

BIOLOGY COMMITTEE MEETING

September 26-27, 2001

Cheyenne, Wyoming

Biology Committee: Paul Dey, Tim Modde, John Hawkins, Mike Hudson, Tom Nesler, Tom Pitts, John Wullschlaeger, Tom Chart, Mark Wieringa, and Bill Davis (via phone)

Other participants: Bob Muth, Pat Nelson, Gerry Roehm, Angela Kantola, Tom Czapla, John Shields, Dave Soker, Doug Laiho, Bill Miller, Ray Tenney, and John Carron.

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

Wednesday, September 26

Convene at 10 am, Room 220.

1. Revisions and additions to the agenda - The agenda was revised at it appears below.
2. Approval of July 10-11 meeting (redline/strikeout version posted to listserver by Gerry Roehm on July 12, 2001) and July 23 conference call summaries and review of action item lists. >Within 2 weeks Mike Hudson will provide a schedule for completion of the Green River nonnative fish control report and their schedule for completing their portion of the bonytail work. >Bob Muth will write USU regarding the reports needed from Todd Crowl. >Pat still needs to meet with Bruce Waddell and BOR to develop the Stewart Lake Management Plan. >Mike Hudson and Tim Modde will prepare the draft plan for monitoring stocked fish by October 30. The meeting summaries were approved as written. >Angela will have Gerry's 7/12 version of the 7/10-11 Biology Committee meeting summary to the Program website.
3. Annual Researcher's Meeting - January 16th & 17th in Moab. >Mike Hudson will send out the call for papers no later than next week.
4. Discuss proposal to stock surplus fingerling (3-5") razorback sucker in the Green River - Tim Modde distributed a list of fish produced at Ouray this year from 4 paired matings. Of ~30K fish, Tim proposed stocking ~11K "excess" fish now instead of waiting until spring (they have already been fin-clipped). These fish are excess due to the lower numbers of fish called for in the revised stocking plan (and there is no need for these fish in the lower basin or the San Juan). Lowering the density of fish at Ouray will help keep their remaining fish healthier. Tom Czapla said stocking these fish will help achieve our goal of fewer, larger fish for later stocking and the anticipated survival rate for these small fish once stocked in the wild should not post a risk of "swamping" the genetics. The Committee agreed to Tim's proposal and also agreed to review the excess fish disposition policy.
5. Overdue reports: The Committee reviewed the list and made adjustments and comments.

6. Discuss proposal by Tom Pitts (see list server email from 8/25) to modify the report review schedule such that draft reports go to the Biology Committee at the same time they go to peer review. Tom Pitts recommended incorporating Bob Muth's recommendation for coordinator review prior to peer review (adds 30 days on the front end). Tom Chart suggested that what might be most helpful would be for the Biology Committee to submit written comments to the author prior to their review at a meeting. The Committee agreed to the following review schedule: 1 month for coordinator/author exchange, then the report goes to peer and BC review. Peer reviewers then have 1 month to make comments (which go to the author and the BC). The BC has an additional 15 days to provide their comments (for a total of 45 days). The author then has 30 days to revise the report based on peer and BC comments. The BC then considers the report for approval at their next scheduled meeting. Example: The PI sends the report to the coordinator on January 1 and the author and the coordinator make any needed revisions and submit the report to peer and BC review by February 1. Peer reviewer comments are due to the author, the coordinator and the BC by March 1. BC members comments are due to the author and the coordinator by March 15. The author incorporates the peer review and BC comments by April 15, then the BC considers the report for approval at their next scheduled meeting. The Committee strongly recommends that all this be done electronically. To do this, the coordinator will need to send the report out in PDF format. >Angela Kantola will post the revised report review schedule to the listserver. >Angela will revise the reports due list dates based on this revised schedule. >Angela will provide a late reports list at each Biology Committee meeting and determine a method of posting or providing a list of upcoming reports by date so the Committee can have an overview of their upcoming workload. >Pat will talk to Reclamation about how engineering feasibility reports should be reviewed (e.g., Elkhead Screening Feasibility).
7. Vote on approval of the 2 reports by Hamilton et al., Evaluation of contaminant impacts on razorback suckers held in flooded bottomland sites near Grand Junction, Colorado 1996 and 1997. The author has addressed the comments made at the last Biology Committee meeting, but still seems to focus more on explaining why the results he expected weren't found. Committee members expressed continued serious concern about the validity of the conclusions and recommendations, which are not supported by the data. The Committee acknowledged delivery of the reports and completion of the project and contract, but the Committee did not accept them as Recovery Program reports. >The Program Director's office will send the author a letter explaining the Committee's decision and noting that these should not be cited as Recovery Program reports.
8. Project 22C - Young-of-the-year Colorado Pikeminnow monitoring. The Management Committee requested that the BC revisit the need for this work (how will the information be used?). Tim suggested that it provides continuity since we have 3-year gaps in our population estimates Tom Czapla countered that currently there is no link made between numbers of fish collected in this effort and habitat. The Committee agreed to change this to a placeholder until after the recovery goals/population monitoring workshop. Young of year pikeminnow monitoring will be a specific topic on the agenda for that workshop.

9. Review and approval of SOW's 98 a & b, Yampa River Nonnative fish control - The Committee reviewed the two recently revised scopes of work. These essentially continue Hawkins' and Pfeifer's current work. >John will revise 98a, identify how much money is available for carry-over, better outline the FY 2003 budget, and show amount of labor (weeks or months, etc.) The nonnative fish workshop will address how we are or potentially could be evaluating our effectiveness in this and other removal efforts. 98b also needs to be revised to identify the amount of labor.
10. Revision of FY 2002-2003 scopes of work - all of these scopes are being revised and >need to be revised within the next week so that fund transfer can begin. Angela and Bob clarified that they must identify amount of labor. This should be done however the PI's figure it, whether by hours, weeks, months, or percentage of a full-time person's work.
11. Discuss approval of "Analysis of Allozyme Variation from Upper Colorado River Basin *Gila* by DeMarais. Tom Czapla outlined the history of this and related reports by Douglas and Buth. The Douglas report was not finalized, but several publications have resulted. Tom Czapla is looking into the Buth report. The Committee acknowledged delivery of the DeMarais report and completion of the project and contract, but the Committee did not accept it as Recovery Program report. If the University is still owed funds for overhead, that should be paid, but we shouldn't pay anything further for the author's work.
12. Approval of CPM culture technique manual authored by Schler - Tom Nesler said that at the time this work was begun, there was a desire to document what's required to culture pikeminnow. The report is basically a summary or record of observations of CDOW's pikeminnow culture efforts with some evaluation. >Tom Nesler will add a brief preface along those lines. The Committee accepted the manual as final.
13. The Committee discussed the Ann Brower paper about the Recovery Program in *Conservation Biology* (which contained many errors). A *High Country News* reporter is apparently also writing an article on the Program.

Thursday, September 27

14. Review and approval of Colorado and Utah revised stocking plans (revised to stock larger, but fewer fish). Tom Czapla said his objective was to achieve the recovery goal numbers within 10 years via a 5-year stocking plan. Tom Nesler said many of the citations in the Colorado plan need to be fixed. We need to come to agreement on the survivorship curves. Nesler said he attempted to match the recovery goal abundance number over 3 year classes for each species. Tom Pitts expressed concern with the target being the MVP and recommended aiming at a higher number, especially if it takes 10 years to achieve our goals. Paul recommended making sure we achieve our goal by being conservative with survivorship. Tom Pitts suggested aiming at the MVP plus some percentage to compensate for difficulties we're sure to encounter along the way (failures

at hatcheries, etc.) To be conservative, the Committee agreed to the following (example from Colorado Plan):

Age*	Razorback	Survivorship	Bonytail	Survivorship	Pikeminnow	Survivorship
2	11,400	.5	12,000	.3		
3	5,700	.6	3,600	.5	2,600	.5
4	3,400	.7	1,800 +40%	.6	1,300	.6
5	2,380 + 30%	.7	1,440 +30%	.7	650	.7
6	1,900 +30%	.7	1,160 +30%	.7	520	.8
7	1,520 +30%	.7			410 +15%	.85
8					330 + 15%	.85
9					260 + 15%	.85
KEEP STOCKING FOR TWO MORE YEARS ----->						

* Stock razorback at age 2+ in the fall at ≥ 300 mm (may need to be more conservative for Utah and stock at age 3+ to achieve 300mm). Stock bonytail at age 2+ at 200mm. Stock pikeminnow at age 3+ in summer/fall (as soon as possible to reduce cannibalism and culture difficulty in the hatchery) at ~ 150 mm (pit-tagable).

The Committee assumed more conservative survivorship curves for bonytail because we don't know their survivorship and a 200mm bonytail is expected to be more susceptible to predation than a 300mm razorback.

Similar modifications will be made to the Utah plan.

Tom Pitts asked that the stocking plans list our uncertainties/assumptions (e.g., survival rates, limited information on bonytail, age of female razorback maturity, etc.). This should be the same for both plans. The plans also should reference the recovery goals and note that the plans will change if the recovery goals change.

>Tom Nesler and Mike Hudson will revise their stocking plans by October 15.

1. Review of Facility Needs Plan. Tom Czaplá will clarify that experimental stocking no longer drives this plan. Tom believes we have the necessary facilities to raise the fish called for in the stocking plans. The required growout pond acreages are based on an assumption of 500 lbs. of fish/acre for leased ponds and 1,000 lbs fish/acre in hatchery ponds. Bonytail at Wahweap are calculated at 2,000 lbs. of fish/acre. Mike Hudson asked if we'll need more pond space to hold fish for an additional year (when razorbacks haven't reached the required size by age 3, for example). Tom agreed we may need more leased pond space to cover that. The Committee discussed the need to stock Colorado

pikeminnow in the upper Colorado River, and Tom Czaplá agreed to add pikeminnow production at Colorado's Mumma facility. Uncertainties and assumptions also need to be identified in this plan (pounds of fish per acre, etc.) >Tom Czaplá will revise the facilities needs plan by October 15.

2. Elkhead Screen - Ray Tenney introduced constructing a fish screen at Elkhead Reservoir, then Doug Laiho described design alternatives. Two proposals are being considered for Elkhead: rehabilitating the existing dam or raising it by 15 feet. Either project would require some kind of "fish separation." The original goal (1996 investigation) was to screen for a 100-year event at .5mm and 100% reliability (which would have cost ~\$33M about 5 years ago). This was dropped to a more practical 50 year, 2.38mm, 90% (which would have cost ~\$1M about 5 years ago). (The Highline net screens to 6.35mm.) Two alternatives have been developed for Elkhead:

- a) A 2.38mm net on the primary outlet and service spillway (the manufacturer thinks they can weave a net this small) to screen a 50-year event of up to 2000 cfs (this is snowmelt which averages 1000 cfs annually). This would cost ~\$1M.

- b) A 2.38 mm screen on the inlet and a 6.35mm net on the primary outlet and spillway, which would cost ~\$1.3 - 1.5M. This option has a lower annual operating cost. This option technically doesn't meet the nonnative fish screening criteria, so a variance would be sought. Even more preferable would be just to use the 6.35mm net.

Ray said they've thoroughly reviewed available alternatives and believe Elkhead screening as described above will cost at least \$1M. Ray said the expected date to start construction of Elkhead expansion is March 2003, thus guidance on the screening is needed from the Program by December 2001. Options not yet considered include a smaller, high velocity net. >The Program Director's office will send the Biology Committee a copy of the report(s) as well as an identification of related issues that will have to be addressed.

3. Review and approval of new SOW "Investigation of nonnative fish escapement from Elkhead Reservoir." The Committee discussed whether the results of this proposed work would convince the public that ~\$1M Elkhead screening is justified. John Hawkins said he thinks it's clear there's an escapement problem and recommended that this work focus more on determining when and at what flows escapement is most critical as a way of helping design criteria. Doug said they most need to know how the fish escape (via the primary outlet vs. the spillway, etc.). Mike and Tom Pitts asked if this scope of work will help us make a decision on how to screen Elkhead. >By October 15, Bill Miller will revise the scope of work to better determine *how* to screen Elkhead (passive set netting instead of active sampling in the reservoir), and the Committee will have a conference call at 10:00 a.m. on October 23 to discuss the revised scope of work. >The Program Director's office will set up the call and post the information to the listserver.

>The "Evaluation of Nonnative Sportfish Escapement from Starvation Reservoir" SOW also will be revised by October 15 along the lines of determining where the fish are escaping to help design an effective barrier. This also will be discussed on the October 23 call.

4. Gunnison River temperature data collection results to date - John Carron said their data analysis indicates that a temperature control device could warm temperatures downstream. Blue Mesa likely would be the best place to put a temperature control device. Tom Nesler said CWCB doesn't want to proceed with this before the Aspinnall flow recommendations and the National Park Service reserved water right are settled. CWCB agrees more rigorous modeling is needed, but since the flow recommendations and reserved water right could change operations significantly, it doesn't make sense to proceed with Phase II at this point. Gerry said CWCB believes Black Canyon will make the water temperature drop (John found that temperatures, in fact, increase in the Canyon) and expressed concern about temperatures for trout (however, the releases would still be below the optimum temperature for trout). Tim said the Service supports this work and would like to move forward. Tom Chart's concerns include: what are the target temperatures and where; whether we're trying to establish pikeminnow spawning upstream of Delta; what is the relationship to Hartland fish passage; where were the Delta thermographs collected; effects of the Uncompahgre; difference between current and pre-impoundment conditions; relationship between release volumes and temperatures is not clear; how lower base flows in the flow recommendations might translate into warmer flows; report should cite improved habitat conditions from warming. John said the data indicate that the Uncompahgre and North Fork have very little effect on temperatures. Since not much heating occurs in the Black Canyon, a flow-based approach doesn't provide much opportunity for warming. Tom Chart also noted that increasing temperatures is cited in the recovery goals, and that we need to have the information from Phase I and Phase II even if we don't currently have the budget to install a temperature control device. Mark commented that since this would seem very expensive (and beyond the existing Program budget), is it worth it to do for Colorado pikeminnow, which seem to be doing fairly well. >Gerry will work with John Carron to get this report ready for appropriate peer review. On their October 23 conference call, the Committee will recommend whether or not to proceed with Phase II. At the December meeting, the Committee will consider SOW's for Phase II if they decide we should move forward. >The Program Director's office will post the objectives from the Phase I report to the listserv to remind everyone what those were. >Tom Nesler will post CWCB's comments to the listserv.
5. Land acquisition/floodplain restoration status x priority reach matrix - Pat Nelson reviewed the goals and sub-goals for floodplain habitat restoration. The Committee recommended >the Program Director's office do some rudimentary modeling to develop a rough (conservative) estimate how much floodplain habitat we need to recover the razorback and bonytail. Pat will clarify acres protected vs. those inundated. >Committee members will submit comments to improve the matrix and Pat will revise it.

6. Begin planning for FWS-sponsored workshop(s) on the status of population estimates for humpback chub and Colorado pikeminnow. The BC did not discuss this at length, but Bob Muth will try to schedule this meeting for December 6 in Fort Collins. As time allows, we should discuss workshop goals such as clarifying “first estimates acceptable to the Service” and when the downlisting clock can begin and whether the timing of proposed estimates is appropriate.
7. Schedule next meetings: October 23 conference call to discuss: SOW’s to evaluate escapement from Elkhead and Starvation reservoirs and whether to continue with Phase II of the Gunnison temperature work. Nov. 27: Floodplain habitat restoration workshop in Denver. >Pat Nelson will arrange a location for this workshop. December 4-5 Biology Committee meeting in Fort Collins (beginning at noon on the 4th). Population estimation workshop on December 6 in Fort Collins. Tom Nesler and John W. will find a location for the Fort Collins meeting and workshop.

2:20 Adjourn

Assignments:

Within 2 weeks Mike Hudson will provide a schedule for completion of the Green River nonnative fish control report and their schedule for completing their portion of the bonytail work.

Bob Muth will write USU regarding the reports needed from Todd Crowl.

Pat Nelson will meet with Bruce Waddell and BOR to develop the Stewart Lake Management Plan.

Mike Hudson and Tim Modde will prepare the draft plan for monitoring stocked fish by October 30.

Angela will have Gerry's 7/12 version of the 7/10-11 Biology Committee meeting summary posted to the Program website.

Mike Hudson will send out the call for papers for the January researchers meeting no later than next week.

Angela will post the revised report review schedule to the listserver.

Angela will revise the reports due list dates based on the new report review schedule.

Angela will provide a late reports list at each Biology Committee meeting and determine a method of posting or providing a list of upcoming reports by date so the Committee can have an overview of their upcoming workload.

Pat Nelson will talk to Reclamation about how engineering feasibility reports should be reviewed (e.g., Elkhead Screening Feasibility).

The Program Director's office will send Hamilton a letter explaining the Committee's decision regarding his selenium reports and noting that they should not be cited as Recovery Program reports.

John Hawkins will revise SOW 98a, identify how much money is available for carry-over, better outline the FY 2003 budget, and show amount of labor (weeks or months, etc.)

Pat Nelson will see that SOW 98b also is revised to identify the amount of labor (weeks or months, etc.)

All the FY 2002-2003 are being revised, and need to be done within the next week so that fund transfers can begin. These SOW's must identify the amount of labor (however the PI's figure it, whether by hours, weeks, months, or percentage of a full-time person's work.)

Tom Nesler will add a brief preface to the Colorado pikeminnow culture manual and finalize it.

Tom Nesler and Mike Hudson will revise their stocking plans by October 15.

Tom Czapla will revise the facilities needs plan by October 15.

The Program Director's office will send the Biology Committee a copy of the Elkhead screening report as well as an identification of related issues that will have to be addressed.

By October 15, Bill Miller will revise the scope of work by to better determine *how* to screen Elkhead (passive set netting instead of active sampling in the reservoir), and the Committee will have a conference call at 10:00 a.m. on October 23 to discuss it.

The Program Director's office will set up the Oct. 23 call and post the call-in information to the listserv.

Also by October 15, Utah will revise the "Evaluation of Nonnative Sportfish Escapement from Starvation Reservoir" SOW along the lines of where the fish are escaping to help determine how to design an effective barrier. This also will be discussed on the October 23 call.

Gerry will work with John Carron to get the Gunnison temperature report ready for appropriate peer review.

The Program Director's office will post the objectives from the Gunnison temperature Phase I SOW to the listserv to remind everyone what those were.

Tom Nesler will post CWCB's comments on the Gunnison temperature Phase I report to the listserv.

The Program Director's office will do some rudimentary modeling to develop a rough (conservative) estimate how much floodplain habitat we need to recover the razorback and bonytail. Committee members will submit comments to improve the floodplain matrix and Pat will revise it.

Pat Nelson will arrange a location for the November 27 floodplain workshop in Denver.

Tom Nesler and John W. will find a location for the Dec. 4-6 Fort Collins meeting and workshop. Bob Muth will schedule the population estimate workshop for Dec. 6.