Recreational Crab Pot Abandonment and BRD Compliance in Delaware Inland Bays: 2020 and 2021 Summaries Kate Fleming, Delaware Sea Grant November 4, 2021

## 2020 Summary

In 2020, crab pots were tagged on July 14<sup>th</sup> and July 28<sup>th</sup>, and subsequently checked for tending status on July 17 and July 31 respectively. Search areas included Pepper Creek and Herring Creek and covered 4 km. A total of 23 out of 162 (14%) marked crab pot buoys were abandoned. Data collected in Broadkill River have been removed from the summary because detached tags were found following a storm event.

Bycatch reduction devices were installed on all funnel entrances of 74% (n=17/23) confiscated pots. An additional 3 pots had BRD's on some but not all funnel entrances.

Table 1. Total number of recreational crab pots tagged and seized per search area in 2020.

	Tag Date	Seizure Date	Area Searched			Pot Density	%	BRD
Creek/Area	(2020)	(2020)	(km²)	Tagged	Seized	(km²)	Untended	Compliance
Indian River	Jul 14	Jul 17	2.4	59	10	25.6	16.9	9/10 (90%)
Herring Creek	Jul 28	Jul 31	1.6	103	13	64.4	12.6	8/13 (62%)
	Total		4.0	162	23	40.5	14.2	17/23 (74%)

Table 2. Instantaneous catch\* documented in crab pots seized in 2020.

	No. of Pots	Total Live	Total Deceased
Blue Crab	22	147	22
Oyster Toadfish	2	2	0
Summer Flounder	1	1	0
Spot	1	1	0
Diamondback Terrapin	1	0	1
Unidentified Fish	3	1	2

<sup>\*</sup> Instantaneous catch refers to species present inside crab pots at the time of their removal. While it does not represent total bycatch associated with the crab pot, it does provide confirmation of local species affected by derelict crab pots.



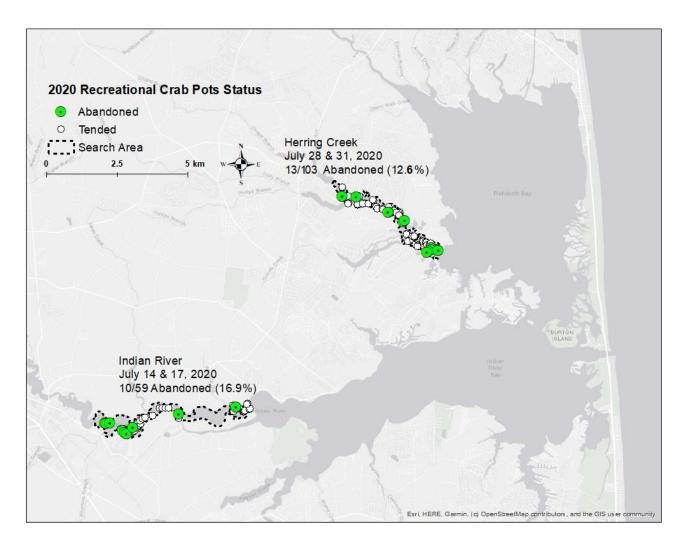


Figure 1. Tending compliance of crab pots marked by DNREC-Enforcement in 2020 in Indian River and Rehoboth Bays.



## 2021 Summary

Over the course of four weeks between June 14, 2021 and August 12, 2021, 13 km² of the Delaware Inland Bays were searched for recreational crab pots by Delaware Fish and Wildlife Enforcement crews. A total of 429 recreational crab pot buoys were tagged and 50 pots were found untended, representing an 11.7% abandonment rate across areas searched.

Bycatch Reduction Devices (BRDs) were installed on 90% of all confiscated recreational crab pots (n=45/50). An additional 3 pots had some but not all BRDs present.

Table 3. Total number of recreational crab pots tagged and seized per search area in 2021.

Creek/Area	Tag Date (2021)	Seizure Date (2021)	Area Searched (km²)	Tagged	Seized	Pot Density (km²)	% Untended	BRD Compliance
Pepper Creek	Jun 21	Jun 24	1.5	90	17	60.0	18.9	15/17 (88%)
Love Creek	Jul 26	Jul 29	6.4	101	18	15.8	17.8	15/18 (83%)
Herring Creek	Aug 2	Aug 6	1.7	93	6	54.7	6.5	6/6 (100%)
Little Assawoman Bay	Aug 9	Aug 12	3.4	145	9	42.6	6.2	9/9 (100%)
	Total		13.0	429	50	33	11.7	45/50 (90%)

Table 4. Instantaneous catch\* documented in crab pots seized in 2021.

	No. of Pots	Total Live	Total Deceased
Blue Crab	43	296	39
Oyster Toadfish	2	2	0
Spot	1	1	0
Summer Flounder	2	2	0
Diamondback Terrapin	1	0	1
Unidentified Fish	1	3	0

<sup>\*</sup> Instantaneous catch refers to species present inside crab pots at the time of their removal. While it does not represent total bycatch associated with the crab pot, it does provide confirmation of local species affected by derelict crab pots.



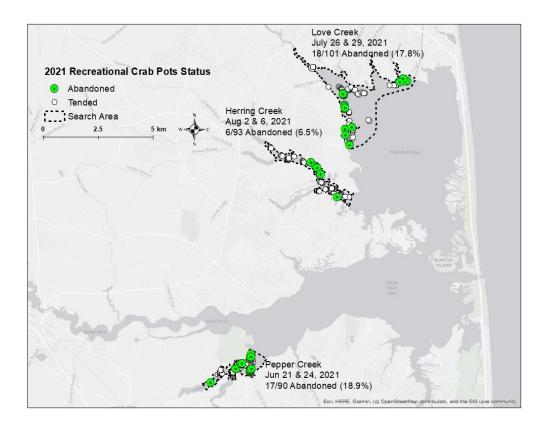


Figure 2. Tending compliance of crab pots marked by DNREC-Enforcement in 2021 in Indian River and Rehoboth Bays.

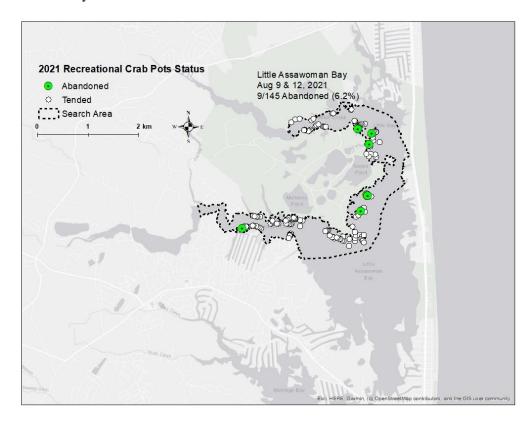


Figure 3. Tending compliance of crab pots marked by DNREC-Enforcement in 2021 in Little Assawoman Bay



## **Cumulative Data (2019-2021)**

Table 5. Species documented in abandoned recreational crab pots in Delaware's Inland Bays 2019 - 2021:

Species	Common (3/3 years)	Occasional (2/3 years)	Infrequent (1/3 years)
American Eel			X
Blue Crab	X		
Diamondback Terrapin	Х		
Oyster Toadfish	Х		
Spot		Х	
Summer Flounder	Х		

Table 6. Summary of tending and BRD compliance documented in Delaware's Inland Bays\* by year.

Year	Area Searched (km²)	Tagged	Seized	Pot Density (km²)	% Untended	BRD Compliance
2019	35.80*	873	108	24.4	12.4	84/114 (74%)
2020	4.0	162	23	40.5	14.2	17/23 (74%)
2021	13.0	429	50	33	11.7	45/50 (90%)

<sup>\*</sup>Numbers differ slightly from 2019 report because Broadkill River has been removed from the summary, as it does not occur in Delaware's Inland Bays.

