

EAHCP CSRB Cotton Lure SOP

Comal Springs riffle beetles are collected from three reaches in the Comal System using an *in situ* cotton, cloth lure (lure) methodology.

- The cloth portion of the lure is 15-cm x 15-cm pieces of 60% cotton/40% polyester cloth.
- The cloth is folded and placed in wire “cages” to create the lure.
- A depth measurement is taken at each lure location.
- The lures are placed and removed from spring openings/upwellings in the Comal System using a mask and snorkel (when necessary).

Lures are placed in sets of 10 in 3 reaches:

- Spring Run 3 – lures are placed at openings from the most upstream spring head to 2 m below the downstream pedestrian bridge.
- Along the western shoreline of Landa Lake (“Western Shoreline”), lures are placed at openings along a 30 m stretch of shoreline.
- Near Spring Island, in locations that were previously found to have high densities of Comal Springs riffle beetles (see the table below), the site of the most downstream lure is just downstream of the eastern outfall, and the most upstream lure is at the downstream tip of the most upstream island.
- The lures are left *in situ* for approximately 30 days, during which time they become inoculated with local organic matter and invertebrates, including CSRB.

GPS coordinates of Comal River upstream (US) and downstream (DS) Comal Springs riffle beetle lure survey boundaries.

Location	X (DS)	Y (DS)	X(US)	Y (US)
Spring Run 3	583552.70	3287451.53	583479.04	3287369.61
Western Shoreline	583707.53	3287574.59	583738.54	3287615.89
Spring Island	583980.03	3287799.69	584053.85	3287895.20

The individual lure locations are subject to change depending on changes in the location of spring upwellings; therefore, only the reach coordinates can be provided in this SOP. As such, it is imperative that a high level of consistency relating to a skilled aquatic macroinvertebrate biologist with specific experience relative to the CSRB and its habitat requirements be employed for this task.

- All Comal Springs riffle beetles collected with lures are identified and counted.
- Lure counts of any *Microcylloepus pusillus*, Peck’s cave amphipod, and Comal Springs dryopid beetles collected are recorded.
- All invertebrates collected on the lures are placed back into their spring of origin after identification.
- Crews replace lures that have been removed with new lures in the same location where the “seasoned” lure was collected.
- Note: Occasionally lures need to be moved to accommodate decreasing water levels or decreasing wetted area the lure placement sites.