

Findings from the Field

Volume 5

Article 12

2022

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Liam R

Bath Middle School, mwright@rsu1.org

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Recommended Citation

R, Liam (2022) "Green crab Sex Ratio between Reid State Park and Fort Popham," *Findings from the Field*: Vol. 5, Article 12.

Available at: <https://findings.gmri.org/journal/vol5/iss1/12>

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Green crab Sex Ratio between Reid

State Park and Fort Popham

Liam R

Bath, ME

Mrs. Wright

Date

12/20/2021

Green crab Sex Ratio between Reid State Park and Fort Popham

Abstract

What I'm researching is why Fort Popham has more crabs than Reid State Park.

The green crab population is also skyrocketing making a chance green crabs could make some native crabs go extinct or move away from Maine. Acadia house and Seguin house of BMS collected data at Reid State Park, Todds landing, and Fort Popham. There were 3 traps at Reid State Park and 3 traps at Fort Popham. There was only 1 trap at Todds landing .

The data collected has helped me analyze the data more clearly. Through my investigation I found that the green crab population at Fort Popham was double the population at Reid State Park. But most of the population actually comes from females.

Introduction

I am investigating green crabs at Reid State Park. Green crabs are an invasive species of crab that immigrated from eastern Europe in 1817. They traveled by boat. Since the green crabs have gotten here "90% of the eelgrass population has died"-Mainepublic.org due to the fact green crabs and Asian shore crabs rip up the eelgrass looking for food.

By doing so the native species of crabs and lobsters have a lower chance of survival. This is happening because the juvenile native crabs and juvenile lobsters grow up in the eelgrass and without it, the juveniles must go deeper to find food and shelter. By going deeper they will most likely not survive since other lobsters or big crabs will eat them.

What I'm researching is why Fort Popham has more crabs than Reid State Park. The green crabs also eat all the food in the environment and are overpopulating which is causing the natives to not have enough food. This is causing the native crab population to decrease. There is a chance green crabs could make some native crabs go extinct or move away from Maine. The green crab population is also skyrocketing.

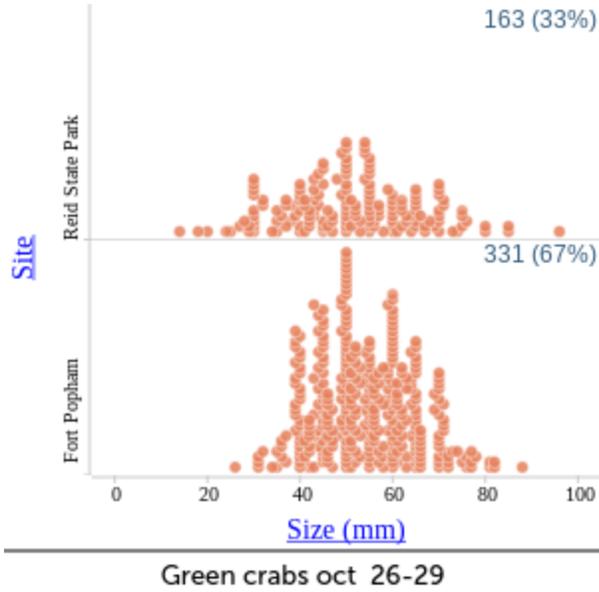
Method

On Monday, October 26, 2021, Thursday, October 28, 2021, and Friday, October 29, 2021, Acadia house and Seguin house of BMS collected data at Reid State Park, Todds landing, and Fort Popham. There were 3 traps at Reid State Park and 3 traps at Fort Popham. There was only 1 trap at Todds landing. All groups put the crabs in the bucket and put the catch back . Once we had finished bukting crabs we recorded the crabs carapace size in mm, the sex of the crabs, eggs, color under the mouth, hard or soft shell crab, species type, and the number of claws. When recording the data more than one person recorded to minimize most mistakes. Then all groups released mostly all crabs back into the ecosystem. Groups B and C had to reschedule due to bad weather and there might be a chance that It has changed amount of crabs

Results

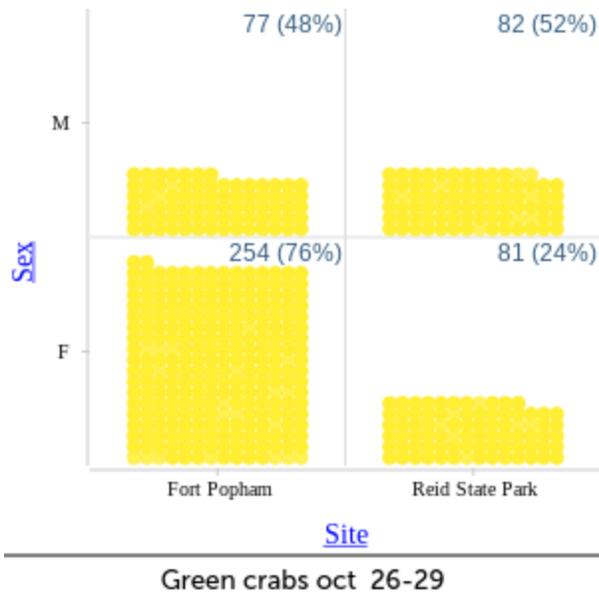
By creating charts and graphs I have been able to analyze the data

Graph 1:



Graph 1 shows how much more crabs there are at Fort Popham than Reid State Park. More than double the amount of Reid State Park is at Fort Popham.

Graph 2:



Graph 2 shows how much more females are at Fort Popham than Reid State Park. This graph shows triple the amount of females at Fort Popham than Reid State Park.

Discussion and Conclusion

Through my investigation I found that the green crab population at Fort Popham was double the population at Reid State Park. But most of the population actually comes from females. According to pwsrccac.org "Female .Green Crabs can reproduce twice in one season, spawning up to 185,000 eggs at a time." Which means the more females the more eggs the crabs the higher the population.

The data suggest this is true because most of their population is female. The female population has grown since the first year.

This evidence suggests that the female crabs at Fort Popham mate twice because of the male to female ratio. Which would explain the amount that Fort Popham has.

Some factors might have impacted my data because of the weather and the more open space and more river flow Fort Popham has.

References Cited

pwsrccac.org

mainepublic.org