



**Comal Springs Riffle Beetle Work Group
Meeting Minutes
San Marcos Activity Center
October 9, 2019**

Members of this committee included: Conrad Lamon, Chad Norris, Tom Arsuffi, Butch Weckerly, and Ken Ostrand

- 1. Call to order:** 9:02 am – All members of the work group were present.
- 2. Public Comment:**
There were no comments from the public.
- 3. Approve minutes from September 4, 2019 Work Group meeting.**
Chad Norris requested a revision to the prefix of his name in the meeting minutes from September 4, 2019. A motion was made by Butch Weckerly to approve the meeting minutes with revisions. Chad Norris seconded the motion. There were no objections.
- 4. Review the CSRB Work Group Meeting 3 held on September 4, 2019 and take any further comments on experimental design of the cotton lure efficiency tank study.**
Dr. Chad Furl presented an overview of the cotton lure efficiency tank study. Five circular tanks will be used with wood, leaves, limestone gravel, and cotton lure material. Wood and leaves will be collected from the wild, conditioned appropriately, and kept in wireframe. Cotton lures will be washed thoroughly with DI water to remove any potential toxins before being placed in the tank. Twenty adult Comal Springs riffle beetles will be placed in the tank, and lures will be checked at 10, 20, and 30-day intervals. All food items will be inspected for beetles at 30 days and mortalities will be documented. Dr. Furl and EAHCP staff will be moving forward with this design. A report is expected to be presented at the 2020 Science Committee meeting.
- 5. Review discussion from Meeting 3 on the Biological Monitoring Program and develop final recommendations.**
Dr. Furl reminded the staff of the goals of the Biological Monitoring Program. As per the prior work group meeting, two recommendations were determined: 1) the continuation of monitoring in the three LTBG reaches and follow established sampling protocols and 2) the addition of system wide population surveys to be completed twice before the end of the incidental take permit.

The Work Group mentioned Weston Nowlin's research on the Comal Springs riffle beetle. Dr. Furl and Butch Weckerly agreed that a review of Nowlin's research should be

considered prior to commitment to his study designs. Chad Norris mentioned population genetic studies. Dr. Furl noted that genetic studies can be conducted through the refugia program, outside of the biological monitoring program.

The Work Group concluded that the final recommendations suggested at the September meeting would suffice.

6. Discuss Refugia CSRB collections to date and review of program goals.

Dr. Furl presented to the Work Group a background on Refugia collections. Currently, the U.S. Fish and Wildlife Service is tasked with collecting 500 Comal Springs riffle beetles for a standing stock and 500 for salvage stock.

Mr. Norris asked how many Comal Springs riffle beetles are actively kept at Refugia. Dr. Furl answered about 200-300 at both the San Marcos and Uvalde Refugia locations. Ken Ostrand recommended using a model, based on aquifer conditions and genetic diversity, to determine effective refugia populations in 2020. Mr. Norris commented that 500 individuals seems too high and 200 is too low. Tom Arsuffi recommended 250 individuals collected for standing stock, Butch Weckerly seconded that recommendation. Mr. Norris commented that 250 individuals may not be sufficient for standing stock.

7. Discuss habitat disturbance and develop recommendations regarding system disturbance.

Ken Ostrand recommended a survivorship study to develop recommendations on habitat disturbance. Butch Weckerly noted, based on Dr. Furl's data, any time the population falls below 25%, there is a problem with disturbance. Tom Arsuffi requested a disturbance table to better develop appropriate recommendations.

8. Questions from the public.

None.

9. Adjourn.

11:37 am