

Atlantic States Marine Fisheries Commission

Winter Flounder Management Board

*February 6, 2018
2:15 – 4:15 p.m.
Arlington, Virginia*

Draft Agenda

The times listed are approximate; the order in which these items will be taken is subject to change; other items may be added as necessary.

- | | |
|--|-----------|
| 1. Welcome/Call to Order (<i>R. Beal</i>) | 2:15 p.m. |
| 2. Board Consent | 2:15 p.m. |
| • Approval of Agenda | |
| • Approval of Proceedings from January 2017 | |
| 3. Public Comment | 2:20 p.m. |
| 4. Elect Chair and Vice-Chair (<i>R. Beal</i>) Action | 2:30 p.m. |
| 5. Review 2017 Groundfish Operational Stock Assessment for Gulf of Maine and Southern New England/Mid-Atlantic Winter Flounder Stocks (<i>P. Nitschke</i>) | 2:35 p.m. |
| 6. Discuss Potential Management Response to Operational Assessment
Possible Action | 3:35 p.m. |
| 7. Consider Specifications for the 2018 Fishing Year (<i>M. Ware</i>) Final Action | 3:50 p.m. |
| 8. Consider Approval of 2017 FMP Review and State Compliance Reports (<i>M. Ware</i>) Action | 4:05 p.m. |
| 9. Repopulate the Winter Flounder Advisory Panel (<i>M. Ware</i>) | 4:10 p.m. |
| 10. Other Business/Adjourn | 4:15 p.m. |

The meeting will be held at the Westin Crystal City, 1800 Jefferson Davis Highway Arlington, Virginia; 703.486.1111

MEETING OVERVIEW

Winter Flounder Management Board

February 6, 2018

2:15-4:15 p.m.

Arlington, Virginia

Chair: Vacant	Technical Committee Chair: Paul Nitschke (NEFSC)	LEC Representative: Kurt Blanchard
Vice Chair: Vacant	Advisory Panel Chair: Bud Brown	Previous Board Meeting: January 31, 2017
Voting Members: ME, NH, MA, RI, CT, NY, NJ, NMFS, USFWS (9 votes)		

2. Board Consent

- Approval of Agenda
- Approval of Proceedings from January 2017

3. Public Comment – At the beginning of the meeting public comment will be taken on items not on the Agenda. Individuals that wish to speak at this time must sign in at the beginning of the meeting. For agenda items that have already gone out for public hearing and/or have had a public comment period that has closed, the Board Chair may determine that additional public comment will not provide additional information. In this circumstance the Chair will not allow additional public comment on an issue. For agenda items that the public has not had a chance to provide input, the Board Chair may allow limited opportunity for comment. The Board Chair has the discretion to limit the number of speakers and/or the length of each comment.

4. Elect Chair and Vice-Chair (2:30-2:35 p.m.) Action

- Mark Gibson's chairmanship ended in May 2017
- Both the Chair and Vice-Chair seats are vacant

Board Actions for Consideration at this Meeting

- Elect Chair and Vice-Chair

5. Review the Groundfish Assessment for Gulf of Maine and Southern New England Stocks (2:35 – 3:35 p.m.)

- The Northeast Fisheries Science Center conducted an operational stock assessment through 2016. **(Briefing Materials)**
- Gulf of Maine: stock biomass unknown; overfishing is not occurring
- Southern New England; overfished; overfishing is not occurring

Presentation

- Winter Flounder Operational Assessment by P. Nitschke

6. Discuss Potential Management Response to the Operational Assessment (3:35 – 3:50 p.m.) Potential Action

- After reviewing the stock assessments, the Board may consider management responses

Presentation

- Discussion facilitated by Board Chair

Board Actions for Consideration at this Meeting

- Consider Board response to results of operational stock assessment

7. Consider Specifications for the 2018 Fishing Year (3:50 – 4:05 p.m.) Final Action

- The state waters sub-components (in metric tons) for the GOM and SNE/MA stocks have changed for the 2018 fishing year, with a significant reduction in the state sub-component for the GOM stock.
- For the 2018 fishing year, the Board can adjust the following management measures:
 - Recreational (size limit, bag limit, season)
 - Commercial (size limit, season, trip limit, trigger trip limit, and area closures)
- Briefing document on current specifications is in **Briefing Materials**

Presentation

- Winter Flounder specification overview by M. Ware

Board Actions for Consideration at this Meeting

- Consider specifications for 2018 fishing year

8. Fishery Management Plan Review (4:05 – 4:10 p.m.) Action

- State compliance reports were due on December 1, 2017
- The Plan Review Team compiled the annual FMP Review based on state compliance reports. (**Briefing Materials**)

Presentation

- Overview of the FMP Review by M. Ware

Board Actions for Consideration at this Meeting

- Accept 2018 FMP Review and State Compliance Reports

9. AP Committee Membership (4:10 – 4:15 p.m.)

- Winter flounder AP committee membership has not been updated recently and attendance on conference calls has been low
- States are asked to review their committee membership and nominate a new AP member if the position is vacant or the current member is not actively participating

Presentation

- Overview of the AP membership by M. Ware (**Briefing Materials**)

10. Other Business/Adjourn

Winter Flounder Technical Committee Task List

Activity Level: Low

Committee Overlap Score: Low

Committee Task List

- There are no on-going tasks for the Winter Flounder TC
- Annual state compliance reports are due December 1

TC Members

Paul Nitschke (NEFSC – Chair), Tony Wood (NEFSC), Dr. Robert Pomeroy (UCONN), Sally Sherman (ME DMR), Greg Decelles (MA DMF), Rebecca Heuss (NHFG), Linda Barry (NJ DFW), Paul Nunnenkamp (NYS DEC), John Maniscalco (NYS DEC), John Lake (RI DFW)

**DRAFT PROCEEDINGS OF THE
ATLANTIC STATES MARINE FISHERIES COMMISSION
WINTER FLOUNDER MANAGEMENT BOARD**

The Westin Alexandria
Alexandria, Virginia
January 31, 2017

These minutes are draft and subject to approval by the Winter Flounder Management Board.
The Board will review the minutes during its next meeting.

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1. **Approval of agenda** by consent (Page 1).
2. **Motion to adjourn** by consent (Page 3).

ATTENDANCE

Board Members

Terry Stockwell, ME, proxy for P. Keliher (AA)	Mark Alexander, CT (AA)
Steve Train, ME (GA)	Lance Stewart, CT (GA)
Doug Grout, NH (AA)	Rep. Melissa Ziobron, CT proxy for Sen. Miner (LA)
G. Ritchie White, NH (GA)	Jim Gilmore, NY (AA)
Dennis Abbott, NH, proxy for Sen. Watters (LA)	John McMurray, NY, proxy for Sen. Boyle (LA)
Raymond Kane, MA (GA)	Emerson Hasbrouck, NY (GA)
Sarah Ferrara, MA, proxy for Rep. Peake (LA)	Tom Baum, NJ, proxy for D. Chanda (AA)
David Pierce, MA (AA)	Adam Nowalsky, NJ, proxy for Asm. Andrzejczak (LA)
Mark Gibson, RI, proxy for J. Coit (AA)	Craig Pugh, DE, proxy for Rep. Carson (LA)
David Borden, RI (GA)	Alison Murphy, NMFS
Eric Reid, RI, proxy for Sen. Sosnowski (LA)	Sherry White, USFWS

(AA = Administrative Appointee; GA = Governor Appointee; LA = Legislative Appointee)

Ex-Officio Members

Staff

Robert Beal
Toni Kerns

Ashton Harp

Guests

Mike Luisi, MD DNR
Chip Lynch, NOAA
Peter Burns, NMFS
Aaron Kornbluth, Pew Trusts

Zack Greenberg, Pew Trusts
Wilson Laney, USFWS
Arnold Leo, E. Hampton, NY

The Winter Flounder Management Board of the Atlantic States Marine Fisheries Commission convened in the Edison Ballroom of the Westin Hotel, Alexandria, Virginia, January 31, 2017, and was called to order at 12:34 o'clock p.m. by Chairman Mark Gibson.

CALL TO ORDER

CHAIRMAN MARK GIBSON: I am going to call the Winter Flounder Board into session. My name is Mark Gibson; from Rhode Island Division of Fish and Wildlife, and I am the current Board Chair. We have a relatively brief agenda today, so hopefully we can plow through that and carve out some extra time for lobster and Jonah crab.

APPROVAL OF AGENDA

CHAIRMAN GIBSON: The first item on the agenda is the agenda itself. I'll ask if there is anyone from the Board who wishes to make alterations or additions to the agenda. Seeing none; are there any objections to approving the agenda as presented? Seeing none; the agenda stands approved by consent.

APPROVAL OF PROCEEDINGS

CHAIRMAN GIBSON: The next item is the proceedings from the February, 2016 Board.

Is there any Board members wishing to offer edits or modifications to the proceedings? Is there any objection to accepting those proceedings as presented? Seeing none; those are accepted by consent.

CHAIRMAN GIBSON: The next item is public comment. No one has signed up for public comment. I'll offer the opportunity for anyone in the public to make comments to this Board to items not on the agenda.

CONSIDER SPECIFICATIONS FOR THE 2017 FISHING YEAR

CHAIRMAN GIBSON: Seeing none; we can move right into Item 4, which is the opportunity for

the Board to address Specifications for the 2017 Fishing Year, which begins May 1st.

The Board under the FMP's addendum can make changes to those specifications by Board action if they choose to do so. I'm not aware of anyone expressing an interest to do that. We'll have a presentation from Ashton on where things stand with the New England Council state waters sub-ACLs and so on.

MS. ASHTON HARP: This is a very quick presentation on the current winter flounder specifications and what the Board can change moving forward for the 2017 fishing year. Just as a review. The Board can adjust for recreational measures the size limit, bag limit and season. For commercial measures the Board can adjust the size limit, season, trip limit, trigger trip limit, and area closures.

The 2016 recreational measures for the Gulf of Maine were eight fish 12 inches, and there was not a specific season that was set; it was just year round. The Southern New England/Mid-Atlantic winter flounder recreational measures were two fish 12 inches and the season was March 1st through December 31st.

For the commercial measures the size limit remains 12 inches. There are some closures and then for the Gulf of Maine there is a maximum of 500 pounds per trip per day. For the Southern New England stock it is a maximum of 50 pounds per trip per day; which is really intended to be just bycatch of winter flounder. When you kind of stack these up against how the regulations have changed year over year, they haven't really. The measures I just showed you for 2016 have all been in place in its entirety since 2014, and some of these measures go back to even 2005.

Anything in blue is implemented in 2005 via Amendment 1, and yellow is in 2009 implementation. Green is 2012 implementation, and then in red was implemented in February of 2014. The main things about the current management measures, as Mark alluded to the New

England Fisheries Management Council did kind of discuss changes to the state subcomponents.

Those were suggested to the Council and the Council decided that they wanted to keep the status quo state subcomponents, so they are the same as they were last year, the same as when we made 2016 specifications. They stand up for Gulf of Maine winter flounder, the state subcomponent is 122 metric tons; and for Southern New England/Mid-Atlantic winter flounder the state subcomponent is 70 metric tons.

I did not prepare a slide specifically for that but this is in the briefing document that was submitted in briefing materials; so it's in a Word document and it is on the very first page, there is Table 1. With that I would take questions on any of the current management measures or any questions on the state subcomponent as they are now.

CHAIRMAN GIBSON: Questions for Ashton? Seeing none; my question is, and I can't remember for either Ashton or my Council colleagues. I believe we have a set of operational assessment updates for all the groundfish stocks coming, probably being worked on maybe as we speak; or the working groups are getting organized.

If that is correct, it would seem we would have a stronger informational basis after those reports are received a year from now, in terms of considering changes to our state waters acidification. Terry is that the right schedule, we're going to see results of those in the fall this year and specifications for 2018? Thank you. With that is there anyone wishing to discuss specifications for the 2017 fishing year? Are there any motions to make adjustments? Yes, Doug Grout.

MR. DOUGLAS E. GROUT: No motions, Mr. Chair, but I did want to make a comment that since we're going to be having an operational assessment and the Council will be setting

three-year specifications next year. It might be worth this Board considering, or at least the possibility of setting multiyear specifications; since we really haven't been changing our specifications.

Rather than having to come have this meeting just for the purpose of affirming that we don't want to make any changes; that there is some mechanism that we can put in play that we would set multiyear specifications. It might make us a little more efficient. It doesn't mean we couldn't come back if something drastic happens in between; but just a thought to throw into the heads of the Board.

CHAIRMAN GIBSON: Ashton, could you comment on whether our current addendum allows for that or do we need to initiate an action to allow for that?

MS. HARP: All I was going to say, and Toni might follow up, is that just in Addendum III it allows the Board to make the specifications through Board action. Usually they have to be done by an addendum, a new addendum; so I don't think it would preclude the fact that they could be three-year specifications.

MS. TONI KERNS: I need to double check the language in the document if we have multiple year specifications in there or not. I don't remember off the top of my head. I can get back to you, two seconds.

CHAIRMAN GIBSON: Are you okay with that Doug, we'll look into it and we don't need an answer today, we could consider it next time around. It seems to make some sense and we can check on what allowance we have or if we need to make some adjustments to allow for that. Anything else from the Board? David Borden.

MR. DAVID V. D. BORDEN: Just a comment that I hope that when we get the new specifications that the Commission can make more of an effort to try to align the state and federal regulations. Right now there is a major disconnect; and I just don't think the arrangement is working in the best

interest of the stock. I hope we take that up next year.

CHAIRMAN GIBSON: Is anyone else wishing to comment, yes, Toni.

MS. KERNS: My two seconds are up. You have the ability to do three-year specifications.

CHAIRMAN GIBSON: We have that ability currently, okay that's good to know. Where we are right now is the specification will remain intact for the next groundfish fishing year being May 1st, 2017. We'll receive operational assessment updates later this year. A year from now we'll be in a position to contemplate changes including fixing them for a longer period than one year.

ADJOURNMENT

CHAIRMAN GIBSON: That is where we're at, anything else from the Board on specifications or anything on winter flounder in general? Seeing none; I think our business is concluded. Is there a motion to adjourn? Moved and seconded by everybody. We stand adjourned.

(Whereupon, the meeting was adjourned at 12:43 o'clock p.m., January 31, 2017.)

19 Gulf of Maine winter flounder

Paul Nitschke

*This assessment of the Gulf of Maine winter flounder (*Pseudopleuronectes americanus*) stock is an operational assessment of the existing 2015 operational assessment area-swept assessment (NEFSC 2015). Based on the previous assessment the biomass status is unknown but overfishing was not occurring. This assessment updates commercial and recreational fishery catch data, research survey indices of abundance, and the area-swept estimates of 30+ cm biomass based on the fall NEFSC, MDMF, and MENH surveys.*

State of Stock: Based on this updated assessment, the Gulf of Maine winter flounder (*Pseudopleuronectes americanus*) stock biomass status is unknown and overfishing is not occurring (Figures 90-91). Retrospective adjustments were not made to the model results. Biomass (30+ cm mt) in 2016 was estimated to be 2,585 mt (Figure 90). The 2016 30+ cm exploitation rate was estimated to be 0.086 which is 37% of the overfishing exploitation threshold proxy (E_{MSY} proxy = 0.23; Figure 91).

Table 54: Catch and status table for Gulf of Maine winter flounder. All weights are in (mt) and E_{Full} is the exploitation rate on 30+ cm fish. Biomass is estimated from survey area-swept for non-overlapping strata from three different fall surveys (MENH, MDMF, NEFSC) using an updated q estimate of 0.87 on the wing spread from the sweep study (Miller et al., 2017).

	2011	2012	2013	2014	2015	2016
	<i>Data</i>					
Recreational discards	4	1	1	2	1	6
Recreational landings	38	22	29	55	27	24
Commercial discards	4	10	6	5	2	3
Commercial landings	173	348	218	213	186	188
Catch for Assessment	219	381	254	275	217	221
	<i>Model Results</i>					
30+ cm Biomass	4,618	2,312	2,032	3,225	2,307	2,585
E_{Full}	0.047	0.165	0.125	0.085	0.094	0.086

Table 55: Comparison of reference points estimated in an earlier assessment and from the current assessment update. An $E_{40\%}$ exploitation rate proxy was used for the overfishing threshold and was based on a length based yield per recruit model from the 2011 SARC 52 benchmark assessment.

	2015	2017
E_{MSY} proxy	0.23	0.23
B_{MSY}	Unknown	Unknown
MSY (mt)	Unknown	Unknown
Overfishing	No	No
Overfished	Unknown	Unknown

Projections: Projections are not possible with area-swept based assessments. Catch advice was based on 75% of $E_{40\%}$ (75% E_{MSY} proxy) using the fall area-swept estimate assuming $q=0.87$ on the wing spread which was updated using the average efficiency from 2009-2016 from the sweep experiment (Miller et al., 2017). Updated 2016 fall 30+ cm area-swept biomass (2,585 mt) implies an OFL of 595 mt based on the E_{MSY} proxy and a catch of 446 mt for 75% of the E_{MSY} proxy.

Special Comments:

- What are the most important sources of uncertainty in this stock assessment? Explain, and describe qualitatively how they affect the assessment results (such as estimates of biomass, F, recruitment, and population projections).
The largest source of uncertainty with the direct estimates of stock biomass from survey area-swept estimates originates from the survey gear catchability (q). Biomass and exploitation rate estimates are sensitive to the survey q assumption. However this 2017 update does incorporate the use of an estimated q through an average estimate of efficiency from 2009-2016 ($q=0.87$) from the sweep study for the NEFSC survey. This updated q assumption (0.87) results in a lower estimate of 30+ biomass (2,585 mt) relative to the original $q=0.6$ assumption (3,731 mt) from the fall surveys. Another major source of uncertainty with this method is that biomass based reference points cannot be determined and overfished status is unknown.
- Does this assessment model have a retrospective pattern? If so, is the pattern minor, or major? (A major retrospective pattern occurs when the adjusted SSB or F_{Full} lies outside of the approximate joint confidence region for SSB and F_{Full} ; see Table 8).
The model used to determine status of this stock does not allow estimation of a retrospective pattern. An analytical stock assessment model does not exist for Gulf of Maine winter flounder. An analytical model was no longer used for stock status determination at SARC 52 (2011) due to concerns with a strong retrospective pattern. Models have difficulty with the apparent lack of a relationship between a large decrease in the catch with little change in the indices and age and/or size structure over time.
- Based on this stock assessment, are population projections well determined or uncertain? If this stock is in a rebuilding plan, how do the projections compare to the rebuilding schedule?
Population projections for Gulf of Maine winter flounder do not exist for area-swept assessments and stock biomass status is unknown. Catch advice from area-swept estimates tend to vary with interannual variability in the surveys. Stabilizing the catch advice may also be desired and could be obtained through the averaging of the area-swept fall and spring survey estimates or through the use of a moving average across years.
- Describe any changes that were made to the current stock assessment, beyond incorporating additional years of data and the effect these changes had on the assessment and stock status.
The assumption on q changed from 0.6 to 0.87 using information from the sweep experiment (Miller et al., 2017) and incorporation of new survey data were made to this Gulf of Maine winter flounder assessment update.

- If the stock status has changed a lot since the previous assessment, explain why this occurred.

The overfishing status of Gulf of Maine winter flounder has not changed.

- Provide qualitative statements describing the condition of the stock that relate to stock status.

The Gulf of Maine winter flounder has relatively flat survey indices with little change in the size structure over time. There have been large declines in the commercial and recreational removals since the 1980s. However, this large decline over the time series does not appear to have resulted in a response in the stock's size structure within the catch and surveys nor has it resulted in a change in the survey indices of abundance.

- Indicate what data or studies are currently lacking and which would be needed most to improve this stock assessment in the future.

Direct area-swept assessments could be improved with additional studies on federal and state survey gear efficiency. Quantifying the degree of herding between the doors and escapement under the footrope and/or above the headrope for state surveys is needed to improve the area-swept biomass estimates. Studies quantifying winter flounder abundance and distribution among habitat types and within estuaries could improve the biomass estimate.

- Are there other important issues?

The general lack of a response in survey indices and age/size structure are the primary sources of concern with catches remaining far below the overfishing level.

19.1 Reviewer Comments: Gulf of Maine winter flounder

Assessment Recommendation:

The panel concluded that the operational assessment was acceptable as a scientific basis for management advice, including the decision to use a revised average catchability estimate from the recent cooperative research project on fall survey catchability.

Alternative Assessment Approach:

Not applicable

Status Recommendation:

Based on this operational assessment, the panel supports the conclusion that the Gulf of Maine winter flounder stock biomass status is unknown and overfishing is not occurring. The Gulf of Maine winter flounder has relatively flat survey indices with little change in the size structure over time. There have been large declines in the commercial and recreational removals since the 1980s. However, this large decline over the time series does not appear to have resulted in a response in the stock's size structure within the catch and surveys nor has it resulted in a change in the survey indices of abundance.

Key Sources of Uncertainty:

The largest source of uncertainty concerns the direct estimates of stock biomass from survey area-swept estimates originating from the survey gear catchability (q), in part due to small sample sizes and application to different gear types and other surveys. Another major source of uncertainty with this method is that biomass based reference points cannot be determined and overfished status is unknown. The general lack of a response in survey indices and age/size structure are the primary sources of concern with catches remaining far below the overfishing level.

Research Needs:

The panel recommends additional studies on federal and state survey gear efficiency. Quantifying the degree of herding between the doors and escapement under the footrope and/or above the headrope for state surveys is also warranted. Studies quantifying winter flounder abundance and distribution among habitat types and within estuaries could improve biomass estimates. The panel further recommends consideration of including additional surveys (e.g., spring trawl survey). Finally, a moving average approach to estimating catch advice (rather than based on a single year) should be considered to stabilize catch advice.

References:

Northeast Fisheries Science Center. 2015. Operational Assessment of 20 Northeast Groundfish Stocks, Updated Through 2014. US Dept Commer, Northeast Fish Sci Cent Ref Doc. 15-24; Commer, Northeast Fish Sci Cent Ref Doc. 15-01; 251 p. Available from: National Marine Fisheries Service, 166 Water Street, Woods Hole, MA 02543-1026. [CRD15-24](#)

Northeast Fisheries Science Center. 2011. 52nd Northeast Regional Stock Assessment Workshop (52nd SAW) Assessment Report. US Dept Commer, Northeast Fish Sci Cent Ref Doc. 11-17; 962 p. Available from: National Marine Fisheries Service, 166 Water Street, Woods Hole, MA 02543-1026. [CRD11-17](#)

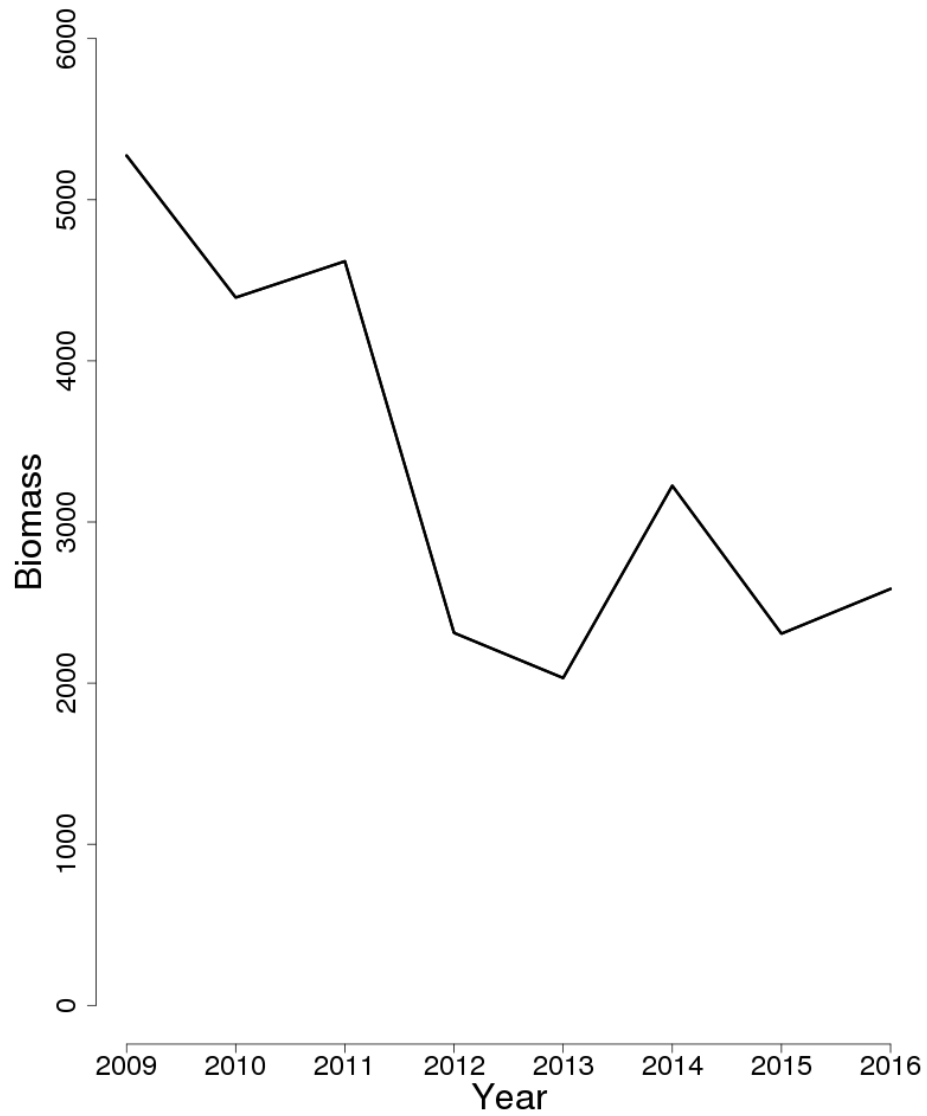


Figure 90: Trends in 30+ cm area-swept biomass of Gulf of Maine winter flounder between 2009 and 2016 from the current assessment based on the fall (MENH, MDMF, NEFSC) surveys.

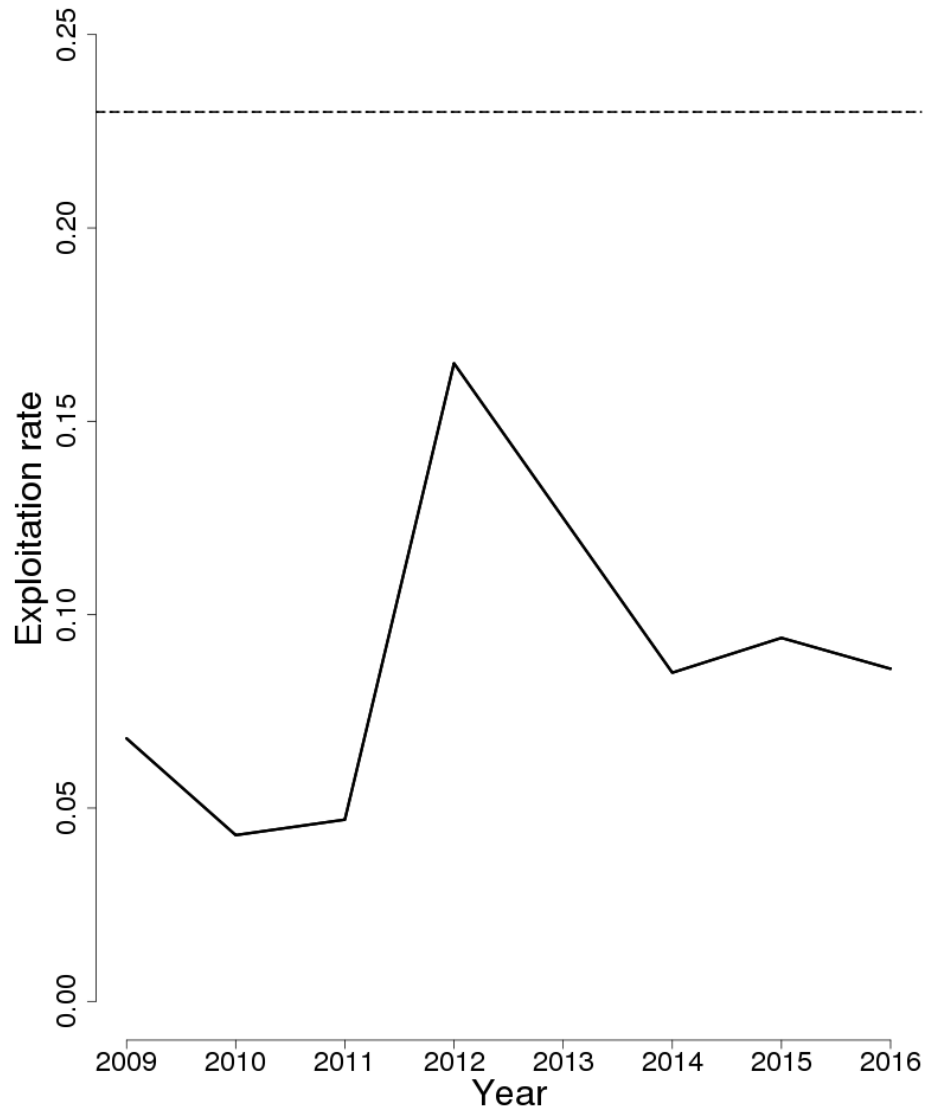


Figure 91: Trends in the exploitation rates (E_{Full}) of Gulf of Maine winter flounder between 2009 and 2016 from the current assessment and the corresponding $F_{Threshold}$ (E_{MSY} proxy=0.23; horizontal dashed line).

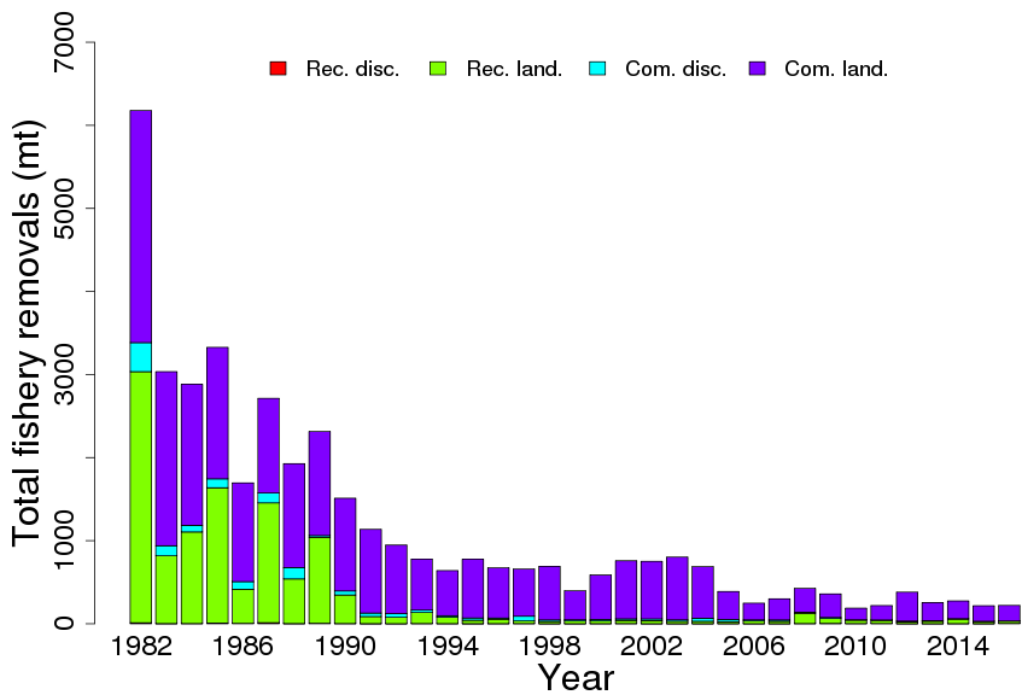


Figure 92: Total catch of Gulf of Maine winter flounder between 2009 and 2016 by fleet (commercial and recreational) and disposition (landings and discards). A 15% mortality rate is assumed on recreational discards and a 50% mortality rate on commercial discards.

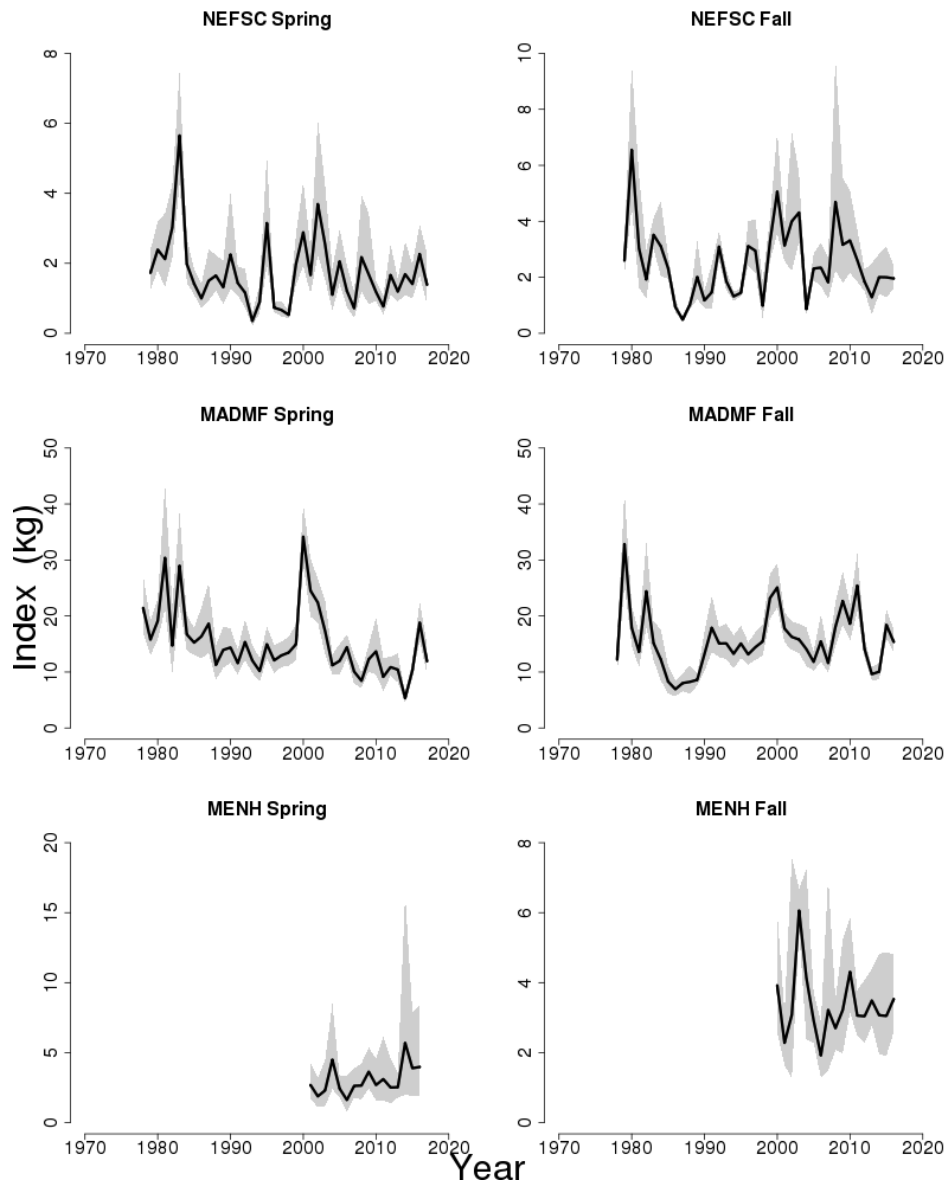


Figure 93: Indices of biomass for the Gulf of Maine winter flounder between 1978 and 2017 for the Northeast Fisheries Science Center (NEFSC), Massachusetts Division of Marine Fisheries (MDMF), and the Maine New Hampshire (MENH) spring and fall bottom trawl surveys. NEFSC indices are calculated with gear and vessel conversion factors where appropriate. The approximate 90% lognormal confidence intervals are shown.

9 Southern New England Mid-Atlantic winter flounder

Anthony Wood

*This assessment of the Southern New England Mid-Atlantic winter flounder (*Pseudopleuronectes americanus*) stock is an operational assessment of the existing 2011 benchmark assessment (NEFSC 2011). This assessment follows a previous operational update in 2015 where the stock was overfished, but overfishing was not occurring (NEFSC 2015). This assessment updates commercial fishery catch data, recreational fishery catch data, and research survey indices of abundance, and the analytical ASAP assessment models and reference points through 2016. Additionally, stock projections have been updated through 2020.*

State of Stock: Based on this updated assessment, the Southern New England Mid-Atlantic winter flounder (*Pseudopleuronectes americanus*) stock is overfished but overfishing is not occurring (Figures 44-45). Retrospective adjustments were not made to the model results. Spawning stock biomass (SSB) in 2016 was estimated to be 4,360 (mt) which is 18% of the biomass target (24,687 mt), and 36% of the biomass threshold for an overfished stock ($SSB_{Threshold} = 12343.5$ (mt); Figure 44). The 2016 fully selected fishing mortality was estimated to be 0.21 which is 62% of the overfishing threshold ($F_{MSY} = 0.34$; Figure 45).

Table 29: Catch and status table for Southern New England Mid-Atlantic winter flounder. All weights are in (mt), recruitment is in (000s), and F_{Full} is the fishing mortality on fully selected ages (ages 4 and 5). Model results are from the current updated ASAP assessment.

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
<i>Data</i>										
Recreational discards	5	3	9	8	18	2	4	1	2	2
Recreational landings	116	73	87	28	65	31	7	30	10	33
Commercial discards	118	109	165	153	298	483	206	64	82	124
Commercial landings	1,628	1,113	271	174	150	134	857	658	655	519
Catch for Assessment	1,867	1,298	532	363	531	650	1,074	753	749	678
<i>Model Results</i>										
Spawning Stock Biomass	6,710	5,801	5,178	5,878	6,932	6,964	6,763	5,661	5,090	4,360
F_{Full}	0.36	0.28	0.12	0.07	0.1	0.12	0.21	0.19	0.2	0.21
Recruits (age 1)	6,157	9,140	7,075	6,532	4,873	4,464	2,390	4,102	5,742	7,549

Table 30: Comparison of reference points estimated in the 2015 operational assessment and from the current assessment update. F_{MSY} was generated assuming a Beverton-Holt S-R relationship and an SSB_{MSY} proxy was used for the overfished threshold and was based on long-term stochastic projections. Recruitment estimates are median values of the time-series. 90% CI are shown in parentheses.

	2011	2017
F_{MSY}	0.325	0.34
SSB_{MSY} (mt)	26,928	24,687 (16,919 - 36,693)
MSY (mt)	7,831	7,532 (4,991 - 11,570)
Median recruits (age 1) (000s)	16,448	15,802
<i>Overfishing</i>	No	No
<i>Overfished</i>	Yes	Yes

Projections: Short term projections of biomass were derived by sampling from a cumulative distribution function of recruitment estimates assuming a Beverton-Holt stock recruitment relationship. The annual fishery selectivity, maturity ogive, and mean weights at age used in the projection are the most recent 5 year averages; The model exhibited a minor retrospective pattern in F and SSB so no retrospective adjustments were applied in the projections.

Table 31: Short term projections of total fishery catch and spawning stock biomass for Southern New England Mid-Atlantic winter flounder based on a harvest scenario of fishing at F_{MSY} between 2018 and 2020. Catch in 2017 was assumed to be 625 (mt), a value provided by GARFO (Dan Caless pers. comm.). 90% CI are shown next to SSB estimates.

Year	Catch (mt)	SSB (mt)	F_{Full}
2017	625	4,058 (3,238 - 5,029)	0.190
2018	1,228	4,336 (3,490 - 5,327)	0.340
2019	1,326	4,177 (3,411 - 5,091)	0.340
2020	1,736	4,889 (3,647 - 7,192)	0.340

Special Comments:

- What are the most important sources of uncertainty in this stock assessment? Explain, and describe qualitatively how they affect the assessment results (such as estimates of biomass, F, recruitment, and population projections).

A large source of uncertainty is the estimate of natural mortality based on longevity, which is not well studied in Southern New England Mid-Atlantic winter flounder, and assumed constant over time. Natural mortality affects the scale of the biomass and fishing mortality estimates. Natural mortality was adjusted upwards from 0.2 to 0.3 during the last benchmark assessment (2011) assuming a max age of 16. However, there is still uncertainty in the true max age of the population and the resulting natural mortality estimate. Other

sources of uncertainty include length distribution of the recreational discards. The recreational discards are a small component of the total catch, but the assessment suffers from very little length information used to characterize the recreational discards (1 to 2 lengths in recent years).

- Does this assessment model have a retrospective pattern? If so, is the pattern minor, or major? (A major retrospective pattern occurs when the adjusted SSB or F_{Full} lies outside of the approximate joint confidence region for SSB and F_{Full} ; see Table 8).

The retrospective patterns for both F_{full} and SSB are minor and no retrospective adjustment in 2016 was required.

- Based on this stock assessment, are population projections well determined or uncertain? If this stock is in a rebuilding plan, how do the projections compare to the rebuilding schedule?

Population projections for Southern New England Mid-Atlantic winter flounder are reasonably well determined. There is uncertainty in the estimates of M . In addition, while the retrospective pattern is considered minor (within the 90% CI of both F and SSB), the rho adjusted terminal value of F is close to falling outside of the bounds which would indicate a major retrospective pattern. This would lead to retrospective adjustments being needed for the projections. The stock is in a rebuilding with a rebuild date of 2023. A projection using assumed catch in 2017 and $F = 0$ through 2023 indicated a less than 1% chance of reaching the SSB target.

- Describe any changes that were made to the current stock assessment, beyond incorporating additional years of data and the effect these changes had on the assessment and stock status.

No changes, other than the incorporation of new data, were made to the Southern New England Mid-Atlantic winter flounder assessment for this update.

- If the stock status has changed a lot since the previous assessment, explain why this occurred.

The stock status of Southern New England Mid-Atlantic winter flounder has not changed since the previous operational update in 2015 and remains the same as during the last benchmark assessment in 2011.

- Provide qualitative statements describing the condition of the stock that relate to stock status.

The Southern New England Mid-Atlantic winter flounder stock shows an overall declining trend in SSB over the time series, with current estimates near the time series low. Estimates of fishing mortality have remained steady since 2012 and recruitment has steadily increased since an all time low in 2013. Current recruitment estimates are above the ten year average and are the highest since 2008.

- Indicate what data or studies are currently lacking and which would be needed most to improve this stock assessment in the future.

The Southern New England Mid-Atlantic winter flounder assessment could be improved with additional studies on maximum age, as well additional recreational discard lengths. In addition, further investigation into the localized struture/genetics of the stock is warranted. Also, a future shift to ASAP version 4 will provide the ability to model environmental factors that may influence both survey catchability and the modeled S-R relationship.

- Are there other important issues?
None.

9.1 Reviewer Comments: Southern New England Mid-Atlantic winter flounder

Assessment Recommendation:

The panel concluded that the operational assessment with no adjustment for retrospective bias was acceptable as a scientific basis for management advice.

Alternative Assessment Approach:

Not applicable

Status Recommendation:

Based on this operational assessment, the panel supports the conclusion that the Southern New England Mid-Atlantic winter flounder stock is overfished but overfishing is not occurring. The Southern New England Mid-Atlantic winter flounder stock shows an overall declining trend in spawning stock biomass over the time series, with current estimates near the time series low. Estimates of fishing mortality have remained steady since 2012 and recruitment has steadily increased since an all-time low in 2013. Current recruitment estimates are above the ten year average and are the highest since 2008. The stock is currently in a rebuilding plan with a deadline of 2023; however, this assessment suggests a low probability of meeting the rebuilding deadline.

Key Sources of Uncertainty:

A large source of uncertainty is the estimate of natural mortality based on longevity, which is not well studied in Southern New England Mid-Atlantic winter flounder, and assumed constant over time. There is still uncertainty in the true max age of the population and the resulting natural mortality estimate. Other sources of uncertainty include the fixed steepness value assumed in the stock-recruit relationship, and the length distribution of the recreational discards. Recreational discards are a small component of the total catch, but the assessment suffers from very little length information used to characterize the recreational discards (1 to 2 lengths in recent years).

Research Needs:

The panel recommends additional studies to improve estimates of natural mortality, including studies on maximum age. The panel suggests considering the incorporation of additional recreational discard lengths. In addition, studies to update and investigate migration and movement rates and patterns, as well as further investigation into the localized structure/genetics of the stock is warranted. Also, a future shift to a model that will provide the ability to model environmental factors that may influence both survey catchability and the modeled stock-recruitment relationship. Finally, the panel recommends further examination of the patterns observed in the residuals from fits to the survey indices.

References:

Northeast Fisheries Science Center. 2011. 52nd Northeast Regional Stock Assessment Workshop (52nd SAW) Assessment Report. US Dept Commer, Northeast Fish Sci Cent Ref Doc. 11-17; 962 p. Available from: National Marine Fisheries Service, 166 Water Street, Woods Hole, MA 02543-1026.

Northeast Fisheries Science Center. 2015. Operational Assessment of 20 Northeast Groundfish Stocks, Updated through 2014. US Dept Commer, Northeast Fish Sci Cent Ref Doc. 15-24; 251 p. Available from: National Marine Fisheries Service, 166 Water Street, Woods Hole, MA 02543-1026.

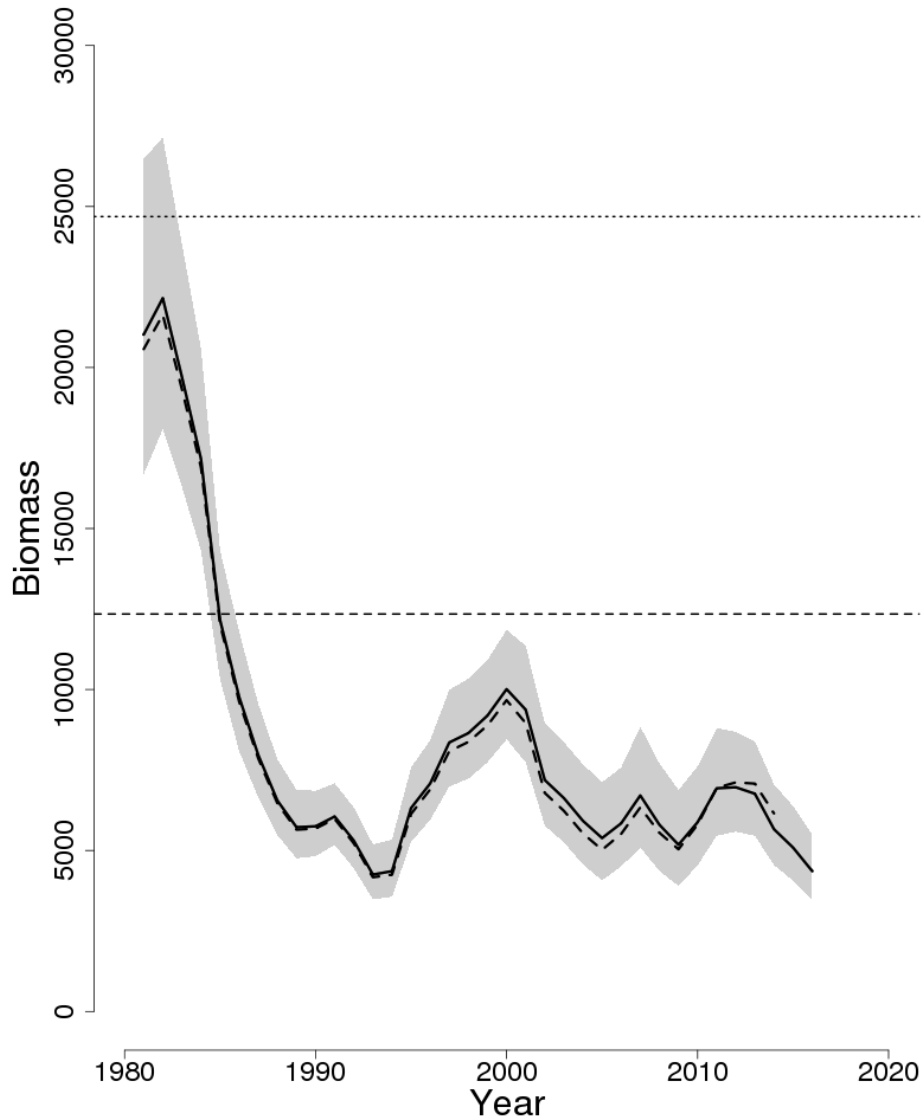


Figure 44: Trends in spawning stock biomass of Southern New England Mid-Atlantic winter flounder between 1981 and 2016 from the current (solid line) and previous (dashed line) assessment and the corresponding $SSB_{Threshold}$ ($\frac{1}{2} SSB_{MSY}$ proxy; horizontal dashed line) as well as SSB_{Target} (SSB_{MSY} proxy; horizontal dotted line) based on the 2017 assessment. The approximate 90% lognormal confidence intervals are shown.

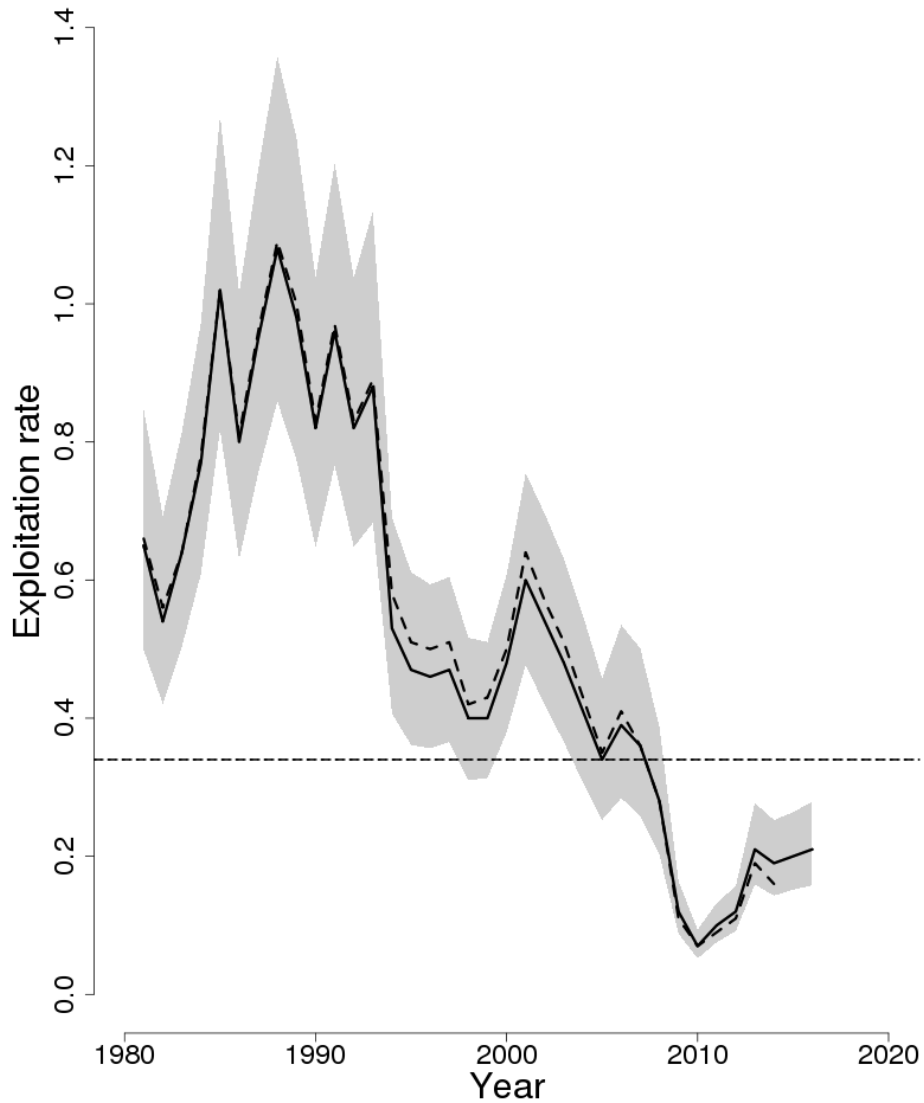


Figure 45: Trends in the fully selected fishing mortality (F_{Full}) of Southern New England Mid-Atlantic winter flounder between 1981 and 2016 from the current (solid line) and previous (dashed line) assessment and the corresponding $F_{Threshold}$ ($F_{MSY}=0.34$; horizontal dashed line) based on the 2017 assessment. The approximate 90% lognormal confidence intervals are shown.

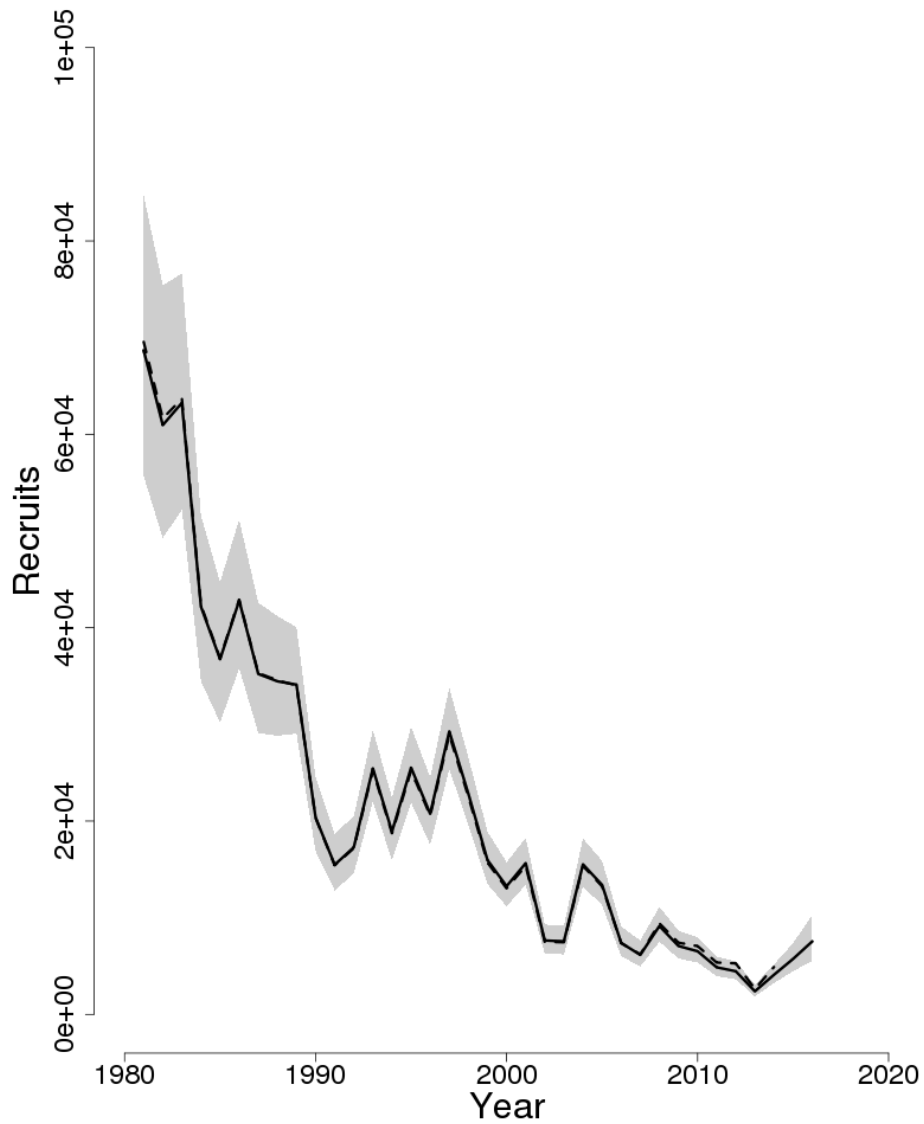


Figure 46: Trends in Recruits (age 1) (000s) of Southern New England Mid-Atlantic winter flounder between 1981 and 2016 from the current (solid line) and previous (dashed line) assessment. The approximate 90% lognormal confidence intervals are shown.

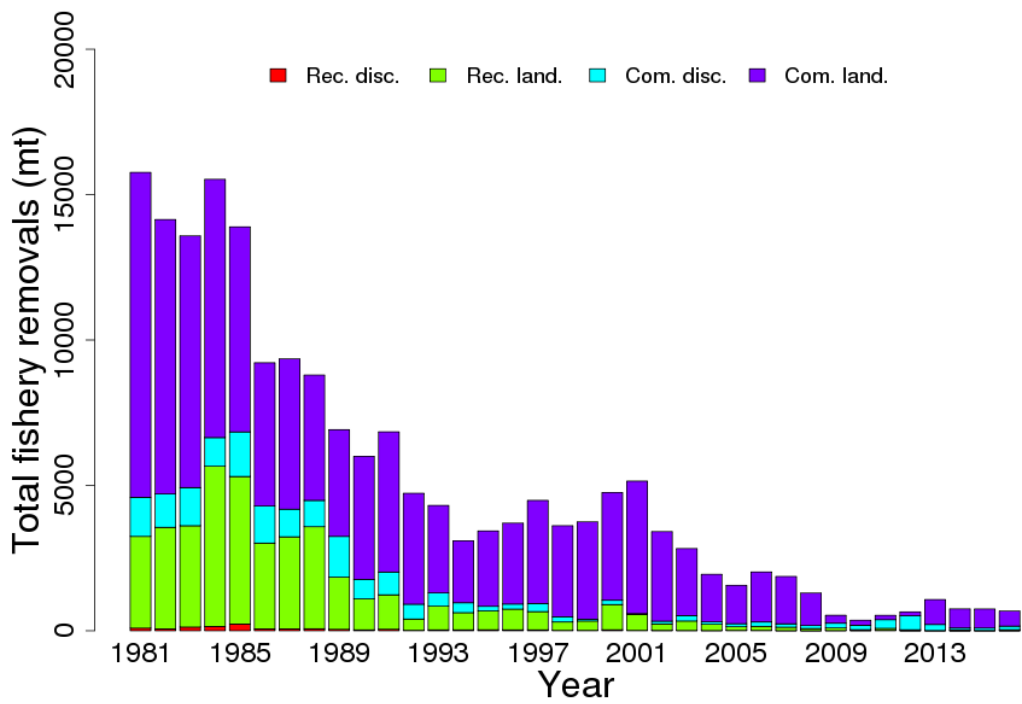


Figure 47: Total catch of Southern New England Mid-Atlantic winter flounder between 1981 and 2016 by fleet (commercial, recreational) and disposition (landings and discards).

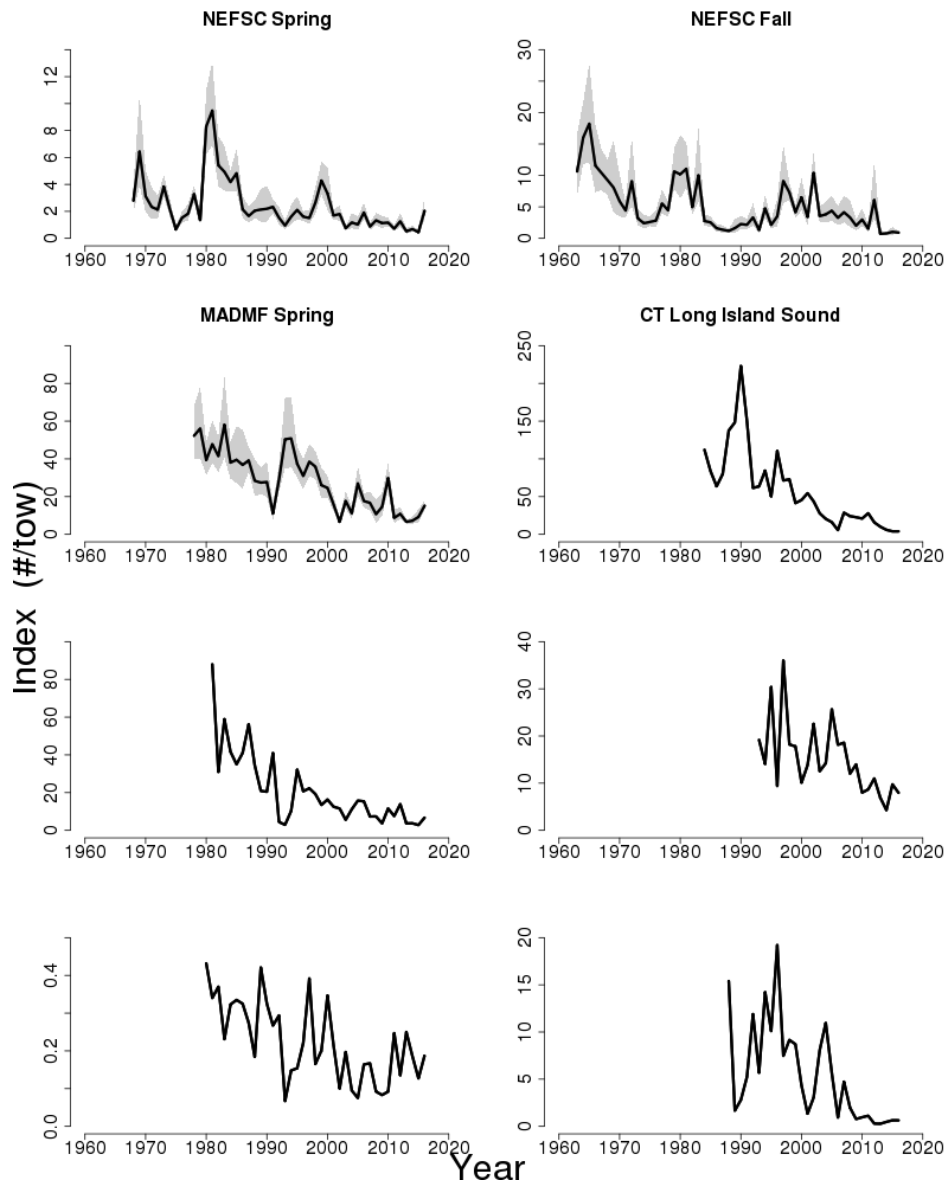


Figure 48: Indices of biomass for the Southern New England Mid-Atlantic winter flounder between 1963 and 2016 for the Northeast Fisheries Science Center (NEFSC) spring and fall bottom trawl surveys, the MADMF spring survey, the CT LISTS survey, the RIDFW Spring Trawl survey, the NJ Ocean Trawl survey, and two YoY surveys from MADMF and CT LISTS. Where available, the approximate 90% lognormal confidence intervals are shown.

Briefing Document—Winter Flounder Specifications for the 2018 Fishing Year

At its December meeting, the NEFMC approved Framework 57 which included annual catch limits (ACLs) for Gulf of Maine (GOM) and Southern New England/Mid-Atlantic (SNE/MA) winter flounder stocks. The largest change occurred in the GOM stock, where the ACL was significantly reduced.

GOM Stock

- The 2018 total ACL is 428 mt, a 348 mt decrease from the 2017 ACL of 776 mt.
- The 2018 state waters sub-component is 67 mt, a 55 mt decrease from the 2017 state waters sub-component of 122 mt.
- For context, 2016 total catch in state waters was 100.9 mt.

SNE/MA Stock

- The 2018 total ACL is 700 mt, a 49 mt decrease from the 2017 ACL of 749 mt.
- The 2018 state waters sub-component is 73 mt, a 3 mt increase from the 2017 state waters sub-component of 70 mt.
- For context, 2016 total catch in state waters was 64.7 mt.

During the specification process, the Board can make changes to the following management measures through Board action:

- **Recreational measures:** size limit, bag limit, season
- **Commercial measures:** size limit, trip limit, season, area closure, trigger trip limit

Below is a table with the current management measures for winter flounder:

Stock	Sector	Trip Limit/ Possession Limit	Size Limit	Season	Gear
GOM	Commercial	500 lbs per trip per day	12"	Maintain closures	Minimum 6.5" square or diamond mesh in cod-end
	Recreational	8 fish	12"	NA	
SNE/MA	Commercial	50 lbs/ 38 fish per trip per day	12"	Maintain closures	Minimum 6.5" square or diamond mesh in cod-end. 100-lb mesh trigger.
	Recreational	2 fish	12"	March 1 – December 31	

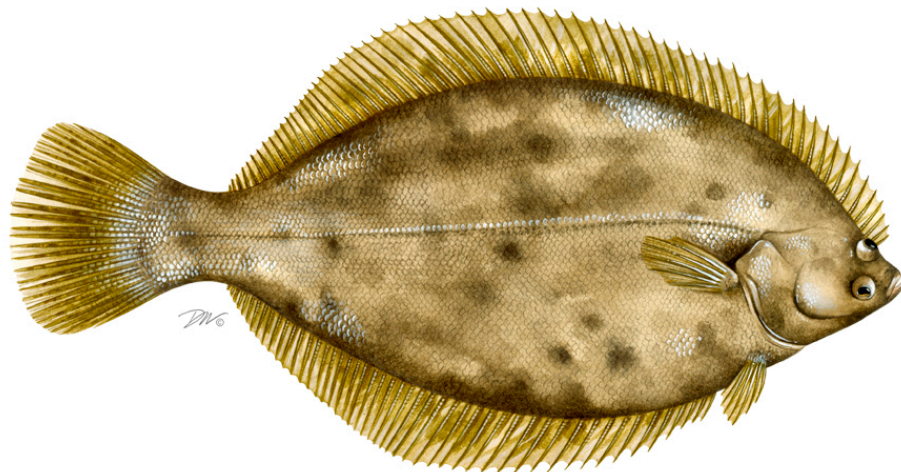
- Implemented in Amendment 1 in 2005
- Implemented in Addendum I in 2009
- Implemented in Addendum II in 2012; GOM trip limit increased from 250 lbs (via Addendum I) to 500 lbs.
- Varying closure dates were in place via Amendment 1, the new dates became effective through Board Action on February 2014

REVIEW OF THE
ATLANTIC STATES MARINE FISHERIES COMMISSION'S
INTERSTATE FISHERY MANAGEMENT PLAN FOR

WINTER FLOUNDER

(Pseudopleuronectes americanus)

2013-2016



Prepared by the Winter Flounder Plan Review Team

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I. Status of Fishery Management Plan

<u>Date of FMP Approval</u>	Original FMP (October 1988)
<u>Amendments</u>	Amendment 1 (November 2005)
<u>Addenda</u>	Addendum I (May 1992) Addendum II (February 1998) Addendum I to Amendment 1 (May 2009) Addendum II to Amendment 1 (October 2012) Addendum III to Amendment 1 (May 2013)
<u>Management Units</u>	Three stocks units: Gulf of Maine (GOM), Southern New England/ Mid-Atlantic (SNE/MA), and Georges Bank (GBK). Commission participates in management of GOM and SNE/MA stocks.
<u>States with Declared Interest</u>	Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey
<u>Active Boards/Committees</u>	Winter Flounder Management Board, Advisory Panel, Technical Committee, Plan Review Team

The Atlantic States Marine Fisheries Commission (Commission) and the New England Fishery Management Council (Council) manage winter flounder in state and federal waters. The Commission participates in the management of two inshore winter flounder stocks: 1) the Gulf of Maine (GOM) stock, which consists of waters north of Cape Cod; and 2) the Southern New England/Mid-Atlantic (SNE/MA) stock, which consists of waters south of Cape Cod to the Delaware-Maryland border. The decision to consider only inshore stocks of winter flounder was based upon the Commission's focus on fisheries in state waters, and the differences in biological characteristics from the offshore stock in Georges Bank. Although a large percentage of landings are taken from federal waters, this species migrates inshore every winter to spawn. As a result, fishing mortality on spawning populations in state waters has a direct impact on the entire GOM and SNE/MA stock complexes.

Interstate Fishery Management Plan (1988)

The Commission authorized development of the first Fishery Management Plan (FMP) for Winter Flounder (*Pleuronectes americanus*) in October 1988. The purpose of the plan was to: 1) address management of inshore stocks of winter flounder; and 2) prominently consider habitat and environmental quality as factors affecting the condition of the resource. The original FMP and Addendum I called for reductions in fishing mortality on winter flounder. It allowed states the flexibility to achieve those reductions based on the life history characteristics of the particular stocks inhabiting each region. Implementation of the plan required cooperation between state fishery management agencies, National Marine Fisheries Service, the Council, and the Commission.

Although all states submitted plans that were approved by the Winter Flounder Management Board (Board), results from a 1995 stock assessment concluded that none of the states achieved a fishing mortality rate corresponding to F_{30} . Subsequent analyses in early January 1997 indicated that fishing mortality on a coastwide basis was slightly higher than the F_{30} target for the SNE/MA stock complex. Fishing mortality in the GOM stock was presumed to be higher and the spawning stock biomass at a low level, indicating that the GOM unit might be in greater need of rebuilding than the SNE/MA unit.

In February 1998, the Board approved Addendum II to the FMP. Addendum II adjusted the implementation schedule for management measures by the participating states and called for plans to reach the target fishing mortality goal for rebuilding (F_{40}).

Amendment 1 (2005)

In May 1999, the Board acknowledged that it was necessary to update the Interstate FMP for Inshore Stocks of Winter Flounder through an amendment. The original plan and addenda did not prove successful in rebuilding inshore winter flounder populations. In addition, the FMP did not reflect the goals and objectives of the Atlantic Coastal Fisheries Cooperative Management Act (ACFCMA), which was established in 1993 after the original FMP was approved. The Board further noted that an upcoming stock assessment would likely provide new information on the status of winter flounder stock complexes. After the assessment was completed in late 2002, the Commission began development of Amendment 1 in February 2003.

Amendment 1 to the Interstate FMP for Inshore Stocks of Winter Flounder, approved in November 2005, replaced all previous Commission management plans. It focused on joint management of winter flounder between the Commission and Council, and was designed to rebuild and maintain spawning stock biomass at or near target biomass levels. In addition, Amendment 1 prioritized restoration and maintenance of essential winter flounder habitat.

Amendment I required a minimum size limit of 12 inches for commercial and recreational fisheries for both GOM and SNE/MA stock units. Recreational creel limits were ten (10) fish in the SNE/MA stock area and eight (8) fish in the GOM. There were no required closed recreational seasons in the GOM, while a closed season of 20 days during March and April was required in SNE/MA. The 60-day open season for recreational winter flounder fishing could be split into no more than 2 blocks. States were required to implement a minimum size of 6.5 inches square or diamond mesh for the cod-end in both GOM and SNE/MA inshore waters. Additionally, a 100-pound trip limit was required if smaller mesh is being used in the SNE/MA. This “mesh trigger” was intended for the landing of a small amount of winter flounder as bycatch in small-mesh fisheries.

Addendum I to Amendment 1 (2009)

Addendum I was approved in May 2009, following the 2008 GARM III stock assessment which indicated that the SNE/MA spawning stock biomass was only 9% of the target and the GOM

stock was likely to be overfished and experiencing overfishing. For the GOM commercial fishery, Addendum I established a maximum possession limit of 250 pounds per vessel. This limit was estimated to reduce 2006-2007 harvest levels by 31% for state water fishing vessels. For the GOM recreational fishery, Addendum I required states to implement regulations to reduce fishing mortality by 11% from the average of 2006-2007 levels. This 11% reduction was estimated to reach F_{MSY} . States were allowed to achieve reductions through possession limits, seasons, or a combination of both, and also had the option to submit conservation equivalency proposals to achieve the necessary reductions through alternative management measures, subject to approval by the Board.

For SNE/MA, Addendum I's management measures were designed to reach the lowest F rate possible with minimal economic and social impacts and dead discards, and to prevent an influx of effort into state waters. Non-federally permitted commercial vessels were permitted to possess a maximum of 50 pounds of winter flounder. This level was estimated to reduce harvest by 65%, and was intended solely to allow for bycatch. Recreational fishermen were permitted to possess a maximum of two (2) winter flounder from inshore waters of the SNE/MA stock area. This bag limit was estimated to reduce harvest by 46%.

Addendum II to Amendment 1 (2012)

In response to updated stock status information and federal action to substantially increase the GOM winter flounder state waters annual catch limit subcomponent, the Board initiated Addendum II to Amendment 1 of the Winter Flounder Interstate FMP. This Addendum changed commercial and recreational management measures for the state waters component of the GOM stock only. Specifically, it increased the maximum possession limit for non-federally permitted commercial vessels to 500 pounds. It also removed the 11% reduction in F for the recreational fishery and allowed states the option to open their recreational fishing season year-round.

Addendum III to Amendment 1 (2013)

Addendum III established an annual specification process to set commercial and recreational management measures for the GOM and SNE/MA fisheries. Each year, with advice from the Winter Flounder Technical Committee, the Board can adjust trip limits, size limits, and seasons for the commercial fishery; and size limits, bag limits, and seasons for the recreational fishery. The Addendum enables the Commission to quickly respond to federal actions and changes in the winter flounder fishery.

II. Status of Stocks

The most recent peer reviewed stock assessment for all three winter flounder stocks was conducted by the Northeast Fisheries Science Center in 2017. These operational stock assessments included data through 2016.

Gulf of Maine

The 2017 operational stock assessment determined that GOM winter flounder stock biomass

status is unknown and overfishing is not occurring. 2016 biomass (30+ cm) was estimated to be 2,585 metric tons (mt) and the exploitation rate was estimated to be 0.086, below the exploitation threshold of 0.23. The assessment noted that there have been significant declines in commercial and recreational removals since the 1980's; however, this has not resulted in a contraction of the stock's size structure within the catch. Significant sources of uncertainty include gear catchability and deriving stock biomass from area-swept survey estimates. (Source: Groundfish Operational Assessments 2017)

Southern New England/Mid-Atlantic

The 2017 operational stock assessment concluded that the SNE/MA winter flounder stock is overfished but overfishing is not occurring. Specifically, the 2016 spawning stock biomass (SSB) was estimated to be 4,360 mt, well below the biomass threshold of 12,343.5 mt. In addition, fishing mortality was estimated to be 0.21 in 2016, below the threshold of $F_{MSY}=0.34$. The assessment noted that there is an overall declining trend in SSB throughout the time series; however, recruitment has increased from a historic low in 2013. Notable sources of uncertainty include the estimate of natural mortality and the length distribution of recreational discards, given they represent a small portion of catch. (Source: Groundfish Operational Assessments 2017)

III. Status of the Fishery

Stockwide

Across all stocks (GOM, SNE/MA, and GBK), the winter flounder fisheries are a fraction of their historic productivity. Specifically, commercial and recreational landings have declined since the early 1980s (Table 1, Figure 3).

Commercial landings peaked at 18,279 mt (40.3 million lbs) in 1981, the highest since 1950, but have generally declined throughout the 1990's and 2000's. In 2013 commercial landings were 2,745 mt (6.1 million lbs), in 2014 were 1,980 mt (4.4 million lbs), in 2015 were 1,701 mt (3.7 million lbs), and in 2016 were 1,162 mt (2.6 million lbs). A majority of the landings were taken in Massachusetts (Table 2). It is important to note that management action has impacted yearly landings as annual catch limits increased in 2011 and 2012, and a moratorium was in place for the SNE/MA stock between May 2009 and April 2013. (Landings source: NMFS)

The primary commercial gear used to harvest winter flounder in 2016 was the otter trawl, followed by gill nets and dredge. Landings of winter flounder primarily occurred in May and June.

Recreational harvest was 33.7 mt (74,291 lbs) in 2013, 85.0 mt (187,292 lbs) in 2014, 40.0 mt (88,264 lbs) in 2015, and 48.8 mt (107,458 lbs) in 2016 (Table 3). These recent recreational catch values represent a significant decrease from the 7,446.8 mt (16,417,409 lbs) caught in 1982. Between 2013 and 2016, Massachusetts, New Jersey, and New York comprised the

majority of coastwide recreational winter flounder landings, at 67%, 9%, and 15%, respectively. (Landings source: MRIP)

Gulf of Maine

Commercial landings of Gulf of Maine winter flounder have substantially declined since the early 1980s, with recent landings being roughly 7% of harvest levels in the 1980s. From 1964 through the mid-1970s, commercial landings were near 1,000 mt. Productivity peaked at nearly 2,793 mt in 1982, and steadily decreased to a record low of 139 mt in 2010. In 2016, landings in the GOM winter flounder stock were 200.5 mt (does not include discards), of which 93.5 mt were landed in state waters (Source: NMFS)

Recreational landings also peaked in 1982, at 3,024 mt. Landings have generally declined, and in 2016 were 24 mt. Recreational releases make up a small portion of catch. (Source: Groundfish Operational Assessments 2017)

Southern New England/Mid-Atlantic

Commercial landings of SNE/MA winter flounder generally declined throughout the time series from 1964 to 2010, with periodic peaks and dips. After reaching a historical peak of 11,977 mt in 1966 and then declining through the 1970s, total U.S. commercial landings again peaked at 11,176 mt in 1981. After 1981, SNE/MA commercial landings declined to 2,159 mt in 1994 and then increased to 4,672 mt in 2001. Commercial landings have generally decreased since the 2001 peak, and were just 134 mt in 2012 (in part due to the zero possession limit in federal waters). Landings in the SNE/MA winter flounder stock in 2016 was 524.3 mt (does not include discards), of which 63.0 mt were landed in state waters. (Source: NMFS)

Recreational landings of SNE/MA winter flounder peaked in 1984 with 5,510 mt and substantially declined until reaching an all-time low of 7 mt in 2013. In 2016, 33 mt were recreationally landed. The principal mode of fishing is private/rental boats, with most recreational landings occurring during May to June. (Source: Groundfish Operational Assessments 2017)

IV. Status of Research and Monitoring

Amendment 1 to the Interstate Fishery Management Plan for Winter Flounder requires the following research and monitoring activities by certain states (Table 5):

- Massachusetts, Rhode Island, and New York are required to conduct annual surveys of juvenile recruitment to develop an annual juvenile abundance index.
- Massachusetts, Rhode Island, Connecticut, and New Jersey are required to conduct annual surveys to develop an index of spawning stock biomass.

In 2016 (and early 2017), states with interest in the winter flounder FMP conducted the fisheries-independent surveys summarized below.

Maine

The Maine Department of Marine Resources conducts spring and fall bottom trawl surveys in cooperation with the New Hampshire Fish and Game Division. The Maine-New Hampshire (MENH) Inshore Trawl Survey collects length, weight, maturity stage, and age samples for winter flounder. Winter flounder biomass in the spring survey increased in 2014 (>5 kg/tow) but was slightly lower in 2015 and 2016 at 4 kg/tow. Biomass in the fall survey has been fairly steady since 2011 at roughly 3 kg/tow.

New Hampshire

The New Hampshire Fish and Game Department (NHFG) conducts an annual seine survey of juvenile fish in its estuaries from June through November. The survey produces an index of relative abundance for each species encountered using a geometric mean catch per seine haul. The 2016 index value (1.48) increased from 2015 (0.64) and is above the average (1.23) since 1997. In addition, NHFG has worked with Maine Department of Marine Resources (MEDMR) since the fall of 2000 to conduct an inshore trawl survey off of Maine and New Hampshire.

Massachusetts

The Massachusetts Division of Marine Fisheries (MADMF) completed spring and fall bottom trawl surveys covering its state waters. During the 2016 fall trawl survey, winter flounder were present in nearly all of the survey tows in the GOM and the percent occurrence observed was greater than the time series median. The index of exploitable biomass (winter flounder $\geq 30\text{cm}$) for GOM winter flounder increased slightly in 2016. For the SNE stock, winter flounder exhibited a limited distribution during the fall 2016 survey and were only present in approximately 25% of the survey tows, which is well below the time series average for this region. The abundance index declined slightly from 2015 to 2016, while the biomass index was nearly identical over the last two years.

During the spring survey, winter flounder were broadly distributed throughout the GOM region; however, the abundance index declined markedly in 2017, and was slightly below the time series mean. Similarly, a decline in the biomass index was also observed in 2017, with recent biomass levels being slightly below the time series average. Winter flounder exhibited a patchy distribution in the SNE stock and were captured at approximately 80% of the stations in the 2017 survey. Declines in the abundance and biomass indices of winter flounder have been observed in SNE over the past two decades and that trend continued in 2017 as both indices remained at low levels.

DMF completed its annual seine survey for young-of-the-year (YOY) winter flounder in June. This survey has been conducted annually since 1976, and it provides an index of recruitment for the SNE/MA winter flounder stock. The YOY index increased in 2017 and was slightly above the time series median; however, the relatively large confidence intervals around the YOY index suggest that the catch rates were variable across the six estuaries that were sampled.

Rhode Island

Except for the ichthyoplankton survey, which was discontinued in July of 2008, Rhode Island's Division of Fish & Wildlife conducted five studies to monitor juvenile and adult winter flounder in its state waters. The seasonal trawl survey samples 42 fixed and random stations in the spring and fall. The monthly survey samples 13 fixed stations each month. The Narragansett Bay Juvenile Finfish Survey samples 18 stations once a month from June through October. The Coastal Pond Seine Survey samples 24 stations in 8 coastal ponds from May through October. The Coastal Pond Spawning Stock Survey samples 6 stations with fyke nets from January to May in Point Judith.

Connecticut

Winter flounder have been monitored through the Long Island Sound Trawl Survey (LISTS) since 1984. Spring (April, May and June) and Fall surveys (September and October) are conducted each year. The 2016 LISTS spring (April-May) index (geometric mean fish/tow) for all ages of winter flounder was 3.98, the second lowest value in the 33 year time series (lowest value = 3.94 in 2015). Similarly, the 2016 spring index for age-4+ winter flounder was 1.32, the second lowest value in the time series. CT DEEP also conducts a fall estuarine seine survey that provides an index of abundance for young-of-year winter flounder. The geometric mean fish/tow in 2016 was 0.63, the fourth-lowest index value in the 29-year time series.

New York

The NYSDEC has been conducting a small mesh trawl survey targeting juvenile finfish since 1987. The weekly survey runs from May through October in Peconic Bay using a small mesh sixteen foot semi-balloon shrimp trawl. A total of 127 randomly chosen stations were sampled during June and July. The YOY CPUE for winter flounder in 2017 was 0.055, the lowest ever recorded in the survey time series. CPUE for this species continues to be well below the time series average of 9.4.

The Department also conducts a seine survey in western Long Island bays, which has been ongoing since 1986, using a 200 foot $\frac{1}{4}$ inch mesh seine. Sampling is conducted at multiple stations twice a month within each bay from May through October. On average, 40 tows occur in Jamaica Bay each year during this period, and 24 tows each in Manhasset Bay and Little Neck Bay. The YOY CPUE for Jamaica Bay in 2017 was 8.21, lower than 2016 (12.3). The YOY CPUE for Little Neck Bay in 2017 was 2.33, an increase from 2016's low of 0.22. The YOY CPUE for Manhasset Bay in 2017 was 0.58, the second lowest CPUE in the time series.

New Jersey

The Bureau of Marine Fisheries has conducted an Ocean Trawl program in nearshore ocean waters since 1988. Winter flounder are most abundant in New Jersey during April, and data from this cruise have been used to develop an index of abundance for winter flounder in New Jersey waters. For each tow, information is collected on total number, total weight, and individual lengths. Stratified catch per tow (numbers) in 2017 yielded a time-series low

geometric mean of 0.89, an 80.5% decline from the 2016 mean of 2.25. The biomass indices for 2017 resulted in a geometric mean of 0.45 kg/tow (also a time-series low), a decrease of 54.4% from the 2016 index of 0.98. For the ninth year in a row, these indices remained significantly below the time series means of 5.43 fish and 2.11 kilograms per tow

V. Implementation of FMP Compliance Requirements and De Minimis

De Minimis

Amendment I allows a state to be granted *de minimis* status if their fishery constitutes less than 1% of the coastwide commercial or recreational landings for the preceding three years for which data are available. A state that qualifies for *de minimis* status based on their commercial landings will qualify for exemptions in the commercial fishery only, and a state that qualifies for *de minimis* based on their recreational landings will qualify for exemptions in their recreational fishery only. States that apply for and are granted *de minimis* status are exempted from biological monitoring/sub-sampling activities for the sector for which *de minimis* has been granted.

Request for De minimis Status

There were no requests for de minimis status in the winter flounder fishery.

State Compliance

All of the states with a declared interest in the management of winter flounder have implemented commercial and recreational regulations that are consistent with ASMFC's Winter Flounder FMP (Tables 4 and 5).

VI. Research and Monitoring Recommendations

The 2017 Operational Stock Assessments noted several data needs that would improve future population estimates.

Gulf of Maine

- Additional studies on federal and state survey gear efficiency and catchability
- Quantifying the degree of herding between the doors and escapement under the footrope and/or above the headrope
- Studies quantifying winter flounder abundance and distribution among habitat types

Southern New England - Mid-Atlantic

- Additional studies on maximum age
- Additional studies on recreational discard lengths
- Investigation of localized structure/genetics of the stock

VII. References

- National Oceanic and Atmospheric Administration. Commercial Fisheries Statistics Tool.
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Available online
at https://www.greateratlantic.fisheries.noaa.gov/ro/fso/reports/Sector_Monitoring/FY16_Mults_Catch_Estimates.pdf
- Northeast Fisheries Science Center. 2017. Operational Assessment of 19 Northeast Groundfish Stocks, Updated through 2016, Northeast Fisheries Science Center, Woods Hole, Massachusetts. US Department of Commerce, NOAA Fisheries, Northeast Fish Science Center Ref. Doc. 17-17; 259 p.
Available online at <https://www.nefsc.noaa.gov/groundfish/operational-assessments-2017/>

VIII. Figures and Tables

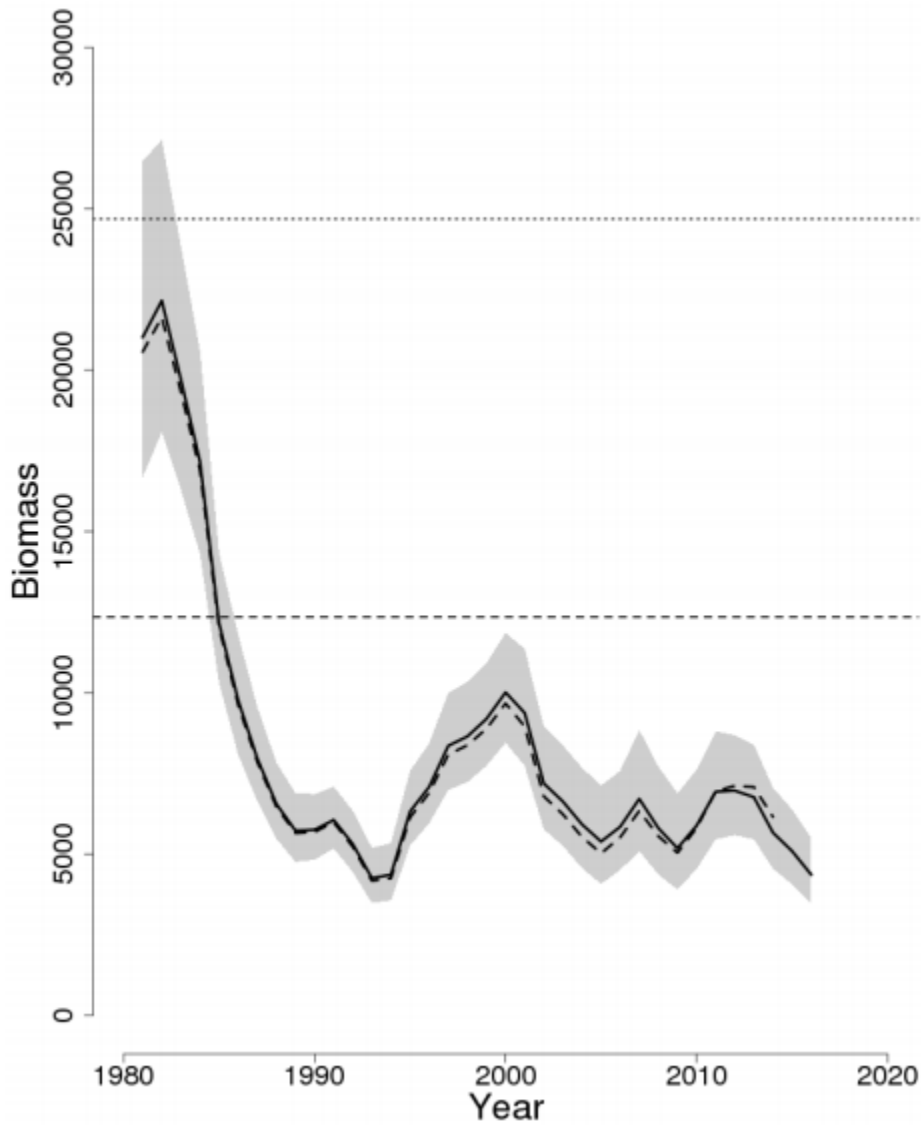


Figure 1. Southern New England/ Mid-Atlantic winter flounder spawning stock biomass between 1981 and 2016. The solid line represents results of the current assessment and the dotted line represents results from the previous assessment. The horizontal dotted line is the SSB-target and the horizontal dashed line is the SSB-threshold based on the 2017 assessment. The 90% confidence intervals are shown in grey. (Source: Groundfish Operational Assessments 2017)

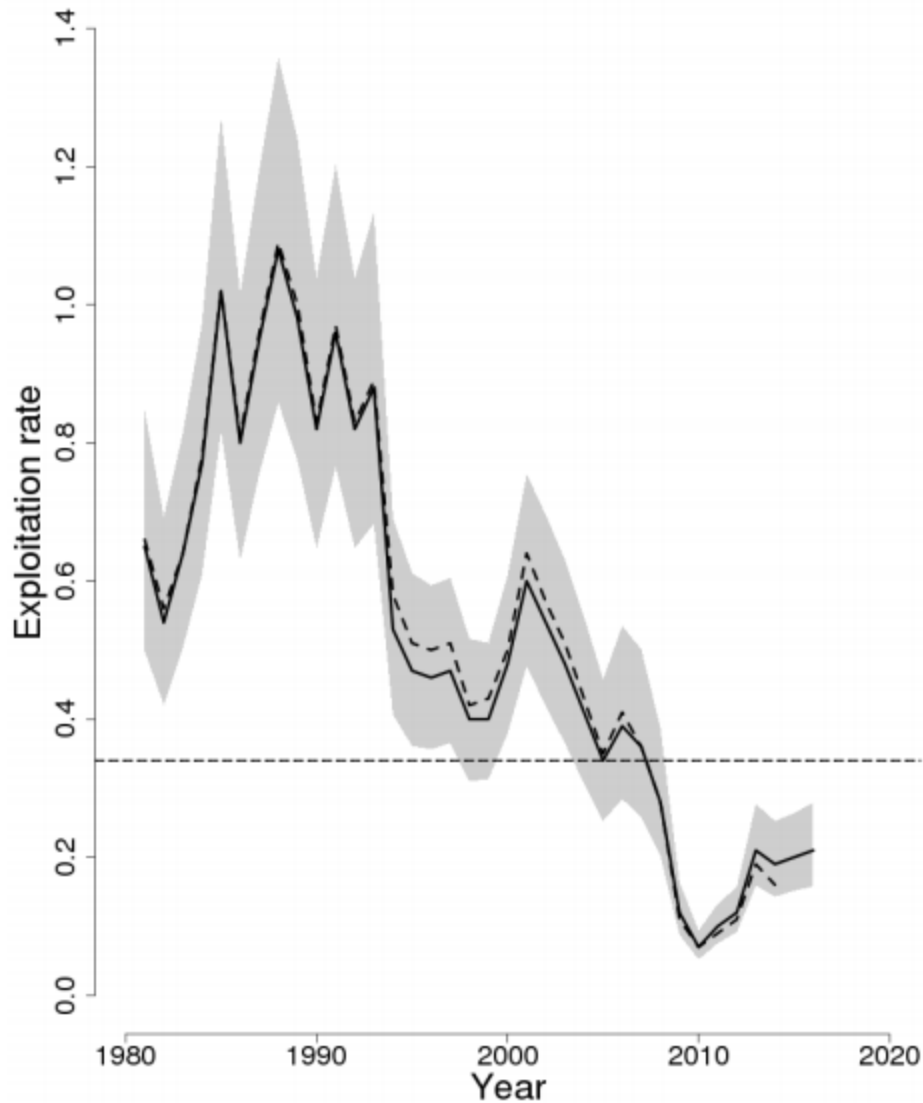


Figure 2. Southern New England/Mid-Atlantic winter flounder fishing mortality between 1981 and 2016. The solid line represents results of the current assessment and the dotted line represents results from the previous assessment. The horizontal dashed line is the F-threshold based on the 2017 assessment. The 90% confidence intervals are shown in grey. (Source: Groundfish Operational Assessments 2017)

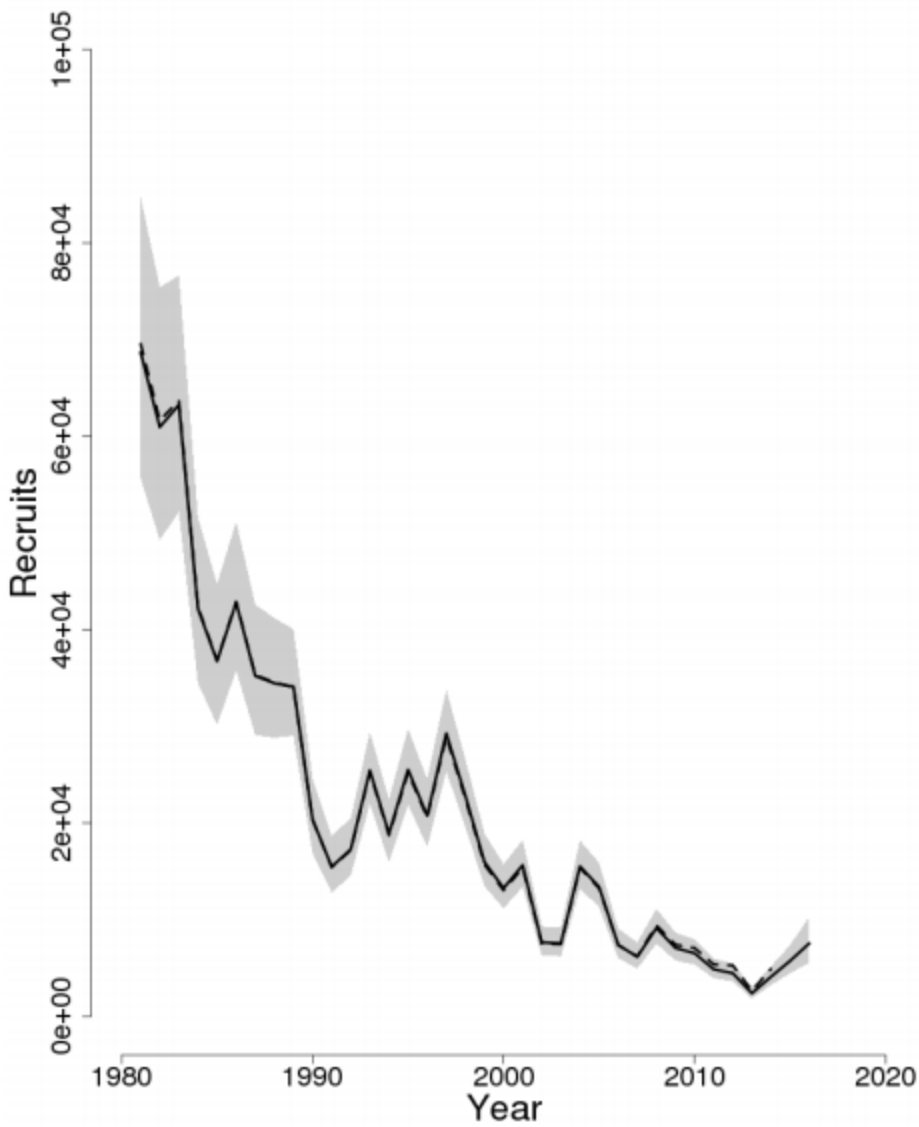


Figure 3. Southern New England/ Mid-Atlantic winter flounder trends in recruits between 1981 and 2016. The solid line represents results of the current assessment and the dotted line represents results from the previous assessment. The 90% confidence intervals are shown in grey. (Source: Groundfish Operational Assessments 2017)

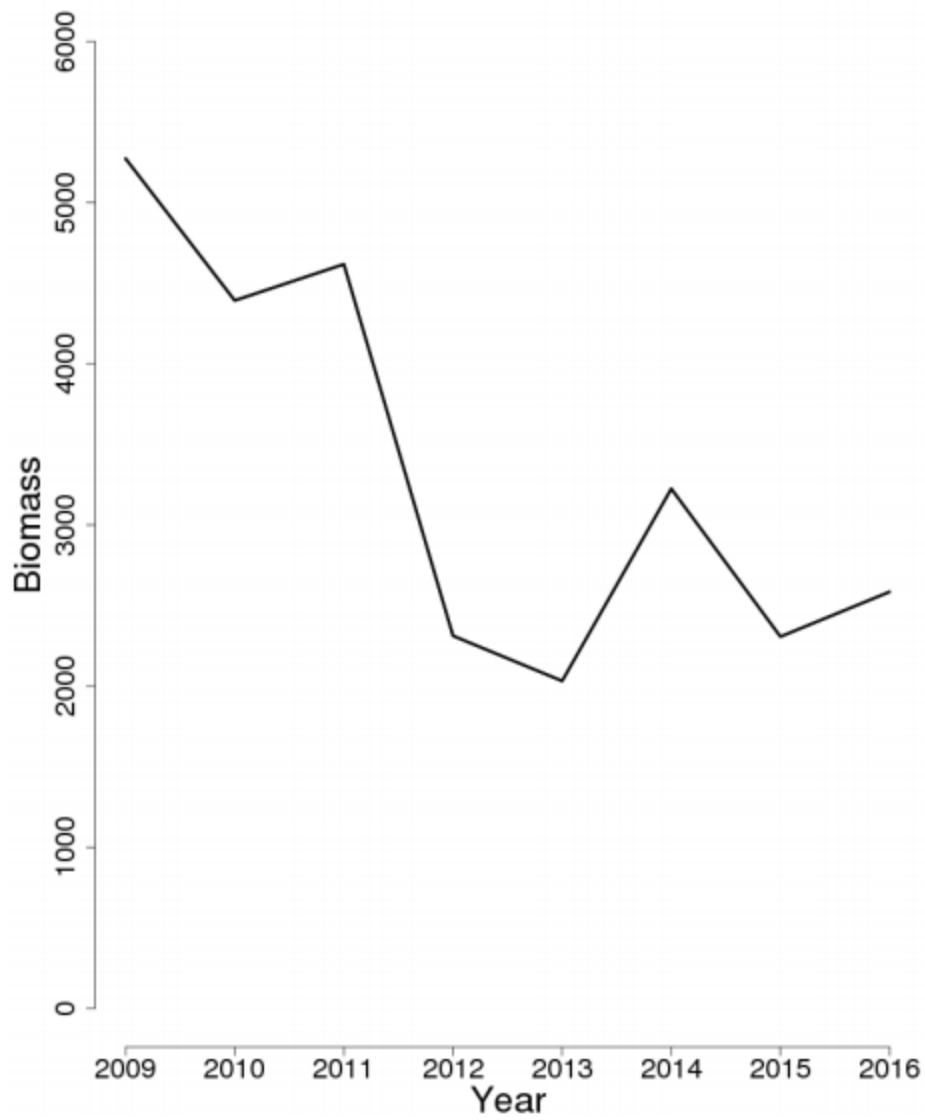


Figure 4. Gulf of Maine winter flounder spawning stock biomass between 2009 and 2016. Trends are based on 30+ cm area-swept biomass from the fall MENH, MDMF, and NEFSC surveys. (Source: Groundfish Operational Assessments 2017)

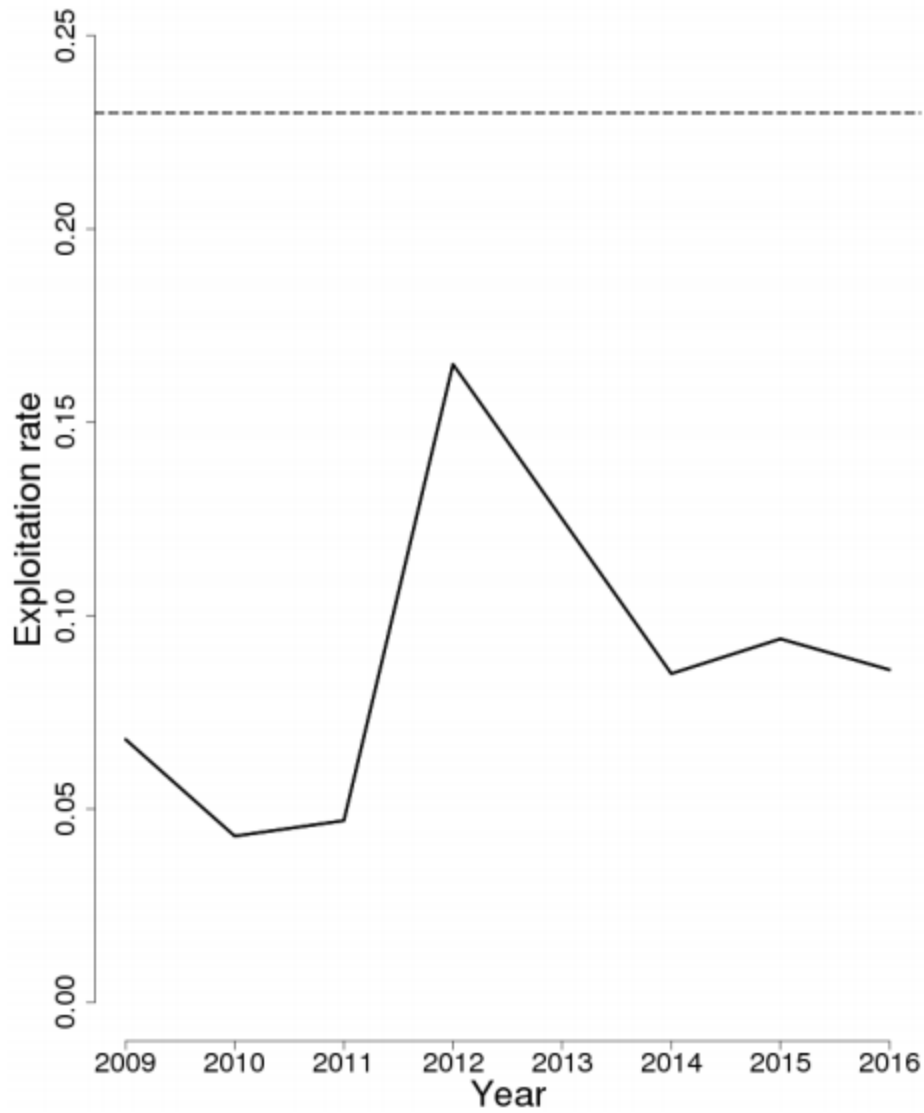


Figure 5. Gulf of Maine winter flounder exploitation rate between 2009 and 2016. The dashed line represents the corresponding F-Threshold from the 2017 assessment. (Source: Groundfish Operational Assessments 2017)

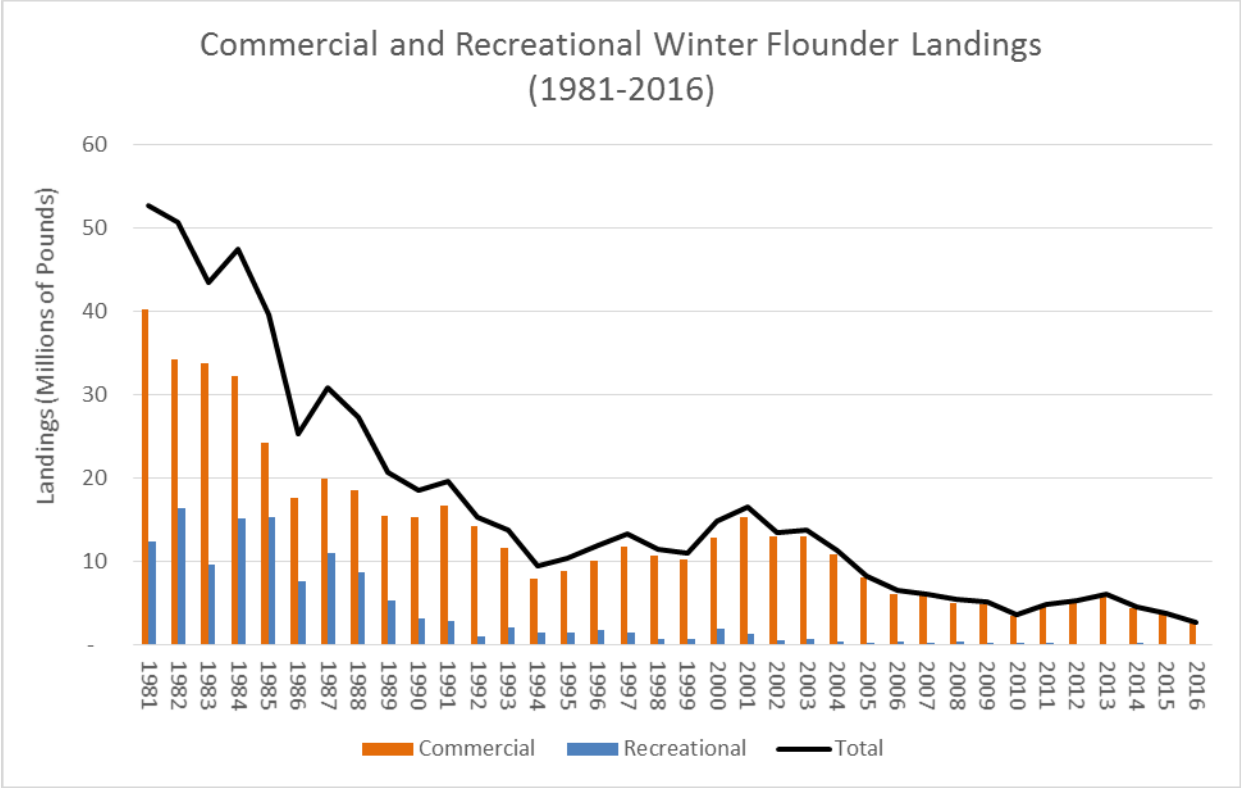


Figure 6. Total landings of winter flounder, commercial and recreational landings. (Source: NOAA and MRIP)

Table 1. Coastwide commercial and recreational landings of winter flounder.

Source: NMFS, MRIP.

Year	Commercial Landings (lbs)	Recreational Landings (lbs)	Total Harvest (lbs)
1981	40,328,004	12,424,306	52,752,310
1982	34,299,800	16,417,409	50,717,209
1983	33,817,000	9,640,481	43,457,481
1984	32,310,416	15,156,822	47,467,238
1985	24,222,895	15,372,730	39,595,625
1986	17,643,994	7,634,912	25,278,906
1987	19,926,128	10,967,183	30,893,311
1988	18,593,695	8,779,904	27,373,599
1989	15,421,400	5,363,355	20,784,755
1990	15,385,073	3,156,378	18,541,451
1991	16,776,460	2,899,482	19,675,942
1992	14,245,420	1,071,535	15,316,955
1993	11,648,778	2,129,667	13,778,445
1994	7,944,331	1,496,956	9,441,287
1995	8,882,929	1,529,595	10,412,524
1996	10,129,515	1,757,069	11,886,584
1997	11,777,821	1,514,640	13,292,461
1998	10,762,583	717,765	11,480,348
1999	10,222,856	768,056	10,990,912
2000	12,880,614	2,020,880	14,901,494
2001	15,278,708	1,304,052	16,582,760
2002	12,955,714	583,547	13,539,261
2003	12,986,593	773,793	13,760,386
2004	10,833,480	451,387	11,284,867
2005	8,084,062	233,717	8,317,779
2006	6,050,949	464,499	6,515,448
2007	5,879,052	205,645	6,084,697
2008	5,095,612	366,261	5,461,873
2009	4,870,667	285,613	5,156,280
2010	3,498,442	195,333	3,693,775
2011	4,682,379	209,318	4,891,697
2012	5,280,066	107,987	5,388,053
2013	6,050,669	74,291	6,124,960
2014	4,365,086	187,292	4,552,378
2015	3,749,153	88,223	3,837,376
2016	2,561,018	107,458	2,668,476

Table 2. Winter flounder commercial landings by state from 2013-2016. "C" denotes confidential landings.

State	2013	2014	2015	2016
	Pounds	Pounds	Pounds	Pounds
Massachusetts	5,376,720	3,818,405	3,198,835	2,057,335
Rhode Island	407,272	461,905	369,168	299,895
New York	99,606	57,410	131,105	107,860
New Jersey	46,760	10,984	4,349	3,669
Connecticut	103,847	15,039	40,672	85,982
New Hampshire	C	C	C	C
Delaware	C	C	C	C
Maine	C	C	C	C

Table 3. Recreational total catch (A + B1 + B2) by weight (lbs) by state 2013-2016. (Source: MRIP)

	2013		2014		2015		2016	
	lbs	%	lbs	%	lbs	%	lbs	%
Massachusetts	64,733	87.1	115,380	61.6	55,889	63.3	45,028	41.9
New Jersey	7944	10.7	23,398	12.5	582	0.7	16,638	15.5
New York	1614	2.2	41,618	22.2	8,828	10.0	36,694	34.1
Connecticut	0	0.0	1,468	0.8	19,319	21.9	41	0.0
New Hampshire	0	0.0	4,797	2.6	3,539	4.0	8,224	7.7
Rhode Island	0	0.0	631	0.3	65	0.1	833	0.8
Maine	0		0	0.0	41	0.0	0	0.0
Total	74,291		187,292		88,263		107,458	

Table 4. Commercial winter flounder regulations.

State	Stock Unit	Size Limit	Trip Limit	Seasonal Closure (dates inclusive)	Recruitment Assessment	SSB Assessment	Min. Mesh Size	<i>De minimis Request</i>
Maine	GOM	12"	500 lbs	May 1 – June 30	N/A	N/A	6.5"	No
New Hampshire	GOM	12"	500 lbs	April 1 – June 30	N/A	N/A	6.5"	No
Massachusetts	GOM	12"	500 lbs	Open all year	YOY Seine Survey (June)	Bottom Trawl Survey (May, Sept)	6.5"	No
	SNE/MA	12"	50 lbs	Open all year	YOY Seine Survey (June)	Bottom Trawl Survey (May, Sept)	6.5"	No
Rhode Island	SNE/MA	12"	50 lbs	Open all year	Narragansett Bay Juvenile Finfish Survey	Trawl Surveys	6.5"	No
Connecticut	SNE/MA	12"	50 lbs or 38 fish	March 1 – April 14	N/A	Long Island Sound Trawl Survey	6.5"	No
New York	SNE/MA	12"	50 lbs	June 14 – Nov 30 (for all gear besides fyke nets, pound and trap nets)	Small Mesh Trawl Survey, Seine Survey	N/A	6.5"	No
New Jersey	SNE/MA	12"	38 fish	June 1 – Nov 30. Fyke net closed Feb 20 – Oct 31	N/A	Ocean Trawl Survey	6.5"	No

Table 5. Recreational winter flounder regulations.

State	Stock Unit	Creel Limit	Size Limit	Seasonal Closure (dates inclusive)
Maine	GOM	8	12"	October 1 – June 30
New Hampshire	GOM	8	12"	May 15 – May 24
Massachusetts	GOM	8	12"	Open all year
	SNE/MA	2	12"	January 1- February 28
Rhode Island	SNE/MA	2	12"	January 1 – February 28
Connecticut	SNE/MA	2	12"	January 1 – March 31
New York	SNE/MA	2	12"	May 31 – March 31
New Jersey	SNE/MA	2	12"	January 1 – February 28



Atlantic States Marine Fisheries Commission

1050 N. Highland Street • Suite 200A-N • Arlington, VA 22201
703.842.0740 • 703.842.0741 (fax) • www.asmfc.org

MEMORANDUM

January 11, 2018

To: Winter Flounder Management Board
From: Tina Berger, Director of Communications
RE: Request for Review of Current Advisory Panel Membership; Call for New Nominations

In recent years, the Winter Flounder Advisory Panel has been largely inactive (last meeting was held in 2014) and poorly attended when it did meet. As a result, staff requests that you please review the following Advisory Panel list and consider replacing members who are inactive. This will ensure that, if necessary, the group will be ready to meet and have effective discussions. The list also includes a brief summary of member participation. Following is a link to the AP nomination form –

<http://www.asmfc.org/files/Meetings/2017WinterMeeting/APNomination.pdf>. Thank you.

If you have any questions, please feel free to contact me at (703) 842-0749 or tberger@asmfc.org.

Enc.

cc: Megan Ware

M18-5

WINTER FLOUNDER ADVISORY PANEL

January 18, 2018

Maine

Chair - Harold Brown (rec) (4/96)

Eco Analysis Inc.
P.O. Box 224
Bath, ME 04530
Phone: 207.837.2442
raptor@zwi.net

Appt. Confirmed 4/24/95
Appt. Reconfirmed 3/11/03
Appt Reconfirmed 3/07

Participation: Active

Gary Libby
PO BOX 91
Port Clyde ME 04855-0091
Phone: 207.542.9557
portclydecowboy@gmail.com

Appt. Confirmed 5/09
Participation: Inactive; Last meeting attended was in 2012

New Hampshire

Donald L. Swanson (rec)
84 Franklin Street
Derry, NH 03038-1914
Phone: 603.434.4593
Email: salty4fly2@comcast.com

Appt. Confirmed 2/3/09
Participation: Active; attended last meeting in 2014

David Goethel (comm.)
23 Ridgeview Terrace
Hampton, NH 03842
Phone: 603.926.2165
Email: egoethel@comcast.net
Appt. Confirmed 10/27/14
Participation: N/A; meeting has not been held since his appt

Massachusetts

Louis M. MacKeil, Jr. (rec)
PO Box 702
West Hyannisport, MA 02672
Phone: 508.349.9317
Macfish2@yahoo.com

Appt. Confirmed 4/24/95
Appt. Reconfirmed 6/9/03
Appt Reconfirmed 6/07

Participation: Inactive; Never attended a meeting since appt in 1995

Vacancy (rec)

Rhode Island

George S. Allen (rec)
444 Black Point Lane
Portsmouth, RI 02871
Phone: 401.849.4896
gsallen3@verizon.net

Appt. Confirmed 6/9/03
Appt. Reconfirmed 2/9/06
Appt Reconfirmed 5/10

Participation: Inactive; Never attended a meeting since appt in 2003

Vacancy (commercial)

Connecticut

Robert Cobb (comm)
40 Ridge Drive
Old Saybrook, CT 06475
Phone: 860.388.2579
Appt. Confirmed 4/24/95
Appt. Reconfirmed 6/9/03
Appt Reconfirmed 6/07

Participation: Inactive; Never attended a meeting since appt in 1995

Art DeFrancisco (rec)
89 Avon Street
Stratford, CT 06615-6703
Phone: 203.922.650.1745
Email: adefra3228@yahoo.com

Appt. Confirmed 6/9/03
Appt Reconfirmed 6/07
Reconfirmed 3/2014

Participation: Active; attended last meeting in 2014

WINTER FLOUNDER ADVISORY PANEL

January 18, 2018

New York

Charles Witek (rec)
1075 Tooker Avenue
West Babylon, NY 11704
Phone (office): 212.412.6707
Phone (home): 631.587.2211
charleswitek@gmail.com

Appt. Confirmed 8/5/98
Appt. Reconfirmed 5/30/03
Appt. Reconfirmed 5/07

Participation: Attended last meeting in 2014

Ken Mades (comm)
14 Carter Road
Hampton Bays, NY 11946
Phone: 516.728.4792
Appt. Confirmed 10/17/94
Appt. Reconfirmed 5/30/03
Appt. Reconfirmed 5/07

Participation: Inactive; Never attended a meeting since appt in 1994

New Jersey

James R. Lovgren (comm)
17 Laurelhurst Drive
Brick, NJ 08724
Phone: 732.899.1872
Jlovgren3@gmail.com

Appt. Confirmed 4/24/95
Appt. Reconfirmed 6/9/03
Appt Reconfirmed 6/07

Participation: Inactive; Never attended a meeting since appt in 1995

Thomas Siciliano (rec)
6 Nautic Way
Little Egg Harbor Township, NJ 08087-1688
Phone (day): 732.267.6451
Phone (eve): 609.296.3774
Email: TomS6363@comcast.net

Appt Confirmed 5/4/09
Appt Reconfirmed 3/2014

Participation: Inactive; Never attended a meeting since appt in 2009