Meeting 6 - 12.11.2019

CSRB Work Group
## EAHCP CSRB WG Charge

<table>
<thead>
<tr>
<th>Charge Topic</th>
<th>Topic Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cotton lure sampling methodology</td>
<td>Is the current cotton lure sampling methodology an appropriate means to monitor abundance at a locale? &lt;br&gt; If not, what sampling methodologies exist that would provide a better proxy of abundance at a locale? &lt;br&gt; If the previous two questions cannot be adequately answered without additional study, what would be an appropriate study to answer the questions?</td>
</tr>
<tr>
<td>Biological monitoring, Refugia collections, and Applied Research collections</td>
<td>What changes are recommended for the Biological monitoring sampling program? What are the stated goals behind those changes? &lt;br&gt; What changes are recommended for Refugia removal efforts? What are the stated goals behind those changes? &lt;br&gt; Are the current and proposed levels of physical activity in the CSRB habitat protective of the species? If not, what level of activity is appropriate?</td>
</tr>
<tr>
<td>Long-term biological goals</td>
<td>Are the current population and habitat LTBGs for the CSRB appropriate? What are the criteria for more appropriate goals? &lt;br&gt; What is an appropriate means to monitor the habitat quality goal? &lt;br&gt; How can Biological monitoring, Refugia efforts, and Applied Research studies be used to establish new LTBGs?</td>
</tr>
</tbody>
</table>
Cotton lure sampling methodology

Recommendations

• Continue using cotton lure for CSRB biological monitoring and refugia removals.

• Conduct cotton lure mesocosm experiment using methodology developed during work group meetings.

• EAHCP goal is to conduct and finalize experiment in 2020.
Biological monitoring, Refugia and Applied Research collections

Recommendations

• Continue historical Biological monitoring program at 3 locations, twice a year, 10 lures per survey, repeated sampling of individual orifices.

• Conduct two Comal system-wide occupancy and population studies prior to 2028.
  • Potential survey years are 2022 and 2025.
  • It is anticipated study design will be contracted out and raw data from the Nowlin 2019 population study will be used to aid design.
Recommendations

- Reduce Refugia standing stock numbers to 150 adults (75 at each station).
- Allow Refugia collections to retain 100% of beetles captured on a lure.
- Alternate spring orifices between Refugia collection events such that the same spring orifice is not sampled on consecutive collection events.
- Do not overlap Refugia collection locations with Biomonitoring locations.
CSRB Long-Term Biological Goals

• Maintain present Long-Term Biological Goals.
• Revisit Long-Term Biological Goals after population studies and in-situ cotton lure studies have been completed.
CSRB future meetings

• Conduct an annual meeting to review progress and discuss current CSRB topics
• December 9th 2020 – location TBD
• Potential topics:
  • 2019 and 2020 Biomonitoring surveys
  • Refugia collections, captive life spans, and standing stock numbers
  • TSU population survey