LOUISIANA DEPARTMENT OF WILDLIFE AND FISHERIES 2024 GSMFC Crab Subcommittee Report

Executive Summary:

In 2023, Louisiana faced severe drought and saltwater intrusion into the Mississippi River. Louisiana experienced maximum daily temperatures exceeding 32.2°C for 99 consecutive days between June 7, 2023 and September 13, 2023, with 32 of those days exceeding 37.8°C Miller et al.). The extreme heat increased evaporation rates and low rainfall upriver exacerbated low flow on the MS River allowing seawater to reach far upriver and threaten water supply to New Orleans. Commercial blue crab landings were negatively impacted with the increased water temperatures and salinities across coastal LA. Preliminary blue crab landings from July 2023 – June 2024 fell below 40 million pounds. Blue crab dockside value declined due to the reduction in landings, but blue crab price per pound was above the previous 5-year average. In August 2023, the Louisiana Wildlife and Fisheries Commission (LWFC) adopted a Notice of Intent establishing six derelict crab trap cleanup, or closure, areas for the 2024 harvest season.

Crab Legislation / LWFC Rules:

No new rules impacting the blue crab fishery took place in July 2023 – June 2024.

Derelict Crab Trap Removal Program:

The Louisiana Wildlife and Fisheries Commission (LWFC) adopted a Notice of Intent in August 2023 to establish six defined derelict crab trap cleanup areas during the 2024 harvest season. Within the six areas, the use of crab traps would be prohibited for up to fourteen days. These closure areas are to be held within the Barataria Basin, Terrebonne Basin, Mermentau Basin, Vermilion-Teche Basin, and two in the Pontchartrain Basin. Additionally, LDWF partnered with Coastal Mapping and Sciences LLC (CM&S) to advance the removal of derelict crab traps within the Terrebonne and Pontchartrain closure areas.

The closures are scheduled as follows:

- Pontchartrain Basin February 1, 2024 February 14, 2024.
- Barataria Basin February 1, 2024 February 14, 2024.
- Terrebonne Basin February 1, 2024 February 14, 2024.
- Vermilion-Teche Basin February 1, 2024 February 14, 2024.
- Mermentau Basin February 1, 2024 February 14, 2024.
- Pontchartrain Basin February 26, 2024 March 6, 2024.

With the help from our partner, CM&S, and the LDWF staff, a total of 2,142 derelict or abandoned crab traps were removed from the closure areas. Since the inception of the program in 2004, LDWF, contractors, and volunteers have removed more than 57,000 derelict or abandoned crab traps from the waters of coastal Louisiana.

2004	Upper Terrebonne Bay Estuary	2/28-3/14	6,676
	W. Vermilion Bay	5/14-5/22	218
	2004 Total		6,894

Table 1. Annual derelict crab trap closure areas, dates, and trap totals.

2005	Sabine Lake	2/18-2/27	4
2005	Breton Sound Estuary	2/26-3/13	1,941
	Middle Terrebonne Bay Estuary	3/5-3/20	2,437
	E. Vermilion Bay / West Cote	5/16-5/22	241
	Blanche Bay	-,,	
	2005 Total		4,623
2006	SW Terrebonne Bay Estuary	3/4-3/13	2,935
2007	E. Lake Pontchartrain	2/24-3/5	774
	Upper Barataria Bay Estuary	3/3-3/12	724
	2007 Total		1,495
2008	Upper Terrebonne Bay Estuary	2/23-3/2	1,234
2009	Terrebonne Bay Estuary	N/A	788
2010	Upper Barataria Bay Estuary	2/27-3/7	477
2011	Western Plaquemines Parish	2/26-3/5	1,100
2012	St. Bernard/Plaquemines Parish	2/25-3/5	1,961
	Terrebonne Parish	3/17-3/26	747
	2012 Total		2,798
2013	Plaquemines Parish	2/16-2/25	492
	St. Bernard Parish	3/9-3/18	411
	2013 Total		969
2014	Western Terrebonne Parish	2/15-2/24	1,051
2015	Cameron Parish	2/20-3/1	422
2016	St. Tammany/Orleans Parish	2/12-2/21	1,386
	Jefferson/Lafourche Parish	2/19-2/28	1,194
	2016 Total		2,580
2017	Statewide	2/20-3/21	5,674
2018	Cameron Parish	2/16-2/25	150
	Jefferson/Plaquemines Parish	3/4-3/19	3,027
	St. Bernard Parish	3/16-3/31	228
	Terrebonne Parish	3/16-3/29	429
	Iberia Parish	3/18-3/31	227
	2018 Total		4,061
2019	Plaquemines/Jefferson Parishes	2/1-2/14	218
	Western Pontchartrain Lake	2/1-2/14	636
	Terrebonne Parish	2/15-2/28	521
	Plaquemines Parish	2/15-2/28	2,502
	Cameron/Calcasieu Parishes	3/13-3/22	164
	2019 Total		4,041
2020	Eastern Lake Pontchartrain	2/3-2/16	1,376
	Upper Barataria Basin	2/3-2/16	362
	Calcasieu Basin	2/10-2/19	158
	Vermilion Basin	2/15-2/28	171
	Lake Borgne	3/2-3/15	2,011
	Terrebonne Basin	3/2-3/15	110
	2020 Total		4,188
2021	Pontchartrain Basin #1	2/1 - 2/14	2,162
	Eastern Terrebonne Basin	2/1 - 2/14	107
	Eastern Vermilion Basin	2/1 - 2/14	113
	Pontchartrain Basin #2	2/22 - 3/7	2781
	2021 Total		5,163
2022	Terrebonne Basin	2/1 - 2/14	112

	Terrebonne Basin	2/1 - 2/14	1594
	Sabine Basin	2/18 - 2/23	135
	2023 Total		3,974
2024	Pontchartrain Basin	2/1 - 2/14	451
	Barataria Basin	2/1 - 2/14	119
	Terrebonne Basin	2/1 - 2/14	733
	Vermilion-Teche Basin	2/1 - 2/14	212
	Mermentau Basin	2/1 - 2/14	45
	Pontchartrain Basin	2/26 - 3/6	582
	2024 Total		2,142

Louisiana Crab Task Force:

The Louisiana Crab Task Force held three meetings during July 2023 - June 2024: September 26, 2023, February 20, 2024, and April 16, 2024. Topics of discussion were the 2019 Fisheries Disaster Funding, considering MSC recertification assistance funding, the handling of crab violation by habitual offenders, fresh products licenses, and proposed 2024 derelict crab trap removal areas.

Sustainability of the Louisiana Blue Crab Fishery:

The Marine Stewardship Council (MSC) announced the reassessment of the Louisiana commercial crab trap fishery in spring 2023. Information for the reassessment of the Louisiana blue crab commercial trap fishery against the MSC fisheries standards was gathered by Global Trust during the July 11, 2023 on-site visit. The MSC final report, published in March 2024, recommended continued certification with two new conditions being issued. Both new conditions were related to Diamondback terrapin status and management. An Action Plan was drafted and submitted in October 2023, detailing annual milestones in the attempt to provide evidence that the Louisiana crab trap fishery was not hindering Diamondback terrapin status.

Updated Blue Crab Stock Assessment:

No formal update to the 2022 blue crab assessment was conducted in 2024. The 2022 assessment indicated the stock is currently not overfished and not experiencing overfishing. An update is scheduled to take place in spring 2025.

Louisiana Blue Crab Landings:

All landings data presented in this section are preliminary and subject to change.

Blue crab landings during the state's fiscal year 2024 (July 2023 – June 2024, FY24) totaled 36.1 million pounds with a dockside value of approximately \$69.3 million. Landings from this period showed a decrease of 21 percent when compared to the average of the previous five fiscal years, or short-term average (STA), while the dockside value decreased by 9 percent. Landings for FY24 are considered incomplete at this time, but it was noted that commercial landings declined in the fall of 2023 and spring of 2024. The FY24 price per pound was \$1.92, which was approximately \$0.65 above the STA and \$0.22 higher than the previous year, FY23.

Blue Crab Commercial Sampling:

The commercial sampling of blue crab is designed on a calendar year, so the data presented will be for calendar year 2023. Data is presented on calendar year because in 2023 the inclusion of weight (grams) was added to the project; weights were assigned for blue crabs collected in 2021 and 2022 through the length-weight regression and not empirical. Funding for this project comes through the Gulf States Marine Fisheries Commission's Interjuridictional Fisheries monies.

Protocol is for each coastal study area (CSA) to randomly collect 510 commercially landed crabs per two-month period, or wave. A total of 15,367 crabs were sampled in 2023. Of the crabs sampled, male crabs accounted for 10,778 and females totaled 4,589. Market grade #2 (38%), or medium, and market grade #1 (26%), or large, crabs made up nearly 64 percent of all crabs sampled. Market grades female and factory accounted for approximately 16% and 10%, respectively. Crabs graded as small and no grade/straight run combined to make up 10 percent.

Annual mean weight for all crabs collected in 2023 was 0.467 grams, compared to the estimated weights in 2021 (0.470 grams) and 2022 (0.471 grams). Mean carapace width for all crabs collected in 2023 was 16.02cm, while 2021 was 16.20cm and 2022 was 16.23cm.

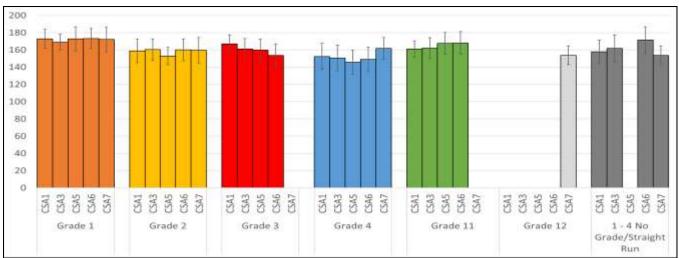


Figure 1. Average blue crab carapace width (mm, ± standard deviation) per CSA, per grade for combined sample waves 1-6.

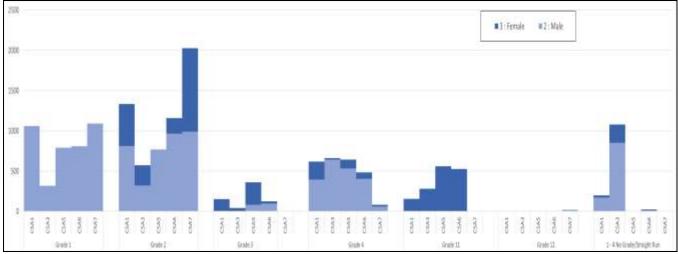


Figure 2. Blue crab sex composition (count of crab) per CSA, per grade for combined sample waves 1-6.

Table 2. Blue crab average weight (grams) by Market Grade.				
Market	Male	Female		
Grade 1	276.03	203.33		
Grade 2	196.25	190.48		
Grade 3	177.59	196.24		
Grade 4	173.44	157.82		
Grade 11		192.22		
Grade 12	191.20			
1 - 4 No Grade/Straight Run	225.54	193.48		

Literature Cited:

Miller, P. W., & Hiatt, M. (2024). Hydrometeorological drivers of the 2023 Louisiana water crisis. GeophysicalResearch Letters, 51, e2024GL108545.https://doi.org/10.1029/2024GL108545