



**Mid-Atlantic Fishery Management Council**  
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## MEMORANDUM

**DATE:** July 9, 2015

**TO:** Chris Moore, Executive Director

**FROM:** Kiley Dancy and Julia Beaty, Staff

**SUBJECT:** Summer Flounder Management Measures for 2016-2018

### Executive Summary

Based on the results of the stock assessment update received in July 2015, the summer flounder stock was not overfished, but overfishing was occurring in 2014. The model-estimated spawning stock biomass (SSB) was 88.90 million lb (40,323 mt) in 2014, 65% of the spawning stock biomass at maximum sustainable yield,  $SSB_{MSY} = 137.56$  million lb (62,394 mt). The fishing mortality rate (F) in 2014 was 0.359, 16% above the fishing mortality threshold reference point  $F_{MSYPROXY} = F_{35\%} = 0.309$ .

For 2016, staff recommend an Acceptable Biological Catch (ABC) of 12.60 million lb (5,713 mt). This ABC results in a commercial Annual Catch Limit (ACL) of 7.30 million lb (3,312 mt), and a recreational ACL of 5.29 million lb (2,401 mt). Staff also recommend that the commercial and recreational Annual Catch Targets (ACTs) be set equal to their respective sector Annual Catch Limits (ACLs) for 2016. After removing projected discards, the resulting 2016 commercial quota is 6.30 million lb (2,858 mt), and the recreational harvest limit is 4.20 million lb (1,905 mt; Table 1).

For 2017, staff recommend an Acceptable Biological Catch (ABC) of 15.20 million lb (6,894 mt). This ABC results in a commercial ACL of 8.81 million lb (3,997 mt), and a recreational ACL of 6.39 million (2,897 mt lb). Staff also recommend that the commercial and recreational ACTs be set equal to their respective sector ACLs for 2017. After removing projected discards, the resulting 2017 commercial quota is 7.61 million lb (3,451 mt), and the recreational harvest limit is 5.07 million lb (2,301 mt; Table 1).

For 2018, staff recommend an Acceptable Biological Catch (ABC) of 18.12 million lb (8,219 mt). This ABC results in a commercial ACL of 10.52 million lb (4,773 mt), and a recreational ACL of 7.60 million lb (3,446 mt). Staff also recommend that the commercial and recreational ACTs be set equal to their respective sector ACLs for 2018. After removing projected discards, the resulting 2018 commercial quota is 9.15 million lb (4,150 mt), and the recreational harvest limit is 6.10 million lb (2,766 mt; Table 1).

Staff recommends that a thorough analysis of the current commercial management measures be conducted, including a review of the minimum fish size (14 inch total length), gear requirements, seasonal possession thresholds triggering gear requirements, and minimum mesh size exemption programs (small

mesh exemption area and North Carolina flynet). Pending this additional analysis, staff is not proposing specific changes at this time.

**Table 1:** Staff-recommended multi-year catch and landings limits for summer flounder for 2016-2018.

Management Measure	2016		2017		2018		Basis
	mil lb.	mt	mil lb.	mt	mil lb.	mt	
<b>ABC</b>	12.60	5,713	15.20	6,894	18.12	8,219	Stock assessment projections/Council risk policy
ABC Landings Portion	10.50	4,763	12.68	5,752	15.25	6,916	Stock assessment projections
ABC Discards Portion	2.09	950	2.52	1,142	2.87	1,303	Stock assessment projections
<b>Commercial ACL</b>	7.30	3,312	8.81	3,997	10.52	4,773	60% of ABC landings portion (per FMP) + 48% of ABC discards portion
Commercial ACT	7.30	3,312	8.81	3,997	10.52	4,773	Commercial ACL, less deduction for management uncertainty
Projected Commercial Discards	1.00	454	1.20	546	1.37	623	48% of ABC discards portion, based on 2012-2014 average % discards by sector
<b>Commercial Quota</b>	6.30	2,858	7.61	3,451	9.15	4,150	Commercial ACT, less discards
<b>Recreational ACL</b>	5.29	2,401	6.39	2,897	7.60	3,446	40% of ABC landings portion (per FMP) + 52% of ABC discards portion
Recreational ACT	5.29	2,401	6.39	2,897	7.60	3,446	Recreational ACL, less deduction for management uncertainty
Projected Recreational Discards	1.09	496	1.31	596	1.50	680	52% of ABC discards portion, based on 2012-2014 average % discards by sector
<b>Recreational Harvest Limit</b>	4.20	1,905	5.07	2,301	6.10	2,766	Recreational ACT, less discards

### **Introduction**

The Magnuson-Stevens Act (MSA) requires each Council's Scientific and Statistical Committee (SSC) to provide ongoing scientific advice for fishery management decisions, including recommendations for ABC, preventing overfishing, and achieving maximum sustainable yield. The Council's catch limit recommendations for the upcoming fishing year(s) cannot exceed the ABC recommendation of the SSC. In addition, the Monitoring Committee established by the Fishery Management Plan (FMP) is responsible for developing recommendations for management measures designed to achieve the recommended catch limits.

Multi-year specifications may be set for summer flounder for up to three years at a time. The SSC must recommended ABCs that addresses scientific uncertainty, while the Monitoring Committee must

recommend annual catch targets (ACTs) that address management uncertainty. Based on the SSC and Monitoring Committee recommendations, the Council will make a recommendation to the National Marine Fisheries Service (NMFS) Greater Atlantic Regional Administrator. Because the FMP is cooperatively managed with the Atlantic States Marine Fisheries Commission, the Commission's Summer Flounder, Scup, and Black Sea Bass Board will meet jointly with the Council to recommend summer flounder catch limits and management measures. In this memorandum, information is presented to assist the SSC and Monitoring Committee in developing recommendations for the Council and Board to consider for the 2016-2018 fishing years for summer flounder.

Additional relevant information about fishery performance and past management measures is presented in the June 2015 Summer Flounder Fishery Information Document prepared by Council staff, and the June 2015 Fishery Performance Report for summer flounder developed by the Council and Commission Advisory Panels.

### **Recent Catch and Landings**

Reported 2014 landings in the commercial fishery were approximately 11.32 million lb (5,134 mt), about 8% over the commercial quota (10.51 million lb = 4,767 mt). Recreational landings in 2014 were 7.39 million lb (3,354 mt), about 6% above the recreational harvest limit (7.01 million lb = 3,179 mt). The 2015 commercial landings as of the week ending June 27, 2015, indicate that 58% of the coastwide commercial quota has been landed (Table 2).

**Table 2:** The 2015 state-by-state commercial quotas and the amount of summer flounder landed by commercial fishermen, in each state as of week ending June 27, 2015.

<b>State</b>	<b>Cumulative Landings (lb)</b>	<b>Quota (lb)<sup>a</sup></b>	<b>Percent of Quota (%)</b>
ME	0	5,265	0
NH	0	51	0
MA	226,476	760,795	30
RI	1,203,275	1,736,013	69
CT	136,400	249,845	55
NY	452,568	846,477	53
NJ	808,148	1,860,420	43
DE	0	0	0
MD	78,442	225,716	35
VA	1,244,866	2,401,568	52
NC	2,278,883	2,976,243	77
Other	0	0	0
<b>Totals</b>	<b>6,429,058</b>	<b>11,062,393</b>	<b>58</b>

<sup>a</sup> Quotas adjusted for overages. Source: NMFS Weekly Quota Report for week ending June 27, 2015.

## **Regulatory Review**

Multi-year specifications for summer flounder were previously implemented for 2014 and 2015. In July 2014, the SSC met to review the previously implemented specifications for summer flounder ABC for fishing year 2015. The SSC reviewed summer flounder data including recent catch and landings data and fishery independent survey indices. The SSC saw no compelling evidence to change its previous 2015 ABC recommendation of 22.77 million lb (10,329 mt).

The 2015 ABC was derived from a 2015 overfishing limit (OFL) of 27.06 million lb (12,275 mt), based on an  $F_{MSY}$  proxy of  $F = 0.309$  ( $F_{35\%}$ ) and 2014 projected biomass. The Council's risk policy was applied to the OFL to calculate the ABC, based on the 2014 projected  $B/B_{MSY} = 95\%$ , Council risk policy  $P^* = 0.378$ , and a lognormal distribution with a  $CV = 60\%$ .

The SSC considered the 2013 benchmark summer flounder stock assessment to be a level 3 assessment.<sup>1</sup> In a level 3 assessment, the SSC provides its own estimate of uncertainty. The SSC was not comfortable with defining the assessment as level 1, and because no alternative level of uncertainty in OFL was provided in the assessment as required for level 2, the SSC was constrained to designating the assessment as level 3.

In past level 3 assessments, the SSC has used a default CV for the OFL of 100%, based on a meta-analysis of statistical catch-at-age models. However, the SSC noted that the 2013 summer flounder stock assessment is considerably more accurate than other assessments of Mid-Atlantic stocks and, therefore, use of the default  $CV=100\%$  was likely inappropriate. Accordingly, the SSC determined that it would use a  $CV = 60\%$ . The SSC adopted this CV based on a presentation of the distribution of CVs in published simulation experiments in which the assessment model did fully reflect the underlying population dynamics.

The SSC considered the following to be the most significant sources of uncertainty associated with the determination of the OFL and ABC:

- The potential for sex-specific differences in life history parameters.
- The existence of spatially distinct size distributions.
- NEFSC surveys and PMAFS fishery sampling confirm sexually-dimorphic and time-varying spatial differences in growth that are not fully accounted for in the stock assessment because not all fishery and survey catches are fully and independently sampled by sex.
- Landings from commercial fishery assume no under-reporting of summer flounder landings so should be considered minimal estimates.
- The current assumption for  $M$  remains an ongoing source of uncertainty.  $M$  is highly influential on assessment results and impacts nearly all aspects of the assessment and evaluation of status.
- The stock-recruitment relationship could not be defined internally in the model and thus an  $F_{MSY}$  proxy was used to calculate the OFL.

Management measures in the commercial fishery other than quotas and harvest limits (i.e., minimum fish size, gear requirements, etc.) have remained generally constant since 1999.

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<sup>1</sup> Based on SSC and Council discussions in March/April 2015, the “level 3” assessment designation is now known as the “SSC-modified OFL probability distribution.”

### **Biological Reference Points**

The last peer-reviewed benchmark stock assessment was conducted in the summer of 2013 at the Stock Assessment Workshop/Stock Assessment Review Committee (SAW/SARC 57).<sup>2</sup> The SAW/SARC 57 biological reference points include a fishing mortality threshold of  $F_{MSY} = F_{35\%}$  (as the  $F_{MSY}$  proxy) = 0.309, and a biomass reference point of  $SSB_{MSY} = SSB_{35\%}$  (as the  $SSB_{MSY}$  proxy) = 137.56 million lb (62,394 mt). The minimum stock size threshold ( $1/2 SSB_{MSY}$ ), is estimated to be 68.78 million lb (31,197 mt).

### **Stock Status and Projections**

The most recent stock assessment update was completed in July 2015, using data through 2014.<sup>3</sup> This assessment update uses the model from the 2013 benchmark stock assessment, which is an age-structured assessment model called ASAP. Documentation on this assessment and previous stock assessments, such as reports on stock status, including annual assessment and reference point update reports, Stock Assessment Workshop (SAW) reports, and Stock Assessment Review Committee (SARC) panelist reports, are available online at the Northeast Fisheries Science Center (NEFSC) website: <http://www.nefsc.noaa.gov/saw/>. NMFS declared the summer flounder stock rebuilt based on the 2011 assessment update, which included stock status determinations using data through 2010.

Results from the July 2015 assessment update indicate that the summer flounder stock was not overfished, but overfishing was occurring in 2014 relative to the biological reference points from the 2013 SAW/SARC 57. Fishing mortality on the fully selected age 4 fish ranged between 0.793 and 1.776 during 1982-1996 and then decreased from 0.867 in 1997 to 0.284 in 2007. Since 2007 the fishing mortality rate has generally increased, and was 0.359 in 2014, 16% above the 2013 SAW 57  $F_{MSY}$  proxy =  $F_{35\%} = 0.309$ . SSB was estimated to be 88.90 million lb (40,323 mt) in 2014, about 65% of  $SSB_{MSY} = 137.6$  million lb (62,394 mt), and 29% above the 2013 SAW 57  $1/2 SSB_{MSY}$  proxy =  $1/2 SSB_{35\%} = 68.78$  million lb (31,197 mt).

The 2015 assessment updates indicates that while catch in recent years has not been substantially over the ABCs, the projected fishing mortality rates have been exceeded and projected spawning stock biomass has not been achieved. These results appear to be largely driven by poor recruitment. The update shows a consistent recent retrospective pattern in recruitment, as 5 of the last 7 year classes have been initially over-estimated by a range of 22% to 49%. The update shows that recruitment of age 0 fish was below average for each of the four year classes from 2010 to 2013. A historical retrospective analysis, comparing model estimates from the 1990-2015 assessments, also indicates a recent trend of underestimation of F and overestimation of SSB since the 2011 assessment update. Additionally, there is evidence of substantial illegal harvest in recent years in the form of unreported, underreported, or misreported landings, which is likely to have contributed to these patterns.

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<sup>2</sup> Northeast Fisheries Science Center. 2013. 57th Northeast Regional Stock Assessment Workshop (57th SAW) Assessment Summary Report. US Dept Commer, Northeast Fish Sci Cent Ref Doc. 13-14; 39 p.

<sup>3</sup> Northeast Fisheries Science Center. 2015. Stock Assessment Update of Summer Flounder for 2015. US Dept Commer, Northeast Fish Sci Cent; 17 p.

According to the assessment update for 2015, if the total catch of summer flounder in 2015 equals the 2015 ABC (22.77 million lb or 10,329 mt), the median F in 2015 is projected to be 0.385, above the fishing mortality threshold  $F_{MSYPROXY} = F_{35\%} = 0.309$ . The median SSB on November 1, 2015 is projected to be 93.53 million lb = 42,423 mt, about 68% of the biomass target  $SSB_{MSYPROXY} = 137.55$  million lb = 62,394 mt. The stock assessment update gives projections for the OFL based on fishing at the fishing mortality threshold  $F_{MSYPROXY} = F_{35\%} = 0.309$  in 2016-2018. These projections assume median recruitment levels in 2015, 2016, and 2017. Staff will work with NEFSC staff and others to derive a methodology to evaluate recruitment in interim years between assessment updates and confirm that this assumption is correct.

### **ABC Recommendations for 2016-2018**

Input from the Council's Visioning and Strategic Planning processes as well as from the Advisory Panel Fishery Performance Reports highlight stakeholder interest in increasing the stability of fishery management measures. In 2013, multi-year specifications were set for summer flounder for 2014 and 2015. These multi-year specifications led to increased predictability in management for stakeholders, as well as administrative time savings that allowed the Council and Board to focus efforts on other management priorities. Staff recommend setting three year specifications for summer flounder, for the 2016 through 2018 fishing years.

ABC projections were provided in the 2015 assessment update. The approach used to specify ABC using biomass projections presumes that the ABC was caught in the preceding year. The SSB in the current year is then updated based on the presumed catch. The ABCs were derived using the Council's risk policy as previously applied by the SSC, for a level 3 assessment with a typical life history, assuming the 2016-2018 OFL CV = 60%. The resulting ABC projections for 2016-2018 are shown in Table 3.

**Table 3:** ABC total catch, landings, discards, fishing mortality (F) and Spawning Stock Biomass (SSB). P\* values from the MAFMC SSB ABC calculations. Source: Stock Assessment Update of Summer Flounder for 2015.

Year	ABC Total Catch (mil lb)	ABC Total Catch (mt)	Landings (mil lb)	Landings (mt)	Discards (mil lb)	Discards (mt)	F	P* Value	SSB (mil lb)	SSB (mt)
2015	22.77	10,329	19.29	8,752	3.48	1,577	0.385	n/a	93.53	42,423
2016	12.60	5,713	10.50	4,763	2.09	950	0.208	0.258	104.17	47,251
2017	15.20	6,894	12.68	5,752	2.52	1,142	0.222	0.292	114.38	51,880
2018	18.12	8,219	15.25	6,916	2.87	1,303	0.234	0.325	123.13	55,852

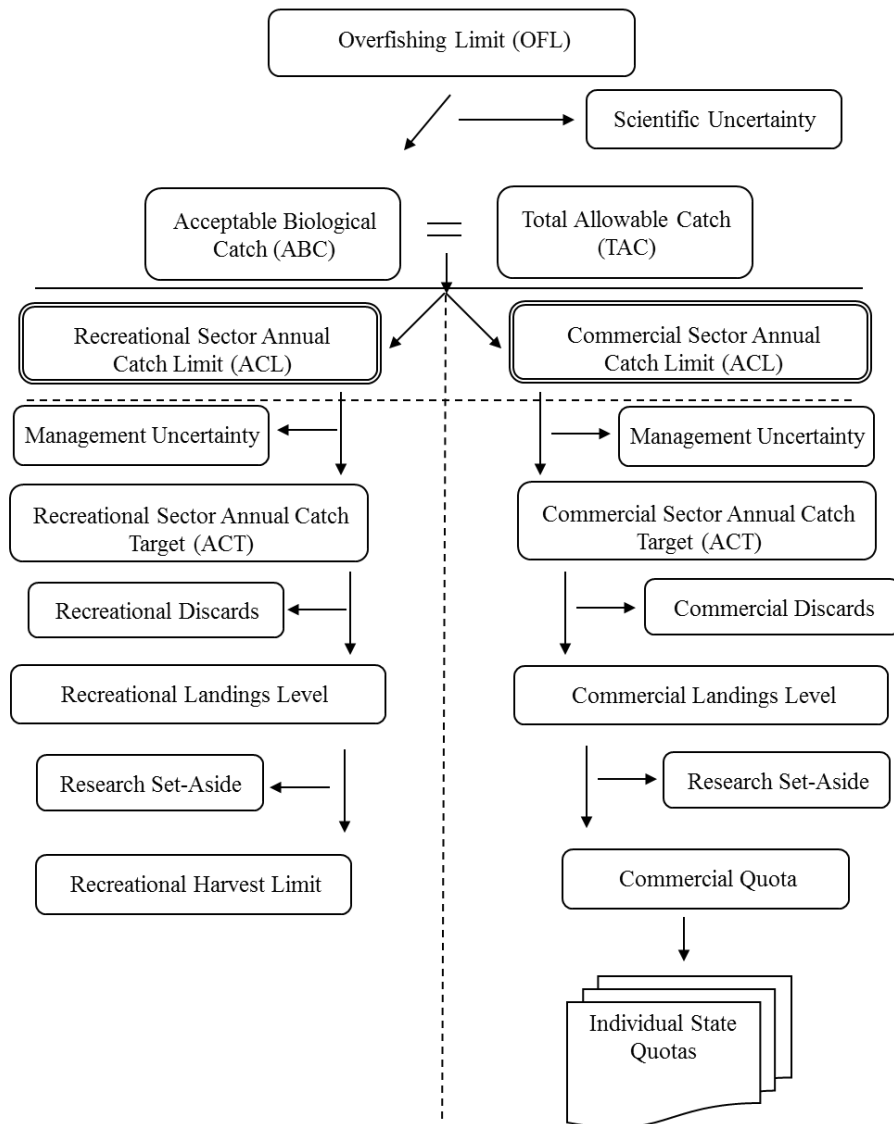
Staff recommend ABCs for 2016-2018 consistent with the projection methodology described above. The recommended ABC in 2016 is 12.60 million lb (5,713 mt). For 2017, the recommended ABC is 15.20 million lb (6,894 mt), and for 2018, the recommended ABC is 18.12 million lb (8,219 mt).

**Other Management Measures**

***Recreational and Commercial Annual Catch Limits***

As defined by the Omnibus ACLs and AMs Amendment (Amendment 15 to the Summer Flounder, Scup, and Black Sea Bass FMP), the ABC includes both landings and discards, and is equal to the sum of the commercial and recreational ACLs for summer flounder (Figure 1). Based on the allocation percentages in the FMP, 60% of the landings are allocated to the commercial fishery, and 40% to the recreational fishery. Discards are apportioned based on the discards contribution from each fishing sector using a 3-year moving average percentage; from 2012-2014, on average, 52% of dead discards were attributable to the recreational fishery, and 48% to the commercial fishery (Table 1).

**Summer Flounder Flowchart**



**Figure 1:** Flowchart for summer flounder catch and landings limits.

### ***Annual Catch Targets***

The Summer Flounder Monitoring Committee is responsible for recommending Annual Catch Targets (ACTs), which are intended to account for management uncertainty, for the Council and Board's consideration. The Monitoring Committee is responsible for considering all relevant sources of management uncertainty in the summer flounder fishery and providing the technical basis, including any formulaic control rules, for any reduction in catch when recommending an ACT. The ACTs, technical basis for ACT recommendations, and sources of management uncertainty should be described and provided to the Council. The relationships between the recreational and commercial ACTs and other catch components are given in Figure 1.

Management uncertainty is comprised of two parts: uncertainty in the ability of managers to control catch and uncertainty in quantifying the true catch (i.e., estimation errors). Management uncertainty can occur because of a lack of sufficient information about the catch (e.g., due to late reporting, underreporting, and/or misreporting of landings or bycatch) or because of a lack of management precision (i.e., the ability to constrain catch to desired levels).

The sector-specific landings performance for recent years indicates that recreational fishery landings have typically been below the recreational harvest limits for the past five years, with the exception of 2014 (Table 5). The commercial fishery has reported landings generally very near the commercial quotas for the last several years, although overages have been higher in 2013 and 2014 (Table 5). The NMFS Regional Administrator has in-season closure authority for the commercial summer flounder fishery, and commercial quota monitoring systems in place are typically effective in allowing timely reactions to landings levels that approach quotas. Staff recommend no reduction in catch from the recreational or commercial ACL, so that each sector's ACT would be set equal to the ACL.

**Table 4:** Summer flounder commercial and recreational fishery performance relative to quotas and harvest limits, 2010-2014.

<b>Year</b>	<b>Commercial Landings (mil lb)<sup>a</sup></b>	<b>Commercial Quota (mil lb)</b>	<b>Percent Overage(+)/ Underage(-)</b>	<b>Recreational Landings (mil lb)<sup>b</sup></b>	<b>Recreational Harvest Limit (mil lb)</b>	<b>Percent Overage(+)/ Underage(-)</b>
<b>2010</b>	13.55	12.79	+6%	5.11	8.59	-41%
<b>2011</b>	16.57	17.38	-5%	5.96	11.58	-49%
<b>2012</b>	12.91	12.73	+1%	6.49	8.49	-24%
<b>2013</b>	12.49	11.44	+9%	7.39	7.63	-3%
<b>2014</b>	11.32	10.51	+8%	7.40	7.01	+6%
<b>5-yr Avg.</b>	-	-	+4%	-	-	-22%

<sup>a</sup> Source: NMFS dealer data as of February 9, 2015. <sup>b</sup> Source: NMFS MRIP database as of June 30, 2015.



### ***Commercial Quotas and Recreational Harvest Limits***

Projected discards are removed to derive landings limits, which include annual commercial quotas and recreational harvest limits (Table 1). The sum of the commercial quota and recreational harvest limit is equivalent to the total allowable landings in a given year. The commercial quota is divided amongst the states based on the allocation percentages given in Table 6.

**Table 5:** The summer flounder allocation formula for the commercial fisheries in each state.

<b>State</b>	<b>Allocation (%)</b>
<b>ME</b>	0.04756
<b>NH</b>	0.00046
<b>MA</b>	6.82046
<b>RI</b>	15.68298
<b>CT</b>	2.25708
<b>NY</b>	7.64699
<b>NJ</b>	16.72499
<b>DE</b>	0.01779
<b>MD</b>	2.03910
<b>VA</b>	21.31676
<b>NC</b>	27.44584
<b>Total</b>	100

In previous years, the Council and Board have voted for a reduction of up to 3% from the commercial and recreational landings levels for the Research Set Aside (RSA) program (Figure 1). The Council suspended the RSA program in 2014, thus staff recommend no RSA reductions in the commercial quota or recreational harvest limit for 2016-2018.

Specific management measures that will be used to achieve the harvest limit for the recreational fishery in 2016 will not be determined until after the first four waves of 2015 recreational landings are reviewed. These data will become available in October 2015. The Monitoring Committee will meet in November to review these data and make recommendations regarding any necessary changes in the recreational management measures (i.e., possession limit, minimum size, and season). Given the performance of the recreational fishery relative to the recreational harvest limit in recent years, management measures (i.e., minimum size, possession limits, and seasons) should be implemented that are designed to achieve the recreational harvest limit while preventing the recreational ACL from being exceeded.

### ***Commercial Gear Regulations and Minimum Fish Size***

Amendment 2 to the Summer Flounder FMP contains provisions that allow for changes in the minimum fish size and minimum mesh size provisions. The current commercial minimum fish size is 14 inches total length (TL). The 14-inch minimum size was implemented in 1997 and represented an increase from the previous minimum size of 13 inches TL.

Current trawl gear regulations require a 5.5 inch diamond or 6.0 inch square minimum mesh in the entire net for vessels possessing more than the threshold amount of summer flounder, i.e., 200 lb in the winter

(November 1-April 30) and 100 lb in the summer (May 1-October 31). The minimum fish size and mesh requirements may be changed through specifications based on the recommendations of the Monitoring Committee. The 5.5 inch diamond or 6.0 inch square minimum mesh size requirements were first implemented in 1993 under Amendment 2 to the FMP, but at the time applied only to the net's codend. Under Amendment 10 to the FMP, effective in 1998, the minimum mesh requirements were modified to apply throughout the whole net.

Some advisors and managers have suggested that changes to the commercial measures may be warranted. For example, several advisors have suggested that a minimum commercial fish size in the trawl fishery is not necessary if an appropriate minimum mesh size is in place, and that elimination of the minimum size would reduce regulatory discards. Given that these measures have not been re-examined in detail in several years, staff recommend that a thorough review be conducted to examine the current minimum fish size, minimum mesh size, and seasonal thresholds that trigger the minimum mesh size requirement, for consideration by the Council and Board in December. Pending additional analysis, staff has no specific recommendations for modifications to the commercial measures at this time.

### ***Minimum Mesh Size Exemption Programs***

#### **Small Mesh Exemption Area**

Vessels landing more than 200 lb of summer flounder, east of longitude 72° 30.0'W, from November 1 through April 30, and using mesh smaller than 5.5 inch minimum mesh (diamond) or 6.0 inch minimum mesh (square) are required to obtain a small mesh exemption program (SMEP) permit from NMFS. The exemption is designed to allow vessels to retain a bycatch of summer flounder while operating in other small-mesh fisheries. The exemption allows for the prosecution of a traditional small-mesh fishery while minimizing discards of summer flounder.

The FMP requires that observer data be reviewed annually to determine whether vessels fishing seaward of the SMEP line with smaller than the required minimum mesh size and landing more than 200 lb of summer flounder are discarding more than 10% (by weight) of their summer flounder catch per trip. Typically, staff evaluates the available Northeast Fisheries Observer Program (NEFOP) data for the period from November 1 in the previous year to April 30 in the current year. Due to data access limitations, staff are still working to complete this analysis. Additional information will be provided to the Monitoring Committee prior to their review of commercial measures. Pending additional analysis, staff has no specific recommendations for the small mesh exemption program at this time.

#### **Flynet Exemption Program**

Vessels fishing with a two-seam otter trawl flynet are also exempt from the minimum mesh size requirements. Exempt flynets have large mesh in the wings that measure 8 to 64 inches, the belly of the net has 35 or more meshes that are at least 8 inches, and the mesh decreases in size throughout the body of the net to 2 inches or smaller. Only North Carolina has a flynet fishery at present. The supplemental memo from Tom Wadsworth dated June 24, 2015 indicates that summer flounder comprised less than 0.05% of the total landings by flynet in North Carolina in 2014.

A review of North Carolina flynet landings from 2005 through 2014 indicates that summer flounder landings have generally declined since 2007, and have been under 2,000 lb since 2010 (Table 7). The decline in flynet landings has largely been attributed to shoaling in Oregon Inlet and the consequent lack

of access to important landing ports in North Carolina. Based on this information, staff recommends no change to this exemption program.

**Table 6:** North Carolina flynet landings for summer flounder, 2005-2014.

<b>Year</b>	<b>Summer Flounder Flynet Landings (lb)</b>	<b>Percent of Total NC Flynet Landings</b>
2005	4,102	0.05
2006	5,752	0.07
2007	7,067	0.13
2008	3,147	0.08
2009	2,842	0.05
2010	<2,000	<0.05
2011	<2,000	<0.05
2012	<2,000	<0.05
2013	0	0
2014	<2,000	<0.05

### ***Bycatch and Regulatory Discards***

Managers, advisors, and other stakeholders continue to highlight concerns over commercial regulatory discards associated with the summer flounder quotas and management strategies. In 1998 the Council and Board recommended that 15% of each state’s commercial allocation be set aside to mitigate discards after closure of the directed summer flounder commercial fishery. To be eligible to land this 15%, states were to adopt appropriate trip limits sufficiently restrictive to allow bycatch landings for the entire year without exceeding the state quota. Additionally, either the state or the fishermen were to participate in collection of additional discard data. Staff will work with the Monitoring Committee to review current bycatch measures and set-asides by state. Staff recommend that states that allocate 15% of their quota to bycatch fisheries should continue to do so, and all other states should consider measures to reduce bycatch.