

QBC Water Quality Monitoring

Destiny Belanger

April 1st, 2021

QUAHOG BAY CONSERVANCY

Non-profit organization founded in 2014 by Mary & Pat Scanlan

Mission: To revitalize the marine ecosystems and environment to its natural state

Programs:

Sustainable aquaculture (Snow Island Oysters)
– all proceeds come back to fund QBC's conservation programs

Water quality monitoring

Free pump-out services

Invasive species removal – Green Crabs!

Marine debris removal

Education & Outreach



Water Quality Monitoring

- Weekly water samples in nine different sampling sites
- Testing for TC (total coliforms) & E. Coli bacteria
- Collect and record other data such as:
 - Water temperature
 - Salinity
 - DO (dissolved oxygen)
 - Turbidity
 - pH
 - Conductivity

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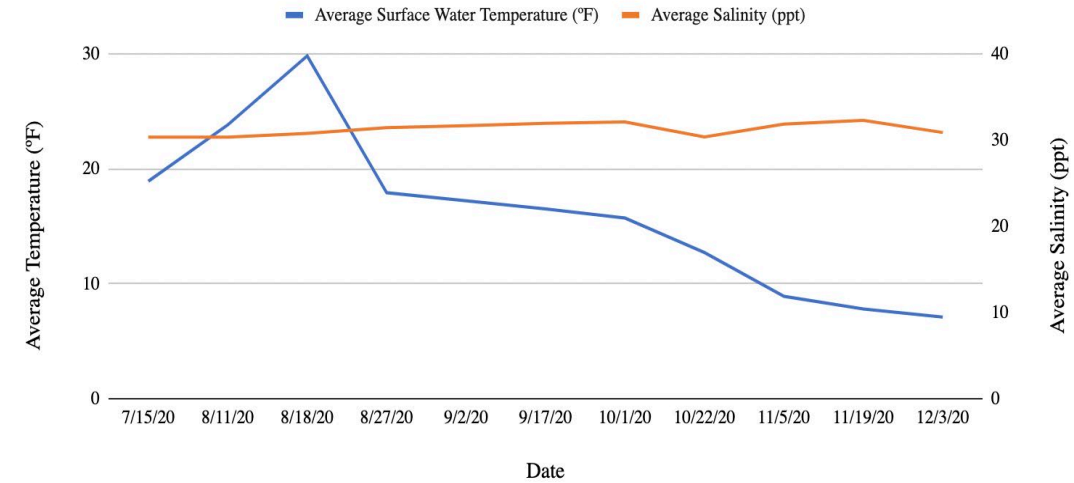
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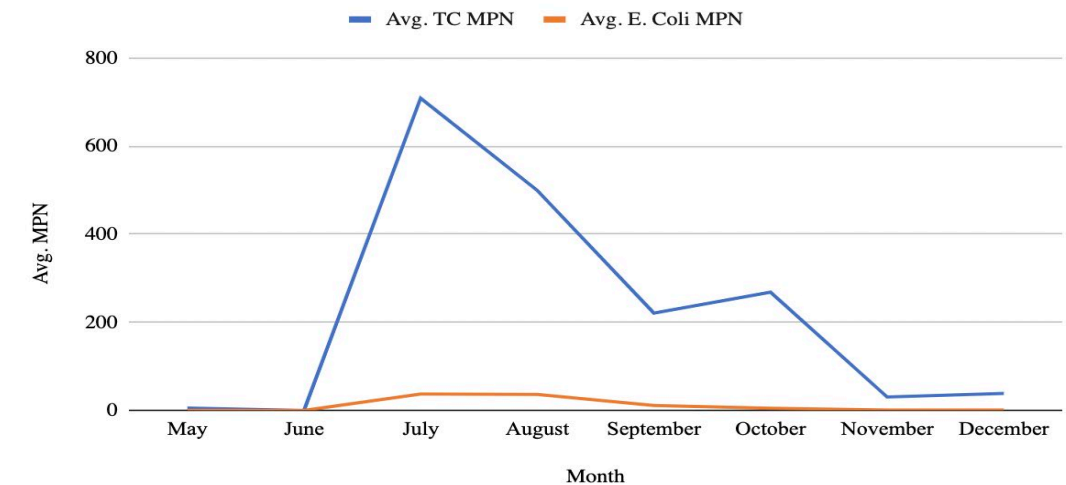
2020 Water Quality Findings

- The temperature spiked in August and quickly declined thereafter while salinity remained rather constant throughout the year
- TC bacteria presence rose rapidly in June and stayed rather high all throughout the summer until about November
 - Result of increased amount of animal waste as well as potential from OBD paired with warm temperatures
 - Bacterial presence sky rocketed the week after 4th of July weekend, most likely caused by the increase in boaters in the bay

SURFACE WATER TEMPERATURE & SALINITY DATA - 2020



2020 Monthly Average MPN for Total Coliform & E. Coli - QB



2020 Water Quality Findings Cont.

- pH was monitored in each cove and stayed consistent throughout the year in a constant range of 7.15 – 8.25
- DO also stayed rather consistent throughout the year averaging in at about 8 mg/L

