

# **Buzzards Bay Coalition Summer Internship 2020**

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# Cuttyhunk MA

- West most of the Elizabeth Island Chain
- Summer Population: 300 + 200 day tourists
- Year Round Population: 10
- “An Island Stuck in Time”





# Who is the Buzzards Bay Coalition ?

“Nonprofit organization dedicated to the restoration, protection, and sustainable use and enjoyment of our irreplaceable Bay and its watershed.



**Education - Conservation - Research - Advocacy**



# The Buzzards Bay Coalition & Cuttyhunk

- BBC acquired 68 acres on Cuttyhunk that were on the market for development.
- This acquisition will preserve habitats, species, safe drinking water, and ensures that the beauty of these lands are now accessible to the public forever.

Dramatic barrier beaches, coastal marsh and upland habitats on Cuttyhunk Island are now secure from the threat of development thanks to a deal that will ensure these unique lands remain natural and are accessible to the public, according to a press release from the Buzzards Bay Coalition.



# My Contribution

- “On-island” Environmental Research and Monitoring Intern
- 4 independent projects:
  - 1) Upland Plant Community Documentation, Mapping, and Restoration
  - 2) Common Eider Nest Monitoring and Management
  - 3) Cuttyhunk Harbor Health
  - 4) Conservation Property Stewardship



# Upland Plant Community Documentation, Mapping, and Restoration

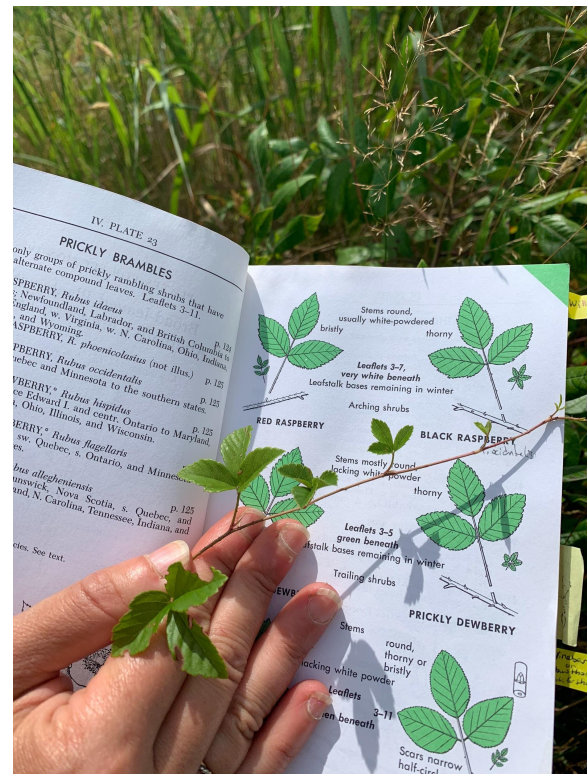
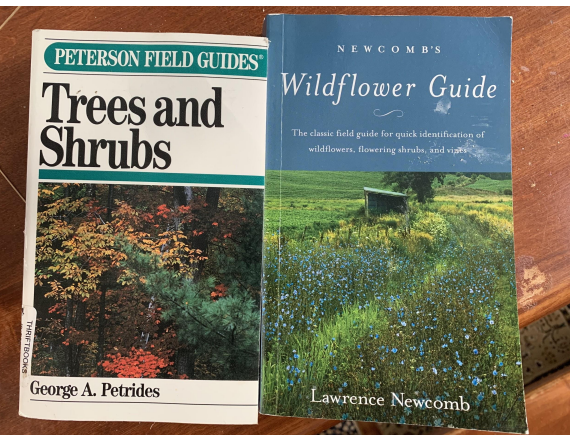
- 32 acres of acquired land are composed of unique coastal shrubland and panicum grassland habitats. Both are facing declines in the Northeast.
- Upland birds use this area for nesting & needs to be managed due to wildfire risk.





# Upland Plant Community Documentation, Mapping, and Restoration

- Designed and conducted a transect method protocol to document the vegetative species within the 32-acre reserve.
- Researched appropriate native plant restoration approaches for the area.





# Common Eider Nest Monitoring and Management

- At-risk species of sea duck
- Nests and feeds on Cuttyhunk
- Populations have never been studied before



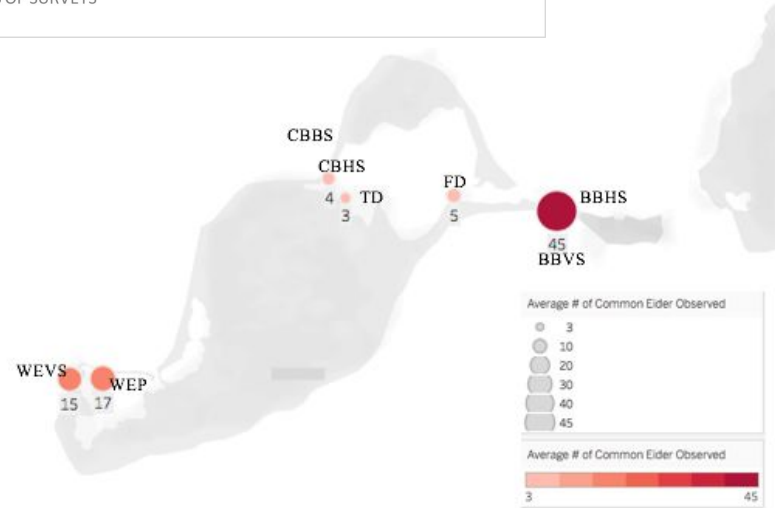
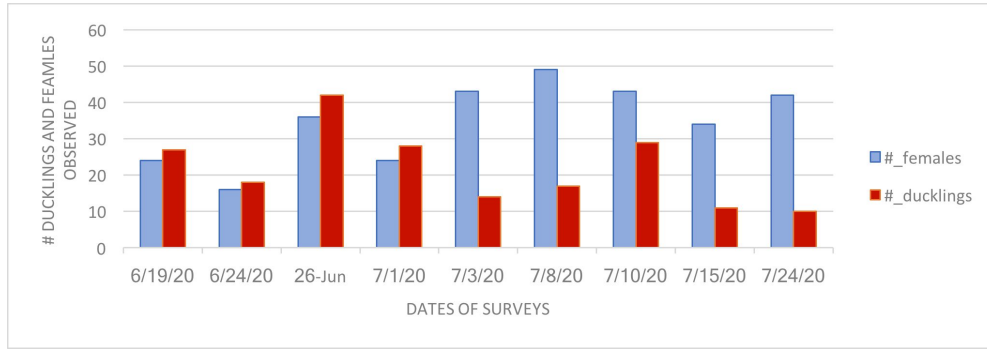


# Common Eider Nest Monitoring and Management

- Developed annual monitoring plan for eider on Cuttyhunk
- Conducted bi-weekly surveys where I would walk 4+ miles around the island observing eider
- I now consider myself a bird watcher!



# Common Eider Nest Monitoring and Management





### 3) Cuttyhunk Harbor Health

- Cuttyhunk harbor will see up to 5000 boaters each summer.
- This harbor like all other Massachusetts water bodies is a “No Discharge Zone”.
- Preventing discharge into the harbor is crucial as waste contains bacteria that is harmful to both humans and wildlife.
  - Hundreds of people rely on this harbor for fishing, boating, and swimming.
  - Within the harbor are eelgrass beds which provide habitat for various fish and invertebrates. Eelgrass beds are currently at risk due to water pollution and invasive species.

# Cuttyhunk Harbor Health

- I engage with boaters regarding our boat pump out station and the importance of preventing discharge of any wastes into the harbor.
- Maintain and upkeep the pump out station to make sure that no boats have to discharge into the harbor.





# Conservation Property Stewardship

- This plot is newly under conservation restriction
- Work with the Coalition to create and maintain trails and public areas
- Research the natural histories and resources of Cuttyhunk that will inform signage along trails





# Lessons Learned!

How to design a uniform scientific study

Island Biogeography

Bird watching skills

Importance of harbor health

Human history and present ecology are deeply connected

Conservation work is one part staring at your laptop and one part eating from blackberry bushes while you ID plants

History of Elizabeth Islands

When people see someone with binoculars at the beach they automatically think there is a shark

Plant IDs

How to operate a pump-out station

Ecological restoration methodology

**Community Involvement = CRITICAL**

# Thank you!!

