

Final Project Report

Title: Protecting Juvenile Flounder from becoming a crab pot by-catch

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Summary

This study was devised to research a possible solution to reduce the by-catch of juvenile flounder when using the conventional crab pot. An escape panel for the juvenile flounder was constructed and installed into 10 crab pots, known as “treated” pots. To ascertain the validity of the project, 10 “untreated” pots were fished alternating with the 10 “treated” pots.

On three rotations, of exactly the same number of days being fished, data was collected to determine if the panels were working as an escape for the juvenile flounder and if the panels had a impact on the number of crabs caught.

Description of Project

Purpose:

The purpose of this project was to insert a device that would allow an escape for the juvenile flounder trapped in the conventional crab pot, without an effect on the number of legal crabs caught.

Methodology employed:

Three investigations were performed over a nine month period to determine if the escape panels were reducing the number of juvenile flounder caught. A panel of 7/16" x 5" was constructed using conventional crab pot wire. This panel was inserted in the "upstairs" corner. This panel was constructed according to scale in 10 crab pots, known as "treated" pots. 10 untreated pots were also used in the experiment as the control group. These 20 pots were fished every other day totaling 18 days. This investigation was conducted 3 times. (March, June, and October)

Summary of data collection and analysis:

In March, I analyzed that the flounder had not come out from their winter habitat into the waters fished. The crab catch, as shown on the March graph, supports this conclusion.

The investigations conducted in June and in October however, revealed that the cull panels for the juvenile flounder seem to be effective, but several questions were raised in the investigation. (see conclusion)

Results, conclusions, and recommendations

Results:

Results revealed that the cull panels were effective in June and October with no significant impact on the number of crabs caught.

Conclusions:

In conclusion, three significant areas were identified in the investigation that may have contributed on the juvenile flounder caught inside the conventional crab pot. They are as follows: the placement of the panels in the crab pot, the specific waters fished, and the number of treated and untreated pots fished in the investigation.

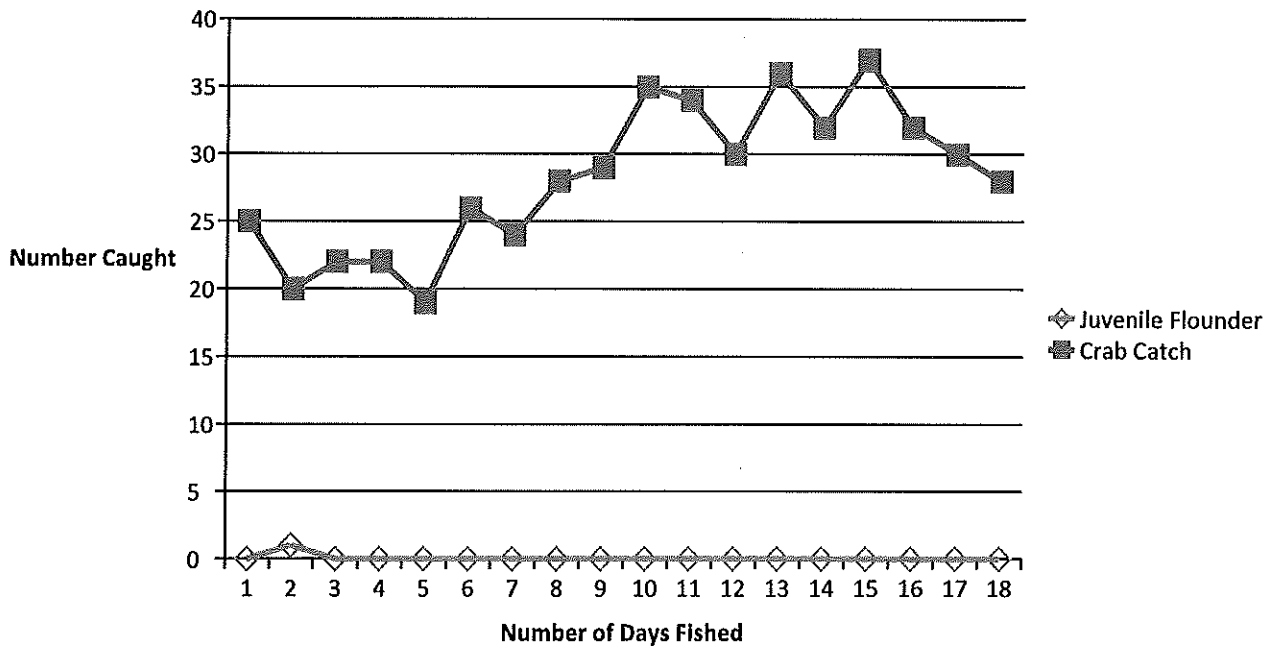
- A. The placement of the panels in the treated crab pots was in the upstairs corner. It was observed that the crabs typically congregated in the corner; therefore, the placement of the panels needs to be moved to the middle of the pot.
- B. The specific body of water fished was the Nansemond River. The pots were placed on muddy bottom. It was observed that the best habitat for juvenile flounder is on sandy bottom.
- C. The number of treated and untreated pots combined was 20. I conclude there needs to be a greater number of pots(2 groups of 20 pots...treated and untreated) at different locations in the river, fished simultaneously, for the study to more accurately show the presence of small flounder in a particular location, thereby the release of small flounder in the treated pots.

Recommendations:

It is my recommendation that this study be continued for another year with the modifications listed above. The investigation could possibly

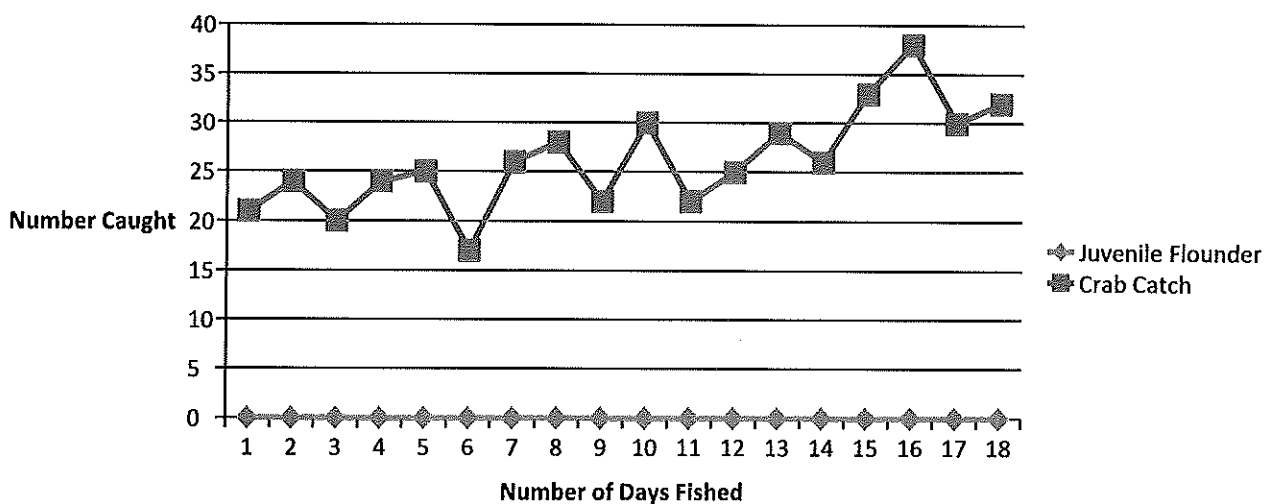
conclude that the panels were effective, but could be more conclusive by implementing the suggestions described.

Treated Juvenile Flounder and Crab Catch (March)



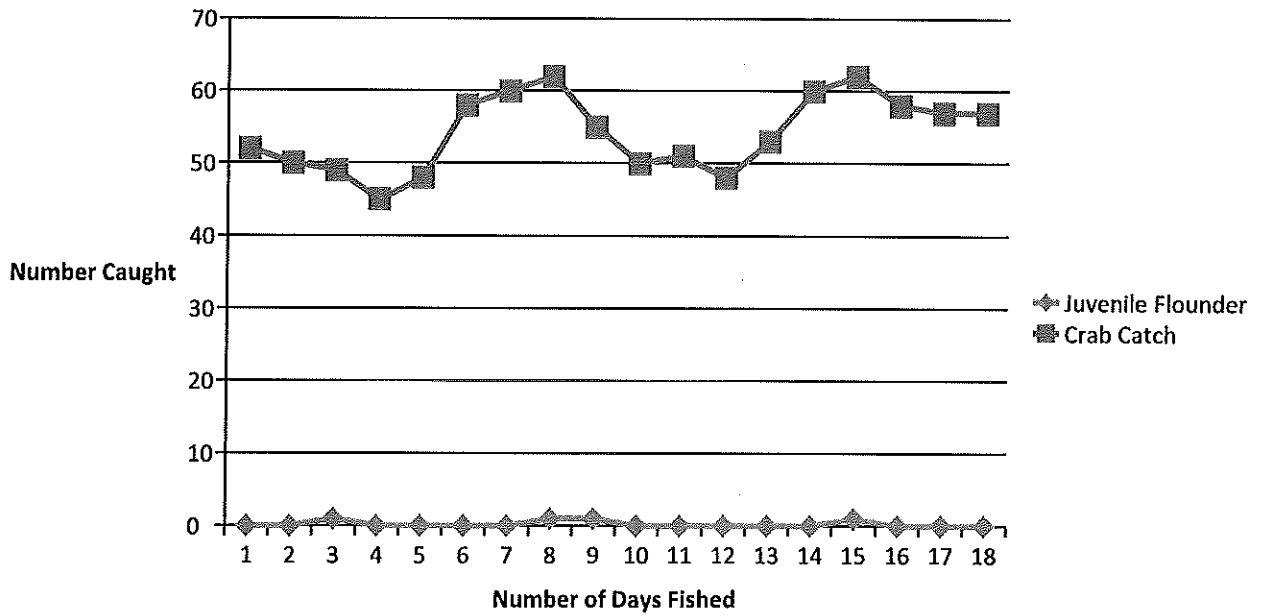
Day	Juvenile Flounder	Crab Catch
1	0	25
2	1	20
3	0	22
4	0	22
5	0	19
6	0	26
7	0	24
8	0	28
9	0	29
10	0	35
11	0	34
12	0	30
13	0	36
14	0	32
15	0	37
16	0	32
17	0	30
18	0	28

Untreated Juvenile Flounder and Crab Catch (March)



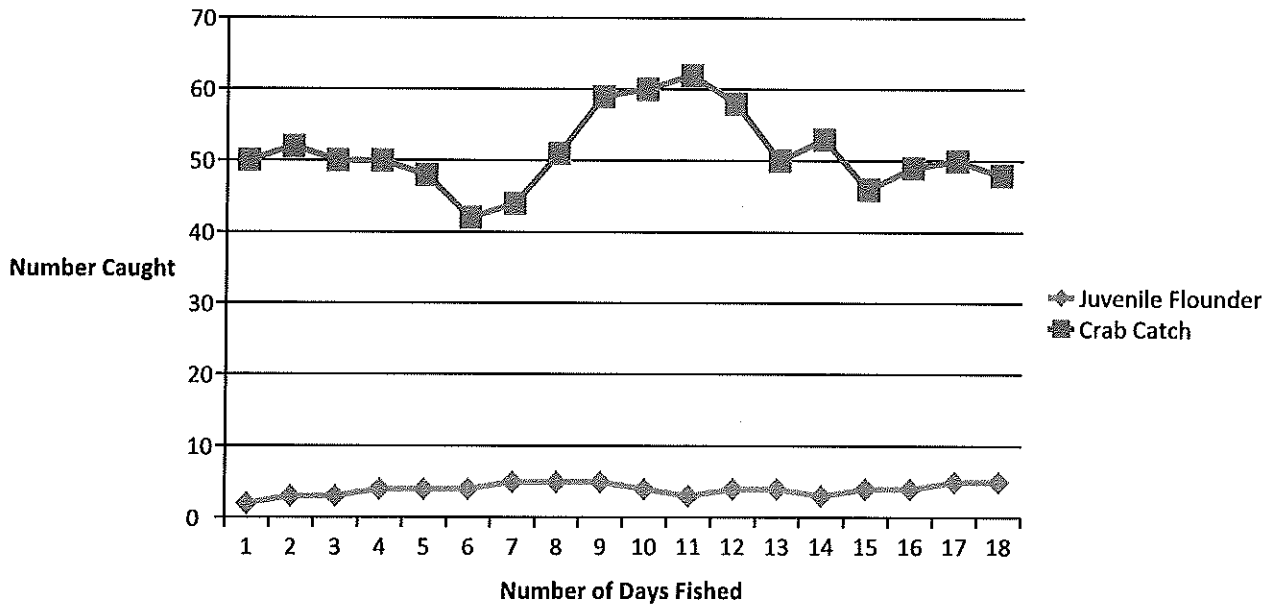
Day	Juvenile Flounder	Crab Catch
1	0	21
2	0	24
3	0	20
4	0	24
5	0	25
6	0	17
7	0	26
8	0	28
9	0	22
10	0	30
11	0	22
12	0	25
13	0	29
14	0	26
15	0	33
16	0	38
17	0	30
18	0	32

Treated Juvenile Flounder and Crab Catch (June)



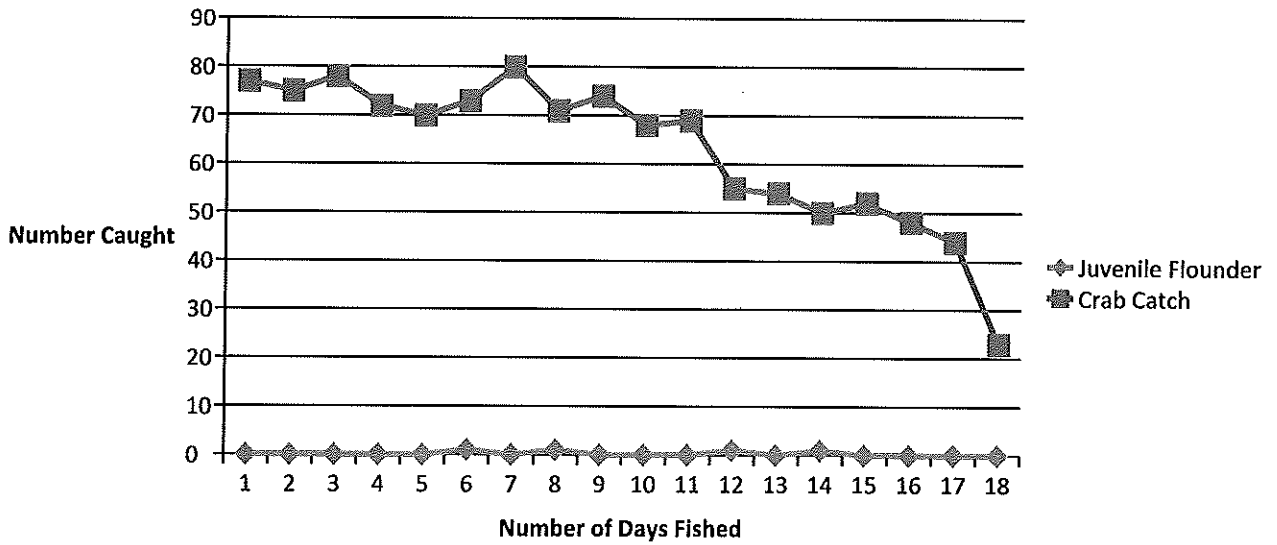
Day	Juvenile Flounder	Crab Catch
1	0	52
2	0	50
3	1	49
4	0	45
5	0	48
6	0	58
7	0	60
8	1	62
9	1	55
10	0	50
11	0	51
12	0	48
13	0	53
14	0	60
15	1	62
16	0	58
17	0	57
18	0	57

Untreated Juvenile Flounder and Crab Catch (June)



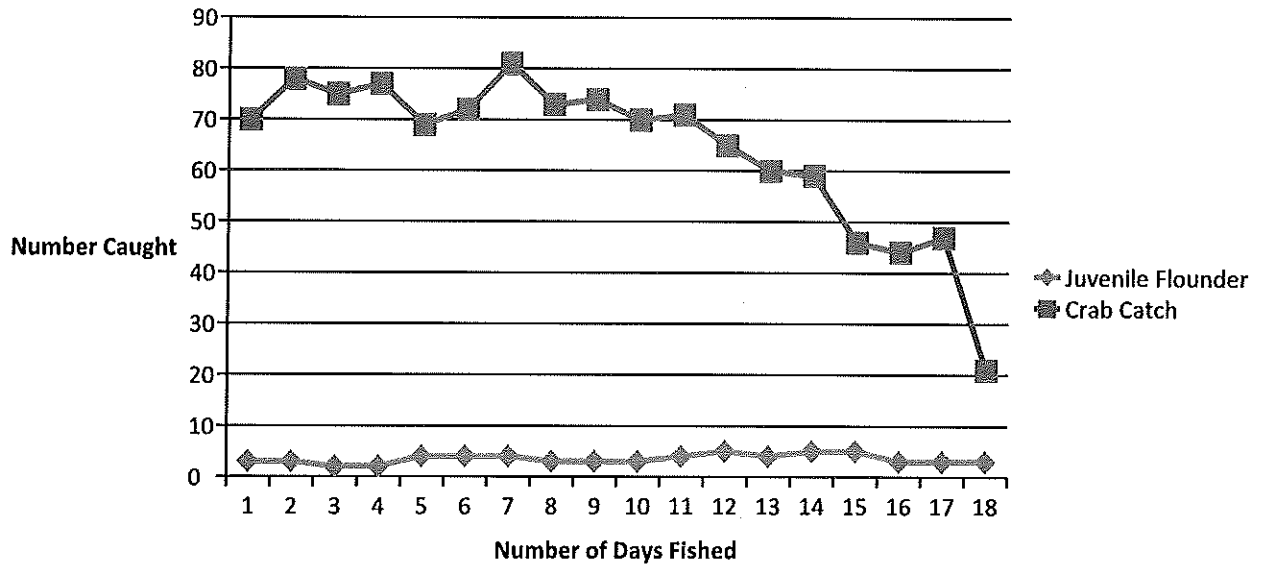
Day	Juvenile Flounder	Crab Catch
1	2	50
2	3	52
3	3	50
4	4	50
5	4	48
6	4	42
7	5	44
8	5	51
9	5	59
10	4	60
11	3	62
12	4	58
13	4	50
14	3	53
15	4	46
16	4	49
17	5	50
18	5	48

Treated Juvenile Flounder and Crab Catch (October)



Day	Juvenile Flounder	Crab Catch
1	0	77
2	0	75
3	0	78
4	0	72
5	0	70
6	1	73
7	0	80
8	1	71
9	0	74
10	0	68
11	0	69
12	1	55
13	0	54
14	1	50
15	0	52
16	0	48
17	0	44
18	0	23

Untreated Juvenile Flounder and Crab Catch (October)



Day	Juvenile Flounder	Crab Catch
1	3	70
2	3	78
3	2	75
4	2	77
5	4	69
6	4	72
7	4	81
8	3	73
9	3	74
10	3	70
11	4	71
12	5	65
13	4	60
14	5	59
15	5	46
16	3	44
17	3	47
18	3	21