

**Gulf of Mexico - Texas Shrimp
Fishery Improvement Project
Archive Date: June 2016**

The Texas Shrimp FIP transitioned leadership from SFP to the Audubon Nature Institute in June 2016. The following FIP report reflects the status of the FIP at the time of transition. Audubon Nature Institute's public report may be found here: [Texas Shrimp Marine Advancement Plan](#).

Species:

brown shrimp (*Farfantepenaeus aztecus*)

white shrimp (*Litopenaeus setiferus*)

FIP Scope/Scale: Fishery level

Fishery Location: Texas state waters and federal waters (US Gulf of Mexico), landed in Texas

FIP Participants:

- [Katie's Seafood](#) - fleet
- [Cox's Wholesale Seafood](#) - supplier/fleet
- [Philly Seafood](#) - supplier/fleet

FIP Stakeholders:

- [Texas Sea Grant](#)

Sustainability Information:

See Sustainability Info tab in FishSource: [brown shrimp \(federal waters\)](#), [brown shrimp \(Texas state waters\)](#), [white shrimp \(federal waters\)](#), [white shrimp \(Texas state waters\)](#)

See also information in [Monterey Bay-Seafood Watch](#), [Greenpeace-Red List Fish](#)

Date Publicly Announced: 2008

FIP Stage: 5, Improvement in the water

Current Improvement Recommendations:

- Reduce bycatch by keeping gear well tuned and have turtle excluder devices (TEDs) and bycatch reduction devices (BRDs) inspected by a qualified expert at least once each year. Document these inspections to record compliance with BRD and TED regulations.
- Perform an evaluation of the Gulf of Mexico shrimp observer program to determine statistically robust coverage levels, and then increase observer coverage to those levels.

Background:

The Gulf of Mexico Texas Shrimp FIP was started to ensure that the fishery is minimizing their impact on the environment. This fishery occurs in Texas state waters as

well as US federal waters of the western Gulf of Mexico. Texas state waters are from the shore out to 9 nm; from 9 nm to 200 nm is considered federal waters. This fishery targets both brown and white shrimp. Harvest of brown shrimp peaks during the summer, while white shrimp harvest peaks in the fall.

Nearly all of the shrimp harvested in the Gulf of Mexico are consumed in the US and this fishery is one of the nation's most valuable. Yet domestically harvested shrimp account for only about 10% of national consumption, with the rest supplied mainly by farmed, imported shrimp. Over the last 10–15 years there has been a major decline in shrimp fishing effort due to high fuel prices, low shrimp prices, competition from imports, and hurricanes in the Gulf in 2005 and 2006. Though effort has declined, there has not been a commensurate decline in landings (i.e., landings are variable but without a clear downward trend). Brown shrimp are the economically most important species in the Texas shrimp fishery. Annual harvests range from 17–32 thousand metric tons (37–71 million pounds) worth \$76–125 million. White shrimp are second in importance, with annual harvests of 10–14 thousand metric tons (21–28 million pounds) and values of \$42–78 million.

The primary gear used to harvest shrimp in the Gulf of Mexico is the otter trawl (it is essentially the sole gear used in federal waters), while in state waters fishermen may also use a wider variety of gears like butterfly nets (wing nets). Vessels using otter trawls are required to use BRDs and TEDs in both Texas state and federal waters.

A great number of improvements have been made to reduce the impact of the shrimp fishery on the environment, including stock monitoring, bycatch reduction, area closures, and sea turtle nesting enhancement projects, but there are still areas for improvements in sustainability. This FIP seeks to work with forward-thinking industry stakeholders to identify practical measures to continue improvements in the fishery, and to agree on a common workplan to achieve clear and measurable objectives that will ultimately lead to a more sustainable fishery.

Key sustainability issues include:

- The average bycatch-to-shrimp ratio in the Gulf of Mexico was about 4:1 during the early 2000s, but recent research indicates that the bycatch-to-shrimp ratio has decreased to 2.5:1. Bycatch ratios are high in comparison to other US trawl fisheries.
- The Gulf of Mexico shrimp observer coverage is in the pilot/baseline stage and, according to the National Bycatch Report, the shrimp fishery is classified as “tier 2” which means that bycatch estimates are “typically based on inconsistent or unreliable information; observer program sampling frames usually partial or complete but sampling designs were inadequate.” NOAA's self-imposed target for the pilot/baseline phase of the observer program is 5% coverage, but current coverage is only 2%. In order to get the observer program to the next phases of development, which are “developing” then “mature,” the government needs to evaluate the quality of the data coming out of the observer program, then determine and implement an optimal sampling allocation scheme that will achieve

the recommended goals of precision of bycatch estimates for the major species of concern.

- In 2010–2011, compliance with TED regulations throughout the US was found to be lower than expected. Since then, increased enforcement and outreach efforts have helped to improve compliance rates to more acceptable levels. If compliance rates fall again the shrimp fishery could be in violation of the Endangered Species Act.

FIP Objectives:

- *Reduce bycatch by keeping gear well tuned.* Fishing industry FIP participants will schedule regular third-party gear inspections to ensure that BRDs and TEDs are properly installed and operating at peak performance. These inspections will be documented on gear inspection forms and results will be made available to the supply chain.
- *Evaluate the Gulf of Mexico shrimp observer program.* Contact the NOAA Observer Program and ask them to perform an evaluation of the Gulf of Mexico shrimp observer program to determine statistically robust coverage levels, and then establish a plan to increase observer coverage to those levels.

Progress Update:

2012

- Giant Eagle established conservation covenants for the shrimp they purchase.
- Paul Piazza & Son was developing processes to document the types of BRDs being used by the vessels they are buying from. They were also working with vessels to develop a random audit system to ensure the proper use and installation of TEDs by a third party familiar with the gear as assurance to major buyers of ongoing compliance.
- In May, Galveston Shrimp Company, though not yet an official FIP participant, sent a letter to NOAA in support of the proposed regulations to require use of TEDs in all types of shrimp nets.
- In May, the federal government issued a Biological Opinion under the Endangered Species Act that established a system to measure and monitor the actual performance of shrimp otter trawls in releasing sea turtles. This new fleet-wide TED performance standard limits the otter trawl fishery to an overall 12-percent sea turtle capture rate (12 percent of sea turtles that enter shrimp nets are captured, while 88 percent escape through the TED). The system became effective June 1, 2012. Under these new requirements, NOAA Fisheries is using detailed data on the type and severity of TED violations to estimate sea turtle capture rates. While this system was being implemented, the government began to post TED inspection and compliance information on the NOAA Fisheries Southeast Regional Office sea turtle/shrimp fishery website. The October 2012 report indicated that compliance with federal TED regulations during October 2011–September 2012 was 75 percent. This represents an increase from the 66-percent compliance rate during May–November 2011.
- Gulf Council scientists and managers adopted new stock assessment models for shrimp. The assessments indicated that Gulf of Mexico brown, white, and pink shrimp stocks are not overfished and overfishing is not occurring.
- A study by Scott-Denton et al. was published in *Marine Fisheries Review* (Volume 74,

Issue 4) indicating that bycatch-to-shrimp ratio in the Gulf of Mexico has decreased to 2.5:1, while the finfish-to-shrimp ratio has decreased to 2:1.

2013

- A FIP Stakeholder meeting was held in Houston, Texas, in January. The participants reviewed the MSC pre-assessment and past FIP activities, and then developed new activities for 2013. New supplier and fleet participants joined the FIP.
- In February, NOAA Fisheries announced the results of the first 6 months of the new TED compliance and performance monitoring. The results indicate that from June through November 2012 about 13% of the turtles that encountered otter trawls were captured, while the remainder escaped via the TEDs. This is a 1-percent increase over the estimated sea turtle capture rate during August–November 2011. NOAA Fisheries is holding informal training and courtesy dockside inspections throughout each region to assist fishermen in complying with the TED regulations in order to reduce the sea turtle capture to 12 percent or below in the next 6-month review (December–May 2012).
- In March, Philly Seafood joined the FIP and began to implement gear inspections with their producers. By the end of June, seven of approximately 30 vessels in their supply chain had been inspected.
- Cox's Wholesale Seafood, Katie's Seafood Market, National Fish and Seafood, and Philly Seafood agreed to raise funds internally to fund the analysis of bycatch species status. The FIP disseminated a [request for proposals](#) for the analysis of bycatch species status.
- Many of Paul Piazza & Son's partner vessels executed sustainability covenants verifying that TEDs and BRDs are installed and that all fishery regulations are followed.
- The federal government has launched an effort to implement an ecosystem-based management strategy across the Gulf of Mexico through the Gulf of Mexico Integrated Ecosystem Assessment (IEA). The IEA is an interdisciplinary, interagency effort whose goal is to address all the various ecological services in one unified management framework. Through state-of-the-art ecosystem models, the IEA will seek to manage the Gulf of Mexico Large Marine Ecosystem from a more holistic, broader perspective than the current single-species models are capable of. In December 2013, NOAA published an Ecosystem Status Report for the Gulf of Mexico, which attempts to determine an historical baseline for the Gulf of Mexico ecosystem as well as the current status. The report outlines a set of ecosystem indicators that will be monitored to evaluate changes in the ecosystem status.

2014

- In January, FIP participants hired LGL Ecological Research Associates of Bryan, TX, to complete the analysis of bycatch species status with a report expected during the second quarter of 2014.
- In April, NOAA Fisheries released the Endangered Species Act Section 7 Consultation and Biological Opinion, reviewing the impact of the southeastern US shrimp fishery on sea turtles. The Biological Opinion reviewed progress on the fleet-wide

sea turtle capture rate threshold. The most recent information for the Gulf of Mexico shrimp fishery indicates that the fleet is capturing approximately 11 percent of the sea turtles that enter shrimp nets; this is just below the threshold of 12 percent. TED compliance during the most recent reporting period (June through October 2013) was 83 percent. Populations of the two sea turtles most commonly impacted by the shrimp fishery, loggerhead and Kemp's ridley, appear to be stable or increasing. Based on this information, NOAA concluded that continued operation of the southeastern shrimp fishery under current regulations is not expected to cause appreciable reduction in the likelihood of survival and recovery of any of the sea turtle species.

- In May, captains and crew of 12 vessels in the Philly Seafood supply chain completed the Texas Sea Grant TED training program, learning how to inspect their own TEDs and BRDs to ensure they are properly installed, according to federal regulations, and are operating at peak performance.
- In July, the bycatch status study commissioned by the Florida Pink shrimp FIP, Texas Shrimp FIP, and Sustainable Fisheries Partnership was completed. This study used federal fishery observer data, the long-term fishery independent survey dataset from SEAMAP, biological information on the bycatch species, and shrimp fishery effort data to identify the main bycatch species, evaluate their status, and determine whether there is a correlation between shrimp fishery effort and the status of the bycatch populations. The study showed that the only main bycatch species or species groups (comprising 5% or more of the catch by weight) in the Gulf of Mexico shrimp fishery are Atlantic croaker, longspine porgy, sea trouts, and inshore lizardfish. SEAMAP abundance data indicate that all of these populations are either stable or increasing, and comparison of the abundance data with shrimp fishery effort data suggest that only Atlantic croaker and sea trout population abundance appear to be correlated with shrimping effort. Both populations appear to have been increasing since shrimp effort decline in the early 2000s, and have demonstrated high resilience. While further studies, especially full-fledged stock assessments, on these populations would be helpful, we believe this study indicates that the shrimp fishery does not pose a risk of serious or irreversible harm to the bycatch species or species groups. Read the full study [here](#).
- During the fourth quarter of the year, FIP participants provided no updates. Gear inspections by Cox's Wholesale Seafood and Katie's Seafood are overdue, as is Paul Piazza & Son's development of random audits to verify compliance with conservation covenants.

2015

- In March, NOAA posted TED compliance and sea turtle capture rates on the Southeast Regional Office's "Sea Turtle Protection and Shrimp Fisheries" [webpage](#). The monthly data covered the period from April 2014 through January 2015 and showed an average TED compliance rate of 84 percent, with monthly estimated sea turtle capture rates ranging from 3 to 14 percent and averaging around 8 percent.
- In April, SFP informed FIP participants that it will not have funding to implement this

FIP past May 2016 and is seeking an industry representative or local organization to take leadership of the FIP.

- In May, Philly Seafood distributed their “Vessel Standards for Quality Assurance and TED Compliance” manual to 43 boat captains via four vendors. Philly Seafood was unable to perform the planned captain and crew TED trainings and inspections due to difficulties in obtaining work visas for many of the captains and crewmembers.
- In December, Cox's Wholesale Seafood and other Gulf of Mexico shrimp suppliers sent a letter to the NOAA Observer Program asking them to perform an independent evaluation of the Gulf of Mexico shrimp observer program to set precision goals for the observer coverage data, determine if current coverage levels are adequate for attaining those precision goals, and clarify what levels of coverage would be needed to advance the official “stage” of the observer program.

2016

- In June 2016, members of the Gulf of Mexico Shrimp Supply Chain Roundtable requested that Audubon Nature Institute adopt the Texas Shrimp FIP's activities and immediately finalize their Texas Shrimp Marine Advancement Plan (MAP). The MAP public report can be found on Audubon Nature Institute's [Texas Shrimp Marine Advancement Plan webpage](#). The MAP currently meets the criteria for recognition as a basic FIP.

Gulf of Mexico - Texas Shrimp FIP Detailed Information

Fishery Problem:

Summary of fishery status:

a. SFP own estimate, based on data from [FishSource](#)

i. Current status (2015)

1. Governance Quality: Federal fishery managers have control rules, based on Maximum Sustainable Yield, in place in the event of overfishing. Non-compliance with TED regulations was higher than anticipated in 2010 and 2011 but increased enforcement and outreach have improved compliance to more acceptable levels.

2. Target Stock: Shrimp populations are considered healthy. Offshore shrimping effort has declined substantially in recent years and is now capped at an appropriate level.

3. Environmental Impacts: 2.5 pounds of bycatch are caught for every 1 pound of shrimp harvested (a higher bycatch ratio than any other trawl fishery in the US); there is little monitoring of proper gear installation; there is only 1–2% observer coverage (5% is recommended). New, more effective BRDs and the decline in shrimping effort have reduced red snapper bycatch to the extent required by the red snapper rebuilding plan;

less effective bycatch reduction devices have been decertified.

ii. Status at beginning of FIP (2008)

1. Governance Quality: Federal fishery managers have control rules, based on Maximum Sustainable Yield, in place in the event of overfishing.

2. Target Stock: Shrimp populations are considered healthy. The fishery is overcapitalized but there have been declines in effort due to low prices/competition from imports, high fuel costs, and loss of infrastructure.

3. Environmental Impacts: 4 pounds of bycatch are caught for every 1 pound of shrimp harvested; fishery has very low observer coverage (1%). Bycatch of juvenile red snapper is hindering rebuilding of that population and the currently approved bycatch reduction devices (BRDs) do not provide high enough levels of red snapper exclusion.

b. Other ranking systems

| | US Gulf of Mexico White Shrimp | | US Gulf of Mexico Brown Shrimp | |
|-----------------------|--------------------------------|----------------------------------|--------------------------------|----------------------------------|
| | Status at the beginning of FIP | Current Status | Status at the beginning of FIP | Current Status |
| Monterey Bay Aquarium | Good Alternative | Good Alternative | Good Alternative | Good Alternative |

FIP Progress Update:

| Results/ FIP Stage | Indicator of Success | Scope/ Scale | Specific Details | Date Achieved | List of Suppliers/ Organizations | Source |
|---------------------------|--|---------------|---|---------------|----------------------------------|--|
| FIP is launched (Stage 1) | Sustainability evaluation publicly available | Fishery level | MSC pre-assessment available upon request | 2010 | SFP | Contact SFP to request a copy |
| | Best practices guidance publicly available | Fishery level | Procurement recommendations are also available on SFP website | 2011 | SFP | US Gulf of Mexico Shrimp Procurement Recommendations |

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|-------------------------|--|----------------|---|---------------|--------------------------|--|
| | Fisheries improvement recommendations publicly available | Fishery level | FIP described on SFP website | 2011 | SFP | Texas Shrimp FIP |
| FIP is formed (Stage 2) | Suppliers are organized | Supplier level | Western Seafood, Paul Piazza & Son and Giant Eagle join the FIP | 2010 | | Giant Eagle Super Market |
| | | | National Fish and Seafood joins the FIP | November 2012 | | |
| | | | Cox's Wholesale Seafood and Katie's Seafood Market join the FIP | January 2013 | | |
| | | | Philly Seafood joins the FIP | March 2013 | | |
| | | | Cox's Wholesale Seafood, Katie's Seafood Market, Philly Seafood, and Paul Piazza & Son renew their FIP agreements; National Fish and Seafood withdraws from the FIP due to lack | March 2015 | SFP and FIP participants | |

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| | | | of purchasing from the fishery. FIP agreement is not renewed with Western Seafood due to a lack of activity. | | | |
| | Suppliers are evaluating this fishery | Fisher y level | FIP participant meeting in January 2013 | January 2013 | Cox's Wholesale Seafood Katie's Seafood Market National Fish and Seafood Western Seafood Texas Sea Grant | 23 January 2013 meeting notes |
| FIP is encouraging improvements (Stage 3) | Workplan with annual improvement milestones publicly available | Supplier level | 2012 public workplan and detailed workplan posted on SFP website | July 2012 | SFP | 2012 Detailed Workplan |
| | | | 2013 public workplan approved by new FIP participants and posted on SFP website | February 2013 | Western Seafood, Cox's Wholesale Seafood, Katie's Seafood Market, National Fish and Seafood | 2013 Public Workplan 2013 Detailed Workplan |
| | | | 2014 public workplan | April 2014 | Cox's Wholesale | 2014 Public Workplan |

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|--|-----------------------------------|----------------|---|-----------|--|--|
| | | | approved by FIP participants and posted on SFP website | | e Seafood, Katie's Seafood Market, National Fish and Seafood, Philly Seafood | 2014 Detailed Workplan |
| | | | 2015 workplan drafted by SFP, to be approved by participants at April FIP meeting | 2015 | | 2015 Public Workplan 2015 Detailed Workplan |
| | Suppliers are engaging regulators | Supplier level | Paul Piazza & Son and Giant Eagle has begun to implement procurement specifications based on SFP's recommendations | July 2012 | Paul Piazza & Son; Giant Eagle Super Market | Giant Eagle shrimp Conservation Covenants |
| | | | Galveston Shrimp Company, though not an official FIP participant, sent a letter to NOAA in support of a proposed TED rule | May 2012 | Galveston Shrimp Company | |
| | | | Philly | July | Philly | |

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|--|---|---------------|---|---------------|-------------------------|---|
| | | | Seafood distributed their “Vessel Standards for Quality Assurance and TED Compliance” manual to 43 boat captains via 4 vendors. | 2015 | Seafood | |
| | | | Cox's Wholesale Seafood and other shrimp suppliers sent a letter to the NOAA Observer Program asking them to perform an independent evaluation of the Gulf of Mexico shrimp observer program. | December 2015 | Cox's Wholesale Seafood | |
| FIP is delivering improvement in policies or practices (Stage 4) | Fishery is achieving agreed annual improvement milestones | Fishery level | TED inspection and compliance report posted to SERO website | July 2012 | NOAA Fisheries | TED Compliance Report |
| | | Fishery level | Newly approved stock assessment models indicate that | October 2012 | NOAA Fisheries | Gulf Council Briefing Book for October 2012, Tab D-3(a) and D-4 |

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| | | | Gulf of Mexico brown, white, and pink shrimp stocks are not overfished and overfishing is not occurring | | | |
| | | Fleet level | Many of Paul Piazza & Son's partner vessels executed sustainability covenants verifying that that TEDS and BRDS are installed and that all fishery regulations are followed | August 2013 | Paul Piazza & Son | |
| | | Fishery level | A study on the status of the main bycatch species, commissioned by the Florida pink shrimp FIP, Texas shrimp FIP, and Sustainable Fisheries Partnership, suggests that shrimp | July 2014 | Cox's Wholesale Seafood, Katie's Seafood Market, National Fish and Seafood, Philly Seafood | Link to report |

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| | | | fishery does not pose a risk of serious or irreversible harm to the main bycatch species or species groups | | | |
| | Fisheries policy changed | Fishery level | NOAA Fisheries established a new fleet-wide TED performance standard which limits the shrimp otter trawl fleet to an overall 12-percent sea turtle capture rate | May 2012 | NOAA Fisheries | Endangered Species Act Section 7 Consultation |
| | | Ecosystem level | The federal government has launched an effort to implement an ecosystem-based management strategy across the Gulf of Mexico through the Gulf of Mexico Integrated Ecosystem Assessment (IEA). As | December 2013 | NOAA Fisheries | Integrated Ecosystem Assessment website Ecosystem Status Report |

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| | | | part of the IEA, NOAA published an Ecosystem Status Report for the Gulf of Mexico, which attempts to determine an historical baseline for the Gulf of Mexico ecosystem as well as the current status. The report outlines a set a of ecosystem indicators that will be monitored to evaluate changes in the ecosystem status. | | | |
| | Fisheries practices changed | Vessel level | Several vessels have transitioned to lighter trawl doors | 2010 | Western Seafood | Western Seafood |
| | | Supplier level | Supplier implementin g policies to verify TED use and collect data on the types of BRDs being used | July 2012 | Paul Piazza & Son | |
| | | Fisher | NOAA | Octob | US | TED |

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|--|--|--|--------------------------|------------------------------|---|
| | | <p>y level</p> <p>Fisheries posted an updated TED inspection and compliance report indicating that fleet wide compliance with federal TED regulations during October 2011– September 2012 was 75 percent (an increase from the 66-percent compliance rate during May– November 2011)</p> | <p>er</p> <p>2012</p> | <p>shrimp</p> <p>fleet</p> | <p>compliance report (October 1, 2011 – September 30, 2012)</p> |
| | | <p>Supplier level</p> <p>Philly Seafood implements gear inspections – seven of approximately 30 vessels inspected</p> | <p>June</p> <p>2013</p> | <p>Philly</p> <p>Seafood</p> | <p>Sample Gear Inspection Form</p> |
| | | <p>Fishery level</p> <p>Section 7 Consultation shows that the Gulf of Mexico shrimp fleet is in compliance</p> | <p>April</p> <p>2014</p> | <p>NOAA</p> <p>Fisheries</p> | <p>2014 Section 7 Consultation</p> |

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| | | | with the fleetwide sea turtle capture rate requirements, and that the fishery is not expected to cause appreciable reduction in the likelihood of survival and recovery of any sea turtle species. TED compliance during the most recent reporting period (June through October 2013) was 83 percent. | | | |
| | | Supplier level | Captains and crew of 12 vessels in the Philly Seafood supply chain completed the Texas Sea Grant TED training program. | May 2014 | Philly Seafood | |
| FIP is delivering improvements in the water | Bycatch has declined | Fishery level | A scientific study was published indicating that the bycatch to | December 2012 | Scott-Denton et al. | Marine Fisheries Review 74(4) |

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| (Stage 5) | | | shrimp ratio in the Gulf of Mexico has decreased to 2.5:1, while the finfish to shrimp ratio has decreased to 2:1. | | | |
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