

# American Eel in the Susquehanna River Basin: Past, Present, Future



*Credit: USFWS*

Aaron Henning: Aquatic Biologist, SRBC  
Water Quality Advisory Committee Meeting  
May 6, 2015

# Outline

- History & life history of American eel
- **SRAFRC** – **Susquehanna River Anadromous Fish Restoration Cooperative**
- FERC re-licensing & trapping efforts
- USFWS reintroduction program
  - Pine & Buffalo Creek
- Upcoming reintroduction study

# History of eels in the Susquehanna

- Formerly an important food source & cultural resource
- Eel weirs pre-date colonization
- 1700s: anadromous fishing regulations some the first
- Currently under review for ESA protection

# Historic weirs





# 'Modern' weir



# Ecological Functions

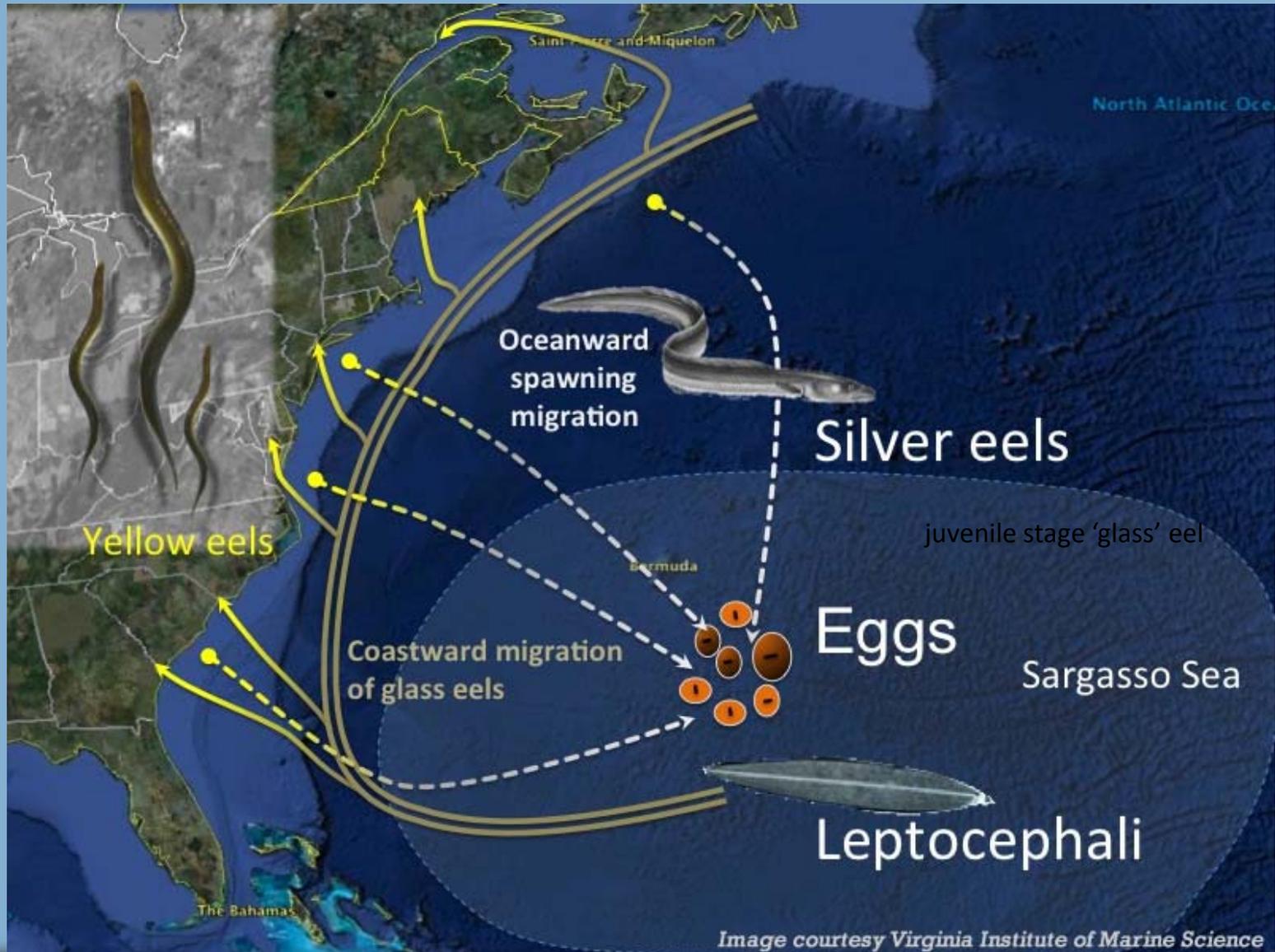
- Native predator
- Constitutes large proportion of fish community biomass (up to 25%)
- Serves as intermediate host for the Eastern Elliptio freshwater mussel
- Occupies various habitats



# Commercial Functions

- Why?
- Commercial weirs
- Glass eel market
  - 2010 price: \$200/lb , 2012 price: \$2600/lb
- Poachers

# American Eel Life History



# Life Stages

juvenile 'glass' eel



elver (upstream migration)



leptocephalic larval stage



yellow eel (sexually immature)

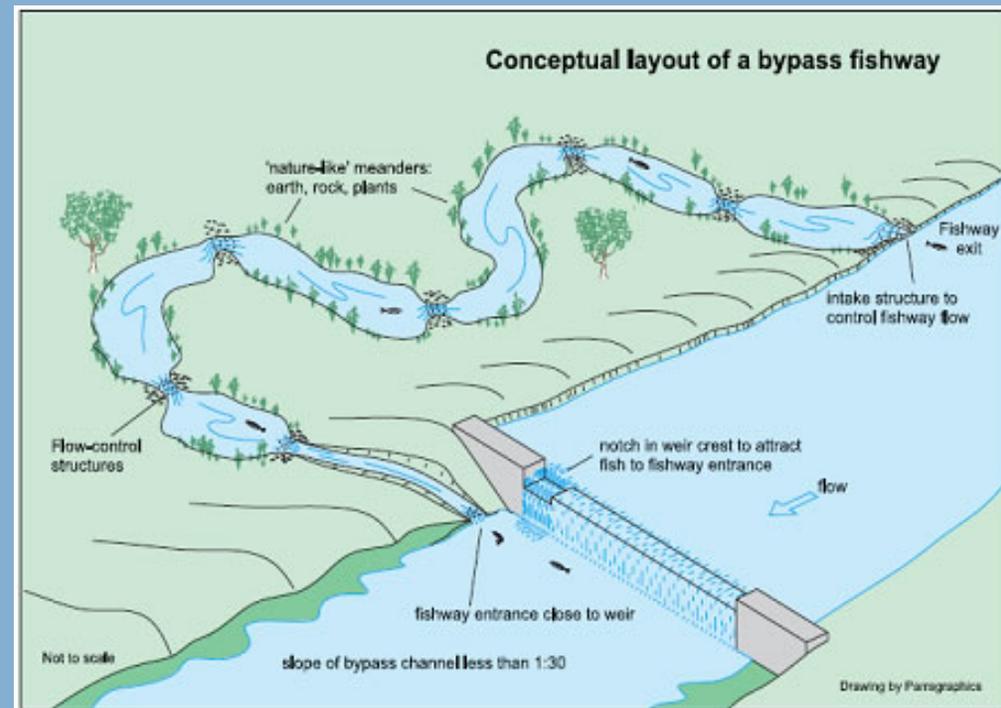


mature 'silver' eel (downstream migration)



# Dam Passage Issues

- Upstream
- Downstream - unknowns
- Nature like bypass



# Eel Collection Device at Conowingo Dam

(courtesy USFWS)



# Maryland Fishery Resources Office



[USFWS Conowingo Video](#)

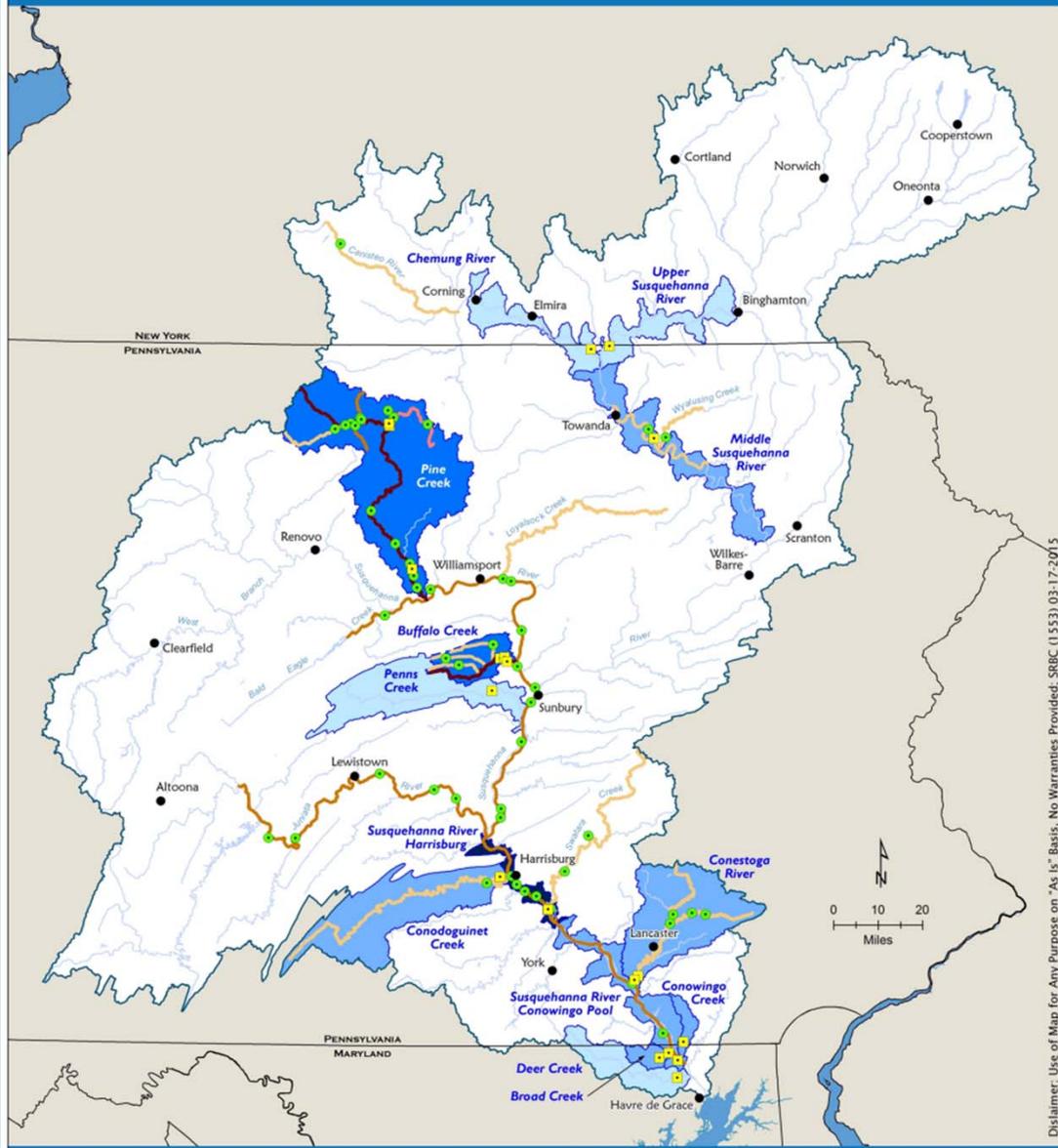
# USFWS Stocking

- Over 750,000 eels stocked to date
- Rapid dispersal and growth rates
- Pine Creek and Buffalo Creek study sites

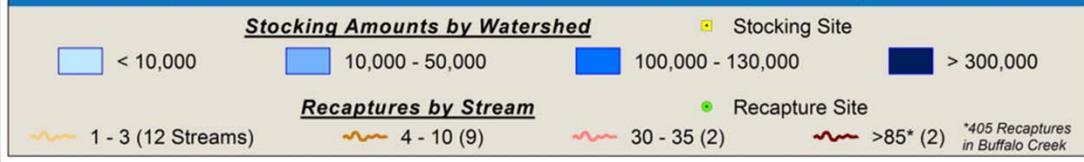


Susquehanna River Basin

# US FISH & WILDLIFE SERVICE EEL STOCKING LOCATIONS AND INTERAGENCY REPORTED RECAPTURES



Disclaimer: Use of Map for Any Purpose on "As Is" Basis. No Warranties Provided. SRBC (1553) 03-17-2015



# The future...hydro projects

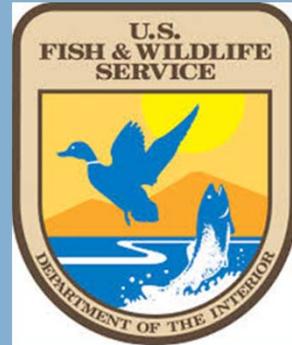
- Temporary eel trapping facility on Octoraro Creek
- Permanent eel trapping facility to be built at Conowingo Dam
- Nature-like fishway at York Haven Dam

# The future...?

- SRBC/SRAFRFC eel study
  - targeted stocking in pristine & impaired streams
  - fish, macros, water quality, crayfish, mussels?
  - long term



# Cooperators



**Questions ?**

