Gulf States Marine Fisheries Commission: Blue Crab Subcommittee

Texas Report

Abandoned Crab Trap Program

The Texas Parks and Wildlife Department (TPWD) closed state waters to crabbing (with crab traps) from February 16 – February 25, 2024. During this time, crab traps encountered are classified as "abandoned" and may be removed by Law Enforcement personnel, Department staff, and any member of the general public. A grand total of 1,198 traps were removed. TPWD documented 241 volunteers participating onboard 65 boats during the annual closure. Table 2 has this data broken down by major bay in Texas. While TPWD relies heavily on several local partners to help organize and execute crab trap removal events during this closure period.

Table 2. 2024 Abandoned Crab Trap Removal Program Summary

ACTRP 2024 Results	Traps	Volunteers	Boats
Sabine Lake	26	0	2
Galveston Bay	103	85	15
Matagorda Bay	145	31	14
San Antonio Bay	590	125	31
Aransas Bay	301	0	0
Corpus Christi Bay	5	0	0
Upper Laguna Madre	9	0	2
Lower Laguna Madre	19	0	1
Totals	**1,198**	**241**	**65**

***Note, vessels with no volunteers indicates TPWD staff members operating vessels and collecting traps with no volunteers on board (i.e.., Upper and Lower Laguna Madre)**

Fishery Independent Monitoring

Blue Crab trends in Texas remain relatively unchanged from last year's report. Based on TPWD fishery independent catch rates, coastwide relative abundance of Blue Crabs has shown significant declines since the 1980's. This trend is generally consistent in all Texas bays. While these trends have largely stabilized since the early 2010's, and gill net and bag seine surveys suggest increased catch rates of adult Blue Crabs in recent years (Figures 1 and 2), bag seine and bay trawl catch-rates (Figures 2 and 3, respectively) suggest that juvenile abundance continues to remain low. Variation in trends among sampling gears may be due to habitat difference among these sampling gears (i.e., seine and gill net surveys are shore based while trawl surveys occur in mid-bay areas).

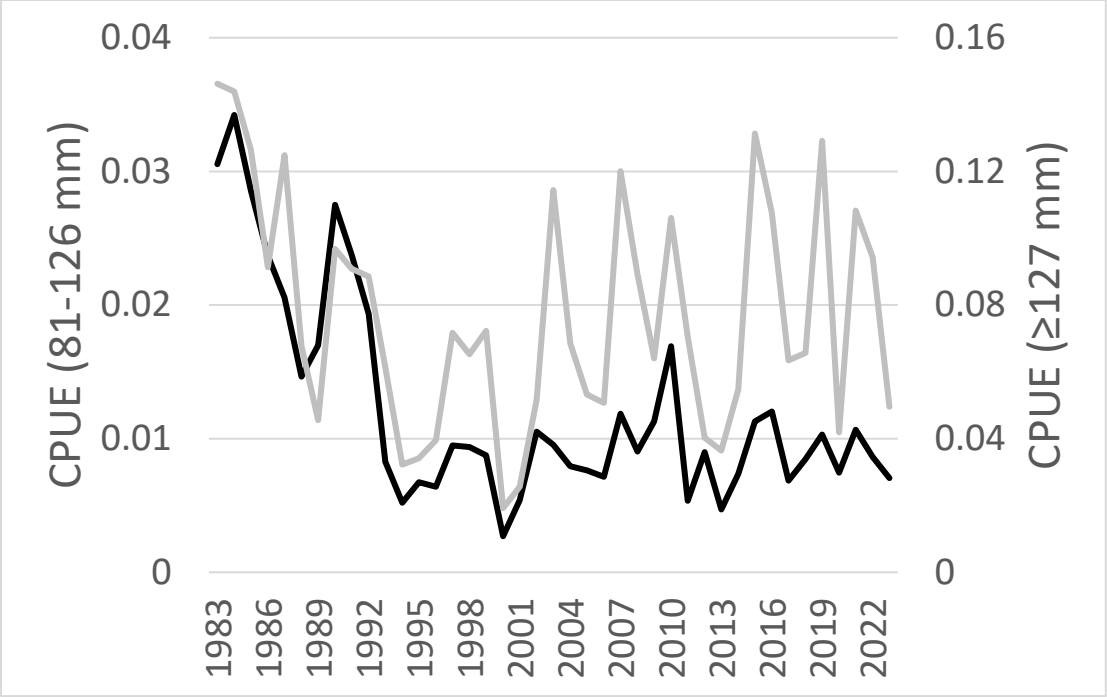

Figure 1. Blue Crab catch-per-unit-effort (CPUE; catch/hour) in fishery independent gill net surveys conducted in Texas bays from 1983-2023. The black line represents crabs 81-126 mm, and the grey line represents crabs ≥127 mm. Note, gill net samples were not collected during the spring of 2020 due to the COVID-19 pandemic (i.e., 2020 consists of only fall gill net samples).

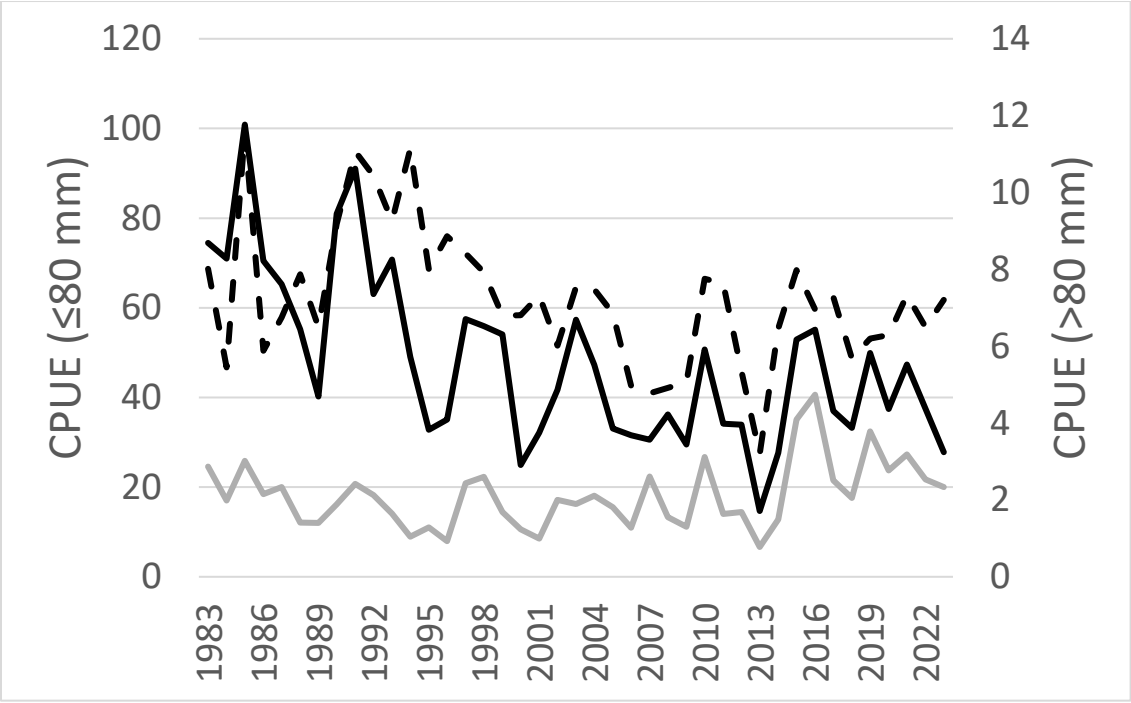

Figure 2. Blue Crab catch-per-unit-effort (CPUE; catch/hectare) in fisheries independent bag seine surveys conducted in Texas bays from 1983-2023. The dashed line represents crabs ≤80 mm, the black line represents crabs 81-126 mm, and the grey line represents crabs ≥127 mm.

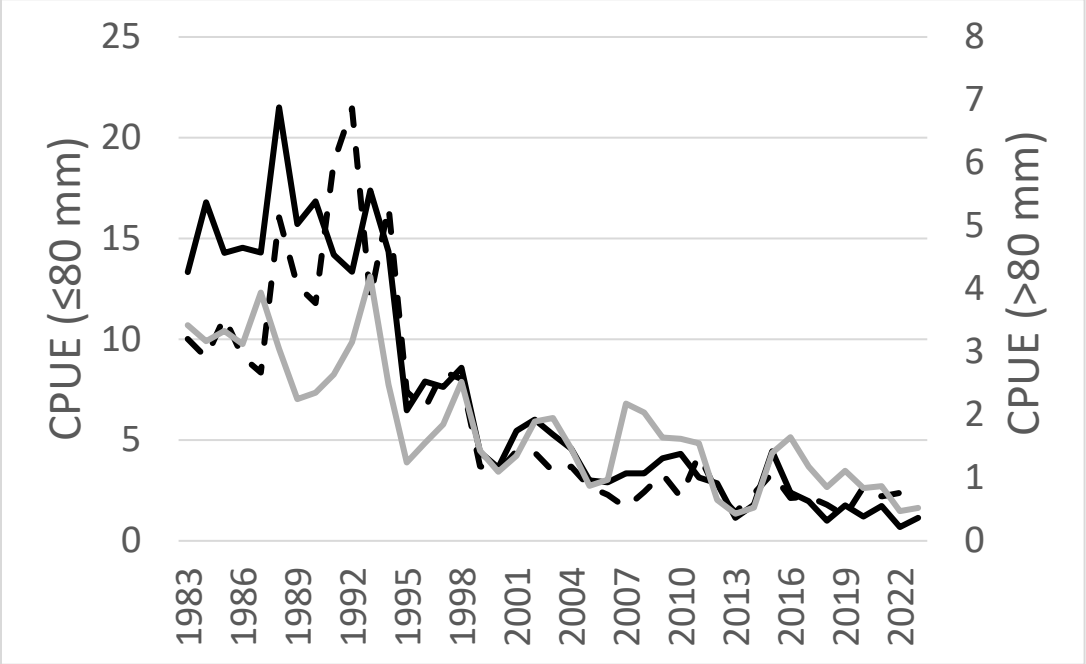

Figure 3. Blue Crab catch-per-unit-effort (CPUE) in fisheries independent bay trawl surveys (i.e., trawls conducted in Texas estuaries) conducted in Texas bays from 1983-2023. The dashed line represents crabs ≤80 mm, the black line represents crabs 81-126 mm, and the grey line represents crabs ≥127 mm.

Commercial Landings

Since the late 1980's, Blue Crab landings have declined in Texas (Figure 4). Recent years have shown some increases in value with minor increases in landings (e.g., since 2015). When adjusted for effort, trends in recent years have been fairly stable (Figure 5). Commercial Blue Crab landings in 2023 were slightly lower than 2022 at 2,223,069 lbs and worth $3,859,412 US dollars.

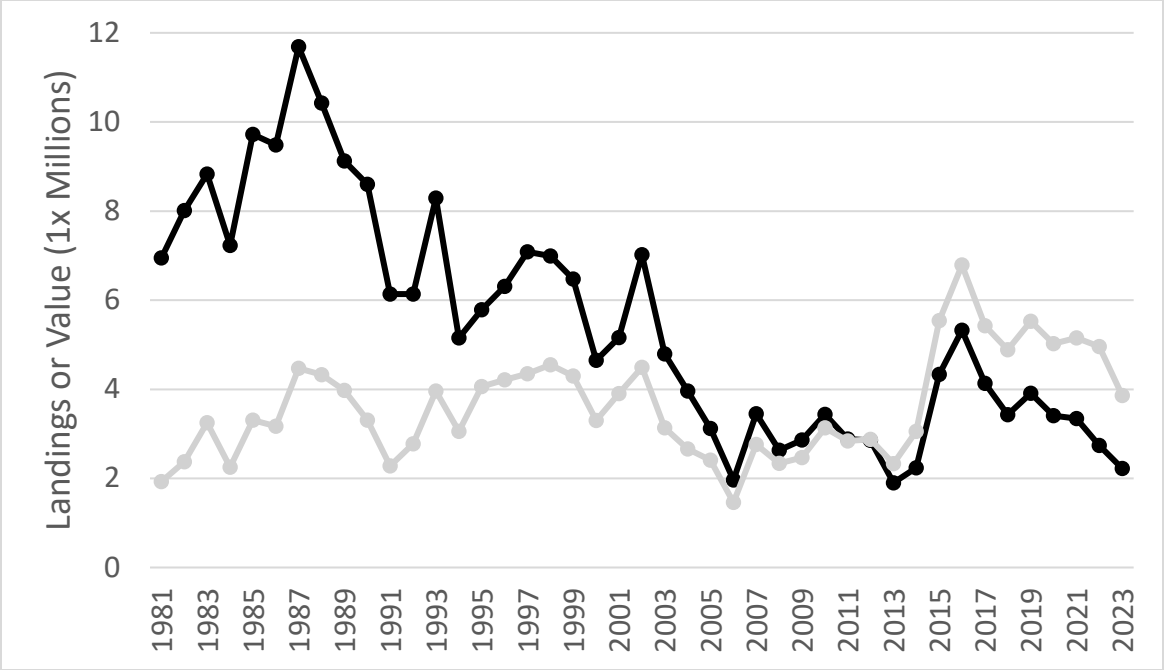

Figure 4**.** Total annual Blue Crab landings (lbs; black) and value (US Dollars; USD; grey) in Texas from 1981-2023.

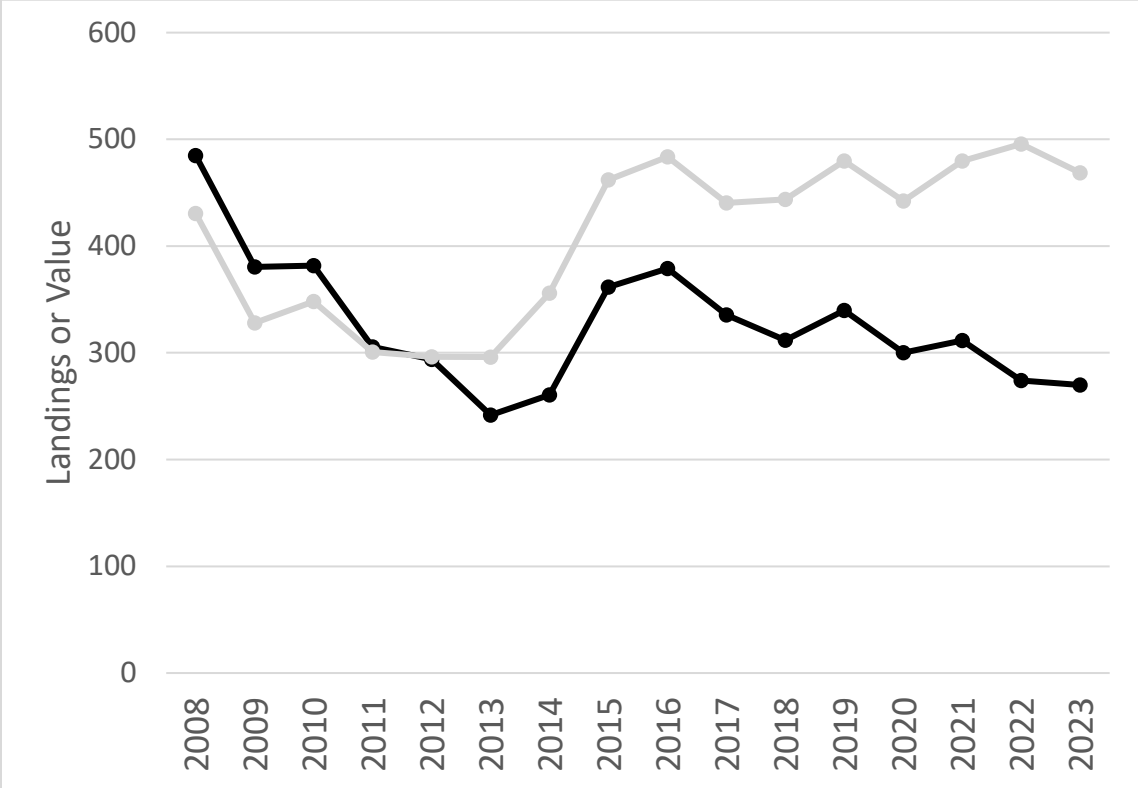

Figure 5**.** Mean Blue Crab landings per trip (lbs; black) and value per trip (USD; grey) in Texas from 2008-2023.

Blue Crab License and License Buyback

As of license year (LY) 2024, there were 130 Blue Crab license holders holding a total of 172 licenses (a person may not hold or control more than three licenses). TPWD received two bids for Blue Crab license buybacks in LY 2024 but did not purchase any of those licenses.

Recreational Licensing and Landings

Texas has no license or endorsement specific to recreational Blue Crab fishing. A recreational fishing license with saltwater endorsement ($35 for the saltwater package) is all that is needed to harvest Blue Crabs recreationally in Texas.

Recreational Blue Crab harvest regulations include a minimum size (5” carapace width) with a 5% undersize allowance for bait use, and a moratorium on sponge bearing female crabs. There is no recreational bag limit for Blue Crabs. Legal means for recreationally harvesting Blue Crabs includes crab line, crab trap, net, folding panel trap, sand pump, umbrella net, and any other legal device used for taking fresh or saltwater fish or shrimp. There is a limit of 6 crab traps that may be used for recreational purposes, and crabs may only be removed from traps during daylight hours. Crab traps may not exceed 18 cubic feet in dimension. Crab traps do have escape vent and degradable panel requirements. Finally, there are some location restrictions related to where crab traps can be set (e.g., they may not be placed within 200 ft of marked navigable channel, etc.).

The primary means that Texas monitors recreational fishing harvest is a (fishery dependent) angler creel survey conducted at boat ramps and marinas in all Texas bays. Blue Crabs were only encountered in 0.6% of coastwide creel survey interviews from creel year 1982-2022 (Figure 6). However, there was a clear spatial trend in recreational blue crab landings with a majority of recreational landings coming from Sabine Lake (i.e., the northern most bay system in Texas; Figure 7).

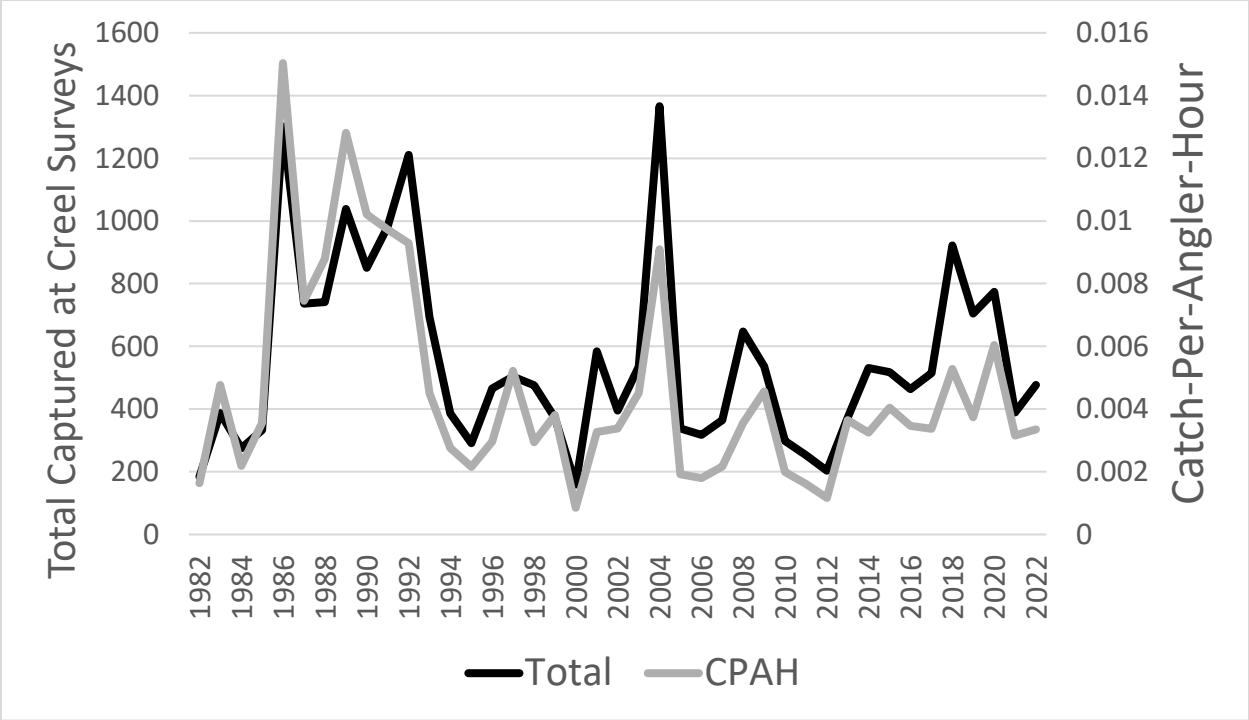

Figure 6. Blue Crab recreational landings recorded at boat ramps and marina-based angler creel surveys in Texas bays from creel survey year 1982-2022. Both total encountered at creel surveys (black) and catch-per-angler-hour (gray) are given.

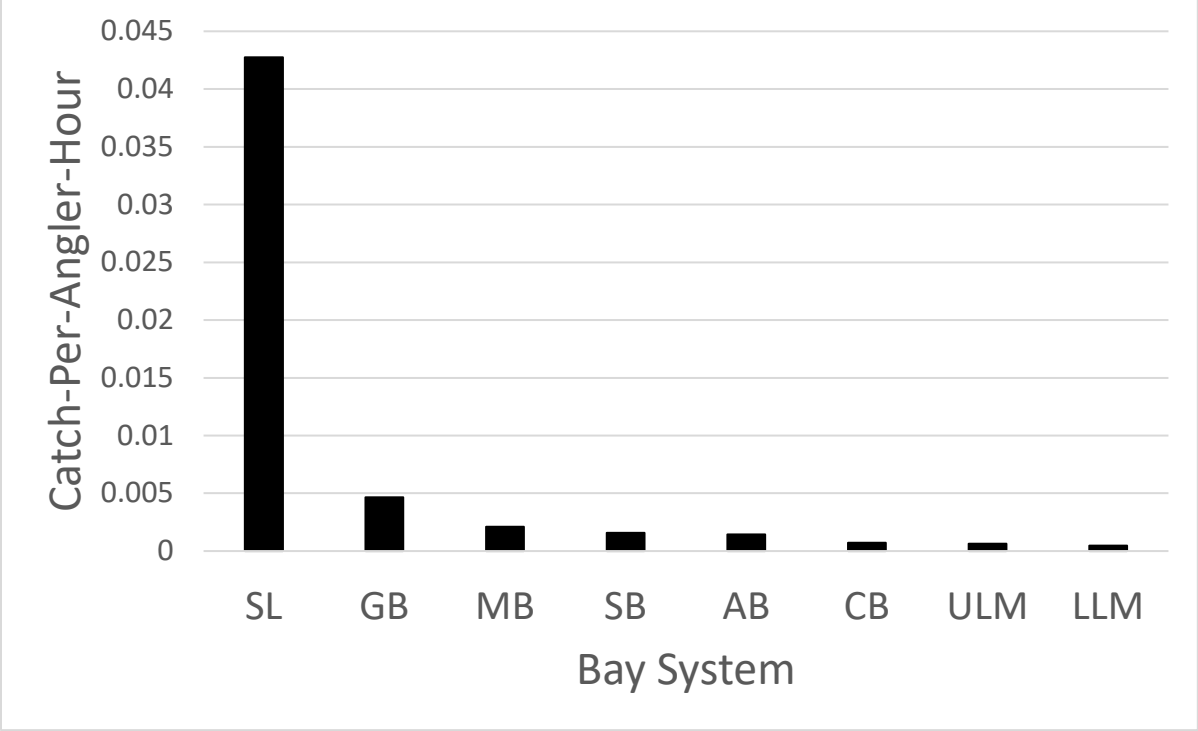

Figure 7. Blue Crab recreational harvest (catch-per-angler-hour) from creel year 1982-2022. Bay systems include Sabine Lake (SL), Galveston Bay (GB), Matagorda Bay (MB), San Antonio Bay (SB),

Aransas Bay (AB), Corpus Christi Bay (CB), Upper Laguna Madre (ULM), and Lower Laguna Madre (LLM).

Upcoming Blue Crab Projects

"Assessing population declines of Blue Crabs to inform better fisheries management action" (Dr. Hui Liu, Texas A&M University-Galveston)

"Implementing plankton imaging and stable isotope analysis to examine the fine scale transport and recruitment of Blue Crabs to estuarine nursery habitat" (Dr. Sharon Herzka, University of Texas Marine Science Institute)