

Rapid Assessment Protocol for Surveying Spawning Horseshoe Crabs

This protocol is used to rapidly assess the spawning densities of horseshoe crabs in place of the standard quadrat method. This helps us determine when peak spawning occurs and if the beach should be surveyed using the standard quadrat protocol in the future. People can walk any MV beach during spawning season and count the crabs or nests that they see. Data can be collected anytime from late April – early July, not just on the official DMF survey dates. Crabs come ashore to spawn for 7-10 days during high tides around the full and new moons.

There are 3 necessary items that must be recorded for the Rapid Assessment:

1. **Location of survey**, including date, time of day, and time of high tide (if known)
2. **Length of the beach** that is observed.
3. **Number of female and male crabs observed** – It is important to identify the sex of the crabs and record them as being part of a **cluster** or **single**.
 - *Clusters* are either: a pair of crabs (male attached to female) or a pair plus a “satellite” male (an extra male pursuing the pair and trying to get to the female. There may be more than one satellite male with a pair)
 - *Single* crabs are not associated with any other crab. They will usually be a male, but can be a female.
 - *Female crabs* are noticeably bigger than the males.
 - When paired, the *males are the smaller ones* being dragged by the larger females.
 - If a crab is by itself, you can turn it over briefly and look at the first pair of legs – the *males have specially adapted first legs to grab the female*. These legs are like little fists with one finger. *The female front legs look like all the other walking legs*. (Both sexes have special “pushers” instead of claws on their backmost legs).

Suggested Locations:

- **Sengekontacket side of State Beach:** survey between Little Bridge and Bend in the Road Beach; we have noticed an abundance of crab nests south of Big Bridge
- **Katama Bay/Norton Point Beach:** where largest number of MV crabs spawn
- **Lagoon Pond/Lobster Hatchery**
- **Menemsha Pond/Red Beach/Aquinnah**

* **PLEASE, no walking on private property without permission**

Protocol:

1. **Record all requested information** on the first part of the survey sheet (back of this page).
2. **Record total length of beach surveyed** after you are finished.
3. **Walk** the beach at the water line/swash zone.
4. **Count all male and female crabs within 2 meters (~6 feet) of the water line.** Tally as you go, males and females on the appropriate lines. When done, add tally marks and circle total number for each line.
5. **Return survey sheet to Felix Neck**

Horseshoe Crab Rapid Assessment Survey Data Sheet

Date _____

Start Time of Survey _____(am / pm)

Day or Night Time of high tide (if known) _____

Person(s) conducting survey & a contact phone number

Beach Name _____Town _____

Length of beach walked (estimated) _____ (please specify - yards or meters)

of **Male** crabs *in a cluster* [in pair or as satellite(s)] _____

of *single* **Male** crabs _____

of **Female** crabs *in a cluster* [in a pair] _____

of *single* **Female** crabs _____

nests seen _____

Comments:

Please return to:

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