



Southern Flounder Fishery Management Plan Amendment 3

Draft Amendment 3 Overview

DEPARTMENT OF ENVIRONMENTAL QUALITY

Marine Fisheries

Amendment 3 | Anne L. Markwith and Michael S. Loeffler | February 24, 2022



Southern Flounder FMP Amendment 3

Next Steps

• Division holds public scoping period

• Marine Fisheries Commission approve goal and objectives of FMP

• Division draft FMP

• Division hold workshops to further develop draft FMP with plan advisory committee

• Division update draft plan for Marine Fisheries Commission presentation

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

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

• **Marine Fisheries Commission select preferred management options**

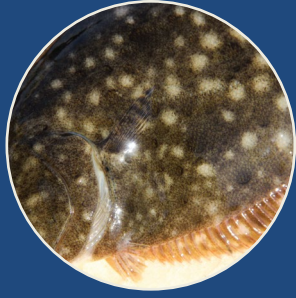
• Department of Environmental Quality secretary and legislature review draft FMP

• Marine Fisheries Commission vote on final adoption of FMP

• Division and Marine Fisheries Commission implement management strategies

You are
here

Amendment 3: Issue Paper Overview



Sustainable Harvest

- ▶ Commercial Quota
- ▶ Commercial Sub-allocation
- ▶ Recreational Quota
- ▶ Commercial Trip Limits
- ▶ Recreational Bag Limits
- ▶ RCGL
- ▶ Commercial and recreational quotas determined by MFC allocation decision. Changes to recreational bag limits may offset risk of overages.



Increased Recreational Access

- ▶ Creating a Recreational Ocellated Flounder Season
- ▶ Connectivity between Increased Recreational Access and Sustainable Harvest. Adopting Increased Recreational Access can't undermine sustainable harvest



Inlet Corridors

- ▶ Evaluating Inlet Corridors and their utility in Southern Flounder Conservation
- ▶ Inlet Corridors have no known quantifiable impact on southern flounder sustainable harvest at this time



Adaptive Management

- ▶ Developing the infrastructure that will direct changes to management in the Southern Flounder Fishery

Amendment 3: Issue Paper Overview



Sector Allocations

- ▶ Determined by the MFC, March 2021
- ▶ 70/30 in 2021-2022
- ▶ 60/40 in 2023
- ▶ 50/50 beginning in 2024



Slot Limits

- ▶ Evaluate slot limits for the recreational fishery

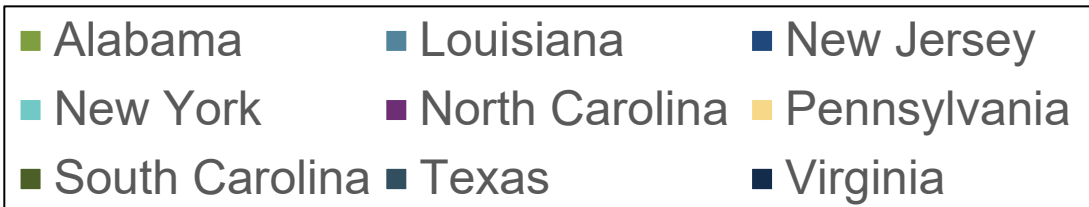
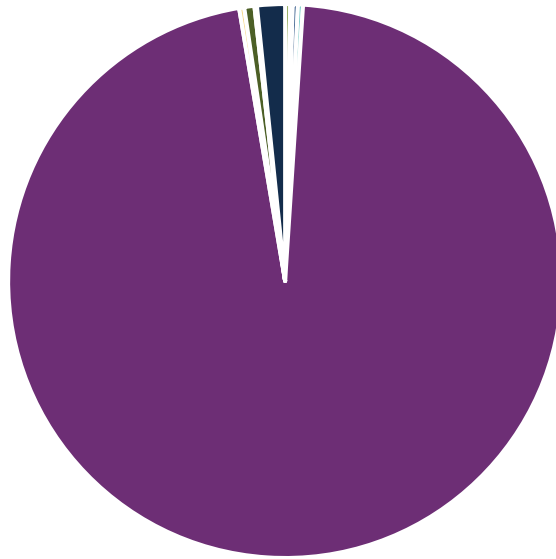


Phasing Out Large-Mesh Gill Nets

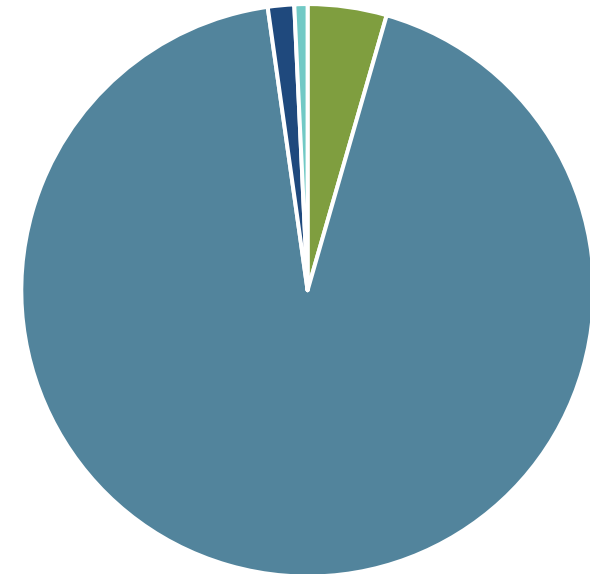
- ▶ Provides information about the commercial and recreational large-mesh gill net fishery

Public Comment: Online Questionnaire

State of Residency



User Group



Public Comment: Online Questionnaire Items with User Group Agreement

Recommendations with support	Recommendations not supported
Commercial Quota	Commercial sub-allocation
Recreational Quota	Commercial trip limits
Changes to recreational bag limits	Preferred recreational bag limits
Adaptive management	Single species management
Slot limits	



Public Comment: Online Questionnaire Items with User Group Agreement

Recommendations with support	Recommendations not supported
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Adaptive management	Single species management
Slot limits	



Public Comment: Online Questionnaire Items without Agreement Between User Groups

Issue	Recreational Opinion	Commercial Opinion
Commercial Mobile Gear Option	One statewide area	Three areas
Commercial Pound Net Option	One statewide area	Three areas
Commercial Trip Limits Support	Yes	No
Allowing RCGL holders to harvest southern flounder	No	Yes



Public Comment: Online Questionnaire Items without Agreement Between User Groups

Issue	Recreational Opinion	Commercial Opinion
Inlet Corridors	Yes	No
Inlet Corridor gear options	All gears	Specific gears
Phasing out large-mesh gill nets	Yes	No



Public Comment: Online Questionnaire

Additional Comments

Top 10 topics mentioned

- Gear bans (128)
- Lengthened recreational seasons (96)
- Bag limits (52)
- Shrimp trawls (17)
- Slot limits (10)
- Enforcement (9)
- Increased size limits (7)
- Ocellated species access (6)
- Hatchery/Aquaculture (5)
- Trip ticket or monitoring program for the recreational fishery (5)



Public Comment: Comment Received through Mail

Seven letters received

- Five of the letters spoke about the individual options
- One letter focused on the Allocation Issue Paper
- One letter focused on a few options and addressed accountability measures
- Additional comments: Shrimp trawls, unreported catch



Advisory Committee Recommendations

- Northern Regional – 1/11/2022
- Southern Regional – 1/12/2022
- Finfish Standing – 1/13/2022



Advisory Committee Recommendations

Issue Paper	Management Measure	Northern Regional Advisory Committee	Southern Regional Advisory Committee	Finfish Standing Advisory Committee
Sustainable Harvest	Commercial – quota	Support the division’s recommendation of Option 1.1.A and 1.2.A.	Accept the division recommendation option 1.1.A and 1.2.A.	Accept division recommendations Option 1.1.A and 1.2.A.
Sustainable Harvest	Commercial - sub-allocation	Support the division recommendation of Option 2.2 Maintain current sub-allocations for pound net fishery.	Accept the division recommendation of Option 2.2 Maintain current sub-allocation for pound net fishery.	Support Option 2.1 Sub-allocations based on 2017 landings.
Sustainable Harvest	Recreational Season - hook & line/gigs	Support the division’s recommendation on managing the recreational fishery by season.	Accept the division recommendation Option 3 recreational season.	Support the division recommendation Option 3 of a recreational season.



Advisory Committee Recommendations

Issue Paper	Management Measure	Northern Regional Advisory Committee	Southern Regional Advisory Committee	Finfish Standing Advisory Committee
Sustainable Harvest	Commercial - trip limit	Support Option 4A: Implement trip limit for pound net and gigs upon reopening after reaching division closure threshold.	Accept the division recommendation Option 4A: Implement trip limit for pound net and gigs upon reopening after reaching division closure threshold.	Support Option 4C: Status quo, no trip limits.
Sustainable Harvest	Recreational - bag limit	Support the division recommendation of Option 5.A 1 fish/person/day.	Support 1 fish/person/day bag limit if there was a considerably longer open season (during summer/fall).	Support division recommendation Option 5.A. 1 fish/person/day.
Sustainable Harvest	Recreational – RCGL	Follow the division recommendation Option 6B- prohibit use of RCGL to harvest flounder.	Support the division recommendation Option 6B: Prohibit use of RCGL to harvest flounder.	Support Option 6A: Allow RCGL to harvest flounder when commercial and recreational fisheries both open.



Advisory Committee Recommendations

Issue Paper	Northern Regional Advisory Committee	Southern Regional Advisory Committee	Finfish Standing Advisory Committee
Increased Recreational Access	Support Option1 status quo, manage as one group.	Support the division recommendation Option 2: 1-fish ocellated bag March 1-April 15 in ocean; 1-fish any species bag during southern flounder season.	Recommend the MFC design an ocean caught recreational ocellated flounder fishery that will not hinder the present southern flounder fishery established in Amendment 3.
Inlet Corridors	Support Option 1: Status quo, do not establish inlet corridors during spawning migration.	Maintain the ability to implement inlet corridors as adaptive management if research indicates it is appropriate.	Support Option 1: Status quo, do not establish inlet corridors during spawning migration.
Adaptive Management	Support Option 1- adaptive management framework.	Support the division recommendation to adopt an adaptive management framework.	No motion passed.



Advisory Committee Recommendations

Issue Paper	Northern Regional Advisory Committee	Southern Regional Advisory Committee	Finfish Standing Advisory Committee
Slot Limits	Support slot limits be considered as soon as the division has sufficient data on discard size distribution to inform the size of slot.	Support the division recommendation Option 1 status quo, no slot limit.	Support Option 1: Status quo, no slot limit.
Phase Out Large-Mesh Gill Nets	Support Option 2: Status quo, allow large-mesh gill nets to harvest southern flounder during the commercial season.	No motion passed.	Support Option 2: Status quo, allow large-mesh gill nets to harvest southern flounder during the commercial season.



Division of Marine Fisheries Recommendations



Sustainable Harvest Recommendations

Commercial

Set annual harvest quotas for the commercial fisheries

- Two Gear categories: Mobile Gears and Pound Nets
- Divide Mobile Gears into 2 areas (Option 1.1a)
- Divide Pound Nets into 3 areas (Option 1.2a)
- Maintain 72% reduction and current allocation for Pound Net fishery (Option 2.2)
- Trip limits for gigs and pound nets only after meeting closure threshold (Option 4A)



Sustainable Harvest

Commercial Recommendations Rationale

- Allows flexibility to accommodate opening dates by gear and areas
- Allows commercial gig fishery in the summer
- Remaining quota available to fall gill net fishery
- Boundary lines already established
- Pound net areas based on natural breaks and consistent with Amendment 2
- Pound net fishery may not be viable below current TAL
- Quota difficult to manage at 50/50 parity
- Trip limits not ideal for gill net fishery due to potential dead discards
- Maximize available allocation
- Trip limits not static



Sustainable Harvest Recommendations

Recreational

Set annual harvest quotas for the recreational fisheries

- Implement single hook-and-line and gig season to constrain to quota (Option 3)
- Reduce Bag Limit to 1-fish/per person/per day (Option 5A)
- Do not allow harvest of southern flounder with RCGL (Option 6B)



Sustainable Harvest

Recreational Recommendations Rationale

- Single season allows for greater potential to achieve reductions
- Season should follow the Aug. 16 through Sept 30. window
- Season length will be based on previous years landings and paybacks
- 2020 and 2021 seasons indicative of behavior shift
- Prior to 2019 most anglers landed 1-fish per trip
- Reducing bag limit may buffer overages
- 2020 and 2021 indicated angler success increased



Increased Recreational Access Recommendation and Rationale

Option 2 - Allow a one-fish ocellated bag limit in an early season from March 1 – April 15

- Assumes a one-fish any flounder bag limit during the fall season from Aug. 16 – Sept. 30
- Needs to be evaluated for conservation equivalencies with MAFMC/ASMFC
- Allows limited access to ocellated species
- Misidentification impact may be minimized in early spring season
- Need time after early season to evaluate harvest to adjust fall season
- The fall season may be truncated due to excessive southern flounder harvest



Inlet Corridor Recommendation and Rationale

Option 1 - Do not establish inlet corridors for southern flounder during spawning migrations

- Seasons close prior to peak migration
- Movement through inlets is over short window of time
- Data does not indicate inlets are areas of increased harvest
- Research being conducted
- Potential impacts to other fisheries



Adaptive Management Recommendation and Rationale

Option 1 - Implement adaptive management strategy for the southern flounder fishery

- Provides flexibility for maintaining the TAL
- Lack of flexibility jeopardizes stock rebuilding
- Management based on biological reference points
- Allows for additional protections and ensures future sustainability



Slot Limits Recommendation and Rationale

Option 1 - Not to implement a slot limit at this time

- Can be an important tool for management
- Length and age structure truncated
- Division supports consideration when size and age structure expands
- Current data collection on length and weights of discards



Phasing Out Anchored Large-Mesh Gill Nets Recommendation and Rationale

Option 2 - Continue to allow anchored large-mesh gill nets to harvest southern flounder during the commercial season

- Can achieve sustainable harvest with or without anchored large mesh gill nets
- Large mesh gill nets limited to fall flounder fishery with exceptions for shad and catfish



Amendment 3: Management Carried Forward from Amendment 2

- Minimum distance requirements between commercial gears
- Commercial gear requirements
- Commercial gear removal outside of season
- Commercial possession requirements outside of season
- Recreational requirements



Questions?

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Draft Amendment 3 Action Item

Vote on preferred management options



Sustainable Harvest

Southern Flounder Quota Options

Management Option	Management Sub-option	Management Measure	Gear	# Management Areas	Description	Location/Allocation (Pounds)			Quota
1	1.1A	Commercial Quota	Mobile Gears	2	Division at the ITP B-D Boundary Line	Northern: 123,879	Southern: 62,309		186,188
1	1.1B	Commercial Quota	Mobile Gears	1	Statewide	Statewide: 186,188			186,188
1	1.1C	Commercial Quota	Mobile Gears	3	Same areas as Amendment 2	Northern: 47,082	Central: 65,355	Southern: 73,751	186,188
1	1.2A	Commercial Quota	Pound Nets	3	Same areas as Amendment 2	Northern: 39,700	Central: 121,756	Southern: 25,002	186,458
1	1.2B	Commercial Quota	Pound Nets	1	Statewide	Statewide: 186,458			186,458
1	1.2C	Commercial Quota	Pound Nets	2	Division at approximately Pea Island	Northern: 39,700	Southern: 146,758		186,458

Sustainable Harvest

Southern Flounder Quota Options

Management Option	Management Sub-option	Management Measure	Gear	# Management Areas	Description	Location/Allocation (Pounds)	Quota
2	2.1	Commercial Sub-Allocation	All commercial gears	N/A	2017 Landings		372,646
2	2.2	Commercial Sub-Allocation	All commercial gears	N/A	Maintain current pound net allocation		372,646
2	2.3	Commercial Sub-Allocation	All commercial gears except gill nets	N/A	Allocate gill net harvest to mobile and pound net gears equally		372,646
3		Recreational Quota (through season)	Hook-and-line, gigs	1	Statewide	Hook-and-Line: 142,206 Gig: 17,500	159,706

Sustainable Harvest Trip Limit Options

Management Option	Management sub-option	Management Measure	Description
4	4A	Commercial Fishery Trip Limits	Implement trip limits for pound nets and gigs only to maximize potential opportunities for reopening a fishery to harvest remaining allocation
4	4B	Commercial Fishery Trip Limits	Implement trip limits for all gears
4	4C	Commercial Fishery Trip Limits	Status quo, do not implement trip limits



Sustainable Harvest Recreational Bag Limit Options

Management Option	Management sub-option	Management Measure	Description
5	5A	Recreational Fishery Bag Limits	Reduce recreational bag limit of flounder to one fish per person per day
5	5B	Recreational Fishery Bag Limits	Reduce recreational bag limit of flounder to no more than three fish per person per day
5	5C	Recreational Fishery Bag Limits	Reduce recreational bag limit of flounder to no more than two fish per person per day
5	5D	Recreational Fishery Bag Limits	Status quo, keep the recreational bag limit of flounder at no more than four fish per person per day



Sustainable Harvest RCGL Options

Management Option	Management sub-option	Management Measure	Description
6	6A	Recreational Commercial Gear	Allow the RCGL to be used to harvest flounder only during a period of time when the commercial and recreational fisheries are both open
6	6B	Recreational Commercial Gear	Prohibit the use of RCGL to harvest southern flounder



Increased Recreational Access Options

Management Option	Management Strategy	Description
Option 1	Increased Recreational Access	Status quo, do not allow species specific management to increase access to the recreational fishery
Option 2	Increased Recreational Access	One-fish ocellated bag limit from March 1 through April 15 in ocean waters only and one-fish bag limit consisting of any species of flounder during the southern flounder season

Inlet Corridors Options

Management Option	Management Strategy	Description
Option 1	Inlet Corridors	Status quo, do not establish inlet corridors for southern flounder during spawning migrations
Option 2A	Inlet Corridors	Implement inlet corridors affecting all gears in the selected areas
Option 2B	Inlet Corridors	Implement inlet corridors affecting only specific gears in the selected areas

Adaptive Management Options

Management Option	Management Strategy	Description
Option 1	Adaptive Management	Adopt the adaptive management framework based on the peer-reviewed and approved stock assessment
Option 2	Adaptive Management	Do not adopt the adaptive management framework



Slot Limits Options

Management Option	Management sub-option	Management Measure	Description
1		Slot Limit	Status quo, do not implement a slot limit
2	2A	Slot Limit	Implement a 15–16 inch slot limit
2	2B	Slot Limit	Implement a 15–17 inch slot limit
2	2C	Slot Limit	Implement a 15–18 inch slot limit
2	2D	Slot Limit	Implement a 15–19 inch slot limit



Phasing Out Large-Mesh Gill Nets Options

Management Option	Management Measure	Description
1	Phasing Out Large-Mesh Gill Nets	Phase out anchored large-mesh gill nets from the southern flounder fishery at the end of the current ITP
2	Phasing Out Large-Mesh Gill Nets	Status quo, continue to allow anchored large-mesh gill nets to harvest southern flounder in the North Carolina southern flounder fishery



Sustainable Harvest Recreational Bag Limits

Season	Landings (lb)			
	4-Fish Bag Limit	3- Fish Bag Limit	2- Fish Bag Limit	1- Fish Bag Limit
No closure	451,126	428,594	400,502	332,075
Apr 16–Jun 30	109,157	107,657	105,569	100,911
May 1–Jun 30	102,622	102,622	99,249	94,985
Jun 1–Jul 15	110,702	109,102	106,836	102,184
Aug 1–Sep 30	179,895	175,782	171,480	161,015
Aug 16–Sep 30	127,706	125,359	123,267	118,071
July 16–Sep. 30	222,360	216,583	210,150	194,024
June 16–Sep. 15	272,287	263,508	252,502	226,790



Sustainable Harvest

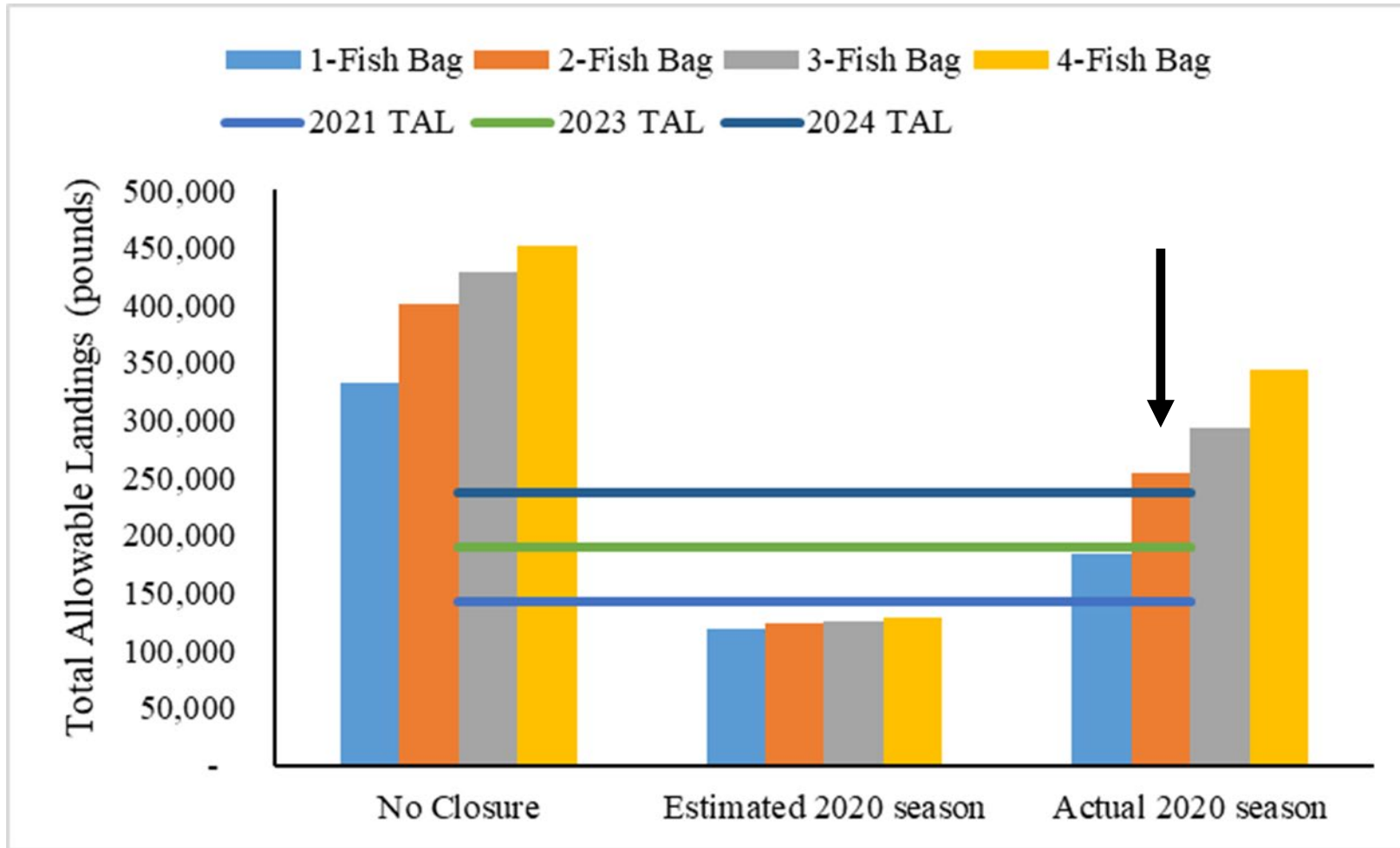
Recreational Bag Limits: Why Reduce Recreational Bag Limit?

Percent Contribution of Bag Limit to Total Harvest

Season	4-Fish Bag Limit	3-Fish Bag Limit	2-Fish Bag Limit	1-Fish Bag Limit
No Season	5%	6%	15%	74%
Aug 1 - Sept 30	2%	2%	6%	90%
Aug 16 - Sept 30	2%	2%	4%	93%
Jun 1 - Jun 30	1%	1%	2%	95%
Apr 1 - June 30	1%	2%	4%	92%
Apr 1 - Sep 30	4%	6%	13%	77%
Mar 1 - Apr 15	0%	0%	0%	100%
Sep 1 – Sep 30	1%	1%	2%	96%
Apr 16 - Jun 30	1%	2%	4%	92%
May 1 - Jun 30	1%	2%	4%	93%
May 16 - Jun 30	1%	2%	3%	94%

Sustainable Harvest

Recreational Bag Limits: Why Reduce Recreational Bag Limit?



Increased Recreational Access

Ocean Only				Ocean and Estuarine				
Ocellated Flounder Season	Bag Limit Ocellated Flounder Season	Estimated Ocellated Flounder Landings	Southern Flounder Landings Early Season	Southern Flounder Season	Bag Limit Southern Flounder Season	Southern Flounder Landings Late Season	Total Southern Flounder Landing	Total Allowable Southern Flounder Landings
None	0	0	0	Aug 16 – Sep 30	1	118,128	118,128	142,206
Mar 1– Apr 15	1	1,025	1,267	Aug 16 – Sep 30	1	118,128	119,395	142,206
Apr 1– June 30	1	23,116	50,159	Aug 16 – Sep 30	1	118,128	168,287	142,206
Apr 1– Sep 30	1	56,009	143,330	Aug 16 – Sep 30	1	74,860	218,190	142,206



Inlet Corridors

Harvest in Inlet Corridors

- New River Estuary Telemetry Study
 - Resident behavior over a long period
 - Rapid movement with onset of spawning migration

50% of migrants left in 5 days
75% of migrants left in 10 days

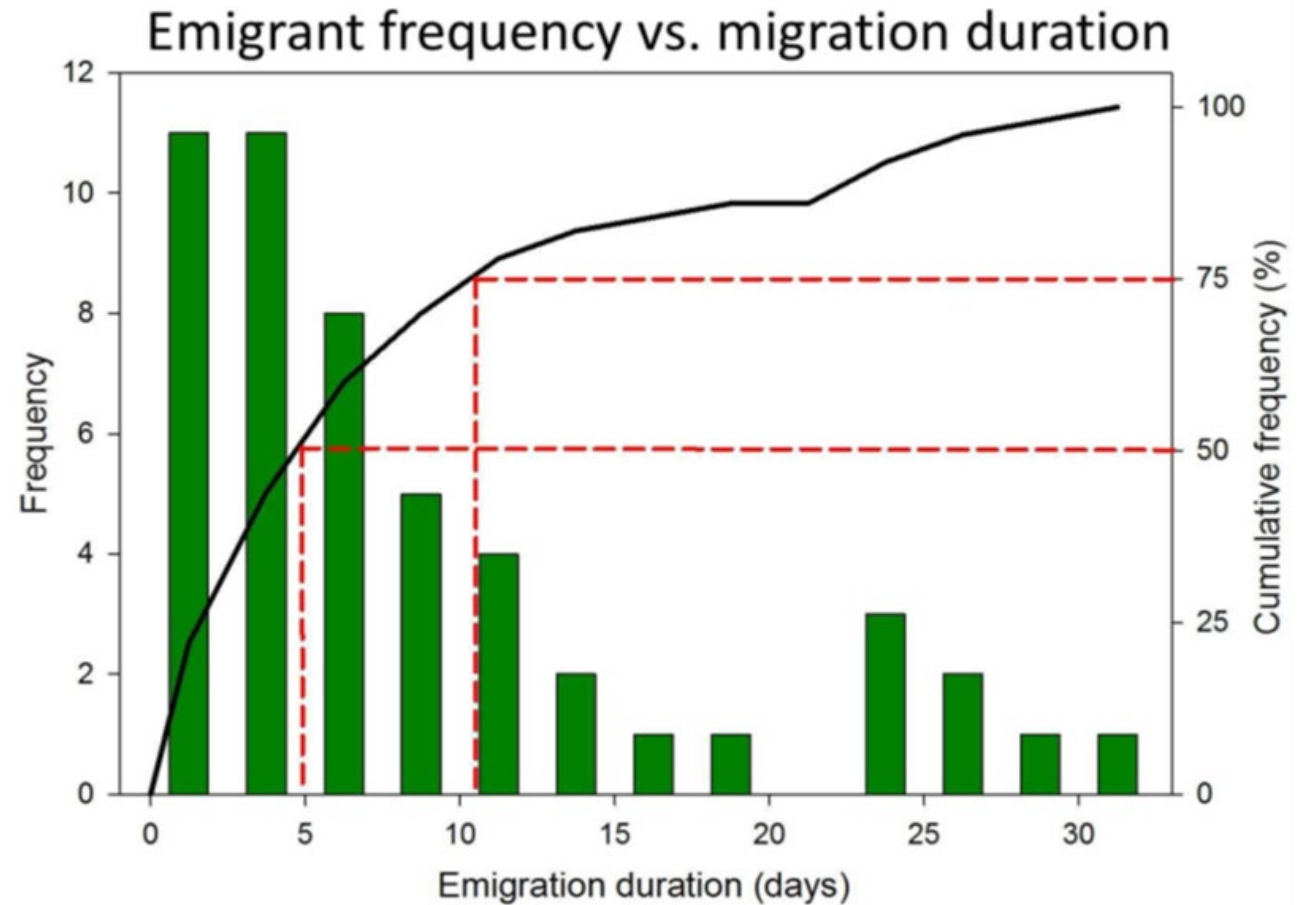
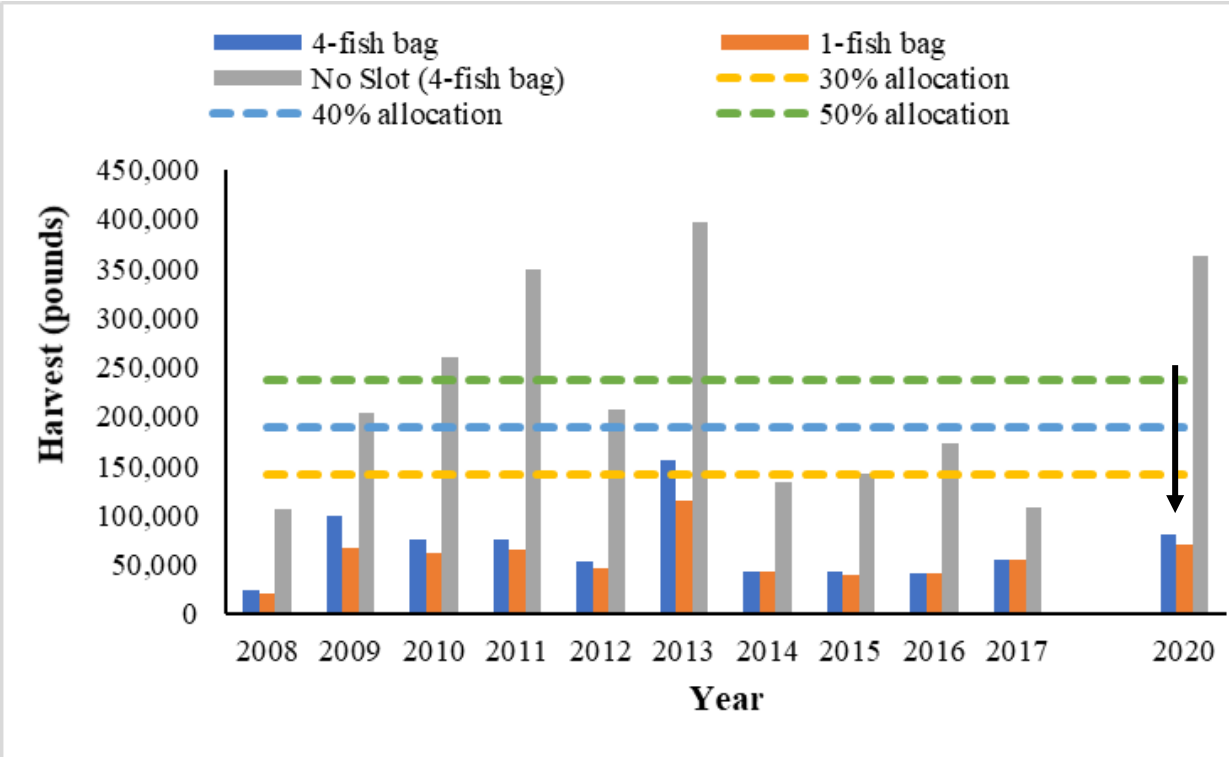


Figure from Scharf et al. 2015

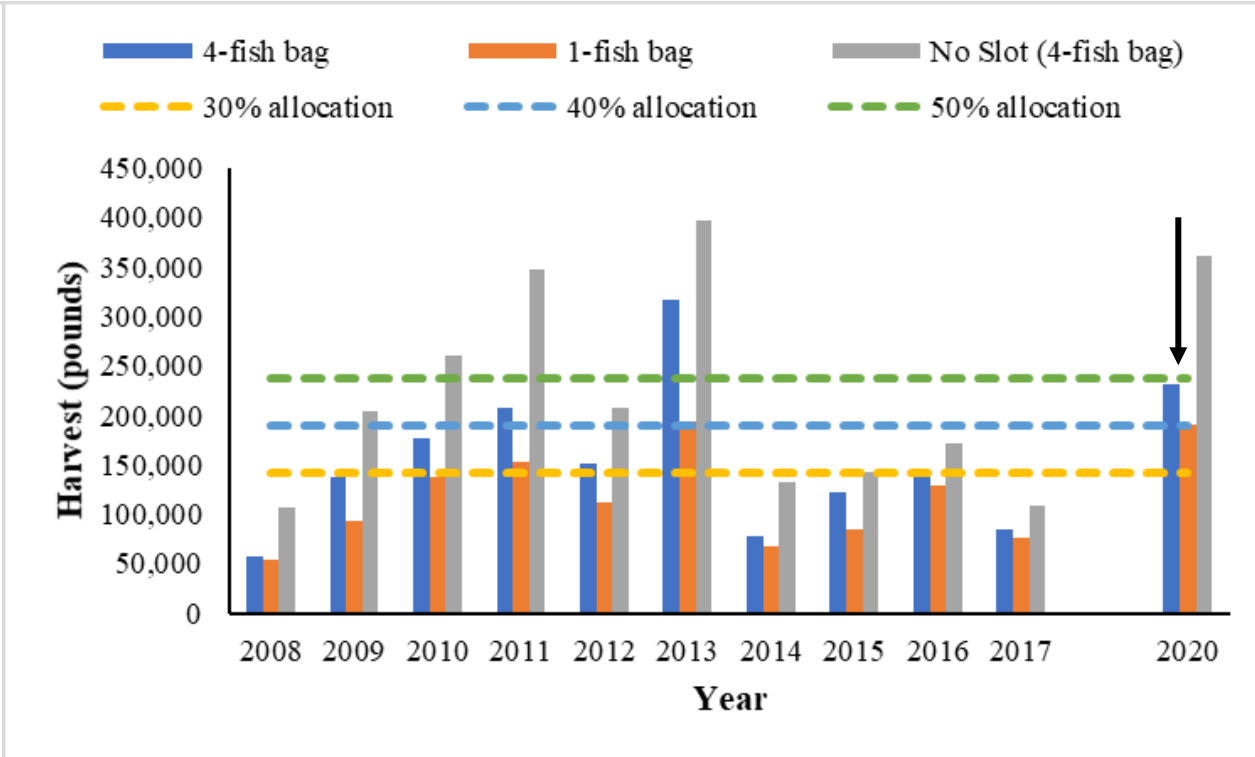
Slot Limits

Recreational Hook-and-Line Data (August. 16 to Sept. 30)

15- to 16-inch (1-inch) slot



15- to 19-inch (4-inch) slot



- Less likely to exceed TAL
- Potentially greatest increase in discards

- More likely to exceed TAL
- Bag limit becomes more important