



# Atlantic States Marine Fisheries Commission

1050 N. Highland Street • Suite 200A-N • Arlington, VA 22201  
703.842.0740 • 703.842.0741 (fax) • www.asmf.org

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## MEMORANDUM

**TO:** Horseshoe Crab Management Board  
**FROM:** Caitlin Starks, Senior Fishery Management Plan Coordinator  
**DATE:** April 26, 2023  
**SUBJECT:** Work Group Recommendations and Report on Biomedical Best Management Practices

### Background

In 2022, the Horseshoe Crab Management Board (Board) appointed a work group to review and update the best management practices (BMPs) for handling biomedical catch. The original BMP document was developed by a similar work group in 2011 and included BMPs for the various steps throughout the biomedical process, from collection to release. Many of these practices were already in use by the biomedical companies in order to sustain the horseshoe crab population and ensure a steady and reliable supply of product to the pharmaceutical market.

Formation of the 2023 work group was prompted by the Board's recent discussions about biomedical mortality and follows the recommendation to periodically review the BMPs for the continued successful management of the horseshoe crab resource. The work group includes technical committee and advisory panel members with expertise in horseshoe crab biology, ecology, and biomedical processing. The BMP document that was included with the Board's meeting materials includes a modified list of BMPs, as recommended by the 2023 work group. It also provides background on the horseshoe crab biomedical fishery, information on current regulations in the Commission's Horseshoe Crab Fishery Management Plan (FMP) related to biomedical collections, as well as descriptions of general processes used to collect and transport horseshoe crabs for biomedical purposes. Finally, it includes a set of research recommendations that could inform future improvements to the BMPs.

### Additional Work Group Recommendations

Over the course of several meetings between January and April, 2023, the work group reviewed the BMPs and proposed modifications to more accurately characterize the practices that are expected to minimize the mortality and injury of horseshoe crabs collected for biomedical purposes. Through these discussions the work group identified several additional recommendations for the Board's consideration.

First, the work group recommends the Management Board task the Technical Committee (TC) with reevaluating the calculation of the coastwide biomedical mortality estimates presented in Commission documents. It came to the attention of the work group that the current calculation process, which applies a 15% estimated mortality rate to bled crabs and adds that number to the number of observed mortalities, may result in double counting of some horseshoe crab mortalities. The TC should review the data and recommend a method for calculating the overall estimated mortality of crabs collected for biomedical use on an annual basis.

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The work group also recommends that where it describes biomedical processes, the Commission's FMP be modified to use language that accurately reflects the practices used by the industry. For example, the FMP refers to collections of biomedical horseshoe crabs as "harvest." However, given the requirement to release these crabs back to the water, the work group believes such take would be more accurately described as "collection." Other misleading terminology in the FMP (e.g., shipping versus transport) continues to create public confusion about biomedical handling processes.

The work group also discussed that, in addition to the five biomedical operations along the Atlantic coast that are licensed by the US Food and Drug Administration (FDA), there are other operations along the coast that are not licensed by the FDA but are still permitted to collect blood from horseshoe crabs for other purposes such as health or medical research. The work group recommends each state provide a report to the Board on any such operations in their state, including the permitting and reporting requirements for these operations.

**From:** [doris lake](#)  
**To:** [info](#)  
**Subject:** [External] horseshoe crabs  
**Date:** Wednesday, April 19, 2023 5:31:25 PM

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Moritorium on harvesting /killing horseshoe crabs,Bring the ecosystem back to life .Migrating birds depend on the eggs of the crabs to continue their journey.There is no need for Bio labs to use HS crab blood.There is a synthetic substance available.Stop the harvesting for money and let nature return the balance to our shores for all the living creatures that depend on them and I don't mean us.

Thank you Doris Lake



April 21, 2023

Horseshoe Crab Management Board  
Atlantic States Marine Fisheries Commission  
1050 N. Highland Street, Suite 200 A-N  
Arlington, VA 22201  
comments@asmfc.org

*VIA ELECTRONIC MAIL*

**Re: Safeguarding public participation in decisions about the horseshoe crab bait fishery in Delaware Bay**

Dear Members of the Horseshoe Crab Management Board:

I write on behalf of New Jersey Audubon and Defenders of Wildlife to request that the Board institute a process for providing advance notice to the public before considering the authorization of any bait harvest of female Delaware Bay-origin horseshoe crabs. Under the current management regime, the public is unable to anticipate whether the Board is actively considering the authorization of a female harvest for a given year. As a result, concerned members of the public are unable to make informed decisions about whether and how to engage in the Board's decision-making process.

In November 2022, when the Board maintained a female bait harvest quota of zero horseshoe crabs in Delaware Bay, it described its decision as “[a]cknowledging public concern about the status of the red knot population in the Delaware Bay.”<sup>1</sup> However, the Board also approved a new adaptive resource management (“ARM”) model that is nearly certain to recommend authorizing a female bait harvest every year. While the Board opted not to implement the model's recommendation for 2023, the public cannot foresee whether the Board will implement the model's recommendations in future years or maintain a harvest quota of zero.

With the vital question of a female bait harvest perpetually at issue, every year the stakes for the public will remain as high as they were in 2022. The status quo presents the public with two unreasonable options: (1) mobilize annually to oppose a female bait harvest that the Board might not actually be considering, which would waste the time and resources of the Board, Commission staff, and public; or (2) sit on the sidelines and risk that the Board will implement the ARM model's recommendation for a female harvest without any advance public notice.

The Board can resolve this uncertainty by committing to provide advance notice to the public if it is considering the authorization of a female bait harvest in Delaware Bay. For example, the Board could commit to indicating no later than its Summer Meeting if it may take action at its

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<sup>1</sup> Atlantic States Marine Fisheries Commission, News Release, “Horseshoe Crab Board Sets 2023 Specifications for Horseshoe Crabs of Delaware Bay-Origin & Adopts ARM Framework Revision via Addendum VIII” (Nov. 10, 2022), [https://asmfc.org/uploads/file/636d41cepr33\\_HSC2023DEBaySpecs\\_AddendumVIII\\_Approval.pdf](https://asmfc.org/uploads/file/636d41cepr33_HSC2023DEBaySpecs_AddendumVIII_Approval.pdf).

Annual Meeting to authorize a female bait harvest for the following fishing year. If the Board makes such an indication, then the public can decide how to engage and submit comments. If the Board does not indicate the possible authorization of a female bait harvest, then the public will know that it is not necessary to engage on this issue for a given year.

We appreciate the Board's acknowledgment of public concern about the status of the red knot population. By giving the public advance notice about a possible female horseshoe crab bait harvest, the Board would enable the public to make more informed decisions about future engagement.

Respectfully submitted,

Benjamin Levitan  
Senior Attorney  
Earthjustice Biodiversity Defense Program  
(202) 797-4317  
blevitan@earthjustice.org