



ENHANCE ★ PROTECT ★ CONSERVE

MDMR FID Monitoring Programs – Blue Crab Catch

GSMFC TCC Blue Crab Subcommittee Meeting

October 19, 2022

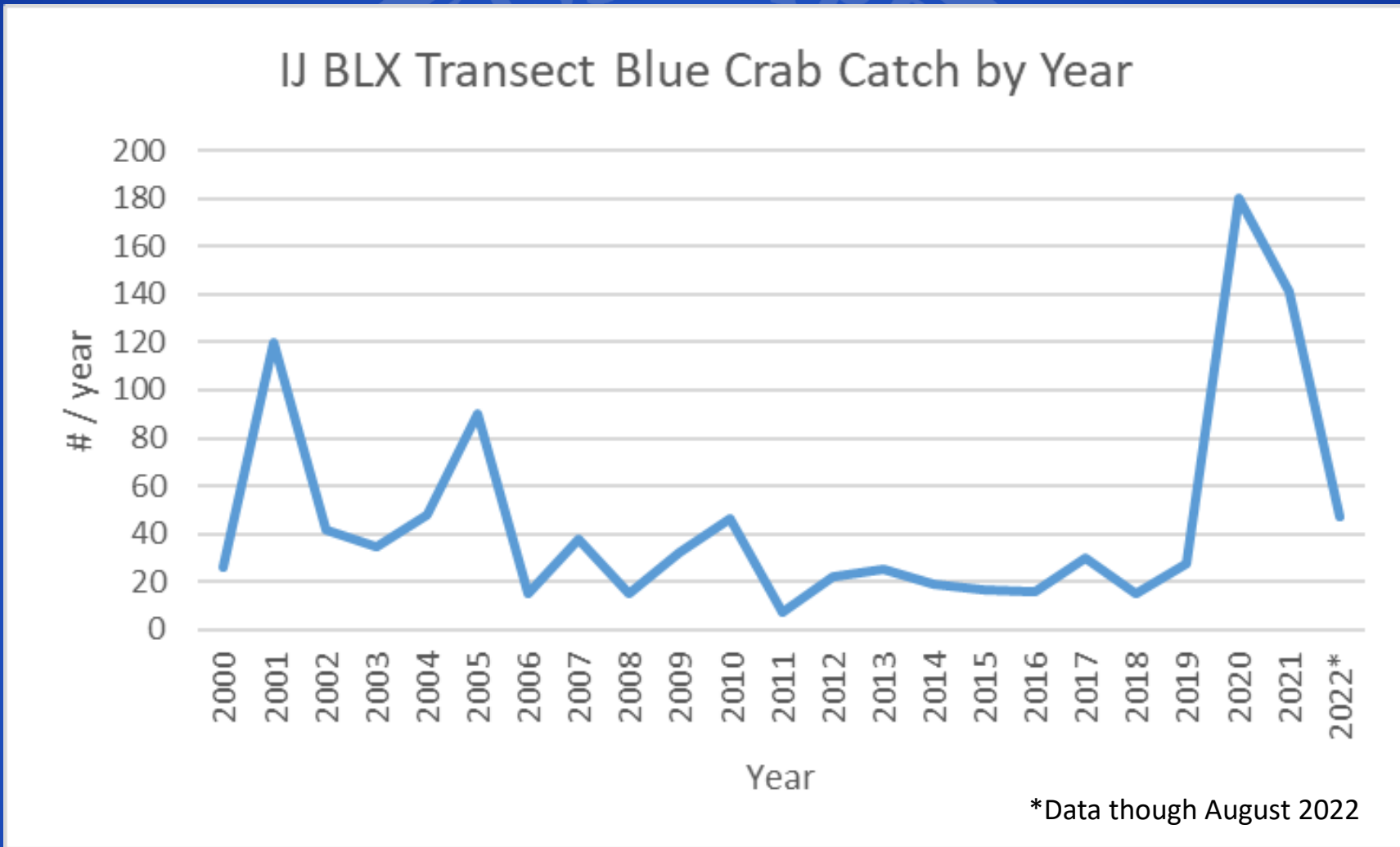
Monitoring Programs

- IJ trawls
- SuRF trawls, seines, (commercial zone) crab traps, fyke nets
- State-funded (recreational zone) crab traps
- State-funded shrimp trawls

IJ Trawls

- Sampling period: Long-term dataset – 1974 - present
- Gear - 16' otter trawl with liner
- Sample locations - 6 fixed stations along a transect from Horn Island to Bernard Bayou
- Samples collected monthly, year-round

IJ Trawls



SuRF Trawls

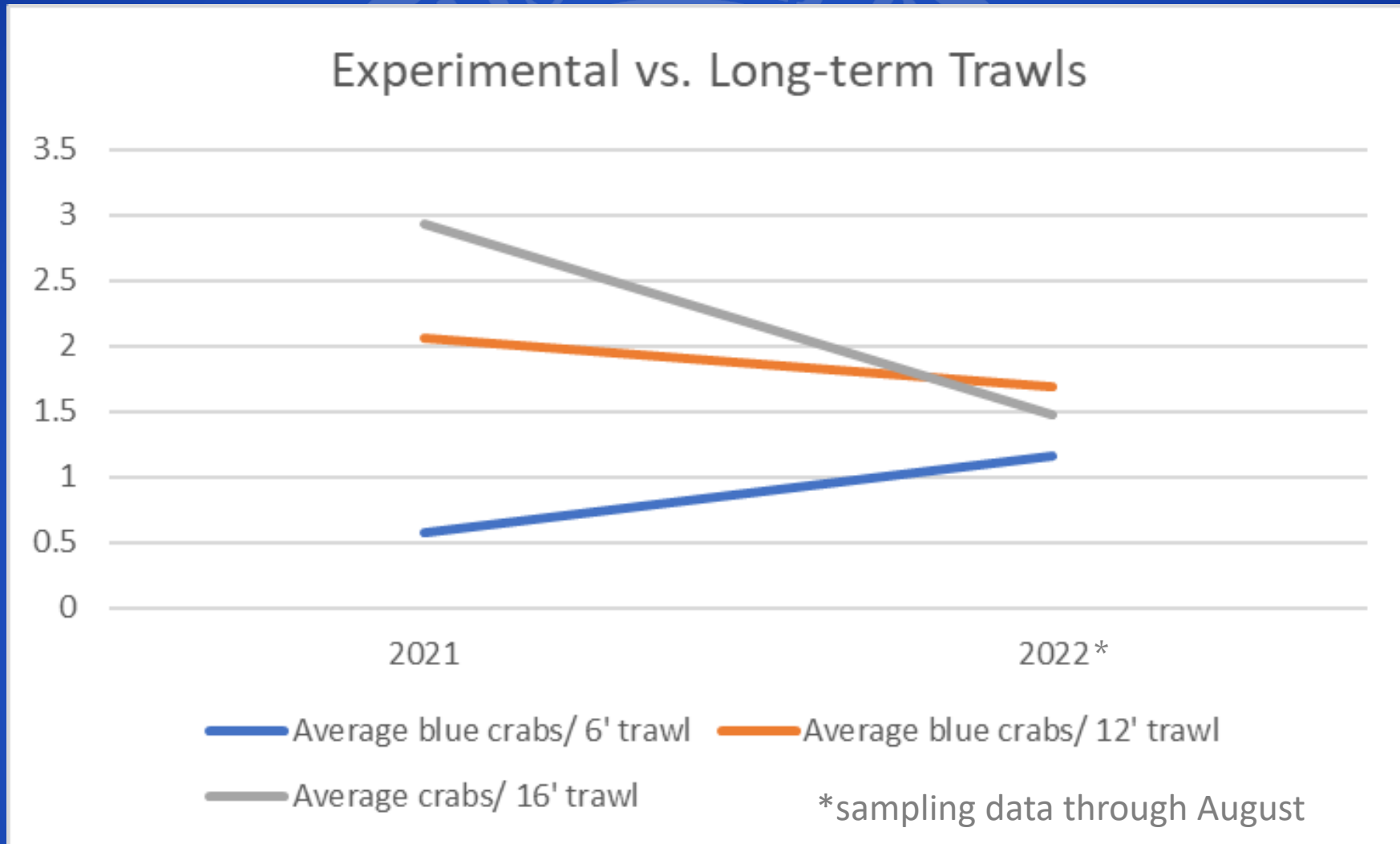
- Sampling period: January 2021 - present
- 12' & 6' otter trawls with liner
- Sample locations – 4 randomly selected sites (2/trawl) in each of the three coastal counties
- Samples collected monthly, year-round

SuRF Trawls

Counts by County and Net Size					
	Hancock	Harrison	Jackson	6' net	12' net
Adult	25	0	11	5	31
Juvenile	43	2	20	12	53
YOY	44	5	39	24	64

Monthly captures	1	2	3	4	5	6	7	8	9	10	11	12
Adult	8	8	0	2	2	12	0	0	1	2	1	0
Juvenile	7	2	13	6	8	10	1	2	10	2	2	2
YOY	5	9	15	12	6	10	3	12	7	4	5	0

SuRF Trawls vs. IJ Trawls



SuRF Seines

- Sampling period: January 2021 - present
- Gear: 50' bag seine
- Sample locations – 2 fixed sites in each of the three coastal counties
- Samples collected monthly, year-round

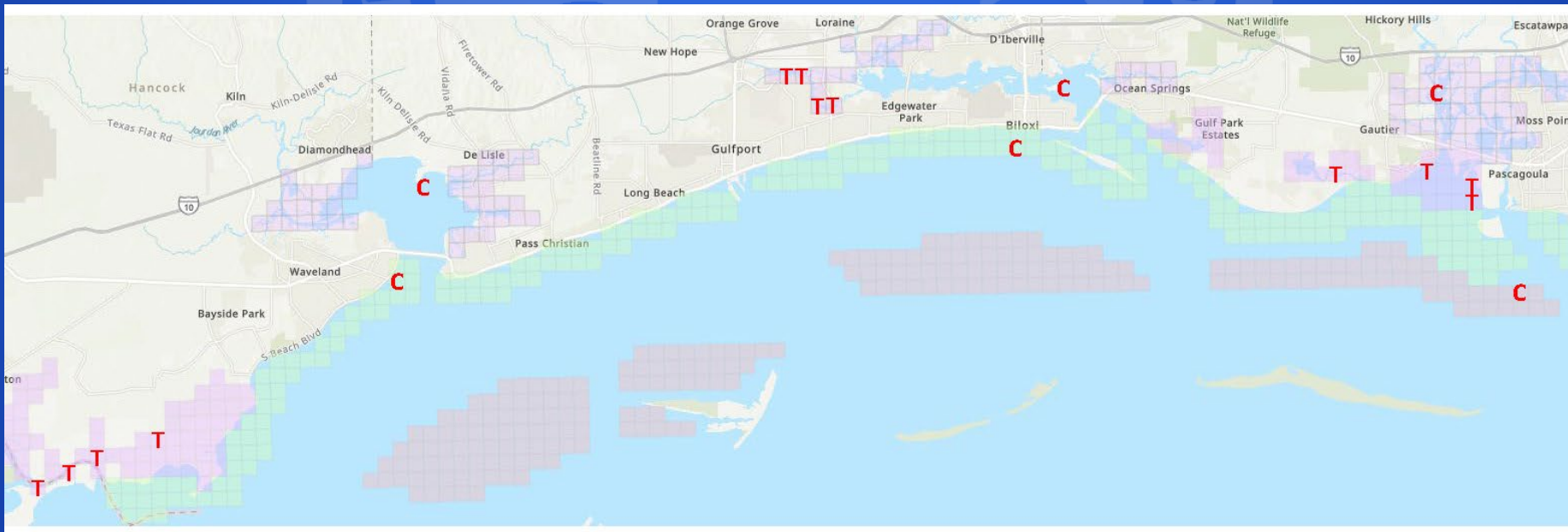
SuRF Seines

Site Location	2021 (Jan-Dec)			2022 (Jan-Aug)		
	Adult	Juvenile	YOY	Adult	Juvenile	YOY
Back Bay	0	0	22	0	3	10
Buccaneer	3	17	40	1	6	33
Deer	0	0	20	0	5	30
Graveline	1	0	24	0	0	33
Jordan	0	2	25	0	3	40
Pascagoula	0	0	37	0	1	6
Combined Sites	4	19	168	1	18	152

		1	2	3	4	5	6	7	8	9	10	11	12
2021	Adult	0	0	0	0	0	0	0	1	2	0	1	0
	Juvenile	1	0	3	7	0	0	0	1	0	1	1	5
	YOY	14	30	4	11	2	2	3	5	1	19	54	23
		1	2	3	4	5	6	7	8				
2022	Adult	0	0	0	0	0	0	0	1				
	Juvenile	4	1	0	3	0	5	2	3				
	YOY	39	31	22	16	8	15	3	18				

Commercial Zone (SuRF) Crab Traps

- Sampling period: January 2021 - present
- Gear: six standard crab traps
- Sample locations – Randomized grids within three zones – inshore, nearshore, and offshore
- Samples collected in the three counties monthly, year-round



Commercial Zone (SuRF) Crab Traps

Blue crab commercial zone data set summary statistics				
Summary	Blue crab commercial zone data set summary statistics			
Study period reported	January 2021 - August 2022			
Traps fished	351			
Trap days	746			
Total CPUE (crabs per trap day)	1.41			
	All (avg.)	Hancock Co. avg.	Harrison Co. avg.	Jackson Co. avg.
January	9.0	11	5	11
February	4.7	8	5	2.5
March	8.5	8	7.5	11.5
April	8.8	8.5	7.5	10.5
May	17.7	24.5	15.5	13.5
June	18.3	11.5	19.5	24
July	37.0	41	32	38
August	45.2	40.5	55.6	39.5
September	17.3	6	22	24
October	14.3	18	15	10
November	9.3	4	10	14
December	11.3	16	4	14
one year of data				

Commercial Zone (SuRF) Crab Traps

- Sampling Period: Jan 2021 – Aug 2022
- Traps fished: 351
- Trap days: 746

<i>Commercial Crab Zone Bycatch</i>			
Species	Total (274)	% bycatch	CPUE
Atlantic Bumber		4 1.5%	0.01
Atlantic Croaker		3 1.1%	0.00
Atlantic Spadefish		8 2.9%	0.01
Common Spider Crab		1 0.4%	0.00
Diogenidae spp		1 0.4%	0.00
Finetooth Shark		2 0.7%	0.00
Gafftopsail Catfish		2 0.7%	0.00
Gafftopsail Catfish		1 0.4%	0.00
Gulf Menhaden		1 0.4%	0.00
Hardhead Catfish	230	83.9%	0.31
Hermit Crab		7 2.6%	0.01
Libinia spp		2 0.7%	0.00
Pigfish		2 0.7%	0.00
Pinfish		2 0.7%	0.00
Southern Flounder		1 0.4%	0.00
Southern Kingfish		2 0.7%	0.00
Spotted Seatrout		2 0.7%	0.00
Stone Crab		3 1.1%	0.00

Recreational Zone Crab Traps

- Sampling period: September 2014 - present
- Gear: 6 standard crab traps
- Sample locations – 1 randomly selected site in commercial harvest waters adjacent to each coastal county
- Samples collected monthly, year-round

Recreation Zone Crab Traps

Year	# Trap Days Fished*	# Traps Fished	# Captured	CPUE	# Legal Males	# Sublegal Males	# Legal Female	# Sublegal Female
2014	354	168	746	2.107	501	49	168	28
2015	1020	462	2094	2.053	1489	147	368	90
2016	876	432	1777	2.029	1158	235	305	79
2017	894	432	1452	1.624	1076	114	224	38
2018	852	420	1590	1.866	1050	45	459	36
2019	598	293	936	1.565	601	76	224	35
2020	430	215	887	2.063	649	27	195	16
2021	450	216	439	0.976	330	27	69	13
2022	288	144	287	0.997	242	13	26	6

Recreational Zone Crab Traps - Bycatch

- Sampling Period: Sept 2014 – Aug 2022
- Traps fished: 2,782
- Trap days: 5,762

<i>Recreational Crab Zone Bycatch</i>			
Species	Total (938)	% bycatch	CPUE
Atlantic Croaker	35	4%	0.01
Atlantic Stingray	4	0%	0.00
Blue Catfish	19	2%	0.00
Bluegill	3	0%	0.00
Channel Catfish	17	2%	0.00
Diamondback Terrapin	55	6%	0.01
Gafftopsail Catfish	4	0%	0.00
Gray Snapper	1	0%	0.00
Hardhead Catfish	725	77%	0.13
Oyster Toadfish	3	0%	0.00
Pigfish	1	0%	0.00
Pinfish	28	3%	0.00
Redear Sunfish	3	0%	0.00
Sand Seatrout	1	0%	0.00
Southern Flounder	14	1%	0.00
Southern Kingfish	6	1%	0.00
Spadefish	5	1%	0.00
Spot	2	0%	0.00
Spotted Gar	1	0%	0.00
Spotted Seatrout	1	0%	0.00
Stone Crab	2	0%	0.00
Sun Perch	1	0%	0.00
Unidentified Sunfish	7	1%	0.00

SuRF Fyke Nets

- Sampling period: May 2019 - present
- Gear: Fyke net - 24”x24”x48” non-baited wire traps
- Sample locations – 5 fixed sites in Harrison and Jackson Counties
- Samples collected twice/week from May to August

SuRF Fyke Nets

Location	Sets	Trap Days	CPUE	Male	Female	Sponge	Legal	Sublegal	Avg. Size
Belle Fontaine	28	56	3.3	61	122	4	175	8	157.4
Davis Bayou	28	56	2.6	73	74	3	145	2	153.6
Deer Island	28	56	3.3	33	149	5	182	0	164.2
Pascagoula1	4	8	5.3	27	15	0	40	2	156.4
Pascagoula2	4	8	1.3	5	5	0	9	1	141.2

Crab Catch in Shrimp Trawls

- Sampling period: December 2019 - present
- Gear: 16' standard otter trawl (no liner)
- Sample locations – 10 fixed site within shrimp harvest waters from St. Louis Bay to Pascagoula
- Samples collected monthly, with increased sampling frequency from April – June to determine shrimp season opening

Crab Catch in Shrimp Trawls

Counts per year				
	2020	2021	2022	Total
Adult	29	52	43	124
Juviile	7	139	90	236
YOY	0	6	1	7

Counts per Month												
	1	2	3	4	5	6	7	8	9	10	11	12
Adult	9	2	1	14	46	23	19	6	2	1	1	0
Juviile	1	2	0	24	151	50	7	0	1	0	0	0
YOY	0	0	0	1	5	1	0	0	0	0	0	0