

2026 Abandoned Crab Trap Removal Program Summary Results April 2026



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Executive Summary

The Texas Parks and Wildlife Department's 2026 Abandoned Crab Trap Removal Program, conducted from February 20 to March 1, removed 658 derelict crab traps across the Texas Mid-Coast bay systems, including Matagorda/Lavaca Bay Estuarine System, San Antonio, and Aransas Bays. Notably, San Antonio Bay recorded its lowest total in a decade, with just 415 traps recovered. All thanks to the coordinated efforts of volunteers, partners, and the broader fishing community. This effort is made possible through the unwavering support and dedication of San Antonio Bay Partnership (SABP) volunteers, partners, sponsors, and funders. The dedicated partners who work to remove derelict crab traps in team efforts are the Houston Zoo and Dallas Zoo, Mid-Coast Chapter of Texas Master Naturalists, San Antonio River Authority, Guadalupe River Conservancy, USFWS, TPWD, Guadalupe-Blanco River Authority, Audubon Texas, Rockport CCA Chapter, Mission-Aransas National Estuarine Reserve, and the Lavaca-Navidad River Authority. SABP sponsors include the San Antonio River Authority, the Houston Zoo, and the Dallas Zoo, with funding from the Matagorda Bay Mitigation Trust.

The volunteer effort for the 2026 Abandoned Crab Trap Removal Project continues an expanded and more strategic effort to locate and remove derelict 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. Last year's economic loss in recovered abandoned crab traps alone totals \$52,000, if each trap were to cost \$50. This year it has gone down considerably to \$9,870 in lost revenue. While this year's total of 658 crab traps represents a notable decrease from 1,040 traps removed in 2025, this reduction reflects continued progress in prevention, education, and stewardship across the region.

A total of 154 volunteers and 46 boats participated in the coordinated removal effort, with additional traps recovered by local fishermen throughout the 10-day closure period. Volunteers focused on comprehensively covering bay shorelines and open bay waters, utilizing standardized mapping protocols to document trap locations and removals, contributing valuable data to improve future response and prevention strategies.

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. 309 traps were removed from shorelines, which is down from 500 last year.
- 131 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 76% of these traps are without the required equipment tag and therefore the owner cannot be identified.
- 67 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.



Social media outreach raises public awareness and mobilizes volunteers to take action.

2026 Abandoned Crab Trap Removal Program

SABP efforts for the Abandoned Crab Trap Removal Program is funded by the Matagorda Bay Mitigation Trust and implemented in the Aransas Bay, San Antonio Bay, and Matagorda/Lavaca Bay estuarine systems located along the Texas Mid-Coast and sponsored by San Antonio River Authority, Houston Zoo, and Dallas Zoo. Volunteer groups involved in the project include the San Antonio Bay Partnership, Houston Zoo and Dallas Zoo, Mid-Coast Chapter of Texas Master Naturalists, San Antonio River Authority, Guadalupe River Conservancy, USFWS, TPWD, Guadalupe-Blanco River Authority, Audubon Texas, Rockport CCA Chapter, Mission-Aransas National Estuarine Reserve, and the Lavaca-Navidad River Authority. Additionally, SABP volunteers and individuals volunteered their time, boats, and efforts to remove the derelict crab traps.

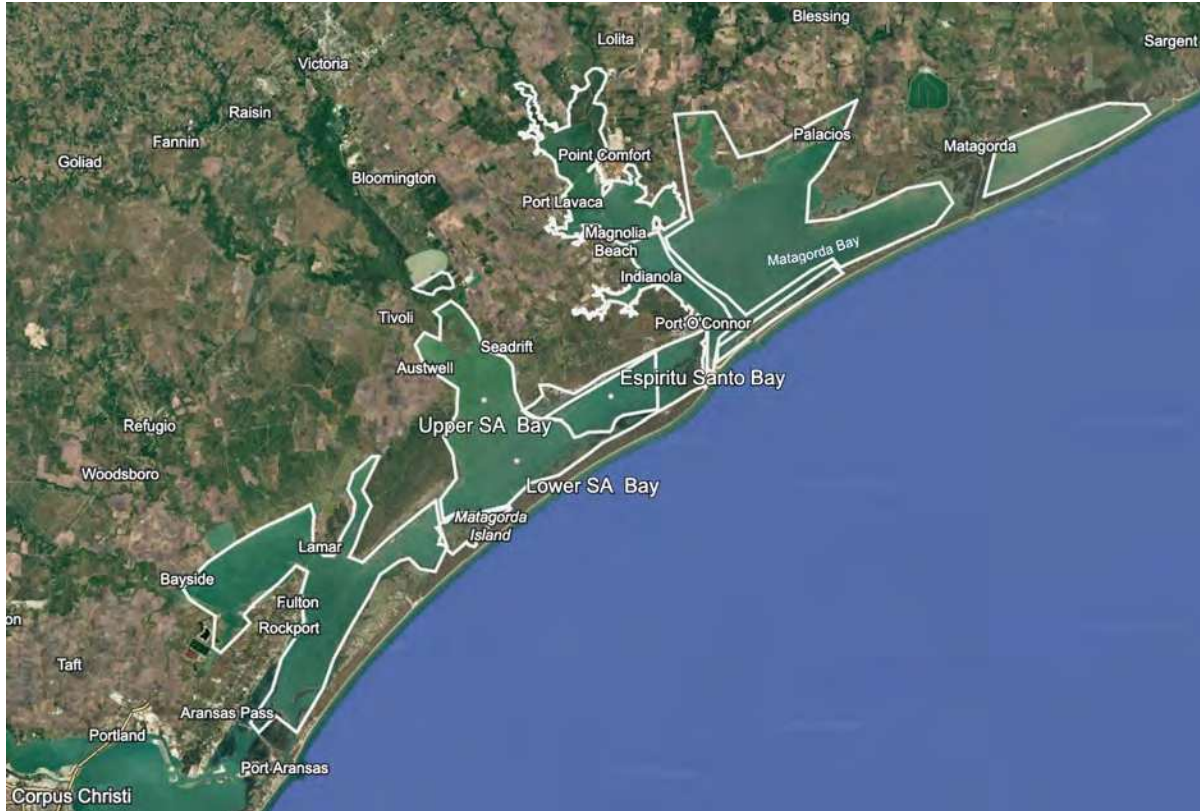
USFWS, TPWD, Texas Coastal Conservation Association, Galveston Bay Foundation, and the Coastal Bend Bays & Estuaries Program are the sponsors of the TPWD Annual Abandoned Crab Trap Removal Program. Since inception, the program has removed over 46,000 traps. Every trap removed saves countless species.



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. TPWD placed 50-yard dumpster disposal bins for the abandoned crab traps in five locations in the San Antonio Bay System: the TPWD Dock in Port O'Connor, Charlie's Bait Camp, Sanders Park, Seadrift Marina/Dockside, and the Austwell Boat Ramp. In Aransas Bay, TPWD set disposal bins at two locations, and the deposited traps are taken to the disposal facility for handling. No disposal bins were available for Matagorda Bay.



Participants in the 2026 Texas Mid-Coast Crab Trap Removal Program used [ArcGIS Field Maps](#) (Field Maps) to document trap locations, tags, ownership, and contents in real time. These data help identify trends and inform stakeholder and agency collaboration on solutions to derelict traps.

ArcGIS Field Maps is a freely available mobile application used for data collection in the field. The data were subsequently compiled into an Excel dataset and exported to [Google Earth Pro](#) for advanced spatial visualization and analysis.



Implementation

Weather limited on-water efforts for a day, prompting the Houston Zoo team to shift to shoreline cleanups along Coloma Creek and Hog Bayou, where they removed nearly 6,000 pieces of debris.

Items that were removed were clearly left behind at these popular fishing spots.

- 582 aluminum cans
- 500 glass (beer) bottles
- 481 plastic drink bottles
- 244 pieces of fishing line & lures

Other items included 1670 plastic pieces, 620 plastic bags, 248 pieces of clothing and hats. Overall, the number of boats/teams signing up for the Abandoned Crab Trap Program was comprehensive and successful.



Results and Analysis

In this year's 10-day crab trap closure period, volunteers removed 658 abandoned crab traps and loose floats from the Texas Mid-Coast defined searchable region. The effort involved 46 boats and 154 participants. Of the 658 traps removed, 507 (77%) had Field Maps location and trap contents data collected and entered in a geographic database.

Derelict crab traps continue to pose significant ecological risks through "ghost fishing." During this year's effort, volunteers documented key species that had died in the crab traps, which were 284 blue crabs, 156 stone crabs, 70 fish (including redfish and flounder), and 5 diamondback terrapins. Some wildlife impacts continue to decrease from last year's 689 blue crabs, 240 stone crabs, 61 fish, and 0 turtles, with fish and diamondback terrapins being the exception. The documented loss of terrapins is of great concern. SABP has never documented this many in a single Abandoned Crab Trap Removal event, most years it is 0 or 1 terrapins. These findings underscore the ongoing threat that abandoned gear poses to both target and non-target species within these estuarine systems.



Derelict Crab Traps Removed by Bay System

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

<u>Bay System</u>	<u>Traps Removed</u>	<u>Loose Floats</u>	<u>Boat Days</u>	<u>Participants</u>	<u>Participant Hours</u>
Aransas	100	15	10	24	129
San Antonio	415	325	10	76	119.5
Matagorda	143	10	26	28	393.5
Total Texas Mid-Coast	658	350	46	154	642

Outstanding Effort

- Comprehensive search of the bay systems.
- Participants adapted to weather driven schedule change.
- The *Celebration of a Cleaner Bay* included dinner, speakers, and entertainment to thank participants for their significant expenditures of time and money.



TPWD's Zach Olson presents *Trap Regulation*. Dockside's Chris Sibley presents *Trap Building*.



SABP Chair, Allan Berger, presents *Abandoned Crab Trap Findings and New Projects*.

HISTORICAL TRENDS

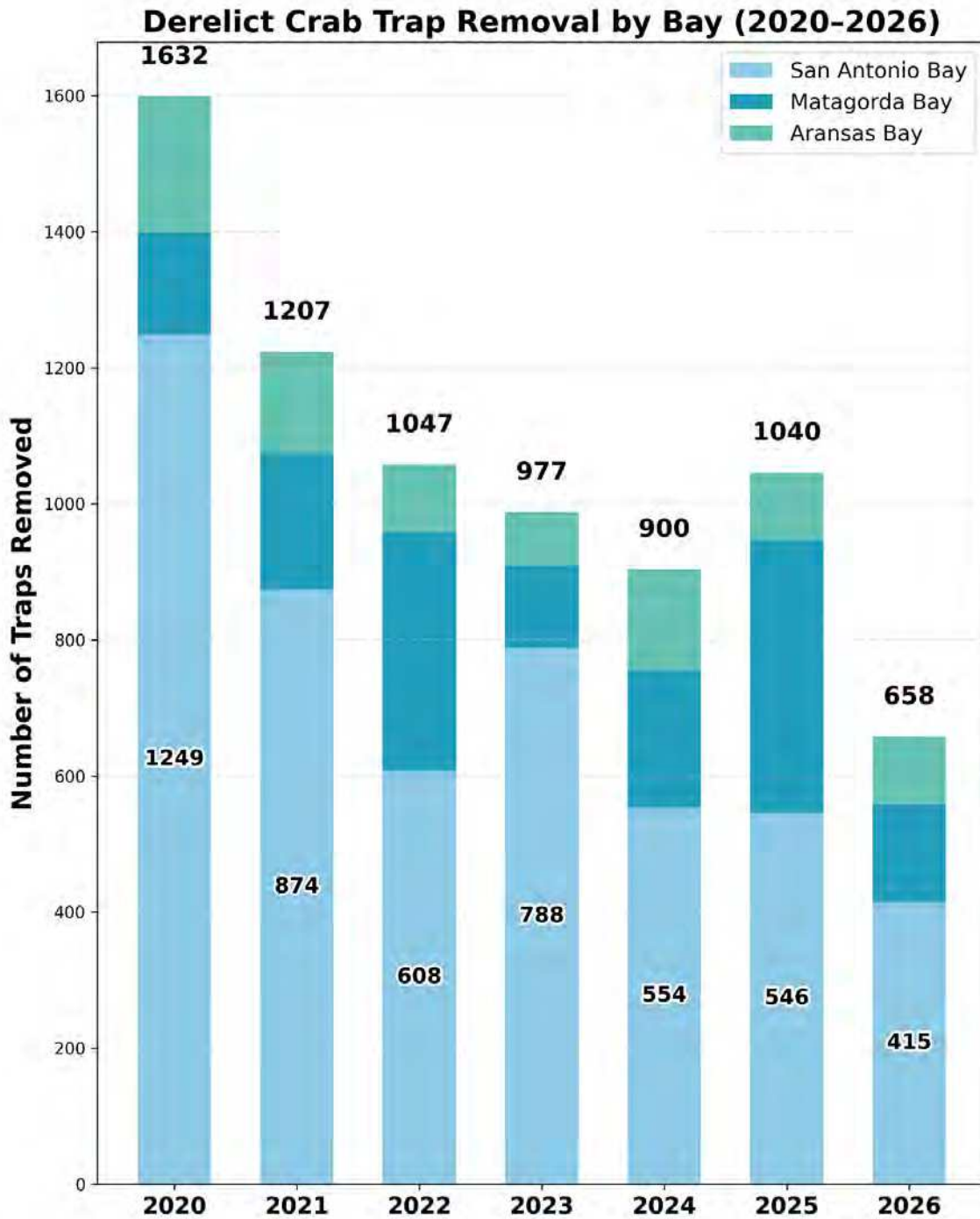


Figure. Total derelict crab traps removed across San Antonio Bay, Matagorda Bay, and Aransas Bay from 2020-2026. Totals shown above bars.

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 throughout the bay systems. 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.

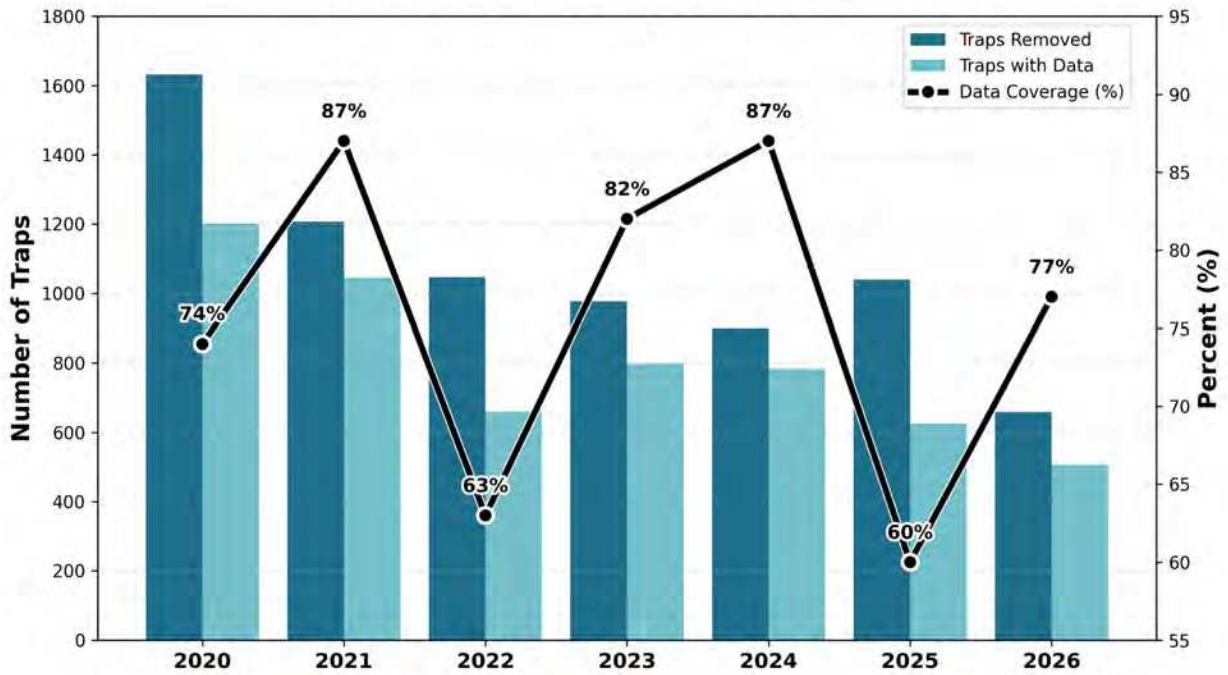
Shoreline traps are the result of windstorms blowing traps to shore out of reach from crabbers' boats. Winter Storm Uri in 2021 froze and killed most black mangrove vegetation at the shoreline. The dead vegetation exposes older traps that we continue to find.

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.



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

Trap Removal and Data Coverage (2020-2026)



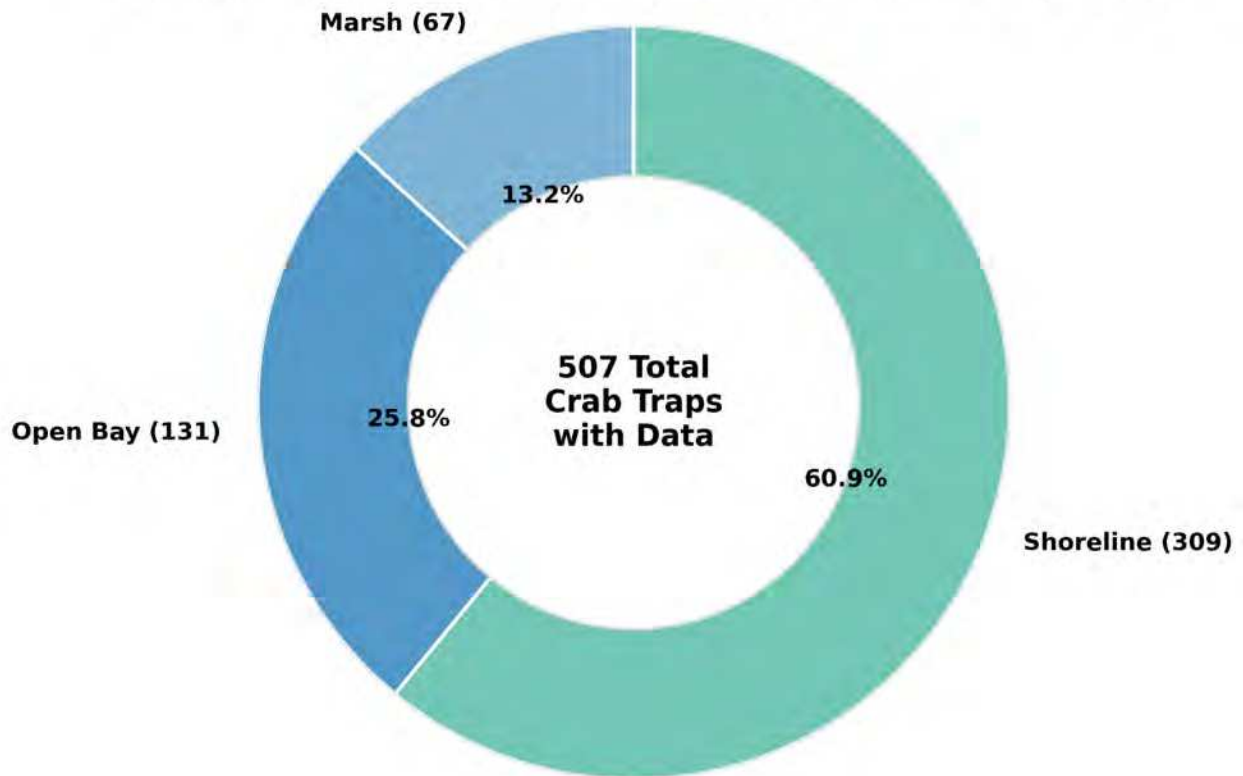
The reason for the drop in data collection thoroughness is primarily due to the more thorough search of Matagorda Bay that did not collect Field Maps data. Both Matagorda and Aransas Bay affiliates are not using Field Maps as recommended. Traps with data include traps abandoned in-place that are not reported to TPWD as removed.



Derelict Crab Trap Removal by Environment

A total of 507 derelict crab traps were removed with data across the San Antonio Bay system and adjacent coastal water bodies during 2026. Removal efforts spanned a wide range of habitats, including open bays, marsh complexes, lakes, and tidal channels, reflecting the extensive spatial distribution of abandoned gear throughout the region.

Abandoned Crab Trap Locations by Environment (2026)



Derelict Traps Removed by Area

Aransas Bay	21
Ayres Bay	1
Blackjack Lakes	5
Brundrett Marsh	30
Carancahua Bay	3
Contee Lake	4
Copano Bay	6
East Matagorda Bay	23
Espiritu Santo Bay East	50
Espiritu Santo Bay West	31
GIWW Matagorda to SA Bay	3
Guadalupe Bay	45
Guadalupe River Delta	17
Hynes Bay	29
Lavaca Bay	11
Long Lake	3
Lower San Antonio Bay	8
Lydia Ann Channel	1
Matagorda Bay	8
Mesquite Bay	4
Mission Lake	53
Mud Island Marsh	10
Mules Slough	9

Port Bay	8
Powderhorn Lake	36
Pringle Lake	1
Redfish Bay (Aransas Bay system)	1
San Jose Marsh	9
Shoalwater Bay	3
South Bay	5
South Island Sloughs	9
South Pass	2
Swan Lake (Aransas Bay)	2
Townsend Marsh	5
Twin Lakes	2
Upper San Antonio Bay	50
Grand Total	508

Key Findings

Derelict crab traps were broadly distributed across the study area, with notable concentrations in both open bay systems and marsh-associated habitats. The highest removal totals were recorded in:

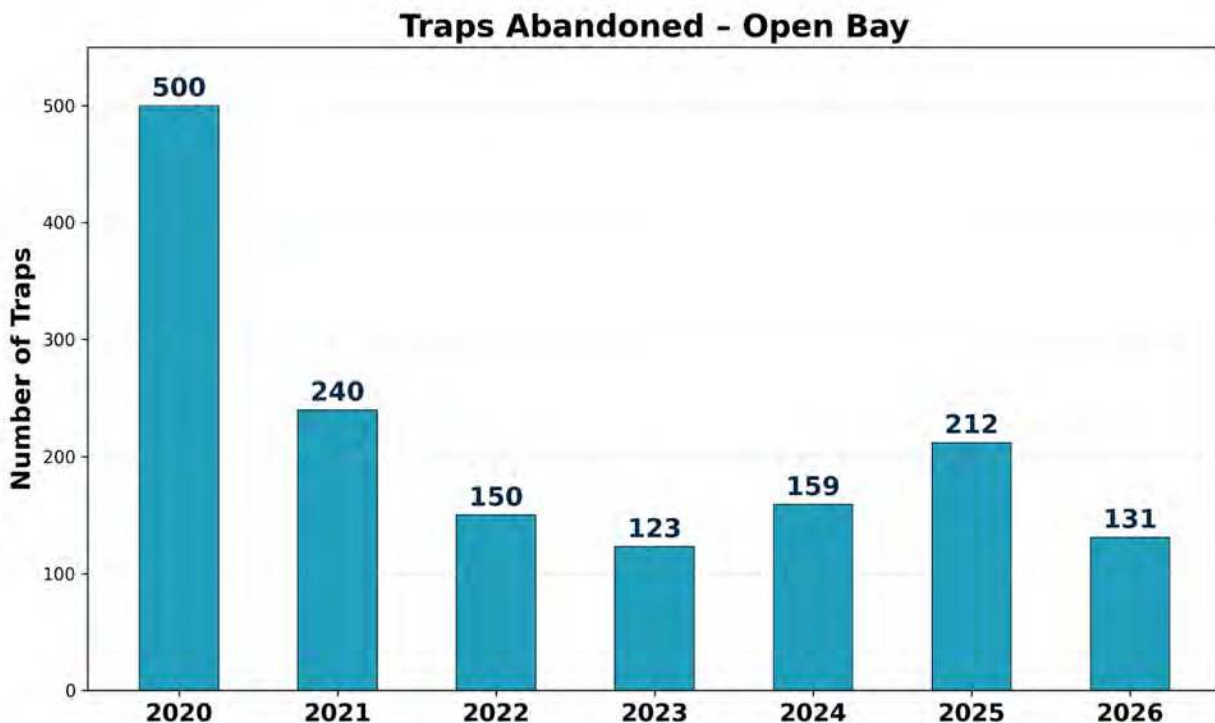
- Mission Lake (53 traps)
- Espiritu Santo Bay (East) (50 traps)
- Upper San Antonio Bay (50 traps)
- Guadalupe Bay (45 traps)
- Powderhorn Lake (36 traps)
- Brundrett Marsh (30 traps)

Trap Ownership

The traps are required to have an equipment tag with the owner's name. About 50% (252 traps) of this year's traps did not have required identification tags, down from over 76% (385 traps) in 2025, so identification of the responsible party is difficult.

Derelict Crab Trap Environment

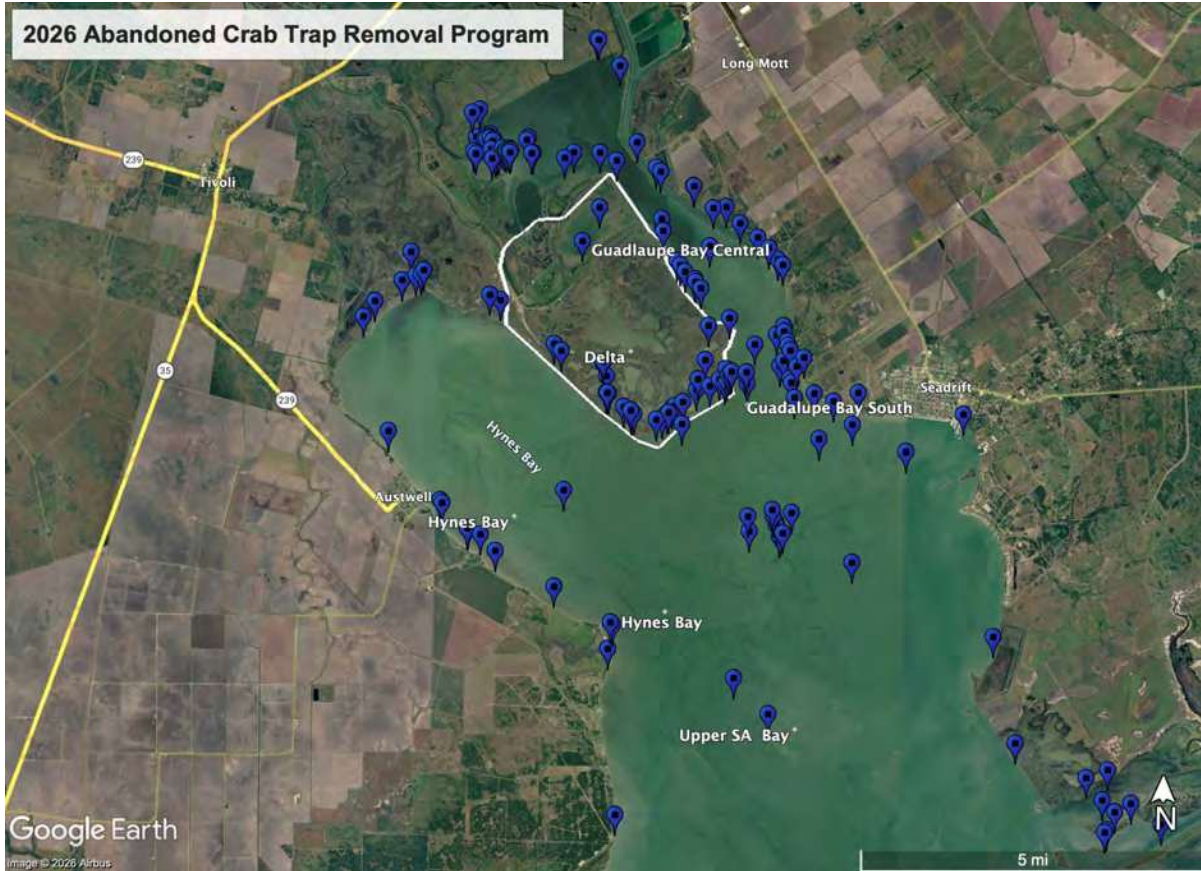
Open Bay Traps are retrievable by commercial crabber boats but are not retrieved for reasons unknown. Open Bay traps increased again this year after several years of decline. Again, determining ownership of these derelict traps is difficult since most do not have the required equipment tag.



Reductions in abandoned traps of this category is the single most impactful step that would reduce trap dereliction rates.

Open bay crab trap abandonment dropped sharply from 500 traps in 2020 to 123 in 2023—about a 75% reduction—likely due to improved removal efforts, outreach, and changes in fishing practices. Although there was a temporary increase in 2024 (159 traps) and 2025 (212 traps), numbers declined again in 2026 (131 traps).

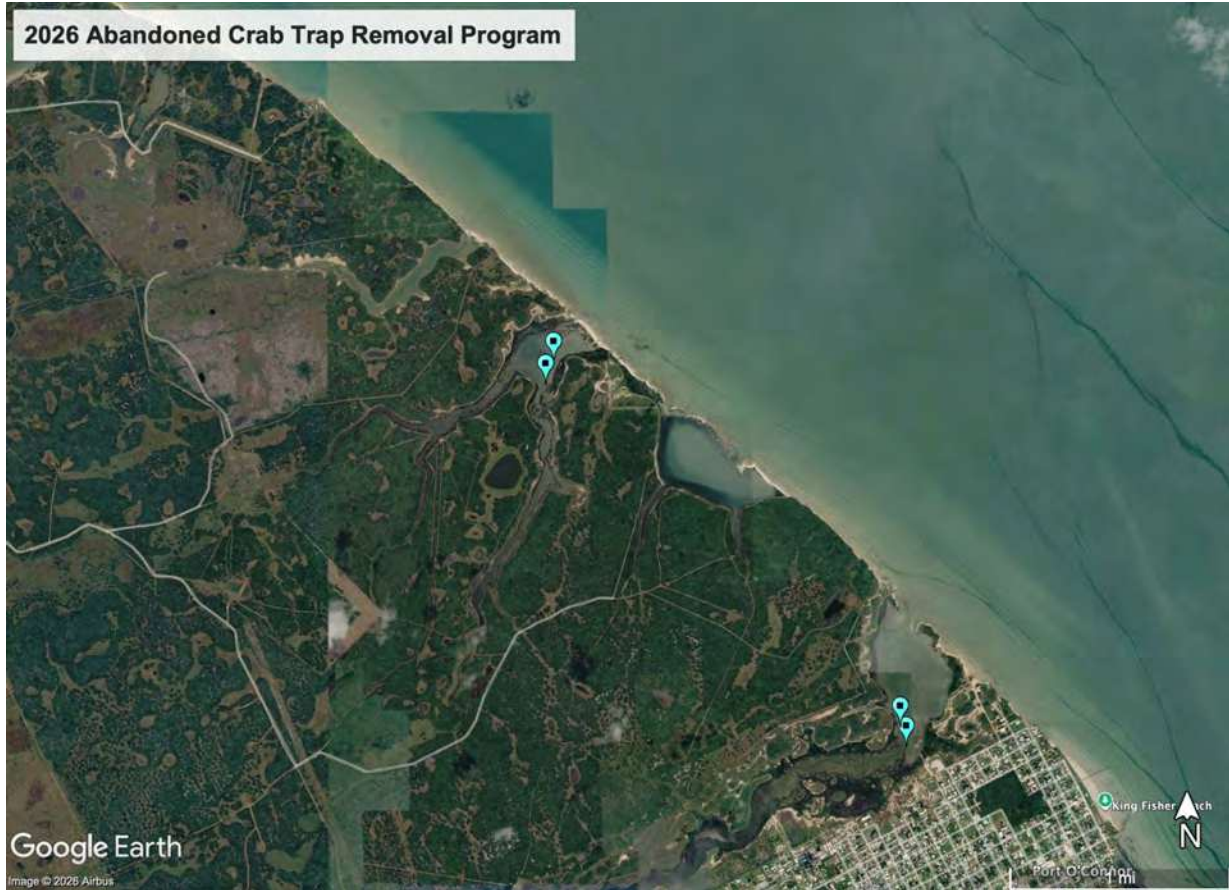
Overall, abandonment remains well below early program levels, showing clear progress while also reflecting year-to-year variability driven by changing fishing effort and environmental conditions.



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 Mission Lake and River Delta outlined in white.



SABP Board Chair, Allan Berger, brings in traps and trash to the TPWD dock.



This map of the Matagorda Bay shoreline at Powderhorn shows only 4 derelict traps removed from the area, with none found along the immediate shoreline for the first time.



Thriving Blue Crab.



This map of the lower San Antonio Bay along the Island shorelines shows a gathering of traps around Matagorda Island Lakes. These traps were all picked up from volunteer boats and could have been handled by the crabbers prior. They also appear to have been windswept into the area and therefore this area should receive regular checks by crabbers.



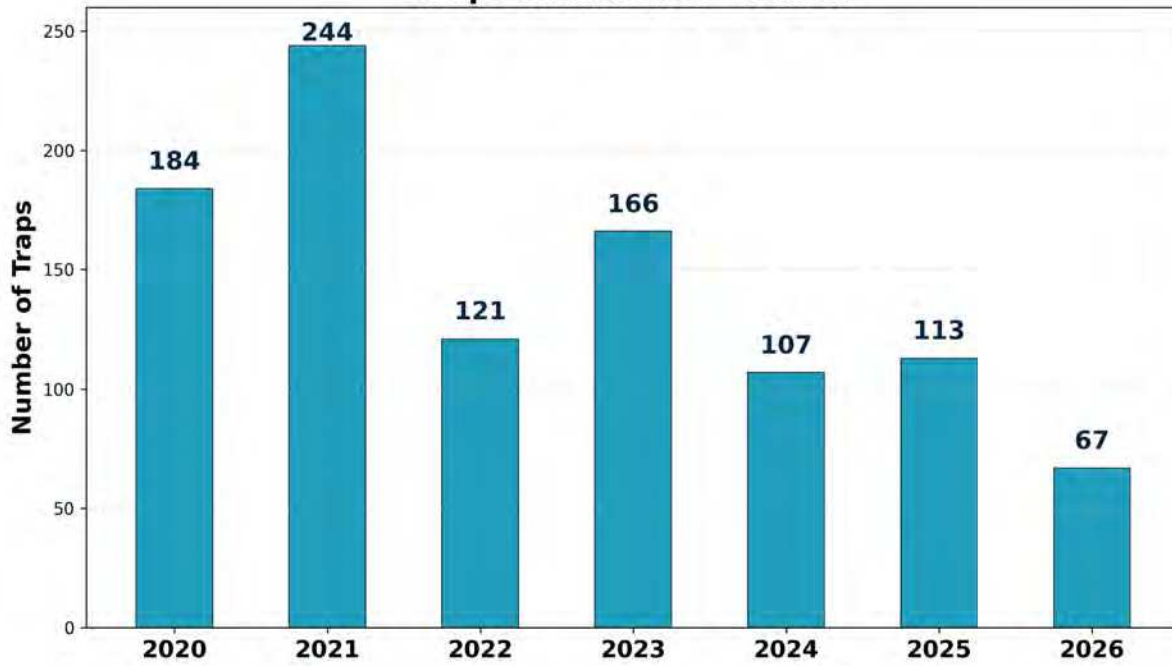


Derelict traps removed from Matagorda Island Lakes. Crabbing in the Matagorda Island lakes is prohibited by USFW regulations, however not enforced. Nonetheless, 25 derelict traps were removed from those lakes.

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.

Marsh-associated crab trap abandonment exhibited notable interannual variability from 2020–2026, with an overall declining trend following a peak in 2021. Abandonment increased from 184 traps in 2020 to a high of 244 traps in 2021, followed by a sharp decline to 121 traps in 2022. A partial rebound occurred in 2023 (166 traps), but this increase was not sustained, with subsequent declines observed in 2024 (107 traps), 2025 (113 traps), and reaching the lowest recorded level in 2026 (67 traps). Overall, this represents an approximate 73% reduction from peak levels. This downward trend likely reflects a combination of factors, including improved effectiveness of trap removal programs and outreach efforts, changes in crabber behavior, and environmental constraints such as prolonged drought and reduced freshwater inflow limiting marsh accessibility and productivity. Collectively, these findings suggest that both management actions and environmental conditions are influencing patterns of trap deployment and abandonment within marsh habitats.

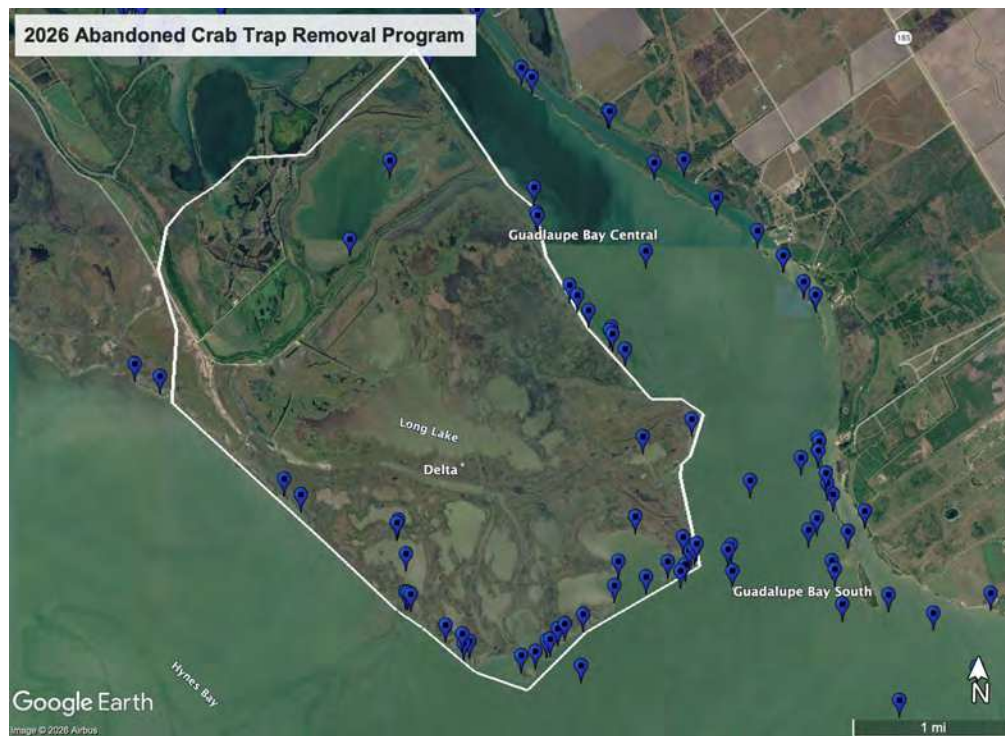
Traps Abandoned - Marsh



Derelict trap removed from Seadrift Harbor. Its heavy vegetation growth on both the trap and float are clear signs it's been ghost fishing for far too long.



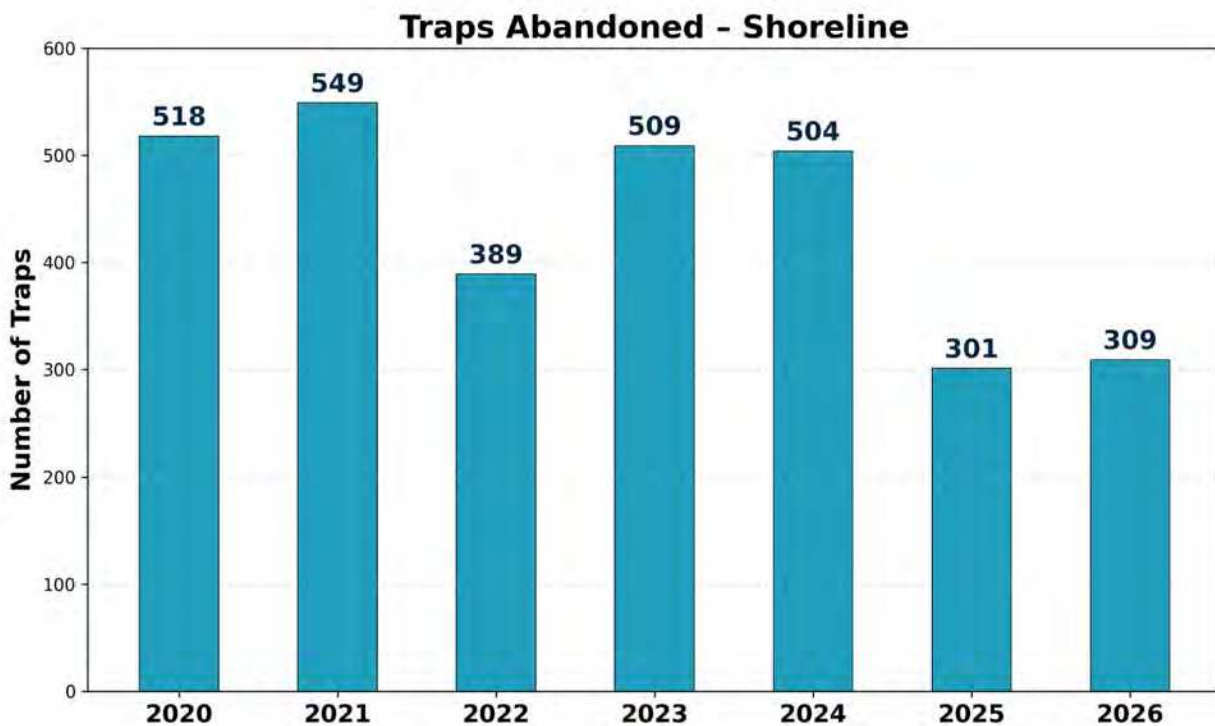
Derelict traps removed from Shoalwater Bay and Welder Flats marshes.



Derelict traps removed from the Guadalupe Delta marsh.

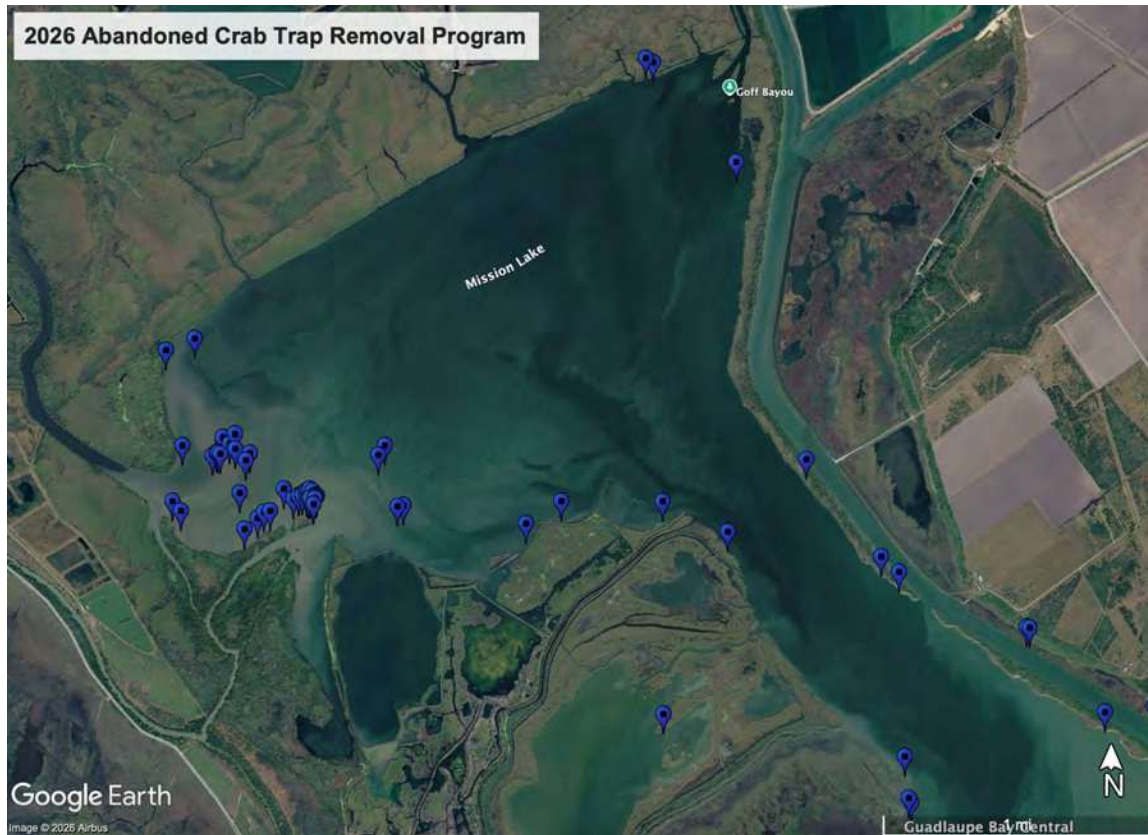
Low winter tides make removal prior to the closure period problematic for the crabbers and equally challenging for volunteers to remove. If the crab traps are valued at \$50 each, the annual economic loss is about \$3,300 for 2025. Crabbers are reducing trap loss through better placement and retrieval, though some may need support with use of technology.

Shoreline Traps are at an all-time low for the past 2 years. 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 crab trap abandonment remained consistently high from 2020 through 2024, with values fluctuating between 504 and 549 traps and peaking in 2021 at 549 traps. This sustained level suggests that shoreline environments function as persistent accumulation zones for derelict gear, likely influenced by wind-driven transport, tidal movement, and shoreline structure. A notable decline occurred beginning in 2025, when abandonment dropped sharply to 301 traps, followed by a slight increase to 309 traps in 2026. Overall, this represents a substantial reduction of approximately 44% from peak levels. The delayed decline relative to open bay and marsh habitats suggests that shoreline areas may retain legacy traps longer or are more difficult to access and clear. However, the recent decrease indicates improved effectiveness of removal efforts and possibly reduced input of new traps. These findings highlight shoreline habitats as

critical targets for continued cleanup and monitoring, as they appear to serve as long-term sinks for derelict crab traps within the system.



Shoreline traps in Mission Lake in the Upper San Antonio Bay Delta. In Mission Lake a total of 53 traps were found during low tide. Permission was granted by TPWD during an extremely low tide event to retrieve the traps and move them to higher ground before the tides covered them back up.



Mission Lake Island is piled with crab traps.



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



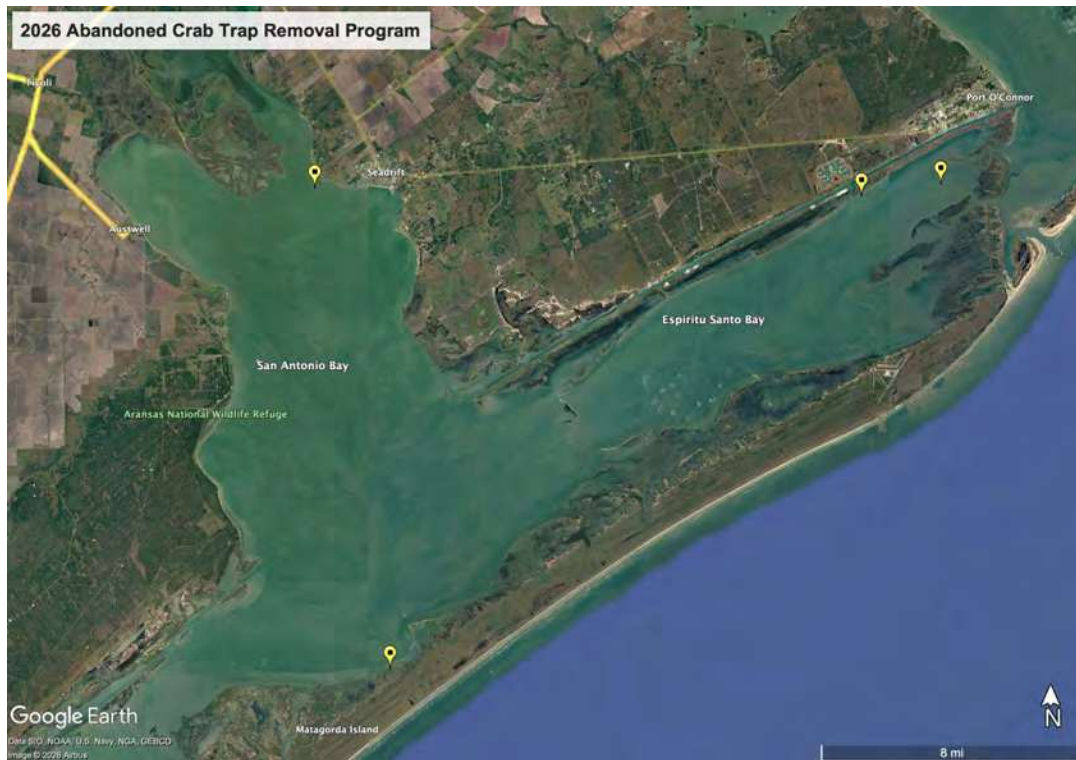
Derelict traps along Matagorda Peninsula.



Powderhorn Lake.

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. Loose trap floats that are pervasive on the bay shorelines and a source of detrimental pollution.



Abandoned in Place Traps in the Texas Mid-Coast Bays – 5 were identified, with two traps in the lower San Antonio Bay that are adjacent to one another.



Crab Traps are abandoned in place when it is impossible to remove them.

OVERALL TRAP ABANDONEMENT

Derelict crab trap abandonment exhibits clear differences across open bay, marsh, and shoreline habitats, reflecting the combined influence of fishing practices, environmental conditions, and physical transport processes. Open bay habitats showed the most rapid decline in trap abandonment from 2020 to 2023, followed by moderate variability, indicating that these systems are highly responsive to changes in fishing effort, management actions, and environmental stressors. Marsh habitats also demonstrated an overall declining trend, though with greater interannual variability, likely influenced by reduced accessibility and productivity under prolonged drought conditions.

In contrast, shoreline habitats maintained consistently high levels of trap accumulation through 2024 before experiencing a delayed but notable decline in 2025–2026. This pattern suggests that shorelines function as long-term accumulation zones, where traps lost in open bay and marsh environments are transported and deposited over time, creating a source-sink dynamic across the system. Source-sink dynamics describe how populations persist across landscapes of uneven habitat quality, with high-quality “source” habitats producing surplus individuals that disperse into lower-quality “sink” habitats where local reproduction alone cannot sustain populations. This movement stabilizes populations, prevents local extinctions in poor habitats, and plays a key role in shaping species persistence and evolutionary processes in fragmented environments.

Addressing derelict crab traps therefore requires a comprehensive approach that targets both the sources of trap loss and the areas of accumulation. Preventative measures should focus on reducing trap loss through improved outreach, gear visibility, and best practices among crabbers, alongside increased accountability through identification and reporting systems. At the same time, targeted removal efforts should

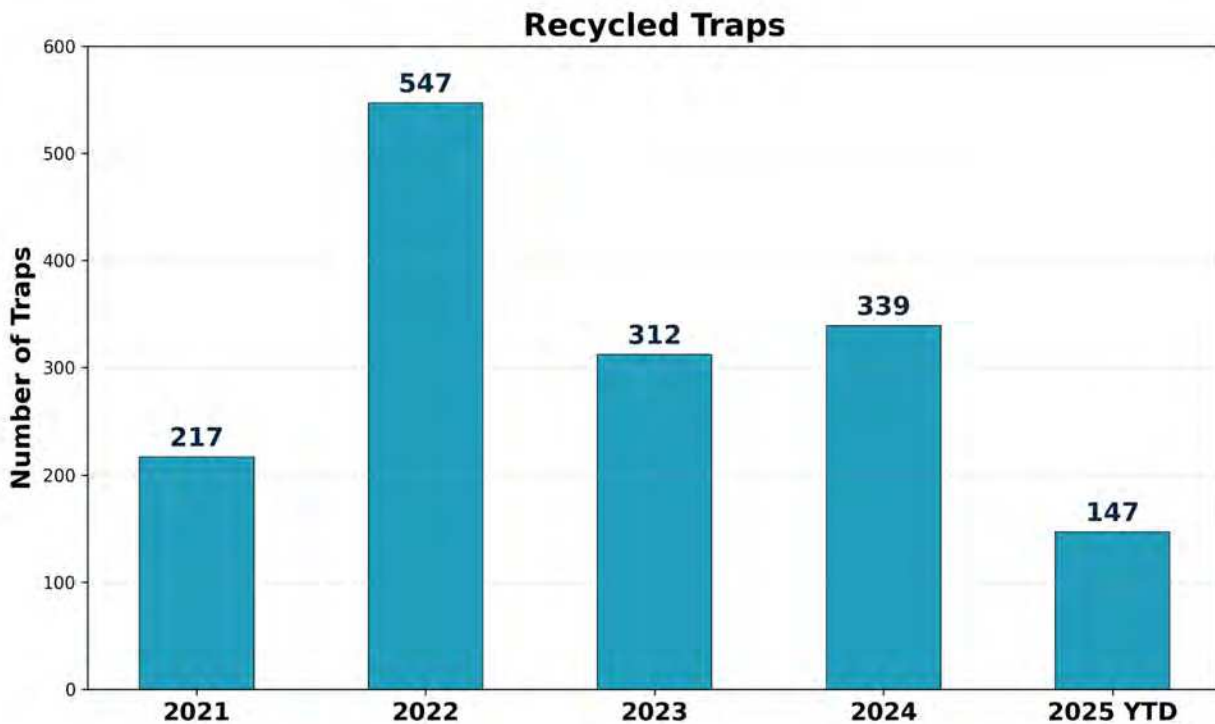
prioritize shoreline and marsh-edge habitats, where traps persist and accumulate, using spatial data to identify and repeatedly address hotspot areas. Expanding trap retirement and removal programs, improving access to disposal options, and strengthening partnerships with the crabbing community will be critical to long-term success. Integrating these efforts with broader environmental management, particularly addressing reduced freshwater inflows and habitat stress will further support reductions in trap loss and enhance the overall health and sustainability of the San Antonio Bay system.

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 dumpsters 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 constraints if the crabber elects to participate.

The total traps recycled are shown below:





Recovered traps disposed of at 50-yard dumpster for Aransas Bay.



Removing Abandoned Crab Traps Saves Critters

Blue Crabs recovered and released.



Recovering traps takes persistence and perseverance.



SABP Board Member, Buzz Dillon and his crew.



Retired, new, and old traps at the Dockside Bait Lot, Seadrift.

Observations and Way Forward

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

PACK YOUR TRAPS

Abandoned Crab Trap Removal Program

San Antonio / Espiritu Santo Bays * Matagorda Bay * Aransas Bay System

OUR 2026 RESULTS

Locations of Abandoned Traps

Shoreline	60%
Marsh	13%
Bay	26%

Area Traps Removed

2020		1,632
2021		1,045
2022		1,047
2023		997
2024		900
2025		1,040
2026		658

Matagorda - 143 • SA/ES - 415 • Aransas - 100

What we found inside Abandoned CRAB TRAPS 2026

Down from last year!

284 blue crabs	156 stone crabs	70 fish	5 diamondback terrapin
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Studies suggests
Ghost Fishing 27% annually
reduces commercial landings by

2026 PROGRAM SUMMARY

658

Traps lost in Mid-Coast Bays

- Traps blown to shoreline by windstorms are the most significant contributor to abandoned traps.
- Crabbers are not retrieving all their traps prior to the closure. 212 derelict traps were removed from open waters.
- Over 70% of the open bay traps do not have the requisite equipment tag identifying the trap owner.
- Shallow Island lakes and mainland marshes inaccessible with winter low tides also resulting in persistent abandonment.

Abandoned traps cause problems:

- It costs money to replace lost traps
- Traps reduce commercial harvest due to self-baited 'ghost fishing'
- Traps are navigation hazards for boaters and shrimpers
- Traps litter our bays

Let's work together to reduce abandoned traps

Contact:
Allan Berger-SABP
713-829-2852
to discuss your ideas to reduce trap dereliction.

6,372 = **\$318,600**

Total Traps Lost in 6 Years = Replacement Cost (assumed \$50/trap)

In 2026 it took **46** boats & **154** people to remove abandoned traps from our bays

For info regarding TPWD's License Buyback Program contact: **Zack Thomas** at 512-389-8448

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



PACK YOUR TRAPS
Abandoned Crab Trap Removal Program

BAYS CLOSED TO CRABBING
FEB. 20 - MAR. 1, 2026
All crabbers are required by law to Remove your Crab Traps. Any traps in the water during the ten day period will be collected and destroyed. Drop off your old/retired traps for a free disposal event.

OLD / RETIRED TRAPS FREE DISPOSAL
Drop off your traps at Dockside lot before March 6, 2026 for FREE crab trap crushing & recycling. Please remove Floats & Rope.
CONTACT ALLAN BERGER
713- 829-2852

ABANDONED CRAB TRAPS REMOVED FROM MID-COAST BAYS	Year	Count
	2020-	1,632
	2021-	1,207
	2022-	1,047
	2023-	997
	2024-	900
	2025-	1,040

We're Here to Help
Abandoned traps cause problems:

- It costs money to replace lost traps
- Traps reduce commercial harvest by self-baited 'ghost fishing'
- Traps are navigation hazards for boaters and shrimpers
- Traps are unsightly litter

Together we can save costs and reduce the number of derelict traps in our bays!








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.
 - f. SABP liaison speaks with the crabbers in-person to walk through the report and/or results flyer.

4. Prepare for 2027 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.



Thanks to our dedicated volunteers!

Thanks Partners, Sponsors, and Funders!

Partners Include:





Sponsors include:



Funding provided:



San Antonio Bay Partnership

The San Antonio Bay Partnership (SABP) is a regional, non-profit, stakeholder-driven planning and management program for the San Antonio Bay/Guadalupe Estuary. The purpose of the San Antonio Bay Partnership is to create and sustain a working partnership of committed stakeholders who **protect, restore and enhance** the natural resources of the San Antonio Bay System for the benefit of the ecosystem and its human uses.



Appendix I:

Comparison of Trap Abandonment Across Habitats and Management Implications

Derelict crab trap abandonment exhibits distinct patterns across open bay, marsh, and shoreline habitats, reflecting differences in hydrodynamics, accessibility, and trap retention processes. Open bay abandonment showed the most rapid decline from 2020 to 2023, followed by moderate interannual variability, suggesting that this habitat is highly responsive to changes in fishing effort, environmental conditions, and management interventions. In contrast, marsh habitats displayed a more variable but overall declining trend, likely influenced by both reduced accessibility under drought conditions and decreased fishing pressure in these areas. Shoreline habitats, however, maintained consistently high levels of trap accumulation through 2024 before experiencing a delayed but substantial decline in 2025–2026. This pattern indicates that shorelines function as long-term retention zones or sinks, where traps transported from open bay and marsh environments accumulate over time.

Collectively, these patterns suggest a source/sink dynamic, where traps are lost or abandoned in open bay and marsh systems (sources) and subsequently transported and deposited along shorelines (sinks). As a result, shoreline environments may not only reflect local abandonment but also the cumulative effects of system-wide trap loss and movement. The delayed decline in shoreline traps further supports the idea that even as abandonment decreases in source habitats, legacy traps continue to accumulate and persist in shoreline and marsh areas.

Strategies to Reduce Derelict Crab Traps

Addressing derelict crab traps requires a multi-tiered approach that targets both the sources of trap loss and the accumulation zones:

1. Prevent Trap Loss at the Source

- Enhanced outreach and education to crabbers on best practices for:
 - Trap placement (avoiding high-risk areas)
 - Gear marking and visibility
 - Retrieval timing during weather events
 - Better location devices
 - Turtle excluders & wire that degrades more quickly

- Promotion/find more durable, higher-visibility floats (Styrofoam floats degrade and discolor over time)
 - Increased awareness of boaters to avoid trap line damage
2. Improve Trap Accountability
 - Strengthen or expand trap identification systems (e.g., tagging every trap and float and visibility)
 - Encourage or require reporting of lost gear
 - Explore incentive-based programs for trap recovery or return
 - 2/3rd traps dont have tags - what is cost of each tag - so they can be returned
 3. Target Shoreline “Sink” Areas
 - Prioritize shoreline and marsh edge cleanups, where traps accumulate
 - Use spatial data (Field Maps) to identify and repeatedly target hotspot areas
 - Implement seasonal or post-storm rapid response cleanups
 4. Expand Removal and Retirement Programs
 - Continue and scale Abandoned Crab Trap Removal Programs
 - Increase participation in Retired Trap Events
 - Provide accessible disposal options to reduce illegal or accidental abandonment
 5. Integrate Environmental Management
 - Address broader drivers such as:
 - Reduced freshwater inflow (drought conditions)
 - Habitat degradation affecting fishing patterns
 - Support efforts to maintain ecological conditions that reduce trap loss risk
 6. Strengthen Crabber Partnerships
 - Continue direct engagement with the crabbing community
 - Build trust-based relationships that encourage reporting and cooperation
 - Incorporate crabbers as active partners in monitoring and conservation

Key Takeaway

Derelict crab trap dynamics are driven by both human behavior and environmental processes, with clear differences across habitats. Effective solutions must therefore combine prevention, targeted removal, spatial data use, and community engagement. Focusing on both reducing trap loss in open systems and removing accumulated traps in shoreline habitats will be essential for long-term reduction of derelict gear and improved ecosystem health.