



**Comal Springs Riffle Beetle Work Group  
Virtual Meeting Minutes  
December 9, 2020**

1. **Call to order:** 9:01 a.m. – All members of the work group were present.
2. **Review of online meeting logistics:** Chad Furl provided an overview of technical meeting logistics to the work group.
3. **Public Comment:** There were no comments from the public.
4. **Review of CSRB Workgroup Goals and an overview of the conclusions and recommendations developed by Workgroup members stated in the 2019 CSRB Work Group Final Report.**

Chad Furl provided an overview of the Work Group goals and summarized the recommendations that were produced as an outcome of the 2019 CSRB Work Group meeting.

5. **Discussion on the laboratory study that investigated the efficiency of the cotton luring method for the CSRB.**

Ely Kosnicki, BIOWEST staff, provided an overview of the laboratory study on the Comal Springs riffle beetle cotton luring analysis and other mesocosms. This study examined the efficacy of the cotton lure luring with a field and laboratory component. Methods included setting out leaf and cotton lures in the field and retrieving individuals for the laboratory experiment. Results of the field study showed no significant difference in the preference of luring material by adult Comal Springs riffle beetles.

Mr. Kosnicki described the methodologies for the laboratory study and described the tank set up consisting of cotton lure, sycamore leaves, popular wood dowels, and cobble substrate. Twenty wild caught CSRB adults were placed in each of five tanks and the experiment ran for approximately thirty days. Once a week, the cotton lure was checked for the presence of CSRB individuals, and the entire tank was examined at the end of the 30 days. Two trials were run in this experiment. The results of trial 1 did not indicate that individuals had a preference between luring material (cotton, leaf, wood, no lure). Mr. Kosnicki noted that the outflow screens of the tank were not sealed effectively and caused many individuals to drift. Consequently, a second trial was ran after the drain screens were properly sealed and four tanks were used in the experiment. Mr. Kosnicki noticed excessive flocculation during this second trial. Tom Arsuffi

suggested a redesign of the tank set up and prepare examples to test the model and system to make sure the physical apparatus works before investing all the resources. Mr. Kosnicki mentioned that he had ran a small pilot study prior to the first experimental run and did not have any mortalities or flocculation buildup.

In assessing varying mesocosms, Mr. Kosnicki explained the use of a traditional aquarium design in order to create a scenario with adequate flow, cave system, and habitat heterogeneity. Mr. Kosnicki noted that different life stages of the riffle beetle may like to seek out different sources of luring material.

There was a discussion by the work group members on whether to conduct a third experimental run for the mesococm cotton lure study. Ultimately, the decision was made to pursue one more experimental run that will hopefully confirm conclusions from the first and second runs.

**6. Review of the EAHCP CSRБ Refugia and Biological Monitoring Programs.**

Chad Furl provided a presentation overview of Refugia CSRБ collection numbers, husbandry procedures, and survivability curves followed by Biological Monitoring CSRБ cotton lure densities. As part of the CSRБ Work Group 2019 final report, recommendations included continued historical sampling in Spring Run 3, Western Shoreline and Spring Island. Dr. Furl discussed the summary of results for biomonitoring and noted that survey results from 2019 and 2020 continued a trend of reduced CSRБ counts at Spring Lake and the Western Shoreline. The Work Group decided to continue the same standing stock number of 75 per facility for the Refugia program.

**7. Discussion on the planning and development of the two CSRБ population surveys scheduled to occur in Landa Lake prior to 2028.**

Chad Furl discussed the future of the CSRБ population surveys scheduled in 2028. Dr. Furl reported to the group that system wide surveys are set to occur in 2022 and 2025. Butch Weckerly asked about Dr. Nowlin's Texas State University graduate student's study on CSRБ populations. Dr. Furl noted that as of now, the study is still unpublished so the data is currently unavailable. The Work Group agreed to move forward with the scheduled population surveys and coordinate with Dr. Nowlin's student on this study when the data becomes available. A Request for Proposal for the population study is set to occur in 2021.

**8. Questions from the public.**

None.

**9. Adjourn. – 10:40 a.m**