

Virginia Fishery Monitoring Programs & Management Efforts to Address Changing Distributions of Living Resources



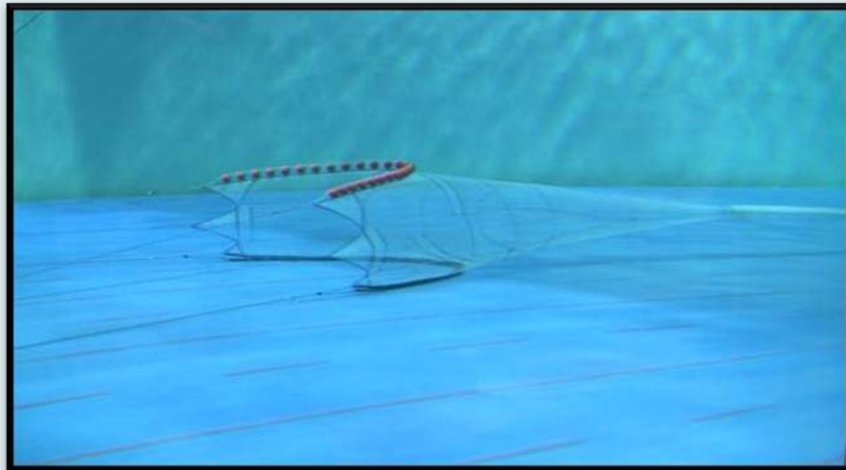
Jim Gartland / VIMS
June 2014

Objectives

- **Introduce Virginia's three main fishery-independent monitoring surveys – why are they important?**
- **Discuss efforts to investigate possible changes in species distributions & develop appropriate management actions in response (ASMFC)**

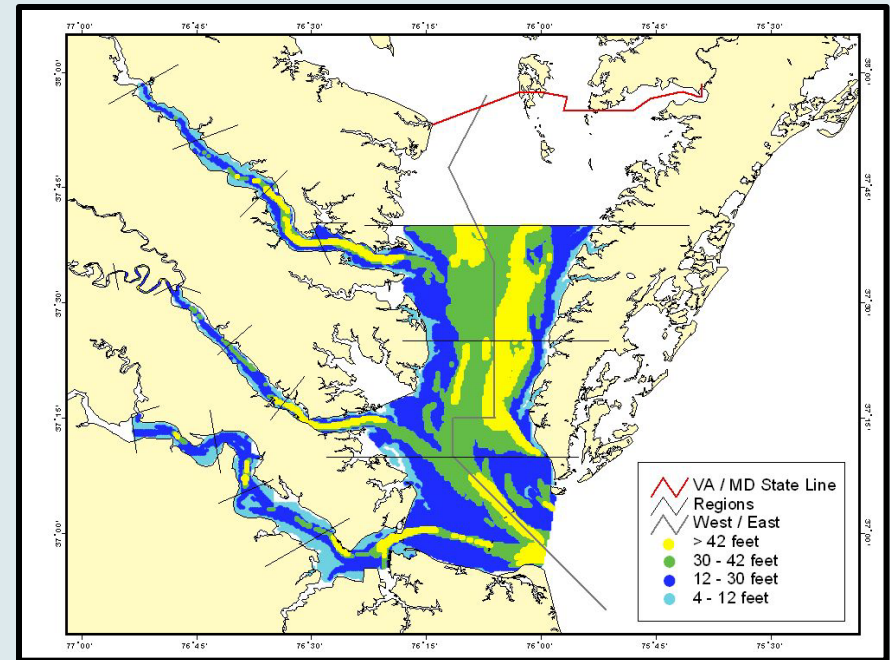
Virginia Fishery-Independent Trawl Surveys

- Juvenile Fish & Blue Crab Trawl Survey
- ChesMMAP Trawl Survey
- NEAMAP Trawl Survey



Juvenile Fish and Blue Crab Trawl Survey

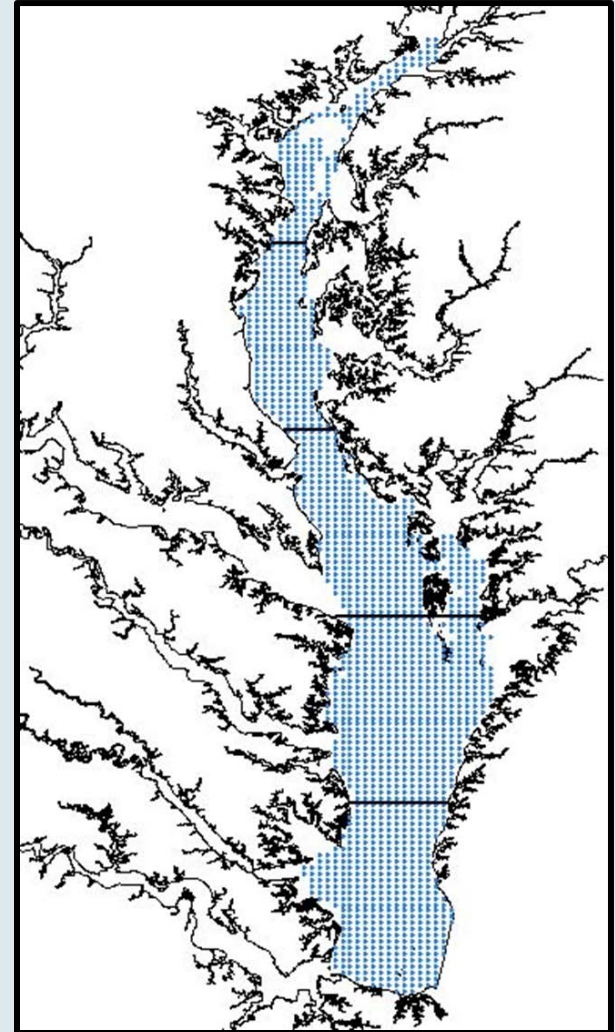
- Sampling since 1955, year-round
- Operates in the Virginia mainstem bay & tributaries
- Targets juvenile fishes



ChesMMAP Trawl Survey

(Ches. Bay Multispecies Monitoring & Assessment Program)

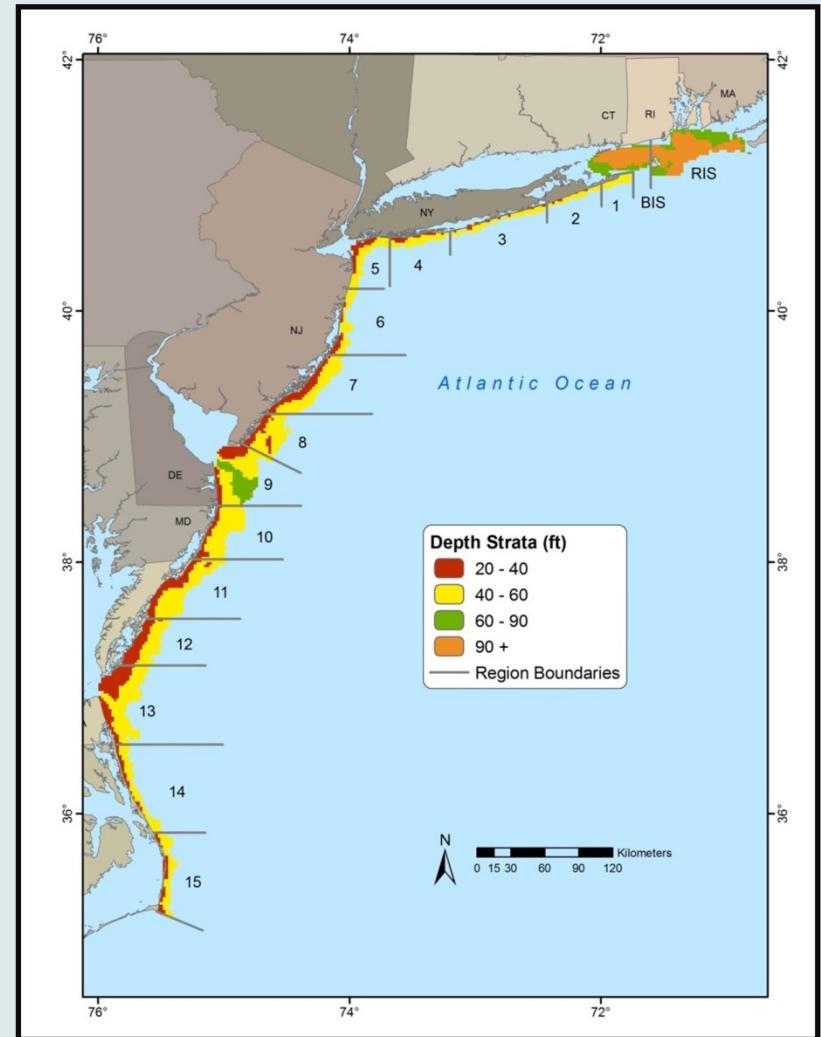
- Sampling since 2002, March through November
- Operates in the mainstem of Chesapeake Bay
- Targets late juvenile & adult fishes



NEAMAP Trawl Survey

(Northeast Area Monitoring and Assessment Program)

- Sampling since 2007, Spring & Fall
- Coastal waters from MA to NC (inshore compliment of NEFSC BTS)
- Targets late juvenile & adult fishes



Trawl Survey Data Types

Biological

- Distribution
- Abundance
- Size
- Weight
- Sex & Maturity
- Age
- Diet (Trophic Int.)

Hydrographic

- Water Temp.
- Salinity
- DO Concentration
- DO Saturation
- Light Availability

Atmospheric

- Air Temp.
- Wind Speed
- Wind Direction
- Baro. Pressure
- Cloud Cover

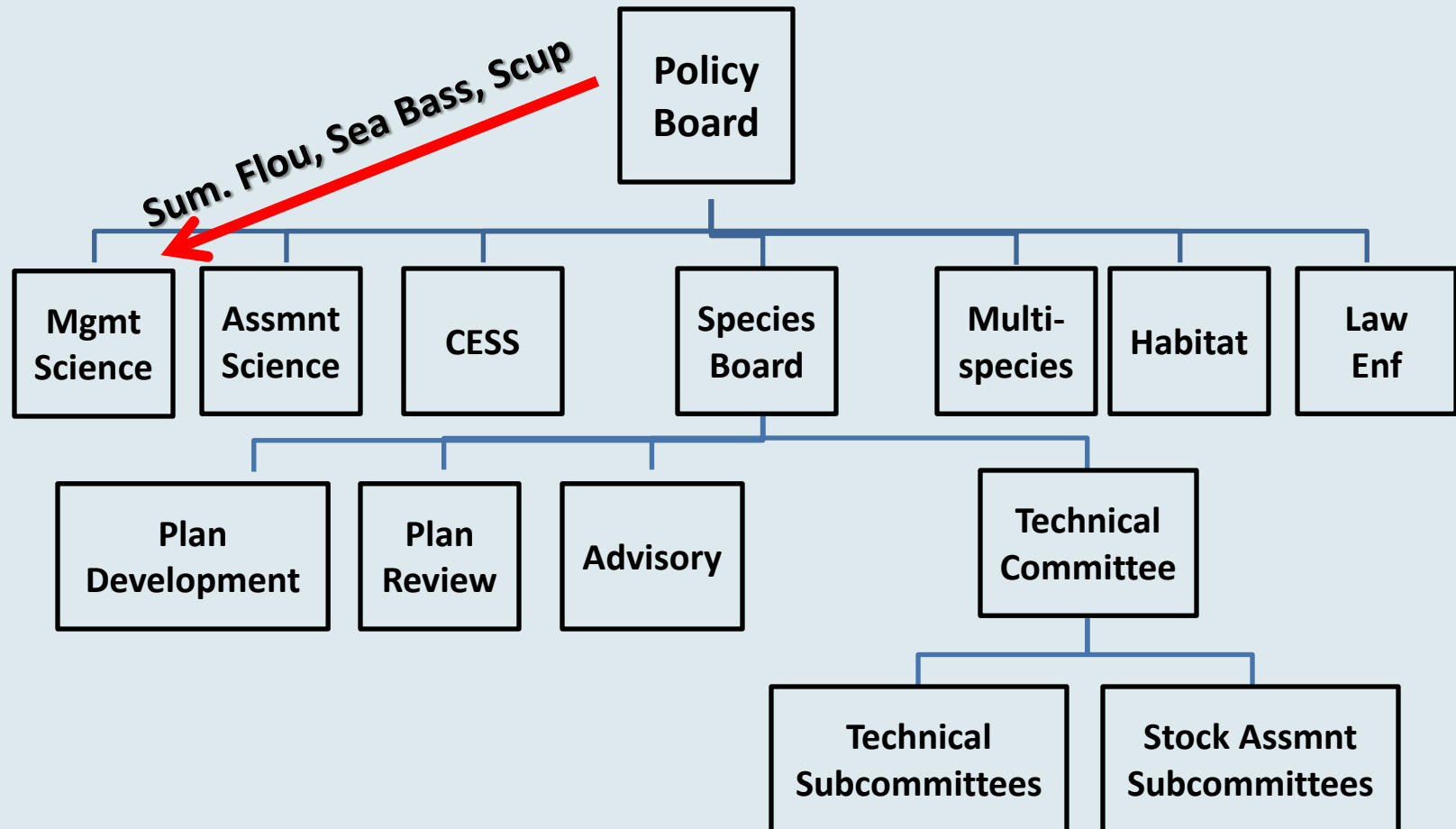
Long time series with consistent sampling protocols facilitate investigations of environmental change and species response

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Atlantic States Marine Fisheries Commission

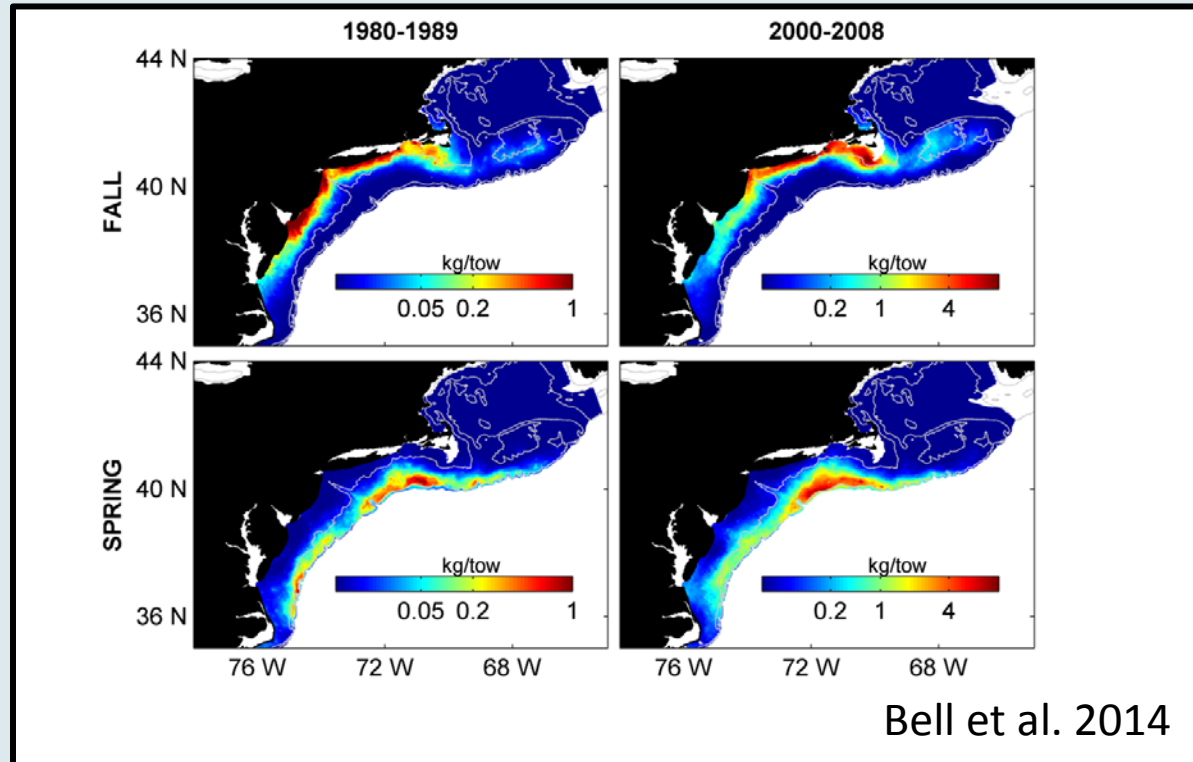
Climate Change and Fisheries Management



ASMFC – Management & Science Committee

Climate Change and Fisheries Management

Focus on Summer Flounder...



ASMFC – Management & Science Committee

Climate Change and Fisheries Management

Summer Flounder Management Options...

- 1) For a given annual quota, maintain some percentage at historical allocation, with the remainder to be allocated based on the “new” distribution**

- 2) For a given annual quota, maintain historical allocation to the rebuilt level, with any surplus allocated based on the “new” distribution**

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Climate Change and Fisheries Management

