

# Nantucket Green Crab Survey and Identification Guide



The European Green Crab is an invasive species that threatens Nantucket's eelgrass beds, shellfish populations, and native crab communities. The goals of the Nantucket Beach Green Crab Survey are to assess where Green Crabs are most abundant on Nantucket and to remove the invasive species from the environment.

Please review the safety guidelines, Areas of Interest Map, and Green Crab Identification Guide below **before** collecting. You will need a hand net for each participant, a large bucket, and a way to tell time.

This is a citizen science survey licensed under the Maria Mitchell Association scientific collecting permit (Mass. DMF Permit # 146078).

To conduct the survey, look for Green Crabs for at least 30 minutes. You can either 1) wade in the water and collect the crabs with a hand net, 2) fish for them using a raw chicken drumstick tied to a hand line, or 3) capture green crabs while snorkeling! When finished, fill out the attached datasheet. Send the completed datasheet to [jdubinsky@mariamitchell.org](mailto:jdubinsky@mariamitchell.org). Please do not release the green crabs. You can use your Green Crabs for cooking, composting, fishing, and more!

If you have any questions about the survey, please contact: [jdubinsky@mariamitchell.org](mailto:jdubinsky@mariamitchell.org).

## Submit your data using the link below!

[Nantucket Green Crab Survey Submission Form](#)

For more information about green crabs on Nantucket, visit:  
<https://www.mariamitchell.org/the-green-crab>.

### **Please follow these safety guidelines when conducting the Green Crab Beach Survey:**

- Make sure you have a survey buddy. Minors should be supervised by a parent or legal guardian.
- Do not enter the water if there are large swells or strong currents in the area. **If in doubt, don't go out!**
- If snorkeling, make sure you are in an area with reduced boat traffic and wear a dive flag.
- Bring a first aid kit to the survey and wear gloves when handling crabs.
- Make sure you are following state and local guidelines pertaining to COVID-19.

*Disclaimer: The Maria Mitchell Association and the Nantucket Land Council are not liable for injury or damages incurred during water activities or crab handling. Conduct this survey at your own risk.*

# Nantucket Green Crab Survey

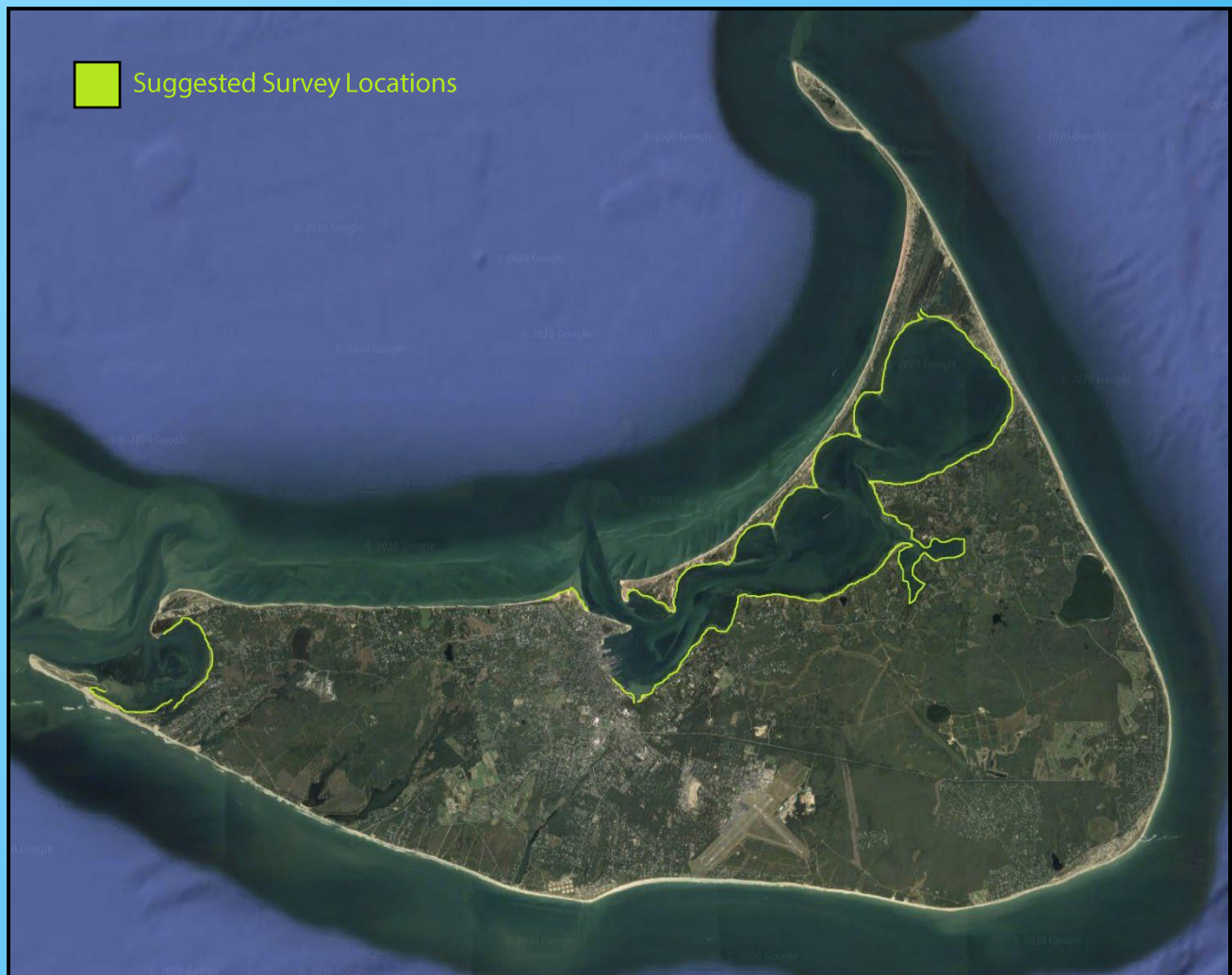
## Areas of Interest Map



While we suspect that European Green Crabs are present in all of Nantucket's marine environments, we are particularly interested in how the crabs are using Nantucket's eelgrass beds. Eelgrass grows in shallow, protected areas, rather than wavy beaches. The map below will help you identify ideal survey locations that will help us learn about the movements and habitat preferences of Nantucket's green crab population.

When planning a green crab survey, we also recommend:

- Try to plan the survey for a low tide. This will give you more access to eelgrass beds.
- Check the wind forecast before choosing a location. It is best to choose a sheltered location and avoid surveying on very windy days.



Source: "Nantucket." 41.283161°N 70.055761°W. GOOGLE EARTH. 7/8/2020

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# Nantucket Green Crab Identification Guide



Introduced crab species are labeled in **red**. Native crab species are labeled in **blue**.

## Target Species: European Green Crab (*Carcinus maenas*)



Carapace Size: up to 3.5"

Carapace Color: Green

### Distinguishing Features

- 5 marginal teeth on each side of carapace
- 3 bumps between eyes.

## Common Spider Crab (*Libinia emarginata*)



Carapace Size: up to 4.0"

Carapace Color: Green

### Distinguishing Features

- Circular carapace
- Spines all over carapace

## Lady Crab (*Ovalipes ocellatus*)



Carapace Size: up to 3.5"

Carapace Color: Yellowish Grey and Light Purple

### Distinguishing Features

- Cheetah pattern on carapace

## Black-Fingered Mud Crab (*Panopeus herbstii*)



Carapace Size: up to 1.5"

Carapace Color: Brown

### Distinguishing Features

- Dark black color on tips of claws
- Large claws relative to carapace

## Atlantic Blue Crab (*Callinectes sapidus*)



Carapace Size: up to 9.0"

Carapace Color: Green

### Distinguishing Features

- One long spine on each side of carapace
- Bright blue accents on legs and claws

## Atlantic Rock Crab (*Cancer irroratus*)



Carapace Size: up to 5.0"

Carapace Color: Pale Orange

### Distinguishing Features

- 9 marginal teeth on each side of carapace

## Asian Shore Crab (*Hemigrapsus sanguineus*)



Carapace Size: up to 2.0"

Carapace Color: Black and Orange

### Distinguishing Features

- Square-shaped carapace
- Banded pattern on legs