

Recreational Crab Pot Abandonment and BRD Compliance in Delaware Inland Bays and Broadkill River
August 28, 2019
Kate Fleming, Delaware Sea Grant

Over the course of nine weeks between June 3, 2019 and August 15, 2019, 37 km² of the Delaware Inland Bays and Broadkill River were searched for recreational crab pots by Delaware Fish and Wildlife Enforcement crews. A total of 898 recreational crab pot buoys were tagged and 117 pots untended, representing a 13.0% abandonment rate across areas searched. Note that seven pots that were confiscated from Whites Creek were not included in this analysis because tagging information was not collected in this portion of the creek.

Bycatch Reduction Devices (BRDs) were installed on 73% of all confiscated recreational crab pots (n=89/122). An additional nine pots had BRDs on some but not all funnel entrances. Many of the BRDs on these pots were in deteriorating condition. It is unclear if recreational crabbers set these pots without maintaining BRDs or if the BRDs broke down after the pots had been lost/abandoned.

The data included in the table below represent a total number of pots addressed per area within a given date range. Since each area was only searched once, it is important to avoid drawing conclusions about abandonment rates or pot densities documented in these specific areas.

Creek/Area	Tag Date (2019)	Seizure Date (2019)	Area Searched (km ²)	Tagged	Seized	Pot Density (km ²)	% Untended	BRD Compliance
Whites Creek*	June 3	June 6	0.54	25	6	46.3	24.0	9/13 (69%)
Herring Creek	June 10	June 13	2.99	120	18	40.1	15.0	13/18 (72%)
Love Creek**	June 17	June 20	3.06	49	2	16.0	4.1	0/2 (0%)
Little Assawoman Bay	June 24	June 27	8.48	174	15	20.5	8.6	11/15 (73%)
Holts Landing Area	July 8	July 11	3.5	62	3	17.7	4.8	3/3 (100%)
Indian River	July 15	July 18	8.42	168	19	20.0	11.3	15/19 (79%)
Broadkill River	July 22	July 25	1.11	25	9	22.5	36.0	5/8 (63%)
Roy Creek	July 29	Aug 1	1.39	111	29	79.9	26.1	23/29 (79%)
Dewey to Love Creek	Aug 12	Aug 15	7.42	164	16	22.1	9.8	10/15 (67%)
	Total		36.91	898	117	24.3	13.0	89/122 (73%)

*Additional area was searched in Whites Creek but no tagging data were collected and are therefore not reported.

**Low tide hindered ability to tag many pots.

Within untended recreational crab pots, instantaneous catch (which does not convey the total capture or mortality experienced by the pot, just what was present at the time of confiscation) was largely composed of live and dead blue crabs. Live oyster toadfish were the next most frequently encountered species. One live summer flounder, one live American eel, and pieces of a decomposed juvenile diamondback terrapin carapace were also encountered. In two cases, a fish was released prior to identification.

	No. of Pots	Total Live	Total Deceased
Blue Crab	117	617	144
Oyster Toadfish	8	8	0
Unidentified Fish	2	Unknown	Unknown
American Eel	1	1	0
Diamondback Terrapin	1	0	1
Summer Flounder	1	1	0
Channel Catfish	1	1	0

Recreational Crab Pot Tending Status and BRD Use in DE Inland Bays and Broadkill River June – August 2019

Kate Fleming, DESG Coastal Ecology Specialist



Recreational Crab Pot Status

- Abandoned
- Tended
- Area Searched

0 1 2 km



Little Assawoman Bay
June 24 & 27, 2019
15/174 Abandoned (9%)

Roy Creek, Assawoman Bay
July 29 & August 1, 2019
29/111 Abandoned (26%)



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Recreational Crab Pot Status

- Abandoned
- Tended
- Area Searched

0 2.5 5 km



Love Creek to Bay Cove
August 12 & 15, 2019
16/164 Abandoned (10%)

Herring Creek
June 10 & 13, 2019
18/120 Abandoned (15%)

Indian River
July 15 & 18, 2019
19/168 Abandoned (11%)

Holts Landing Area
July 8 & 11, 2019
3/62 Abandoned (5%)

Whites Creek
June 3 & 6, 2019
6/25 Abandoned (24%)

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Recreational Crab Pot Status

- Abandoned
- Tended
- ▭ Area Searched



0 1 2 km

Broadkill River
July 22 & 25 2019
9/25 Abandoned (36%)

Crooked Creek

Fisher Creek

Ditch Creek

Eagle
Crest
Aerodrome



BRD Use in Abandoned Recreational Crab Pots

-  All Funnels
-  No Funnels
-  Partial
-  Area Searched



0 1 2 km

Little Assawoman Bay
June 27, 2019
11/15 BRD Compliant (73%)

Roy Creek, Assawoman Bay
August 1, 2019
23/29 BRD Compliant (79%)



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BRD Use in Abandoned Recreational Crab Pots

-  All Funnels
-  No Funnels
-  Partial
-  Area Searched



0 2.5 5 km

Love Creek to Bay Cove
August 15, 2019
10/17 BRD Compliant (59%)

Herring Creek
June 13, 2019
13/18 BRD Compliant (72%)

Indian River
July 18, 2019
15/19 BRD Compliant (79%)

Holts Landing Area
July 11, 2019
3/3 BRD Compliant (100%)

Whites Creek
June 6, 2019
9/13 BRD Compliant (69%)



BRD Use in Abandoned Recreational Crab Pots

-  All Funnels
-  No Funnels
-  Partial
-  Area Searched



0 1 2 km

Broadkill River
July 25, 2019
5/8 BRD Compliant (63%)

