

Charge of the Comal Springs Riffle Beetle (CSRB) Work Group

Overview

As part of regular execution of the Edwards Aquifer Habitat Conservation Plan (EAHCP), multiple activities require physical sampling or removal of the CSRB in its habitat. A Work Group is being formed to provide input on a specific set of questions concerning management of the CSRB as part of implementation of the EAHCP.

Background

The EAHCP mandates Applied Research, Biological monitoring, and Refugia programs; all of which require in situ sampling or removal of the CSRB from the Comal system (cite). The Biological Monitoring program (Biomonitoring) has sampled the CSRB at least twice annually at three locations since 2004. The Applied Research program has required some removal of the CSRB since 2013 to conduct ex situ experiments. The Refugia program has required regular removal of the beetle since 2016.

Historically, the CSRB have been captured (for sampling or removal) using a passive cotton lure methodology. Results from cotton lure samples as part of Biomonitoring are used in part to examine the CSRB LTBGs provided in the HCP (cite). These LTBGs are written as number of CSRB per lure at three Comal locations, and to obtain silt-free gravel and cobble substrate (90%) at the locations. During the review of the EAHCP, the National Academies of Science expressed concern over the use of the cotton lure approach for monitoring the beetle. Additionally, members of the EAHCP Adaptive Management Science Committee have raised concern over the appropriateness of the cotton lure methodology and CSRB LTBGs.

Creation

The HCP Program Manager and the Science Committee jointly determined to create a Comal Springs Riffle Beetle Work Group comprised of members from the Science Committee as well as external experts to examine questions regarding the EAHCP handling of the CSRB.

Charge

The Work Group's charge consists of examining questions related to three primary areas 1). sampling methodology, 2). field activities, and 3). EAHCP LTBGs.

1. Cotton lure sampling methodology

Is the current cotton lure sampling methodology an appropriate means to monitor abundance at a locale?

If not, what sampling methodologies exist that would provide a better proxy of abundance at a locale?

If the previous two questions cannot be adequately answered without additional study, what would be an appropriate study to answer the questions?

2. Biological monitoring, Refugia collections, and Applied Research collections

What changes are recommended for the Biological monitoring sampling program? What are the stated goals behind those changes?

What changes are recommended for Refugia removal efforts? What are the stated goals behind those changes?

Are the current and proposed levels of physical activity in the CSR B habitat protective of the species? If not, what level of activity is appropriate?

3. Long-term biological goals

Are the current population and habitat LTBGs for the CSR B appropriate? What are the criteria for more appropriate goals?

What is an appropriate means to monitor the habitat quality goal?

How can Biological monitoring, Refugia efforts, and Applied Research studies be used to establish new LTBGs?

Administration

The Work Group will meet on an as needed basis. The recommendations of the Work Group will be reported in the form of a written report and communicated to the full Science Committee. The Work Group will consist of the following members:

- Conrad Lamon (SC)
- Chad Norris (SC & TPWD)
- Ken Ostrand (USFWS)
- Eric Benbow (Michigan State University)*

*Dr. Benbow will begin serving on the Work Group following the conclusion of the NAS *Report 3*.