT age structures are statistically significantly different than age structures predicted with random scale samples taken at the hatchery. Lindke agreed to provide a revised draft report on 4/11, and the paper will be discussed in a conference call on 4/18 with the aim to conclude whether a recommendation can be made to Norris to continue both aging methods at the hatchery or to only continue CWT sampling for determining age structures.

The FWG discussed several synthesis report proposals for fisheries related topics. Additionally, Lindke presented his masters thesis research on factors affecting marine survival of Trinity River Chinook. Time was not available for Dejuilio to present information on juvenile infection rates in the lower Klamath River as related to water year in the Trinity River. This presentation will be forwarded to the next FWG meeting.