

BIOLOGY COMMITTEE MEETING SUMMARY

June 12-13, 2002

Grand Junction, Colorado

Biology Committee: Paul Dey, Frank Pfeifer, Tom Nesler, John Hawkins, Tom Pitts, John Wullschlaeger, Tom Chart, Mark Wieringa, Kevin Christopherson, and Bill Davis.

Other participants: Bob Muth, Gerry Roehm, George Smith, Pat Nelson, Angela Kantola, Tom Czapl, Chuck McAda, Jason Thron, Ray Tenney, Dave Skates, Chuck McAda, Doug Osmundson, John Hayse, Keith Rose., Brent Uilenberg, Ed Warner, Mark Wondzell, Steve McCall, John Pitlick, Tim Modde, Dan Birch, Bill Miller, Bob Mussetter, Mike Harvey, Dave (the bug guy who works for Bill Miller), Rich Valdez, and Dave Soker,

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

Wednesday, June 12

Prior to the meeting, Committee members toured the Grand Valley Irrigation Company screen and nonnative fish control sites.

1. Revisions / additions to the agenda - The agenda was modified as it appears below.
2. Review summaries and action items from April 16-17 meeting - The summary was approved as written.
3. Late reports list and policy review - >The Program Director's office will send the Biology Committee a list of the dates Committee comments are due for all reports currently in review. >Angela Kantola will finalize the reports policy documents and post them to the website.
4. Review – McAda, C.W. 2002. Subadult and adult Colorado pikeminnow Monitoring: Summary of Results, 1986-2000. Draft Final Report (Project 22) - Chuck will rephrase results to show that the White and Green rivers were correlated at different levels of significance. Chuck will change "reliable" in the executive summary to "robust." Under recommendation #2, Bill Davis suggested adding evaluating methods for any inherent biases if we use CPE in the future. Chuck will add that and put appropriate related language in the discussion. The Committee approved the report with the foregoing revisions. >Chuck will revise the report and print final copies.
5. Service's proposal to revise the Gunnison / Colorado River Flow Recommendations - Chuck McAda reviewed how he incorporated Pitlick's recommendations into his revised flow recommendations. Chuck acknowledged that remaining uncertainties should be identified in the report, but said he does not necessarily agree with the way those uncertainties are worded in some of the comments that have been submitted. Tom Pitts said his comments relate mostly to limitations to applying the Pitlick geomorphologic method to endangered fish needs. Tom said the water users are willing to see the report

finalized according to the revised flow recommendations, but they would like the uncertainties to be discussed in the report and the Program to commit to conducting the research needed to resolve those (>Tom will submit a list of uncertainties). Mark Wieringa said WAPA is satisfied with this as long as the recommendations can be modified as we gather new information. Frank Pfeifer cautioned that to answer the uncertainties, we will need to actually meet the flow recommendations. Tom Chart and John Wullschlaeger said they need to be convinced why incorporating Pitlick's recommendations provides a better set of flow recommendations than Chuck's original recommendations, which seemed to more closely resemble the natural hydrograph. John Hawkins expressed concern that not enough water would be provided for the fish in average years under the revised recommendations. The majority that approved the original recommendations will want to see how Chuck ties these revised recommendations back to fish biology/habitat in the revised report. Kevin Christopherson noted that in addition to habitat maintenance/creation, other biological concerns are flow effects on floodplains and nonnative fishes. The Committee deferred until Thursday a decision on whether to recommend to the Management Committee that Chuck incorporate the revised recommendations and a list of uncertainties for the Program to address through additional research into a revised final draft of his report. On Thursday, several Committee members expressed reservations at making a recommendation to the Management Committee before having opportunity to consider the responses to Attachment 10. The Service worked with the "minority opinion" group for the many months and the other members of the Committee would like additional time to provide comment on the proposed resolution and the list of uncertainties. >Biology Committee members will submit any additional comments on the proposed revised recommendations (to all Biology Committee members, Gerry Roehm, Chuck McAda, and Bob Muth) by July 15.

6. Drought conditions and expected baseflows in the 15 Mile Reach / Redlands fish ladder operations - George Smith gave a presentation on expected flows and asked the Committee for recommendations on how to use the Program's stored water to augment flows in the 15 Mile Reach as well as how to operate the Redlands fish ladder. Frank Pfeifer recommended that Reclamation get videography of the 15 and 18-mile reaches during these base flows.

Thursday, June 13

7. Presentation : Evaluation of the ecological and physical process impacts of the current peak flow hydrology on the Colorado River above the Gunnison River - Ray Tenney explained their goal to determine if the current peak flow regime is limiting to the endangered fish and aquatic community. Four years of field work have been completed and the authors are writing a conclusion report. Water users would like the Recovery Program to continue this work in additional years and in the 18-Mile reach and the Gunnison River with the goal of developing flow management alternatives. Bill Miller and company presented a summary of the work. One finding has been that peak flows may not be needed to clean surface muds (however, this does not mean that flushing flows may not be needed for other purposes). Mud dynamics appear to be controlled by

a fairly low range of flows and mud appears to have the greatest effect on periphyton/invertebrate productivity. Small fish productivity pretty much tracked periphyton/invertebrate productivity, and a higher density of fish was found in riffles than in runs. The Committee discussed the results of the work. Bob Muth pointed out that the fish species sampled in riffles would be expected to be found in higher densities there than in runs regardless of productivity. Doug Osmundson noted that his embeddedness monitoring work is sampling further out in the channel rather than in the depositional areas closer to the shoreline. John Pitlick questioned why the authors aren't presenting the USGS data that show that spring flows carry the most sediment. (Reply: focus was on the tie between sediment loads and productivity.) The Committee will discuss the work further when they discuss the proposed 2003 scope of work (after it's been peer reviewed). Doug Osmundson recommended a peer review panel of geomorphology and food web experts to review the scope of work. Tom Pitts said the report on this work will be submitted to the Biology Committee for review and approval in August.

8. Elkhead nonnative fish escapement - Ray Tenney said the approved scope of work was for two years, but due to contracting challenges and this year's brief peak flow, the 2002 field season was missed. We need to decide whether to conduct one year of more intensive work or to re-write the scope of work to cover 2003-2004. A drawback to a 2-year study is that we would have to use intermediate results to inform the decision of how to design escapement prevention. Tom Nesler recommended maintaining a 2-year study, recognizing that we'll have to rely heavily on the first year's data. The Committee agreed. >Ray Tenney will submit a revised scope of work.
9. Review - Osmundson, D.B. 2001. Population Dynamics of Colorado Pikeminnow in the Upper Colorado River, 1991-2000. Draft Final Report (Proj. 22-A) - Doug discussed how he addressed comments, noting that he also provided everyone his responses to comments. Tom Pitts noted that the executive summary should include statement of objectives and assessment of whether the objectives were achieved. Tom Nesler questioned the statement on page 5 that says "it's unknown whether fish at the low end of the length-frequency range are viable spawners." Regarding the statement on page 30 about the "spawning site" discovered in 1994, Frank questioned if it wouldn't more appropriate to call it a "suspected spawning site," since no larvae were discovered. Doug will change that unless Anderson's data show that larvae were collected. Tom Nesler noted that the statement "bluehead suckers are not attracted to backwaters during spring runoff..." on page 16 doesn't support the following sentence that says: "annual variation in catch rates from backwaters probably provide a valid index to changes in population abundance." No link is made that blueheads which are found in backwaters are representative of the whole river population. Doug will modify that statement. Use "Colorado pikeminnow" not just "pikeminnow" throughout (AFS standards). Clarify whether the study area is 282 or 283 river kilometers (in both Executive Summary and Study Area sections). Tom Nesler said the statement on page 18 regarding use of the Redlands fish ladder is not supported by the data ("hence *many* fish that have used the ladder may not have remained upstream of the dam on a permanent basis"). Doug will change that to "unknown." With regard to unknown sex ratio on page 18, Doug will note the numbers of males and females where sex was identified but not verified by Doug,

who's been trained to determine sex in the absence of eggs or sperm. Tom Nelsner said he doesn't think the hypotheses that fish may not migrate and reproduce annually has been settled. Doug will modify the language so it's not over-stated. Tom Nelsner suggested that the discussion of predicting changes in adult numbers (beginning on page 27) should note that the accuracy of the average annual growth increment also has a margin of variability. The Committee discussed how many years the population should be allowed to "rest" between population estimates. Doug will footnote Table 1 to explain why the estimate for numbers of adults >500 mm is higher than the number for adults >450 mm. Doug will fix or explain the discrepancy in numbers of fish between Tables 3 and 4. Capture avoidance in passes 2 and 3 is not discussed, yet recapture data in Appendix Table 1 suggest that this might be a factor. Doug will consider that. The Synthesis and Conclusions section needs to be separated and the actual conclusion statements should be bulleted. Tom Nelsner said he found discrepancies in the number of recaptures discussed on page 34 and the number reflected in the appendix. With regard to the recommendations, Tom Nelsner asked how averaging 3 population point estimates makes the estimate more reliable. Doug replied that he is concerned we will put too much confidence in an annual population estimate. The Committee approved the report pending review of the revised conclusion section.

10. Revised bonytail and razorback sucker floodplain; update on work at the Stirrup and other floodplain studies (Modde, Christopherson). Kevin and Tim outlined changes to the C-6 BT & RZ scopes of work and reviewed progress to date.
11. Update on the FLOODPLAIN model - Rich Valdez said results will be out in early July.
12. Discussion: Nelson, P. and D. Soker. 2002. Floodplain habitat acquisition and restoration program; a synthesis of current information with recommendations for program revisions. Bob Muth expressed concern that only three members commented on the synthesis report. Committee members discussed the report and new information. Committee debated the value of restored floodplain habitats to the endangered fish, the adequacy of current stocking plans, and the merits of attempting to restore "naturally functioning" habitats. Tom Pitts said the water users are willing to support continued, focused research on how we can use restored floodplain habitat. The questions and hypotheses to be tested need to be clearly identified and prioritized. Tom said he does not believe there's much point to continuing land acquisition, however. >The Program Director's office will revise the synthesis document and add a list of questions and hypotheses. Additional comments on the report (as well as questions/hypotheses/research needs) may be submitted through June 28 to Pat Nelson and the Biology Committee members. Dave Soker recommended testing some of the hypotheses on the Colorado and Gunnison rivers.
13. Revised levee removal report recommendations - Kevin Christopherson said he believes they addressed all the comments they received. The Committee changed recommendation #1 to: "We recommend that research on effective use of floodplain habitat in recovery continue." The Committee approved the recommendations as revised. >Kevin will finalize and distribute the report.

14. Disposition of bonytail held at Wahweap - There are 40,000 - 60,000 excess fingerling and ~2,000 adult bonytails at Wahweap (due to revising the stocking plan to fewer larger fish as opposed to larger numbers of smaller fish). If we decide to stock them, we need to decide how/if they'll be marked. John Hawkins asked if these fish appropriately represent the family lots and Kevin said they do. The Committee recommended that the small fish be marked with coded wire tags and the large fish be marked with pit tags. The fish will be stocked proportionately at the sites called for in the stocking plan (preferably all in Utah).
15. Revised FY2002/2003 scopes of work: RZ & BT (Modde, Christopherson). The Committee approved these revised scopes of work. >Angela Kantola and Tom Chart will incorporate the budget changes in these revised scopes in the 2002 budget tables. Discussion of Colorado's non-native fish control (Martinez) and the Yampa River channel catfish control (Modde) was deferred until the conference call.
16. FY2003 New starts - Bob Muth asked for the Committee's approval of the new start list, noting that the scopes of work still need to be peer-reviewed. Chuck McAda said he thought the RIPRAP called for channel catfish control in the Colorado River. Bob said this came out of the nonnative fish control workshop. The Committee agreed this should be added to the list of proposed new starts for which scopes of work will be prepared for Program consideration. John Hawkins said he'd like to discuss the direction of catfish and smallmouth bass removal on the Yampa River, as well as public relations efforts. John said he thinks it would be more effective to fully expand northern pike control versus expanding to smallmouth bass and catfish removal. John said he believes pike and smallmouth bass have a bigger impact on native fishes than catfish and that catfish have a greater angler following. Bob Muth said he plans to have all these new starts out for peer review in July and to the Biology Committee for review in August. The Committee approved the list of proposed new starts.
17. Status of the Summary Report of Non-native Fish Control Workshop, Summary Report of Population Estimate Workshop - Bob Muth said this will go out to the Biology Committee by the end of June.
18. Estimated timelines for razorback sucker and bonytail recovery - Deferred until conference call.
19. Discussion of Program Coordinator's "hot topics" - Deferred until conference call.
20. Next meeting - Conference call from 8:00 a.m. - 10:00 a.m. on June 18th to discuss timelines for recovery, ongoing-revised scopes of work (C-18/19 and 110), and hot topics from the Program coordinators (e.g. attendance at an August 28 workshop in Salt Lake City to develop monitoring program for stocked fish). Meeting on July 24 from 8-4 in Denver to discuss the Gunnison River flow recommendations report, Nesler's two reports, and possibly other reports. (Czapla and Roehm can't attend.) >The Program Director's office will set up the conference call and notify the committee and set up a

meeting near the airport. New starts will be discussed in August 27 from 8-4 in Salt Lake City. >Jason Thron will arrange a meeting room for the 27th and 28th.

ASSIGNMENTS

The Program Director's office will send the Biology Committee a list of the dates Committee comments are due for all reports currently in review. Angela Kantola will finalize the reports policy documents and post them to the website.

Chuck will revise the ISMP report and print final copies.

Tom Pitts will submit a list of uncertainties on the Gunnison flow recommendations.

Biology Committee members will submit any additional comments on the Gunnison flow recommendations to all Biology Committee members, Gerry Roehm, Chuck McAda, and Bob Muth by July 15.

Ray Tenney will submit a revised scope of work for Elkhead nonnative fish escapement.

Additional comments on the floodplain synthesis report (as well as questions/hypotheses/research needs) may be submitted through June 28 to Pat Nelson and the Biology Committee members. The Program Director's office will revise the synthesis document and add a list of questions and hypotheses.

Kevin will finalize and distribute the levee removal report (and provide the Program Director's office an electronic copy).

Angela Kantola and Tom Chart will incorporate the budget changes for C-6 RZ and BT in the 2002 budget tables.

Angela Kantola will set up the conference call from 8:00 a.m. - 10:00 a.m. on June 18th and a meeting room near DIA on July 24 and post the information to the listserver. Jason Thron will arrange a meeting room for the 27th and 28th in Salt Lake.