



# Better Bycatch Reduction Devices

Annual  
Report  
2025



## Project Status

### **Award Title: Better Bycatch Reduction Devices for the Gulf of Mexico Commercial Shrimp Trawl Fishery: Sea Grant's Role\***

- NOAA Award Number: NA21OAR4170095 (LA) & NA21OAR4170096 (TX)
- Investigators: PI – Julie Lively (Louisiana) and PI – Laura Picariello (Texas)
- Project Dates: 1/1/2021 to 12/31/2025
- Reporting Dates: 1/1/2025 to 12/31/2025

### **Award Title: Better Bycatch Reduction Devices for the Gulf of Mexico Commercial Shrimp Trawl Fishery: Sea Grant's Role Years 4-6\***

- NOAA Award Number: NA24OARX417C0163-T1-01 (LA) & NA24OAR417C0164-T1-01(TX)
- Investigators: PI – Julie Lively (Louisiana) and PI – Laura Picariello (Texas)
- Project Dates: 8/1/2024 to 7/31/2027
- Reporting Dates: 1/1/2025 to 12/31/2025

\*Awards were granted prior to the geographic name change to 'Gulf of America'. All mentions hereafter will be to the Gulf of America, GoA, or Gulf.



## Background

This project is a collaborative effort amongst Louisiana Sea Grant (LASG), Texas Sea Grant (TXSG), NOAA Restoration Center and NOAA Fisheries to restore finfish populations injured by the Deepwater Horizon oil spill through development and certification of new BRDs for the shrimp industry throughout the Gulf of America (GoA).

Finfish bycatch in shrimp trawls impact both shrimpers and the environment. It causes additional labor for shrimpers who must sort and remove unwanted catch, and it is an environmental concern as many of these finfish species are commercially, recreationally and ecologically important.

This project aims to improve bycatch reduction by identifying and increasing use of more efficient bycatch reduction devices (BRDs) for the Gulf shrimp trawl fishery. Successful BRD designs could be certified for use to provide Gulf shrimpers with additional BRD options.

*This is one of 18 Open Ocean Trustee Implementation Group Final Restoration Plan 2 projects selected to restore natural resource injuries caused by the Deepwater Horizon oil spill. Based on public input, this is one of several projects designed to increase opportunities for the fishing industry to engage in restoration efforts. For more information, please visit [www.gulfspillrestoration.noaa.gov/restoration-areas/open-ocean](http://www.gulfspillrestoration.noaa.gov/restoration-areas/open-ocean).*

## NOAA Restoration's Monitoring and Adaptive Management (MAM) plan objectives:

Objective 1: Identify new advances in BRD system technology via regional surveys and domestic and international outreach

Objective 2: Evaluate bycatch reduction capabilities of new BRDs and certify BRDs that would provide a restoration benefit via bycatch reduction

Objective 3: Increase use of new BRD systems in the U.S. Gulf of America shrimp fishery via outreach and incentives

Objective 4: Evaluate bycatch reduction of the new BRDs in the commercial shrimp fishery

Objective 5: Increase bycatch reduction by ensuring new BRD systems are used according to operational recommendations via outreach.

This document highlights the Year 5 progress (Jan. 1, 2025 – Dec. 31, 2025) by LASG and TXSG on activities as part of the Better Bycatch Reduction Device Project. Sea Grant is currently operating under two agreements with NOAA Restoration. The foundation for the project was the focus in Year 1 and Year 2 (2021-2022) through activities supporting MAM objectives. Year 3 (2023) continued these activities and increased shrimp industry involvement through research and outreach. In Year 4 and Year 5 (2024-2025), the shrimp industry continued to participate in research testing while staff provided outreach and support to the fleet. Many outreach events supported multiple activities as advised in the MAM.

## Sea Grant Primary Program Components

Component 1: Communications and Outreach  
Component 2: Research and Development  
Component 3: New BRD Rollout  
Component 4: Vessel Support  
Component 5: Monitoring

## 2025 Key Accomplishments

- Held dockside outreach events to survey current BRD use, recruited participants for industry testing, ensured proper BRD installation including troubleshooting issues and gathered feedback on project activities.
- Continued BRD vs BRD testing (three trips), with testing completed for two (2) experimental gear.
- Updated Better BRD communication materials to 2025 standards and updated contacts.
- Created new "How do BRDs work?" for the interested public.
- Applied and received a second Letter of Authorization (LOA) from Gulf Fishing Council
- Updated Stakeholder Working Group on project activities

## Project Adaptations

Research testing and a final stakeholder working group meeting are the major remaining activities under Agreement 1. Low participation is extending the testing process; the results from industry testing will define continued project activities. To continue testing activities, Louisiana Sea Grant has requested a third no cost extension that extends the Agreement 1 timeline through Dec. 31, 2026.

Better BRD Agreement 2 started August 1, 2024, and helps continue coverage of communications, outreach activities and other project support.

## Sea Grant Project Personnel

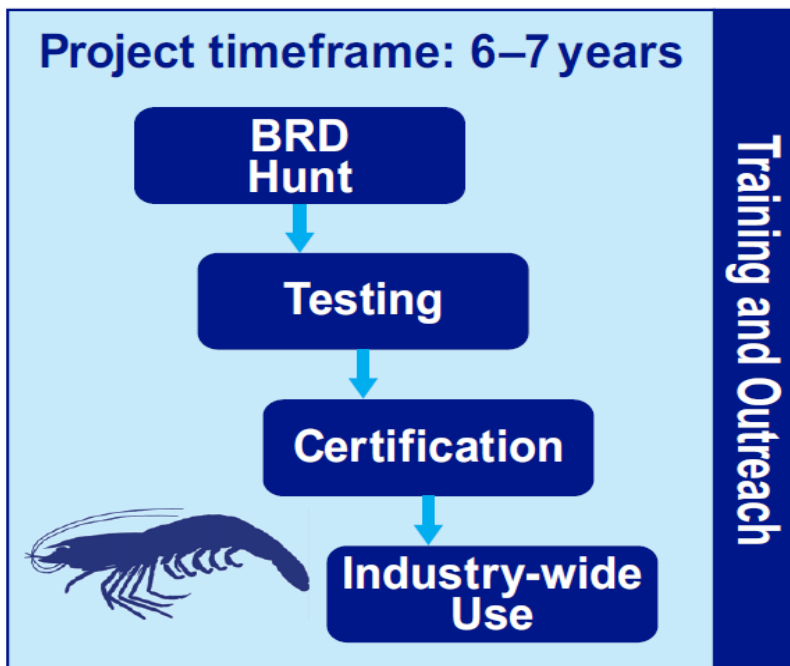
Sea Grant project personnel changes in Year 5 (2025) are highlighted below.

Five members left their positions(\*) and one was filled(\*\*). This list is up to date as of Dec. 31, 2025.

Sea Grant Personnel	State	Work locale	Primary responsibility BBRD
Julie Lively	LA	Louisiana Sea Grant – Baton Rouge	Principal Investigator
Laura Picariello	TX	Texas Sea Grant – Galveston	Principal Investigator
Tiffany Pasco	LA	Louisiana Sea Grant – Baton Rouge	Program Manager
Matthew Kammann	TX	Texas Sea Grant – Corpus Christi	Program Manager
Merritt McCall Walker	LA	Louisiana Sea Grant – Baton Rouge	Program Manager
Sara Stewart*	TX	Texas Sea Grant	Extension Agent
Julie Falgout	LA	Louisiana Sea Grant – Houma	Industry Liaison
Corley-Ann Parker*	TX	Texas Sea Grant	Communications Team
Nick Perez**	TX	Texas Sea Grant	Communications Team
Roy Kron	LA	Louisiana Sea Grant – Baton Rouge	Communications Team
Robert Ray	LA	Louisiana Sea Grant – Baton Rouge	Communications Team
Thu Bui	LA	Louisiana Sea Grant – Abbeville	Extension Agent
Mark Shirley*	LA	Louisiana Sea Grant – Abbeville	Extension Agent
Gary Graham	TX	Texas Fishery Liaison	Industry Liaison
Rex Caffey	LA	Louisiana Sea Grant – Baton Rouge	Economics Team
Jerrod Penn	LA	Louisiana State University Agricultural Center	Economics Team
Daniel Harris*	LA	Louisiana State University Agricultural Center	Economics Graduate Student – Graduated
Steve Midway	LA	LSU – Baton Rouge	Statistician
Tony Reisinger*	TX	Texas Sea Grant – Port Isabel	Extension Agent

## Project Overview

- **TRAINING AND OUTREACH**  
Provide support and materials on existing and new BRDs in the federal fleet
- **PHASE 1: BRD HUNT**  
Identify new advances in BRDs
- **PHASE 2: TESTING**  
Test bycatch reduction and shrimp retention of new BRDs through research pilot testing
- **PHASE 3: CERTIFICATION**  
Certify successful new BRDs for use in the Gulf shrimp industry
- **PHASE 4: INDUSTRY-WIDE USE**  
Increase voluntary use of new BRDs via outreach and incentives



## PROGRESS

This section documents progress towards meeting three of the five primary program components (1) communications and outreach, (2) research and development and (4) vessel support. This report is part of (5) monitoring, and the project has not yet reached (3) new BRD rollout.

## COMPONENT 1: TRAINING AND OUTREACH

The implementation of Better BRD requires training and outreach on all levels (project team and industry) across all stages of the project (MAM objectives 1-5).

### *Trainings and Dockside Outreach*

Part of ensuring the success of Better BRD is training not only the project team, but also extension agents from Sea Grant, state and federal agencies, and, most importantly, shrimpers (MAM 1).

Better BRD members were able to practice gear measurement techniques during dockside outreach events with industry in 2025. Though no formal training events occurred in this calendar year, requests for training events from various Gulf state agencies have come in, and Sea Grant will work with NOAA to plan and coordinate these events in 2026.

Sea Grant extension agents hosted industry meetings and facilitated dockside gear evaluations with NOAA gear personnel (Table 1, "Dockside Outreach"). These industry meetings have excellent participation, and scheduled dockside events have good participation as these events allow for gear support from the Better BRD team while crews are actively working on their vessels. Crews present during dockside outreach are receptive to receiving gear materials that aid them in proper BRD use and management and offer suggestions on other supporting materials or topics that would increase proper BRD usage. It also allows for sufficient time to address questions and concerns ranging from gear installation to industry hardships.

This conversation helps estimate active fleet numbers and inform future Better BRD outreach activities.

Netshops provide another avenue for BRD training and information dissemination. Netshops build and sell BRDs to industry and can provide Better BRD resources with the gear. Updated and translated BRD guides and testing recruitment materials were delivered to netshops during opportunistic dockside outreach events in 2025. Continued contact with these industry members are an important portion under the outreach umbrella.

### **Key Activities: Trainings and Dockside Outreach**

- Current Better BRD members are trained and up to date on BRD installations.
- Requested training for state and local agencies on proper BRD installation, TBD 2026.
- Dockside outreach reached across the Gulf states (combined SG and NOAA effort) and will continue in 2026.

### **Outreach and Communications**

A full table of available Better BRD communication products can be found in Table 2 on page six.

A regional name change from 'Gulf of Mexico' to 'Gulf of America' during 2025 prompted a review of all Better BRD documents to update and adjust to comply with this requirement. Previously crafted materials (guides, website, etc.) were updated following the new guidelines with additional

updates to Better BRD contact information and current project status. New social media posts were timed to highlight BRD gear guide videos and other materials available on the Better BRD website before 2025 shrimp season openers. Three (3) public interest stories were written by Sea Grant about Better BRD activities and were digitally published over 2025; they highlight industry innovation and Better BRD research efforts for the interested public. One (1) new factsheet was created, further defined in 'Public Outreach'.

### Outreach

Sea Grant hosted several local industry events and were also invited to participate in industry events to present on current project activities, give industry testing opportunity updates, and address other BRD concerns (Table 1, page five). Industry members were able to engage with Sea Grant and NOAA Better BRD team members and request additional information, particularly on testing, and receive additional materials for use. These conversations were productive for recruiting project participants.



Figure 1: Better BRD members during the Louisiana Regional Fisheries Summit, March 25, 2025. Photo by Louisiana Sea Grant.

### Public Outreach

The Better BRD project hosted two interactive booths at the annual Ocean Commotion (Oct. 28, 2025, Baton Rouge, LA) sponsored by Louisiana Sea Grant for elementary to middle school-aged children within the greater Baton Rouge area. Team members educated K-8 students on bycatch, ways to reduce bycatch in the shrimp fishery and the Better BRD project through two interactive booths: one focusing on bycatch reduction within the net and the other showcasing catch sorting with various amounts of bycatch. Students and escorts self-reported learning goals after participation.

Sea Grant attended several local seafood-focused events. These events served as an effective platform to inform the interested public on project goals and current practices within industry. "What is a BRD?", a new half-page fact sheet highlighting BRDs, was developed for these events to aid the public in BRD knowledge and give a simple way (QR code) to access Better BRD videos. This product was well received at festivals.

### Key Activities-Outreach and Communications

- Updated previous materials with new regional name and contact information
- Updated project website ([www.laseagrant.org/outreach/projects/better-brds/](http://www.laseagrant.org/outreach/projects/better-brds/)) including:
- 2025 revised current BRD installation guides (and translations)
- Better BRD project updates in 2025
- Testing updates (BRD v BRD)
- Created and published three public articles on research efforts
- Created "What is a BRD?" highlighting Better BRD website and BRD videos for the public
- Presented at local industry events
- Attended local seafood events as booth presenter. (Public Outreach)
- Attended Ocean Commotion as booth presenter. (Public outreach)

**Table 1.** 2025 (Year 5) Sea Grant or Sea Grant and NOAA Better BRD Outreach events.

Outreach Event	Location	Date	Individuals Engaged	Activity Type
January 2025 Port Arthur Agrilife Meeting	Port Arthur, TX	1/6/2025	30	Industry Outreach
Fisheries & Seafood Leadership Program – Louisiana 2025 Winter Meeting	New Iberia, LA	1/15/2025	15	Industry Event
2025 North Shore Fisheries Summit – Industry Meeting	Slidell, LA	3/25/2025	50	Industry Event
Intracoastal Shrimper’s Meeting	Abbeville, LA	3/26/2025	70	Industry Event
Dockside Outreach	Intracoastal, LA	3/27/2025	66	Dockside Outreach
2025 Louisiana Sportsman Show	La Place, LA	3/28/2025	2000	Interested public
2025 Terrebonne Parish Shrimpers Meeting	Dulac, LA	4/16/2025	25	Industry Event
Sea Grant Law Student Lunch and Learn	Baton Rouge, LA	6/25/2025	12	Environmental and Sustainability Outreach
BBRD Stakeholder Working Group Update	E-mail	6/27/2025	12	Industry Outreach
July 2025 Port Arthur Shrimpers Association Meeting	Port Arthur, TX	7/2/2025	45	Industry Outreach
Dockside Outreach	Port Arthur, TX	7/2/2025	13	Dockside Outreach
Dockside Outreach	Brownsville, LA	7/7/2025	12	Dockside Outreach
Dockside Outreach	Palacios, TX	7/8/2025	7	Dockside Outreach
Dockside Outreach	Galveston, TX	7/9/2025	15	Dockside Outreach
Dockside Outreach	Port Arthur, TX	7/10/2025	14	Dockside Outreach
Dockside Outreach	Port Arthur, TX	7/11/2025	11	Dockside Outreach
2025 Galveston Shrimp Fest	Galveston, TX	9/27/2025	253	Interested public
2025 Louisiana Shrimp Fest	New Orleans, LA	10/18/2025	1200	Interested public; industry
Ocean Commotion	Baton Rouge, LA	10/28/2025	1924	Interested public
Dockside Outreach	Pass Christian, MS	10/30/2025	6	Dockside Outreach
<b>Total Individuals Engaged</b>			<b>5780</b>	

**Table 2.** List of publicly available Better BRD materials. These can be found on the BBRD website (listed below) or by request from any Better BRD project team member. Starred (\*) materials were updated within 2025. ([www.laseagrant.org/outreach/projects/better-brds/brd-resources/](http://www.laseagrant.org/outreach/projects/better-brds/brd-resources/))

2025 Better BRD Public Documents	English	Spanish	Vietnamese
2021-2022 Public Report	X		
2023 Public Report	X		
2024 Public Report	X		
Better BRD Contact Card*	X		
Project info card	X	X	X
Better BRD Overview*	X	X	X
Current BRD construction and installation guides (Fisheye, Composite Panel with Square Mesh Panel, Composite Panel with Cone, Jones-Davis, and Modified Jones-Davis)*	X	X	X
Current state and federal BRD regulations	X		
Quick Check – Fisheye*	X	X	X
Quick Check – Composite Panel (Cone and Square Mesh Panel) *	X	X	X
How do BRDs work? – Video	X	X	X
Fisheye Quick Check – Video	X	X	X
Composite Panel Quick Check – Video	X	X	X
BRD v BRD Testing flyer	X		
Current bycatch reduction devices	X		
“What is a BRD?”	X		
“Smarter Shrimping” ( <a href="https://mag.hookandnet.com/2025/09/01/2025-09texasseagranteng/content.html">https://mag.hookandnet.com/2025/09/01/2025-09texasseagranteng/content.html</a> )	X	X	
“Better Devices for the shrimp fleet to reduce bycatch” ( <a href="https://www.lsuagcenter.com/articles/page1764100514754">https://www.lsuagcenter.com/articles/page1764100514754</a> )	X		
“A day in the life of a researcher: Locale shrimp boat” ( <a href="https://texasseagrant.org/story/a-day-in-the-life-of-a-researcher-locale-shrimp-boat/">https://texasseagrant.org/story/a-day-in-the-life-of-a-researcher-locale-shrimp-boat/</a> )	X		

### Stakeholder Working Group

The stakeholder working group (SWG) has been updated throughout 2025 through email updates or personal interactions during outreach events (dockside, industry, etc.). SWG members were encouraged to participate in experimental gear testing (BRD v BRD) and to help recruit other vessels. Better BRD Sea Grant staff followed up with interested SWG members.

Sea Grant will use the remaining funds under Agreement 1, via the NCE, for a final SWG meeting to share BRD vs BRD testing results in 2026. The SWG’s input has been valuable throughout the project because of member’s deep local knowledge of the fisheries and their interest in the test gear. (MAM objectives 1-5)

### Key Activities: Stakeholder Working Group (SWG)

- SWG updated with 2025 testing information.
- Interested members guided through the application process.
- Final SWG meeting scheduled for 2026.

## COMPONENT 2. RESEARCH AND DEVELOPMENT

### BRD Hunt

The Better BRD team closed the NOAA-led BRD Hunt at the end of 2022 after potential gear was identified from industry to increase bycatch reduction across the Gulf. These testing gear may be found on the Better BRD website.

The database designed for the BRD Hunt remains the data repository for gear evaluations during dockside Better BRD activities. Observations are typically entered within one (1) month of data collections and reviewed annually for corrections. Sea Grant conducted quality control and accuracy checks twice during 2025. The database provides information

to Sea Grant and Better BRD team members on BRD use trends within the federal fleet.

### Industry Survey for potential uptake

In 2024, Sea Grant and Louisiana State University Agricultural Center economists surveyed the federal industry for input on their willingness to accept potential new gear out of Better BRD. In 2025, a summary report was submitted to NOAA. The graduate student who led survey analysis defended their thesis and graduated from LSU in May 2025. Sea Grant continues to work on a public-facing report and will update the Stakeholder Working Group on survey results at their next meeting.

**Table 3.** Total 2025 vessels inspected from Sea Grant and NOAA efforts. Shown is the total number of boats by state for each group.

Total # of Vessels Inspected (2025)	NOAA	Sea Grant	Sea Grant and NOAA	2025 Total
Total	86	33	22	141
Alabama	26	0	13	26
Florida	12	0	0	12
Louisiana	0	0	22	22
Mississippi	13	0	0	13
Texas	35	33	0	68

### Testing

Two types of evaluations of candidate BRDs are being used to identify gear that will move to the certification stage: NOAA Testing and Sea Grant-led Industry Trials.

#### NOAA Testing

(see 2021-2022 report for summary or reference the Better BRD website)

#### Sea Grant-led Industry Trials (Part 1 and 2)

Industry trials are designed to put potential new gear through commercial fishing conditions.

Part one (Pilot Testing) was successfully completed in June of 2024. These trips focused on qualitative information on test gear from commercial fishermen. Thirteen (13) vessels successfully completed Pilot Testing, and all five (5) experimental BRDs were recommended to BRD vs BRD testing (Part 2).

During BRD vs BRD industry testing, a researcher is onboard taking precise measurements of catch in both an experimental (test gear) and control net (the current fisheye BRD). As of December 2025, seven (7) trips have been completed, with two (2) experimental gear reaching the minimum of two regional trips with enough tows for analysis. Further gear testing may continue under the no cost extension with Louisiana Sea Grant.



Figure 2: Sorted shrimp on ice. Baskets similar to these are used to aid in measurements by researchers during BRD vs BRD testing. Source: Louisiana Sea Grant/Merritt Walker.

Testing gear and nets were purchased from the local gear and netshops used by the participant vessels. This allows netshops and local gear shops to also benefit from Better BRD project activities. (see also 'Vessel Support')

Since the project initiation, all potential new BRDs have been tracked with each project step. Reasons or adjustments made to each device are noted within a comprehensive tracking document. This document was updated once in 2025 to reflect gear measurement updates.

### Permits

Texas Sea Grant applied for and received a second Exempted Fishing Permit (EFP) in December 2024 and a second Letter of Authorization (LOA) in June 2025 to cover vessel testing activities under Better BRD through Dec. 31, 2028. Both items are updated to include test vessels as they sign participation agreements. One testing trip was affected by the federal shutdown during October 2025 as the vessel was unable to be updated to the permits before its final trip of the year.

### Key Activities: Research and Development

- BRD database reviewed for accuracy by Sea Grant
- Submitted economic survey summary to NOAA
- Supported test vessels during 2025 BRD v. BRD testing.
- Successfully applied for and obtained a second LOA for industry testing.
- Update EFP for new participant vessels.

### COMPONENT 4: VESSEL SUPPORT

Lynker remains the contracting entity on record, assisting with vessel support through Louisiana Sea Grant. They successfully tracked participants from initial application to contract close-out. Over 2025, they regularly updated and met with Sea Grant regarding testing activities. They received six (6) testing applications, including one application with three (3) vessels applying to participate and issued payments to local gear vendors when gear was delivered for testing. They continue to be the administrator of testing participant contracts into 2026.

### Key Activities: Vessel Support

- Lynker received and processed six applications for testing.
- Lynker closed out three (3) testing contracts.
- Lynker issued payments to local gear vendors for gear construction (materials and labor).

