



Size Refuge Project

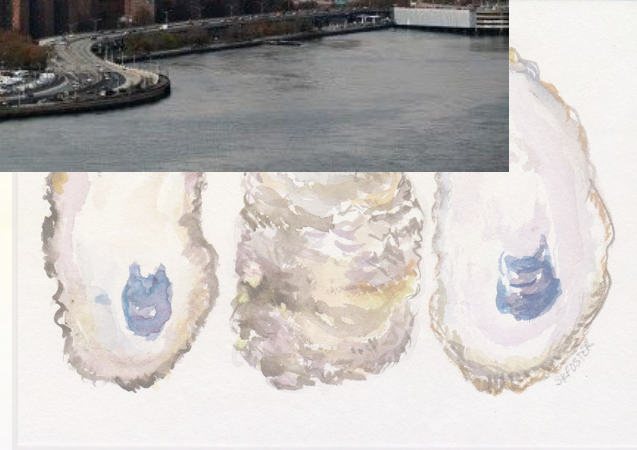
Gosnell Lab 2019

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NYC's issues

- Combined sewage overflow
- Contaminated water
 - Excess nitrogen
 - Raw sewage
 - Poor Water Quality



Oyster Reefs

- Natural Oyster Reefs gone
 - Food resource
- Ecosystem Engineer
 - Wave attenuation
 - Provide nursery for commercially grown fish
 - Restore clean water



Oysters



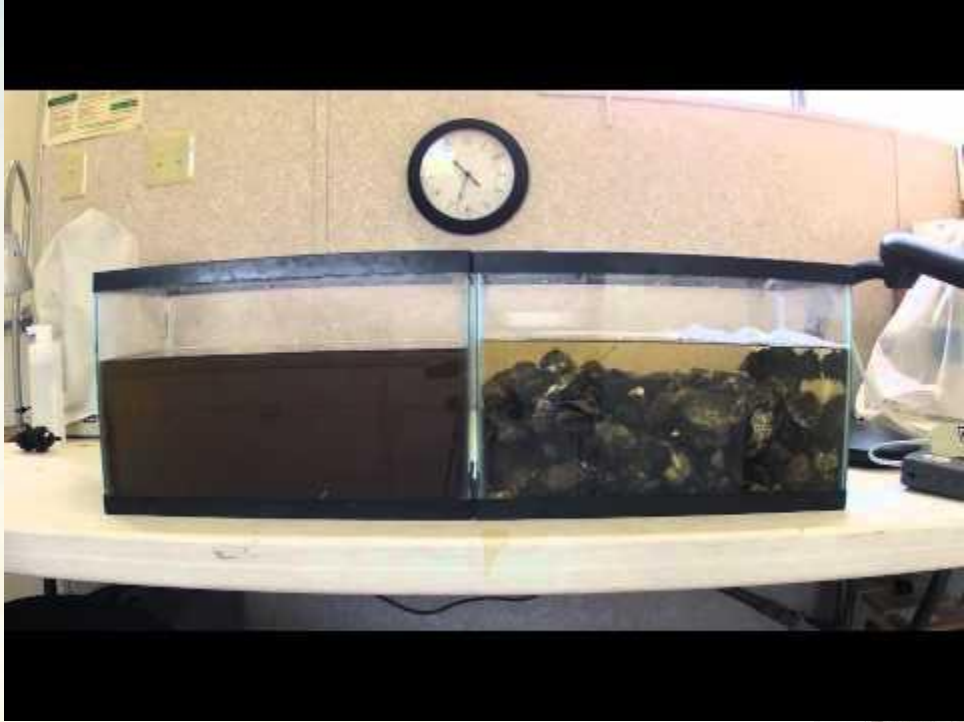
Nature's Water Filter



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Water Clarity



Billion Oyster Project

- *Restoration of original oyster habitat*
- *2035 1 Billion Oysters restored*
 - *100 Acres of Oyster Reefs*
- *Non-Profit Organization*
- *Education*



Issues with Restoration



- Oyster Drills are natural predators of
- Oysters Drills can also feed on mussels
- Large numbers can decimate entire r



Size Refuge

- Predator-Prey interactions
- At what size will the predator consume the prey?
 - Small or Large
- Does the size matter to the predator, will the prey find refuge?



Our Project





Summary

- Combined Sewage Overflow increases nitrogen and contaminants water throughout NYC
- The Billion Oyster Project looks to restore NYC's natural oyster reefs
- Predator-Prey interactions, Size Refuge of Oysters from Oyster Drills
- Lastly, Oysters are AWESOME



References

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