2025 Abandoned Crab Trap Removal Program

Summary Results

May 5, 2025

2025 Abandoned Crab Trap Removal Program Results

Executive Summary

Texas Parks and Wildlife Department (TPWD) closes the bays to crab fishing for 10 days each February, starting the third Friday of the month. In 2025, it was February 21-March 2. During this closure period, any traps remaining are assumed abandoned and are removed as derelict.

The volunteer effort for the 2025 Abandoned Crab Trap Removal Project was funded by a grant from Matagorda Bay Mitigation Trust. The effort continues an expanded and more strategic effort to locate and remove derelict blue crab traps in the bays along the Texas Mid-Coast. To better assess causes of trap dereliction, volunteers gather standardized data for each trap collected. The ecological and economic impacts of these abandoned crab traps are serious threats to the health of the bay systems. Marine organisms' mortality rates compound with the time a trap sits in the water. Many of these marine organisms are recreationally or commercially significant and are considered NOAA Trust Resources. Abandoned crab traps are continuing to catch, trap, and kill a variety of estuarine organisms as they remain unattended in local bays, a process known as "ghost fishing."

In addition to the ecological impacts caused by derelict crab traps, the economic impact is considerable. By continuing to capture estuarine organisms that would have contributed to commercial or recreational harvests, derelict traps can cause economic consequences for commercial and recreational fishing sectors. This year's economic loss in recovered abandoned crab traps alone totals $52,000, if each trap were to cost $50. The Texas Mid-Coast region recovered 1,040 total crab traps from the bay systems. 180 participants graciously volunteered their time and worked on 58 boats to remove the visible abandoned crab traps. Additionally, 155 loose trap floats were collected, addressing this pervasive pollution issue.

In 2024, 900 traps were removed from the Texas Mid-Coast region. The increase for 2025 is driven by a more comprehensive search of Matagorda Bay. Crab trap numbers declined for both San Antonio and Aransas Bays.

Data collected during the cleanup includes trap location, owner, and contents. This data clearly indicates that:

- Windblown traps to the shoreline continue to be the most significant cause of derelict traps. Over 300 traps were removed from shorelines, which is down from 500 last year.
- Over 200 abandoned traps were removed from open bay waters which could have been removed by the crabbers. This category of traps offers a straight-forward solution: crabbers should pick up their traps. What complicates this solution is that over 70% of these traps are without the required equipment tag and therefore the owner cannot be identified.
- Over 100 traps were removed from sensitive marsh areas where lower winter tides make removal by the crabber or the volunteer difficult. This includes much of the marsh on the backside of Matagorda Island that has been closed to commercial crabbing by USFWS.

This data can inform potential approaches to reducing trap dereliction.

2025 Abandoned Crab Trap Removal Program

The Abandoned Crab Trap Removal Program efforts by volunteers was funded and implemented in the Aransas Bay, San Antonio Bay, and Matagorda/Lavaca Bay estuarine systems located along the Texas Mid-Coast. Stakeholder groups involved in the project include the San Antonio Bay Partnership and the Mission-Aransas National Estuarine Research Reserve who directed efforts in their respective bay systems. Participant groups included the Guadalupe-Blanco River Authority, the Lavaca-Navidad River Authority, the Mid-Coast Texas Master Naturalists, USFWS, TPWD, Texas Conservation Alliance, the Houston Zoo, the Dallas Zoo, and local Coastal Conservation Association (CCA) chapters. Additionally, individuals volunteered their time, boats, and efforts to remove the abandoned crab traps.

Program Approach

The area to cover totals nearly 500,000 acres.The search plan divides the bays into searchable areas and then assigns teams/boats to search. There are 67 search areas. Many of the larger areas can be subdivided if volunteer signup permits.

The effectiveness of the search is dependent on weather and tidal conditions. Strong winds associated with winter cold fronts can blow-out the search for several days of the closure period. Fog can also keep boats off the water and restrict visibility. Low winter tides hamper searches in shallow marsh, requiring airboats for the search to be possible.

Texas Mid-Coast Search Areas

Volunteer efforts are coordinated in the San Antonio Bay system by the San Antonio Bay Partnership. Our partners: the Matagorda Bay Foundation, Lavaca Bay Foundation, and Mission-Aransas National Estuarine Reserve manage efforts in their respective bay systems.

TPWD placed disposal bins for the abandoned traps in five locations in the San Antonio Bay System: the TPWD Dock in Port O'Connor, Charlie's Bait Camp, Swan Point Boat Ramp, Seadrift Marina, and the Austwell Boat Ramp. Only the Port O' Connor bin was manned and gated. The other four locations are considered susceptible to public dumping of other materials. In Aransas Bay, TPWD set trailers at two locations, and deposited traps are taken to the disposal facility for handling. No disposal bins were available for Matagorda Bay.

Participants in the 2025 Crab Trap Removal Program for the Texas Mid-Coast utilized the smart phone-based application, ArcGIS Field Maps (Field Maps) to collect, record, and report data documenting the location, tags, owners, and contents of abandoned crab traps as they are being removed from the bays. Identifying trends in the causes and extent of the abandoned crab trap problem provides information

for stakeholders and resource agencies to discuss the problem and jointly develop potential solutions.

Field Maps is a free download for smart phones. This data was compiled into an Excel spreadsheet and then exported and uploaded to Google Earth Pro, a more sophisticated mapping program.

Implementation

A significant windstorm on the first day of closure blew out the paramount workdays of Friday and Saturday, leaving Sunday as the primary. Many of the teams scheduled for Saturday were able to reschedule for Sunday to search their areas. The aerial survey scheduled for closure on the first Friday was also postponed, but unable to reschedule.

Overall, the number of boats/teams signing up and the comprehensiveness of the search was excellent.

Results and Analysis

In this year's 10-day crab trap closure period, volunteers removed 1,040 abandoned crab traps and 155 loose floats from the Texas Mid-Coast defined searchable region. The effort involved 58 boats and 180 participants. Of the 1,040 traps removed, 626 (60%) had Field Maps location and trap contents data collected and entered in a geographic database. The low percentage of Field Maps data is a consequence of the increased coverage of Matagorda Bay. Texas Parks and Wildlife and the Game Wardens were out for several days collecting traps, but did not use Field Maps to record data in the Matagorda Bay system.

2025 Abandoned Crab Trap Removal Program

Statistics Summary for Texas Mid-Coast, as reported to TPWD from manual count of removed traps

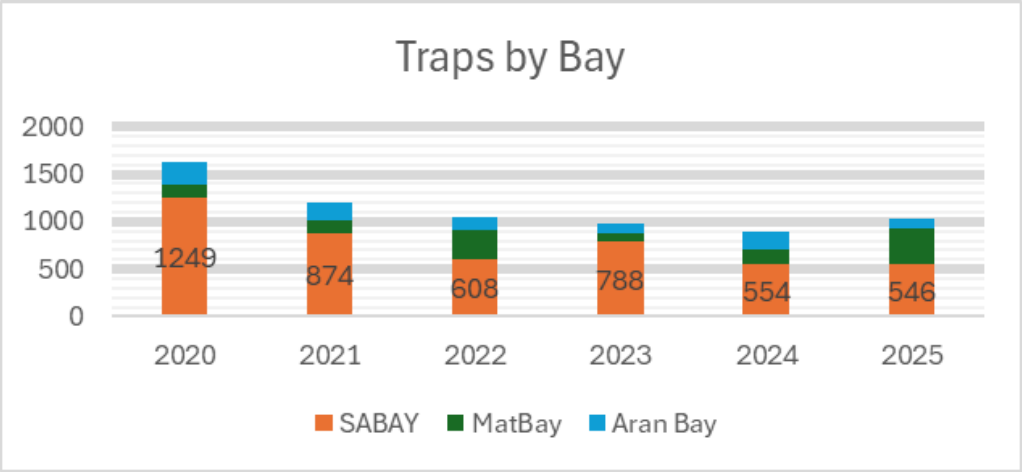
Bay System	Traps Removed	Loose Floats	Boat Days	Participant Days	Participant Hours
Aransas	118		7	29	161
San Antonio	546	**155**	43	112	**484**
Matagorda	376		8	39	207
Total Texas Mid-Coast	**1040**	**155**	**58**	**180**	**851**

Outstanding Effort:

- More comprehensive search in the Matagorda Bay system.
- Participants adapted to weather driven schedule change.
- Field maps data on 84% of removed traps from the San Antonio Bay system.

- The *Celebration of a Cleaner Bay* included dinner, speakers, and entertainment to thank participants for their significant expenditures of time and money.

Historical Trends:



Texas Mid-Coast Derelict Traps Removed

The search for derelict crab traps has become increasingly comprehensive. The number of removed traps has gone up this year because collection efforts have increased in the Matagorda Bay system. The collected data attempts to address why the traps are found in different environments.

Open Bay traps are those left in open water that crabbers' boats could have easily retrieved. Their numbers have grown over the last two years,

Shoreline traps are the result of windstorms blowing traps to shore out of reach from crabbers' boats. Winter Storm Uri in 2021 froze and killed most black mangrove vegetation at the shoreline. The dead vegetation exposes older traps that we continue to find.

Derelict marsh traps are problematic for crabbers and volunteers to retrieve and likely have the most significant ecological impact. They are typically set in high spring tides but are difficult to access with lower winter tides.

626 crab traps recorded with data in Field Maps and exported to Google Earth.

2025 Data Analysis

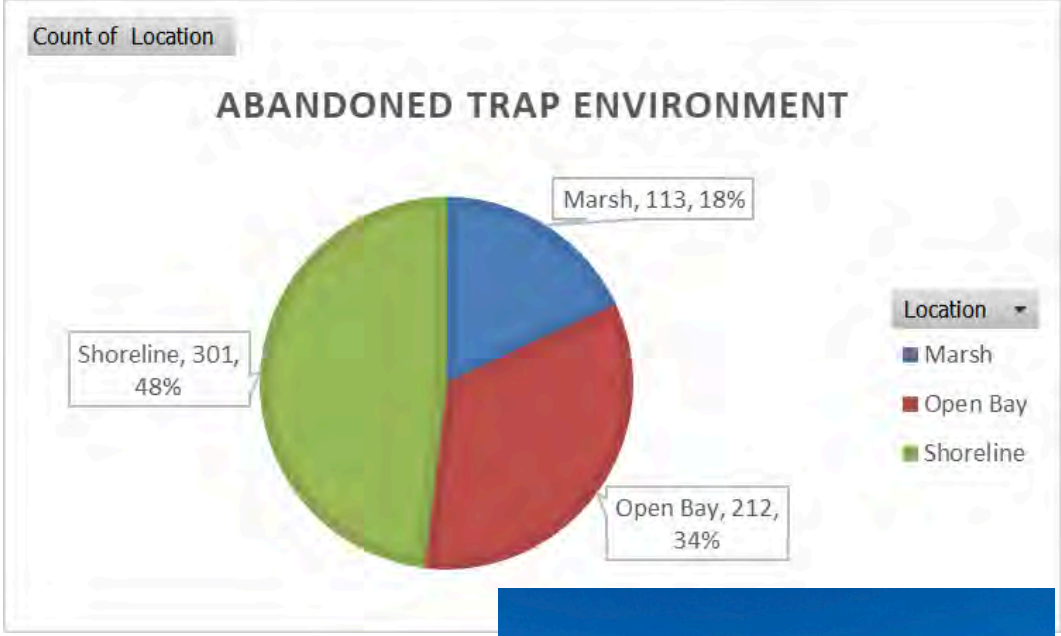
Data Collection – Field Maps

	Traps Removed	Traps with Data	% w/Data
2020	1632	1202	74%
2021	1207	1045	87%
2022	1047	660	63%
2023	977	798	82%
2024	900	783	87%
2025	1040	626	60%

The reason for the drop in data collection thoroughness is primarily due to the more thorough search of Matagorda Bay that did not collect Field Maps data. Both Matagorda

and Aransas Bay are not using Field Maps as recommended. Note: traps with data include traps abandoned in-place that are not reported to TPWD as removed.

Bay	Traps with Data	Traps Removed	% with Data
Matagorda Bay	118	376	31%
Aransas Bay	51	118	43%
San Antonio Bay	457	546	84%
	626	1040	60%



Derelict Traps Removed by Area

Aransas Bay	35
Copano Bay	7
Delta	26
E ES Bay	24
Guadalupe Bay	72
Hynes Bay	21
Lavaca Bay	17
Lower SA Bay	57
Matagorda Island Lakes	25
Matagorda Peninsula	16

Mesquite-Carlos Bays	8
Powderhorn Lake	26
Powderhorn Shoreline	30
SA Bay Island Shoreline	138
Shoalwater Bay	7
St Charles Bay	1
SW Matagorda Bay	4
Upper SA Bay	34
W ES Bay	63
Welder Flats	15
Total	**626**

Trap Ownership

The traps are required to have an equipment tag with the owner's name. Unfortunately, over 70% of the traps **do not** have the required tag so identification of the responsible party is difficult.

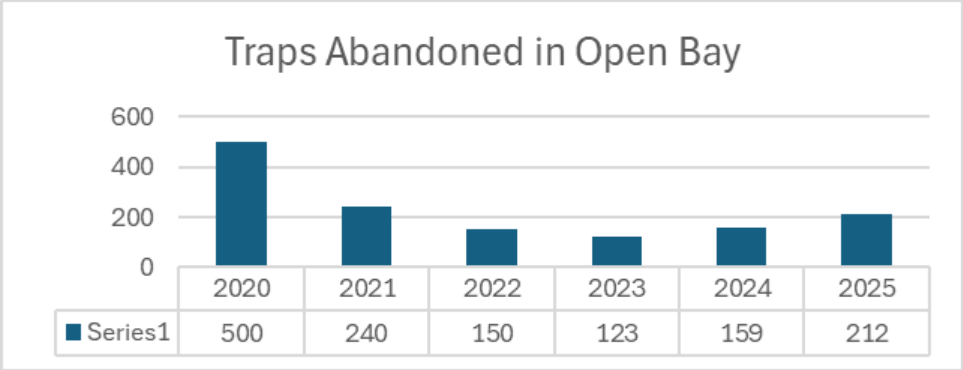
Abandoned Traps by Owner

No Tag	446	71%
Crabber 1	32	
Crabber 2	27	
Crabber 3	15	
Crabber 4	11	
Crabber 5	8	
Crabber 6	7	
Crabber 7	7	
Crabber 8	6	
Crabber 9	6	
Crabber 10	5	
Crabber 11	5	

Crabber 12	5
Less than 5 traps	46
Total	**626**

Derelict Crab Trap Environment

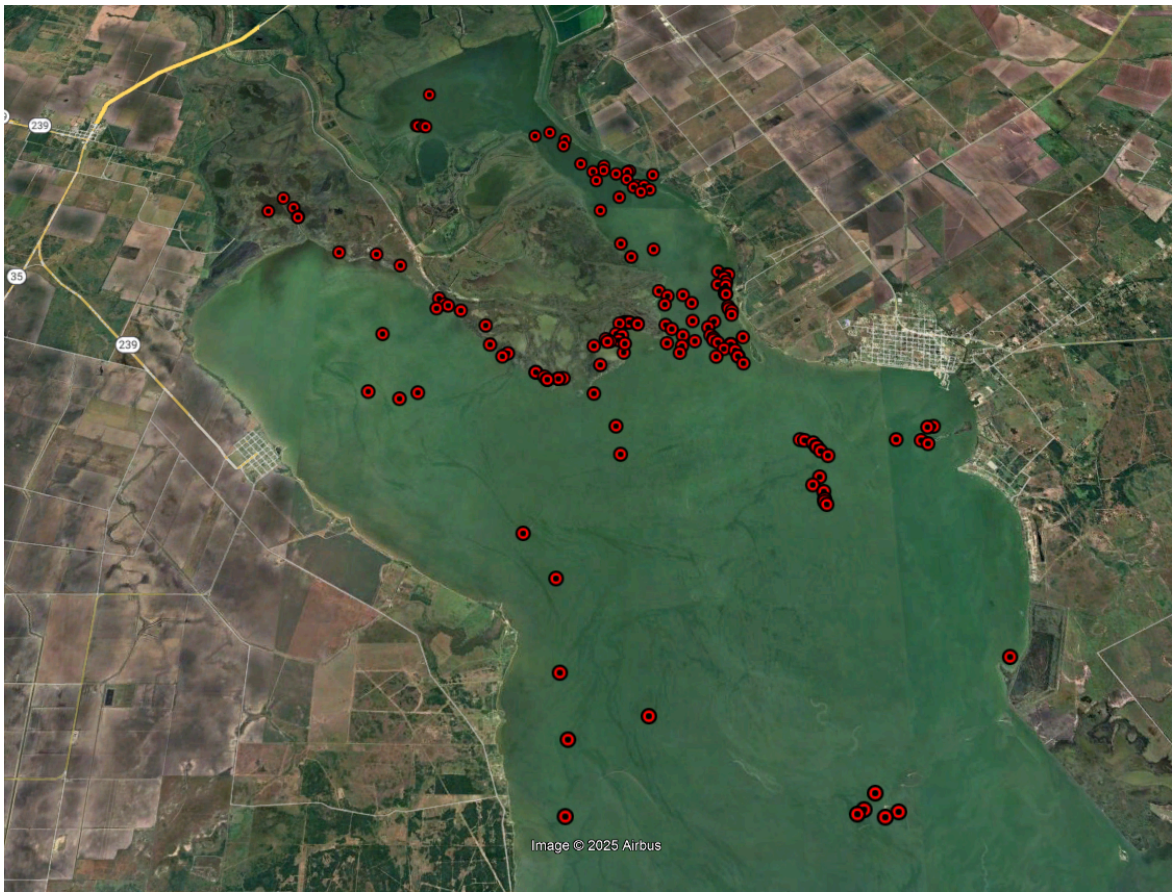
Open Bay Traps These traps are retrievable by commercial crabber boats but are not retrieved for reasons unknown. Open Bay traps increased again this year after several years of decline. Again, determining ownership of these derelict traps is difficult since most do not have the required equipment tag.



Reductions in abandoned traps of this category is the single most impactful step that would reduce trap dereliction rates. An analysis of the ownership data on the open bay traps:

Open Bay Traps by Owner

No Tag	132	62%
Crabber 1	21	
Crabber 2	18	
Crabber 4	8	
Crabber 3	7	
Crabber 10	6	
Crabber 8	5	
Crabber 13	4	
Others - Less than 2	11	
Total	**212**	



This map shows all the traps in the upper San Antonio Bay area. It demonstrates the pervasiveness of the abandoned traps, especially the traps left in the open bay.

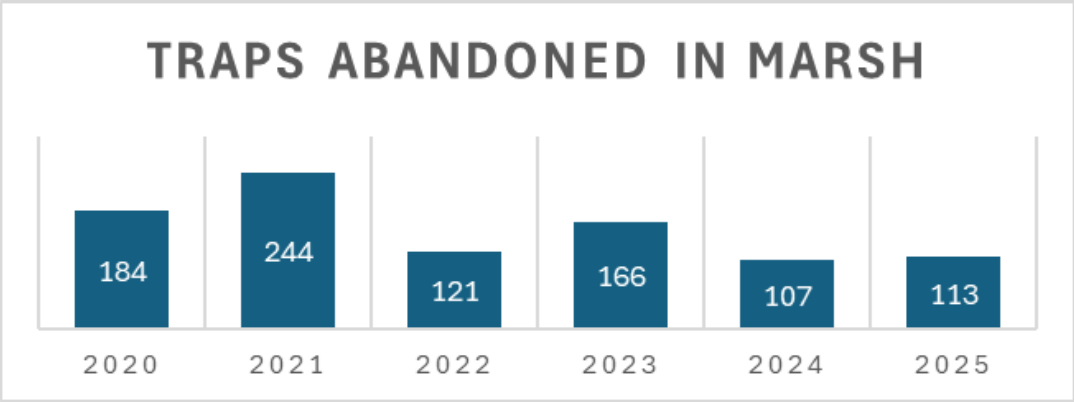
This map of the Matagorda Bay shoreline at Powderhorn shows the derelict traps removed from the area. This abandoned line had both shoreline traps and open bay traps that totalled 30–in good condition. About half of those were picked up from the volunteer's boat and could have similarly been handled by the crabber. The other half required walking ashore on a sandy beach to be retrieved. The abandonment of this line fully illustrates a lack of effort to pick up traps on the part of the crabber.

This map of the lower San Antonio Bay along the Island shorelines shows a line of abandoned traps in open bay. These traps were all picked up from volunteer boats and could have been handled by the crabber prior.

If the crab traps are valued at $50 each, the annual economic loss is about $10,600 for 2025.

Marsh Traps remain a problem, These traps are found in shallow water marshes on the river delta, the Matagorda Island lakes, and along the mainland that are accessible to commercial crabbers' boats during most of the year.

Crabbing in the Matagorda Island lakes is prohibited by USFW regulations. Nonetheless, 25 derelict traps were removed from those lakes.



Marsh Traps by Owner

Abandoned Trap Owners		
No Tag	446	71%
Crabber 1	32	
Crabber 2	27	
Crabber 3	15	
Crabber 4	11	
Crabber 5	8	
Crabber 6	7	
Crabber 7	7	
Crabber 8	6	
Crabber 9	6	
Crabber 10	5	
Crabber 11	5	
Crabber 12	5	
Less than 5 traps	46	
Total	**626**	

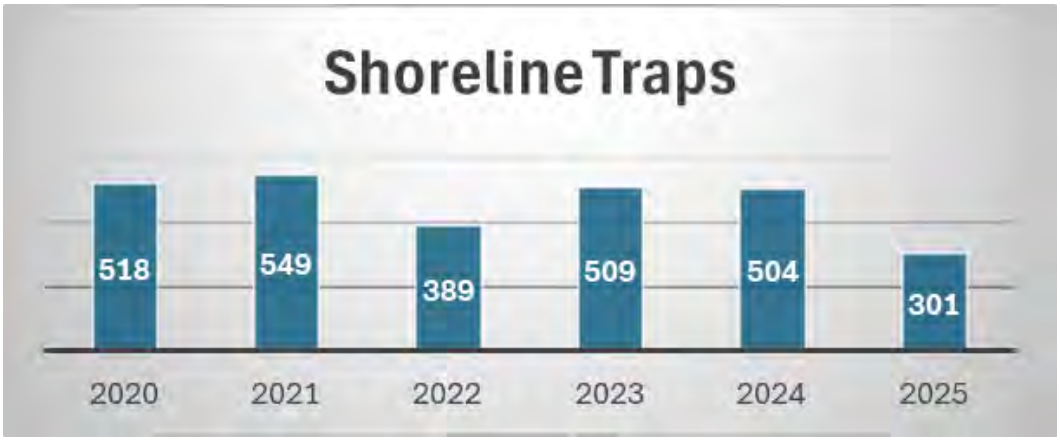
Derelict traps removed from Matagorda Island Lakes.

Derelict traps removed from Shoalwater Bay and Welder Flats marshes.

Derelict traps removed from the Guadalupe Delta marsh.

However, low winter tides make removal prior to the closure period problematic and equally challenging for volunteers to remove. If the crab traps are valued at $50 each, the annual economic loss is about $3,300 for 2025.

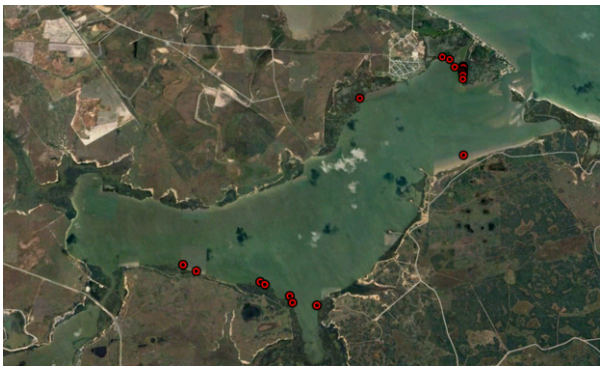
Shoreline Traps are at an all-time low. These are abandoned crab traps at or on the shorelines, inaccessible to crabbers' boats. The traps are retrieved by volunteers in airboats or walking the shoreline. If the crab traps are valued at $50 each, the annual economic loss is about $15,050.



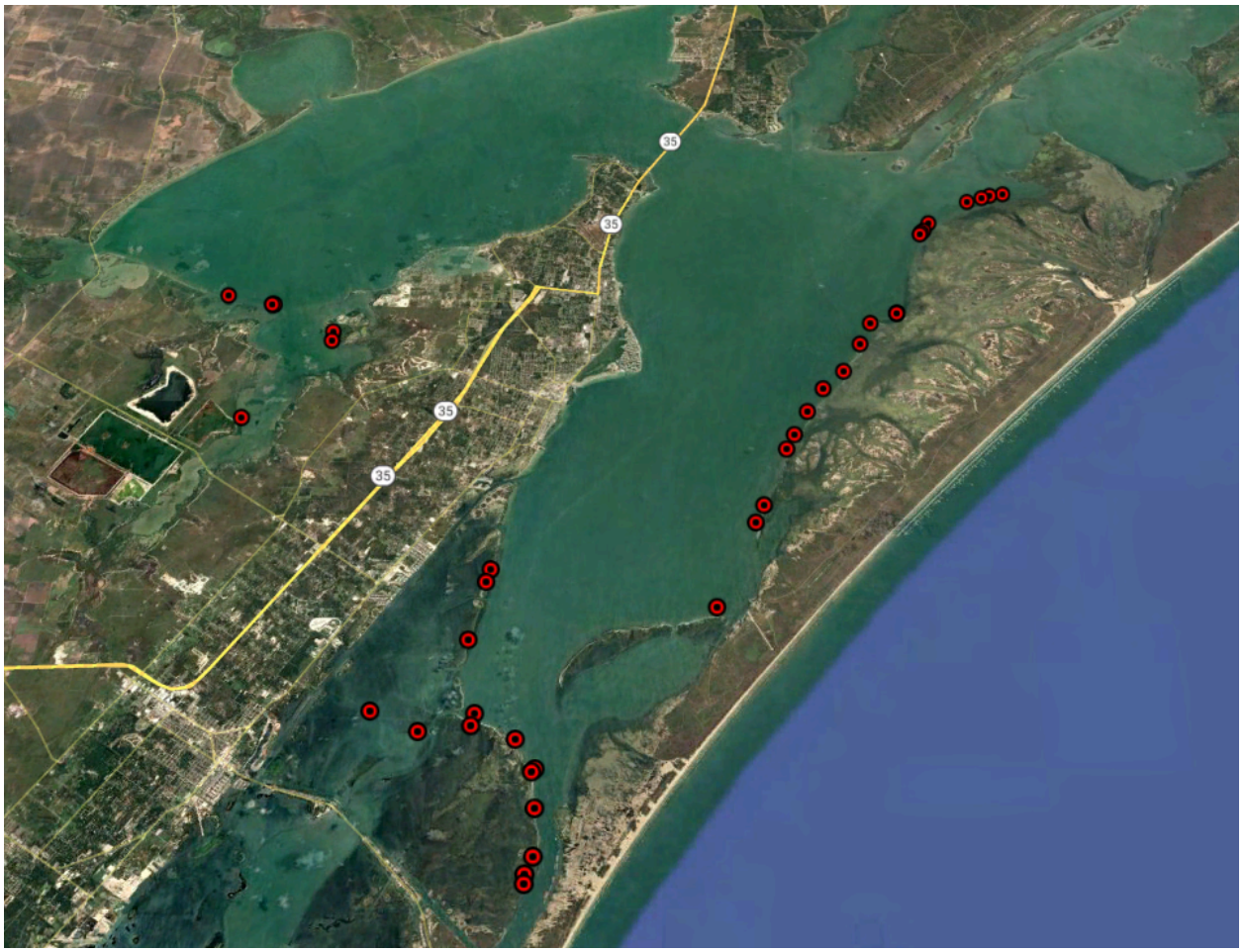
Shoreline traps on Matagorda Island in Lower San Antonio Bay–119 traps.

Shoreline Traps in west Espiritu Santo Bay showing traps along both shorelines.

Derelict traps along Matagorda Peninsula.



Powderhorn Lake.



Shoreline Traps in the Aransas Bay system – 25 were identified as shoreline.

Ownership of these traps is problematic is designing a program to recover them and to return to commercial use: over 70% of the traps have no equipment tags to determine ownership:

Shoreline Traps by Owner

No Tag	220	73%
Crabber 1	10	
Crabber 2	7	
Crabber 7	6	
Crabber 5	6	
Crabber 9	6	
Crabber 3	6	

Crabber 14	6
Crabber 15	4
Crabber 4	3
Crabber 11	3
Others -2 or less	24
Total	**301**

Floats

35% of the recorded traps are without floats, which may be indicative of the problem of interactions with boats.

Participants were also asked to retrieve loose trap floats that are pervasive on the bay shorelines and a source of detrimental pollution.

Abandoned in Place Traps

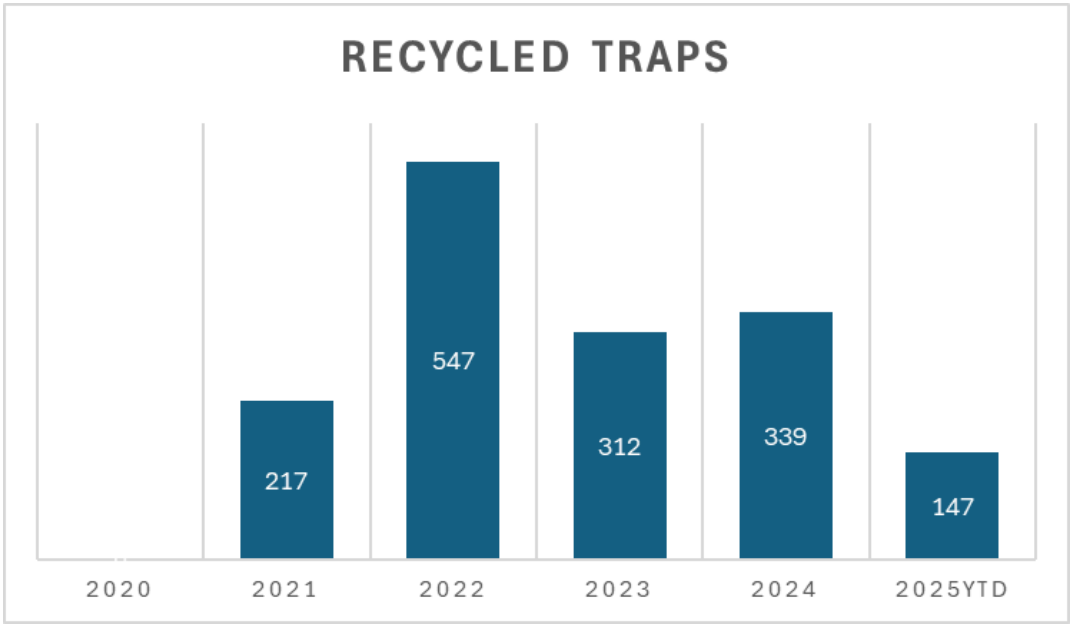
Sometimes traps are not retrievable because they are buried too deep in the mud and volunteers are unable to remove them by hand. Those traps are left in place and documented. *Abandoned in Place Traps in the Texas Mid-Coast Bays – 10 were identified.*

Metal Recycling of Abandoned and Retired Traps in the San Antonio Bay system

Local junk yards have agreed to accept the traps if they are relatively clean, have ropes and floats removed, and are crushed. This is a manpower intensive task. Additionally, the bins set by TPWD for the SABay system are not secured, and are therefore removed as soon as the closure period is over. This means a very limited window of time to address the task. Changes in the overall process would be required to significantly increase recycling rates.

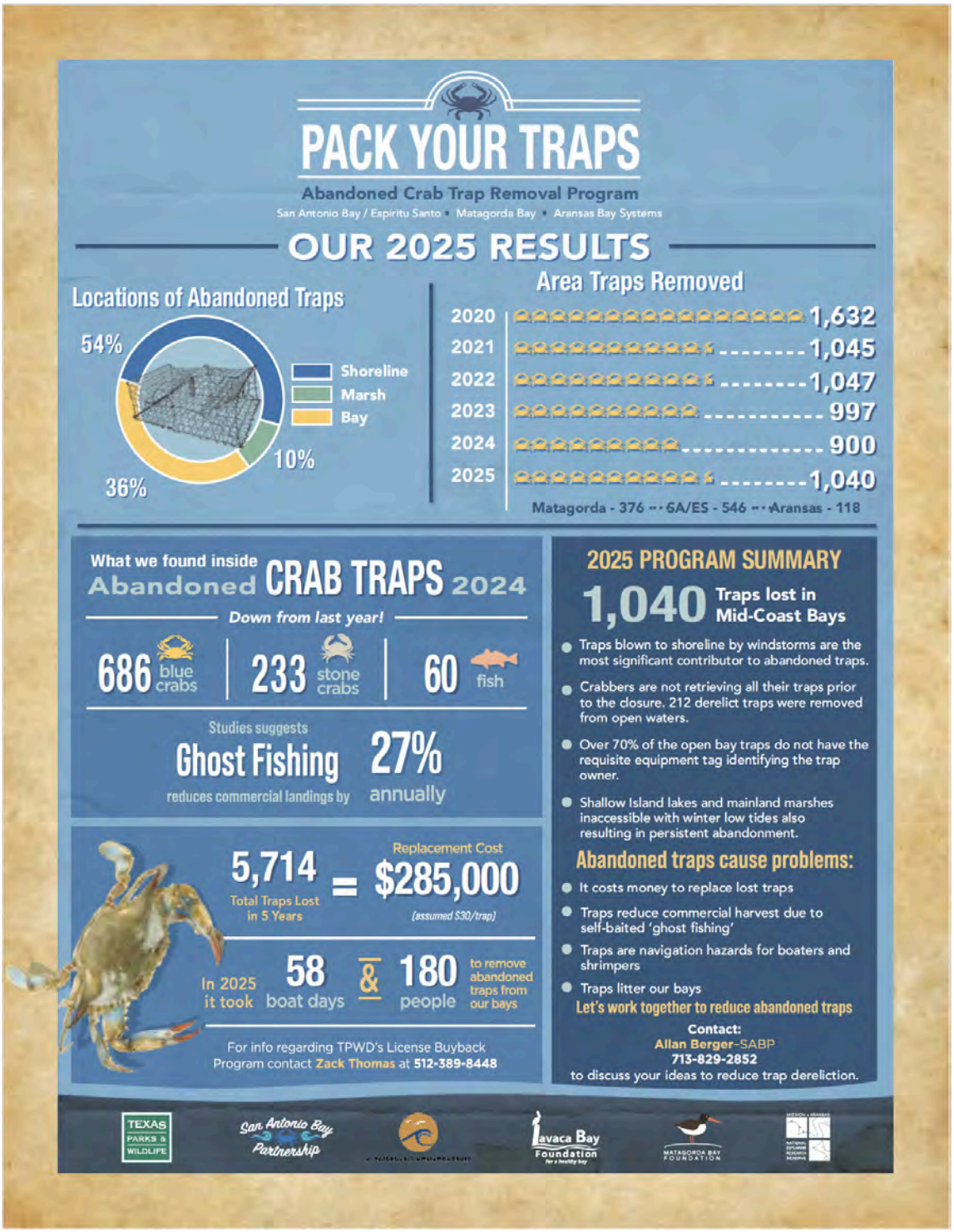
The effort to ensure that retired traps are appropriately disposed requires the assistance of the crabbers. This outreach continues and can be accomplished without undue time conconstrains if the crabber elects to participate.

The total traps recycled are shown below:



Observations and Way Forward

1. Commercial crabbers of record in Calhoun County are advised of 2025 results. They will receive the flyer below in May 2025.



2. The crabbers also receive a flyer in January as a reminder to ‘Pack Your Traps’, which supplements the closure letter sent by TPWD.

3. Communication with the commercial crabbing community needs improvement. We are working to advance an initiative with a community liaison, improving communications regarding ways to decrease the rate of crab trap dereliction. Areas of focus could include:
    a. Reminders to ‘Pack Your Traps!’ for the closure, especially those in open water.
    b. Address recovery of traps blown to the shoreline.
    c. Ensuring appropriate disposal of retired traps.
    d. Encourage the improved collection of derelict trap data.
    e. Send a personalized letter to each crabber noting the number of traps recovered and what that costs them.

4. Prepare for 2026 program and improvements. SABP has been coordinating the volunteers in TPWD’s Abandoned Crab Trap Removal Program since 2018. We continue to explore methods to be more efficient and comprehensive, while increasing participation.

SAN ANTONIO BAY
R.A.T.
Removing Abandoned Traps

Thanks to our dedicated volunteers!

Thanks Partners & Sponsors!

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Matagorda Bay Mitigation Trust