

## **Horseshoe Crab Advisory Panel Report**

**May 5, 2006**

The Horseshoe Crab Advisory Panel had a conference call on April 26<sup>th</sup> to discuss and comment on Draft Addendum IV to the FMP. The following is a summary of that call.

### **Advisory Panel Member Participants**

Rick Robins (dealer/processor, VA)  
Jim Cooper, Chair (biomedical, SC)  
Jay Harrington (commercial/hand harvester, MA)  
Mick Dawson, Vice Chair-elect (biomedical, MA)  
Merrill Campbell (dealer/processor, MD)  
Jeff Eutsler (commercial/trawl, MD)  
David Keilmeier (commercial/hand harvester, NJ)  
Brad Spear (staff, ASMFC)

### **Draft Addendum IV**

Prior to the call AP members reviewed Addendum IV and recent research and monitoring findings. Based on the best science available for Atlantic horseshoe crabs (see section “Board Questions/TC Response Regarding HSC/Red Knot Issue and Call for a Moratorium” of the October 21-22, 2005, HSC Technical Committee Report), the members on the call agreed that the science made a strong case for the status quo. However, the AP reached a consensus on a combination of risk-averse management Options for Addendum IV, in response to the apparent needs of migratory shorebirds.

Several members also stated that there is a poor link between cause and effect of horseshoe crab eggs limiting population recovery of red knots. It is not clear that eliminating horseshoe crab harvest will have a measurable positive effect on the red knot population; therefore, recovery of the Red knot population may be an inappropriate and poorly justified endpoint for setting Horseshoe crab management policies. Red knots feed on mussel spat and other invertebrates much of the time. Furthermore, there are many other factors throughout the migratory range of red knots that affect their survivability; these factors are not fully understood.

One member commented that Horseshoe crabs also feed on a lot of the same prey as migratory shorebirds. It is possible that increases in horseshoe crabs in areas outside the DE Bay will decrease food availability for shorebirds in those areas. Also, two participants expressed concern that increased restrictions in NJ, DE, MD and VA would lead to increased pressure due to over-harvesting of horseshoe crab populations in other states.

While AP members on the call stated that the best available science supports status quo, they recognize that Management Board members may feel compelled to adopt a more restrictive action. The AP believes the following suite of options is a reasonable and balanced approach to address the perceived needs of the red knot while allowing a limited commercial fishery to

continue. If an individual state does not believe this approach goes far enough, it can be more conservative and still be in compliance with ASMFC policies.

#### New Jersey/Delaware

The Panel endorses Option 2 for a delayed, male-only harvest as an interim management strategy, for a 2-year period. The proposal is designed to maximize female escapement from harvest and will improve foraging conditions for migratory shorebirds while allowing for a limited harvest of males after the shorebirds have left Delaware Bay. Any impact on the genetics and mating behavior of horseshoe crabs associated with a small harvest of males will be limited seasonally, geographically, and by state quotas, and this issue is secondary to the need to improve egg availability in Delaware Bay by increasing female escapement from harvest. A full moratorium for two years (Option 3) is not consistent with the goal of the FMP to manage horseshoe crabs for continued use by the fishing public and raises questions related to the Commission's standards for fisheries management plans. There was also concern among the Panel that the next step after a moratorium on harvest would be a "no possession" law.

#### Maryland/Virginia

The Panel endorses Option 2 (delayed harvest) for Maryland and Option 4 (multiple-measure approach) for Virginia. Female escapement from harvest off the Maryland and Virginia coasts will have very little impact to egg availability in DE Bay. Limited migration was documented in a tagging study published by Swan (2005)<sup>1</sup> which indicated that over 96% of crabs tagged and released in Delaware Bay were recaptured within 50 kilometers of the release sites and concluded that long distance migrations by horseshoe crabs are uncommon. One panel member provided anecdotal evidence that crabs in Maryland waters have a different appearance and weight than DE Bay crabs.

#### Biomedical

The Panel endorses Option 1 for status quo. Mortality of crabs from harvest for biomedical use and the bleeding process is low. The Panel felt there was no justification for regulating the biomedical harvest as the bait harvest is regulated. Option 2 is not appropriate because females provide more blood to produce a higher quality LAL. If only males were harvest for biomedical use, more total horseshoe crabs would be needed. The focus on biomedical harvest should be on best management practices for handling crabs and reporting. The biomedical members pointed out that mortality in this industry is not caused by the bleeding process. Rather, mortality is linked to natural mortality factors and specimen-handling activities. Careful handling during catch-and-release procedures is the best way to minimize mortality in the biomedical industry.

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<sup>1</sup> Swan, B.L. 2005. Migrations of adult horseshoe crabs, *Limulus polyphemus*, in the middle Atlantic Bight: A 17-year tagging study. *Estuaries* 28 (1): 28-40.