

**Biology Committee Meeting**  
**Feb 20-21, 2003**  
**FWS Regional Office Bldg – 3<sup>rd</sup> Floor Conf. Rm**  
**134 Union Blvd., Denver, Colorado**

Biology Committee: Frank Pfeifer, Tom Nesler, Tom Pitts, John Hawkins, Melissa Trammell, Tom Chart, Gary Burton for Mark Wieringa, Kevin Christopherson, Paul Dey, and Bill Davis.

Other participants: John Wullschleger, Paul Badame, Chuck McAda, Pat Nelson, Gerry Roehm, Tom Czapl, Tim Modde, Bob Muth, Angela Kantola, and George Smith.

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

**Feb 20, 2003**

Review agenda, discuss a shift in representation on committee chair, and review December 9-10, 2002 meeting summary - John Wullschleger introduced Melissa Trammell as the new Park Service representative on the Biology Committee. Kevin Christopherson will assume Committee chairmanship at the next meeting. The Committee elected Melissa as their new vice-chair. Bill Davis said he discussed humpback chub broodstock with Tom Czapl and understands that the river population serves as the broodstock for Black Rocks and Westwater, but isn't certain that's valid for the Yampa or for Cataract Canyon. Bill and John Wullschleger said folks in the lower basin may have some interest in developing humpback broodstock/genetic refuge. Gary Burton said Western would like to see increased coordination between the Recovery Program and the Grand Canyon Adaptive Management Work Group, especially with regard to humpback chub. Tom Czapl said we've asked the lower basin to look at how they're doing population estimates and to expand their efforts. There may have been a decline in the lower basin humpback chub population, but perhaps not as severe as the population estimates have indicated. If the lower basin does develop broodstock, they will likely ask for fish from the upper basin. Bob Muth said that Region 6 of the Service will have a representative (likely Tom Czapl or himself) at the lower basin meetings in the future. Tom Nesler summarized that if upper basin humpback chub population estimates began to show a decline, Colorado would support developing broodstock. Bill Davis cautioned that the lower basin multi-species program plans to propagate hundreds of thousands of razorback and bonytail in the coming years which will create fierce competition for hatchery facilities. This is an issue the Service (Reg 2 & 6) will address in the future. Rob Simmons, Service biologist in Arizona will be attending some of these meetings and so should be added to our interested parties list and to the listserver. >Angela Kantola will see to that.

Late and Pending Reports list - The Committee reviewed the list and made appropriate changes. >In the future, Angela will somehow highlight “newly late” reports on the list.

## RIPRAP assessment

22	IIA2	Tom Pitts asked Bob Muth to reconsider the “X” for this item.
27	IIB2b,c	Identify how many years Tusher screen has been delayed.
27	IIIA4a	Indicate how many fish were removed in previous years.
27	IVA1c1	Note that Crowl’s report is the flow-training report.
27	VB1	Add “X” because only 2 of 3 passes could be completed due to low flows.
30	IIIA3a1	Report sent back for major revisions, but not “rejected.”
32	IA531	The water right is on the Colorado River, not on Sulfur Creek.
35	IVA3b, 6c	These should have both a check and an “X” because the total stocking goal was not met (show goal numbers).

## RIPRAP revisions and explanations of revisions

22	IA3	Tom Nesler said he wouldn’t recommend any changes in the dates for this evaluation at this time, but >he will check to see when the CDOW report will be available for Service review.
22	IIA2&3	End in FY 03 for now (until we know what additional restoration work will be done).
22	IIA2-3	Priority will be given to Federal <i>and State</i> lands...
23	IVA4a	Add (3) – (5) for Cataract Canyon, Yampa Canyon, and Desolation/Gray Canyons (broodstock currently represented by wild fish in the river).
24	IVE2d	Delete parenthetical (we now have a fairly accurate idea of the pond acreage needed).
24	IVF3	Change “procedures” to “plans” for clarification.
24	VA1,a	Tom Chart and Kevin Christopherson disagreed with discontinuing YOY pikeminnow monitoring. The Committee discussed how these data might be used. The work is not funded by the Program for FY 03. No change (although this will be

considered in Program Guidance).

- 25 VIIB Park Service needs to be added to the Program participants list.
- 26 IA3c NEPA on Flaming Gorge reoperation won't be completed until FY 04.
- 28 IB2a1b Add parenthetical that indicates the future use of Steamboat Lake water is to be determined.
- 28 IB2a2 Typographical error – should read “7,000 acre-feet.”
- 29 IIIA1a1 Split into two items (evaluation vs. implementation) of nonnative fish escapement/control. Add parenthetical to both IIIA1a1 and IIIA1a2 noting that escapement will be evaluated and control measures implemented during and after construction).
- 29 IIA1b,c,&d Add feedback loop (evaluate nonnative fish control actions, continue as needed).
- 34 IIB2a1 Need date for obtaining landowner consent/agreement for Price Stubb fish passage.
- 35 VC3 Lead for Cataract Canyon humpback chub estimate is UDWR/Valdez.
- 37 IIB2d Frank Pfeifer disagreed that we need results of the Gunnison River temperature studies in order to determine if passage is needed at Hartland. Fish have been found at the base of the dam and we've already determined passage *is* needed. Fish passage is desirable without raising temperature. Bob Muth said one reason for re-visiting the need is that we did not include Hartland passage in the recovery goals. No change at this time.

#### Program Guidance

Add new start(s) for native fish response to nonnative fish control efforts (beginning in FY 04).

C-31 Northern pike exclusion assessment - continuation of this work in FY 04 – 05 is contingent on results of current work, so this should be a placeholder.

Bill Davis raised again the idea of turbidity as predator protection for larval native fishes. The Committee agreed this might be good to look at. Pat suggested it could be incorporated into existing larval survival in floodplain scopes of work. No change to Program Guidance at this point.

The Committee added evaluation of razorback sucker migration and recruitment from floodplain depressions into the mainstem middle Green River as a potential FY 04 new start.

The Committee discussed the Highline Reservoir net. >Tom Nesler will distribute Colorado's

report on the net to the Committee, then the Committee will discuss options for controlling escapement of nonnative fishes from Highline. Meanwhile, this will remain a placeholder. No change to Program Guidance at this point.

Melissa questioned the ability to ever get a good population estimate in Cataract Canyon, suggested a presence/absence survey instead, and said she doubts there are 500 humpback chub in Cataract (estimate from current sketchy data). Bob Muth said he believes we need to try. Other Committee members agreed we'll need to re-evaluate the work after the first year. No change to Program Guidance at this point.

John Hawkins said Darrel Snyder would like to see a key for identification of cyprinid larvae and early juveniles included, at least as a placeholder. Tom Czapla said we need to determine the utility of the razorback sucker key and how people are using it before we fund a cyprinid key. John Hawkins said the razorback key is being used now. The Committee agreed to put it in as a placeholder beginning in FY 04 (cost estimate is \$40,600 for the first year and \$89,900 for the second year of this 4-year ~\$250,000 study). Tom Nesler asked if this might be cost-shared with other interested entities.

The Committee agreed to include young of the year Colorado pikeminnow monitoring as a proposed new start. >Kevin Christopherson will prepare Program Guidance text for this.

Discussion of potential drought impacts on upcoming field studies - FY 03 could be similar to FY 04. Tim Modde suggested increasing the magnitude (and decrease the duration at 4600cfs) of our spring release from Flaming Gorge to increase our likelihood of inundating the floodplain. Tom Nesler noted that Colorado collection permits for 2003 (outside the Program) require checking with CDOW biologists before each trip in light of the drought and the potential for added sampling and handling stress, so Tom asked everyone to exercise the same caution in Recovery Program activities. The Committee will continue to keep this on the agenda and continue to discuss what studies may be impacted.

Principles of Floodplain Program Revisited - Frank Pfeifer and others expressed concern about time to participate in the management plan action teams. The Committee accepted Bob Muth's proposed process. Bob distributed a scope of work for Rich Valdez to do this work. Tom Pitts asked about site-specific management plans and Bob said those would be developed at the same time as the subbasin management plans. Tom Pitts and others suggested the budget (and perhaps time-frame) is underestimated in light of meetings with the Biology and Management committees, etc. Also, no funds are included for the action teams. Tasks need to be made more specific so the Committee can better understand the work to be done and the costs and time involved. The Committee generally agreed to the concept. >Bob and Rich will revise the scope of work and post it to the listserver by next Tuesday. Any comments will be provided (on the listserver) by Thursday so it can be posted to the Management Committee by Friday.

Review for BC approval: *Hamilton, S.J. and five other authors. 2002. Draft Final - Evaluation of remediation of a backwater channel: concentrations of selenium and other inorganic elements in water, sediment, invertebrates, forage fish and Colorado pikeminnow.* Tom Pitts said Hamilton changed methodologies for sediment sampling in the middle of the project and it appears to have changed the results. Paul disagreed, saying he didn't see the relationship between sampling method and results. Perhaps Hamilton should clarify how the methodologies influenced his results for selenium in sediment. Tom also asked if the comparison between selenium levels in Colorado pikeminnow at Walter Walker with fish collected at other sites in other studies is valid; others agreed. Tom commented that the last conclusion needs to be made more specific ("flushing backwaters in channels reduces selenium

levels in water, sediment and forage fish”). The author needs to explain the mechanism by which selenium leaves the sediment as the water quality changes. Clarify last statement in recommendations (does it mean after flushing has ceased?). On page 15 under “Statistics,” “where measured concentration were below the L.O.D. half the value of the L.O.D. was used in statistical analysis” sounds like the author is saying a concentration exists when it’s unknown if there’s any concentration at all. Two paragraphs above the discussion section “selenium concentration in muscle plugs were significantly correlated with mean monthly river flow” needs to be qualified (negatively or positively correlated?). >Committee members will submit written comments to Steve by March 7, 2003 and also post those comments to the listserver. >Steve will respond to comments on the listserver, which hopefully will suffice to finalize the report.

Discussion of nonnative fish control projects in Colorado and the State of Colorado’s concerns. Tom Nesler said he and Bob Muth discussed scope of work changes with Bruce McCloskey. Expanded nonnative fish control will begin this year. Principal investigators have agreed to revise the scopes of work to include in the study design treatment and control reaches within the study area. This will be done within existing budgets. The purpose of these scopes of work is to show depletion in the target nonnative fishes (any other objectives will be deleted). Beginning in FY 04, we will develop scopes of work to measure native fish community response to nonnative fish control activities. Studies will be designed with control and treatment reaches; if substantial reasons are found why that won’t work, then other approaches can be investigated. This approach will be incorporated into the I&E messages. Tom said Bruce supports this approach and is willing to confirm that at public meetings as needed. Channel catfish disposition in Yampa Canyon has also been addressed. Revised scopes of work will be submitted to Tom Nesler by March 4.

### **February 21, 2003**

Update on the Duchesne River flow recommendations - Frank Pfeifer said the authors have met and Tim is working on a synopsis chapter which will contain the actual flow recommendations. This report will go to Gerry Roehm by March 31. Since the other reports (“chapters”) have already been reviewed and comments provided, Frank recommends revising and submitting those to the Committee by February 28. The Committee agreed.

Selective passage at Price-Stubb - Bob Muth provided an estimate from Reclamation for the cost of providing selective passage at Price Stubb. Road access to the fish trap would be very expensive (>\$1.5M). The Committee would like clarification on why the fish passage must be built on river left where access to the fish trap would be so expensive. Why is a rock passage on river right not possible? Brent Uilenberg (via phone) said that the river is in a slight curve to the right at that point; modeling showed that we need to put passage on the outside curve of the river where the majority of the water will go to provide adequate approach velocities to the intake of the rock ramp. A concrete passage structure could be put on river right, but it would be complicated considerably by the need to accommodate a potential hydropower operation. (The river right concrete passage option was included in the EA because it was assumed at that time it would be built at the same time as the hydropower plant.) The Committee recommends building selective passage at the most downstream location that is economically feasible.

Flaming Gorge EIS – Tom Chart discussed the EIS, saying that Reclamation would like to stick with the language in the flow recommendations. However, in the EIS under the heading of ‘environmental commitments’ or ‘adaptive management’, Reclamation would like to discuss increasing the temperature of dam releases during high flow periods (up to 16E or 17E C, as opposed to “up to 15E “ as is cited in the flow recommendations) to increase the probability of meeting the temperature recommendations for the endangered fish. Kevin said this could raise concerns among anglers regarding the tailwater trout fishery (although at this point, biologists

generally believe that increased temperature of releases in high flow periods would not negatively impact trout). Tom Chart recognized that the trout fishery was a major concern of Reclamation's and discussions with the State of Utah are planned. Tom said the second issue is that the hydrology modeling shows an increased frequency of spill required to meet the flow recommendations. Increased spill frequency potentially means increased release of nonnative fish from the reservoir. Gary Burton noted that we still need to determine the extent of the increased frequency of spill which may just be an artifact of the model. Tim said he thinks the addition of smallmouth bass to the river from such spills would be minimal and that the more likely vector for smallmouth bass invasion into Reach 1 would be from the Yampa River; several other committee members agreed. Kevin and John Wullschleger suggested that because Flaming Gorge has spilled in the past that the real threat may be from meeting the temperature recommendations, i.e. providing more suitable conditions in Reach 1 for the smallmouth that are entrained. Tom Pitts indicated that he had concerns over this potential entrainment, and that the Program should try to be consistent in their approach to controlling nonnatives throughout the basin.

Update on the CAP 18/19 monitoring issue - Tom Nesler said he understands that the main concern about centrarchid sampling is that we don't want to begin field sampling again yet, so Colorado proposes to use 1997-98 and 2002 data to develop a monitoring protocol that identifies the number of backwaters to be sampled and the required effort within each backwater required to develop a statistically reliable estimate of centrarchid abundance in the Grand Valley reach. Frank asked why we need to monitor centrarchids, and Tom replied it's so we would be able to determine if nonnative fish control efforts have a depletive effect. Bob Muth distributed the draft scope of work (which doesn't currently contain a budget). >Tom Nesler will get a scope with a budget to the Committee for their consideration (at the next meeting or on a conference call, if necessary).

Review for BC approval: *Badame, P.V. and J.M. Hudson. Draft Final - Reintroduction and monitoring of hatchery-reared bonytail in the Colorado and Green Rivers.* Since our policy is to stock fish at least 200 mm, Frank Pfeifer asked about the recommendation on stocking size. Paul indicated that they had to limit their conclusions and recommendations to the data they had available. The Committee made minor revisions and approved the report. >Paul will finalize and distribute the report.

Review SOWs for the floodplain program - Frank said that although three scopes of work have been submitted, the one for evaluation of razorback migration and recruitment will be deferred (and submitted as part of Program Guidance for FY 04), so the Committee is only being asked to consider two scopes. Tim said his scope would stock larval razorback and bonytail into larger floodplains where they will be exposed to nonnative composition that occurs in the river, then determine if they survive into the late summer or fall. The Committee deleted objective #3. The Committee raised questions about stocking in so many sites that are likely to go dry and not overwinter fish. Tom Pitts recommended monitoring temperature continually and other water quality characteristics more frequently and the Committee agreed. Kevin said Tim could borrow one of their Hydrolabs to help with this. Tom also asked that a very thorough annual report be provided for this work. >Tim will post the revised scope of work to the listserver. The Committee considered Kevin's scope of work to look at whether razorback larvae will survive predation following "reset" of floodplain depressions. Tim and Kevin will modify their scopes of work so they're not working in the same sites. Kevin will review the budget carefully, as there seem to be some errors. Kevin will clarify the densities of razorback larvae to be stocked. >Kevin will post the revised scope to the listserver. The scopes will be posted by next Tuesday and Committee members will provide any comments by Thursday so the scopes can be posted to the Management Committee on Friday.

Review for BC approval: 2001 Burdick, B.D. 2002. *Draft Final – Evaluation of stocking sub-adult Colorado pikeminnow via translocation in the Upper Colorado River between Palisade and Rifle, Colorado.* Paul Dey asked if any conclusions could be made regarding habitat suitability. The report needs to address whether the objectives were achieved (and >coordinators will make sure all future reports address this). (One of the uncertainties listed indicates that objective #2 wasn't met.) Need to correlate timing and extent of fish movements with temperature data. Page 33 appears to be missing. Frank noted that the 15-Mile Reach shouldn't be excluded from recommendation #5. The Committee discussed Bob's recommendation not to stock fish above diversions until the diversions are screened and agreed to wait until after the irrigation season (or provide the fish to the San Juan Program if it's not feasible to hold fish that long). Tom Pitts noted that we may need to expand I&E activities (such as signage) into these newly-stocked reaches. >Bob Burdick will make these revisions and post them to the listserver for Biology Committee approval.

Bonytail stocking issues - Tom Czaplá explained that we have 2-3 year classes of bonytail available which he believes can meet the next 5-6 years of stocking required under our integrated stocking plan. Do we want to use these fish over the next 5-6 years (which would conform to the number of fish called for in the stocking plan, provide larger fish for stocking, but potentially risk a "hatchery effect" due to longer hatchery residency), or should we continue to raise new year classes? Kevin proposed stocking the extra fish and raising new year classes each year. Tom Nesler noted that fewer fish are on hand at Mumma than are shown in Tom Czaplá's table (some have already been stocked). Tom Nesler said he'd be interested in stocking more fish as Kevin suggested, but would like to hold some fish to help learn if stocking fish at 300 mm (as suggested in Badame's report) would enhance survival. The Committee agreed to stock the fish and continue to request fish annually from Dexter. We'll use some of the excess fish to stock in the wetlands study (PIT-tagging them after they've been harvested from the pond) and perhaps grow some to 300 mm. at Mumma.

Lake Mojave razorbacks - The Committee agreed to incorporating these fish to increase the number of paired matings in the Colorado River subbasin. (This follows our protocol, since we started with Colorado River fish, added Green River fish [nearest neighbor], and now are adding in Lake Mojave fish [next nearest neighbor].)

Update / progress review of Habitat Geomorphology Workshop - Bob Muth said a draft is expected in March and final in June. Bob said Kirk LaGory has made major changes to the matrices since the last meeting.

Next meeting – April 23-24 in Grand Junction beginning at 9:00 a.m. >Chuck McAda will arrange a meeting room.

Adjourn 2:00 p.m.

### ASSIGNMENTS

Angela Kantola will contact Rob Simmons, Service biologist in Arizona, who will be attending some of these meetings and so should be added to our interested parties list and to the listserv.

In the future, Angela will somehow highlight “newly late” reports on the late and pending reports list.

Tom Nesler will check to see when the CDOW flow report will be available for Service review.

Tom Nesler will distribute Colorado’s report on the Highline Reservoir net to the Biology Committee, then the Committee will discuss options for controlling escapement of nonnative fishes from Highline.

Kevin Christopherson will prepare Program Guidance text for young of the year Colorado pikeminnow monitoring (as a proposed FY 04 new start).

Bob Muth and Rich Valdez will revise the floodplain habitat management plans scope of work and post it to the listserv by next Tuesday. Any comments will be provided (on the listserv) by Thursday so it can be posted to the Management Committee by Friday.

Committee members will submit written comments on Steve Hamilton’s report by March 7, 2003 and also post those comments to the listserv. Steve will respond to comments on the listserv, which hopefully will suffice to finalize the report.

Tom Nesler will provide a scope of work with budget for developing a centrarchid monitoring plan to the Committee for their consideration (at the next meeting or on a conference call, if necessary).

Paul Badame will finalize and distribute the bonytail report.

Tim Modde and Kevin Christopherson will post their revised floodplain scopes of work to the listserv by next Tuesday and Committee members will provide any comments by Thursday so the scopes can be posted to the Management Committee on Friday.

Bob Burdick will make revisions to his Colorado pikeminnow translocation report and post them to the listserv for Biology Committee approval.

Chuck McAda will arrange a meeting room for the April 23-24 meeting in Grand Junction.