



# Atlantic States Marine Fisheries Commission

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## Horseshoe Crab Technical Committee Meeting Summary

Conference Call  
March 12, 2014

**Technical Committee Members:** Penny Howell (chair, CT DEEP), Mike Millard (US FWS), Steve Doctor (MD DNR), Joanna Burger (Rutgers), Vin Malkoski (MA DMF), Tiffany Black (FL FWC), Adam Kenyon (VMRC), Larry DeLancey (SC DNR), Tina Moore (NC DMF), Jim Page (GA DNR), Jordan Zimmerman (DE FW), Rachel Sysak (NY DEC), Scott Olszewski (RI DFW), Linda Stehlik (NOAA), Derek Orner (NOAA)

**ASMFC Staff:** Marin Hawk

**Public:** Sheila Eyler (US FWS), Amy Fowler (SC DNR), Peter Himchak, Jim Roussos (LaMonica Fine Foods)

The Horseshoe Crab Technical Committee (TC) met to review new tagging requests submitted to the US Fish and Wildlife Service (US FWS). The TC also discussed how to conduct field trials using the horseshoe crab artificial bait in the conch and eel fisheries. Finally, the TC reviewed a recently published paper concerning sublethal effects of biomedical bleeding on horseshoe crabs.

### Tagging Requests to US FWS

The US FWS coordinates the horseshoe crab tagging program along the Atlantic coast of the United States. Each year, approximately 20,000 tags are distributed to different sub-programs to collect information for use in horseshoe crab management. For 2014, there is concern that the cap on the total tag number of the program may be exceeded. The American Littoral Society, the Delaware River Keeper and other interested parties requested 5,000 tags to be deployed in the NJ portion of the Delaware Bay annually. South Carolina Department of Natural Resources also requested 10,000 tags to support a new program being developed in South Carolina.

These two requests are larger than many of the requests submitted to the US FWS and they have the potential to provide useful information. The TC discussed whether the information provided by these programs would be used, and how best to accommodate these two programs and still maintain the US FWS tag cap. It was decided that smaller sub-programs with less than 1,000 tags will be encouraged to focus their efforts on re-sighting of their previously tagged horseshoe crabs and compiling summary reports. This will maximize the usefulness of all tags previously released rather than releasing more. It will also free up some tags that can be used in the new programs. Other larger sub-programs will also have the number of tags provided reduced (i.e. the annual per-program cap of 4,000 tags will be reduced to 3,000 tags).

In addition, the US FWS tagging program will eliminate the toll free phone number printed on the tags and print only the web site information. It is hoped that eventually all return information will be reported electronically in order to reduce costs. Any program that can afford to buy tags will be required to do so. The TC also agreed that people requesting tags for a new program

should submit a summary document outlining goals and methodologies to the TC for their review.

### **Field Tests of Artificial Bait**

At the February 2014 Horseshoe Crab Management Board (Board) meeting, the Board tasked the TC to conduct field trials using the artificial horseshoe crab bait. The TC decided to form a working group to address this issue. TC members and fishermen from Massachusetts, Delaware, Rhode Island and Connecticut will participate in the working group. The group will obtain artificial bait from LaMonica Fine Foods in New Jersey. Field trials will be conducted using standardized methodologies to ensure comparable results. The working group will continue to pursue this task throughout the 2014 field season.

### **Review of Biomedical Bleeding Paper**

A new paper concerning the effects of biomedical bleeding on horseshoe crabs was published in December 2013 (Anderson *et al.*; see below). The research explored the sublethal behavioral and physiological responses of horseshoe crabs to the biomedical bleeding process. The article suggests that mortality is not the only issue with bleeding horseshoe crabs, but that long-lasting (>6 weeks) sublethal effects may impact the horseshoe crab after release. Specifically, bleeding a female horseshoe crab may impede her ability to reproduce that year. The TC would like to explore the possible differences in response to bleeding between spawning and non-spawning horseshoe crabs. The TC also notes that while the paper suggests bleeding may not be as harmless as previously thought, the methods used in the paper did not follow the Best Management Practices (BMPs) laid out by the TC. Therefore, it is possible that the responses seen in the horseshoe crabs in the study are more severe than those where biomedical companies practice BMPs.

In addition to reviewing the paper, the TC also discussed the importance of the alternative to *Limulus amoebocyte lysate* (LAL) in the conservation and management of horseshoe crabs. Lonza Chemicals, of Virginia, has developed an alternative product. However, there is hesitation in the medical community due to a lack of FDA guidelines for use of the product. The TC encourages the Board and biomedical industry representatives to communicate to the FDA the urgency of clarifying their regulatory guidelines so the biomedical industry can meet a growing demand and pressure on the horseshoe crab population can ultimately be reduced.