

**Biology Committee Meeting**  
**November 17-18**  
**Grand Junction, Colorado**

Biology Committee: Frank Pfeifer, Tom Nesler, Tom Pitts, John Hawkins, Melissa Trammell, Tom Chart, Gary Burton, Kevin Christopherson, and Kevin Gelwicks.

Other participants: John Wullschleger, Gerry Roehm, Chuck McAda, Dave Speas, Bob Muth, Rich Valdez, Ben Sherburne (in FWS job-swap with Tom Czaplá) Angela Kantola, and Mike Hudson.

Assignments are indicated by “>” and at the end of the document.

**Monday, November 17**

1. Review agenda and assign a timekeeper; review previous meeting summaries/action items - The agenda was revised as it appears below. Minor changes were made to the September meeting summary (e.g., under item 8, “30,000” should have been “3,000”). >Angela Kantola will post the revised summary to the listserver. With regard to the assignment to review catfish data, Kevin and Chuck said the data are so variable they really can’t provide historic numbers of fish per mile, for example. >Kevin will call Chuck to discuss what data could be provided.
2. Reports list - The Committee reviewed the reports due list.
3. Review of final report for project #112, interactive key - The Committee approved the report as written. >Darrel Snyder will finalize and print the report and provide a final electronic copy for Tom Czaplá to post to the website.
4. Review of final report on Duchesne high flows - The draft report was provided in March, revisions made in April, but the final was held until the Duchesne synopsis report was completed. David Speas expressed concern that the report recommended additional research on sediment-carrying capacity, but did not provide any detail on how that information would affect the flow recommendations (e.g., how might additional information on sediment-carrying capacity change the flow recommendations). Frank Pfeifer said that uncertainty was addressed in the flow recommendations. If additional research reveals significant new information, the Service could consider revising the flow recommendations. The Committee approved the report as final. >Frank Pfeifer will have final copies printed and >Gerry Roehm will post it in final report format to the website.
5. Review of final report for razorback survival in floodplains - Kevin Gelwicks said he didn’t get the report. >Committee members and others should check their personal e-mail lists of Biology Committee members to make sure that they have Kevin and not Paul Dey for Wyoming. >Angela Kantola will change the names on the front of the peer-review checklist (e.g., delete Paul Dey and add Kevin Gelwicks). Tom Chart questioned the

method used to calculate survival of age-1 fish, noting that the method used assumes 100% survival throughout the winter (because there wasn't a separate recapture event in the spring). This would tend to overestimate the population. Melissa Trammell agreed. Frank Pfeifer noted that some of the conclusions need to be revised based on that, and also noted that some of the concluding statements need to be better qualified (include specific numbers not just qualitative descriptions). Kevin Gelwicks suggested another method of analyzing the recapture data. Melissa pointed out a likely discrepancy in the reported flooded area at different flows (under "study area"). Melissa also noted that the confidence limits are so wide that the survival estimates may be somewhat overstated (perhaps add a caveat to the text and conclusions). Frank pointed out possible errors on page 16 regarding razorback suckers stocked in July (the numbers presented there probably didn't come from Ouray NFH and also the reference to Figure 15 appears wrong [perhaps should be Figure 16]). Referencing recent findings on Colorado pikeminnow stocked in the San Juan River, Melissa asked if water quality differences between the hatchery and the floodplain might have affected larval survival. Under the discussion of dramatically reduced razorback survival in the second year of the study, Tom Pitts suggested elaborating on the statements that say because of low spring flows, the water wasn't freshened and nighttime dissolved oxygen levels were low. Tom Pitts noted that the study seems to have revealed some things about how these sites operate and suggest those observations be included in the conclusions or recommendations. Tom asked for additional explanation/information regarding the ~260 fish that did not survive at Baeser Bend. The Committee noted that the report probably should recommend additional water quality monitoring at stocking sites. >Kevin Christopherson will revise the report and re-submit it to the Committee for review by December 31 (making sure the tables and figures are included).

6. Review of final report for Westwater humpback chub population estimate - Frank Pfeifer suggested looking at the Westwater and Black Rocks humpback chub data together. Rich Valdez said he believes these two populations have different (and independent) demographics, although they may have exchange of fish. The recovery goals treats them as separate populations but one core population. Bob Muth added that the goals call for no net loss in the two individual populations and a total number of 2600 adults and adequate recruitment in the core population. Tom Chart noted that a movement study was suggested at the recent humpback chub population estimate review meeting. The Committee discussed at length the downward trend from year one to year two and three (not statistically significant). Tom Nesler and John Hawkins suggesting adding discussion to the report to provide some interpretation of the results. Mike said he hesitates to draw any further conclusions from these 3 years of data (although his gut feeling is that they are underestimating the population). Melissa asked how the fish captured by electrofishing were counted and Mike agreed to make that more clear. Bob Muth recommended including any additional relevant observations in the discussion (flow, temperature, etc.). Gary Burton suggested that the Committee needs to discuss the recommendation to increase trammel net sampling (given potential impacts on the fish). Mike noted that the increased effort he recommends is to add more sampling sites (not to increase the number of nets or sampling period at current sites). The Committee

approved the report. >Mike will finalize the report and post revisions to the listserver. Assuming no additional comments, Mike will finalize and print the report and send a final electronic copy to Tom Czapla to post to the website.

7. Review of revised scope of work on depth-to-embeddedness study (85c) - The Committee recommended that the Management Committee fund this scope of work for FY 2004.
8. Humpback chub population estimates peer review update - Tom Chart said that the GCMRC brought in independent peer reviewers to look at how they're monitoring humpback populations and how that fits with the demographic criteria in the recovery goals. Both lower and upper basin researchers made presentations on their approach to population monitoring. The lower basin researchers made a strong pitch for their intent to continue their existing stock assessment sampling method (in the spring), but also include population estimates comparable to the upper basin. The peer reviewers report will go back to the AMWG. The Service has asked for a copy of the draft report due in early December. The Service and Arizona Game and Fish also are preparing a letter to Reclamation requesting that there be a fall multiple pass mark-recapture closed population estimate in Grand Canyon. Tom Pitts asked for an update on this at the next Biology Committee meeting.
9. Grand Canyon update - Rich Valdez and Melissa Trammell attended the recent symposium. At that symposium, Rich outlined what is and isn't being addressed in the Grand Canyon. The GCMRC mission is to comply with the Glen Canyon Dam EIS (they admit they are not a recovery program). There is some talk of establishing a recovery implementation program for the Grand Canyon. Gary Burton said that the GCMRC adaptive management program might address part of the recovery effort, with the Service addressing remaining recovery needs through a recovery implementation program.
10. Lodore Canyon study - Tom Chart proposed extending the work to evaluate the effects of Flaming Gorge operations in Lodore and Whirlpool canyons. Components of the flow recommendations have been implemented over the last few years, and with very low flows and extremely warm temperatures the past two years, they have seen extreme shifts in the fish community (significant increase in smallmouth bass, expansion of red shiners by ~30 miles, etc.). Kevin Christopherson said Utah has seen an increase in smallmouth bass in the middle Green River, also. Tom said he and Kevin Bestgen would like to continue this monitoring (another 1-3 years of sampling), with perhaps more focus on electrofishing. Frank Pfeifer said their concurrent study of pikeminnow use in Lodore Canyon (funded outside the Program) has shown a significant number of pikeminnow there, but this sampling is now complete. The Committee supported development of an FY 04-05 scope of work. >Kevin Bestgen will post a scope of work to the listserver by December 15 and the Biology Committee will discuss it at their next meeting.

11. Researchers meeting update - Kevin said that Ron Brunson and Emily Sanderson are working on this meeting. The first call for papers has gone out. The meeting will probably be at the Moab Valley Inn, but that's yet to be determined.

**Tuesday, November 18**

12. Summary of razorback larval drift (bead) study - Kevin Christopherson presented last spring's work releasing neutrally buoyant beads (which fairly closely imitate larval fish) a mile above the Bonanza Bridge floodplain site and the Above Brennan floodplain site.

	<b>Bonanza</b>	<b>Brennan</b>
*Drift time (minutes)	52	373
*Volume Sampled m <sup>3</sup>	99.08	3,153.19
* Total volume m <sup>3</sup>	23,088	666,924
Beads Released	~691,000	~691,000
Beads Sampled	45	14
Beads Sampled/m <sup>3</sup>	.45	.004
Est. # entrained	10,389	2,668
Proportion entrained	1.5%	0.39%

\* Drift time, volume sampled and total volume data is only for the time period beginning at the first detection of beads and last detected bead.

Brennan site captured more water, but fewer beads. Clearly local hydrology makes a big difference in drift. This study will be repeated with razorback sucker larvae if enough are available this coming spring.

13. Update on floodplain habitat management plans - A draft of the Green River plan was sent out on November 1. >Committee members will provide comments to Rich by December 15. The Committee discussed the report's nine recommendations. Rich will qualify the first recommendation regarding suspending further land acquisition. Rich recommends that additional floodplain restoration work focus on Thunder Ranch and Stewart Lake due to their proximity to the current known spawning bar. With regard to Ouray NWR, Rich recommends beginning discussions on what the Refuge would be willing to do in the future, but not initiate anything right now. The Committee discussed at length the management and evaluation of existing floodplain sites (including the value of sites in the Jensen to Ouray reach). Additional bead studies might be used to help

determine the relative importance of different sites. With regard to Rich's recommendation to use existing programs to monitor razorback and bonytail response, the Committee weighed the merits of monitoring to determine whether bonytail are reproducing now or waiting until later when more fish are in the system. Tom Czaplá's summary of captured stocked fish will be very important in measuring stocking success since we currently don't have specific monitoring efforts for razorback and bonytail. Melissa encouraged young-of-year sampling in the lower Colorado River to pick up this information. With regard to site priorities, the Committee agreed with Rich (Thunder Ranch, Stewart Lake, continue to monitor the eight restored sites, then Ouray).

14. The next Biology Committee meeting will be in Moab starting at 8:00 a.m. on January 15<sup>th</sup>. Agenda items will include report review (Christopherson's razorback survival in floodplains report, the White River report, and Chris Kitcheyan's flow effects report), an update on lower basin humpback chub population estimate, review of a scope of work for continued sampling in Lodore Canyon, and discussion of nonnative fish work for 2004. >Kevin Christopherson will reserve a meeting room at the Moab Valley Inn. The following meeting will be February 10-11 in Grand Junction starting at 12:30 on the 10<sup>th</sup> and likely concluding by noon on February 11. Agenda items will include review of recommended revisions to the RIPRAP, review of Pat and Anita Martinez' reports and possibly Hawkins' pike removal report, >Tom Chart will try to get Reclamation's meeting room.

Adjourn: 11:45 a.m.

## ASSIGNMENTS

1. Angela Kantola will post a revised summary of the September meeting to the listserver.
2. With regard to the previous meeting assignment to review catfish data, Kevin Christopherson and Chuck McAda said the data are so variable they really can't provide historic numbers of fish per mile, for example. Kevin will call Chuck to discuss what data could be provided.
3. Darrel Snyder will finalize and print the report interactive key report and provide a final electronic copy for Tom Czapla to post to the website.
4. Frank Pfeifer will have final copies of the Duchesne high flow report printed and Gerry Roehm will post it in final report format to the website.
5. Committee members and others should check their personal e-mail lists of Biology Committee members to make sure that they have Kevin Gelwicks and not Paul Dey on the list.
6. Angela Kantola will change the names of Biology Committee members on the front of the peer-review checklist (e.g., delete Paul Dey and add Kevin Gelwicks).
7. Kevin Christopherson will revise the razorback sucker survival in floodplains report and re-submit it to the Committee for review by December 31 (making sure the tables and figures are included).
8. Mike Hudson will finalize the Westwater humpback chub population estimate report and post revisions to the listserver. Assuming no additional comments, Mike will finalize and print the report and send a final electronic copy to Tom Czapla to post to the website.
9. Kevin Bestgen will post a scope of work for continued sampling in Lodore Canyon to the listserver by December 15 and the Biology Committee will discuss it at their next meeting.
10. Committee members will provide comments on the draft Green River floodplain management plan to Rich Valdez by December 15.
11. Kevin Christopherson will reserve a meeting room at the Moab Valley Inn for January 15.
12. Tom Chart will try to get Reclamation's meeting room for the meeting February 10-11 in Grand Junction.