



# *Southern Flounder Fishery Management Plan*

Draft Amendment 3

*DEPARTMENT OF ENVIRONMENTAL QUALITY*

Marine Fisheries

NC Marine Fisheries Commission

MFC Meeting | Michael S. Loeffler and Anne L. Markwith | February 20, 2020



# Background

## Amendment 2 and Scoping Period



- Southern Flounder FMP Amendment 2 included a requirement to begin development of Amendment 3 to implement more comprehensive, long-term management strategies
- Division held a public scoping period to solicit public input on potential management strategies **before** developing the first draft of Amendment 3



# Background

## Southern Flounder Stock Assessment Recap



- Draft Amendment 3 being developed using terminal year (2017) results and projections from 2019 multi-state stock assessment
- Southern Flounder Multi-state Stock Assessment Determination
  - Overfished and overfishing is occurring
- North Carolina has the largest volume of removals and is the first to take action after completion of the coast-wide stock assessment





- South Carolina data review

<https://sccoastalresources.com/home/2019/12/16/state-of-the-flatfish-flounder-numbers-are-low>

<http://sccoastalresources.com/home/2020/1/15/your-most-frequently-asked-flounder-questions>

- Florida data review

*Status of Flounder Fishery Resources in Florida, Herdter-Smith and Addis 2019*

- Continued meetings with the multi-state work group



# TIMELINE FOR AMENDMENT 3 TO THE SOUTHERN FLOUNDER FMP



DATE	MILESTONES
October 2019	1 Orient AC and Discuss FMP Process Update, Potential Management Strategies, Goal and Objectives, and Scoping Period
Dec 4 – 18, 2019	2 Hold Scoping Period, Including In-Person Meetings, Online Questionnaire, and U.S. Mail
February 2020	3 NCMFC Approve Goal and Objectives; NCDMF Provide Overview of Scoping Period, Solicit NCMFC Input on Potential Management Strategies
January – June 2020	4 Division Develop First Draft of Amendment 3
July – September 2020	5 Division Host Workshop with PDT and AC to Second Draft of Amendment 3
October 2020	6 Division Selects Initial Management Recommendations
November 2020	7 NCMFC Vote to Send Draft Amendment 3 for AC and Public Review
December 2020 – February 2021	8 AC and Public Review of FMP
February 2021	9 NCMFC Select Preferred Management Options
March – April 2021	10 NC DEQ Secretary and Legislature Review Draft Amendment 3
May 2021	11 NCMFC Vote on Final Adoption of Amendment 3* *Assumes rulemaking not required.



## The Scoping Process Serves To:

1. Provide notice to the public that a formal review of the FMP is underway by the division.
2. Inform the public of the stock status of the species (if available)
3. Provide opportunities to solicit public input on the list of potential management strategies identified by the division or identify other relevant strategies for consideration.
4. Recruit potential advisors to serve on the AC for the FMP

## Outcome of Flounder Scoping Period:

- Flounder Scoping Period Dec. 4 – Dec. 18, 2019
- Comments: 36 in-person comments from 105 attendees, 241 online comments, and 9 via U.S. mail
- Comments included recommendations for increases and decreases in minimum size limits, slots limits, bag limit changes, a harvest reporting requirement like the NC Wildlife Resources Commission uses for big game, and gear elimination
- Received a single comment in support of stocking as a potential management strategy
- Several individuals expressed interest in serving on the AC



# Action Item I: Vote on FMP Goal and Objectives



## Goal:

Manage the southern flounder 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 and encourage interjurisdictional management strategies that maintain/restore the southern flounder spawning stock with expansion of age structure of the stock and adequate abundance to prevent overfishing.
- Restore, enhance, and protect habitat and environmental quality necessary to maintain or increase growth, survival, and reproduction of the southern flounder population.
- Use biological, environmental, habitat, fishery, social, and economic data needed to effectively monitor and manage the southern flounder fishery and its ecosystem impacts.
- Promote stewardship of the resource through increased public outreach and interjurisdictional cooperation throughout the species range regarding the status and management of the southern flounder fishery, including practices that minimize bycatch and discard mortality.
- Promote the restoration, enhancement, and protection of habitat and environmental quality in a manner consistent with the Coastal Habitat Protection Plan.





## Potential Southern Flounder FMP Amendment 3 Management Strategies

### Sustainable Harvest

- Quotas with accountability measures
- Seasons
- Trip limits
- Changes to bag limit
- Changes to size limit
- Gear modification
- Development of fishing days

### Species Specific Management

- Separating management of southern flounder, summer flounder and Gulf flounder for recreational fishery
- Simplified species management through ocellated vs. non-ocellated flounder

### Inlet Corridors

- Designating inlet or corridor areas to protect mature female southern flounder during fall migration into the ocean.





# *Action Items and Next Steps*



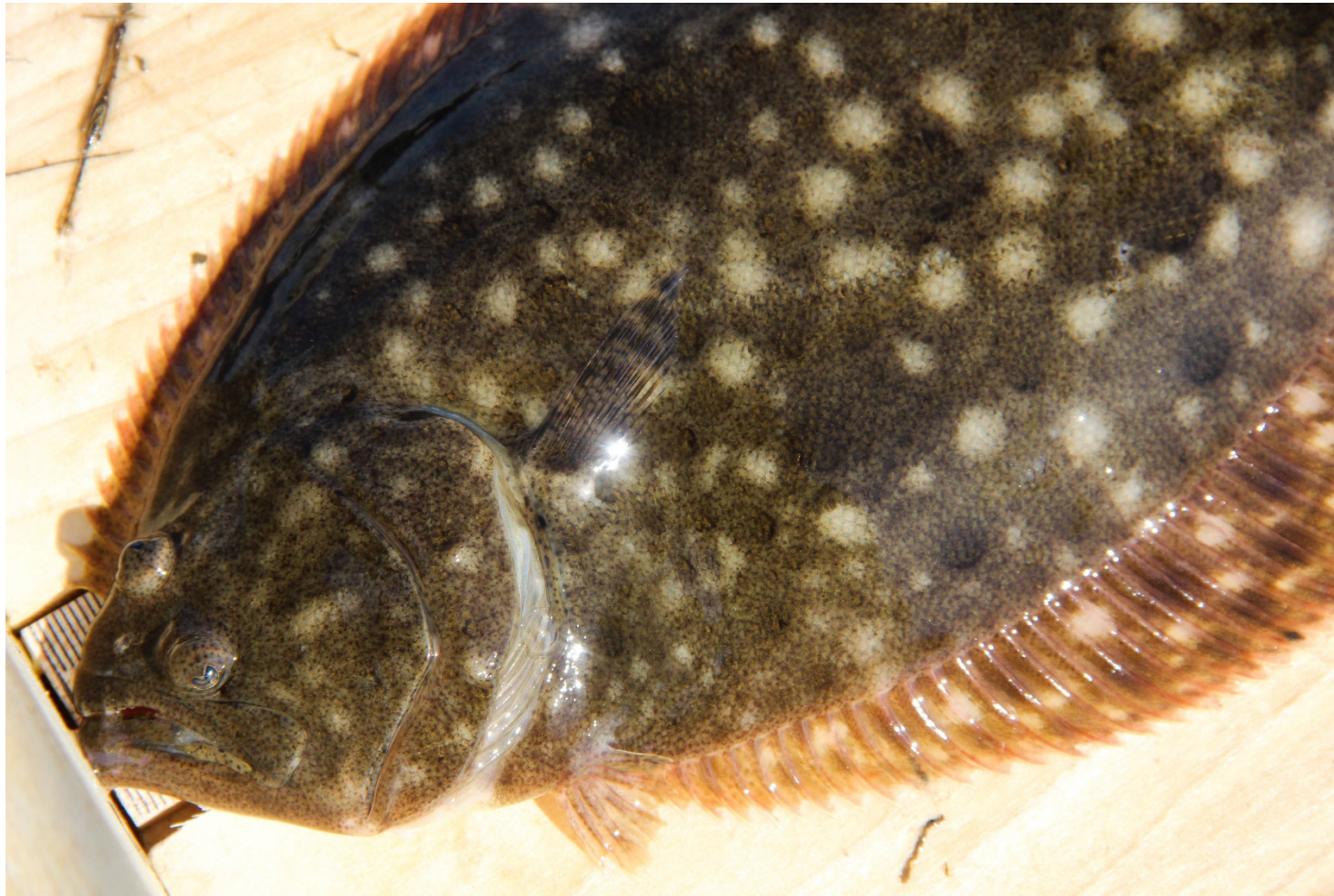
## **Action Items**

- Vote on final approval of draft goal and objectives for Amendment 3
- Provide input on potential management strategies for Amendment 3

## **Next Steps**

- Division develops first draft of Amendment 3
- Division/AC Workshops to develop second draft of Amendment 3
- Draft Amendment 3 to MFC for approval to go out for public and AC review and comment





*Questions?*





### Goal:

Manage the southern flounder 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 and encourage interjurisdictional management strategies that maintain/restore the southern flounder spawning stock with expansion of age structure of the stock and adequate abundance to prevent overfishing.
- Restore, enhance, and protect habitat and environmental quality necessary to maintain or increase growth, survival, and reproduction of the southern flounder population.
- Use biological, environmental, habitat, fishery, social, and economic data needed to effectively monitor and manage the southern flounder fishery and its ecosystem impacts.
- Promote stewardship of the resource through increased public outreach and interjurisdictional cooperation throughout the species range regarding the status and management of the southern flounder fishery, including practices that minimize bycatch and discard mortality.
- Promote the restoration, enhancement, and protection of habitat and environmental quality in a manner consistent with the Coastal Habitat Protection Plan.





## Potential Southern Flounder FMP Amendment 3 Management Strategies

### Sustainable Harvest

- Quotas with accountability measures
- Seasons
- Trip limits
- Changes to bag limit
- Changes to size limit
- Gear modification
- Development of fishing days

### Species Specific Management

- Separating management of southern flounder, summer flounder and Gulf flounder for recreational fishery
- Simplified species management through ocellated vs. non-ocellated flounder

### Inlet Corridors

- Designating inlet or corridor areas to protect mature female southern flounder during fall migration into the ocean.





## *Southern Flounder*

Satellite Tagging and Multi State Research

*DEPARTMENT OF ENVIRONMENTAL QUALITY*

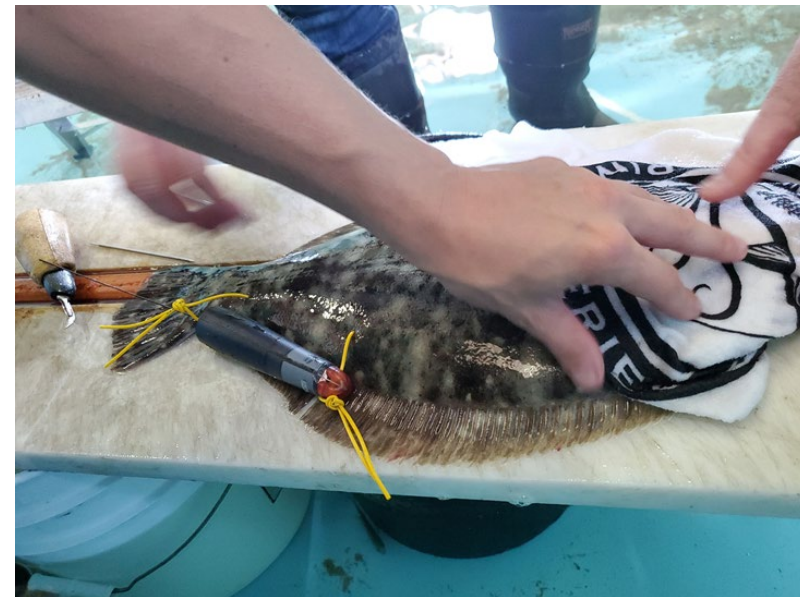
Marine Fisheries

MFC Meeting | Michael S. Loeffler and Anne L. Markwith | February 20, 2020



## *Trial 1: Edenton National Fish Hatchery*

- September 2019, 30 southern flounder collected from the Pasquotank River by division staff using a large-mesh gill net
- Five flounder tagged after 1-week survival; spaghetti tag method
- High mortality, including three tagged fish, by the end of the month



## *Trial 1: Edenton National Fish Hatchery*

- October 2019, 20 southern flounder were transferred to the hatchery through collaboration with a pound net fisherman in Croatan Sound
- Four additional fish tagged after 1-week survival; one with spaghetti tag method, three with stainless anchor method
- Continued high mortality
  - Unknown cause
- Decision to move trials to UNCW Center for Marine Science



## *Trial 2: UNCW Center for Marine Science*



- November 2019, collaborated with pound net fisherman from Core Sound and transferred 23 southern flounder to the UNCW-CMS
- Ten flounder were tagged after two weeks; 5 of each tag methodology
- Nine mortalities so overall, only one tagged fish
  - Additional tagged fish remain alive with tags intact





## *Trial 2: UNCW Center for Marine Science*



- Fish are healthy and feeding
- Spaghetti tag wounds are healing well
- Potential concern over some of the internal anchor tag wounds
- Addition of structure in tanks to further mimic natural conditions



## *Multi-State Progress*

- Next scheduled meeting is February 24, 2020
- Research opportunities across the species range
  - North Carolina shared a statement of work outlining currently funded research
  - Finalizing methodology for maturity study this fall
  - Identifying ways to collect fish for satellite tagging efforts in other states for 2021
- Continued discussions on management strategies between the states





*Questions?*

