

### A Brief Overview of State Trawl Survey Programs

Rhode Island to North Carolina

Jim Gartland
Virginia Institute of Marine Science
December 2015

#### VIVIS

## Rhode Island Division of Fish & Wildlife Coastal Trawl Survey



#### RI DFW Coastal Trawl Survey

#### Consists of a Seasonal Survey in BIS & RIS and a Monthly Survey in Narragansett Bay

- Initiated: 1979 BIS & RIS; 1990 Narragansett Bay
- Location: State Waters of BIS & RIS & Narragansett Bay
- Timing: Spring & Fall for Sounds; Monthly for Narragansett Bay
- Sampling Intensity: 44 Fixed Sites in Sounds; 13/26 Sites in Narr. Bay,
   Combination Fixed & Stratified Random Design
- Trawl: 210 x 12 cm, 2-bridle, 2-seam Bottom Trawl, 6.4 mm Liner
- <u>Tow Time</u>: 20 Minutes

#### VIVIS

Species	RI
American Lobster	X
Bluefish	X
Horseshoe Crab	X
Scup	X
Summer Flounder	X
Tautog	X
Winter Flounder	X

#### VIVIS

## Connecticut Dept. of Energy & Env. Protection Long Island Sound Trawl Survey



#### CT DEEP Long Island Sound Trawl Survey

Spring & Fall Survey of Long Island Sound

- **Initiated**: 1984
- Location: Long Island Sound (NY & CT) New London to Greenwich
- Timing: April, May, & June (Spring); September & October (Fall)
- Sampling Intensity: 40 Sites Per Month, Stratified Random Design
- Trawl: 14.0 m (Headline Length) Bottom Trawl, 5.1 cm Codend
- Tow Time: 30 Minutes

Species	RI	CT
American Lobster	X	X
American Shad		X
Atlantic Menhaden		X
Atlantic Sturgeon		X
Black Sea Bass		X
Bluefish	X	X
Butterfish		X
Horseshoe Crab	X	X
Longfin Squid		X
River Herring		X
Scup	X	X
Striped Bass		X
Summer Flounder	X	X
Tautog	X	X
Weakfish		X
Winter Flounder	X	X

#### VIVIS

### New Jersey Division of Fish & Wildlife Ocean Trawl Survey



#### NJ DFW Ocean Trawl Survey

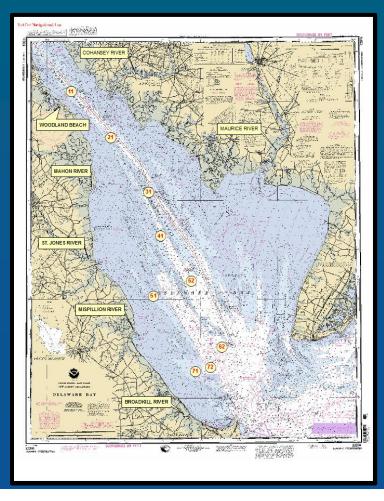
Year-Round Survey of NJ Coastal Ocean

- Initiated: 1988
- Location: New Jersey Coast NY Harbor to DE Bay; Inshore of 28 m
- Timing: January, April, June, August, & October
- Sampling Intensity: ~40 Sites Per Cruise; Stratified Random Design
- <u>Trawl</u>: 25 m (Headline Length), 2-seam, 2-bridle Bottom Trawl; 12 cm
   & 8 cm Webbing in Body, 6.4 mm Liner in Codend
- Tow Time: 20 Minutes

Species	RI	CT	NJ
American Lobster	X	X	
American Shad		X	X
Atlantic Menhaden		X	X
Atlantic Sturgeon		X	X
Black Sea Bass		X	X
Bluefish	X	X	X
Butterfish		X	
Horseshoe Crab	X	X	X
Longfin Squid		X	
River Herring		X	X
Scup	X	X	
Striped Bass		X	X
Summer Flounder	X	X	X
Tautog	X	X	X
Weakfish		X	X
Winter Flounder	X	X	X

#### Delaware VIVIS

### Division of Fish & Wildlife Adult & Juvenile Trawl Surveys





#### **DE DFW Adult Trawl Survey**

Seasonal Survey of the Mainstem Delaware Bay

- Initiated: 1966-1971, 1979-1984, 1990 present
- Location: Delaware Portion of Delaware Bay
- Timing: Monthly, March December
- Sampling Intensity: 9 Sites Per Cruise; Fixed Site Design
- <u>Trawl</u>: 9.3 m (Headline Length), 7.6 cm in the Wings & Body, 5.1 cm in Codend

#### DE DFW Juvenile Trawl Survey

Seasonal Survey of Delaware's Bays & Major Rivers

- Initiated: 1980
- Location: Delaware Portion of Delaware Bay, Rehoboth Bay, & Delaware & Indian Rivers
- <u>Timing</u>: Monthly, April October
- Sampling Intensity: 49 Sites Per Cruise; Fixed Site Design
- <u>Trawl</u>: 5.2 m (Headline Length), 3.8 cm in the Wings & Body, 1.3 cm in Codend

Species	RI	CT	NJ	DE
American Eel				X
American Lobster	X	X		
American Shad		X	X	X
Atlantic Croaker				X
Atlantic Menhaden		X	X	X
Atlantic Sturgeon		X	X	
Black Drum				X
Black Sea Bass		X	X	X
Blue Crab				X
Bluefish	X	X	X	X
Butterfish		X		
Horseshoe Crab	X	X	X	X
Longfin Squid		X		
River Herring		X	X	X
Scup	X	X		
Spot				X
Striped Bass		X	X	X
Summer Flounder	X	X	X	X
Tautog	X	X	X	
Weakfish		X	X	X
Winter Flounder	X	X	X	



#### Virginia

### Virginia Institute of Marine Science Juvenile Fish & Blue Crab Trawl Survey



#### VIMS Juvenile Trawl Survey

Year-Round Survey of VA Mainstem Bay & Rivers

- **Initiated**: 1955
- Location: Virginia Mainstem Bay; Lower 64 km of James, York, Rapp.
- **Timing: Monthly**
- Sampling Intensity: ~100 Sites/Month; Stratified Random & Fixed Design
- <u>Trawl</u>: 200 x 6 cm (Fishing Circle), 4-seam, 2-bridle Bottom Trawl; ¼ Size of NEAMAP & NEFSC Trawls, 6.4 mm Liner in Codend
- Tow Time: 5 Minutes

Species	RI	СТ	NJ	DE	VA (juv)
American Eel				X	X
American Lobster	X	X			
American Shad		X	X	X	
Atlantic Croaker				X	X
Atlantic Menhaden		X	X	X	X
Atlantic Sturgeon		X	X		X
Black Drum				X	
Black Sea Bass		X	X	X	
Blue Crab				X	X
Bluefish	X	X	X	X	
Butterfish		X			
Horseshoe Crab	X	X	X	X	
Longfin Squid		X			
River Herring		X	X	X	
Scup	X	X			
Spot				X	
Striped Bass		X	X	X	
Summer Flounder	X	X	X	X	X
Tautog	X	X	X		
Weakfish		X	X	X	X
Winter Flounder	X	X	X		

### Virginia Virginia Institute of Marine Science ChesMMAP Trawl Survey



#### VIMS ChesMMAP Trawl Survey

Seasonal Survey of Chesapeake Bay Mainstem

- Initiated: 2002
- Location: Mainstem of Chesapeake Bay; Pooles Island to Virginian Capes
- Timing: March, May, July, September, November
- Sampling Intensity: 80 Sites/Cruise; Stratified Random Design
- <u>Trawl</u>: 13.7 m (Headline Length), 4-seam, 2-bridle Bottom Trawl; 15.3 cm
   Mesh in Wings & Body, 7.6 cm Mesh in Codend
- Tow Time: 20 Minutes

Species	RI	СТ	NJ	DE	VA (juv)	VA (adult)
American Eel				X	X	
American Lobster	X	X				
American Shad		X	X	X		
Atlantic Croaker				X	X	
Atlantic Menhaden		X	X	X	X	X
Atlantic Sturgeon		X	X		X	X
Black Drum				X		
Black Sea Bass		X	X	X		X
Blue Crab				X	X	
Bluefish	X	X	X	X		X
Butterfish		X				
Horseshoe Crab	X	X	X	X		
Longfin Squid		X				
River Herring		X	X	X		
Scup	X	X				X
Spot				X		
Striped Bass		X	X	X		
Summer Flounder	X	X	X	X	X	X
Tautog	X	X	X			
Weakfish		X	X	X	X	X
Winter Flounder	X	X	X			

Species	RI	СТ	NJ	DE	VA (juv)	VA (adult)	Tally
American Eel				X	X		2
American Lobster	X	X					2
American Shad		X	X	X			3
Atlantic Croaker				X	X		2
Atlantic Menhaden		X	X	X	X	X	5
Atlantic Sturgeon		X	X		X	X	4
Black Drum				X			1
Black Sea Bass		X	X	X		X	4
Blue Crab				X	X		2
Bluefish	X	X	X	X		X	5
Butterfish		X					1
Horseshoe Crab	X	X	X	X			4
Longfin Squid		X					1
River Herring		X	X	X			3
Scup	X	X				X	3
Spot				X			1
Striped Bass		X	X	X			3
Summer Flounder	X	X	X	X	X	X	6
Tautog	X	X	X				3
Weakfish		X	X	X	X	X	5
Winter Flounder	X	X	X				3