SBAHG Update

7/10/2024

Since the April TWG

- Meetings held on 6/3, 6/18, and 6/24
  - Discussed charge and goals
  - Stakeholder requests
  - SMB panel report presentation
  - Perspectives from the Upper Basin
  - Project I in the FY25-27 TWP
  - Input on TWG NNF updates

Charge:

The Smallmouth Bass Ad Hoc Group is charged with evaluating warmwater nonnative fish actions to assess their effectiveness, and as necessary, review and recommend updates to the "Invasive Fish Species Below Glen Canyon Dam: A Strategic Plan to Prevent, Detect and Respond" (i.e., the Strategic Plan).

Goals:

- Develop/discuss effectiveness criteria (post TWP recommendation)
- Annual review (start in fall)
- Provide new updates or developments on actions
  - Track items and reminder of potential schedules
- Continue more detailed discussions of actions
- Coordinate TWG and AMWG updates

Stakeholder Requests

1. Stakeholder involvement in monitoring and analysis of SMB flows (Reclamation and USGS)
    - ➔ Presentation from USGS to follow, will be added to TWP appendix
2. Comprehensive annual workshop/report out on rapid response activities. Forum TBD. (science and management agencies)
    - ➔ Process TBD, post- August AMWG
3. Costs of rapid response and other actions related to SMB (NPS)
    - ➔ Will inform Effectiveness Criteria discussions, in progress
4. Presentation on artificial spawning beds (NPS and BOR)
    - ➔ Update to follow from BOR

SMB Panel Report Discussion

Center for
COLORADO RIVER
Studies
UtahStateUniversity

Review of Smallmouth Bass Management in the Colorado River ecosystem

Final Report

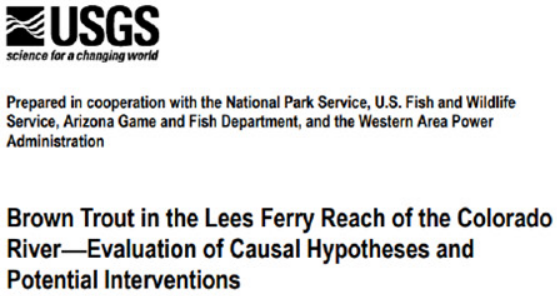
Smallmouth Bass Management Review Committee

J.C. Schmidt (Chair)[1], W. E. Pine[2], J. Korman[3], M. Grippo[4]

[1] *Center for Colorado River Studies, Utah State University*
[2] *SWCA Environmental Consultants*
[3] *Ecometic Research*
[4] *Argonne National Labs*

Key messages

- We agree that SMB populations are a potential threat to HBC and other native fish in the CRe


USGS
science for a changing world

Prepared in cooperation with the National Park Service, U.S. Fish and Wildlife Service, Arizona Game and Fish Department, and the Western Area Power Administration

Brown Trout in the Lees Ferry Reach of the Colorado River—Evaluation of Causal Hypotheses and Potential Interventions


Nonnative Fish Control in the Colorado River in Grand Canyon, Arizona: An Effective Program or Serendipitous Timing?

Lewis G. Coggins Jr., Michael D. Yard & William E. Pine III

Pages 456-470 | Received 29 Mar 2010, Accepted 15 Sep 2010, Published online: 13 Apr 2011

- We think there is uncertainty around this threat that should be discussed & considered
- Risk of establishment near HBC population centers →
  - temperature only limiting factor
  - temperature + turbidity + ?
- SMB control methods in Glen Canyon
  - Informed by analyses of removals

Ideas to consider

- Short term
  - Take a closer look at lessons learned from upper basin
    - Timeline of native fish population status vs. SMB introduction
    - Upper basin turbidity data
  - Effectiveness of SMB management actions compared to similar efforts in CRe for other species
  - Determine how current actions will be assessed
  - Revised basic AM ideas that have been a critical part of the program for 20+ years
- Longer term
  - 20+ years of fish work in CRe basin-scale hydrology larger influence on fish populations than management actions for native and non-native fish species
  - Management actions should be evaluated "in the same direction" as long-term basin forecasts
  - SDM approaches can promote transparency in decision making

Upper Basin Experiences with SMB

Invitees: Tildon Jones, Kevin Bestgen, Ben Felt, Travis Francis

- Provided an overview of Upper Basin invasion
  - Impacts of SMB in certain stretches
  - Observed reaction of SMB to environmental and management actions

Consensus that SMB can have devastating impacts to native fish populations and an ability to adapt to different environmental conditions. Difficult to manage once established.

Project I Discussions

Uncertainty on impacts of turbidity- addressed in I.4.1

- Results will be included in SMB population growth model

Validity and feasibility of I.2 and I.3

- Ability to collect enough samples for I.2
- Validity of eDNA at stratified depths in I.3
- Are enough eDNA samples being collected from tributaries and mainstem to track parasites and pathogens in native and nonnative species (overall TWP)
    - Minimum testing to meet BiOp requirements

GCMRC PI's provided responses, sent to SBAHG and BAHG members

Projects Connected to I

E.4- NNF included to determine metabolic rates to inform development of ecosystem models (Reduced funds)

F.3- eDNA in tributaries and mainstem to observe pathogens and parasites (could analyze samples for SMB- additional funding necessary)

F.4- fish diet studies (Reduced funds)

G.3 and G.6- JCM East (Funded) and JCM West (Unfunded)

G.5- backwater seining for warmwater NNF (Unfunded in FY26-27)

G.9- submersible antennas to detect PIT tagged fish (Unfunded)

Next Steps

- Further discussion of TWP recommendations (if necessary)
- SMB Summit presentation (NPS)
- Begin development draft annual report and effectiveness criteria
- Organize nonnative workshop for stakeholders
- Next meeting: TBD

Thank You

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