

NOAA/CBBEP/SABP Abandoned Crab Trap Removal Program
“Reduction of Ghost Fishing from Derelict Blue Crab Traps on the Mid-Texas Coast”
CBBEP Project 2118: 2021-23 Program Accomplishments/Summary Report
August 23, 2023

Introduction: Besides being a vital part of the ecosystems in Texas bays and estuaries, blue crabs (*Callinectes sapidus*) – the property of the State of Texas and a National Oceanic and Atmospheric Administration (NOAA) Trust Resource - constitute an important recreational/commercial fishery in need of protection. The ***“Reduction of Ghost Fishing from Derelict Blue Crab Traps on the Mid-Texas Coast”*** project -- funded by a grant from NOAA , administered through the Coastal Bend Bays and Estuaries Program (CBBEP), and managed by the San Antonio Bay Partnership (SABP) -- was initiated in 2020 to develop and implement a strategic effort to:

- locate and remove abandoned blue crab traps in the bays along the Mid-Texas Coast during Texas Parks and Wildlife Department’s annual 10-day crab trap closure period
- gather/analyze data to better assess the ecological and economic impacts of these abandoned crab traps, and
- determine how those impacts might be avoided through better education and communication.

The commercial blue crab fishery along the Mid-Texas Coast involves the deployment of thousands of blue crab traps by commercial fishing operators (“crabbers”). These traps, if abandoned, left unattended, or lost are a significant source of mortality for species in Texas’ bays and estuaries, including blue crabs, Gulf stone crabs, sheephead, spotted seatrout, hardhead catfish, black drum, Atlantic croaker, and Texas diamondback terrapins.

To reduce the impacts of abandoned, or “derelict*,” crab traps on state-owned wildlife resources in Texas’ bays and estuaries, Texas Parks and Wildlife Department rules provide that, in mid-February each year, ***all crab traps*** must be removed from State waters for a 10-day “crabbing closure period.” (*Note: many “abandoned” traps may be better categorized as “derelict” traps – i.e., they were not purposely left in the bays during the closure period, but may have blown away or otherwise dislocated, and lost to the crabbers who deployed them.)

If not removed, these abandoned/derelict traps remain unattended in local bays and continue to catch/trap/kill a variety of estuarine organisms – a concept known as “ghost fishing.” In addition to the ecological impacts caused by derelict traps, there are also economic impacts: by continuing to capture estuarine organisms that would have contributed to commercial or recreational harvests, derelict traps can cause economic losses for those involved in the commercial and recreational fishing sectors. The ***“Reduction of Ghost Fishing from Derelict Blue Crab Traps on the Mid-Texas Coast”*** project was designed to capture data on the nature and extent of these problems and use that data to develop recommendations on how to reduce the number of abandoned crab traps found in the bays, along the shorelines, and in the marshes of the Mid-Texas Coast during the annual closure period.

This project, in the three years (2021 – 2023) it was implemented, has involved many hundreds of volunteers who ventured out onto the region’s bays during each years’ closure period – often in adverse weather conditions – to locate and remove abandoned crab traps. Planning, coordination, and implementation of these annual efforts has been carried out, to a great extent, by the volunteers themselves. Reporting on program results/accomplishments, and management of program funding, has been carried out by CBBEP and SABP staff.

This project summary report is designed to:

- provide information on the program results for each of the three years the abandoned crab trap removal program took place,
- identify any trends/deviations in the information collected over the three years the program has been in place,
- assess the overall benefits the program has provided,
- capture “lessons learned” over the three years of the program, including the value of “innovative partnerships,”
- make recommendations on how this annual abandoned crab trap removal event might be funded and managed in the future, and
- identify/recommend “next steps” in addressing the problem of abandoned crab traps causing “ghost fishing in bays and estuaries along the Texas Mid-Coast.

Table 1.: Mid-Texas Coast Abandoned Crab Trap Removal Program Highlights

2021-23 Mid-Texas Coast Abandoned Crab Trap Removal Program Highlights:

2020: NOAA Funding Awarded -- \$95,000.00

2021: Traps removed: 1,207; Boats Used: 60; Volunteers: 148; NOAA grant funds spent: \$10,700.88; first annual report prepared and submitted

2022: Traps removed: 1,047; Boats Used: 61; Volunteers: 184; NOAA grant funds spent: \$46,278.97; second annual report prepared and submitted

2023: Traps removed: 977; Boats Used: 48; Volunteers: 182; NOAA grant funds spent: \$31,075.83; third annual report prepared and submitted

2021-23: Total number of traps removed: 3,231

2021-23: Number of traps recycled: 1,017 -- 31.5% of traps removed

NOAA funds spent: \$90,000.00 (Local Funds Spent: approximately \$5,000)

Acknowledgments: The San Antonio Bay Partnership thanks the National Oceanic and Atmospheric Administration (NOAA) Marine Debris Program and the Coastal Bend Bays & Estuaries Program (CBBEP) for funding this study. We would also like to thank our project partners: the University of Texas Marine Science Institute/Mission-Aransas National Estuarine Research Reserve (MANERR), and the Harte Research Institute (HRI) at Texas A&M University – Corpus Christi. In addition to these entities, project participants include Federal, state, and local resource agencies, non-profit organizations, and hundreds of dedicated volunteers who spent hours of their time out on the bays of the Mid-Texas Coast, removing derelict crab traps and gathering data.

Project Need/Purpose/Scope

The “*Reduction of Ghost Fishing from Derelict Blue Crab Traps on the Mid-Texas Coast*” project was initiated in 2020 to develop an expanded and more strategic effort to locate and remove “derelict” blue crab traps in the bays along the Mid-Texas Coast (“the Study Area,” which includes, Matagorda Bay, Lavaca Bay, Powderhorn Lake, East and West Espiritu Santo Bays, Shoalwater Bay, Upper and Lower San Antonio Bay, Hynes Bay, Mission Lake, Guadalupe Bay, and to gather standardized data that can be used to better assess ecological and economic

impacts of these “abandoned” crab traps, which are known to be a significant source of mortality for a variety of marine organisms, many of which are recreationally or commercially important and are considered NOAA Trust Resources (e.g., blue crabs, Gulf stone crabs, sheepshead, spotted seatrout, hardhead catfish, black drum, Atlantic croaker, and Texas diamondback terrapins.) Abandoned crab traps can also have negative effects on sensitive habitats like submerged seagrass and salt marsh vegetation, and animal species that depend on them (i.e., endangered Whooping Crane).

In addition to the ecological impacts caused by derelict traps, there are also economic impacts. By continuing to capture estuarine organisms that would have contributed to commercial or recreational harvests, derelict traps can cause economic losses for commercial and recreational fishing sectors. Other economic costs imposed by derelict traps include damage to sensitive habitats and a subsequent reduction in the ecosystem services they provide, and the replacement cost of the derelict traps. Finally, lost traps can lead to user conflicts when the motors of boaters/fishermen run into them, and shrimpers nets become entangled with them.

The NOAA grant provided three years of support for activities undertaken by the local project team, which organizes and works with volunteers to locate and remove derelict crab traps in coastal waters from Matagorda Bay to Aransas Bay (***see Figure 1, Study Area Map, next page***) during the Texas Parks and Wildlife Department’s 10-day closure period in February of each year. In addition to trap removal, volunteers are also responsible for collecting specific data parameters about each derelict trap. Data parameters are designed to assist in both the assessment of impacts (e.g., number of individuals, by species, entrapped, habitat where the traps are found, habitat impacts and a determination of the reason for abandonment (e.g., abandoned in place or blown to shore, signs of entanglement with other fishing gear, buoy line cut, owner information, etc.).

Project Methods

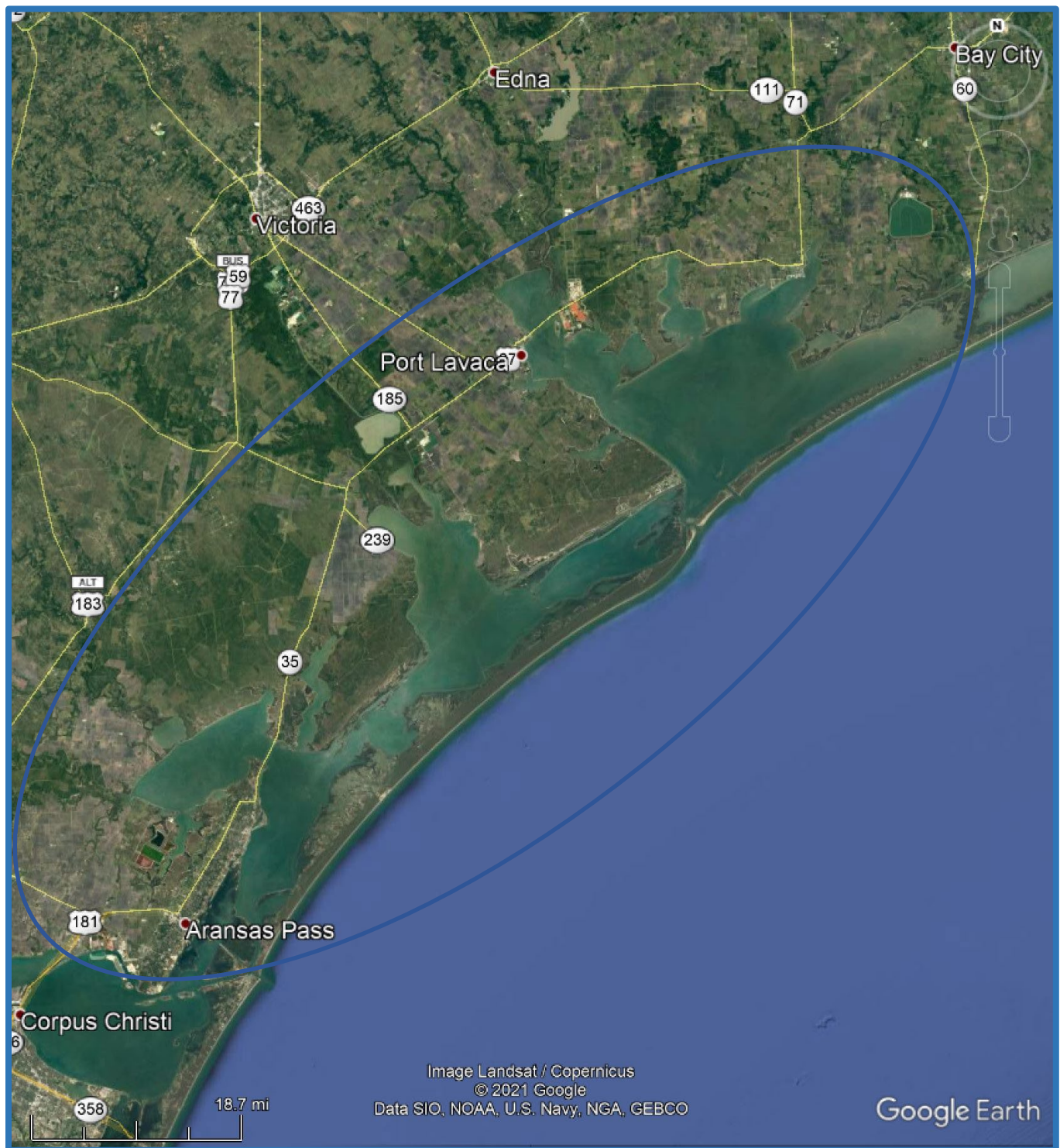
Participants in the 2021 and 2022 crab trap pickup programs for the Mid-Texas Coast utilized a smart phone-based application ([ESRI Collector App](#)) to collect, record and report data about the location and contents of abandoned crab traps as they are being removed from the bays. Participants in the 2023 crab trap pickup program for the Mid-Texas Coast utilized a new smart phone-based application, [ArcGIS Field Maps](#) (subsequently: “*Field Maps*”), to perform the data collection, recording and reporting.

The data gathered during the 2021, 2022 and 2023 crab trap cleanup programs has been analyzed to better understand both the ecological and economic impacts of abandoned crab traps on the Mid-Texas Coast and to identify potential root causes of the dereliction. One of the most useful aspects of the data analysis has been the development of maps (in [Google Earth Pro](#)) which show the exact location of each crab trap that was collected and had either a Collector App (2021-22) or a Field Maps(2023) data entry.

In addition to location information captured for each trap, the “Collector” and “Field Maps” apps were used to enter and record information on:

- the number of crabs and other organisms still in the trap – if any;
- the owner of the trap (via the Texas Parks and Wildlife Department’s crab trap registration number on the trap tag or float) when available, and
- comments/additional information on the condition and location of the trap.

Figure 1: Map of Mid-Texas Coast Abandoned Crab Trap Removal Program Study Area



Annual Results: 2021 thru 2023 Abandoned Crab Trap Removal Program – Mid-Texas Coast Area

The maps that were created from the Collector and Field Maps location data obtained during the 2021-23 abandoned crab trap pickup events (see Figures 2-4, pgs. 6-8) allow for the visual identification of patterns in the data, which helps in making inferences about the cause of the trap not being removed prior to the crab trap

closure period – i.e., lines of traps with the same tag number likely indicates abandonment-in-place; traps with a variety of tag numbers – or frequently, no tag -- deposited on shorelines indicates that the traps may have been blown away from their original location and washed up on a shoreline; and traps removed from shallow marsh areas indicate that boat access to these traps for removal during the crab trap closure period may have been infeasible due to low water levels.

It is hoped that the results of the analysis of the three years of data can be utilized to engage commercial crabbers in the Matagorda Bay, San Antonio Bay, and Aransas Bay systems in constructive, two-way conversations that seek to identify the root causes of crab trap dereliction and promote new approaches which reduce the number of derelict traps, the amount of ghost fishing, and the economic losses which occur.



Photo 1: Crab Trap “Dump”

Photo Credit: James Dodson

Figure 2., below, illustrates the locations of the **1,045** traps - with Collector App data recorded - which were removed during the **2021** abandoned crab trap removal program. These represent **87%** of the **1,207** traps removed.

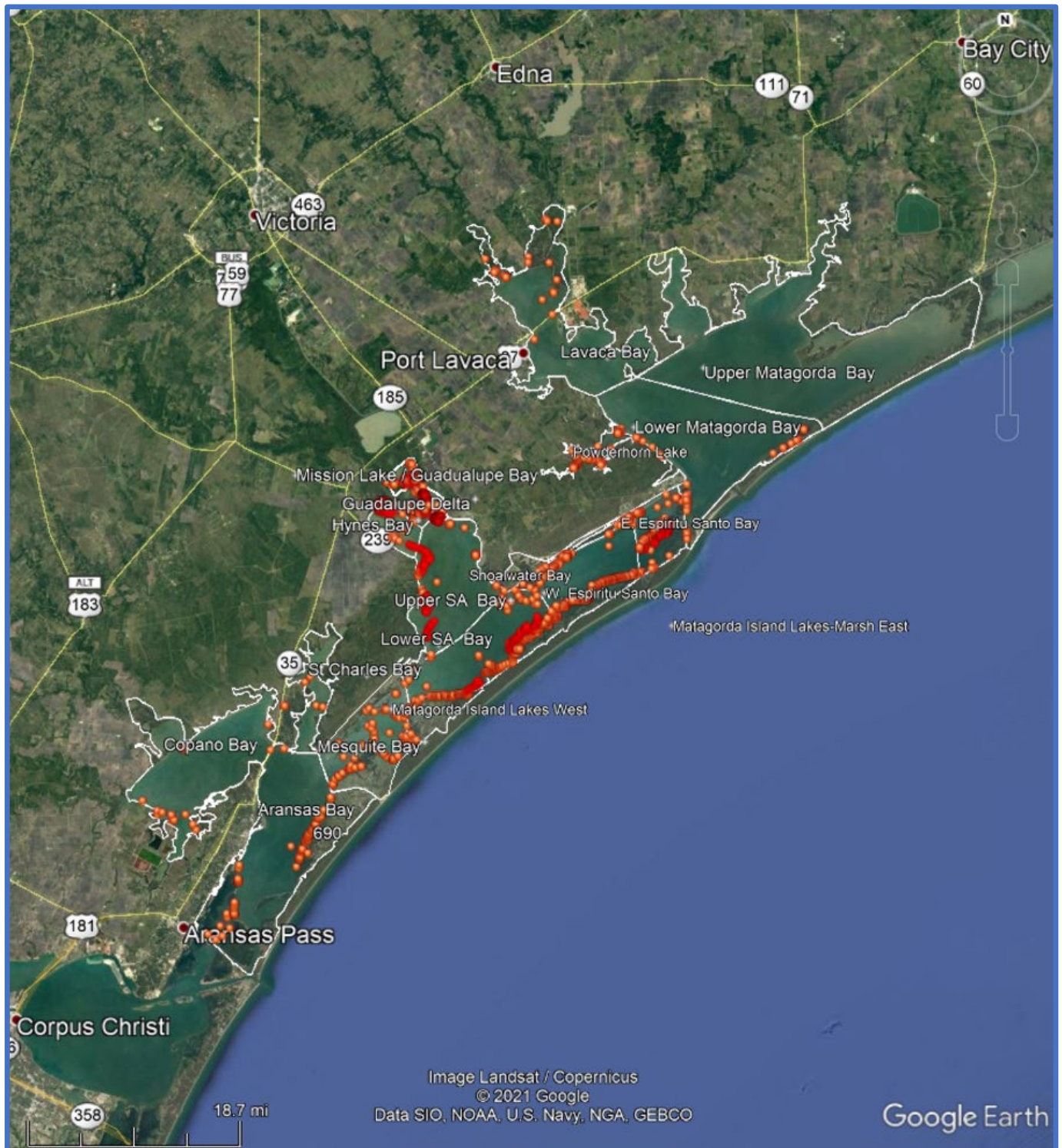


Figure 3., below, illustrates the locations of the **660 traps** - with Collector App data recorded - which were removed during the **2022 abandoned crab trap removal program**. These represent **63%** of the **1,047** traps removed.

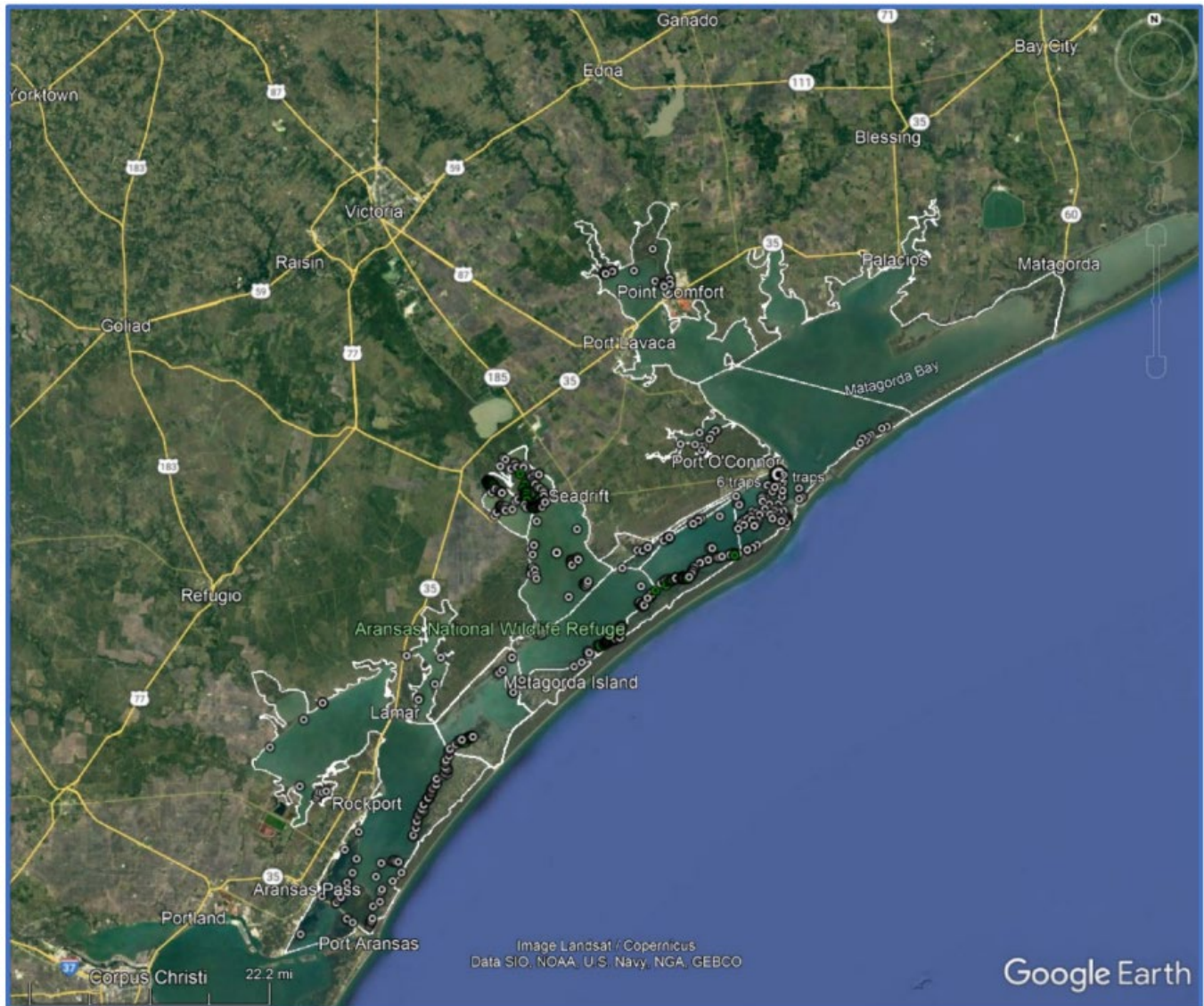
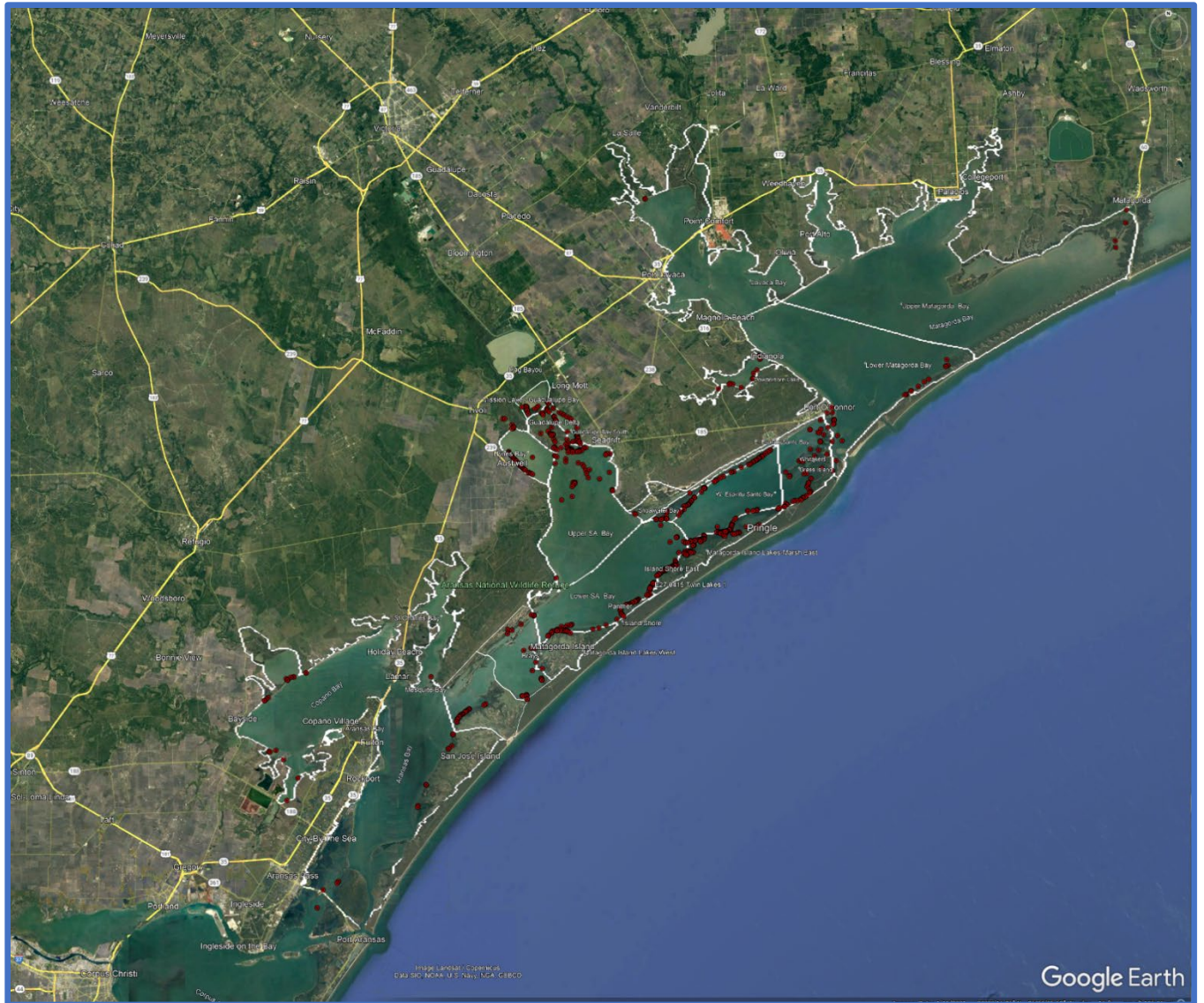


Figure 4., below, illustrates the locations of the **798 traps** - with Field Maps data recorded -- which were removed during the **2023** abandoned crab trap removal program. These represent **82%** of the **977** traps removed.



Tables 2 – 4, on the next three pages, display annual summary results for each of the three years (2021 – 2023) of the Abandoned Crab Trap Removal Program in the Texas Mid-Coast area, followed by discussion of what each year’s data seems to reveal.

Table 2: 2021: Number of Traps (with Collector Data) Removed by Bay System/Area and Type of Environment Discussion on 2021 Abandoned Crab Trap Removal Results:

Trap Count by Area	Environment					
Area Name	Bay	Shore	Marsh	"Dump"	Total	Figure #:
Copano Bay	8	9	1		18	4
Aransas Bay	2	63	10		75	4
St. Charles Bay	1	5			6	4
Mesquite Bay	17	56			73	4
Lower S.A. Bay	74	139			213	5
Upper S.A. Bay	69	3	3		75	5
Hynes Bay	10	1		8	19	5
Guadalupe Delta			64		64	5
Mission Lake/ Guadalupe Bay	23	39		4	66	5
Matagorda Island Lakes E & W		1	85		86	6
Shoalwater Bay			45		45	7
West Espiritu Santo Bay	8	112	3		123	7
East Espiritu Santo Bay	19	56	17		92	7
Lower Matagorda Bay	2	22			24	7
Powderhorn Lake	2	33	11		46	7
Lavaca Bay	5	10	5		20	7
TOTAL	240	549	244	12	1045	
Percent (%)	23	53	23	1	100	

- **The location data for many traps removed during the February 2021 Crab Trap Removal program seems to indicate that the traps were simply, and purposely, “abandoned in place.”**
 - This finding stems from both from the “linearity” of the point locations of multiple traps (which likely indicates a “trap line” left in place) and the ownership information on the trap tags (same owner for all the traps in a trap line). Some smaller percentage of traps (1%) appear to have been “dumped” at sites around the bays – perhaps as a means of disposal.
- **Strong wind events in the bays blow traps out of place and they wind up on bay shorelines**
 - As shown in Table 2., above, 549 (53%) of the abandoned traps were removed from the shorelines within the bay systems. Texas’ bays are a dynamic environment, especially when it comes to high winds and the resulting wave energy, which can lift traps off the bottom and then blow them long distances until they reach shallow water along the shorelines.

Table 3: 2022: Number of Traps (with Collector Data) Removed by Bay System/Area and Type of Environment

Trap Count by Area*	Environment			Total	Figure #:
Area Name	Bay	Shore	Marsh		
Copano Bay	2	9		11	4
Aransas Bay		76	7	83	4
St. Charles Bay		7		7	4
Mesquite-Carlos-Ayers Bays	3	24		27	4
Lower San Antonio Bay	11	96		107	5
Upper San Antonio Bay	55	2		57	5
Hynes Bay	25	4		29	5
Guadalupe Delta		56		56	5
Mission Lake/Guadalupe Bay	8	17		25	5
Matagorda Island Lakes E&W			24	24	6
Shoalwater Bay/Lagoon			23	23	7
West Espiritu Santo Bay	4	72		76	7
East Espiritu Santo Bay	23	49	11	83	7
Lower Matagorda Bay/Peninsula	8	16		24	7
Powderhorn Lake	11			11	7
Lavaca Bay	11	6		17	7
Grand Total	150	389	121	660	
Percent (%)	23	59	18	100	

Discussion:

- ***Strong wind events in the bays blow traps out of place and they wind up on bay shorelines***

As shown in Table 3., above, in 2022, the largest number of abandoned traps (59%) were removed from the shorelines within the bay systems. Texas' bays are a dynamic environment, especially when it comes to high winds and the resulting wave energy, which can lift traps off the bottom and then blow them long distances until they reach shallow water along the shorelines.

- ***There also appears to be problems with the placement of crab traps in shallow marsh areas***

Bays along the Texas Mid-Coast are fringed by tidal marsh complexes characterized by areas of vegetation surrounding shallow, typically muddy-bottomed, open-water features. Crab traps placed in these marshes during higher water conditions may not be accessible during regularly occurring lower tides, or for extended periods during the winter when the passage of frontal systems and accompanying strong N/NW winds push water out of the bays and drop water levels in the marshes to the extent that access via boat is sometimes impossible for days. This limits crabbers' ability to regularly check traps in these locations, or to remove them during the closure period, resulting in program volunteers removing many traps (121) from marsh areas.

Table 4: 2023: Number of Traps (with Field Maps Data) Removed by Bay System/Area and Type of Environment

2023 Traps Removed by Bay System and Location				
Bay System:	Bay	Marsh	Shore	Total
Aransas Bay		3	12	15
Copano Bay		3	16	19
Guadalupe Delta		36		36
East Espiritu Santo Bay	4	8	49	61
Guadalupe-Mission Bay	4		64	68
Hynes Bay	34		2	36
Lavaca Bay			2	2
Lower San Antonio Bay	16		132	148
Matagorda Peninsula			13	13
Matagorda Bay		4		4
Mesquite Bay	2		57	59
Matagorda Island Lakes		88		88
Powderhorn Lake			17	17
Shoalwater Bay		22		22
St Charles Bay	1			1
SW Matagorda Bay	2		10	12
Upper San Antonio Bay	56	2	12	70
West Espiritu Santo Bay	4		123	127
Grand Total:	123	166	509	798
Percent of Total:	15%	21%	65%	100%

Discussion:

- ***Strong wind events in the bays blow traps out of place and they wind up on bay shorelines.***

As shown in Tables 2-4., above, in all three years of the crab trap removal study, the largest number of abandoned traps (**53-65% annually**) were removed from the shorelines within the bay systems. This situation suggests the need to work with TPWD to amend rules governing the Abandoned Crab Trap Closure

program in order to develop and implement a new program element whereby windblown traps which are still in usable condition, and whose ownership can be identified by a valid tag, are collected, separated from the traps which will be recycled or disposed of, and stored at a central location. Then, if the trap has an owner's tag on it, the trap can be claimed by the owner and returned to useful service. If a trap is not claimed by the owner prior to next year's crab trap closure period, it would be recycled with the untagged/unusable traps removed during that year's program.

- ***There appears to be continuing problems with the placement of crab traps in shallow marsh areas.***

Bays along the Mid-Texas Coast are fringed by tidal marsh complexes characterized by areas of vegetation surrounding shallow, typically muddy-bottomed, open-water features. Crab traps placed in these marshes during higher water conditions may not be accessible during regularly occurring lower tides, or for extended periods during the winter when the passage of frontal systems and accompanying strong N/NW winds push water out of the bays and drop water levels in the marshes to the extent that access via boat is sometimes impossible for days. This limits crabbers' ability to regularly check traps in these locations, or to remove them during the closure period, resulting in program volunteers removing a significant number (**21%**) of traps from marsh areas during this year's event.

- ***This third year, fewer traps (15%) were found in the open bay areas.***

As Table 3., above, indicates, only 15% of the abandoned traps removed this year were found in open bay areas. This, hopefully, indicates that the message SABP has been disseminating to crabbers over the past several years has begun to have an effect in reducing the number of traps left in place during the closure period. In addition, the decrease in the number of traps left in the water prior during the 2023 closure period may also be attributed to the weather this year being more conducive to having crab boats out on the water removing traps prior to the start of the closure period.

Outreach, Communications and Stakeholder Engagement Program

Information generated from the data compiled during the 2021-23 Crab Trap Removal Programs has been used to develop an outreach, communications and stakeholder engagement program aimed at involving crabbers and key partners in fostering changes which reduce crab trap dereliction and are supported by the local commercial crabbing community. A copy of the Mid-Texas Coast Abandoned Crab Trap Removal Program's *Communications and Engagement Strategy for the 2023 Crab Trap Closure Program* is attached in Appendix II.

Additionally, after each year of the crab trap removal events, data from *within the San Antonio Bay portion* of the study area has been used to inform the development of a one-page flyer designed to communicate to the crabbing community and the general public some of the results of that year's efforts. Copies of these fliers are illustrated in Figures 4-6, on pages 14-16.

The analysis of the 2021-23 project data has generated several "Key Messages." For example, Key Messages to crabbers, one of the Key Audiences, might include something like:

- ***"Remember to Pack your traps!" Derelict traps cost you money and reduce your catch.***
- ***"Save Crabs and Money -- Search for your Lost Traps!"***
- ***"Let's save costs and reduce the number of derelict traps in our bays!"***
- ***"Let's work together to keep our Bays healthy!"***

Figure 4: 2021 Crab Trap Removal Program Flyer (focused on results in San Antonio Bay system)

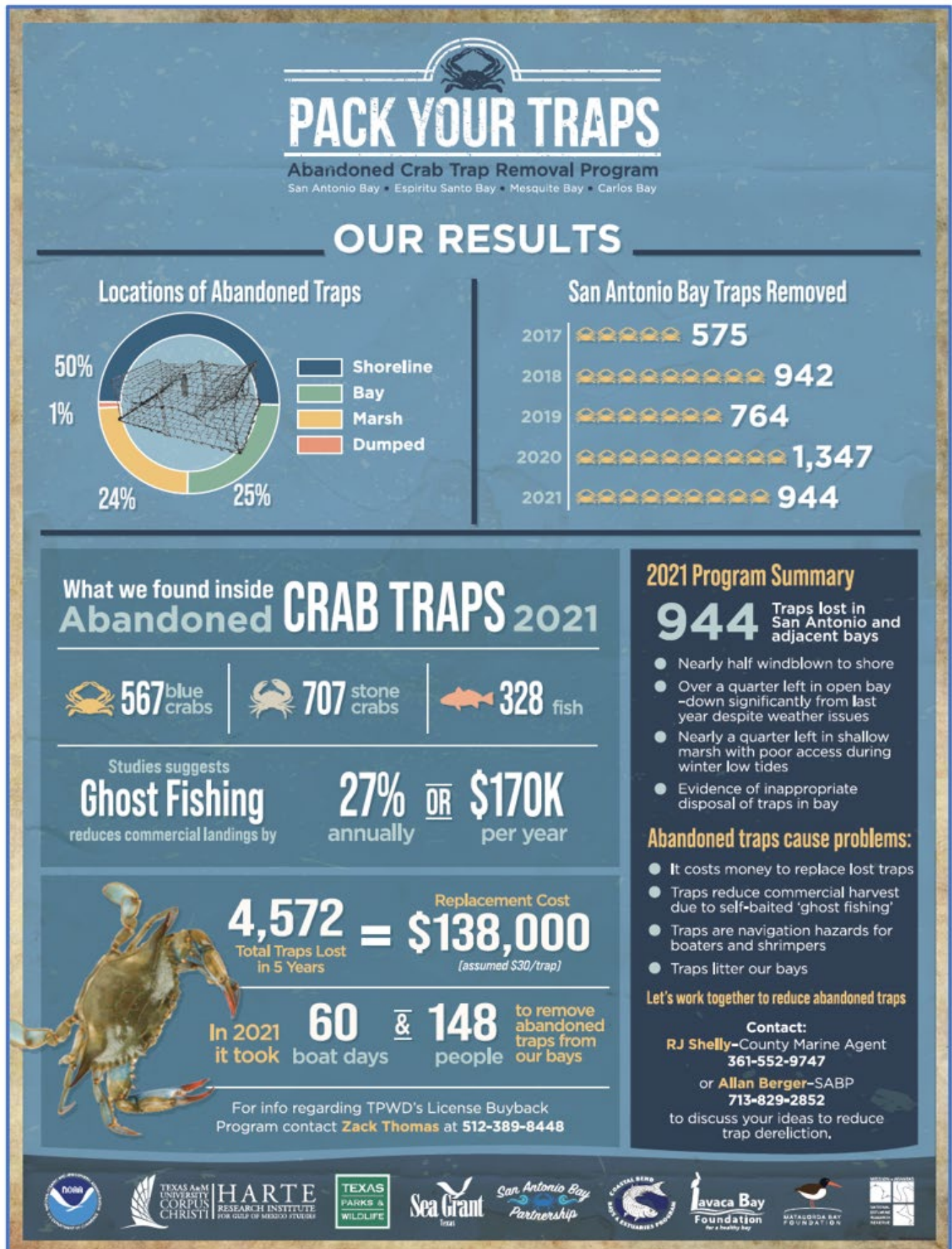


Figure 5: 2022 Crab Trap Removal Program Flyer (focused on results in San Antonio Bay system)



Figure 6: 2023 Crab Trap Removal Program Flyer – Crab Traps Removed-- San Antonio Bay, Espiritu Santo Bay, Mesquite Bay, Carlos Bay, and SW Matagorda Bay



Innovative Program Elements/Lessons Learned/Partnerships Expanded:

The success of the 2021-2023 abandoned crab trap removal efforts for the Mid-Texas Coast was due in large part to the innovative character of the program elements, and the sheer energy of the project management and participants. The implementation of this program relied almost entirely on volunteers to plan, manage, direct, and execute a complex on-the-water deployment -- in the middle of the Texas Mid-Coast's notoriously fickle winter weather and the new medical landscape of the COVID epidemic. Despite these challenges, the past three years' abandoned crab trap removal program results have exceeded expectations.

This reflects the outstanding efforts of a large and varied group of organizations and volunteers who contributed time, money, and effort in support of a common cause -- protecting the blue crab populations in the bays of the Mid-Texas Coast while removing marine debris (abandoned crab traps). The amount of "In-Kind" time the volunteers spent over the three years of the program was captured and is reflected in the NOAA-approved "Match Funds" generated by the local project sponsors and the volunteers -- \$110,762.00 -- which is in excess of the \$95,000 in "Total Approved NOAA Funds" spent by NOAA in reimbursing actual expenses on the project.

Beginning in 2022-2023, the abandoned crab trap removal program also helped to mobilize and equip volunteers to conduct SABP's annual Shorelines Cleanup event. This SABP organized event takes place each September to remove debris from bay shorelines which are largely inaccessible unless accessed by boat. While collecting all kinds of marine debris found along these shorelines, these efforts target the removal of plastics, which make up the majority of the debris found along these shorelines -- and contribute to the "microplastics" epidemic in the coastal marine environment.

Information on several of NOAA's key "Performance Measures," extracted from NOAA's own project "***Performance Progress Report***" for the reporting period ended in March 2023 -- presented in Table 5., below -- succinctly tells a great "success story" about this three-year project in that the "Actual" value of the various performance measures ***exceeded the "Project Target" values in every Project Performance category.***

Table 5: NOAA Project Performance Measures -- Project Targets vs. Actual (2021-23)

<u>Project Performance Measures</u>	<u>Unit of Measure</u>	<u>Baseline</u>	<u>Project Target</u>	<u>Actual</u>
Number of traps removed	Total # of Traps	1,800	1,800	3,231
Weight of traps removed	lbs.	0	18,000	32,310
Weight of Traps Reused, Recycled, or Incinerated	lbs/percent	0	3,600 lbs./20%	10,170 lbs/31%
Number of Volunteers Engaged	Individuals	0	480	514
Number of Volunteer Hours	Hours	0	480	2,957
Habitat Restored (i.e., "footprint" of debris removed)	Acres	0	530,000	1,022,000

What hasn't been calculated and factored into the project benefits is both the market value – and the ecosystem services value -- of the blue crabs, stone crabs, fish, and other marine life released from these abandoned traps. However, one subjective measure of the project results might be the satisfaction the volunteers achieved in knowing their efforts truly made a difference in the region's ecosystem health -- at a very large scale.

One somewhat unplanned, but notably successful, outcome of this project is that the interactions among the various organizations, and their members/staff, as they were involved in the planning, funding, and implementation of the abandoned crab trap removal efforts for the Mid-Texas Coast, generated increased communication, cooperation, and innovative partnerships among these groups on other important issues/projects aiming to benefit this region.

The San Antonio Bay Partnership plans to continue working in conjunction with many of the same groups/organizations involved in the 2021-2023 abandoned crab trap removal efforts on the Mid-Texas Coast in order to fund and implement future abandoned crab trap removal programs – ***and to expand the experiences and benefits of having developed these kinds of working partnerships into a variety of new projects/program areas providing even greater benefits to the estuarine ecosystem in the Texas Mid-Coast region.***

Planning is already underway for the next abandoned crab trap removal program in February 2024, drawing on lessons learned in preparing for and implementing the previous years' events. The San Antonio Bay Partnership will continue organizing the event and coordinating with the many other organizations, and volunteers, who make the events a success each year.

While largely volunteer-driven, the abandoned crab trap removal program on the Mid-Texas Coast does incur certain expenses in order to provide volunteers with the tools and personal protection (i.e., wire snippers and work gloves) necessary to safely remove the traps. The program has also purchased and provided gas cards for those who use their personal boats during the removal operations. There are also operational expenses in properly disposing of/recycling the crab traps collected.

These program implementation expenses, and the expenses associated with general program management/reporting activities, have been covered by the NOAA program grant for the past three years. However, a significant part of these expenses was attributable to elements of the project scope of work outside the actual crab trap removal activities – i.e., funds spent on grant administration, program management and public outreach design/communications, which accounted for about 66% of the grant program expenditures through April 2023.

Lacking continued program funding under the NOAA Abandoned Crab Trap Pickup grant, the project sponsors' costs to simply manage and implement the minimal elements of the annual abandoned crab trap removal program would be in the range of \$25,000 per year. Some of that would likely come from donations made to the San Antonio Bay Partnership which are directed to the support of the annual abandoned crab trap removal program, but a fund-raising plan/program will still be necessary to generate directed donations at a level sufficient to support the program without NOAA's grant assistance at the levels the program has enjoyed over the past three years.

However, to – in part -- address the continuing funding needs of the annual Abandoned Crab Trap Pickup Program, SABP has submitted a Letter of Interest to the NOAA Office for Coastal Management's NOAA Climate Resilience Regional Challenge (2023) program. The proposed program budget in the Letter of Interest includes funding for future Abandoned Crab Trap Pickup Program events.

Appendix I: Crab Trap Design and Function

A good explanation of crab trap design and function can be found on the website “[Crabbing Hub](https://crabbinghub.com/how-crab-pots-work-with-pictures/).”
(<https://crabbinghub.com/how-crab-pots-work-with-pictures/>)



Photo 2: Typical Commercial Crab Trap

Photo Credit: Allan Berger

Appendix II: Mid-Texas Coast Abandoned Crab Trap Removal Program (ACTRP)

Communications and Engagement Strategy

Overview: Abandoned crab traps are known to be a significant source of mortality for a variety of organisms, many of which are recreationally or commercially important and are considered NOAA Trust Resources. To help address this issue, the State of Texas closes every bay system in the State to crabbing for a 10-day period each February to allow for derelict traps to be removed. The Abandoned Crab Trap Removal Program (ACTRP) for the Texas Mid-Coast Region is a joint project between a number of organizations and institutions, including: San Antonio Bay Partnership (SABP), Mission-Aransas National Estuarine Research Reserve (M-A NERR), Texas A&M University – Corpus Christi/Harte Research Institute (TAMU-CC/HRI), Matagorda Bay Foundation (MBF), Lavaca Bay Foundation (LBF), Aransas National Wildlife Refuge (ANWR), and the International Crane Foundation (ICF).

The program organizes volunteers to locate and remove derelict crab traps in coastal waters from Matagorda Bay to Aransas Bay during the TPWD's 10-day closure period in mid-February of each year. Volunteers also collect standardized data to be used to understand the impacts and identify root causes of the dereliction. Successful implementation of the project will require close engagement and collaboration with decision-makers and key stakeholder groups. Along with key partners, this communication plan also primarily targets federal and state agencies, non-profit organizations, and private sector entities.

This plan is organized as follows:

- I. Communications Mission, Goals, & Strategies
- II. Key Audiences and Messages
- III. Key Partners and Vehicles

I. Communications Mission, Goals, and Strategies

Mission: To reduce the number of derelict traps in the

Goals:

- 1) Develop and implement recommendations and changes that reduce crab trap dereliction and are supported by the local commercial crabbing community.
- 2) Create an active and involved volunteer group dedicated to continuing to remove derelict traps and other marine trash that are in the bays of the Mid-Texas Coast
 - a. Leverage this project to build a broader volunteer base for general bay cleanup, especially with the Matagorda volunteer base.
 - b. Include use of the app. (but must be trained as part of the volunteer group)
 - c. SABP has information and contacts on their website to sign up.
 - d. The real limitation is the lack of boats – not walk-on volunteers – need to recruit more boaters.
- 3) Encourage positive social media interest and engage in community outreach through social media outposts and partner websites.

Strategies:

- 1) Strong internal coordination with key partners
- 2) Potential Strategy to engage Commercial Crabbers
 - a. Focus on dock-based outreach in fishing communities, which in Seadrift are Vietnamese and Hispanic
 - b. Prior to Closure - enhance reminders of upcoming closure (posters, dockside visits, mailouts)
 - c. Also look to bring a crabber to local media TV interviews or, if looking for boats, bring a boat owner that is supportive and has been involved.
 - d. After Closure – share results of cleanup effort (#, location, content, analysis) – pamphlet in layman’s terms
 - i. With Sea Grant, develop a plan for how to package and effectively communicate data collected from the February 2023 event back to the crabbing community over the summer.
 1. What is the current priority need?
 2. What messages should be targeted to individual crabbers, key leaders?
 3. How should data be packaged to help motivate the crabbing community, e.g., in terms of costs or crabs unavailable for harvest during the pickup event?
 4. How to best reach the 30 license holders, as some of the addresses are old (e.g., engage Catholic Church or Vietnamese Community Center)?
 - e. Develop Educational Material regarding consequences of derelict traps—in layman’s terms.
 - i. Develop Best Practices training materials.
 - f. Identifying and developing improvements and buy-in
 - i. Continue building relationships with Community leaders.
 - ii. identify individual crabbers willing to share perspectives.
 - iii. Identify incentives that might change current practices / incentives, e.g.
 1. buyback program for old traps
 2. storm recovery program
 3. promote license buy-back programs.
 - g. Determine appropriate stance for enforcement that encourages improvements without heavy-handed actions.
- 3) Develop media strategy for the crab trap closure/removal season. Target local media:
 - a. Victoria Advocate
 - b. Port O’Connor/Sea Drift – Dolphin Talk
 - c. Rockport Pilot
 - d. Palacios / Bay City papers
 - e. Parks & Wildlife Press Release
 - f. TV stations in the Corpus or Victoria area
- 4) Engage broader stakeholders through social media with content and flyers.
- 5) As COVID-19 restrictions ease, engage commercial crabbers in this region for a discussion over root causes and develop alternative solutions.

II. Key Audiences & Messages

Key Audiences:

- Recreational crab fisherman and commercial crab fisheries
- The general public and active volunteers
- Local community stakeholders – universities (TAMUCC, UTMSI), businesses (crab processors and wholesalers, crab trap manufacturing), and industry (several local industries are sponsors of crab trap removal as good corporate citizens)
- Non-governmental organizations & environmental groups (private or non-profit), e.g., SABP, CBBEP, MBF, LBF, ICF, CCA
- Local, regional, state, and federal government agencies involved with implementation, e.g., TPWD Coastal Fisheries, USFWS, TXSG, County Government, enforcement (TPWD, USFWS)

Social Media Key Messages for Crabbers, General Public & Volunteers:

- *Key message to Commercial crabbers: **derelict traps cost you money and reduce your catch***
- *Bays along the Texas Mid-Coast are closed to crabbing during the annual crab trap closure period – **remember to Pack Your Traps!***
- *All crabbers are required to pack up traps before the beginning of the crab trap closure period – **let's work together to save costs and reduce the number of derelict traps in our bays!***
- ***Pack Your Traps!!!** Remember to remove all crab traps before (the beginning date of the crab trap closure period) – any traps left in the water will be collected and destroyed. **Let's work together to keep our Bays healthy!***
- ***Looking for volunteers!** The Abandoned Crab Trap Removal Program will remove derelict crab traps from our Bays from February **xx to xx** each year) **Come enjoy the outdoors and help keep our coasts healthy!***

III. Key Partners and Vehicles

Communication through **Key Partners'** websites and social media posts will act as a community outreach tool during the implementation of the program and be used to create and add onto the project's volunteer base. A list of, and contact information for, the **Key Partners** is provided in Table 6., on the next page.

Table 6. Mid-Texas Coast Abandoned Crab Trap Pickup Program: Key Partners/Contact Information

Key Partners		Website & Social Media Outposts
San Antonio Bay Partnership (SABP)	Allan R. Berger	<ul style="list-style-type: none"> Website: https://www.sabaypartnership.org Facebook: @SanAntonioBayPartnership https://www.facebook.com/SanAntonioBayPartnership/ email distribution capabilities, e.g. Vertical Response
Coastal Bend Bays & Estuaries Program (CBBEP)	Leigh Perry	<ul style="list-style-type: none"> Website: https://www.cbbep.org Facebook & Instagram: @cbbep https://www.facebook.com/CBBEP
Texas Sea Grant (TSG)	R.J. Shelly	<ul style="list-style-type: none"> Website: https://texasseagrant.org Facebook & Instagram: @texasseagrant https://www.facebook.com/texasseagrant Twitter: @TXSeaGrant
Matagorda Bay Foundation (MBF)	Bill Balboa	<ul style="list-style-type: none"> Website: https://matbay.org Facebook: @matbay.org https://www.facebook.com/matbay.org/
Lavaca Bay Foundation LBF)	Raymond Butler	<ul style="list-style-type: none"> Website: https://lavacabay.org Facebook: @lavacabay https://www.facebook.com/lavacabay/
International Crane Foundation (ICF)	Carter Crouch	<ul style="list-style-type: none"> Website: https://www.savingcranes.org/ Facebook: https://www.facebook.com/savingcranes Twitter: https://twitter.com/savingcranes
National Ocean & Atmospheric Administration (NOAA)		<ul style="list-style-type: none"> Website: https://www.noaa.gov
TAMU-CC, Harte Research Institute (HRI)	Katya Wowk	<ul style="list-style-type: none"> Website: https://www.harte.org Facebook, Twitter & Instagram: @harteresearch https://www.facebook.com/harteresearch Twitter: @HarteResearch
Texas Parks & Wildlife Department (TPWD)	Holly Grand	<ul style="list-style-type: none"> Website: https://tpwd.texas.gov Facebook & Instagram: @texasparksandwildlife https://www.facebook.com/texasparksandwildlife/ Twitter: @TPWDnews
Mission Aransas National Estuarine Research Reserve (MANERR)	Katie Swanson	<ul style="list-style-type: none"> Website: https://missionaransas.org Facebook & Instagram: @manerr, @missionaransas https://www.facebook.com/manerr/ Twitter: @MissionAransas
US Fish & Wildlife Service Aransas National Wildlife Refuge	Allison Griffin	<ul style="list-style-type: none"> Website: https://www.fws.gov/refuge/aransas/ Facebook: @AransasNWR https://www.facebook.com/AransasNWR Twitter: @USFWSRefuges