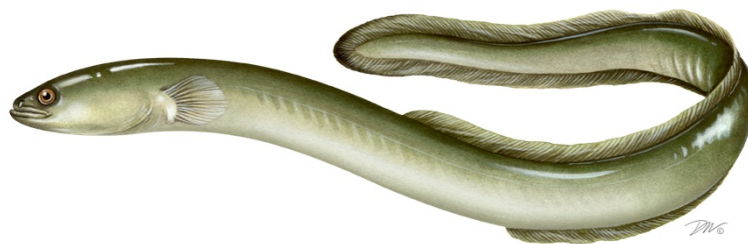




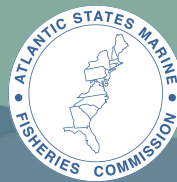
American Eel Management on the US Atlantic Coast over the Last 20 Years



Kirby Rootes-Murdy
Atlantic States Marine Fisheries Commission (ASMFC)

AFS Annual Meeting
Atlantic City, New Jersey

Overview



- **Background**
 - Life History
 - Management Institutions
 - U.S. Atlantic Coast Fishery
- **Management over the years**
 - FMP Requirements
 - 2018 (Addendum V and Illegal Glass Eel Harvest)
- **Lessons Learned**

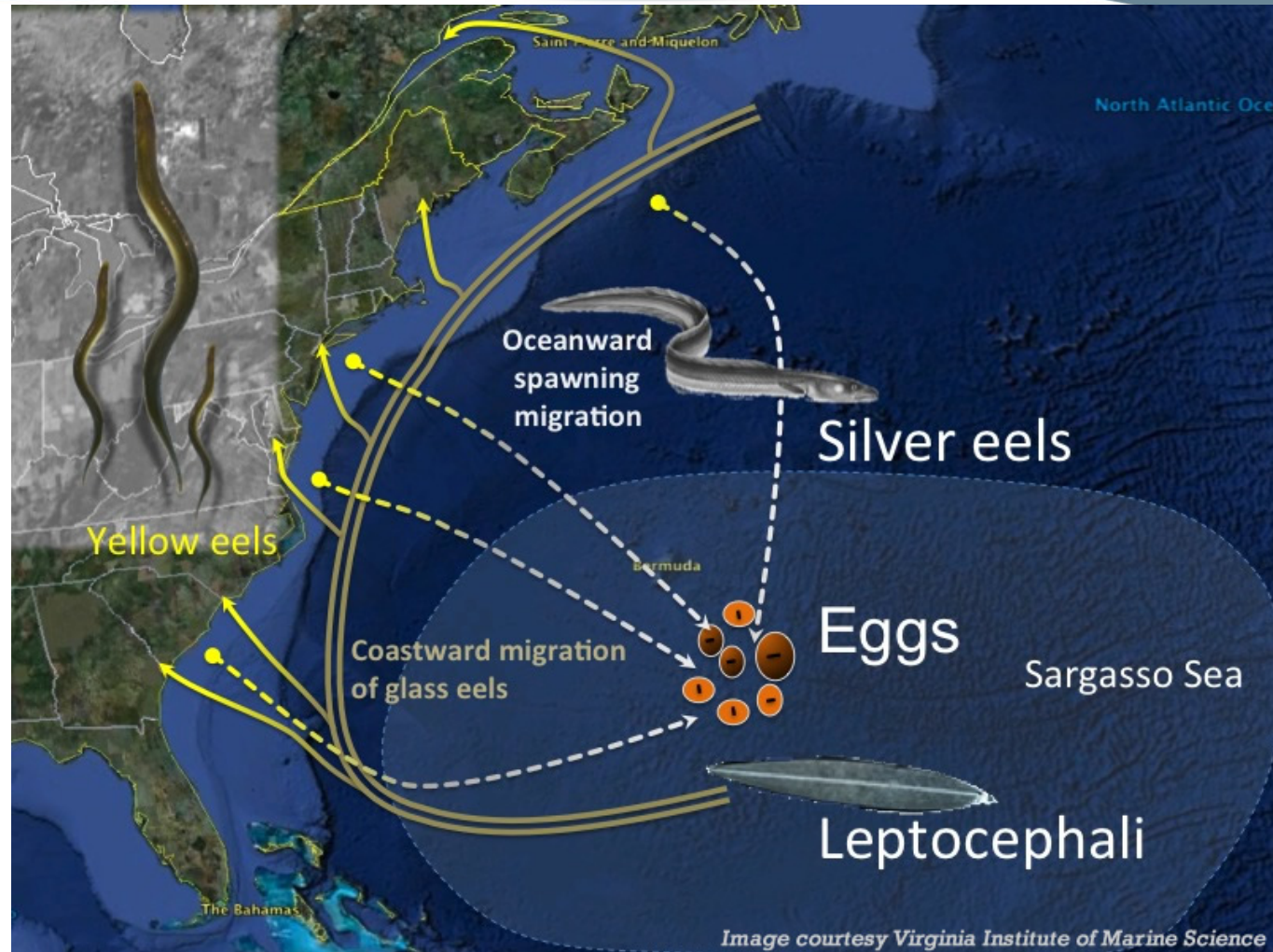


Life History



American Eel

- Catadromous
- Significant different life stages
- Long lived
- Many different habitats



Management Institutions



- Federal Water: 3-200 miles
 - NOAA Fisheries
 - No fishery takes place in federal waters
- State Waters: 0-3 miles
 - State Agencies/**ASMFC**
 - Yellow Eel Fishery takes place in estuarine/marine waters
 - Glass Eel & Silver Eel Fishery takes place in inland/estuarine rivers



Who is ASMFC?



- 1942: Compact of all the Atlantic States
- Atlantic Coastal Fisheries Cooperative Management Act (1993)
- Jurisdiction in state waters 0-3 miles; rivers for diadromous species
- Management Board
 - 17 member states/jurisdictions and two federal partners (NOAA Fisheries and USFWS)
- 3 Commissioners represent each state



ASMFC Process



Stock Assessment by Eel Technical Committee

Initiate Management by Eel Management Board

Eel AP and LEC Input

Public Input

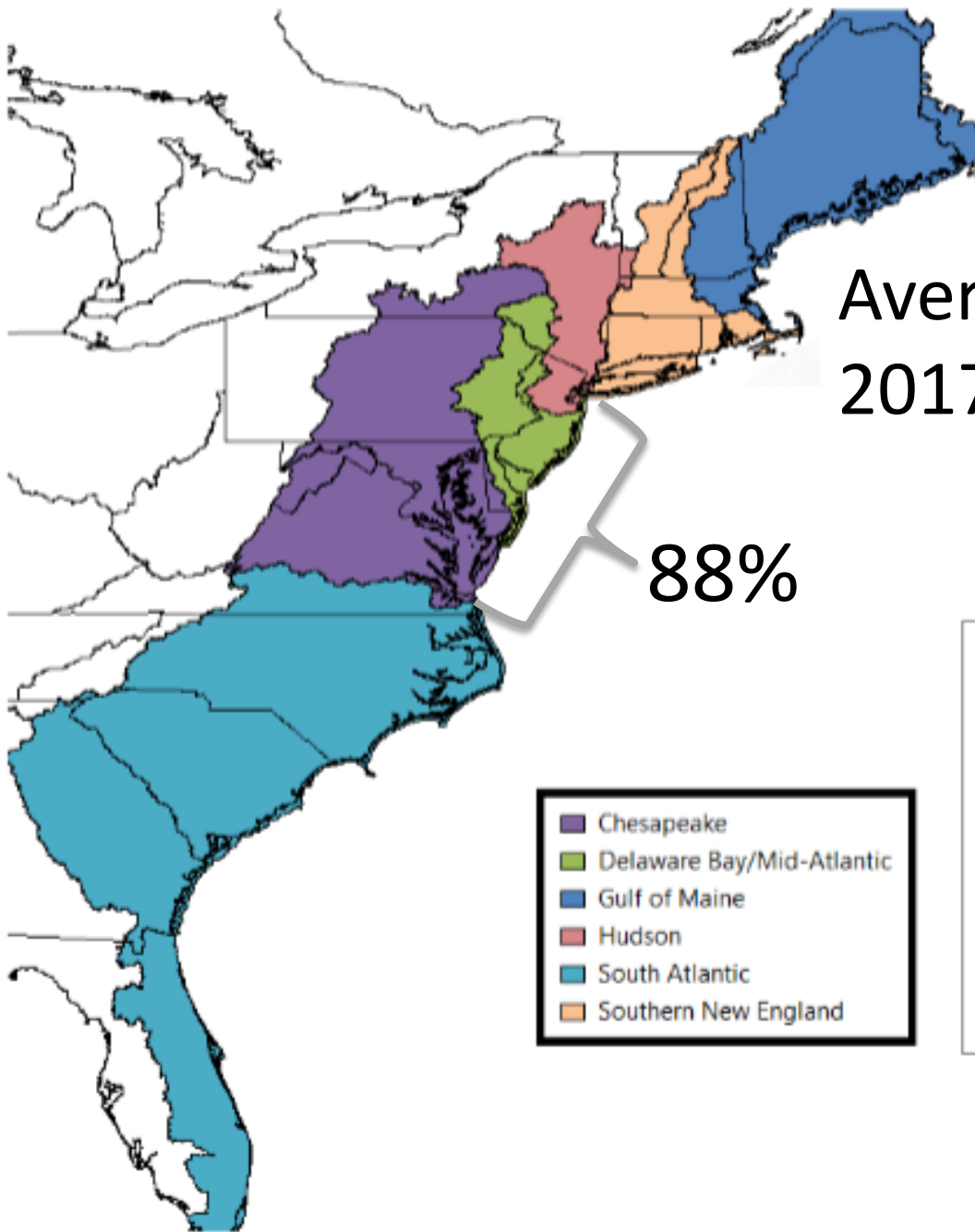
Eel Management Board Decides Final Measures

States Implement Management Measures

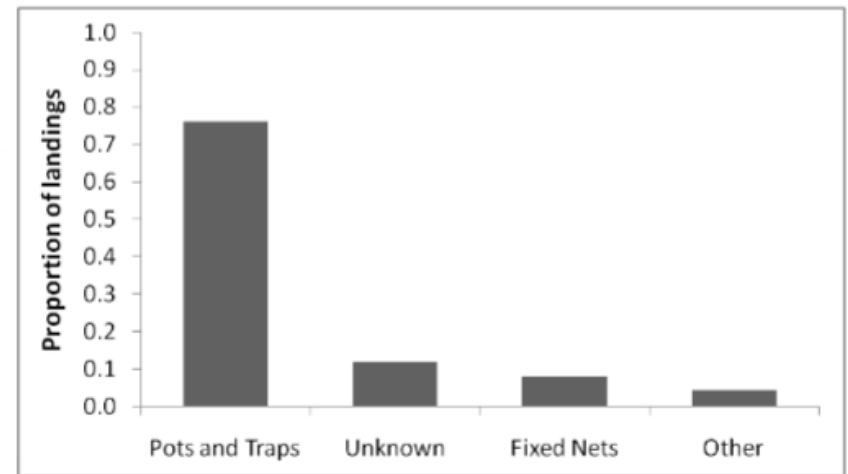
ASMFC Checks States for FMP Compliance

Yellow Eel Fishery

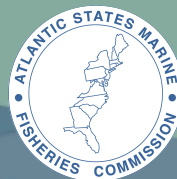
Average eel harvest 2013-2017 = 944,079 lbs (428 MT)



88%



Glass Eel Fishery



	Maine	
Year	Landings	Value
2008	6,951	\$1,486,355
2009	5,119	\$519,559
2010	3,158	\$584,850
2011	8,584	\$7,653,331
2012	20,764	\$37,717,192
2013	18,076	\$32,926,991
2014	9,690	\$8,474,302
2015	5,259	\$11,424,412
2016	9,399	\$13,446,828
2017*	9,343	\$12,155,672

- Only ME and SC have fisheries. SC data confidential

Eel Management over the years



- Fishery Management Plan (1999)
- Addendum I (2006)
- Addendum II (2008)
- Addendum III (2013)
- Addendum IV (2014)
- Addendum V (2018)



Fishery Management Plan



Glass Eel Fishery Regulations

- All states must implement YOY survey (2000)
- Only glass eel fisheries allowed in ME and SC (2000)
- Max of 25 pigmented eels in one pound of glass eels. Use 1/8" mesh to grade eels (2014)
- Maine self imposed voluntary quota of 11,479 lbs (2014)
- Maine glass eel quota of 9,688 lbs w/ payback (2015-present)
- Maine implements swipe card monitoring program for daily reporting (2014/2015):
 - Harvester to dealer
 - Dealer to dealer
 - Export out of state
- Maine required to implement life cycle survey (2015)



Fishery Management Plan



Yellow Eel Fishery Regulations (both Com and Rec)

- All states must maintain regulations (2000)
- Increase in minimum size to 9" (2014)
- ½" x ½" min mesh size for yellow eel pots
- Allowance of 4x4" escape panel of ½" x ½" mesh
- Recreational 25 fish bag limit per day per angler
- Crew and Captain allowed 50 fish bag limit per day
- Coastwide landings cap of **907,671 lbs which is 1998-2010 average harvest (2015)***
- **State by State allocation triggered if quota exceeded by 10% in one year or by any amount for two years***
- State by state quota requires payback and allows transfers



Fishery Management Plan



Silver Eel Fishery Regulations

- All states must maintain regulations (2000)
- Seasonal closure from Sept 1 – Dec 31, no take except from baited pots/traps and spears (2014)
- One year exemption for weir fishery in Delaware River and its tributaries in NY (2014)
- NY weir fishery exemption continued, but restricted to 9 permits that may be transferred (2015)



Fishery Management Plan



Other Management Measures

- Trip level reporting by both harvesters and dealers at least monthly
- Sustainable fishery management plans:
 - Fishing Mortality Plan
 - Transfer Plan quota from yellow to glass
 - Aquaculture Plan: 200 pounds of glass eels **if can demonstrate watershed contributes minimally to spawning stock***
- All plans must scientifically demonstrate that they will not increase overall fishing mortality



2018



- May: Illegal Glass Eel harvest shuts down ME season early
 - Transactions occurred outside Swipe Card System
 - Ongoing Investigation
- August: Addendum V approved
 - **Glass Eel:** ME quota kept at 9,688 lbs; Aquaculture provisions adjusted, slightly
 - **Yellow Eel:** coastwide cap now set at 916,473 lbs ('98-'16 avg landings based on revised data)
 - New Management Trigger: Exceed by 10% for 2 yrs
 - No state quotas; states harvesting > 1% responsible
- ME Glass Eel Aquaculture Proposal approved



Lessons Learned



- Monitoring landings data = Difficult
 - Inland vs marine landings (Need both!)
 - Market demand and research needed
- Glass eel market price= double edge sword
- Stock Assessment across borders needed
 - Coastwide Cap set on average landings; impacts on resource unknown
 - Harvest happening across US, Canada, Caribbean, Central American Countries
 - Prioritize assessment across countries= difficult
- Aquaculture likely to expand
 - NC and ME operations; more likely to come



Questions?

