

Biology Committee Web Conference Draft Summary
October 30-31, 2008

Biology Committee: Dave Irving, Melissa Trammell, Pete Cavalli, Krissy Wilson, Dave Speas, Shane Capron, Bill Davis, Tom Pitts, and Tom Nesler. The environmental groups were not represented at the meeting.

Other participants: Tom Chart, Angela Kantola, Bob Muth, Tom Czapla, Sherman Hebein, Cassie Mellon, Leisa Monroe, and Trina Hedrick.

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

Thursday, October 30

CONVENE 1:00 p. m.

1. Review/modify agenda – The agenda was modified as it appears below. Krissy Wilson said that Quent has been replaced by Zane Olsen (zaneolsen@utah.gov).
2. Approve Biology Committee meeting summary for [August 18, 2008](#) meeting – The summary was approved as written.
3. Review assignments from August meeting – See assignment list at end.
4. Review reports due list – The list was discussed and minor changes made; >Angela will send out the revised list.
5. Nonnative Fish & Subcommittee updates
 - a. Prioritization of recommendations from previous workshops – Tom Chart referred to the draft he e-mailed October 3rd and said the intent is for this to feed into an overall upper basin strategy patterned closely after the Yampa River strategy. Trina asked why investigation of pikeminnow recruitment failure was ranked fairly low. Tom Chart said because it seems to be more of a research framework issue rather than a nonnative-specific issue. Tom Nesler suggested that Biology Committee members (and their agencies) may want to rank these items using the prioritization scheme the NNFSC developed. Melissa and Tom Chart said they believe the prioritization represents fairly good consensus among the group. Sherm said there were some areas of discrepancy, but overall there was pretty good agreement. Tom Chart suggested that if the Biology Committee wants to review rankings, it might be more helpful to work with Table 3 (second column, “cost not considered”) rather than Table 2. >Biology Committee members will provide comments on this document by December 1 (and the NNFSC can discuss this as part of their December 12 meeting).
 - b. Dec. 9-10 nonnative fish workshop content/format – Tom Chart sent last year’s guidance and workshop agenda to the PI’s. This year will be more of a working

session among PI's to craft joint presentations for the January researchers meeting. Kevin Bestgen, Paul Badame, and (probably) Boyd Wright will be the lead PI's for these presentations. >Tom Chart will provide last year's presentations to the BC and PI's (either on an FTP site or on a website). >Tom also will work with the PI's to draft a workshop agenda, and then send that to the Biology Committee for review. >Angela Kantola will add Sherm Hebein to the Biology Committee e-mail list.

- c. Researchers meeting content/format – Tom Chart suggests a half-day for the three nonnative fish presentations and discussion of recommended changes for FY 09 work (including potential changes to the native fish response work). Dave Irving said Michelle Morgan, Chief of Recovery and Delisting in the Service's Washington Office will attend the workshop in his stead.
- d. Second level synthesis outline/RFP – The NNFSC believes that our exploitation efforts via mechanical removal (and the effects on population dynamics) should be a focus of this synthesis. The Program will need to provide considerable background information (e.g., distribution and abundance maps, etc.) and the NNFSC will start working on that on December 12. NNFSC members are preparing a list of high priority questions / expectations of the 2nd level synthesis; >Biology Committee members are invited to do likewise by November 28. The product of the synthesis will go through external peer review. The NNFSC will have a conference call at 8:30 a.m. on December 1 to further discuss the RFP. Dave Speas said he expects the RFP would be issued in early 2009.

6. Floodplain update

- a. Stirrup – Trina said she's been making monthly site visits to check water depth and quality and everything looks good so far. Krissy said a 3,004 razorback were stocked in the Stirrup this year. Trina will continue monthly site visits throughout the winter, and then they'll be prepared to pump water in the spring when needed. Trina said they will construct two more antennae and test the system over-winter, so hopefully everything will work as expected in the spring. Melissa suggested that Trina test the system at the Stirrup this winter before it snows, if possible. Tom Czapl said someone from the Service's Grand Junction office may want to come out to Vernal to learn more about this system for possible application at the Price Stubb fish passage.
- b. Baeser – Dave Irving said water was pumped into Baeser in late May and ~ 43,500 larval razorbacks were stocked. Continued pumping was required to maintain water levels. In mid-September, 28 161mm razorback were captured using nets. A fin-clip mark-recapture effort gave a population estimate of 3,840 razorbacks. Some small nonnative fishes were present which must have been pumped in as larvae. An additional 24,000 ~100mm razorback were stocked October 8. The cost to maintain the 5' water depth via pumping has been ~\$20K; Dave suggested that the Program may want to purchase a pump that can be shared among sites. Melissa asked about plans for next year and Dave said they will provide a draft plan to the Biology Committee by late May (the FY 09 work plan has a \$25K placeholder for Baeser).

7. Recovery goals update – Tom Czapla sent copies of all the comments received to the Biology and Management committees. Tom and Bob and Rich have begun to discuss and categorize the comments. Rich and Tom will be working to address the comments and get revised goals to the Service core group for review. The probable next steps will be peer review (by the end of December), then public review (via the Federal Register).

ADJOURN 4:00 p.m.

Friday, October 31

CONVENE 8:30 a. m.

8. Report review (All; 1.5 hours)
 - a. 123 (sent to BC by Tom Chart on 9/5/08) – Tom Chart noted that he'd included some additional comments when he sent out the report. Some of these will need to be addressed by Dave Irving's shop, others Leisa will address. Melissa asked about data integration; Leisa said each investigator analyzed their data somewhat differently making it difficult to fully integrate. Dave Speas expressed concern about awkward positioning of tables and figures (perhaps it would be best to move them to the end). Font size and type among figures should be consistent. A y-axis label is missing from one figure (check all figures). A better-quality map also would be helpful. With regard to the conclusions, Dave noted the first sentence is superfluous and the word "certain" is overused. What do the numbers refer to in line 1238? The last conclusion refers to direct and indirect effects, but doesn't specify what those effects were. Shane asked where the report provides evidence for the sentence at the end of the discussion section: "One similarity between the Ouray reach and the Desolation reach is that both of these lower reaches saw the loss of the 2005 year class of smallmouth bass." Leisa will check on this and correct as appropriate. Shane noted that there may have just been less recruitment, rather than year-class failure. Shane noted that the first line of the introduction that says "While no one introduction or diversion structure can necessarily be identified as the direct cause ..." probably mean "primary" not "direct" cause. Tom Chart said Tom Nesler asked if there were data to support the second to last recommendation regarding cover. Leisa suggested that if the Committee would like more integration in this report, she is willing to work with Paul Badame and Tildon Jones to accomplish that. Tom Chart and the Committee agreed it would be worthwhile for Leisa to spend some time with those co-investigators and polish the report some more (although they should complete their annual reports first). Melissa Trammell suggested it would be helpful if the authors could better relate the effects of flow and temperature riverwide (the temperature analysis Tom Chart provided may be helpful). >Leisa will work with Tildon and Paul to revise the report fairly quickly (and will give Tom Chart a due date – hopefully that date will be no later than December 1).
 - b. 125 (sent to BC 10/20/08) – Shane Capron asked about the sentence beginning on line 660; John will clarify. Melissa asked about including more information about movement between control and treatment reaches. John said additional discussion is difficult because sampling effort/intensity was low in non-treatment/control reaches.

Melissa said that since we expanded the removal effort each year based on movement outside of control/treatment reaches, Colorado might find it helpful if the report clearly documented that movement. John said he removed some of this information for clarity's sake, but will put a few sentences back in to appropriately document the movement that was observed. Melissa suggested the report should state that we wouldn't expect strong removal effects from this study over the period covered by this report since the work began with a small study area and slowly expanded (e.g., three years of the removal efforts weren't as intensive as our current efforts). Sherm agreed that documenting the expansion of the control/treatment and how we adapted to new information in this report is a good idea. Shane asked about the sentence beginning "Removals in excess of abundance" on line 746 as it relates to Tables 4 and 5. This relates to an over-arching concern that our depletion levels may only be increasing productivity. The sentence needs to be re-written so that we first discuss annual removal, then if removal over the study period is discussed, productivity also should be addressed. The sentence seems to be understating the results; John will revise it. Shane clarified that we're manipulating numbers, but we're not "overcoming" unmeasured levels of recruitment and immigration (as stated in the sentence beginning on line 756). This issue is especially pertinent to the second-level synthesis. Dave Speas pointed out that since we haven't measured recruitment, we don't know if our removal efforts were high enough (perhaps "removal rates *appeared* high enough..."). Sherm Hebein asked about "possibly high numbers of escapees from Elkhead..." in line 759; John said it seemed high to him and it seemed appropriate to document the 2005 screen failure. John will change the "possibly high" part, but document and quantify the tagged smallmouth bass that escaped from Elkhead in 2005. John also will add information about the Elkhead outlet screens (Ray Tenney has details). Tom Chart said Tom Nesler asked that the number of fish marked at the beginning of each year be included on Table 4. John will add that information, but it may not work to put it into Table 4. Tom Nesler also asked about consistency of numbers of fish that went into Elkhead Reservoir as reported in Tables 5 and 12. Dave Speas asked how John concluded in the first sentence of the discussion "abundance of ... smallmouth bass declined..." John said this is based on his point estimates. Dave said that if there are other things in the data that suggest this, that first sentence in the discussion should lead with that (e.g., "... in the face of this uncertainty, we believe..."). John will write an appropriate introductory sentence. Dave added that it would be helpful to include some explanation of the use of recapture rates as surrogate for removal rates (if this is already discussed earlier in the report, that's fine). Dave pointed out that the fourth conclusion references other environmental factors, but those factors are not addressed in the report. The Committee discussed the need to be sure we have accurate age/length information (we should collect age and growth information every year). Tom Chart said that with regard to the first conclusion, Tom Nesler asked what in 2003-2005 data demonstrates this. As related to the next-to-last conclusion on line 870, Nesler also thinks recruitment issue is larger than immigration issue and asks if anything more can be done to draw this out in the report. Sherm asked >John to talk to Grant Wilcox in CDOW's Fort Collins office to see if smallmouth bass movement data can be mapped. >John Hawkins will revise the report (in discussion with the commenters), and provide a copy to the Committee by January 5 so they can review and approve it at their January 15 meeting.

9. FY 09 Work Plan

- a. 123b SOW – Leisa said the costs have increased, primarily due to more careful accounting at the end of one 5-year funding agreement and the beginning of the next. (Angela noted that several hundred thousand dollars will be deobligated from UDWR and returned to the Program as Reclamation completes the close-out of the previous agreement over the next few months.) Tom Chart noted that there's more effort in task 1 from previous years since it won't be covered by other population estimate work (and that white sucker removal is not part of this budget). (On a side note, >Krissy agreed to work with Zane to make sure that Wahweap's budget for FY 09 is accurate.). The Committee approved the revised scope of work for 123b.
- b. Update on proposal to remove small nonnative fishes from Green River backwaters – Tom Chart said he and Tom Czapla discussed with UDWR and FWS folks in Vernal potential follow-up to the pilot effort to remove fish from 11 backwaters this past July. Components would include determining if larval pikeminnow are entering Reach 2 in similar numbers as in the past, and repeating the pilot removal effort followed by some block netting just before larval pikeminnow enter the backwaters. Tom Chart said we might want to mesh this with validating the modeling effort that Argonne has been working on. Trina said they're still discussing this to hone in on the best methods. Reach-wide, they saw an overall decrease in the numbers of red and sand shiners from last year, but can't attribute that to the pilot removal effort. >The PI's will prepare a rough draft SOW in advance of the nonnative fish workshop.

10. Upcoming events/meetings:

- Annual reports are due November 14th. Tom Chart noted that at the workshop last year, it was decided that we need to be consistent and decided that the break between adults and juvenile smallmouth bass would be 200 mm (which will require PI's to redo previous year population estimates); >Tom will remind the PI's of this for their 2008 annual reports. (Tom added that there's a disconnect with the Yampa strategy which used 150mm as the basis for the 30 adult smallmouth bass per mile target.)
- DFC is November 12-16th in Cuatro Ciénegas, Mexico.
- The [Colorado River Basin Science & Resource Management Symposium](#) is November 18-20th in Scottsdale.
- The principal investigator's nonnative fish workshop will be December 9th & 10th in Grand Junction (open to anyone interested). The Management Committee meets December 11. (Both at the Holiday Inn.) NNFSC on December 12 (probably at the FWS office).
- The annual researchers meeting will be hosted by CDOW in Grand Junction at the Doubletree hotel on January 13th & 14th followed by a Biology Committee meeting on January 15th (when Dave Irving assumes chairmanship).

The Committee thanked Krissy for her excellent work as Committee chair.

ADJOURN: 10:50 a.m.

Attachment 1

Assignments carried over or modified from previous meetings:

1. Shane Capron will get a firm commitment from Clayton Palmer and Kirk LaGory re: Western's contribution for additional report costs for this project 85f (sediment monitoring) in FY 2009. 10/31: Program Director's office has verbal commitment; will seek firm commitment. 1/17: Bob Muth will check with George Smith re: his conversation with Clayton Palmer. 1/29: Program Director's office e-mailed Clayton, et al requesting confirmation; 2/15: Shane said we should have confirmation within a couple of weeks. 4/14: Western has indicated they are committed to providing \$32,600 in FY 09; e-mail confirmation requested; follow-up e-mail sent to Clayton 8/7/08 and 9/19/08. This is now a Management Committee issue and will be removed from this list.
2. Tom Czaplak will work to get the questions regarding what hatchery repairs are needed at Grand Valley resolved as soon as possible. 10/31: Grand Junction working to get cost estimates; \$44.4K funds placeheld. 1/17: Chuck said that a larger de-humidifier would be too costly; their current plan is to repair the walls so they can withstand the humidity. The Biology Committee expressed interest in a full solution. >Chuck will provide the full estimate to Tom Czaplak. >Bob Muth will discuss the possibility of using capital funds with Brent Uilenberg. 2/15: Reclamation & FWS working on getting this contracted; dehumidifier will be installed first, then walls will be repaired. 3/31: Reclamation waiting for report from an HVAC mechanical engineer on what's needed for dehumidification. Due to oil and gas activity in the Valley, they've had difficulty getting anyone to work on this relatively small project. 6/13: Contractor visited site June 5; appraisal study pending. 7/22: Report and initial cost estimate provided mid-July; BOR & USFWS discussing construction and contracting options. Tom Czaplak said Reclamation likely will contract the planned building refurbishment (insulation, dehumidifiers, etc.) with assistance from FWS Engineering; with the goal of getting bids by the end of the calendar year.
3. Tom Nesler will see if CDOW can provide a report on Billy Atkinson's work on pike in Catamount and the river below. Update provided at nonnative fish workshop; workshop participants recommended CDOW provide some kind of management plan. 1/17: Billy will provide a Catamount pike removal document/strategy by the end of February. 4/15: Nesler will provide update at BC. 4/28: Tom has reminded Billy that this is overdue and will try to get it to the BC as soon as possible. 6/13: Nesler just received the draft today and will provide it to the BC by the end of July. 8/18: Tom Nesler will provide Billy Atkinson's upper Yampa "strategy" report to the Biology Committee by September 18 (Nesler's and Chart's birthday). 10/30: Tom Nesler and Sherm Hebein will revise Billy's report and provide that to the Recovery Program (Biology Committee, NNFSC, PI's, etc.) along with an outline of CDOW's strategy for nonnative fish management in the Yampa River above the diversions for discussion as part of the nonnative fish workshop. Tom Chart said it would be very helpful to have that outline before the December. 9-10 workshop. Sherm noted that Billy removed >2,000 np from Catamount this year (>4,000 np total).
4. The Program Director's office will work with CDOW and Sam Finney on the potential for designing a permeable, hydrologically-stable (gravel?) berm to prevent northern pike access to the oxbow slough, and then clean it out once and for all. 2/15, 4/15: Pending. 4/28: Chart

has discussed with Nesler and with the Partners for Wildlife Program, also. Will focus on this summer/fall. 6/13: CDOW will be contacting the landowner regarding access, if they are amenable, then CDOW and Program will determine a feasible solution (before the end of spring runoff). 8/18: Tom Chart said Sherm will try to get someone from CDOW on this as soon as possible. The Biology Committee would like a date certain on this; >Sherm Hebein will accelerate this. 10/30 said CDOW has contacted the property owners of the RM 151 backwater, but hasn't been able to meet with them yet. Mark Wernke from Reclamation is willing to take a look at the property with CDOW. A fairly long berm would be required (>3,000') and we'll need to determine the best type of berm (more permanent configurations could be very expensive). The funding source would need to be determined, with Partners for Fish and Wildlife, lottery funds, grant funds, etc. as possible sources to be explored.

5. Tom Chart will review the latest draft of the nonnative fish stocking procedures and get comments back to the States no later than February 15, then Krissy, Kevin, Tom, and the Service will submit it for agency review (one month review time). 2/15: Dates need to be modified. 4/14: Group discussing a few more revisions before seeking agency approval. 4/28: Krissy said a bill passed in Utah's latest legislative session (the Aquaculture Revitalization Act) took away Utah's ability to issue a COR to anyone with a private pond; Krissy will provide language incorporating that within two weeks. Kevin Gelwicks should have comments back from Wyoming by early June, but doesn't expect anything substantive, and will try to expedite their comments. Tom Chart said Tom Nesler realized we may have missed stipulations that would apply to private pond owners within critical habitat outside the 100-year floodplain. Krissy will review that; she thought that a private pond outside the 100-year floodplain would still be covered if it had the potential to connect. Melissa suggested including language regarding extending and revising the document; Tom Nesler said we're on a 5-year revision schedule. 6/13: A subgroup met yesterday, Wyoming has reviewed and provided comments, and Utah also has reviewed it. Further streamlining is underway. 7/11: Utah and Wyoming have reviewed; Colorado and FWS reviewing (FWS comments due 9/5/08). Colorado has shared the draft Procedures with their legal counsel and expects to provide any comments within two weeks. Krissy said Utah's legal counsel still needs to review this. 10/16: The PD's office is responding to Wyoming's recent comments, then will send these revisions to the States and Service for review, with the goal of beginning the surnaming process in November. 10/30: Tom said Bob Muth sent the revised stocking procedures to the States and the Service on October 22. Krissy said Utah has some new concerns about moving fish from one body to another and potentially spreading quagga mussels. >UDWR will provide draft language for review. Dave Irving said we also need to be sure we're not transferring mussels on equipment. Colorado and Utah have equipment-cleaning protocol in place. Sherm said they're using Sparquat for disinfection and Krissy said UDWR is using Quat128. Tom Nesler added that where the draft Procedures suggest certain stocking may become routine, we need to consider potential mussel transfer.
6. Researchers are to submit all their nonnative fish data to Chuck McAda by April 1 (the Program Director's office will sent out an e-mail notification on this). 4/28: Tom Chart said Chuck had only received data from Tim Modde ten days ago. Trina said they're making sure their data is in the right format. Tom Chart said that at a minimum, he would like the data sent to Chuck even if it's in the old format. >Tom Nesler will check on Lori's data; >Krissy will check on Moab's data. All the data on captured nonnative fish should be submitted, not just data on tagged fish; >Chuck will make sure the correct data are submitted and work

with principal investigators if anything is missing. 6/13: Krissy said Utah has submitted their data. Tom Chart said Tim Modde submitted Vernal's data; Tom will get with Chuck to determine what data are still needed and e-mail the PI's. Tom Nesler will check on Lori's data. Sherm suggested cross-checking with CDOW's data system to be sure all data is in both places (Chuck's database and CDOW's). 7/11: Data have been submitted by Vernal CRFP, Badame, Hedrick, Hawkins, Bestgen, Bestgen/Zelasko and Burdick. 4 August 2008: Harry Vermillion submitted an extract from ADAMAS in the appropriate format to Chuck McAda on August 4th. The extract included Colorado River data from 2003 and 2007; Gunnison River data from 2007; and Yampa River data from years 2004 - 2007. 8/18: >Chuck will send the most recent version of the database to the NNFSC; and the NNFSC will review status of the data with Chuck and Travis after the Biology Committee meeting. 10/30: Tom Chart said the NNFSC will follow-up on this at the workshop, most of the data are in; we need to determine how quickly we can get the 2008 data added.

7. The Program Director's office will modify Rich Valdez' technical assistance scope of work as needed to accommodate the initial work on the second-level nonnative fish management synthesis. 4/14, 6/13, 7/25, 8/18: Pending.
8. Tom Nesler will check on the status of revision of the Yampa River Aquatic Management Plan. 4/14: Colorado's new completion date is May 1, 2009. (In the interim, CDOW will need to produce an Upper Yampa River strategy to assist the Program in our prioritization of 2009 field activities. This strategy should ultimately be incorporated into the Aquatic Wildlife Management Plan for the Yampa River Basin. 4/28: Tom Nesler said they don't plan to provide a formal strategy, but will describe what they [primarily Billy Atkinson] are doing down through Steamboat and with regard to isolating sloughs in Sam Finney's reach. See #3, above.)
9. The PD's office needs to schedule a humpback chub population monitoring workshop. Pending (the Program Director's office will discuss this with Rich Valdez); a workshop might also include discussion of humpback chub broodstock. 10/30: Tom Czaplá said this is still pending. He would like to see the workshop address the issue of first acceptable population estimates.
10. The Program Director's office and CDOW will send letters of thanks to Sherriff Tim Jantz for the use of the Craig Justice Center Ponds for nonnative fish translocation. Pending.
11. Within the next month, >the Service and Program Director's office will provide the Committee a draft addendum to the White River report that will present the measured flow requirements in a historical hydrologic perspective. The Program Director's office also will research where we left Schmidt and Orchard's draft report on peak (channel maintenance) flows and recommend whether to have it reviewed by the geomorphology panel. The Program Director's office will use the information currently available to >develop a position paper on Price River flow recommendations for Committee review. 10/16 Pending; out by the end of November.
12. Dave Irving will call the Mantle Ranch landowner to give him an update on work to raise *Gila* in captivity (since the Ranch's cooperation made it possible for the Service to get the fish out to the hatchery quickly). 10/30: Dave Irving sent him a letter. CDOW and the Park

need to discuss the future of the captive *Gila* in light of plans for those fish as broodstock under Three Species conservation and Colorado's Management Use agreement with the Park (Tom Nesler and Melissa will work on this). *10/30: Pending.* The Program Director's office will move forward to establish a Yampa River humpback chub broodstock using young fish. Tom Czapla will work with Melissa on a letter to the Park. *10/30: Pending. Tom Czapla said he's been drafting a refuge/broodstock plan for discussion within the Service, then for sharing with the Park Service and the Recovery Program. Tom Nesler and Krissy Wilson also are working on related roundtail plans.*

13. Tom Czapla will work with Krissy Wilson and Paul Badame to finalize the Cataract humpback chub scope of work and include some seining during this work to look for bonytail reproduction. Krissy will ask Paul to review the "probable violations of modeling assumptions" language, which may be incorrect. *10/30: Krissy re-sent Paul's 8/28 e-mail which has the revised version of the scope of work; the Program Director's office will post that version to the website.*

New Assignments:

1. Angela Kantola will send out a revised reports due list.
2. Biology Committee members will provide comments on the nonnative fish priorities document by December 1 (and the NNFSC can discuss this as part of their December 12 meeting).
3. Tom Chart will provide last year's presentations to the BC and PI's (either on an FTP site or on a website). Tom also will work with the PI's to draft a workshop agenda, and then send that to the Biology Committee for review.
4. Angela Kantola will add Sherm Hebein, Tildon Jones, Aaron Webber, and Zane Olsen to the Biology Committee e-mail list. *Done.*
5. Biology Committee members are invited to provide questions/expectations for the 2nd level synthesis to Tom Chart by November 28. The NNFSC will have a conference call at 8:30 a.m. on December 1 to further discuss the RFP.
6. Leisa Monroe will work with Tildon Jones and Paul Badame to revise the #123 report fairly quickly (and will give Tom Chart a due date – hopefully that date will be no later than December 1).
7. John Hawkins will talk to Grant Wilcox in CDOW's Fort Collins office to see if smallmouth bass movement data can be mapped.
8. John Hawkins will revise the #125 report (in discussion with the commenters), and provide a copy to the Committee by January 5 so they can review and approve it at their January 15 meeting.
9. Krissy Wilson will work with Zane Olsen to make sure that Wahweap's budget for FY 09 is accurate.

10. Trina Hedrick, Dave Irving, et al. will prepare a rough draft SOW for removal of small nonnative fishes in the Green River in advance of the nonnative fish workshop.
11. At last year's nonnative fish workshop, it was decided that we need to be consistent and decided that the break between adults and juvenile smallmouth bass would be 200 mm (which will require PI's to re-do previous year population estimates); Tom Chart will remind the PI's of this for their 2008 annual reports. *Done.*