

Quarterly Report for Matagorda Bay Mitigation Trust June 30, 2022

Project:

Trophic linkages and habitat connectivity of popular sportfish in the Matagorda Bay system

Organizations:

¹Center for Sportfish Science and Conservation (CSSC) at Harte Research Institute for Gulf of Mexico Studies Texas A&M University at Corpus Christi

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Investigators:

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Contract No.: 022

Project Term: 03/01/2022 – 02/28/2025

Reporting Period: 3/1/2022 – 5/31/2022 (1)

The contracted project with the Matagorda Bay Mitigation Trust was initiated as of March 1, 2022. The overall goal of this study is to evaluate the movement patterns, trace element concentrations (i.e., potential contaminants), and trophic linkages between three recreationally exploited sportfish species (black drum, red drum, and spotted seatrout) and their prey items in Matagorda Bay to determine whether movements throughout the bay system identified via acoustic tracking expose these sportfish to varying concentrations of trace elements.

Task 1 - Sample acquisition and TEXAAN maintenance: acoustic tagging of fish, sample acquisition for stable isotope/trace element analyses, receiver array [TEXAAN] installation, expansion, maintenance, and download.

Status: Ongoing

Spring '22

- CSSC purchased acoustic receivers, tags, and batteries to expand the TEXAAN and tag selected fish species as appropriate.
- CSSC received tags and receivers and has begun preparations for deployment of the acoustic transmitters. Tagging and equipment deployment will be initiated in the next quarter.
- CSSC purchased various lab supplies and fishing tackle as preparation for upcoming field operations.
- A field laptop was purchased with contributed funds from this project. This laptop will allow for efficient downloads and troubleshooting of acoustic equipment in the field.

Task 2 – Laboratory analyses: stable isotope and trace element analyses.

Status: Ongoing

Spring '22

- Nothing to report for this quarter as field sampling will begin in the next quarter

Task 3 – Data processing and administrative tasks: data processing and administrative tasks such as writing reports, invoicing, outreach materials, and disseminating results.

Status: Ongoing

Spring '22

- CSSC conducted project management, internal project team meetings, and task coordination.