

BIOLOGY COMMITTEE MEETING

May 29 – 30, 2001

Salt Lake City, Utah

Biology Committee: Paul Dey, Tom Chart, Matthew Andersen/Mike Hudson, Bill Davis, Tom Pitts, Tom Nesler, John Hayse (for WAPA), Tim Modde, John Wullschleger, and Steve Petersburg (Absent: John Hawkins,)

Other participants: Frank Pfeifer, Pat Nelson, Gerry Roehm, Angela Kantola, Tom Czaplá, Kathy Holley, Laverne Cleveland, Steve Hamilton, Bruce Waddell, Rick Krueger, John Harb and Bob Burdick.

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

1. Revisions/Additions to agenda - the agenda was revised as it appears below.
2. Approval of February 20-21 meeting summary and April 19th conference call notes - Regarding the report: Channel Narrowing of the Green River Near Green River, Utah: History, Rates, and Processes of Narrowing, which was discussed at the February 20-21 meeting, the Biology Committee would like the three pieces put into one report. >Matt Andersen will distribute the report under one cover right after the 4th of July holiday. The February meeting summary was approved as written. A minor change was made to the April 19 conference call summary; >Angela Kantola will post the revision to the listserver.
3. Review overdue reports list - The Committee reviewed the list (see comments in the revised list, attached). The Program Director's office is working to update this list and the tracking system by mid-July. >Bob Muth will contact Todd Crowl, establish a schedule for completion of the bonytail conditioning report, and let Todd know that the Program will send a letter to USU if those reports aren't received according to schedule. >Tom Czaplá will provide the Committee with an update on Crowl's, Hawkins', and Harris' overdue reports.
4. Update/discussion on Yampa River Northern Pike removal and trapping efforts/status - Frank Pfeifer distributed a summary reporting that they have collected 221 northern Pike from two 3-mile reaches of the Yampa River (Carpenter Ranch and Yampa SWA). Forty of those fish were sacrificed for sampling at CDOW's request; the remainder were stocked into ponds on the Yampa SWA. Frank observed that more than half the fish were caught in the first week, and suggested that we might improve future removal efforts by seeking access from more landowners and trapping a week at each site. Frank's crew also has transported 178 pike (minus a few mortalities) caught by John Hawkins to Rio Blanco Reservoir. Tom Nesler and Frank mentioned reactions to the removal, including the article that appeared in the Northwest Daily Press. Although guides and outfitters don't like the removal efforts, some local anglers appreciate having access to the fish in the SWA ponds. Tom also noted that as small channels have connected from the river to the SWA ponds, some pike have been going *into* the ponds. Tom will have another update on this project for the Committee in July.
5. Lodore Canyon radiotelemetry update - Tim Modde reported they are in the second year of a 2-year study funded by the Park Service to look at Colorado pikeminnow movement in the canyon. They didn't get many fish tagged before spawning in first year, but hope to tag more this year. Reclamation has purchased additional 2-year tags, and Tim recommends that they continue monitoring these fish as part of the proposed Lodore Canyon study beginning in 2002 (if that study is approved). Tim said this can be done at no additional cost (the bulk of the data are collected by data loggers). >Tim will bring a summary of the current work to the July meeting for the Committee's discussion of the Lodore Canyon proposal.
6. Steve Petersburg presented Tim Modde with an award from the National Park Service's Intermountain Regional Director's award for excellence in natural resources research.
7. Discussion and approval of draft final report(s): The evaluation of contaminant impacts on Razorback Sucker held in flooded bottomland sites near Grand Junction, Colorado –1996 (and 1997). Project CAP-6

WW, Hamilton et al.

Steve Hamilton outlined how he addressed the comments he received, and explained figures 7 and 8 in both the 1996 and 1997 reports. In interpreting some of the results, Steve noted that the literature suggests larvae from a females first spawn tend to be smaller and "lower quality." Frank said that in the hatchery they've seen that larvae from females' first spawn tend to be smaller, but they haven't seen differential survival between those larvae and broodstock larvae. Tom Chart and John Hayse suggested identifying uncertainties in the report right next to the conclusions and recommendations. Uncertainties would include: identifying the potentially confounding factors, the potential inbreeding of the sample fish, whether deformities are an accurate measure of effect, genetic adaptations of fish to specific areas, the threshold of 4.6 mg/g, unexplained interaction/synergistic effects, variability between years, no consistent quantitative response due to concentration, application of this "worst-case" design to situations in the wild, and variability of zooplankton concentration and composition among years and sites. (Steve would like to rate the level of uncertainty in each of these.) Tom Nesler suggested that Steve's use of the term "razorback sucker reproductive success" is the same as larval survival in this study (and "reproductive success" should be dropped or explicitly defined). Kathy and others said that the fact that eggs with very high concentrations of selenium did hatch is noteworthy and should be summarized in the conclusions. Steve agreed, but noted that the literature shows subsequent larvae have low survival rates. The Committee discussed factors such as rates of depuration of selenium in razorback adults, why fathead minnows are so abundant if they're sensitive to selenium, etc. Frank and Tom Nesler questioned why Steve didn't cite Beyers' reports; Steve replied that he didn't believe that he could conclude much from them due to concerns he has regarding Beyer's methodology. Tom Chart observed that the report doesn't seem to reflect the complete range of results in the literature or of behavioral observations in the hatchery. Tim agreed, adding that the overall report conclusions seem to give much more weight to selenium than to the many counter opinions and alternative explanations. Steve agreed to take these more broad conclusion sections out (>Committee members will provide page number references by June 29). Kathy commented that the overall tone of the report portrays selenium as being more of a problem than the study data support. John Hawkins' memo asks if the fish could have starved on the zooplankton, but Steve said he thinks the two food sources (zooplankton and brine shrimp) were comparable.

Executive summary/Conclusions - Several comments were made regarding unsupported conclusions. For example, conclusion #4 belongs in the discussion section, and the data don't support it as a conclusion. Some conclusions aren't drawn for "positive" results.

Recommendations - Hawkins' memo notes that he does not support the recommendations as stated; Paul Dey agreed. The Committee generally did not support the recommendations and suggested that Steve either delete or change them. Perhaps the recommendation is something like "It's apparent from this report that selenium concentrations should be taken into consideration in making management recommendations..." (However, this might be the Biology Committee's recommendation as opposed to Steve's.) Pat noted that the Program does take selenium into account in floodplain habitat acquisition and restoration. Tom Pitts said he thinks references to remediation are inappropriate (that's a management action) and that the second recommendation (in both reports) is not supportable based on the data.

The Committee agreed that Steve should prepare the next draft as his final report, then the Committee can: 1) approve the report (with or without the recommendations); or 2) accept the report as final, but not *approve* the report. Steve said that when he publishes this work, he'll won't say anything greatly different from these reports he's prepared for the Recovery Program. >Steve will provide another revision by mid-July.

8. Update on stocking plans - Tom Czapl is working on proposed revisions to the stocking plans, based on the demographic recovery goals identified in the bonytail and razorback packages (and he does not recommend stocking of pikeminnow or humpback). Tom believes previous stocking efforts have been relatively unsuccessful, and he recommends stocking larger fish (at least 350mm TL for razorback) in fewer numbers to achieve the numbers of fish identified in the recovery goals. Tom would like to meet

with the States and the Service before sending these draft recommendations to the Biology Committee. Tom Pitts said he'd like to see options for achieving the target numbers in 5 years, 7 years, and 10 years. >Frank and Tom Nesler will work out the numbers for Colorado, Tom Czapla will work with Mike Hudson on the numbers for Utah, then they'll review these together and provide revised stocking plans to the Committee by July 1st. Tom Czapla said he also will propose using PIT tags instead of coded wire nose tags for all stocked fish. The revisions to the bonytail stocking plan also need to incorporate the changes in stocking site priorities. >Tom Czapla will reestablish the fall or mid-winter coordination meeting of all parties raising the fish and those who will stock them to coordinate details for the upcoming season.

9. Utah proposal to get bonytail coded wire tag information - Mike Hudson said they're capturing more stocked bonytail than ever (~100 fish so far this year) and would like to be able to sacrifice 30-50 fish per season to retrieve the coded wire tag information so they can get more conclusive results from their experimental bonytail stocking project. Frank outlined the history, noting that some years ago Leo argued for coded wire tags, saying that if we saw successes, we'd be happy with that and not be concerned where and when they were stocked. Tom Nesler said that to sacrifice roughly half of the fish captured in a season is excessive. The Committee did not approve sacrificing any captured bonytails, and agreed that decision will limit the information in Utah's experimental bonytail stocking report (e.g., they will not be able to comment on best stocking sites or seasons, etc.).
10. Staffing concerns - Tom Czapla said that in reviewing the proposed FY 2002 scopes of work, the Program Director's office became somewhat concerned that agency personnel could become over-extended with all the population estimate and other field work. The Program Director's staff will be contacting project leaders to make sure they're confident their staffs can accomplish all the work identified in the proposed scopes of work. Frank said they carefully plan all field work they propose, but what they can't plan for is staff time and resources for extended report review processes (e.g. Gunnison flow recommendations). Matt Andersen said Utah's work schedules also are carefully planned.
11. Gravel mining on Colorado River Floodplains - The Committee discussed the dual goals of restoring and maintaining floodplain habitat and controlling nonnative fishes as they relates to reclaiming gravel pits in the Colorado River. Gravel mining companies typically build a levee around the floodplain, mine it for gravel, then leave the levee in place which results in the area no longer being available as fish habitat. Osmundson has found that gravel pits "blown out" by high flows provide some of the best endangered fish habitat. Pat proposes to work with the gravel companies and appropriate agencies on some of these gravel pits to develop (or change) reclamation plans for them to remove levees after mining and return the area to the river. Downstream from razorback spawning sites, we would propose lowering the levee to allow drifting larvae to entrain (and we would just have to live with associated nonnative fish proliferation). Tom Pitts suggested that where possible, we ask the gravel operators to remove the nonnatives before removing the levee. The Committee agreed to the basic concept that it's better to reconnect mined floodplains to the river, and we'll control related nonnative fish problems as best we can. Tom Nesler will advise CDOW's habitat personnel to make their permit-review comments consistent with this approach. Pat will work with Colorado's Mined Land Reclamation Board and the Rock Products Association on this, also.
12. Discussion and approval of draft final report: Five-year evaluation of fish passage at the Redlands diversion dam on the Gunnison River near Grand Junction, Colorado: 1996-2000. Bob Burdick reviewed the study objectives and results and addressed questions from the Committee. Tom Chart suggested that total volume in Figure 8 would be better presented as acre-feet as opposed to cubic feet per second (but keep mean daily flow in table above as cfs). Page 32 discusses a sighting of a large female pikeminnow that was presumed to be the same as one previously caught (no way to know if this was the same fish). Bob added that he will add an appendix or table of Ron Ryel's population estimate for pikeminnow in the Gunnison River. John Hayse recommended that the discussion on movement of small versus large pikeminnow note that larger fish could have an aversion to the fishway. John noted that the last sentence before the razorback sucker section on page 22 about pikeminnow developing new reproductive strategies is not supportable. (at least modify to say "may have adapted"). On page 41, the sixth conclusion regarding "high flows didn't influence the decline..." should be modified to say something like "were not correlated

with the numbers of three nonlisted native fishes that move through the passageway.” John will send Bob additional editorial comments within 2 weeks. At the end of conclusion number one, it says the pikeminnow population may increase in future years. That this population is expected to increase should be a separate conclusion (although we don’t know the rate of increase). Everything after the first sentence in conclusion #2 is superfluous. Conclusion #7 could be more definitive in saying that it does help remove nonnative fish and allows for selective use of the habitat upstream by the native fish. John W. suggested adding a conclusion regarding the size of fish that used the passage (telemetered fish were generally larger than the fish that tended to use the passage). Item #4 should note that *selective* passage should be considered at other sites, as well. The Committee approved the report and the recommendations with the foregoing revisions. >Bob will revise the report and print and distribute final copies by September.

Although comfortable with the report, Bill Davis asked about the peer review process, noting that someone who was involved in the Redlands facility design doesn’t really qualify as an external scientific reviewer.

13. July meeting - The Committee will get the draft FY 2002-2003 work plan on June 18 and their comments are due to the MC by July 20. The meeting will begin at 10:00 a.m. on July 10 and end by 3:00 p.m. on July 11. It will be in Denver at CDOW’s hunter education building (white building next to the regional office). Agenda items will include: work plan review; Yampa River pike removal update, stocking plan revisions.

ACTION ITEMS

Matt Andersen will distribute the channel narrowing report under one cover right after the 4th of July holiday.

Angela Kantola will post the revised April 19 conference call summary to the listserver.

Bob Muth will contact Todd Crowl, establish a schedule for completion of the bonytail conditioning report, and let Todd know that the Program will send a letter to USU if those reports aren’t received according to schedule.

Tom Czaplá will provide the Committee with an update on Crowl’s, Hawkins’, and Harris’ overdue reports.

Tim Modde will bring a summary of the current Lodore Canyon pikeminnow work (NPS-funded study) to the July meeting for Committee’s discussion of the FY 2002 Lodore Canyon fish community proposal. Committee members will provide page number references for statements they consider too broad or sweeping in Steve Hamilton’s 1996 and 1997 selenium reports to Steve by June 29. Steve will provide another revision of the reports to the Committee by mid-July.

Frank and Tom Nesler will work out the stocking plan numbers for Colorado, Tom Czaplá will work with Mike Hudson on the numbers for Utah, then they’ll review these together and provide revised stocking plans to the Committee by July 1st.

Tom Czaplá will reestablish the fall or mid-winter coordination meeting of all parties raising the fish and those who will stock them to coordinate details for the upcoming season.

John Hayse will send Bob Burdick additional editorial comments on the Redlands fish passage report within 2 weeks. Bob will revise the report and print and distribute final copies by September.