

# Findings from the Field

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## The Male and Female of Green Crabs at Fort Popham, Reid State Park, and Todd's Landing, 2019

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## Abstract

7th graders wanted to compare the green crab populations over time to know where our ecosystem is and where it's heading. Data was taken on the sex of all the crabs and all locations. The seventh graders went to Reid State Park and Todd's Landing in Georgetown and Fort Popham in Phippsburg. The data shows in my graph that the male and female differences between the locations we went to. Based on the graph, there are more females than males in the population of crabs recorded.

## Introduction

The green crabs are an aggressive marine animal found around the Gulf of Maine. These crabs have started mixing with Canadian green crabs making an extra aggressive green crab. It's a cold tolerant, hybrid of the two crabs. This crab can be frozen for 24 hours and still somehow come back to life. This crab along with the European green crab are taking over our coast and making it an awful place for our prized fishery, the lobster. It is feared that green crabs, because of their aggressiveness when trying to find food, may start eating the lobster spawn hidden away in eelgrass (Attack of the green crabs).

The green crabs are a pest in the Maine coastal waters. They are uprooting eelgrass. It's a real problem according to Dan Devereaux a scientist working on the green crab problem. "The view was noticeably different, at least at low tide, when eelgrass was visible pretty much everywhere. Now there's hardly any" he shared. The green crabs are uprooting the eelgrass up and out of the waters, making it not a safe habit for the sea live that uses the eelgrass for food and other resources. Lobster spawn use the eelgrass for shelter and without the eelgrass the lobster spawn will need to find a new habit to live in.

The green crabs are eating soft-shell clams making the industry hard to work, especially now that the crustaceans are at our coast. "Bradt and her colleagues in Maine hope their soft-shell plan might weaken the crustaceans' grip and bolster the local fishing industry at the same time." If the crabs continue eating all the soft-shell clams the industry will be gone in the next 2-3 years.

7th graders wanted to compare the green crab populations over time; to know where our ecosystem was and where it's heading. Data was taken on the sex of all the crabs and all locations.

## Methods

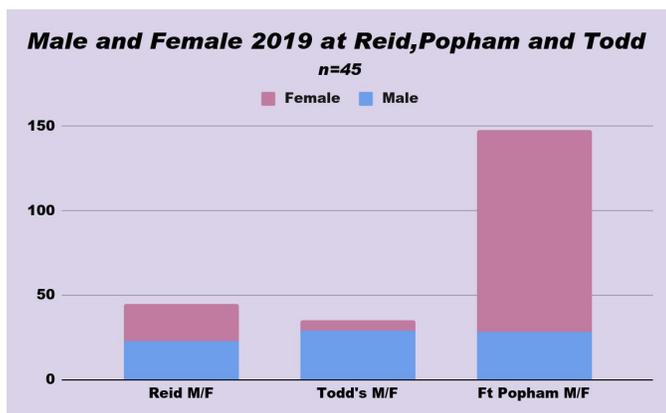
We as seventh graders when to Reid State Park and Todds landing in Georgetown; and Ft. Popham in Phippsburg. All in the week of October 21 2019. We pulled the barrel traps. Took out the bycatch and threw them back in the water. Monday and Tuesday we rebaited them with sardines in sunflower oil, then put them back.

We put nail polish on the crabs on Monday and Tuesday and took measurements Monday, Tuesday and Thursday. We were crabbing to find data about the crabs size, gender, color and nail poilsh or no nail poilsh. We put the crabs back in the same places as we caught them. We keep everything the same. We had the same trap locations, bait, low tide and at least 24 hours in water. Besides the last day october 24.

We had to leave the trap in for 48 hours because of the rain we got. We got to Reid and Todd the tide was mid tide and low tide. We also had to shake the traps a lot to get the crabs out of the traps. I believed it didn't mess with the data that much though the tide was different when we got there.

## Results

All the work paid off. We got the data we wanted. We also got some of the crabs out of the waters. The data shown in this graph is the male, female diffence between the locations we when to. As you can easily see their were more females than males at Reid and Popham. For the colors I chose a dark pink for the female and blue for the males so that you could easily tell which color is which when looking at it.



## Discussion and Conclusion

When working on the graph I found that in crabs there are more females than males over all. This data is important to know where our ecosystem is heading. Based on the graph there are more females than males in the population of crabs recorded. The fact of this data means the females are much more common than males. The day we didn't go because of the rain there could have been more males than females. But for the days we did go their were more females.

## Acknowledgements

KELT came crabbing with us and helped us with pulling out the traps and catching crabs.  
Thank you, KELT

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