*Resolving Barriers to Sustainable Fishery Certification for the Gulf of Mexico* *Federal Otter Trawl Shrimp Fishery*

Progress to Date

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**Project Period:** September 2020 – August 2022

**S-K Research Priority:** Priority #1 – Promotion, Development, and Marketing

**Goals and Objectives**

Our study will result in complete characterization of the shrimp trawl bycatch in 2021, and will compare the results to historical composition data. For this project, we are focusing on all federally-permitted otter trawl vessels in the Gulf of Mexico. This is clearly traceable through existing vessel permit documentation and required landing reports (trip tickets) which specify permit and gear type. Complete characterization data are available during one previous period, 1992 to 2005 (Scott-Denton 2007). We will update the existing composition data by conducting a complete bycatch characterization in 2021 by obtaining samples from NOAA observed shrimping. These data will enable us to compare the bycatch species assemblages in the 1990s and early 2000s to the current bycatch species assemblage. When complete, the results should resolve a substantial barrier to MSC or G.U.L.F. sustainability certification, and thus avoid potential loss of markets and possibly open new markets (e.g. Europe).

Our specific objectives are to:

1. Obtain any complete shrimp trawl bycatch characterization data for 1992 to the present;
2. Use these data to quantify historical bycatch composition associated with the Gulf of Mexico shrimp fishery;
3. Collect and identify all the unidentified specimens taken in a subset of samples collected in the 2021 Gulf shrimp fishery observer sampling program;
4. Quantify and describe changes in bycatch composition for the period 1992 to 2021;
5. Provide a comprehensive report of the results to the SK Program office and a comprehensive bycatch database to Dr. Scott-Denton at the Galveston NMFS Laboratory.
6. Provide the results of the study to the MSC and/or other market-based sustainability certification programs as well as the general public via Sea Grant.

**Overall Progress:**

* Our aim is to fully characterize the species composition of bycatch for approximately 20% of the observed shrimping effort. Based on recent information on shrimping effort this involves sampling ~1,300 tows.
* We have completed characterizing bycatch for the first trimester (January-April)
* We are currently working on the second trimester (May-August) and contacting shrimping captains/owners to participate in the third trimester.
* Samples have been obtained from 17 trips (8 in trimester 1, 3 thus far in trimester 2)
* From 11 trips, we have successfully sorted and identified the species and quantified the amount of each taxa (numerical abundance and weight) for 346 tows, this represents ~26.6% of our target amount.
  + Given than effort in the first trimester is the lowest (20% of the effort typically occurs in the first trimester) we are on pace to reach our sampling goal.
* These data are being input into databases and undergoing QA/QC.
* We anticipate completing sorting/IDing bycatch by the end of February 2022.
* Analysis, reporting, and a transition of our database to NMFS will be complete by August 2022.