



Striped Mullet Fishery Management Plan: Draft Amendment 2

DEPARTMENT OF ENVIRONMENTAL QUALITY
Marine Fisheries

MFC Meeting | Willow Patten, Jeffrey Dobbs | November 2023



Presentation Outline

- Goal and Objectives of Amendment 2
- Management Unit
- Overview of Fisheries
- Stock Assessment
- Overview of Issue/Info Papers
- Striped Mullet Amendment 2 Timeline
- Questions

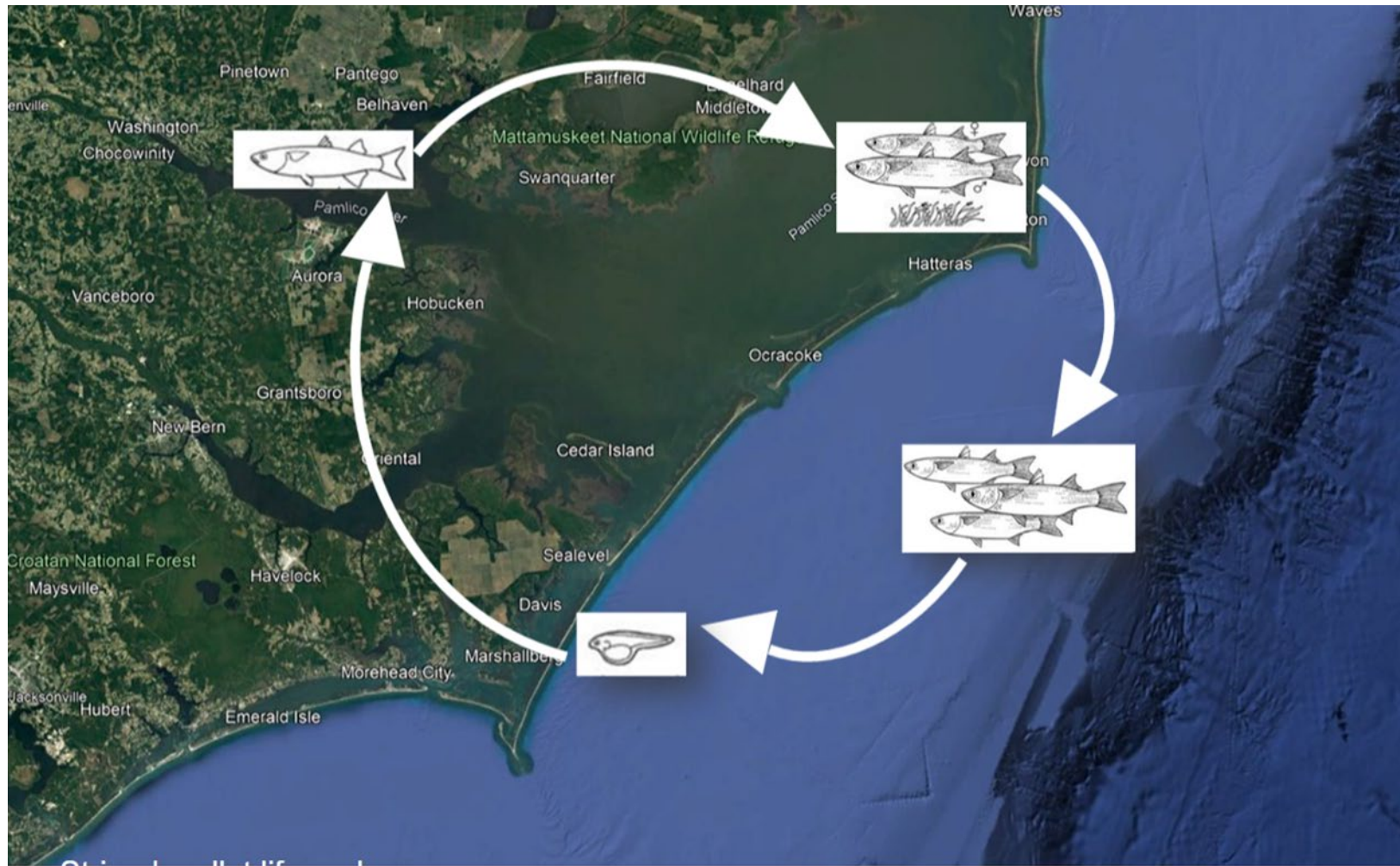
Goal and Objectives

The goal of Amendment 2 is to manage the striped mullet fishery to achieve a self-sustaining population that provides sustainable harvest using science-based decision-making processes. The following objectives will be used to achieve this goal.

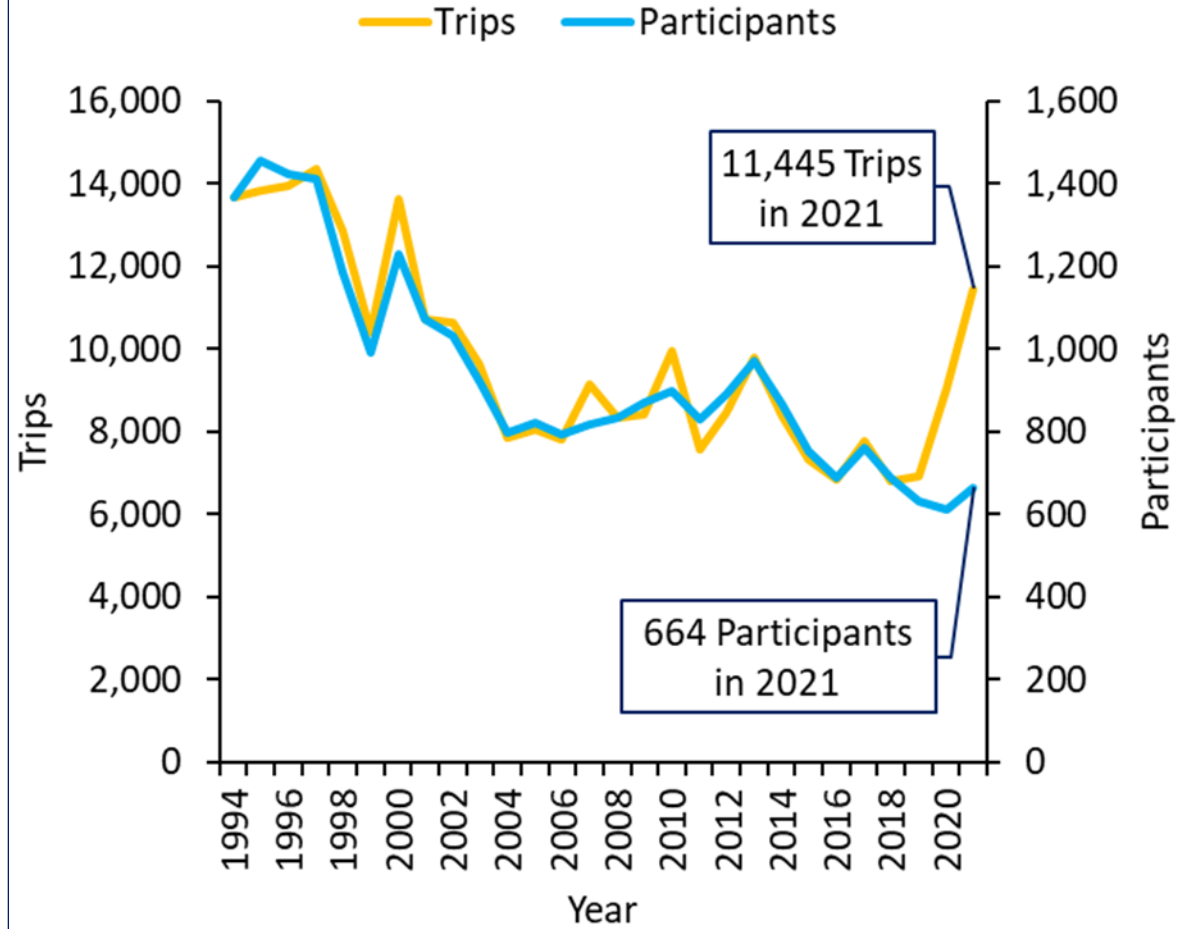
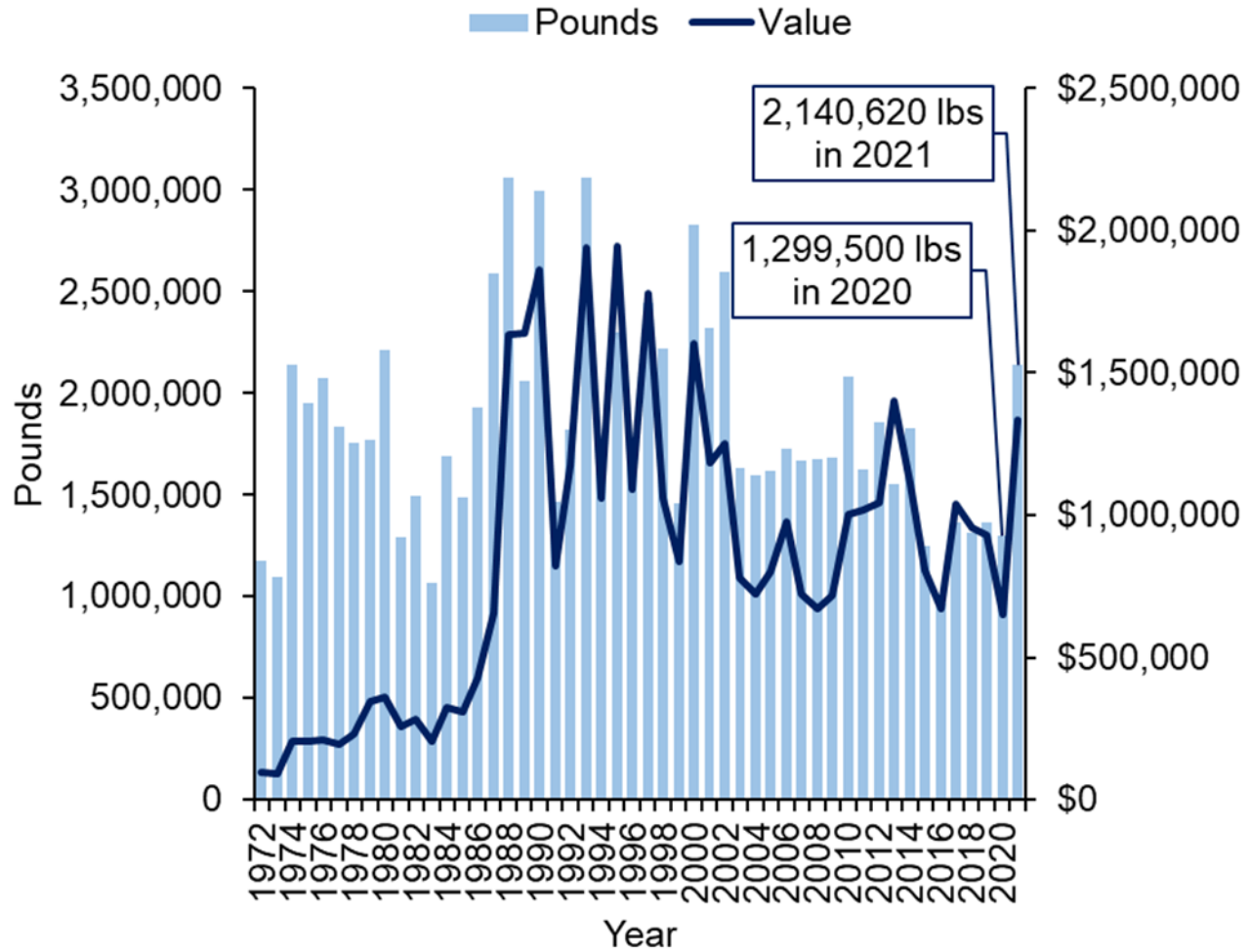
Objectives:

- Implement management strategies within North Carolina that sustain and/or restore the striped mullet spawning stock with adequate age structure abundance to maintain recruitment potential and prevent overfishing.
- Promote the restoration, enhancement, and protection of critical habitat and environmental quality in a manner consistent with the Coastal Habitat Protection Plan, to maintain or increase growth, survival, and reproduction of the striped mullet stock.
- Use biological, social, economic, fishery, habitat, and environmental data to effectively monitor and manage the fishery and its ecosystem impacts.
- Advance stewardship of the North Carolina striped mullet stock by promoting practices that minimize bycatch and discard mortality.

Management Unit



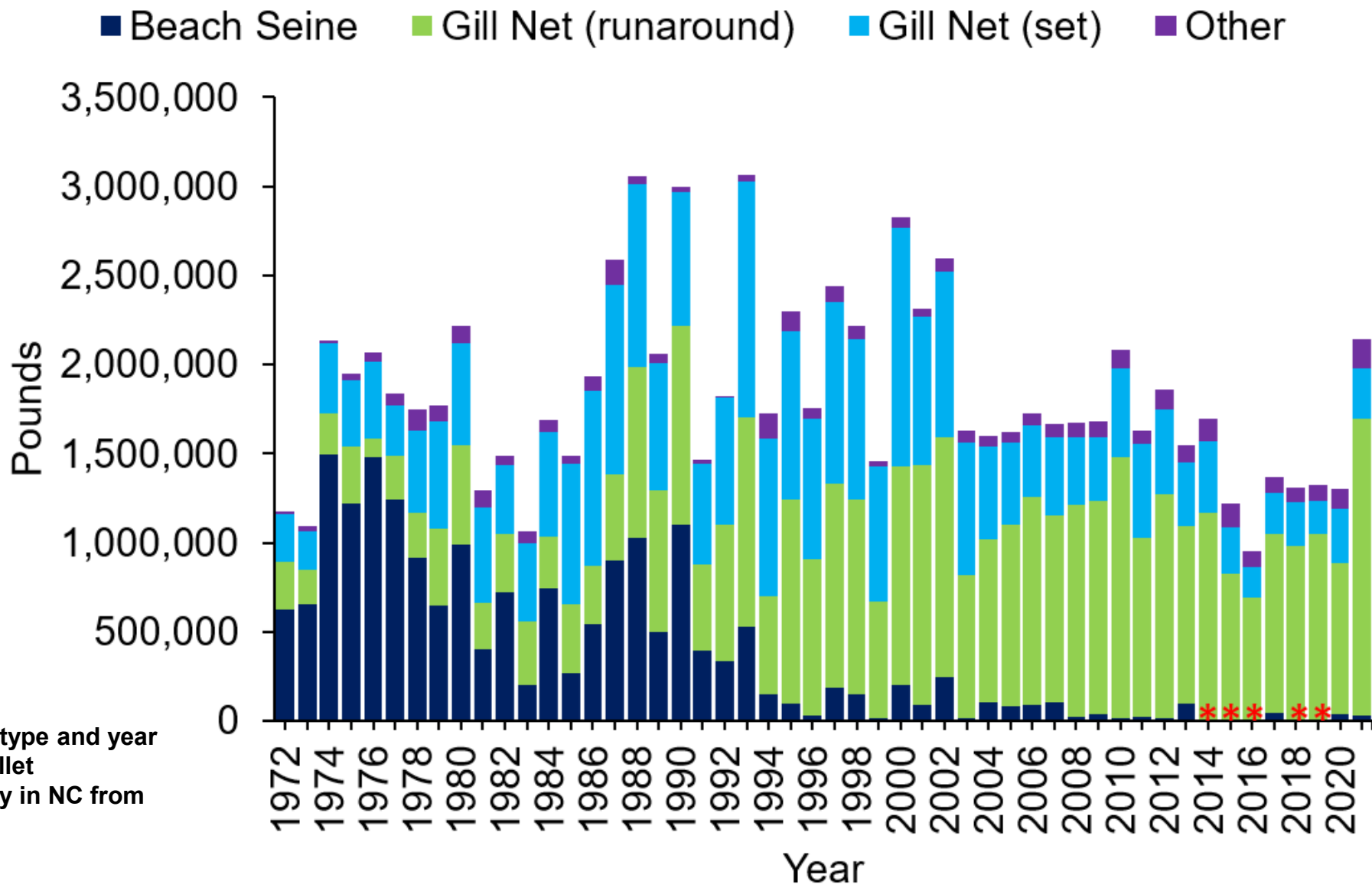
Overview of the Commercial Fisheries



Pounds and ex-vessel value by year for commercially landed striped mullet in NC from 1972 to 2021

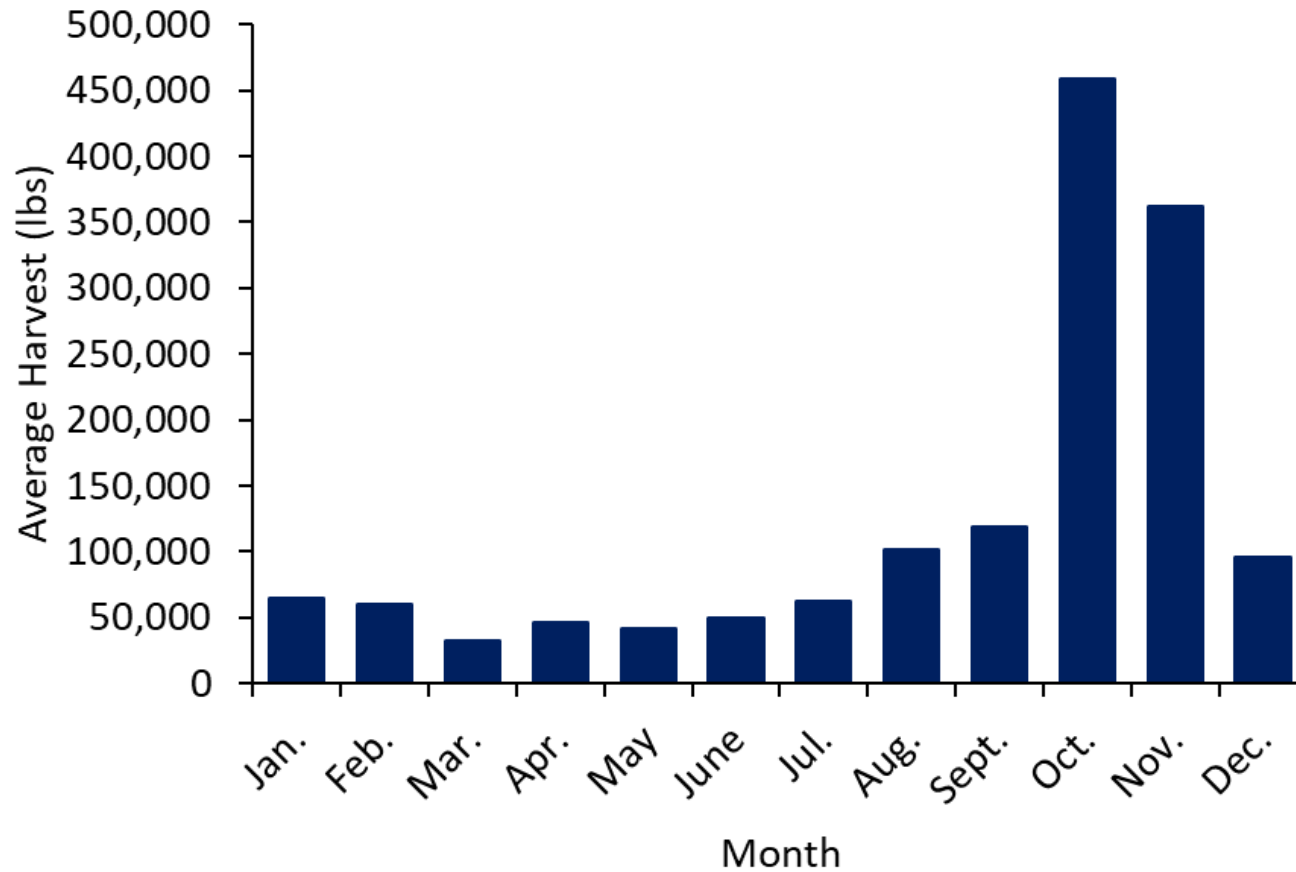
Number of trips and participants by year for the striped mullet commercial fishery in NC from 1994 to 2021

Trends in Landings by Gear Type



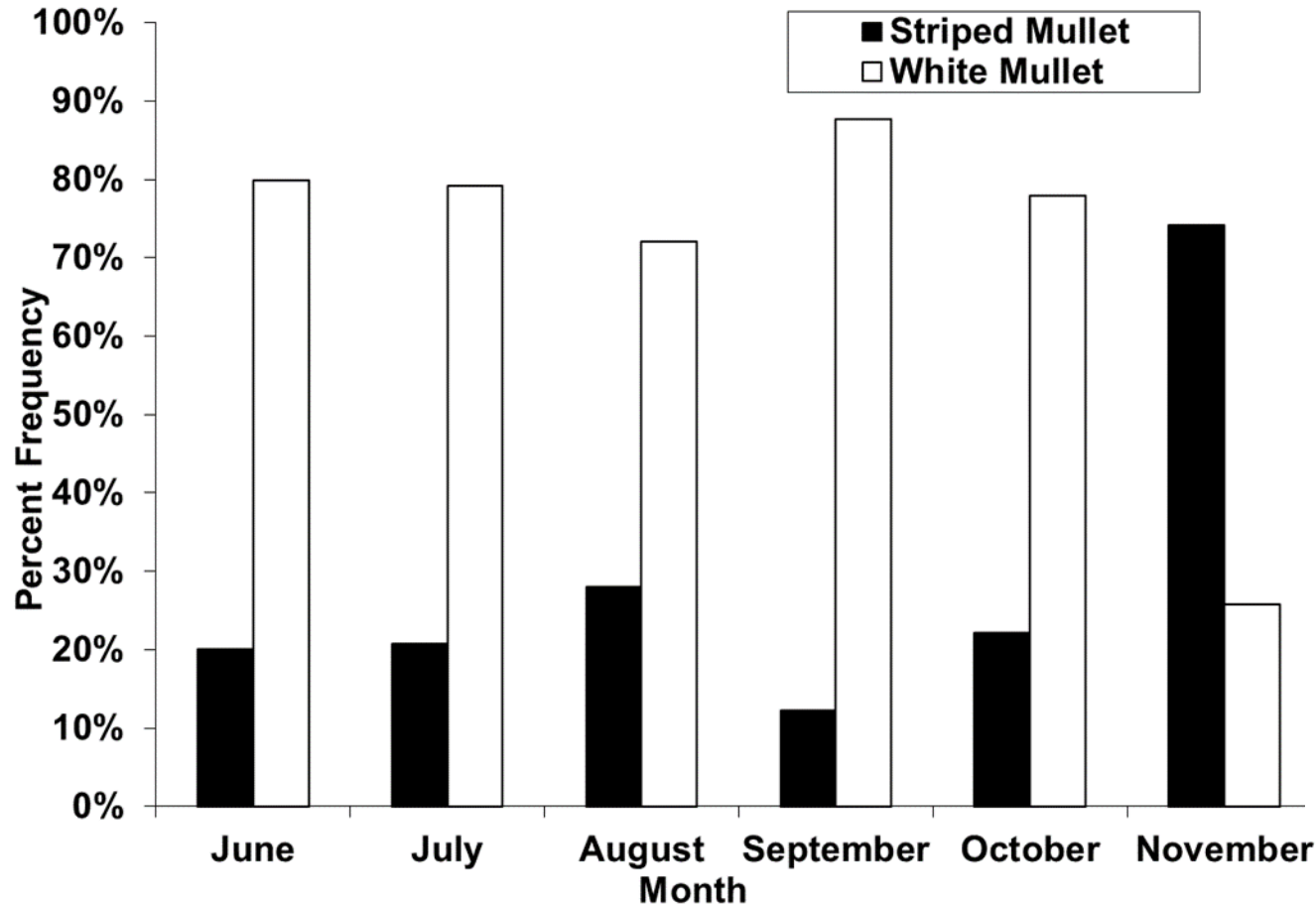
Landings by gear type and year for the striped mullet commercial fishery in NC from 1972 to 2021.

Trends in Commercial Landings by Season



Average commercial striped mullet landings by month for 2017 - 2021

Recreational Fishery

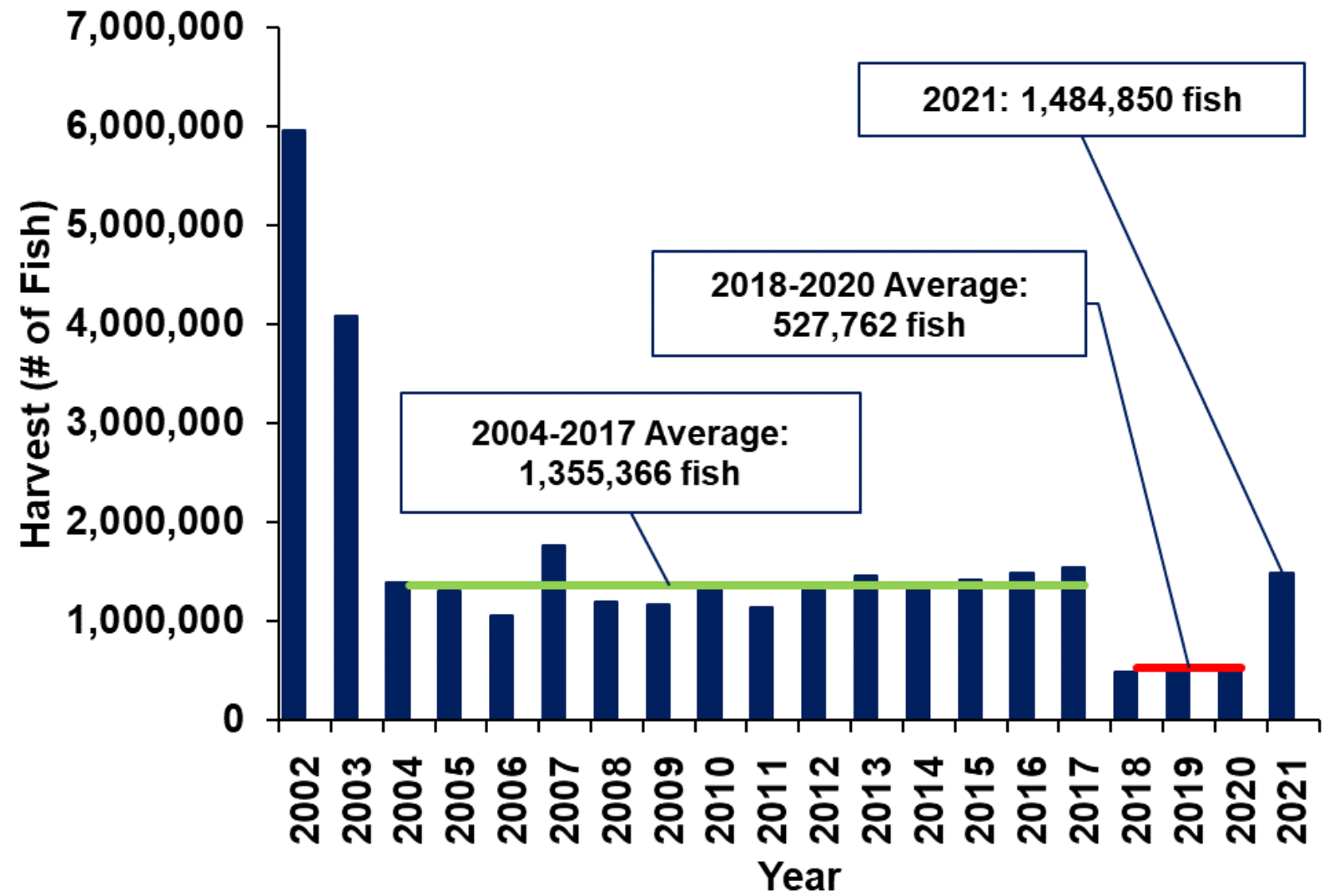


# of Fish Harvested	# of Anglers	Percent
1-25	2,644	85.21%
26-50	386	12.44%
51-75	34	1.10%
76-100	19	0.61%
101-150	8	0.26%
151-200	5	0.16%
Greater than 200	7	0.23%

Percent frequency of white and striped mullet by month caught in experimental cast nets in North Carolina.

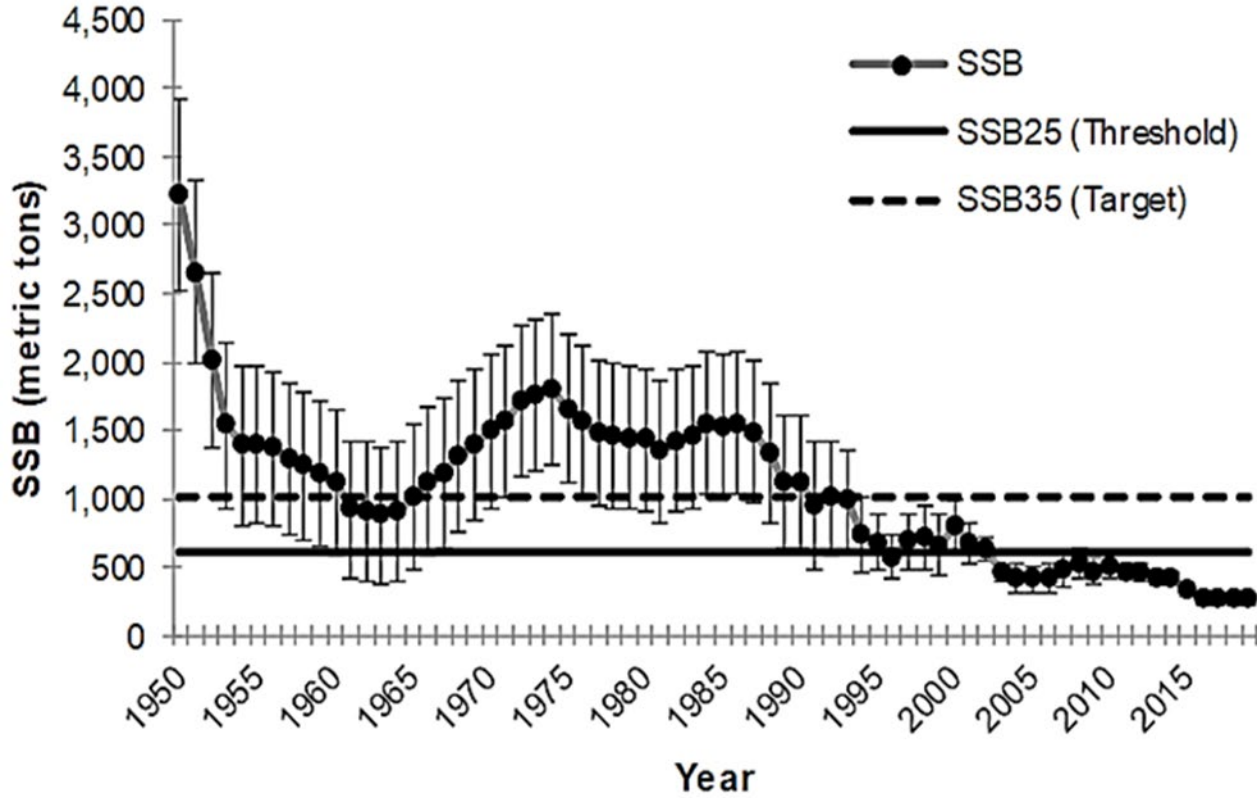
Number and percentage of anglers recreationally harvesting different bag sizes of mullet per trip in North Carolina (MRIP).

Recreational Landings by Year

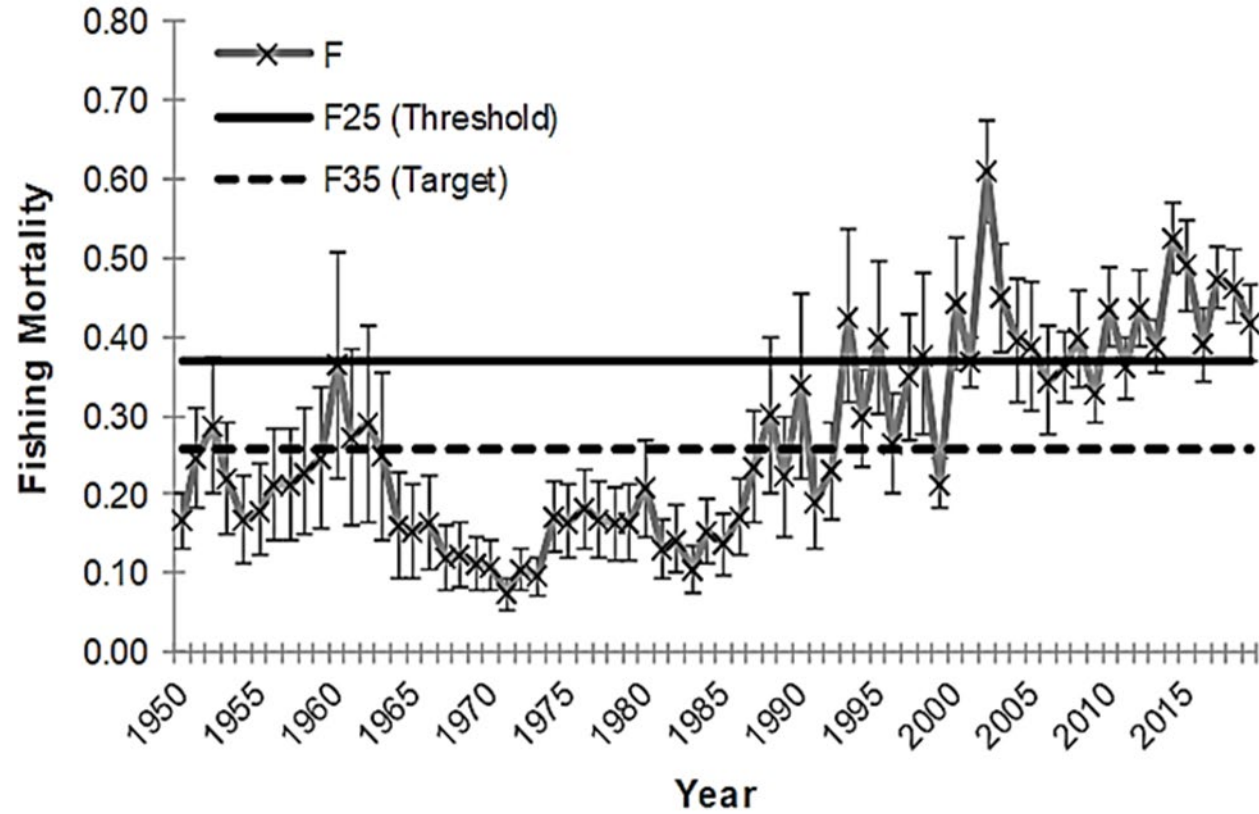


Recreational mullet landings in NC by year for 2002 - 2021

Stock Assessment



Spawning stock biomass (SSB) for the North Carolina striped mullet stock by year, including the target and threshold values used in the 2022 stock assessment.



Fishing Mortality (F) for the North Carolina striped mullet stock by year, including the target and threshold values used in the 2022 stock assessment.

Overview of Issue and Information Papers

Information Paper



Appendix 1:
Small Mesh Gill Net
Characterization in the North
Carolina Striped Mullet
Fishery

Issue Papers



Appendix 2:
Achieving Sustainable Harvest in
the North Carolina Striped Mullet
Fishery



Appendix 3:
Characterization and
Management of the North
Carolina Recreational Striped
Mullet Fishery

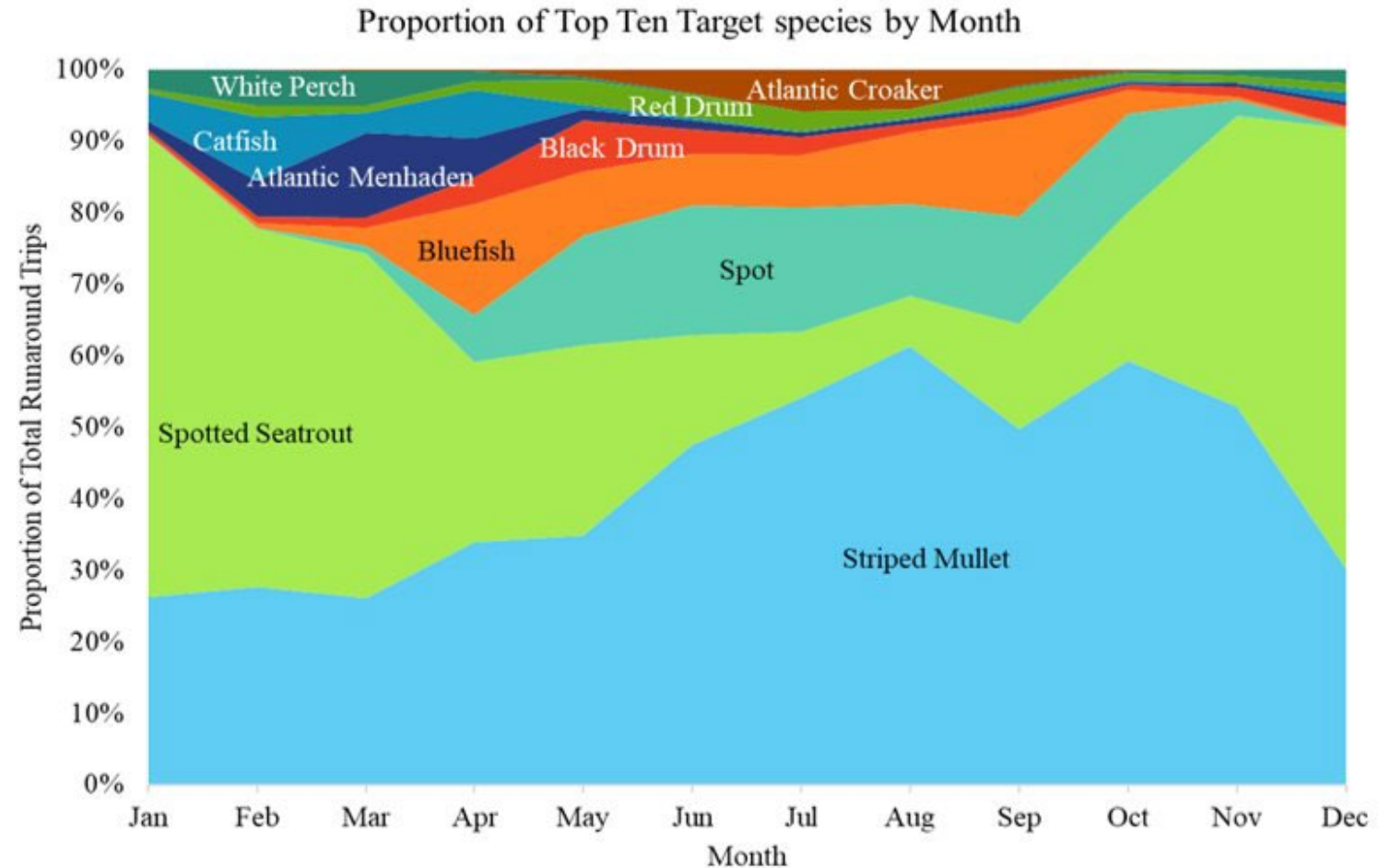
Appendix 1: Small Mesh Gill Net Characterization in the North Carolina Striped Mullet Fishery

How management such as:

- Mesh Size Restrictions
- Regional Management
- Trip Limits
- Yardage restrictions

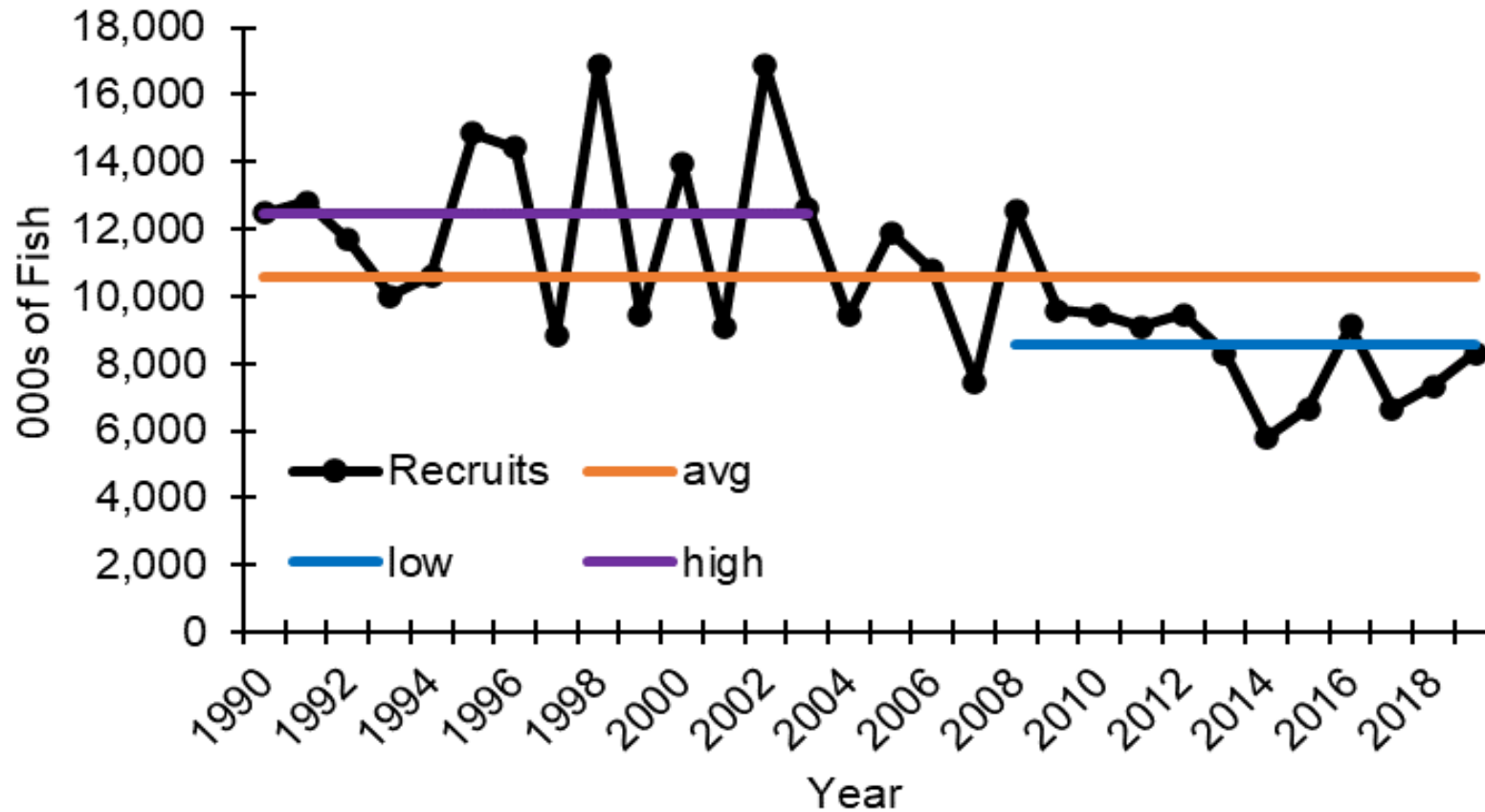
Can be used to:

- Constrain harvest
- Reduce bycatch
- Reduce conflict between user groups



Proportion of runaround gill net trips in North Carolina targeting each of the top ten target species by month

Appendix 2: Achieving Sustainable Harvest in the North Carolina Striped Mullet Fishery



Striped mullet recruitment estimates from the 2022 striped mullet stock assessment for 1990 to 2019

Appendix 2: Achieving Sustainable Harvest in the North Carolina Striped Mullet Fishery

Reduction	Recruitment Assumption	n Years from 2024	
		Reach Target	Reach Threshold
21.3%	Low	Never (0%)	7 (68%)
	Average	8 (78%)	2 (100%)
35.4%	Low	Never (0%)	3 (99%)
	Average	4 (100%)	2 (100%)

- *21.3% - 35.4% reduction is projected to bring Spawning Stock Biomass to Threshold, even with low recruitment*

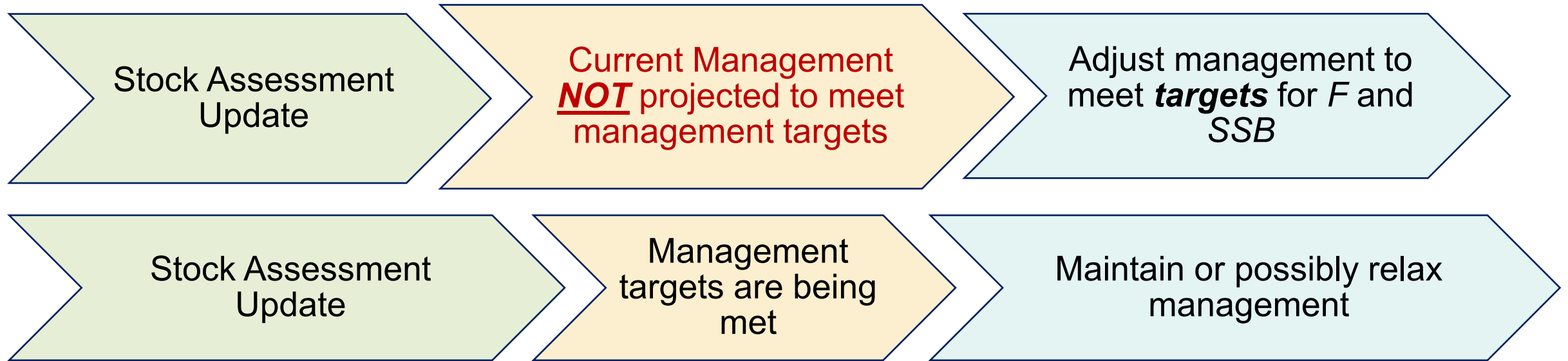
Appendix 2: Achieving Sustainable Harvest in the North Carolina Striped Mullet Fishery

Topics:

- Size Limits
- Season Closures
- Trip Limits
- Day of Week Closures
- Combinations of Measures
- Stop Net Fishery
- Seasonal Catch Limits
(Quotas)
- Area Closures
- Limited Entry
- Adaptive Management



Appendix 2: Adaptive Management Framework



Adjustable Measures:

- Season Closures
- Day or Week Closures
- Trip Limits
- Gill Net Restrictions

Appendix 2: Management Options

Topic	Option	Description
Size Limit	1.a	Status quo – no size limit
	1.b	Minimum size limit and 3.25 ISM minimum gill net mesh size
	1.c	Minimum size limit and 3.75 or 4.0 ISM maximum gill net mesh size
	1.d	Seasonal maximum size limit and 3.75 or 4.0 ISM maximum gill net mesh size
Season Closure	2.a	No season closure
	2.b	Statewide season closure October 29–December 31
	2.c	Statewide season closure November 7–December 31
	2.d	Regional, North/South, season closure North Oct. 28–Dec. 31 South Oct. 30–Dec. 31
	2.e	Regional, North/South, season closure North Nov. 7–Dec. 31 South Nov. 10–Dec. 31
Trip Limit	3	
Day of Week Closure	4	

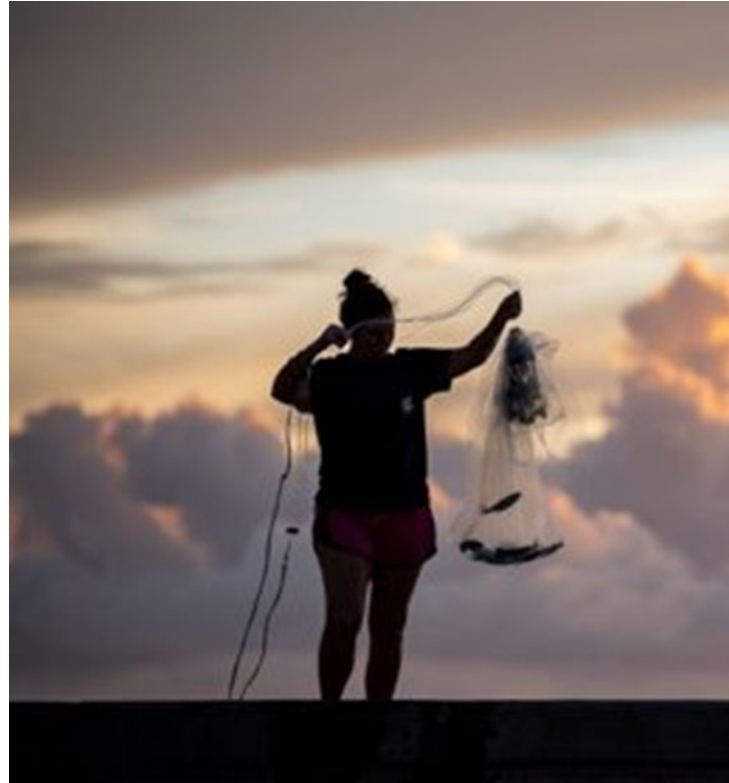
Appendix 2: Management Options

Topic	Option	Description
Combinations	5.a–q	See Table 2.13
Stop Net Fishery Management	6.a	Manage stop net fishery with same management measures applied to the rest of the fishery
	6.b	Stop Net specific catch cap
Seasonal Catch Limit	7.a	Status quo – no seasonal catch limit
	7.b	Statewide seasonal catch limit
	7.c	Regional, North/South, seasonal catch limit
Area Closures	8	
Limited Entry	9	
Adaptive Management	10	

Appendix 3: Characterization and Management of the North Carolina Recreational Mullet Fishery

Options maintain traditional uses of the fishery while supporting sustainability objectives

- Individual Bag Limits
- Size-based Bag Limits
- Seasonal Bag Limits
- Vessel Limits
- For-Hire Fishing Bag and Vessel Limits
- Adaptive Management



Appendix 3: Management Options

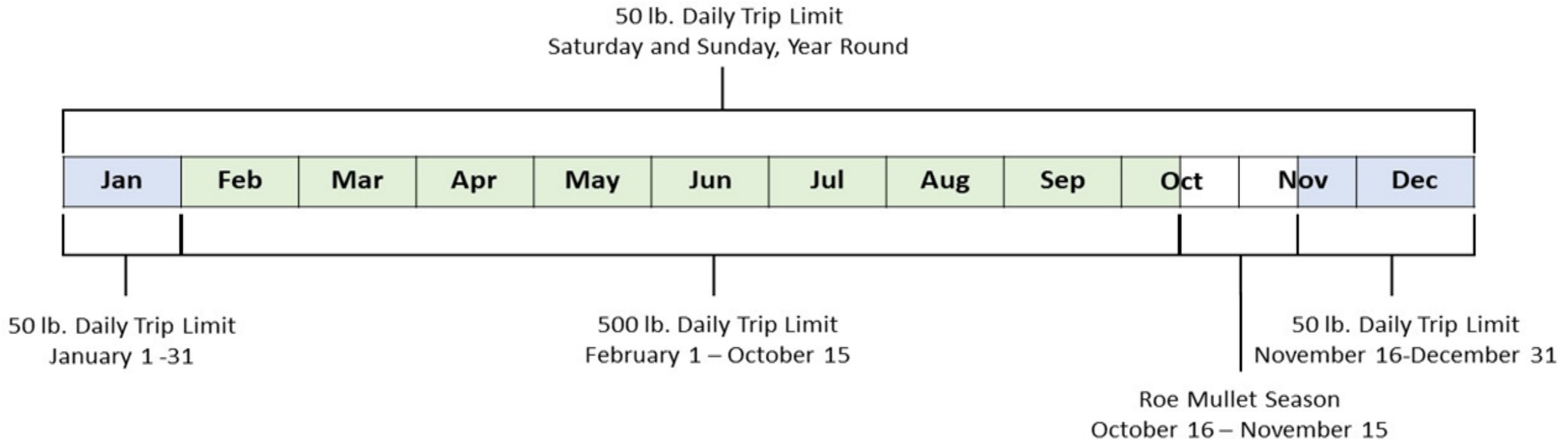
Topic	Option	Description
<u>Vessel and Bag Limit Options</u>	1.a	Status Quo
	1.b	Reduce Recreational Bag Limit (50 fish)
	1.c	Reduce Recreational Bag Limit (50 fish) and Implement Vessel Limit (100 fish)
	1.d	Bag limit (10, 15, 20, 25, etc.) for Fish Over 8-inches
	1.e	Seasonal (October-December) Bag Limit (10, 15, 20, 25, etc.) for Fish Over 8-inches

Appendix 3: Management Options

Topic	Option	Description
<u>For Hire Vessel Operations Options</u>	2.a	Reduce Recreational Bag Limit (50 fish), Implement Vessel Limit (100 fish), and Implement For Hire Vessel Limit (500 fish, etc.)
	2.b	Reduce Recreational Bag Limit (50 fish) with an exception for For Hire Vessel Operations to Possess a Bag Limit for the Number of Anglers They are Licensed to Carry (Including in Advance of a Trip)
	2.c	Reduce Recreational Bag Limit (50 fish) and Implement Vessel Limit (100 fish) with an exception for For Hire Vessel Operations to Possess a Bag Limit for the Number of Anglers They are Licensed to Carry (Including in Advance of a Trip)
	2.d	Mirror Option 1 Management Decision

Amendment 2: Initial DMF Recommendations

- 50 lb trip limit (Jan. 1-31 and Nov. 16 – Dec 31) (Table 2.18)
- Year-round Sat-Sun 50 lb trip limit (Table 2.18)
- 500 lb trip limit (Feb. 1 – Oct. 15) (Table 2.18)
- 30,000 lb stop net catch cap (Table 2.18)



Amendment 2: Initial DMF Recommendations

- Recreational individual bag limit of 50 fish (Table 3.7)
- Exception for For Hire Vessel Operations to possess a bag limit for the number of anglers they are licensed to carry (including in advance of a trip) (Table 3.7)
- Adopt proposed Adaptive Management Framework (Table 2.18)

Amendment 2 Timeline

- Division holds public scoping period

- Marine Fisheries Commission approve goal and objectives of FMP

- Division drafting FMP

- Division holds workshop to further develop draft FMP with plan advisory committee

- Division updating draft plan

- **Marine Fisheries Commission vote to send draft FMP for public and advisory committee review**

Next Step

- Commission advisory committees meet to review draft FMP and receive public comment

- Marine Fisheries Commission select preferred management options

- Department of Environmental Quality Secretary and legislative review draft FMP

- Marine Fisheries Commission vote on final adoption of FMP

- Division and Marine Fisheries Commission implement management strategies

Questions?

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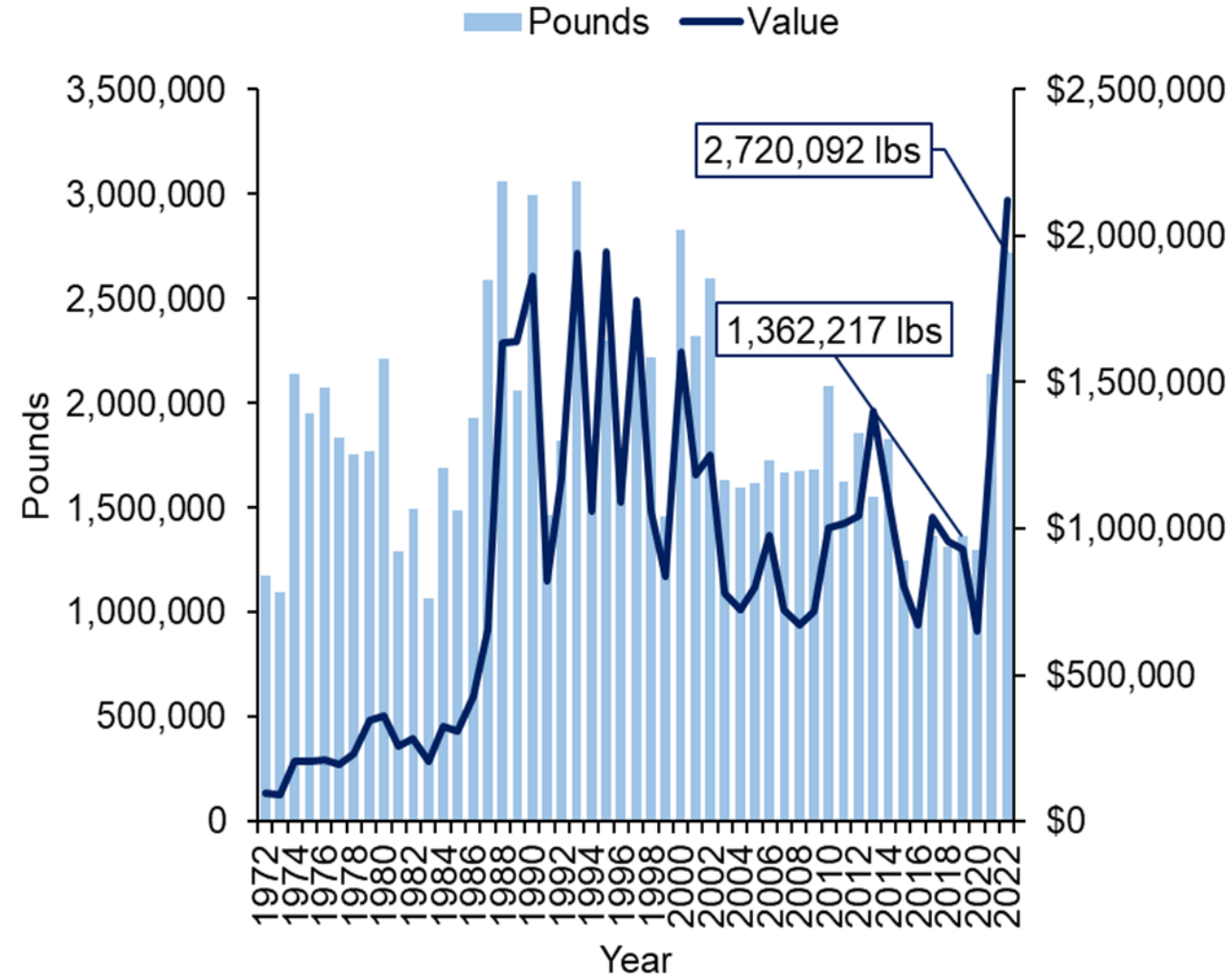
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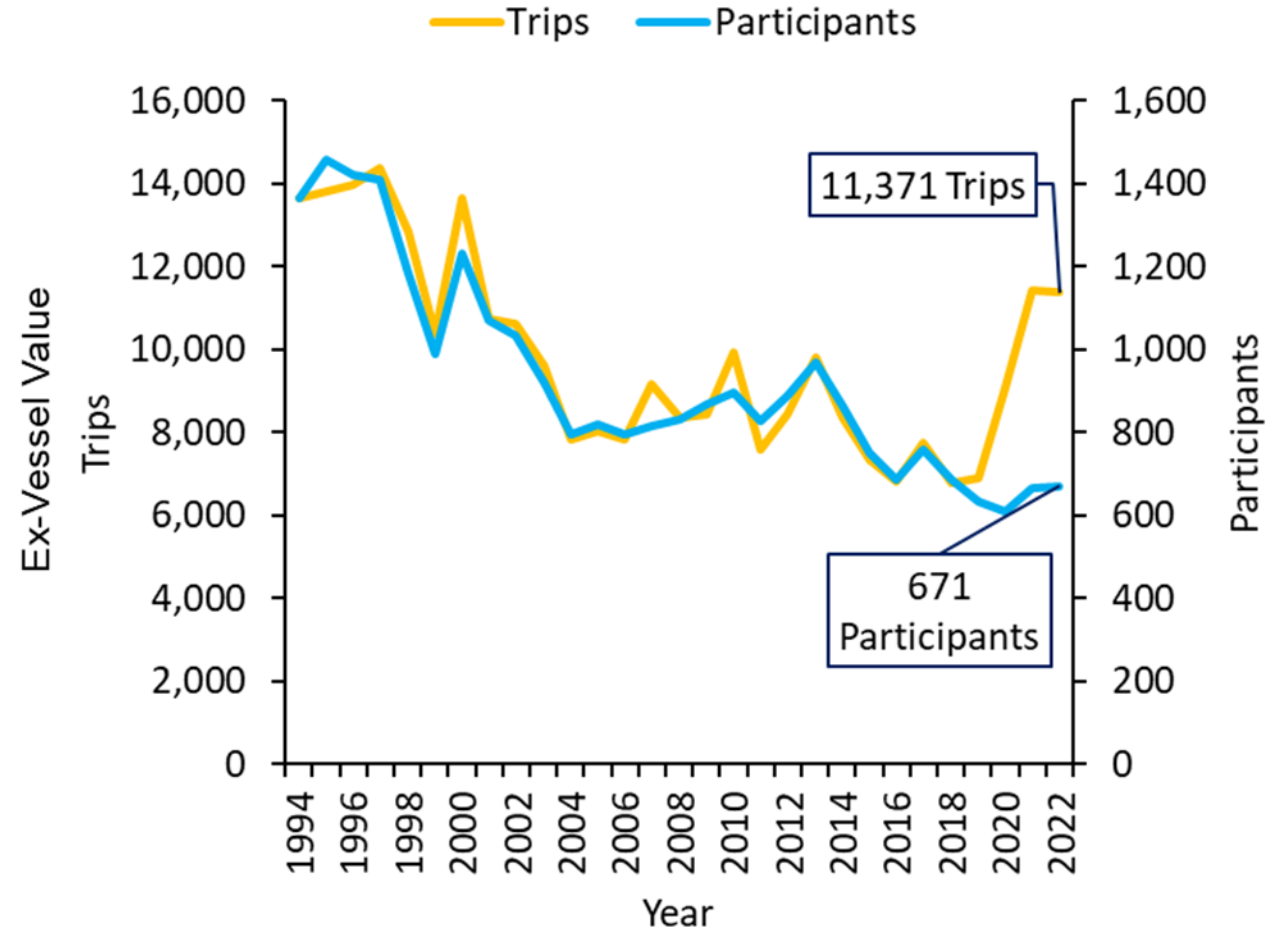
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Overview of the Commercial Fisheries



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