

Biology Committee:

Here are the items I have for the Biology Committee conference call scheduled for Tuesday, June 30, from 1:30 to ~3:30 p.m.

To keep the call to a reasonable length, I suggest that we defer review/revision of the April 20, 2009, web conference summary and review of Committee action items until the July 13-14 Biology Committee meeting in Grand Junction.

Draft agenda (additions and revisions welcome):

1. Review/approval of Yampa Pike Sources report (R. M. Fitzpatrick and D. L. Winkelman. 2009. Use of Otolith Elemental Signatures in Estimating Sources of Northern Pike Recruitment in the Yampa River, Colorado.) This report was sent to the Committee for review and consideration for final approval by Tom Chart on April 22, 2009 (forwarded at the end of this message).

2. Project C18/19 - proposed project expansion to determine provenance of riverine fishes. Brett Johnson and his student, Brian Wolff (who is interested in pursuing a PhD) would like to take what they are learning about distinct reservoir isotopic signatures and apply it to fish found in the river. Brett believes their currently scheduled deliverable might serve as the basis for Brian's Dissertation Chapter I. This would not affect their current reporting commitment to the Program, and might actually speed that process. The basis for Chapter II of Brian's dissertation would need BC / MC approval as it would be an extension or add-on to the current C18/19 SOW, taking their ability to fingerprint off-channel sources to determine provenance of riverine fishes. Findings from that type of study could then help the States direct control of nonnative fishes at the appropriate sources.

3. Humpback chub draft captive management plan. Committee members were to have provided comments back to Tom Czaplá on this plan by May 20. The discussion during the April 20, 2009, web conference, was as follows:

The Committee also discussed the need to review the Gila in Captivity draft plan posted by Tom Czaplá on March 20th. Melissa said this plan recommends building a broodstock and a refuge of the Yampa River humpback chub population (500 adult fish, capturing 50 per year). Melissa asked if that's the direction the Committee believes we should take, and if so, whether 500 adults are needed as a refuge population (given that the Yampa River population has always been small). Melissa said she would need to discuss this with the Park, and that an EA would be required, at minimum. Shane asked about the relationship of this effort to the Grand Canyon effort and how were looking at developing these two populations from a recovery perspective. Do we need refuges for sub-populations? Tom Chart said our approach has been to use nearest-neighbor fish for augmentation to preserve local adaptations; however, in this case we may need to add humpback chub from other populations into the broodstock. Committee members will provide comments on the draft back to Tom Czaplá by May 20.

4. Gila genetics. During the April 20, 2009, web conference, the Committee discussed a draft SOW Genetic testing of *Gila* from Ouray NFH and Mumma e-mailed by Angela Kantola on 4/14/09 (see discussion, below). Answers to these questions were provided in an e-mail from Tom Czaplá to the Committee on June 4, 2009 (forwarded at the end of this message). The Committee will consider whether to now move forward with this scope of work (2009).

Genetic testing of *Gila* from Ouray NFH and Mumma – The Committee discussed the draft SOW e-mailed by Angela Kantola on 4/14/09. Angela said Tom Nesler has asked how closely this can tell us fish are related, can this analysis really tell us if the fish are full siblings (or just a range of probabilities that they are full siblings), for example? This may be an important start, but Tom has cautioned against having too high expectations of the results of this study. Angela noted that the scope says “The result will provide a numeric indicator of relatedness that can be used in concert with other information to optimize breeding strategies to minimize inbreeding.” Dave Speas asked if this work will include genetic confirmation that these are humpbacks and then also give us an indication of the power of the determination of relatedness. Can the results be compared to the Douglas’ study? If we only 50-60 humpback chub, and there is room for 86 per plate, then perhaps some of the captive roundtails could be added. Krissy said that they ended up combining some of their family lots in the June Sucker program when some were found to be very closely related. Tom Pitts suggested the scope of work might benefit from peer-review to determine if it will provide the results expected. Tom Nesler said CDOW has some genetics experts with whom he’ll share this scope. Melissa noted that Connie has been doing this kind of work on bonytail. >The Program Director’s office will get answers to these questions from Connie and get a revised scope back to the Committee. Also, the PD’s office will add “if samples received in a timely fashion” after “potentially earlier” in “Final report will be provided no later than September 30, 2010 (potentially earlier).” >The Committee will discuss the scope (via e-mail if possible, or scheduling another conference call, if needed) after we get answers to these questions.

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