



2022 Fishery Management Plan Annual Monitoring

DEPARTMENT OF ENVIRONMENTAL QUALITY

Marine Fisheries

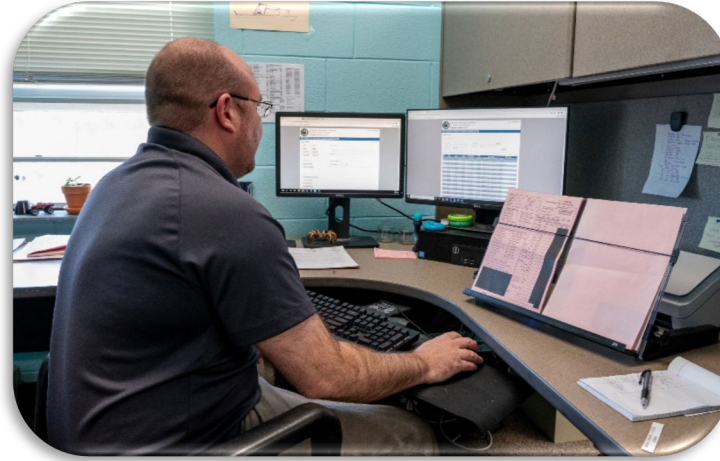
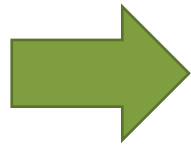
Marine Fisheries Commission | Brandi Salmon, Lee Paramore, and Steve Poland | August 2022



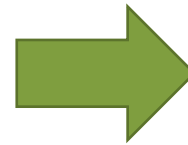
Fisheries Monitoring Flow



Data Collection



Analysis and FMP Updates



Management



What Data Do We Collect?

Biotic Data “Living”	Abiotic Data “Non-Living”
Lengths and Weights	Gear Types
Age - Otoliths (ear bones) and Scales	Water Temperatures and Samples
Sex	Socioeconomics
Genetics	Fishing Effort
Diet	Habitat



How Do We Collect The Data?

Dependent

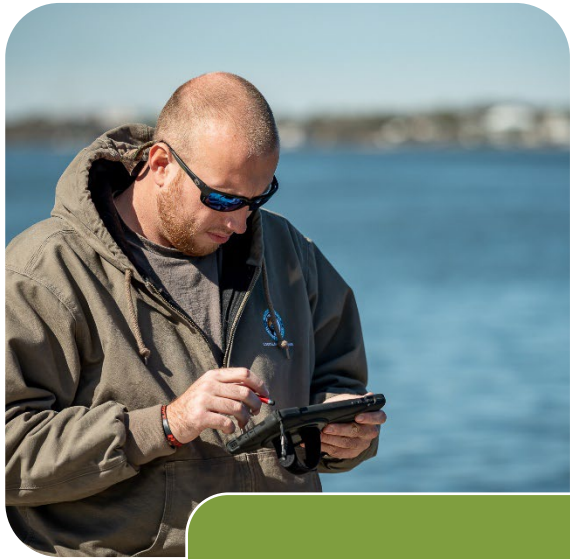
- Trip Ticket Program
- Quota Monitoring Program
- Fish House Sampling
- MRIP
- Fisheries Economics Program
- Observer Program
- Tagging Program

Independent

- Pamlico Sound Survey
- Juvenile Trawl Survey
- Independent Gillnet Survey
- Red Drum Longline Survey



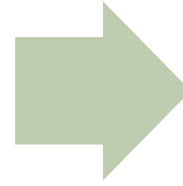
Data Processing and Storage



Enter
Data



QA/QC
Data



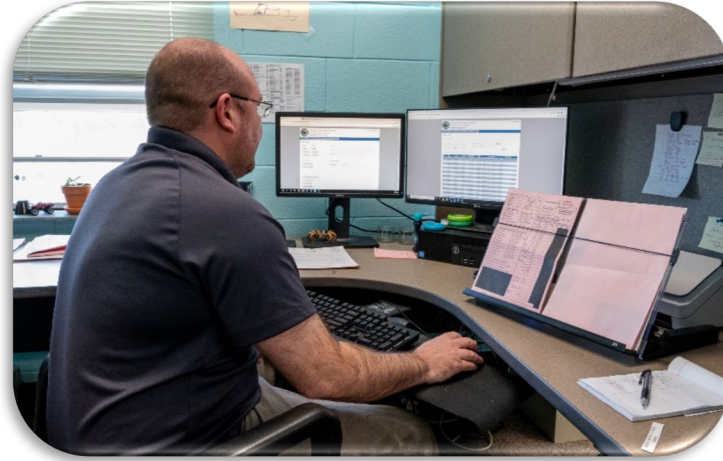
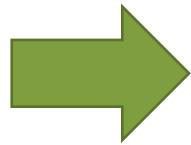
Store
Data



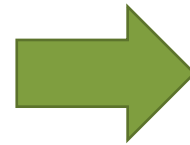
Analysis and Annual FMP Review Fisheries Monitoring Flow



Data Collection



Analysis and FMP Updates



Management



Analysis and Annual FMP Review

Each year, data compiled by DMF informs our annual FMP Review.

Individual reports done for:

- 13 state-managed species or species groups
- 21 ASMFC or federal species or species groups

For each species or species group:

- Summarize data annually for each report
- Update and review trends in data
- Draft updated report
- Review and assess management based on data



Where can I find the Annual FMP Review?



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Fishery Management Plans

[2021 FMP Review \(August 2022\)](#) →

[State-Managed Species](#) →

[Interjurisdictional Species](#) →

The North Carolina Fisheries Reform Act of 1997 requires the North Carolina Division of Marine Fisheries prepare fishery management plans for adoption by the North Carolina Marine Fisheries Commission for all commercially and recreationally significant species or fisheries that

Managing the Fisheries

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Fishery Management Plans



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What is included in FMP Review?

**North Carolina
Division of Marine Fisheries
2021 Fishery Management Plan
Review**

August 2022



- Presented during August MFC meeting
- Available on the website
- For each species:
 - History of the plan;
 - Management unit;
 - Goal and objectives;
 - Description of the stock;
 - Description of the fishery;
 - Monitoring program data;
 - Research needs;
 - Management strategy; and
 - Recommendation for next FMP Review



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Where can I find the Annual FMP Review?

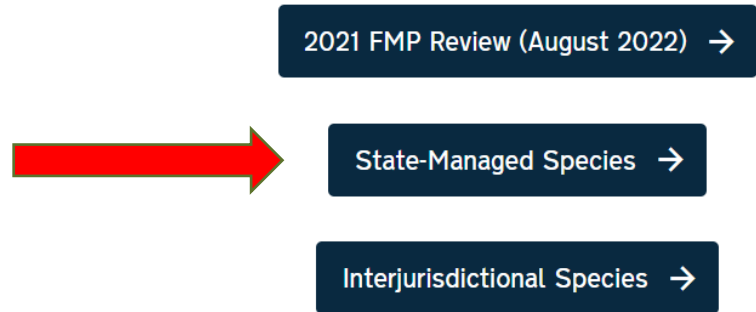


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Fishery Management Plans



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Where can I find the Annual FMP Review?

State-Managed Species

- + Bay Scallop
- + Blue Crab
- + Eastern Oyster
- + Estuarine Striped Bass - FMP under review
- + Hard Clam
- + Kingfishes
- + Red Drum



Blue Crab FMP Update example



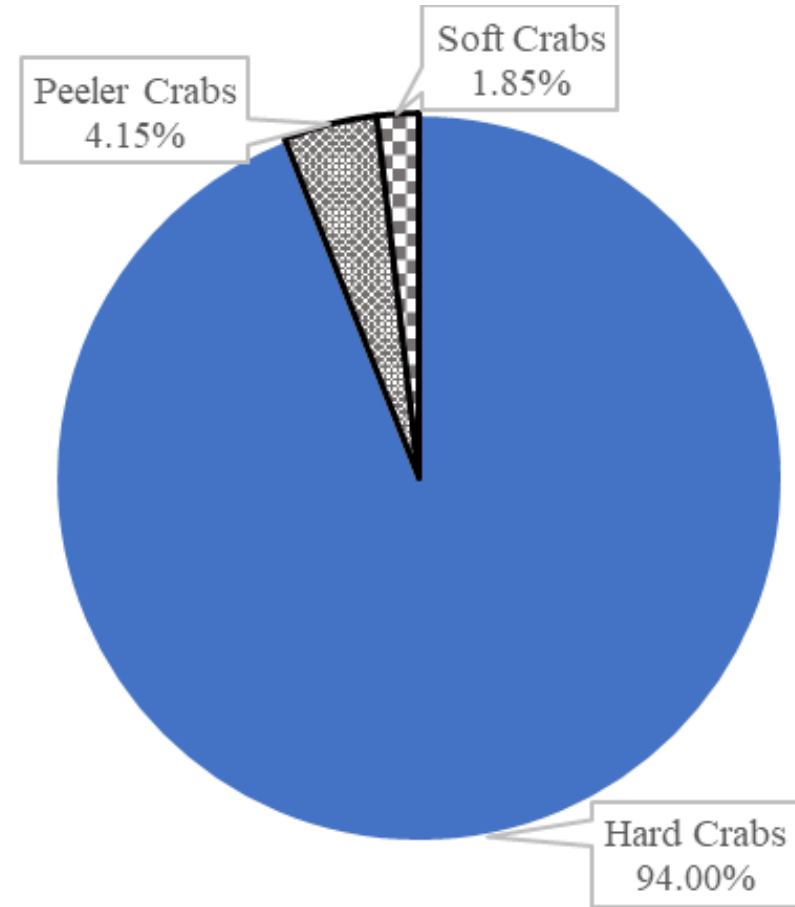
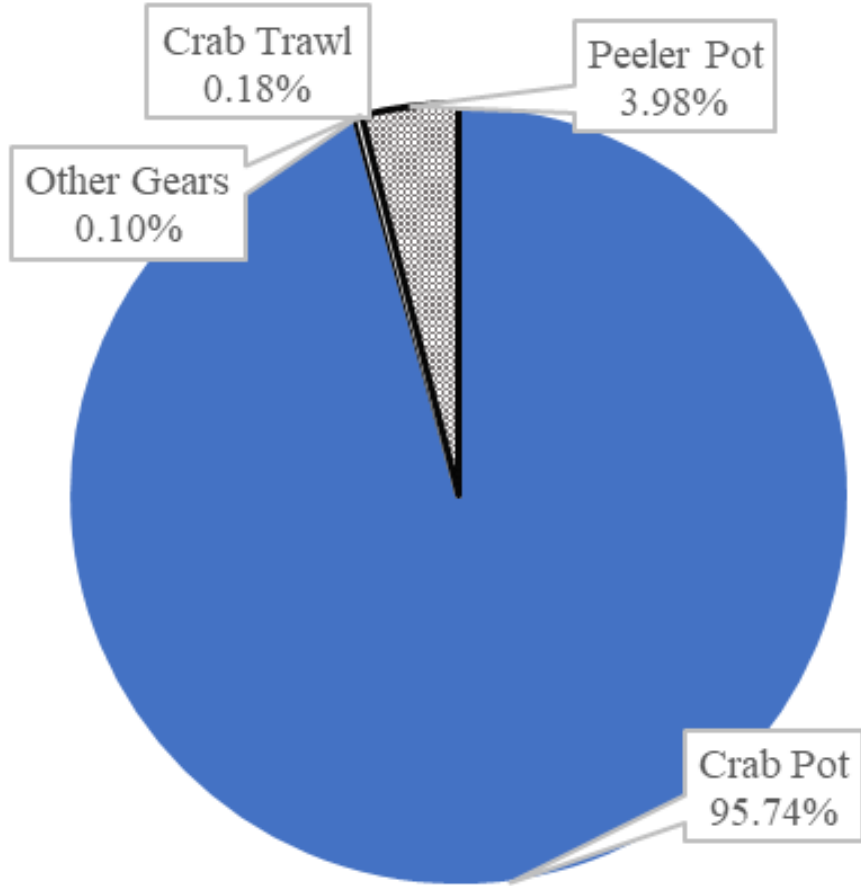
Blue Crab Annual Update →

Results of the 2018 benchmark stock assessment indicate the blue crab stock is overfished and overfishing is occurring. The assessment passed peer review and the model was accepted for use in management. Amendment 3 to the Blue Crab Fishery Management Plan was approved in February 2020 to address the overfished status and end overfishing. For more information, contact Daniel Zapf at Daniel.Zapf@ncdenr.gov or Janelle Johnson at Janelle.Johnson@ncdenr.gov



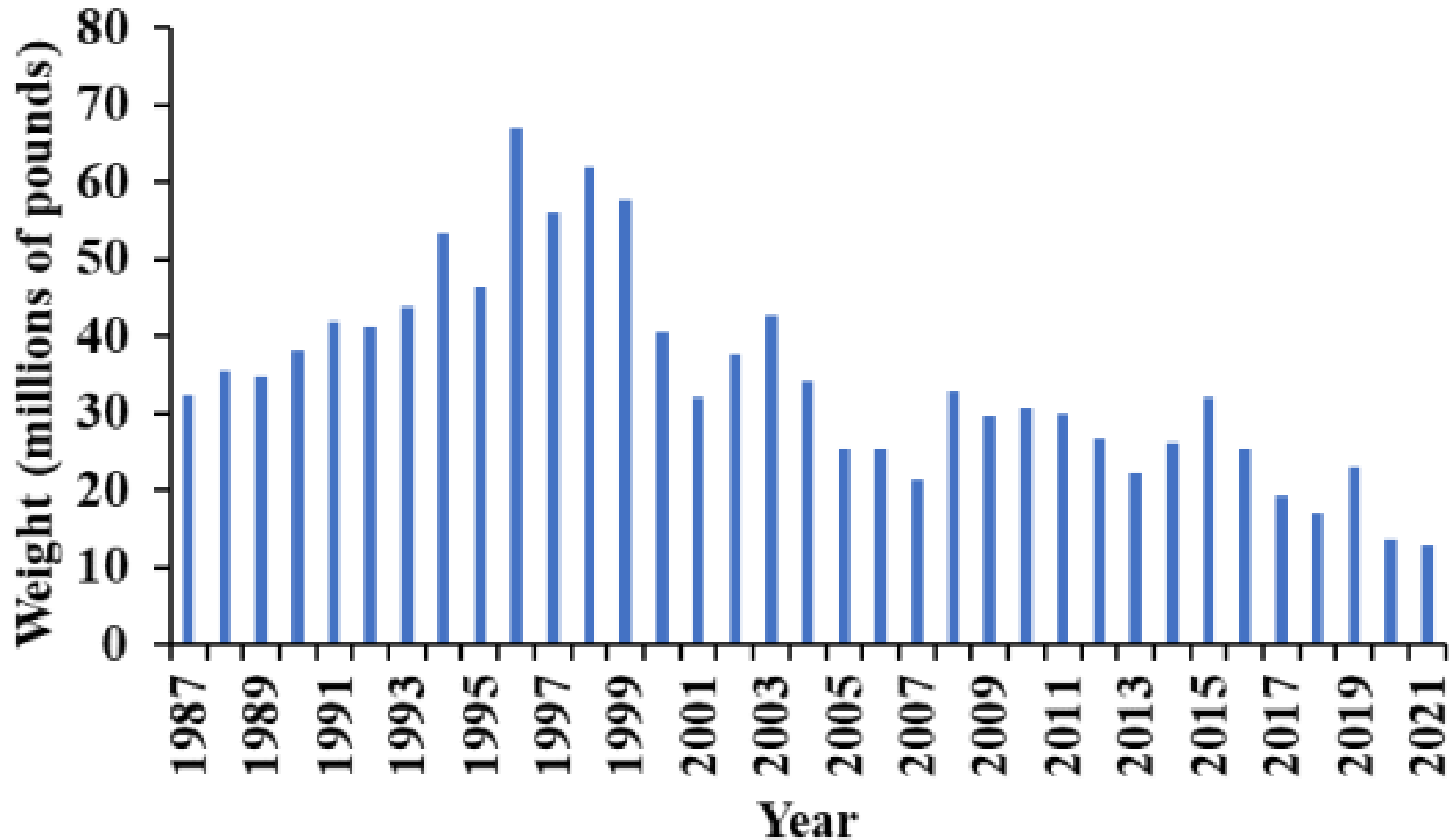
Blue Crab FMP Update example

2021 Blue Crab Landings by Gear and by Crab Type



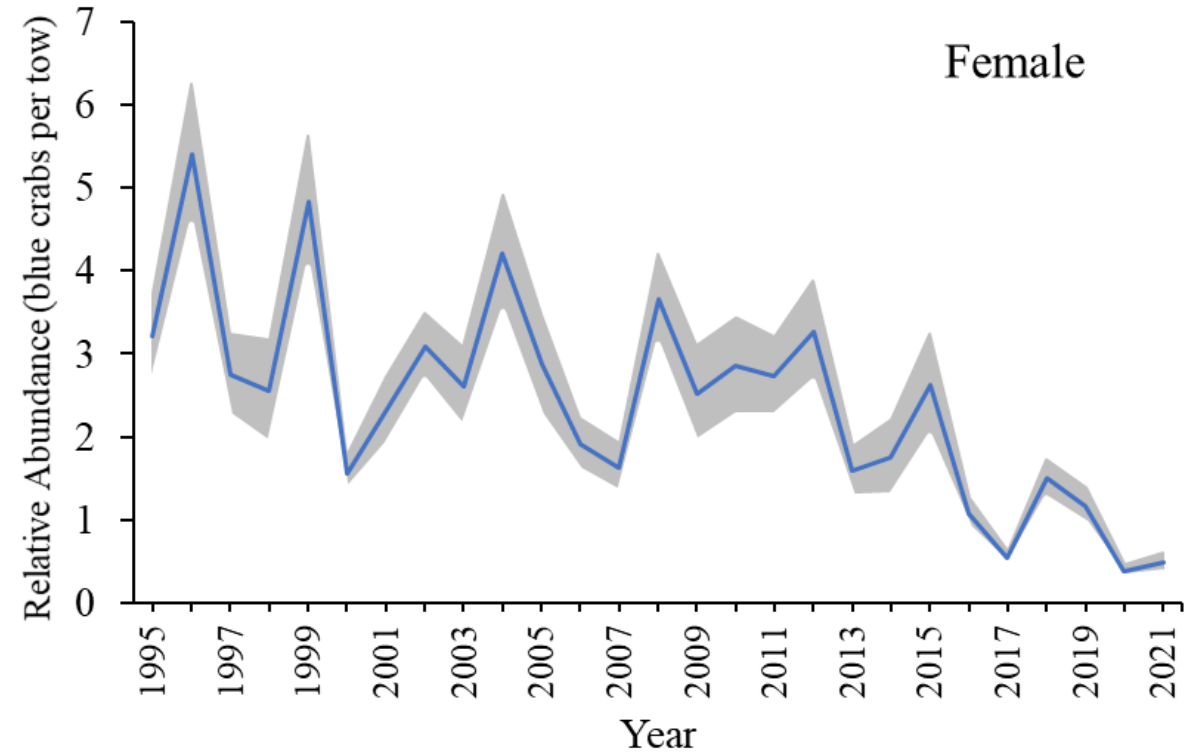
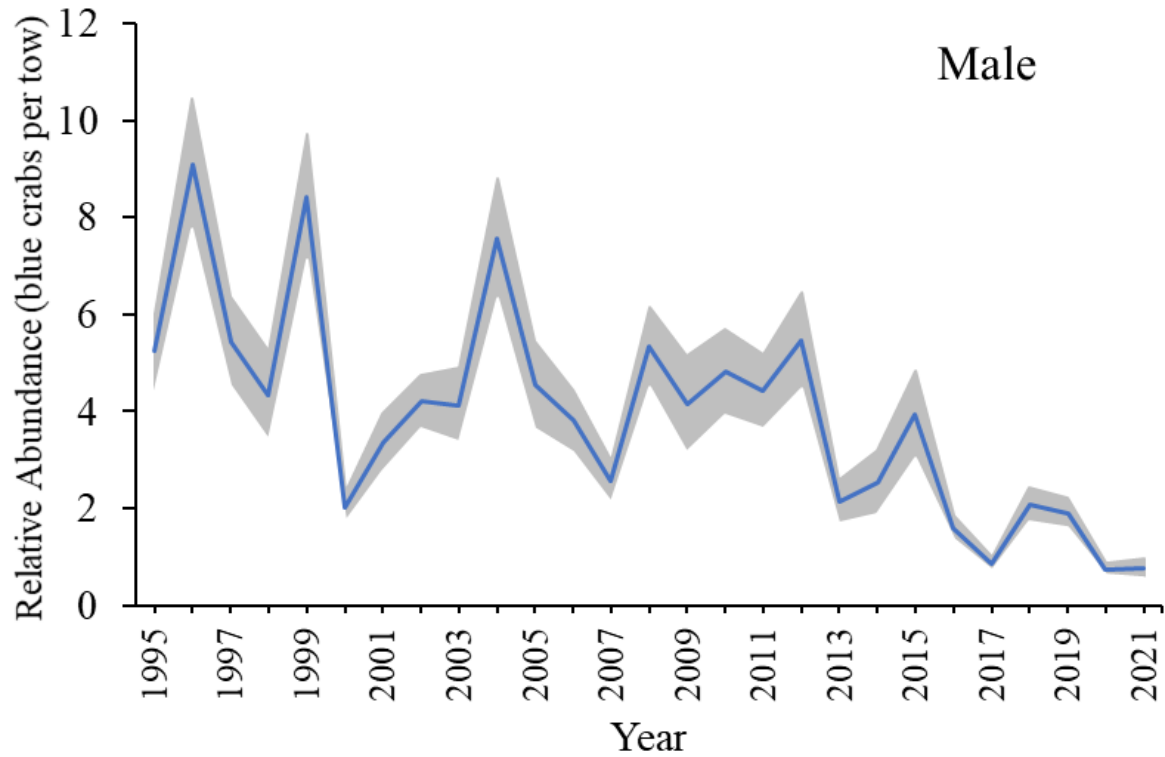
Blue Crab FMP Update example

Annual Commercial Blue Crab Landings, 1987–2021



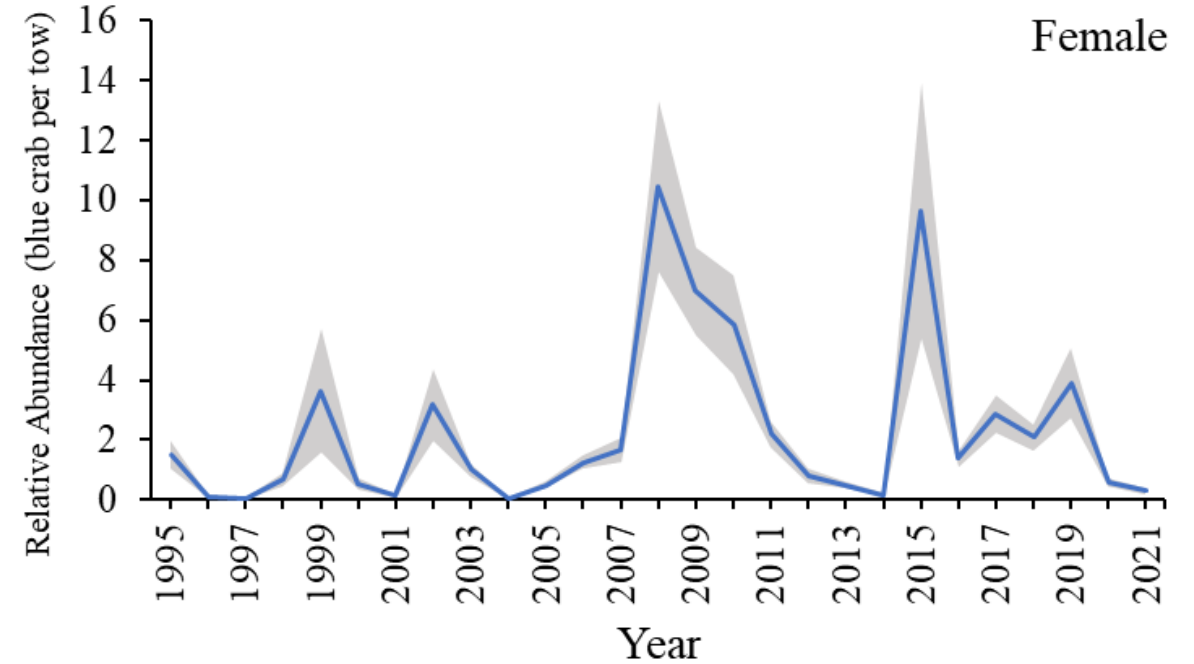
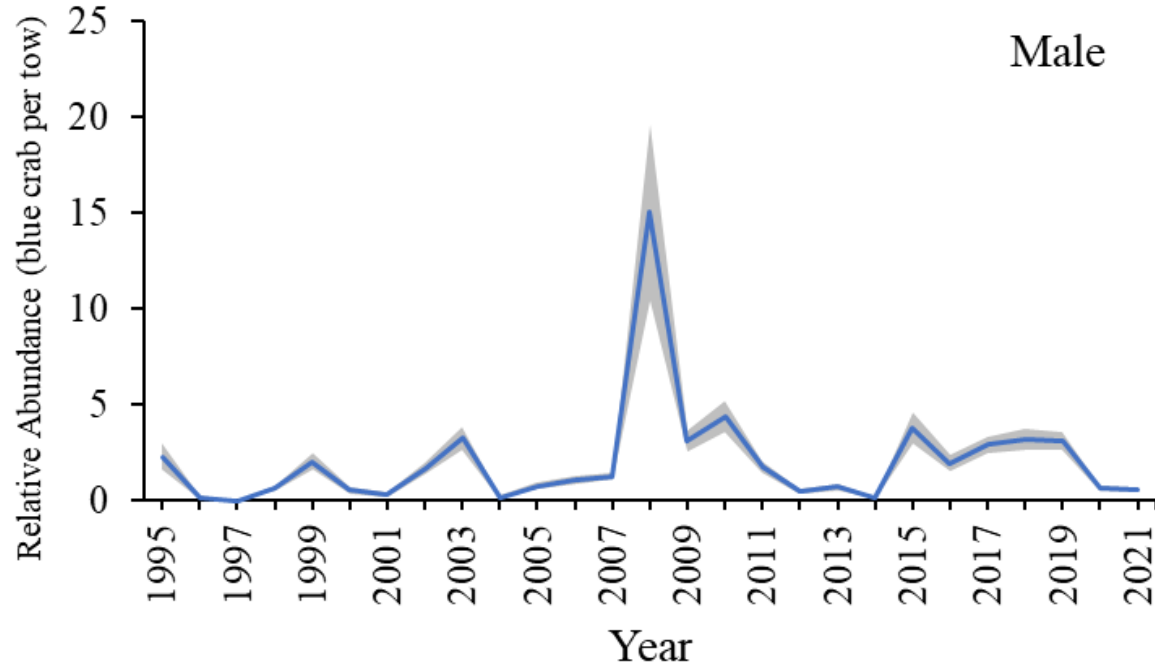
Blue Crab FMP Update example

Estuarine Trawl Survey recruit crab index



Blue Crab FMP Update example

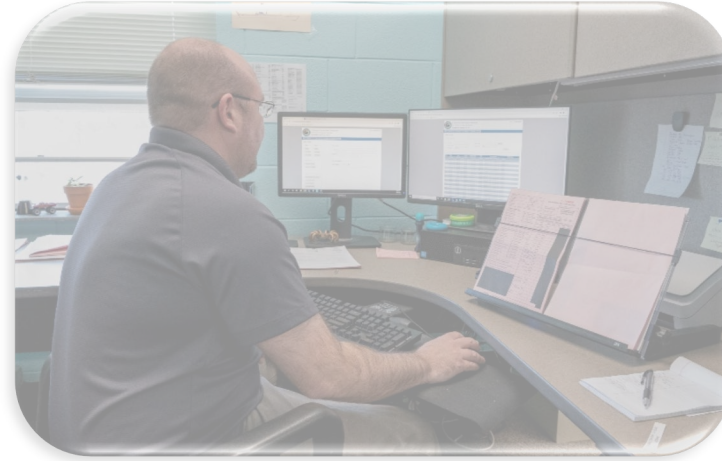
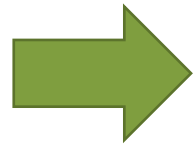
Anadromous Trawl Survey for fully recruited blue crab index



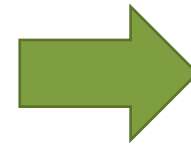
Fisheries Monitoring Flow



Data Collection



Analysis and FMP Updates



Management



Management Updates



- FMP reviews provide MFC and public a comprehensive 'snapshot' of the fishery
 - Landings and discards
 - Fishery monitoring data
 - Summary of management strategies



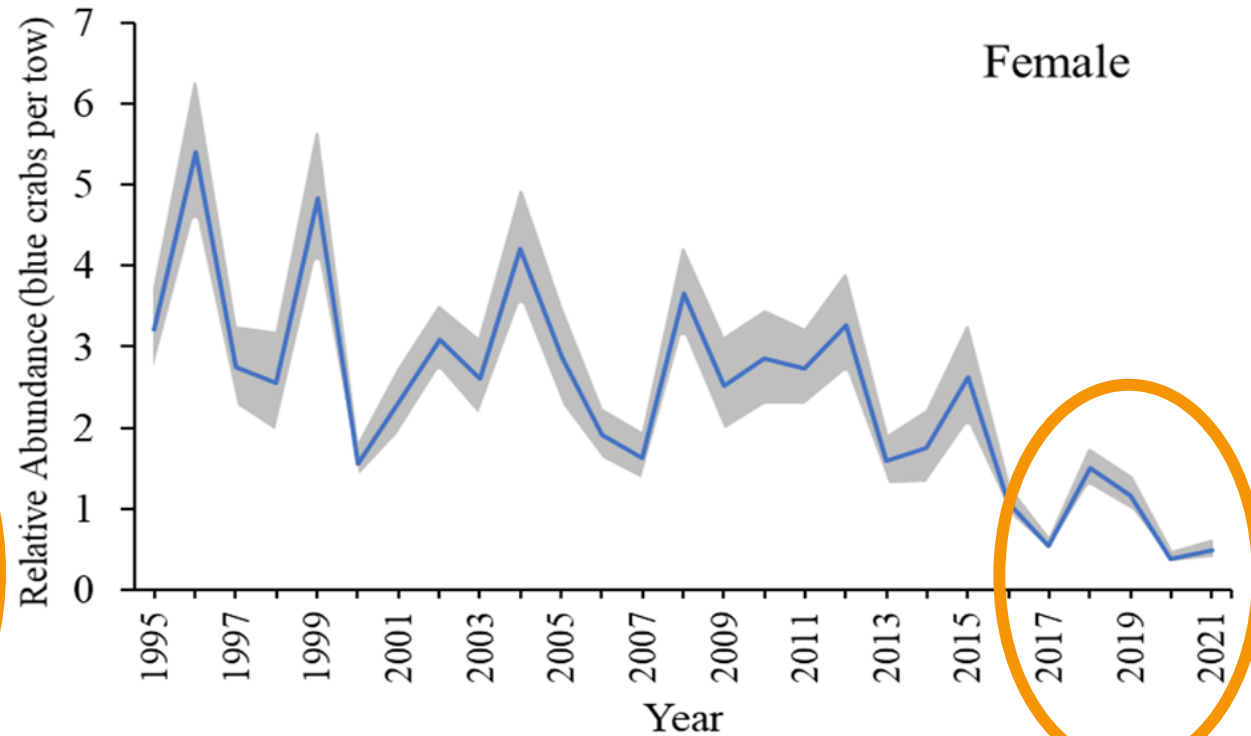
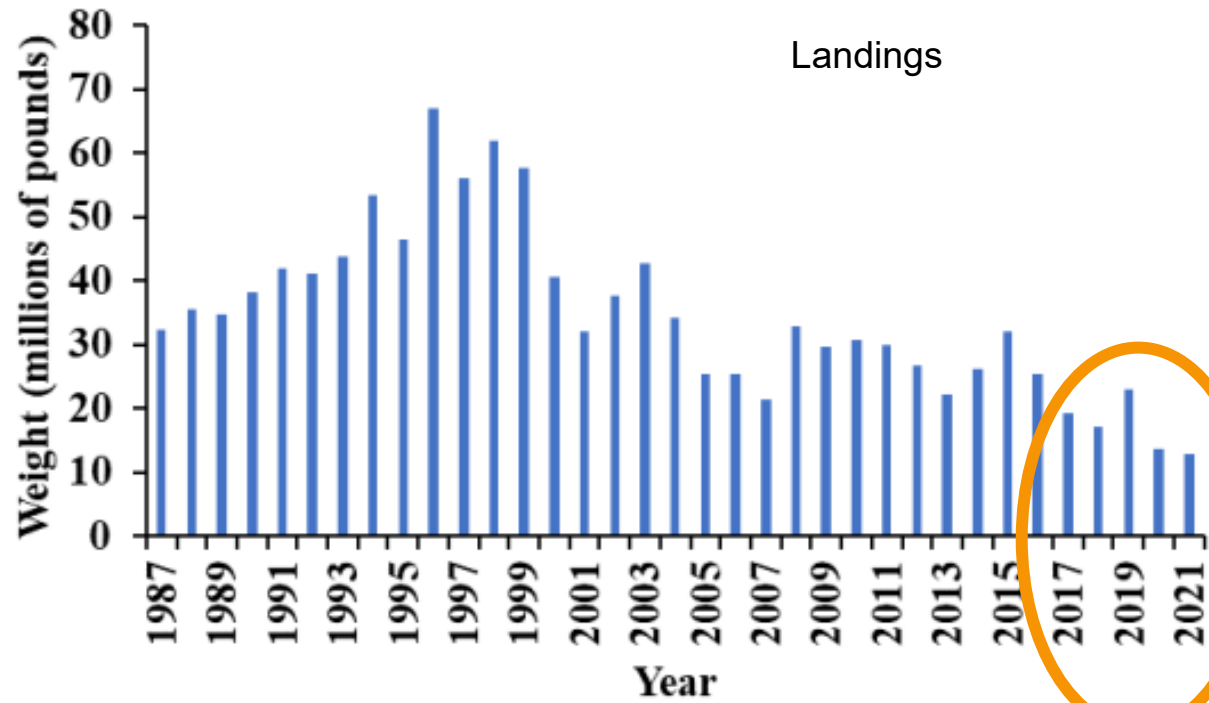
Management Updates



- Management may be adjusted for state managed species
 - Modifying stock assessment timing
 - Consider adjusting FMP review schedule
 - Adaptive management



Management Updates: Blue Crab



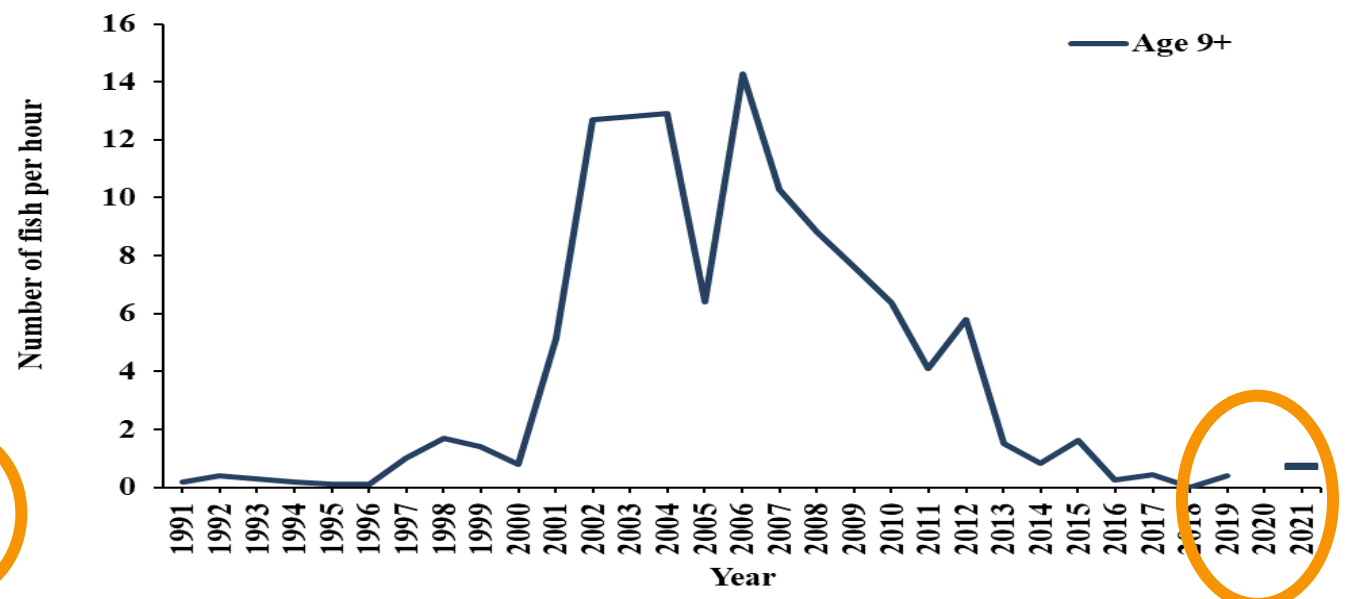
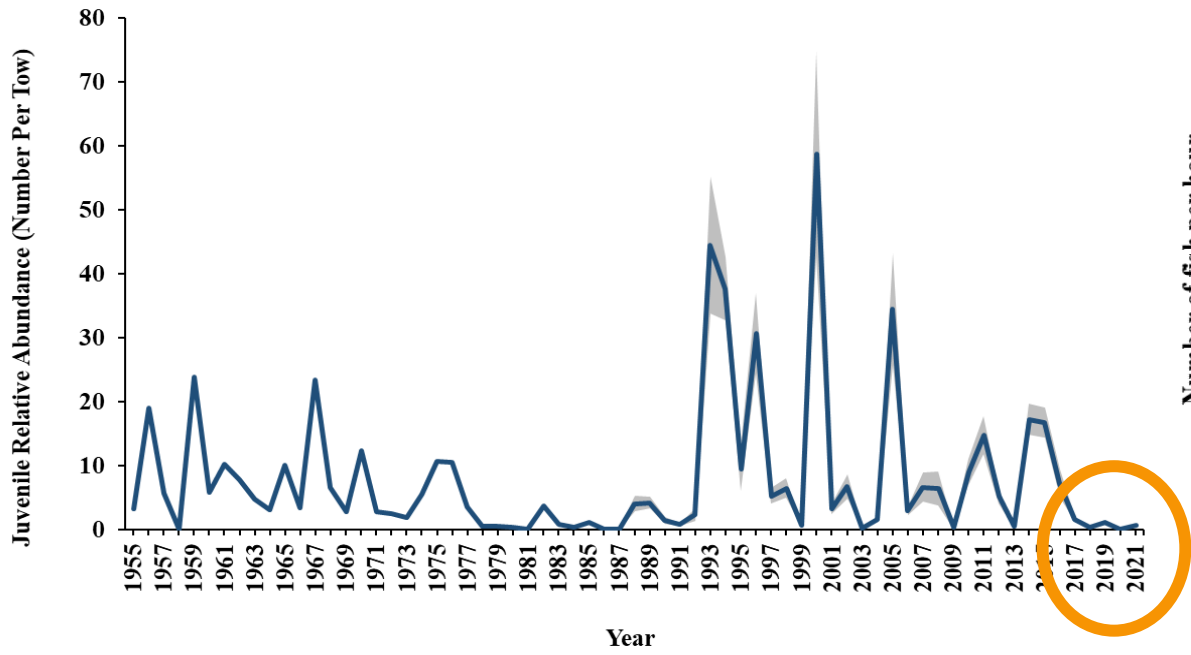
Management Updates: Bay Scallop

- Amendment 2 – 2015
 - Abundance thresholds for opening
- Trigger based management
 - Annual sampling
 - Openings based on thresholds
 - Seasons and trip limits by area

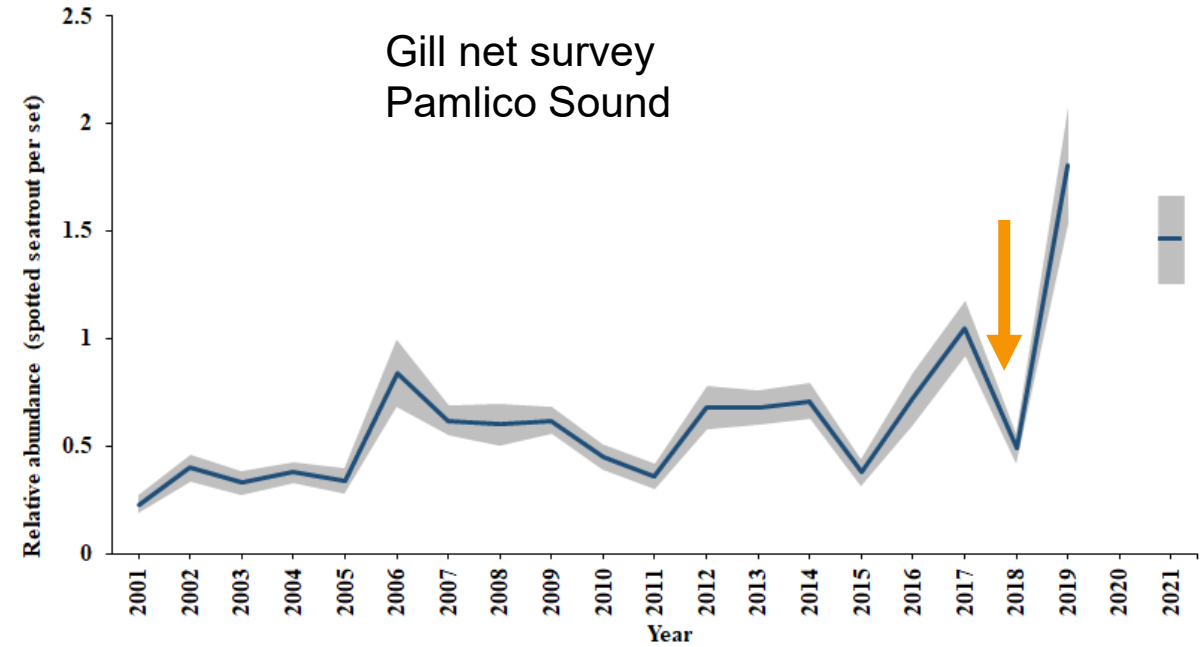
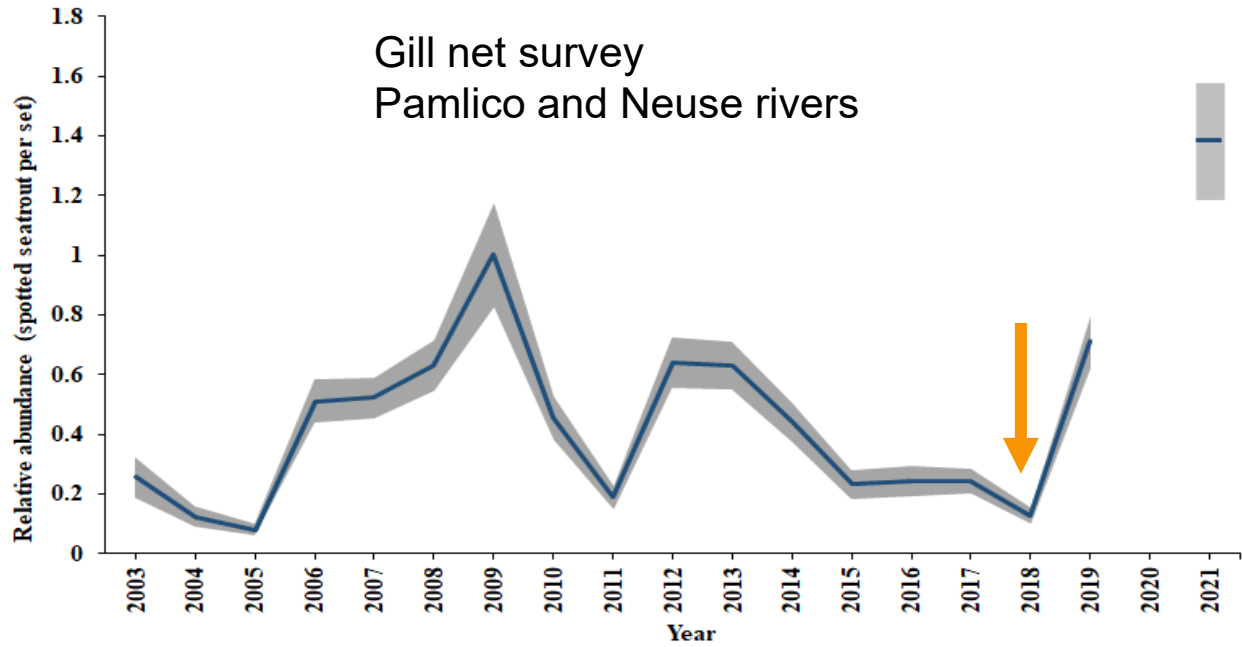
2021 and 2022 openings in Core Sound



Management Update: Albemarle/Roanoke River Striped Bass

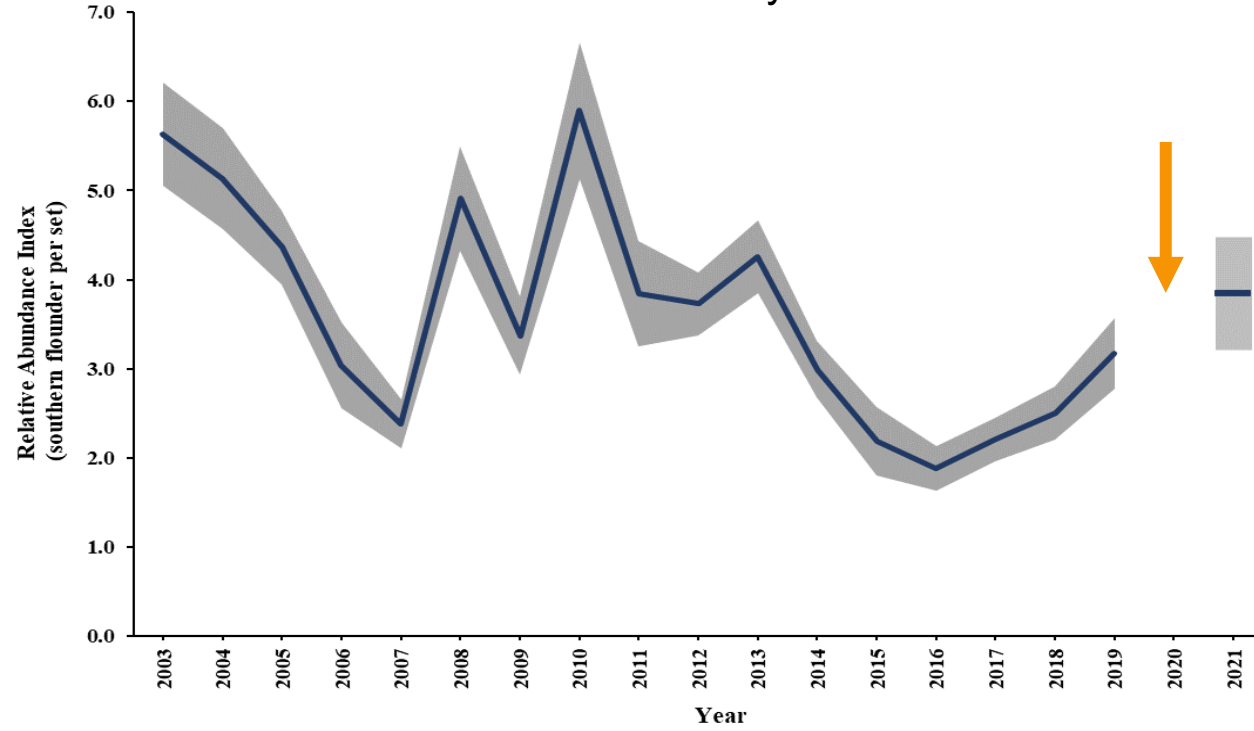


Management Update: Spotted Seatrout

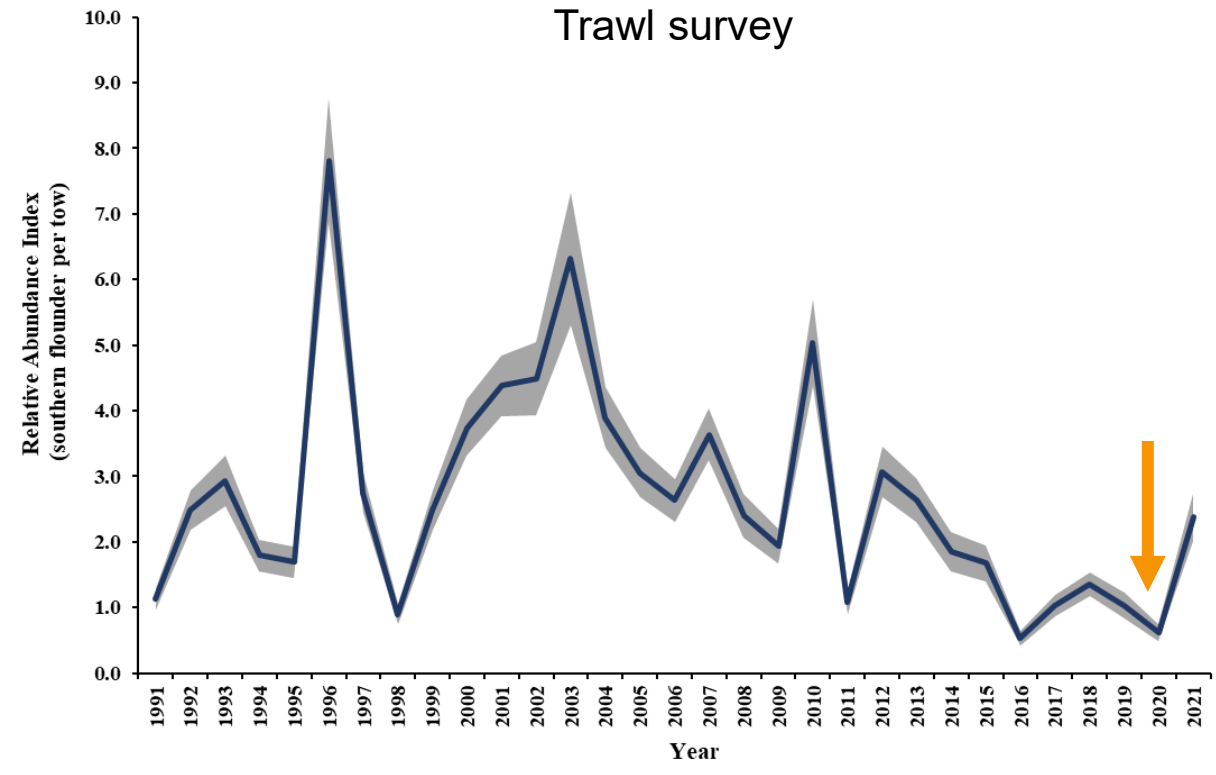


Management Update: Southern Flounder

Gill net survey



Trawl survey





Questions?