U.S. Management and Science on American Eel

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U.S. Management of American Eel

- No federal legislation specific to domestic management
- No fisheries in U.S. federal waters
- Federal Agencies involved in trade, conservation, and research projects
  - U.S. Fish & Wildlife Service: CITES representatives, Eel Passage Projects
  - U.S. Geological Survey: Habitat Assessment
- State-by-state management
  - Fisheries occur in estuarine rivers and bays
  - Primarily Atlantic coast states; lesser extent Gulf of Mexico and Great Lakes states
  - Atlantic States Marine Fisheries Commission (ASMFC)

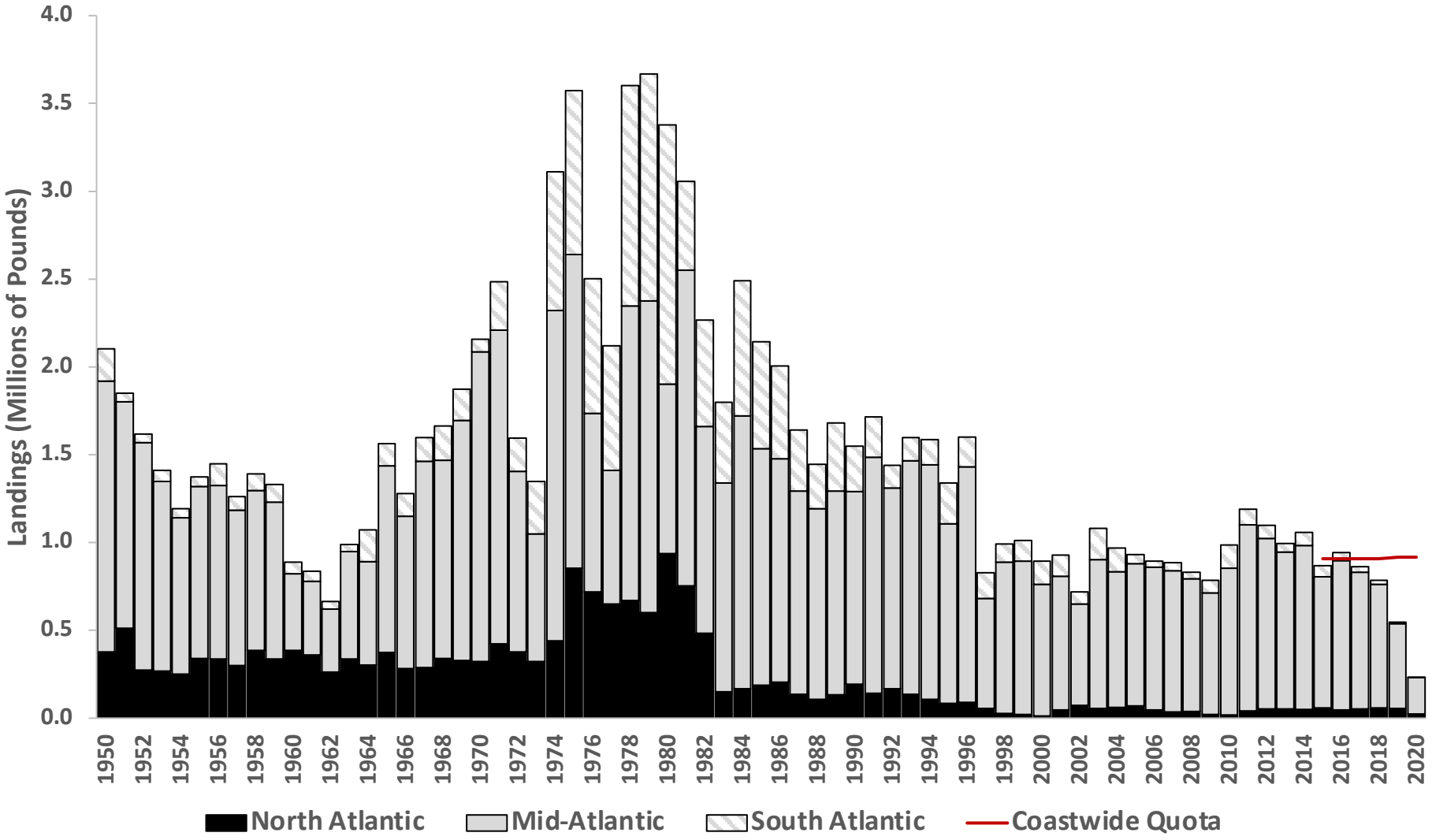
ASMFC Overview

- Formed in 1942 – Interstate Compact
- 15 Atlantic coast states: ME – FL
- Jurisdiction in state waters 0 – 3 miles from shore; rivers for diadromous species
- Cooperative management of transboundary resources
- Structure: Management Board
  - 15 member states and two federal partners
  - 3 Commissioners per state
  - Technical Committees and Advisory Panel

ASMFC Management

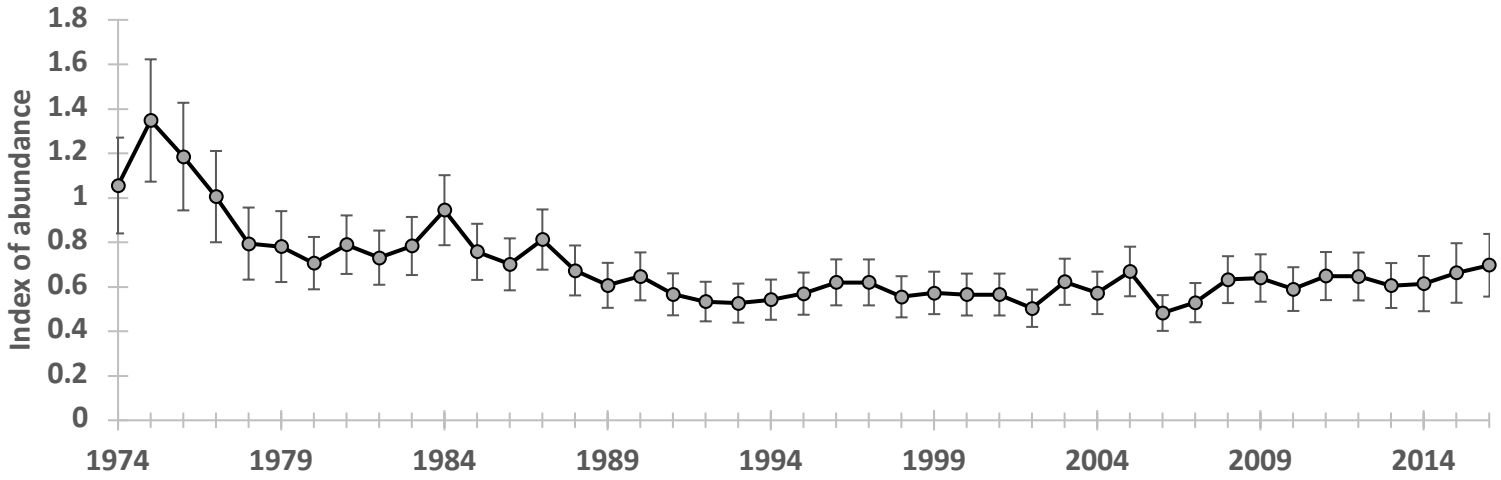
- ASMFC Fishery Management Plan (1999)
  - Goal is conserve and protect the resource to ensure ecological stability while providing for sustainable fisheries
- Addenda I-V
  - Implement an annual YOY survey
  - State monitoring standards for dealer and harvester reporting
  - Minimum size (9”) and possession limit (25 eel/person/day)
  - Aquaculture provision (200 pounds/state)
  - Commercial Glass Eel Fishery: 9,688 pound Quota for Maine
    - 25 pigmented eels per pound of glass eels
  - Yellow Eel Commercial Fishery: Coastwide Cap
    - 916,473 pounds
  - Limited Silver Eel Fishery

Total Commercial Landings



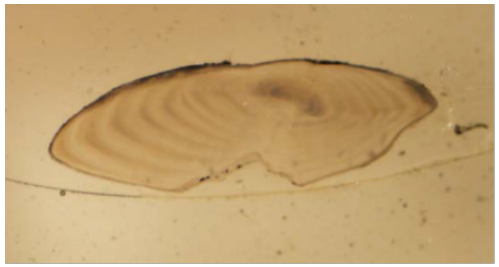
American Eel Stock Assessments

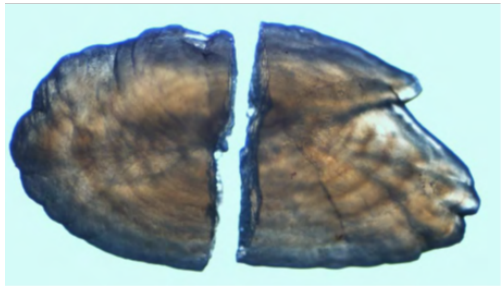
- 2012 Benchmark Stock Assessment
  - Coast-wide, regional, local trend analyses
    - Significant downward trends in multiple surveys
  - Peer review panel did not endorse use of models
  - No overfishing, overfished determination could be made
  - Stock status: depleted
- 2017 Update
  - Reviewed data, research, literature since benchmark
  - Update trend analyses, no overfishing determination
  - Maintained depleted status



2018 Ageing Workshop

- Agers from Maine to Florida, included Louisiana
- Goals:
  (1) Compare methods
  (2) Make group age determinations
  (3) Establish preferred method and ageing protocol
  (4) Discuss ageing timeline





- 140 sections and 110 whole otoliths (90 paired)
- Results
  – Systematic bias, lack of precision, low agreement between readers within and between labs

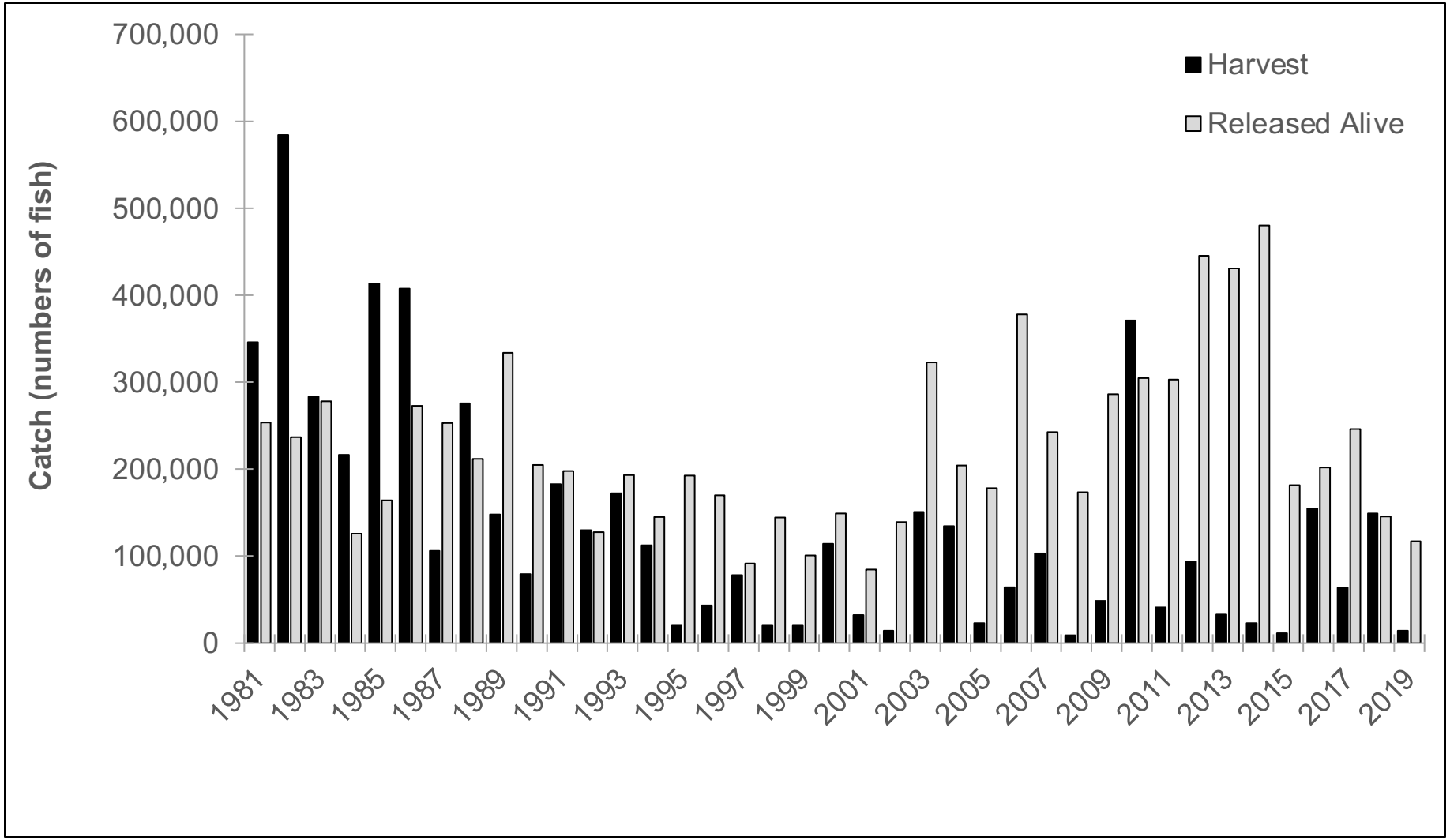
Next Steps

- 2022 benchmark stock assessment
  - More data since 2012, but not new types of data
  - Modelling challenges
  - Trend analyses
- ICES Workgroup
  - TORs developed


Questions?

Extra Slides

Recreational Harvest



Data from the Marine Recreational Information Program

2018 Workshop Recommendations

- Whole mounted/polished or sectioned otoliths
  - Sectioned preferred for >7 years old
  - Polishing matters
- Both transmitted and reflected light to read samples
- Do not change magnification during reading
- Add drop of water to improve readability
- Staining did not significantly help
- Follow complete annuli around (splitting, double banding)
- Record annulus count and margin code
- Timeline may vary by location