

# **Atlantic States Marine Fisheries Commission**

## **Horseshoe Crab Multi-Committee Conference Call**

### **Delaware Bay Egg Survey Review Call**

April 22, 2013

**Participants:** Greg Breese (US FWS), Tiffany Black (FL FWS), Tina Moore (NC DMF), Adam Kenyon (VMRC), Genny Nesslage (ASMFC), Larry Niles (ARM Subcommittee), Jordan Zimmerman (DE FW), John Sweka (US FWS), Mike Millard (US FWS), Dave Smith (USGS), Vin Malkoski (MA DMF), Wendy Walsh (US FWS), Nellie Tsipoura (Shorebird AP), Tim Dillingham (Shorebird AP), Steve Doctor (MD DNR), Stew Michels (DE FW), Penny Howell (CT DEP), Conor McGowan (ARM Subcommittee), Joanna Burger (Rutgers University), Mandy Dey (DBETC), Kevin Kalasz (DE FW), and Marin Hawk (ASMFC)

The Horseshoe Crab Technical Committee (HSC TC), Delaware Bay Ecosystem Technical Committee (DBETC), Shorebird Advisory Panel (Shorebird AP), Adaptive Resource Management Subcommittee (ARM Subcommittee) and Horseshoe Crab Stock Assessment Subcommittee (HSC SAS) met to review and discuss the Delaware Bay Egg Survey. The call began with an overview of the issue followed by a discussion concerning the usefulness of the survey in relation to shorebird and horseshoe crab management in New Jersey and along the Atlantic Coast. Following these discussions, a plan was laid out to move forward with the review of the survey in the future. Below is a summary of what was discussed.

#### **Overview of the Issue**

Delaware requested a review of the egg survey in their 2012 compliance report. They expressed concern that time and money is being spent on the egg survey which is not used to inform management of horseshoe crabs or shorebirds. Delaware requested that various committees review the utility of the survey to determine whether improvement or discontinuation of the survey is possible. Delaware may have to justify continuing to conduct the survey as budgetary constraints become more stringent. Therefore, the specific benefits provided by this survey should be clarified for the ASMFC Management Board and all affected parties.

#### **Utility of the Survey**

There was general consensus that the egg survey is useful and valuable in the state of New Jersey. The egg survey is tied to the New Jersey moratorium, and helps determine whether or not the moratorium is lifted. The New Jersey Endangered Species Advisory Committee is taking up metrics to define relaxation of the moratorium and one of those metrics is the egg survey. However, what is less clear is how useful the survey is to the Atlantic Coast.

It was acknowledged the egg survey is a direct measure of foraging conditions, whereas female horseshoe crab abundance (which is used in the ARM Model) is an indirect measure. It was also acknowledged that while weight gain may be the most direct measure of foraging conditions, without egg density it is difficult to determine what other conditions (environmental or otherwise) could affect weight gain. Finally, since the ARM Framework is a new model, monitoring egg density can help evaluate its success.

### **Plans for Moving Forward**

The various participants agreed that further discussions are needed to evaluate the egg survey before formal recommendations are made. A small working group (Dave Smith, John Sweka, Jim Lyons, Greg Breese, Kevin Kalasz, Amanda Dey, Rich Wong, Genny Nesslage, Penny Howell, Rachel Sysak and Marin Hawk) was formed to proceed with this. The key questions that the working group will investigate are outlined below:

- 1) How are the results of the egg survey intended to be used to inform management of horseshoe crabs and shorebirds in Delaware Bay and along the Atlantic Coast?
  - a. Categorize intended uses as arising from the perspective of the states (DE and NJ) or ASMFC.
  - b. Categorize intended uses that contribute directly to decisions and those that contribute indirectly to decisions through weight of evidence or testing of assumptions.
- 2) Is the current methodology scientifically valid and does the survey produce results that are consistent with all intended uses?
  - a. Are field sampling methods appropriate?
  - b. Are statistical techniques appropriate given how these data are collected?
- 3) Determine whether the egg survey from the perspective of ASMFC meets its intended uses and should be continued in its current form, should be redesigned to better meet its intended uses, or discontinued as a mandate under the FMP.