

Final Report

Project Title

Conclusion: Protecting Juvenile Flounder from becoming a crab pot by catch

Project Investigator

Mike Joslin

Michael W. Joslin
Nansemond River Seafood
cjoslin6@gmail.com

Summary

This study was conducted to determine whether the escape panel was effective in reducing the by-catch of juvenile flounder when using the conventional crab pots.

An escape panel for the juvenile flounder was constructed and inserted into 10 pots marked as "treated". In addition, 10 conventional crab pots, were constructed without panels marked "untreated". Both sets were placed in the same line alternating "treated", "untreated", etc...

On three rotations the pots were fished and data was collected to determine if the panels were effective as an escape for the juvenile flounder. Each rotation was in a different location.

This study was conducted in April, October, and November.

Purpose:

Because the stock assessment describes the flounder population as being seriously depleted, the purpose of the study seeks to employ a device that would reduce the number of juvenile flounder in the conventional crab pot, hence protecting the flounder fishery.

Methodology employed:

Three investigations were performed over a nine month period to determine if the escape panels had an effect on the number of juvenile flounder caught in the conventional crab pot. Ten "treated" pots were constructed with an escape panel in the center of the upstairs. In addition, ten "untreated" pots were constructed without panels. Both sets were placed in the river alternating with each other.

The investigation was conducted 3 times..April, October, and November. In the 1st study the pots were in 12' of water, the 2nd study 8' of water, the 3rd study, 18' of water.

Summary of the data collection and analysis:

The presence of flounder in these bodies of water have been on the decline. It is my opinion this is largely due to the torrential rains in September and October. It is recorded that the rainfall was 27" above normal in the area at the end of November. The extreme amount of fresh water was not conducive for the flounder habitat.

However, data supports that the panels were 100% effective. In all 3 studies, there were zero flounder present in the treated pots.

Results, conclusions, and recommendations

Results:

Data conclusively supports that the cull panels were effective in this investigation in the periods of study of April, October, and November.

Conclusions:

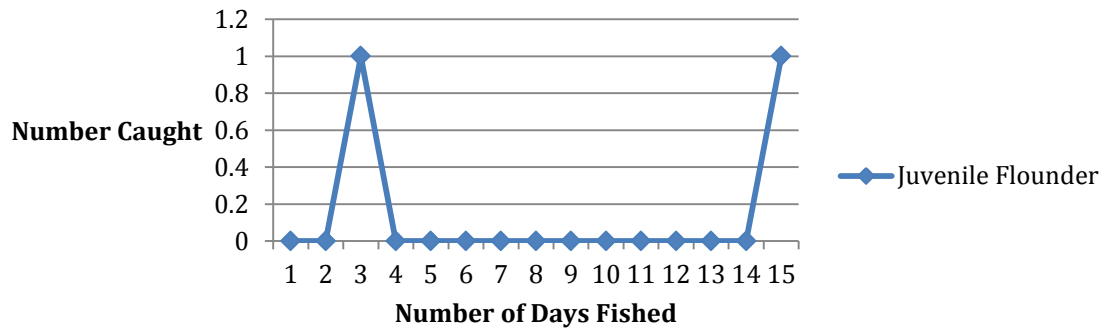
1. Cull panels are effective in the safe release of juvenile flounder.
2. The cull panels have no effect on the number of crabs harvested.
3. This investigation needs to continue when the salinity reaches its normal level.
4. The cull panels also allow a safe release for other species of fish such as the jellyfish and hogchoke fish.
5. A "vertical cull panel" would allow the safe release of other juvenile finfish with vertical swimming patterns.

Recommendations:

It is my recommendation that this study be conducted again in the same bodies of water as the salinity reaches its normal level.

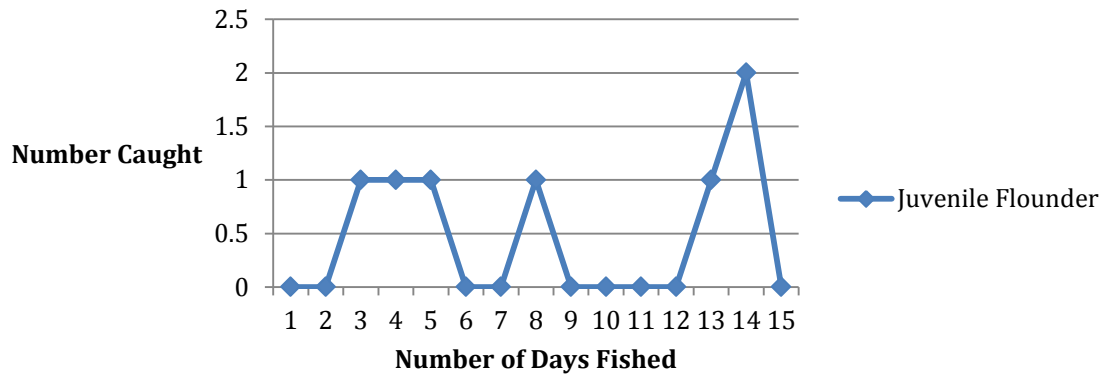
I also recommend that a study be conducted inserting a vertical panel in the conventional crab pot allowing for the safe release of other fish with vertical swimming patterns.

Treated Juvenile Flounder Set J (April)



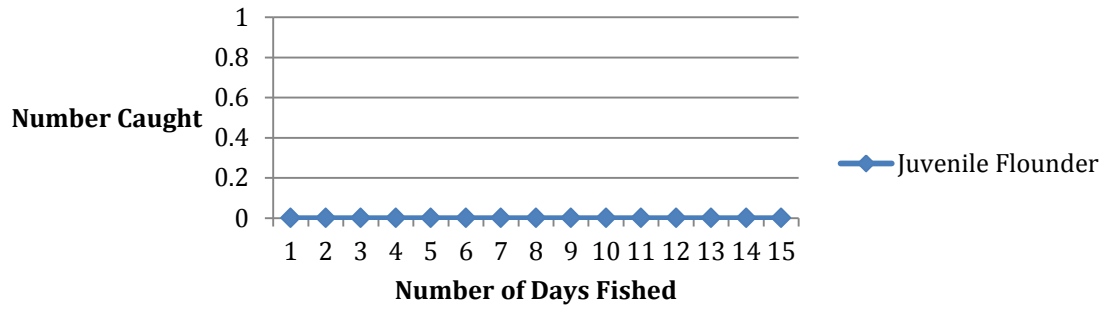
| Day | Juvenile Flounder |
|-----|-------------------|
| 1 | 0 |
| 2 | 0 |
| 3 | 1 |
| 4 | 0 |
| 5 | 0 |
| 6 | 0 |
| 7 | 0 |
| 8 | 0 |
| 9 | 0 |
| 10 | 0 |
| 11 | 0 |
| 12 | 0 |
| 13 | 0 |
| 14 | 0 |
| 15 | 1 |

Untreated Juvenile Flounder Set J (April)



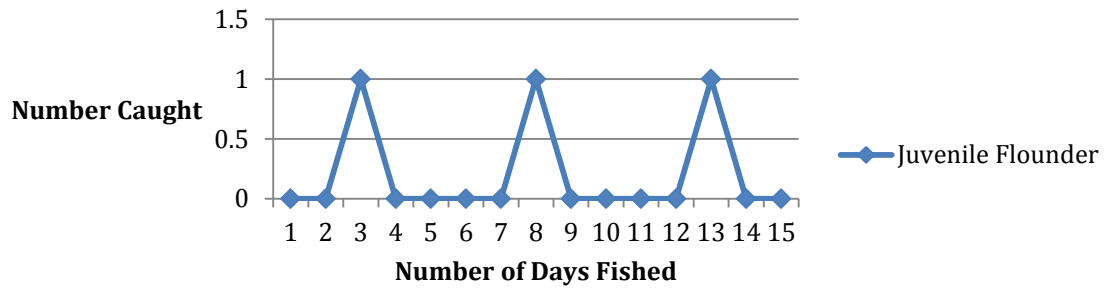
| Day | Juvenile Flounder |
|-----|-------------------|
| 1 | 0 |
| 2 | 0 |
| 3 | 1 |
| 4 | 1 |
| 5 | 1 |
| 6 | 0 |
| 7 | 0 |
| 8 | 1 |
| 9 | 0 |
| 10 | 0 |
| 11 | 0 |
| 12 | 0 |
| 13 | 1 |
| 14 | 2 |
| 15 | 0 |

Treated Juvenile Flounder Set N (October)



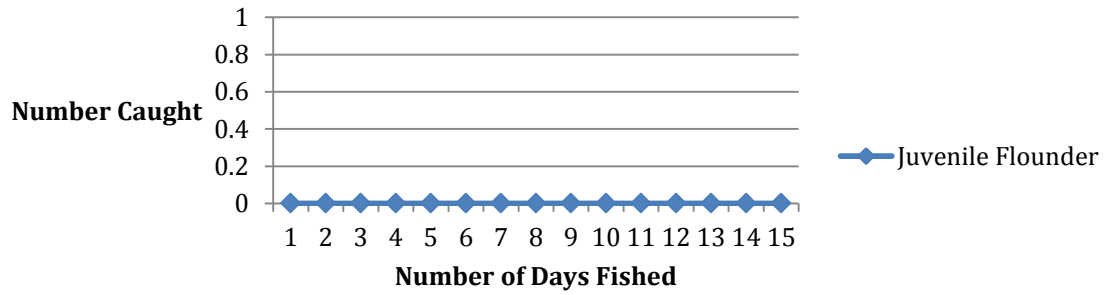
| Day | Juvenile Flounder |
|-----|-------------------|
| 1 | 0 |
| 2 | 0 |
| 3 | 0 |
| 4 | 0 |
| 5 | 0 |
| 6 | 0 |
| 7 | 0 |
| 8 | 0 |
| 9 | 0 |
| 10 | 0 |
| 11 | 0 |
| 12 | 0 |
| 13 | 0 |
| 14 | 0 |
| 15 | 0 |

Untreated Juvenile Flounder Set N (October)



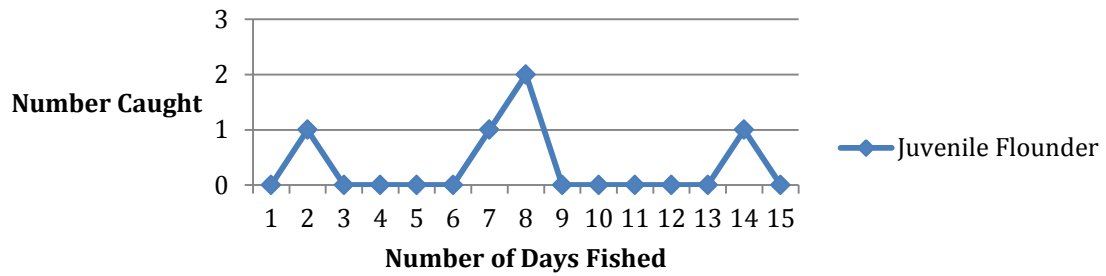
| Day | Juvenile Flounder |
|-----|-------------------|
| 1 | 0 |
| 2 | 0 |
| 3 | 1 |
| 4 | 0 |
| 5 | 0 |
| 6 | 0 |
| 7 | 0 |
| 8 | 1 |
| 9 | 0 |
| 10 | 0 |
| 11 | 0 |
| 12 | 0 |
| 13 | 1 |
| 14 | 0 |
| 15 | 0 |

Treated Juvenile Flounder Set J (November)



| Day | Juvenile Flounder |
|-----|-------------------|
| 1 | 0 |
| 2 | 0 |
| 3 | 0 |
| 4 | 0 |
| 5 | 0 |
| 6 | 0 |
| 7 | 0 |
| 8 | 0 |
| 9 | 0 |
| 10 | 0 |
| 11 | 0 |
| 12 | 0 |
| 13 | 0 |
| 14 | 0 |
| 15 | 0 |

Untreated Juvenile Flounder Set J (November)



| Day | Juvenile Flounder |
|-----|-------------------|
| 1 | 0 |
| 2 | 1 |
| 3 | 0 |
| 4 | 0 |
| 5 | 0 |
| 6 | 0 |
| 7 | 1 |
| 8 | 2 |
| 9 | 0 |
| 10 | 0 |
| 11 | 0 |
| 12 | 0 |
| 13 | 0 |
| 14 | 1 |
| 15 | 0 |