FISHERIES MANAGEMENT PANEL

Two States: One Bay
June 12, 2015

TOM NOJI, DIRECTOR
NOAA NATIONAL MARINE SCIENCE LAB AT SANDY HOOK

SOREN DAHL, COORDINATOR FOR SEAGRASS MGMT.
BUREAU OF MARINE RESOURCES, NYS DEC

PETER CLARK, BUREAU OF MARINE FISHERIES
NEW JERSEY DIVISION OF FISH AND WILDLIFE
The Challenge to Fisheries Management in the Raritan Bay

Two States: One Bay

June 12, 2015
Fisheries were and remain integral to the Raritan Bay TODAY’s challenges for fisheries scientists and managers

The expert panel:
- Peter Clark, NJ DEP, Division of Fish and Wildlife
- Soren Dahl, NY DEC, Bureau of Marine Resources,

What are your highest priorities?
- Finfish, horseshoe crab, shellfish, oyster restoration, recreational fishing, clam transplant
Fisheries of Raritan Bay / NJ Fisheries Management

PETER CLARKE
NEW JERSEY DIVISION OF FISH AND WILDLIFE
BUREAU OF MARINE FISHERIES

Two States: One Bay
June 12, 2015
New Jersey has no Raritan Bay specific data collection programs or fisheries management plans.

NJ State Fisheries Management Plans guided by actions taken by two organizations, interstate management entities:

- Atlantic States Marine Fisheries Commission
  - 15 Member States
  - Plans for State Waters (0-3 miles from shore)

- Mid-Atlantic Fisheries Management Council
  - New York to North Carolina
  - Federal Waters (3-200 miles from shore)
Fisheries Occurring in Raritan Bay

- Commercial Fisheries
  - Pound Net Fishery
  - Purse Seine Fishery
  - Crab Dredge
  - Crab Pot
  - Hard Clam

- Recreational
  - Summer Flounder (Fluke)
  - Striped Bass
  - Bluefish
  - Winter Flounder
Fisheries Occurring in Raritan Bay

- Commercial Fisheries
  - Pound Net Fishery
    - Atlantic Menhaden, Bluefish, Sea Robins, Summer Flounder, Weakfish

Two States: One Bay
June 12, 2015
Fisheries Occurring in Raritan Bay

- Commercial Fisheries
  - Purse Seine Fishery
    - Atlantic Menhaden
      - Restricted to fish no closer than .6 miles from shore
      - Roughly 4.5 million pounds are landed from Raritan Bay annually including all gear types
    - NJ Lands roughly 40 million pounds annually
Commercial Fisheries

- Crab Dredge and Crab Pot in 2014
  - Raritan crab dredge accounts for 88,000 pounds of the 570,000 pounds harvested state wide (15%).
  - Raritan Bay crab pots account for 7,000 pounds of 2.6 million pounds harvested State wide (<1%).

Two States: One Bay
June 12, 2015
Fisheries Occurring in Raritan Bay

- **Commercial Fisheries**
  - **Hard Clam**
    - account for ~50% of the State’s hard clam landings
    - All clams must be depurated (Harvest is from restricted waters)
      - 2 active depuration plants in the Raritan/Sandy Hook bayshore
      - Relay program is currently suspended due to lack of relay participants
    - No hard clam management plan for New Jersey.
      - A key component is landings data.
      - There is no requirement for reporting shellfish landings in New Jersey

Two States: One Bay
June 12, 2015
Fisheries Occurring in Raritan Bay

- Commercial Fisheries
    - Data available for 1983 and 2000. 2014 still being reviewed

Stations sampled during stock assessments

Two States: One Bay
June 12, 2015

New York - New Jersey Harbor & Estuary Program
www.habor'estuary.org
Fisheries Occurring in Raritan Bay

- **Recreational**
  - Summer Flounder (Fluke), Striped Bass, Bluefish, Winter Flounder
    - Support many marinas, private boats, rental boats, and charter/party boats.

Two States: One Bay
June 12, 2015
Fisheries Management: NY Commercial and Recreational perspectives

SOREN DAHL: BUREAU OF MARINE RESOURCES

NEW YORK STATE OF OPPORTUNITY

Department of Environmental Conservation

Two States: One Bay

June 12, 2015

Hudson River Foundation for Science & Environmental Research, Inc.

Rutgers

Sustainable Raritan River Collaborative
• National Marine Fisheries Service: Statistical Areas; Sub-area 158 encapsulates Raritan Bay
  ○ Fishermen code fishing effort and landings to area fished.

Two States: One Bay
June 12, 2015
Species of Commercial Interest 2012-2014

- Atlantic Menhaden
- Blackfish (Tautog)
- Blue Crab
- Whelk (conch)
- Bluefish
- Rock Crab
- Summer Flounder
- Black Sea Bass
- Red Hake

Approximate order by pounds landed

Fish meal, fish oil

New York - New Jersey Harbor & Estuary Program
www.harborestuary.org

Two States: One Bay
June 12, 2015
Access Point Angler Intercept Survey (APAIS) informs the Marine Recreational Information Program (MRIP)

- Estimates of NY’s marine recreational harvest
Species of Recreational Interest 2012-2014

- Bluefish
- Black Sea Bass
- Summer Flounder
- Scup
- Northern Puffer
- Striped Bass

Approximate order by number of fish landed according to MRIP
Broader Regional Management

Collaboration: Federal programs & Management Councils
- Atlantic States Marine Fisheries Commission, ASMFC

Menhaden (aka ‘Bunker’)
- NY daily harvest limits; deters large operations
  - Bait fishery
- Forage fish

Horseshoe Crabs
- Bait fishery, biomedical industry
- Migratory shore bird conservation
  - Spawner surveys; Cornell Cooperative Ext

Contribute good data Landings & effort

Two States: One Bay
June 12, 2015
Shellfisheries: Hard clam population

_Mercenaria mercenaria_

- **Uncertified waters, restricts harvesting**
  - National Shellfish Sanitation Program (NSSP)
    - Food and Drug Administration (FDA) and the Interstate Shellfish Sanitation Conference (ISSC)
- **Transplant-relay fishery with State supervision**
  - 9 permits, ~90 diggers (1990s). 2005: 1 permit, 12 diggers
- **QPX disease; opportunistic microbial pathogen**
  - Hard clam-Mortality event in 2002 shut down harvest
  - Monitoring program: reopened areas in 2005
  - Currently very low infection, all areas can be relayed
- **No permit this year. Low margin, high overhead.**
Moving forward, issues with fisheries implications

- Climate change
  - Winter and summer-temperature, precipitation and snow-salinity
  - Shift in species (Blue crab), Parasites (oyster pathogen: 1990s)
- Eutrophication
  - Hypoxic stress, pathogen virulence (Wedekind et al. 2010)
- Habitat improvements: WQ, nursery/refuge-wetlands
  - Shellfish restoration: realistic goals
    - Learn from the Chesapeake and Delaware Bay
- Hard clam population assessment
  - Manage for expanded harvest effort
- Contaminants and advisories
Past and present

www.dec.ny.gov
Which of the following fish and shellfish management issues/tools/tactics should be the highest priority for the conference?

When poll is active, respond at PollEv.com/raritanbay

Text RARITANBAY to 22333 once to join

- Blue crab fishing: 1
- Menhaden fishing: 2
- Hard clam fishing: 10
- Pound net fishing: 1
- Horseshoe crab harvesting: 14
- Oyster restoration: 24
- Recreational fishing: 8
- Marine diseases: 9
- Clam transplant program: 4
What other fish and shellfish management issues have we missed?

When poll is active, respond at PollEv.com/raritanbay

Text RARITANBAY to 22333 once to join