

# Horseshoe crab researchers weigh in

By Katherine Terkanian, Sarah Martinez and Brianna Ordnung

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CAPE COD - In response to Jamie Balliett's article (Pondering Ancient Creatures, July 10) and Jamie Roberts' response (Will studies save the horseshoe crab? July 17), we want to be clear on the comments we made and a few points regarding the crab harvest.

First of all, we would like to stress that every embayment on Cape Cod is unique and has different influences, both man-made and natural. Any comments we made are specific to Wellfleet Bay and are not applicable to Pleasant Bay or any other part of Cape Cod.

We did not mean to imply that the biomedical harvest is the sole reason that females are declining. The majority of horseshoe crabs harvested in Wellfleet are taken for bait and none are returned to the ecosystem.

While large females are more desirable for bleeding and bait, harvesters do not take only females, they take males as well. Harvesting is not necessarily the reason for the decline in female crabs. It is very important to note that there is no direct causal evidence to suggest this.

The horseshoe crab breeding season is so short, especially when the weather is poor as it has been this year and last, that there is simply not enough time over the course of the year to correlate the decline with any one specific activity of man or nature. We also do not know what proportion of the true population comes to the beach to spawn or whether females spawn every tide, every other tide, every other year, or even if they spawn just once in their lives. Without this information, we cannot be sure whether the skewed sex ratios are something natural or due to human activities.

We mention the harvest simply because it is a significant concern. Something is causing males to outnumber females. We don't know what that is and until we do we don't know how the harvest will affect the overall population and whether or not it is sustainable at current levels.

We also want to clear up confusion regarding harvesting regulations. There are no regulations protecting gravid females. All regulations refer to males and females equally. Crabs taken for biomedical uses by a harvester with a biomedical permit must be returned to the place from which they were taken (this does not include crabs harvested for research purposes).

Crabs taken for bait by harvesters with a bait permit are sold to bait dealers, who in turn sell the crabs to pot fishermen. The current regulations state that crabs taken for bait may be sold to a biomedical company for bleeding and then sold back to either the harvester or dealer who “rented” the crab. These crabs are subsequently sold as bait.

This “Rent-A-Crab” program is separate from the biomedical harvest, which is the only harvest permitted in Pleasant Bay, and is actually beneficial since it reduces the number of crabs that need to be harvested specifically for bleeding. These crabs are already marked to become bait and count toward the state’s harvest quota. Crabs taken by biomedical harvesters do not count toward the quota. Unfortunately we do not have firsthand numbers regarding how many crabs are bled and what proportion of them are females.

Unlike landings from bait harvesters, the numbers taken by harvesters with a biomedical permit are not public information, though they are monitored by the Department of Marine Fisheries.

The loss of horseshoe crabs from our ecosystem is not inevitable. Our studies this decade along with the efforts of DMF, University of Rhode Island, and Cape Cod National Seashore will lead to better management of horseshoe crabs. Early results have already led to changes in the harvest quota, from 400,000 to 165,000 and DMF may be proposing further reductions. The extinction of horseshoe crabs is not imminent but more protection may be needed.

We appreciate these wonderful articles about our ongoing research and love to hear from people as concerned about horseshoe crabs as we are. We just want to avoid any confusion based on unclear comments we made.

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