

Biology Committee Conference Call  
Monday, February 25, 2002  
10:00 am to 11:30 am

Attendees: Bob Muth, Pat Nelson, Paul Dey, Tim Modde, Frank Pfeifer, Tom Chart, Bill Davis, Tom Pitts, Mark Wieringa, Kevin Christopherson, Tom Nesler, John Wullschleger, John Hawkins

**Purpose:** At the January 23 meeting, the Management Committee asked that the Biology Committee consider a technical review of the Floodplain Habitat Acquisition and Restoration Program. The topic had been placed on the February 12 Biology Committee meeting agenda but could not be discussed at that meeting because of time constraints. A Biology Committee conference call was scheduled for February 25 to discuss the issue.

Bob Muth recommended that the Biology Committee discuss the “PD’s Recommendations for the Floodplain Habitat Acquisition/Restoration Program (responses to Management Committee comments/recommendations)” and decide on an approach to address habitat issues and concerns. The Committee agreed with Muth’s recommendations.

**PD’s Recommendations for the Floodplain Habitat Acquisition/Restoration Program  
(responses to Management Committee comments/recommendations)**

- #1. ● The Biology Committee will discuss habitat issues/concerns at the February 12 meeting (CREDA comments and Management Committee meeting comments), as requested by the Management Committee.

Habitat issues/concerns are expected to be addressed and discussed upon completion of the following six items.

- #2. ● By the end of March 2002, PD’s office will provide a detailed summary of steps involved in the land-acquisition process, and provide a budget breakdown of FY-2001 funds spent and FY-2002 funds to be spent (BR will have the lead, PD’s office will assist).

Development of summary and budget breakdown are underway. Tom Pitts requested that the budget breakdown be provided for FY 1996-2002.

- #3. ● Until further notice, the Recovery Program will not seek any new offers for land acquisition without the approval of the Biology and Management committees. At present, there are four outstanding offers awaiting decisions of the landowners.

Tom Pitts said that we're spending a lot of money on land acquisition, and we don't know if we're acquiring habitats that will make a difference. Kevin Christopherson agreed that we need to be more selective with land acquisition.

The Committee asked where the four properties were located. Three of the properties are along the Colorado River between Debeque and Rifle. The fourth property is Ela Sanctuary, owned by the Audubon Society, located on the Colorado River at RM 167.8.

Bob Muth asked the Biology Committee for permission to proceed with evaluation of Thunder Ranch on the Green River and the Hot Spot area on the Colorado River. Thunder Ranch is a large wetland 7 miles downstream from the razorback spawning bar that may have potential as a nursery habitat for drifting razorback larvae. The Hot Spot area is a large habitat complex that receives high use by adult Colorado pikeminnow and, previously, razorback sucker. Tom Pitts recommended sending a fax to the Management Committee with justification as to why these properties should be considered exceptions to the Recovery Program's moratorium on land acquisition. The Committee agreed. A fax will be sent to the Management Committee asking for permission to proceed with Thunder Ranch and the Hot Spot area. The fax will include a status update on the four outstanding offers.

- #4. ● By the end of March 2002, the PD's office will provide a synthesis of knowledge regarding habitat restoration, benefits to the endangered fishes, and response of the fish community (i.e., natives and nonnatives). The synthesis will summarize results, conclusions, and recommendations of completed and ongoing habitat studies (i.e., final reports, draft reports, and annual reports). It will identify issues/concerns and include PD recommendations on how to proceed.

Tom Pitts recommended that the results of item #4 be reviewed by the Biology Committee. The PD's Office agreed.

- #5. ● A razorback sucker habitat model is currently being developed that will assess the quantity (acreage) of floodplain habitat needed to achieve the proposed demographic recovery criteria for razorback sucker. Rich Valdez will present an overview of the first draft of the model at the February 12 Biology Committee meeting, and will solicit input from committee members. A final draft of the model is due March 29, with the final due May 15.

Tom Chart questioned whether or not a model would tell us the amount of habitat necessary for recovery, given the paucity of available data. John Wullschleger said model development will be a valuable exercise. Bob Muth said the model will help to identify data gaps, uncertainties, and provide us with a ballpark estimate of habitat needed for recovery. Tom Pitts requested that the model be expanded to include feedback loops. Paul Dey said that development of such a model is a lofty goal, may not be achievable, and that we should not have high expectations. He reminded the Biology Committee that comments on the draft model are due to Rich Valdez by March 1.

- #6. ● The PD's office will work with researchers and the Biology Committee to improve current habitat studies to ensure that they will provide definitive results. A major challenge will be to identify sampling techniques that will detect survival of razorback sucker larvae in floodplain wetlands. Study designs and sampling techniques used to date may not be adequate.

Bill Davis pointed out that no razorback larval survival has been detected during floodplain habitat studies, and asked why the Recovery Program plans to repeat larval survival studies when nonnative fish are obviously consuming all of the larvae. Bob Muth suggested that previous studies may not have sampled adequately, that there may have been some survival of larvae that went undetected, and that sampling techniques to detect larval survival need to be refined. Kevin Christopherson countered that every gear type and technique available was used during their studies, and no larvae were found. Tom Chart suggested that higher larval stocking densities may be key to detecting and quantifying larval survival, as opposed to simply stocking available "leftover" larvae.

Bill Davis said that it would be a waste of time to quantify a larval survival rate which is too low to sustain razorback populations. He said we need to do item #4 before proceeding, that we don't have enough time to experiment with things that may or may not work. We should put more adults into the river before they are all gone, so that there are enough larvae produced to detect and quantify entrainment and survival. We are not stocking enough fish, and suggested that, as an example, we should stock 20,000 razorback adults into the river.

Everyone agreed that there are not enough razorback larvae being produced naturally. Some said more larvae need to be produced and stocked to test hypotheses. Frank Pfeifer suggested that studies be conducted in a stepwise fashion, that hatchery-produced larval razorbacks should be stocked into floodplain depressions, and that we haven't done enough yet with larval stocking.

Mark Wieringa suggested stocking larval fish on the spawning bar, then monitoring larval drift, entrainment, and survival. Tim Modde said using neutrally buoyant balls to monitor drift and entrainment has been proposed in the past.

Tom Pitts said that we need to quantify and compare the benefits of floodplain depressions to nonnative fishes versus native and endangered fishes. Tim Modde said it doesn't matter how many nonnative fishes are produced in the floodplain as long as they don't get into the river and adversely affect endangered fishes. Bill Davis thinks that nonnative fishes are getting into the river, but we simply cannot detect increases in abundance. Kevin Christopherson said that increases in nonnative abundance in the river have been detected, but only immediately after certain managed wetlands are intentionally drained and nonnative fishes are forced into the river.

Kevin Christopherson suggested we conduct another habitat workshop; Tom Pitts said the workshop should be held after Biology Committee review of the habitat synthesis (item #4); Bob Muth suggested April (May at the latest) for a workshop, so that FY 02-03 sow's could be revised prior to the field season. Kevin Christopherson said we may have lots of time to

review/revise sow's pertaining to larval drift and survival, because FY 02 flows may prevent us from conducting the studies.

The Biology Committee agreed that the PD's Office should work with the PI's to review and revise the FY 02-03 sow's for subsequent Biology Committee review. Frank Pfeifer agreed to provide the PD's Office with results of San Juan River razorback larval stocking experiments.

- #7. ● Amount of flooded acreage from natural flooding and what is added by floodplain-habitat acquisition and levee removal. Acquisition of floodplain habitat for protection does not add to naturally flooded acreage, but prevents future loss of flooded acreage. Levee removal does add habitat to the system, especially at less-than-bankfull flows (e.g., Green River). To determine the amount of habitat added for a given flow, relationships would need to be developed to quantify total area of floodplain inundation as a function of main-channel flow. Such relationships exist for important reaches of the Green River, but additional data are needed to develop similar relationships for the Colorado River for the desired range of flows. The razorback sucker habitat model being developed may help clarify how much habitat is needed to sustain populations. PD suggests waiting for model results before deciding whether or not floodplain inundation versus flow relationships are necessary.

There was no Biology Committee discussion on item #7.

The next Biology Committee conference call was scheduled for Friday, March 8, 1:00 pm, to discuss the draft nonnative fish control workshop conclusions and recommendations, and the population workshop summary. Rich Valdez will attend. The PD's Office will set up the call.

#### **Assignments:**

The budget breakdown developed by BR needs to include FY 96 through FY 02.

The PD's Office will proceed with a summary of steps involved in the land acquisition process, and with a synthesis of knowledge regarding habitat restoration, benefits to the endangered fishes, and response of the fish community. The first draft of this effort is planned for the end of March 2002.

The PD's Office will send a fax to the Management Committee asking for permission to proceed with Thunder Ranch and the Hot Spot area. The fax will include a status update on the four outstanding offers

Biology Committee comments on the draft habitat model are due to Rich Valdez by March 1.

The PD's Office will work with the PI's to review and revise the FY 02-03 sow's for subsequent Biology Committee review.

Frank Pfeifer will provide the PD's Office with results of San Juan River razorback larval stocking experiments.