



Mid-Atlantic Fishery Management Council
800 North State Street, Suite 201, Dover, DE 19901-3910
Phone: 302-674-2331 | FAX: 302-674-5399 | www.mafmc.org
Richard B. Robins, Jr., Chairman | Lee G. Anderson, Vice Chairman
Christopher M. Moore, Ph.D., Executive Director

MEMORANDUM

Date: January 29, 2016
To: Council
From: Julia Beaty
Subject: Unmanaged Forage Omnibus Amendment

The following documents are included for your consideration:

1. Summary of the January 6, 2016 Fishery Management Action Team (FMAT) meeting
2. Summary of January 11, 2016 Ecosystems and Ocean Planning (EOP) Advisory Panel (AP) meeting
3. Summary of January 22, 2016 EOP Committee meeting
4. Memo on NMFS process for Exempted Fishing Permits
5. Public comments on Unmanaged Forage Amendment received since December 2015 Council meeting

Staff recommendation for February 2016 Council meeting

The Council planned to review and approve a draft public hearing document during the February 2016 Council meeting. Council staff have not yet prepared this document, but will present an outline of the document during the February Council meeting.

Staff recommend that the Council review the recommendations of the EOP Committee, which include recommendations for a goal statement, a range of management alternatives, and a list of unmanaged forage species to include in public hearing documents. Staff propose that additional meetings of the FMAT, EOP AP, and EOP Committee occur prior to the April 2016 Council meeting and that public hearings take place starting in late April or early May 2016.



Unmanaged Forage Fishery Management Action Team January 6, 2016 Meeting Summary

The Unmanaged Forage Fishery Management Action Team (FMAT) met via webinar on Wednesday January 6, 2016 to discuss several aspects of the Council's developing Unmanaged Forage Omnibus Amendment.

Goals, Objectives, and Purpose and Need Statement

The FMAT discussed a draft statement of purpose and need for the amendment. The FMAT previously drafted the following purpose statement: "to use the Council's discretionary authority to prohibit the expansion of existing or development of new directed fisheries on unmanaged forage species in the Mid-Atlantic." The FMAT revisited this topic because the Council expressed concerns about the draft purpose statement during their December 2015 meeting. Specifically, some Council members wished to add "until adequate scientific information is available to promote ecosystem sustainability" to the end of the purpose statement. One FMAT member noted that purpose and need statements must meet specific requirements under the National Environmental Policy Act (NEPA). There is already an established process to allow new fisheries to develop, or existing fisheries to expand, through the use of exempted fishing permits (EFPs) issued by the National Marine Fisheries Service (NMFS). Because this process already exists, it does not need to be included in the purpose and need statement and does not require NEPA analysis. The FMAT recommended that the Council adopt a statement of goals and objectives, which is the usual framework for the Council to direct the development of an action. The statement of goals and objectives could address the issue of allowing new fisheries to develop and existing fisheries to expand. The FMAT recommended that the Council use the following as a starting point for discussion: "The goal of this action is to prohibit the development of new and expansion of existing directed commercial and recreational fisheries on unmanaged forage species in Mid-Atlantic Federal waters until the Council has had an adequate opportunity to both assess the scientific information relating to any new or expanded directed fisheries and consider potential impacts to existing fisheries, fishing communities, and the marine ecosystem." This goal statement is modeled on the December 2014 Council motion which initiated this amendment and on the purpose and need statement of the Pacific Fishery Management Council's Comprehensive Ecosystem-Based Amendment 1, which is very similar in intent to the Mid-Atlantic Council's Unmanaged Forage Omnibus Amendment. The FMAT recommended that the Council consider the following objectives to meet this goal: 1) Develop criteria to identify unmanaged forage species that are important for Council-managed predators, 2) Regulate catch of those forage species, and 3) Allow new fisheries for those species to develop, or existing fisheries to expand, only after the Council has had an adequate opportunity

to both assess the scientific information relating to the fishery and consider potential impacts to existing fisheries, fishing communities, and the greater marine ecosystem.

List of Species to Consider for Inclusion in the Amendment

The FMAT discussed a draft list of unmanaged forage taxa to consider for possible inclusion in the amendment. The list contains 286 unmanaged forage taxa and includes:

- Taxa identified as important or potentially important prey for Council-managed predators based on stomach content data from the NMFS Northeast Fisheries Science Center's (NEFSC) biannual bottom trawl survey and the Northeast Area Monitoring and Assessment Program (NEAMAP) bottom trawl survey¹
- Taxa identified as potentially important prey for any sampled fish (not just species managed by the Mid-Atlantic Council) in the Mid-Atlantic region of the NEFSC bottom trawl survey
- Taxa recommended during the public scoping process
- Taxa identified during literature reviews as forage species in the Mid-Atlantic region, including a review focused on the diets of highly migratory species (i.e. tunas, sharks, swordfish, and billfish)² and marine mammals

The FMAT divided the list of 286 unmanaged forage taxa into four levels to describe priorities for inclusion in the amendment. The four levels were defined based on the criteria shown in Table 1. The FMAT identified 47 taxa as priority 1 (the highest priority), 54 taxa as priority 2, 39 taxa as priority 3, and 146 taxa as priority 4 (the lowest priority). The FMAT intends for this prioritization scheme to be a starting point for consideration by the Ecosystem and Ocean Planning Committee and the full Council. The FMAT will add additional information on trophic level as a decisional criteria in the prioritization scheme in the near future. The list currently contains some taxa which are not considered forage; however, the FMAT did not wish to remove these species from the list without information on the trophic level of each taxa and an agreed upon definition of which trophic level defines "forage". The FMAT recently obtained a list of numerical trophic levels used by the NEFSC for ecosystem modeling. The FMAT will use this information to update the list in the near future and may use it to refine the prioritization scheme. Another factor that could affect the priority rankings and was not included in this initial prioritization is the likelihood that a given taxa could become the target of a directed fishery in the near future, based in part on whether it has ever been harvested anywhere in the world.

¹ The FMAT used the NEFSC's bottom trawl survey data from Mid-Atlantic offshore strata (which roughly correspond to Federal waters) and data from the entire survey area of NEAMAP (which includes depths from about 20 to 90 feet from Aquinnah, Massachusetts to Cape Hatteras, North Carolina). The FMAT defined "important" prey as those which made up more than 0.1% of the relative mean stomach weight of one or more predators of interest. The FMAT defined "potentially" important prey as those which made up at least 0.001% of the relative mean stomach weights. These stomach content data often do not identify items to the species level due to digestion and the limits of macroscopic inspection. Additionally, these trawl survey data may not accurately represent the diets of the fish captured due to gear selectivity, sampling only during the spring and fall, and other reasons. The FMAT set low thresholds for importance in order to improve the taxonomic resolution of the prey included in the list.

² The literature review of highly migratory species diets is ongoing. The FMAT plans to conduct a literature review of the diets of sea turtles and sea birds in the Mid-Atlantic in the future.

Catch and Landings Data

In December 2015, the Council requested that the FMAT compile catch and landings data and develop draft possession limits for key forage species. The FMAT began this process by compiling Vessel Trip Report (VTR) data, dealer data, and observer data on landings and/or discards (depending on the dataset) for as many taxa on the FMAT's species list as possible. Some taxa in the FMAT's list did not have corresponding species codes in the VTR, dealer, and observer databases. For this reason, and because some taxa may not have any reported landings and/or discards, the FMAT was only able to examine landings and/or discard information for a subset of the taxa of their list. The FMAT examined data summed over the entire Northeast region over about a 20 year time period. Because these data were not checked for confidentiality issues³ prior to the FMAT meeting, the FMAT shared this information in the form of ranked lists without associated poundage values. The FMAT agreed to remove confidential data and prepare new summaries with associated poundage values in time for consideration at the January 11, 2016 Ecosystems and Ocean Planning Advisory Panel meeting. This task was completed shortly after the FMAT meeting. Landings of some unmanaged taxa of interest as reported by Federally-permitted dealers are shown in Table 2. Landings as reported in VTRs are shown in Table 3. It is important to emphasize the limitations of Federal dealer and VTR data, particularly in relation to reporting requirements. Dealers which are not Federally-permitted are not required to report landings to NMFS. The VTR data is self-reported and is only required from fishermen with Federal permits. Additionally, there are no VTR requirements for the lobster fishery. For these reasons, dealer and VTR data potentially under-represent actual landings of some unmanaged forage taxa.

The FMAT also agreed to examine these data over smaller time increments and smaller areas (e.g. statistical area, state of landing, port state) prior to the January 22, 2016 Ecosystems and Ocean Planning Committee meeting. The FMAT agreed to further examine the VTR data to determine which unmanaged forage species have been caught by which gear types and in what quantities over the past 20 years.

The FMAT examined summaries of observer data shown as observed catches ranked from highest to lowest without associated poundage values (to protect confidential data). The FMAT concluded that these summaries had limited utility and that the observer data would be best used to examine discards. One FMAT member questioned the goal of examining discards. After some discussion, the FMAT agreed that they did not recommend regulatory action on discards of unmanaged forage species, but thought it would be important to analyze discards to determine which species could easily become the target of directed fisheries if new markets develop, to know when directed fisheries are developing or growing, and to better understand fishing mortality for these species.

³ Defined as data representing less than three individual dealers or fishing entities.

One FMAT member cautioned that the reporting requirements for vessels and dealers have changed over past 20 years. For example, VTR estimates of landings of species without Federal reporting requirements are likely to be underestimated, particularly if they are caught by vessels without a Federal permit. Similarly, Northeast Fisheries Observer Program protocols for collecting observer data have evolved over the past several years. Another FMAT member noted that some unmanaged species with relatively high landings in recent years, such as hagfish, may still have confidential data in recent years (Tables 2 and 3).

Abundance Data

In December 2015 the Council tasked the FMAT with compiling information on abundance of key unmanaged forage species in the Mid-Atlantic, as well as information on variability in abundance over time. The FMAT plans to compile historical data on frequency of occurrence in catches of NEFSC trawl surveys and state trawl surveys in the Mid-Atlantic in time for the January 22, 2016 Ecosystem and Ocean Planning Committee meeting.

Public Comment

About ten members of the public listened to the FMAT discussion. Four individuals provided public comments at the end of the meeting.

Three individuals were concerned that the amendment has changed significantly from how it was described during the public scoping process in August-September 2015. Specifically, over 200 species are now under consideration, compared to the nine that were presented during scoping. One individual said many fishermen thought this amendment wouldn't affect them at the time of scoping and now the amendment is likely to affect many fishermen; therefore, the Council should hold a second round of scoping hearings to inform the public of recent developments.

Two individuals stated that this amendment will have serious negative economic consequences for commercial fishermen and will shut down existing fisheries. One individual said there is a very low likelihood of directed fisheries developing for the vast majority of the species on the FMAT's list. Two individuals thought the amendment is developing too quickly. Two individuals said there are no measurable criteria to evaluate the success of this amendment.

One member of the public said the Council should present a large list of species, including low and mid-trophic level species, during public hearings and narrow down the list afterwards.

One individual said the purpose and need statement should contain "until adequate scientific information is available to promote ecosystem sustainability" and should make it clear that the Council intends to not only prohibit the development of new fisheries, but also to prevent existing fisheries from expanding. This is a key difference between the Mid-Atlantic Council's

amendment and the Pacific Council's amendment. One individual said the FMAT doesn't have the authority to define the goals of the amendment.

One individual said the FMAT should consider the possibility of localized depletion and the seasonal and local needs of predators.

One individual expressed support for the Pacific Council's approach of setting daily and annual catch limits that are high enough to account for most past landings and added that it is important to monitor discards so the Council can know when a new directed fishery develops.

Table 1: Criteria used to rank taxa by priority for inclusion in the Unmanaged Forage Omnibus Amendment.

<p>Priority 1 taxa (strong justification for inclusion in the amendment based on information collected by the FMAT)</p>
<ul style="list-style-type: none"> a) Distribution includes the Mid-Atlantic, and b) Identified as important or potentially important prey for Council-managed predators based on stomach content data from the NEFSC and/or NEAMAP trawl surveys, and c) Present in Federal waters (i.e. not primarily an inshore species)
<p>Priority 2 taxa (moderate justification for inclusion in the amendment based on information collected by the FMAT)</p>
<ul style="list-style-type: none"> a) Meet the criteria for priority 1, but not generally found in Federal waters (i.e. primarily an inshore species), or b) Meet the criteria for priority 1, but classified at too high a level (e.g. order, phylum) in the opinion of the FMAT, or c) Meet the criteria for priority 1, but adults commonly larger than 25 cm in length⁴
<p>Priority 3 taxa (limited justification for inclusion in the amendment based on information collected by the FMAT)</p>
<ul style="list-style-type: none"> a) Distribution includes the Mid-Atlantic, and b) Not identified as important or potentially important prey for Council-managed predators but identified as potentially important prey for other fish predators in Mid-Atlantic Federal waters (based on the NEFSC trawl survey), or c) Meet the criteria for priority 1, or criteria <i>a</i> for priority 2, but classified at too high a level (e.g. order, phylum) in the opinion of the FMAT, or adults are commonly larger than 25 cm in length⁴
<p>Priority 4 taxa (very weak justification for inclusion in the amendment based on information collected by the FMAT)</p>
<ul style="list-style-type: none"> a) Distribution does not include the Mid-Atlantic (i.e. rarely found in the Mid-Atlantic), or b) Not identified as important or potentially important prey for Council-managed predators, or other predators in the Mid-Atlantic, or c) Identified as potentially important prey for predators not managed by the Council but not generally found in Federal waters, or d) Meet criteria <i>a</i> and <i>b</i> for priority 3, but classified at too high a level (e.g. order, phylum) in the opinion of the FMAT, or adults are commonly larger than 25 cm in length³

⁴ The FMAT plans to remove this criteria and replace it with “considered a high trophic level taxa”.

Table 2: Federal dealer reported landings (in pounds) of unmanaged taxa of interest from Mid-Atlantic states from 2006-2015. “C” refers to confidential data representing less than three dealers or permit holders. (Unmanaged is defined as not managed by the Mid-Atlantic, New England, or South Atlantic Fishery Management Councils or by the Atlantic States Marine Fisheries Commission. Some taxa in this table may be managed at the state level.)

SPECIES	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
ARGENTINE	4,806	18,905	2,404	C	C	C	C	C	C	C
BAY ANCHOVY	C	C	C	C	C	C	C	C	264	337
CLAM, RAZOR	121,482	C	C	C	C	C	C	C	C	C
CONCHS	358,211	623,572	922,800	2,249,468	2,333,456	2,531,395	1,161,741	467,671	156,325	1,610,514
CRAB, HERMIT	C	C	26,898	17,042	C	C	C	C	C	C
CRAB, LADY	C	C	4,770	4,860	C	C	C	C	C	C
CRAB, ROCK	6,656	14,510	39,199	38,360	16,019	26,566	41,079	14,655	39,003	366,718
CUNNER	3,646	3,172	6,018	3,281	2,768	10,900	9,723	5,840	4,055	3,439
CUSK	C	C	C	C	C	C	C	C	C	C
CUTLASSFISH, ATLANTIC	5,180	26,820	42,168	24,591	6,926	2,028	21,442	116,457	169,687	183,313
DRUM, BRANDED	C	C	C	C	C	C	C	C	C	C
EEL, CONGER	43,950	60,527	59,696	29,864	33,754	26,155	33,759	46,636	55,301	28,207
EEL, SAND (LAUNCE)	C	C	C	C	C	C	C	C	C	C
FLOUNDER, FOURSPOT	10,915	14,740	20,430	13,292	15,786	11,956	24,930	19,501	6,231	10,177
FLOUNDER, GULFSTREAM	C	C	C	C	C	C	C	C	C	C
GIZZARD SHAD	359,665	561,302	1,286,308	1,902,067	1,896,053	1,258,974	1,830,491	1,392,844	1,638,201	1,384
HAGFISH	C	C	C	C	C	C	C	C	C	C
HAKE,SPOTTED	C	C	C	C	C	C	C	C	C	C
HARVEST FISH	139,452	278,075	267,738	172,304	123,547	146,638	334,087	175,353	138,602	163,295
HOGCHOKER	C	C	C	C	C	C	C	C	C	C
KINGFISH,NORTHERN	C	C	C	C	C	C	C	353	172	176
MACKEREL, CHUB	C	C	C	C	175,788	C	63,484	4,393,230	701,591	1,419,355
MACKEREL, FRIGATE	420	735	2,232	1,351	709	2,954	C	C	186	C
MULLETS	10,958	13,328	24,515	40,426	19,722	22,446	23,464	19,065	7,895	3,331
MUMMICHOG	C	C	C	C	C	C	C	C	C	C
MUSSELS	C	C	C	C	C	C	C	C	C	C

Table 2, continued: Federal dealer reported landings (in pounds) of unmanaged taxa of interest from Mid-Atlantic states from 2006-2015.

SPECIES	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
OCTOPUS	992	1,207	1,105	229	C	60	177	129	81	202
PERCH, SAND	1,802	6,871	3,280	1,059	1,344	C	716	4,893	1,338	495
PERCH, WHITE	847,697	1,136,623	1,039,895	1,587,390	1,965,886	2,363,017	2,098,530	1,360,556	1,569,417	53,607
PIGFISH	2,801	4,067	6,291	1,504	3,124	3,131	5,632	11,343	5,853	8,026
PINFISH	1,351	2,621	9,944	1,863	5,745	77	51	207	36	377
POMFRETS	C	C	C	95	126	84	32	41	52	44
PUFFER	8,159	76	104	139	5	2,926	2,602	934	1,134	200
PUFFER, NORTHERN	3,393	15,161	30,438	75,886	112,664	59,000	74,055	20,437	27,841	36,578
RIBBONFISH	C	12,674	27,070	7,576	71,687	4,791	55,437	33,819	19,159	4,034
RN GRENADIER	C	C	C	C	C	C	C	C	C	C
ROSEFISH, BLACK BELLIED	116	952	252	1,873	744	1,037	409	821	1,667	5,900
SCAD, ROUND	C	C	C	C	C	C	C	C	C	C
SCULPINS	C	C	628	C	C	C	C	C	C	C
SEA RAVEN	217	969	1,872	788	2,533	223	246	371	249	17
SEA ROBIN, ARMORED	C	C	C	C	C	401	C	C	C	C
SEA ROBIN, NORTHERN	C	395	C	530	234	55	288	2,938	1,190	983
SEA ROBIN, STRIPED	3,371	5,757	1,235	C	1,098	850	997	4,097	5,965	4,027
SEA ROBINS	27,353	20,441	18,681	45,824	44,237	59,778	39,366	26,107	26,678	65,373
SHEEPSHEAD	28,440	64,473	80,353	70,206	69,754	68,832	67,305	103,481	87,413	84,551
SHRIMP (MANTIS)	C	143	68	45	347	99	122	323	2,114	120
SHRIMP, CRANGON	C	C	C	C	C	C	C	C	C	C
SILVERSIDE, ATLANTIC	C	C	14,289	1,542	8,428	2,967	21,774	12,520	22,909	20,810
SMELT	C	C	C	C	C	C	C	C	C	C
STARFISH	C	C	C	C	C	C	C	C	C	C
STRIPED MULLET	525,625	510,537	972,931	538,550	561,423	706,429	987,505	828,735	1,039,460	612,726
TOADFISH, OYSTER	4,764	9,385	34,475	44,744	30,630	58,181	38,668	15,460	14,069	12,341
TRIGGERFISH	24,853	33,497	88,264	67,321	85,092	71,085	55,072	92,970	67,758	75,718
TUNA, LITTLE	101,312	133,795	175,959	101,372	93,347	91,781	161,230	180,229	234,487	160,030
WHITING, KING	312,064	462,391	1,046,183	361,070	459,644	164,045	342,187	321,184	570,034	490,399
WORMS	C	C	C	C	C	C	C	C	C	C

Table 3: Landings (in pounds) of unmanaged taxa of interest from Mid-Atlantic states from 2006-2015, as shown on Vessel Trip Reports. “C” refers to confidential data representing less than three dealers or permit holders. (Unmanaged is defined as not managed by the Mid-Atlantic, New England, or South Atlantic Fishery Management Councils or by the Atlantic States Marine Fisheries Commission. Some taxa in this table may be managed at the state level.)

SPECIES	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
BLACK BELLIED ROSEFISH	C	1,184	665	2,073	228	305	298	503	822	2,569
CLAM, RAZOR	C	C	C	C	C	C	C	C	C	C
CRAB, ROCK	17,805	13,400	6,457	11,771	9,920	12,926	3,775	4,313	8,992	24,223
CUNNER	3,655	4,085	6,400	5,295	2,788	11,591	8,565	6,116	4,095	2,718
CUSK	C	C	C	C	270	C	C	C	C	C
EEL, CONGER	17,391	13,067	18,495	9,580	13,952	11,730	23,161	44,190	45,237	27,596
FLOUNDER, FOURSPOT	11,725	22,422	19,751	14,534	11,929	8,849	4,875	2,596	2,253	5,562
HAGFISH	C	881,962	2,103,810	618,668	C	C	C	C	C	C
HAKE, SPOTTED	C	C	C	C	C	C	C	C	C	390
HARVEST FISH	41	613	1,469	976	635	316	1,067	1,044	2,574	2,038
KILLIFISH	C	C	C	C	C	C	C	C	C	C
MACKEREL, CHUB	C	C	38	C	C	345	533,318	4,318,431	741,705	1,411,171
MACKEREL, FRIGATE	208	679	3,565	7,403	831	2,703	661	109	7,401	444
MULLETS	13,357	15,002	28,509	18,063	13,640	6,935	26,519	16,332	27,932	2,379
MUSSELS	C	C	C	C	C	C	C	C	C	C
OCTOPUS, SPECIES NOT SPECIFIED	135	120	331	86	C	C	1,516	135	51	22
PERCH, SAND	C	C	C	C	C	C	C	C	C	C
PERCH, WHITE	5,433	10,295	1,975	13,690	4,885	C	872	C	3,492	1,099
PIGFISH	C	C	C	C	C	C	C	C	C	C
PUFFER, NORTHERN	503	167	1,525	218	362	1,863	2,147	790	140	20
RIBBONFISH	476	2,364	5,470	2,419	158	132	8,258	106,233	162,316	166,449
ROUGH SCAD	C	C	C	C	120	C	C	C	C	C
SCULPINS	484	2,059	798	39,021	135	504	40	478	229	73
SEA RAVEN	478	1,024	1,659	2,407	1,953	493	122	188	134	86
SEA ROBINS	35,810	43,127	13,787	26,812	25,193	29,441	21,161	15,918	17,689	47,012
SHAD, GIZZARD	50	101	C	C	C	C	C	C	C	C

Table 3, continued: Landings (in pounds) of unmanaged taxa of interest from Mid-Atlantic states from 2006-2015, as shown on Vessel Trip Reports.

SPECIES	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
SHEEPSHEAD	12,938	45,958	4,042	13,494	7,145	11,335	4,414	2,895	1,560	936
SHRIMP (MANTIS)	454	110,399	152,261	67,607	182,175	130,331	173,821	77,356	30,457	65,105
SILVERSIDES, ATLANTIC	9,188	7,794	C	C	C	C	C	100	C	443
SMELT	C	C	C	C	C	C	C	C	C	C
STARFISH	C	210	43	C	C	C	C	103	C	C
TOADFISH, OYSTER	7,889	2,249	858	11,391	17,097	7,210	5,187	10,708	5,258	420
TRIGGERFISH	2,218	6,559	3,479	9,657	4,019	7,378	8,165	5,604	4,922	1,688
TUNA, LITTLE	38,805	39,834	8,765	19,239	6,887	12,120	33,226	10,923	32,065	22,573
WHELK / CONCH, SPECIES NOT SPECIFIED	182,595	120,275	249,895	127,191	183,890	152,728	157,513	529,325	155,574	84,319
WHITING, KING / KINGFISH	195,297	268,486	303,704	97,635	247,273	181,687	68,433	68,241	122,312	54,537



Ecosystem and Ocean Planning Advisory Panel Meeting

January 11, 2016

Meeting Summary

The Ecosystem and Ocean Planning Advisory Panel (AP) met to discuss the Council's developing Unmanaged Forage Omnibus Amendment. The AP discussed a draft purpose and need statement, a draft range of alternatives, a process for prioritizing forage species for inclusion in the amendment, and landings information for some unmanaged forage species.

Advisory Panel (AP) members in attendance: Fred Akers, Bonnie Brady, Gregory DiDomenico, Joseph Gordon, Monty Hawkins, Roman Jesien, David Kaplan, Meghan Lapp, Carl LoBue, Pam Lyons Gromen, Peter Moore, Timothy O'Brien, Steven Ross, Robert Ruhle, Brad Sewell, David Wallace, Stephen Weiner, Judith Weis

Others in attendance: Aaron, Carly Bari, Chris W, David Stevenson, Erica Fuller, Jay Hermsen, Kate Wilke, Katie Almeida, Laurie Nolan, Purcie Bennett-Nickerson, Rick Robins, Tom Rudolph, Warren Elliott, Steve Marx, Gilly Lyons

Summary of comments:

Several AP members thought this meeting should have taken place in person rather than over webinar. A few AP members thought the AP should have been asked for input earlier. A few AP members thought the amendment is developing too quickly. A few AP members stressed that much more analysis of impacts needs to be done, especially before public hearings take place. Several AP members expressed frustration with the limited data available to assess impacts and to determine which forage species to include.

Several AP members thought the amendment should not shut down or constrain existing fisheries. Several individuals said the amendment will create unintended negative consequences for existing fisheries. One AP member worried that even if exempted fishing permits are allowed, they will take too long to obtain and fishermen will not be able to take advantage of forage species when they are abundant. Some AP members thought the purpose and need statement should include "until adequate information is available to promote ecosystem sustainability".

A few AP members said the Council should not regulate unmanaged forage species in the absence of reliable information on biological and economic impacts. However, a few others expressed an opposing opinion, that the Council should not allow fisheries to occur in the absence of reliable information on ecosystem impacts.

The AP did not reach a consensus of which forage species should be included in the amendment and how those species should be chosen. Some AP members thought the list should focus on those species with the most information or those with the highest potential for large-scale harvest. Other AP members thought the list should be broad and inclusive as a way of considering the whole ecosystem. Many AP members thought the current list is too long, but there was little agreement as to how to narrow it down. Many AP members thought the 0.1% and 0.001% thresholds used to define importance and potential importance in the diets of predators were far too low. One AP member suggested a 20% threshold, others suggested 5% and 1%. A few AP members said they did not want to recommend different thresholds without first understanding why 0.1% and 0.001% were chosen by the FMAT.

A few AP members thought the Council should hold a second round of scoping hearings. When this amendment was brought out to public scoping in August-October, 2015, a list of nine species was presented, along with a definition of “forage” agreed upon by the SSC. After scoping, the FMAT generated a list of 286 taxa for consideration for possible inclusion in the amendment. The FMAT was not able to use the SSC’s definition of forage to narrow down the list. Some AP members said that when the much shorter list was presented during scoping, many fishermen thought this amendment would not impact them and so they did not provide comments. Now that the FMAT has generated a much longer list, those fishermen may want to comment and should be given a second opportunity to do so.

Detailed comments:

Peter Moore: If a species is only partly covered in this because of the state/federal divide, it seems to me that’s not a good use of people’s time to develop an amendment that’s not going to look at the entirety of the ecosystem.

Pam Lyons Gromen: The FMAT has been focused on trophic pathways as the connection to Council-managed plans, but that idea wasn’t in the Council motion, correct? So that doesn’t mean that the FMAT won’t look at other ways to connect forage species to FMPs, such as catch?

Laurie Nolan: The chub mackerel fishery has been occurring sporadically over time. In some years there are significant landings, in other years it could seem that there is not fishery.

Peter Moore: I think we need to be careful when we say these are developing fisheries. I believe it is important historical perspective to note that we were landing chub mackerel off Cape May for most of the 1990’s when we operated the Russian freezing ships under the terms of our IWP (Internal Waters Processing Permits), which were approved by the governors. At the time I was VP Pelagic Operations for Resource Trading Company, based in Portland, Maine. We were buying pelagic species from Cape May fishermen, and this included some chub mackerel, along with Atlantic mackerel and sea herring. Chub mackerel was retained and sold to a different market than the Atlantic mackerel. We were separating the chub mackerel and sending it to a market in Japan. I do not recall if it was documented by the federal observers on the processing ships. I don’t know if they were identifying to the species. If that’s not in some landings information somewhere, it should be looked for. It was ephemeral, it wasn’t something we could always count on. I think it needs to be carefully done in this amendment. If it’s been a commercial fishery, why are you going to shut it off when people are able to do it ephemerally? Or at least let people do it and learn from it instead of shutting it off.

Joseph Gordon: This same group worked on the Deep Sea Corals Amendment. We largely agreed that corals were worth protecting and we worked together to find a good way to do it that was respectful of current industry. I hope we'll do the same with this amendment. As far as the purpose and need, I think the Council's motion was really clear. The motion was tabled at the last Council meeting was tabled because they thought the original motion was clear and the FMAT should be operating from it. What happened at this last FMAT meeting is rather than adding in that very important part, "until adequate information is available to promote ecosystem sustainability", the FMAT is proposing goals and objectives. While that is important, it's important that the Council develop a range of alternatives, which should include a pathway to a fishery and a Council review process. I don't know of anyone who supports any of the management alternatives proposed except for 2b (prohibit directed fishing, but allow an incidental possession limit). Pretty much everyone I've talked to wants to follow the Pacific approach. It's not about bycatch, it's about targeting. We need to determine the exact amount from a trip perspective and an annual perspective. I hope we can get past some of the debate that's been happening. This is not about shutting down fisheries. I think the only fishery that deserves a special focus is chub and only because there was a pretty large and unusual event of 7 million pounds in one year. If that's a unique event, then it shouldn't drive the discussion of this amendment, but we may want to consider some sort of cap.

Greg DiDomenico: If we have adequate alternatives in the rest of the document, why do we need alternative 3 (alternatives to limit capture – spatial closures, seasonal closures, and gear regulations)? I don't see any good in taking it out to public comment.

Pam Lyons Gromen: Given the definition of Ecosystem Component species, that they should be non-target species, how could the Council use alternative 2c (prohibit possession once a catch limit is met)? How could you set catch limits to encourage directed fishing, unless it's small-scale? It doesn't seem consistent with the Ecosystem Component approach. Also, for the purpose and need statement, why did the FMAT adopt language from the Pacific Council, instead of using "until adequate information is available to promote ecosystem sustainability"? Also, can you do an omnibus framework? I've never heard of one.

David Wallace: I'm very sorry that this meeting is not in person and set aside for a whole day. There are a lot of different, complex issues. For example, a list of 286 different species that we really need to get into with species-by-species deliberations. It's going to be impossible to have a meaningful discussion in four hours. And this is the first time the AP has been asked for our opinion. In the past, all the Councils developed amendments when there was some issue that needed to be addressed in a very focused manner. I want to use the analogy, if you're hunting deer you use a high powered rifle because if you use a shotgun, it's ineffective. In my opinion, this is a shotgun approach to fisheries management that doesn't take into consideration the unintended consequences that are going to come out of this. At this point in time we just don't have enough information to say what are we protecting and what are the impacts versus what is the loss of opportunity to the commercial and recreational fishing industry to expand and grow into new product that will take pressure off some of the fisheries that have already been severely restricted because of regulatory changes that have reduced their quota. A classic example is summer flounder in the current situation. I'm sorry that we're doing this on the fly. This is a very complex system. I would expect it's going to take years to get through this. The first thing we should have tried to do is at least get a consensus out of the AP.

Bonnie Brady: I think it would be important for the AP to meet in person. This amendment is too important to do piecemeal.

Meghan Lapp: I think we would benefit from in-person meetings and a lot more development of this. I don't think we're going to be able to discuss all of the issues with this. I think we would benefit from more AP meetings. Also, I want to echo what others have said about herring historically not being identified as either river herring or Atlantic herring in landings records. They were lumped together as just "herring" when reported. I think we're missing the time series of landings information with chub mackerel for the same reason, it was counted just as "mackerel" when reported. I've seen catch information for chub mackerel going back to the 1800s, even as far north as the Gulf of Maine.

Greg DiDomenico: Within the purpose and need and goals and objectives, I'd like additional language that specifically states that the amendment is intended not to constrain existing directed fisheries. I'd also like consideration of unique events for incidental catch of these species. I think it's in line with what the Pacific Council did and I don't see it as being an impediment to the goals of the amendment.

David Kaplan: I agree that we should meet in person. Is the concern from industry that this would create insurmountable barriers?

Greg DiDomenico: Yeah. The issue is that this is going to create an impossible and negative regulatory situation in the future that we will not be able to unravel. It will require frameworks and future amendments.

David Kaplan: If there were some reasonable legal limit so if just by chance if you catch these species you're not in trouble, that wouldn't address those issues?

Greg DiDomenico: Depending on what's on the list, that's a major problem. We're dealing with such sparse information. What are we going to base these numbers on? We're setting this up for a situation where we're going to create an apparent bycatch problem in fisheries where there never was a problem before.

David Wallace: It's going to happen that there is a forage species out there that has a huge biomass and has a very high reproductive system and someone finds a purpose for that fishery and it would take years to get permission to go catch that species if you are restricted under this proposed rule. If there was ever a killer for economic development in fisheries, this could be the poster child. The unintended consequences for that would just be unbelievable.

Bonnie Brady: I want to echo what everybody else said. The goal is not to create new choke species. Any kind of discard limit, to the extent that it becomes prohibitive, would be similar to the butterfish and squid scenario of years ago and that's not something industry can support.

Joseph Gordon: I think the Pacific Council's process would reassure people. If we take that path, it's not going to shut down fisheries. The Council should have a rational process for allowing new fisheries. The Council should have a consultative role if a new fishery is to develop. That's not saying never allow fishing. It basically sets up a process where there's a limit, it's a *di minimus* level, a level beyond which is clearly targeted fishing. Anything over that and you set up a Council review process and experimental fishery process that results in a stock assessment and FMP before a full fishery is allowed. I think that's a reasonable approach.

David Wallace: I've applied for a lot of exempted fishing permits. It takes a year to get one of those at best. Sometimes you can't get them at all. These EFPs were never designed for starting fisheries. They were designed for protecting fisheries that already exist.

Peter Moore: One of the things that distinguishes the Mid-Atlantic from the New England Fishery Management Council is that the process has been very thoughtful and results in fewer unintended consequences than what has happened in New England. I'm on different advisory bodies for both Councils. Going back to Dave Wallace's comment, this is definitely a shotgun approach. Chub mackerel is one of the species I can point to on this list and say this had a fishery. Back in the '90s things were not necessarily identified properly. We called river herring "herring". We have to be very careful. One of the things this Council has prided itself on is maintaining a balance between creating opportunity and – think of the butterfish and squid situation. The butterfish fishery was essentially closed because there was not a proper process. Now we have one and now it's open and it contributes to well-being. I think that's the mission of the Council, to manage stocks and create opportunities. I think this is a big ball of yarn that is not being given the typical amount of time that the Council has typically operated on. Others have mentioned the Deep Sea Corals process. That whole process was really pulled out of the fire by Greg DiDomenico. Had it gone the way it was going, it would have been a horrible outcome. I just hope that we learn from the process. We have not been given the face time together to bring our expertise together and ask the hard questions and get answers.

Meghan Lapp: When I look at a lot of the things that have been proposed so far, I see things like bycatch reduction devices, spatial closures, temporal closures, gear restricted areas, and those have serious potential to limit existing fisheries. That's the kind of analysis that if we rush through this and don't look at the interactions, we have the potential to shut down multiple fisheries. That's clearly not the intent. We need to include in the purpose and need statement that the purpose is not to shut down existing fisheries. Just like with the coral amendment, there was a freeze the footprint approach so as not to shut down operational fisheries. We should not constrict or constrain existing fisheries.

Brad Sewell: This amendment, to us, seems particularly progressive in how it guides economic development and ecological protection. This enables economic development to not occur in a vacuum, but to occur with oversight of the Council and to allow for maximum benefits to existing fisheries and the ecosystem. It seems that what's occurring currently is a shotgun approach in terms of development of these fisheries, as opposed to a thoughtful approach.

David Kaplan: In terms of determining a level to define directed catch, I'm not sure how that would be done for recreational fisheries.

Joseph Gordon: The Pacific Council set a relatively high threshold for *di minimus*. Depending on what this Council decides, recreational fisheries could become irrelevant.

David Kaplan: There are some very important recreational fisheries here. I'm not sure if the catch of those fisheries add to something significant, but *a priori*, I wouldn't think it's important.

Robert Ruhle: There's no information on what's the appropriate amount of interaction between these fish and any given fishery. There's no talk of taking a certain time period to assess what's the appropriate level of interaction. There are no stock assessments to determine how much bycatch is too much, how much interaction is too much. As others have said, up until the early 2000s, there wasn't a

distinction between river herring and herring. And most of these species on the list, I've never even heard of. They're not data-poor stocks, they're data non-existent stocks. You need to find out what the current level of interaction is before you put any kind of bounds on it.

Meghan Lapp: I think we need to return to the original definition of forage that was included in the scoping document. A lot of these species don't meet that definition and were added after scoping. I don't believe that's right. It precluded a lot of people who would be affected by this from commenting on the scoping document. Now with the inclusion of stuff that does not meet the original definition, it could affect them, but the scoping period is closed. In the scoping document, what was considered a forage fish, and I'll read it from the document, it says "comprises a considerable portion of the diet of other predators in the ecosystem in which it resides throughout its lifespan, usually greater than 5% diet composition for greater than 5 years". 0.1% is a lot different than 5% and there's no time series information. To tell me that something that is 0.1% of relative mean weight of a stomach content, I don't think that's important. I think it needs to be higher and it needs to be consistent over a time period. 0.1% could just be while it's in the net, in the codend, this fish ate another fish. That doesn't mean it would be a consistent part of the diet. Because this amendment is supposed to be Mid-Atlantic Federal waters only, are you limiting the diet data to Mid-Atlantic Federal waters only? *(Yes, for trawl survey data. NEAMAP data is inshore waters- mostly state waters, but some Federal waters.)* Does it include southern New England? *(Yes.)* I know the way the science center processes stomach contents is very subjective. They basically eyeball it. If you have something with a very low threshold, that subjectivity may not be erased, which is all the more reason for a higher threshold and time series information to make sure that something really is an important food source.

Greg DiDomenico: I agree with what Meghan just said. We've seen numerous citations of thresholds infinitely higher than what you're talking about. From a practical matter, I can't believe the reasoning for choosing such a low threshold is because of the difficulty of identifying what people are finding in the survey. If someone would have said, we're going to do an amendment based on stomach contents and I think you need to do a better job of identifying stomach contents, even the digested components. Even if it means genetic testing. We're going to make future decisions on what you're collecting so you better do it even better. I think the threshold needs to be in the 20% range.

Bonnie Brady: I'll echo what Meghan and Greg said. 0.1%, that's one one thousandth of one percent? Which basically means that if we eat three meals a day for a year, one of those meals in an entire year is considered important. It doesn't make any sense to use that as important in the diet. These fish eat what's abundant and near to them. They're not always going to eat their favorite food. They vary. I just think the numbers are crazy. I think this is exactly why some of us in industry are fearful of this amendment. You have so many species based on 0.1%.

Pam Lyons Gromen: I'm looking at the revised criteria to rank the list by priority. One change from the last meeting was the potential for a fishery to develop. That's not included any more, correct? I think it should be considered. For example, chub mackerel, all of us are concerned one way or another with how this will be treated. It has fallen out to the last tier of priority with no concern given to how these species are vulnerable to fisheries now. I think we have to include that in the criteria. We need something that talks about the potential for a fishery to develop, or if it's already caught in existing fisheries. This would help us decide on a much smaller list of species. We can make changes to the list through frameworks.

Joseph Gordon: I'm worried that we're heading down a path driven by a bad interpretation of the Ecosystem Component species role. I don't think this process of proving importance in the diet is necessary. I think it's up to the Council to decide what they think is important to protect. I want to give a quote from the Pacific Council: "All of the subject species would be identified in all four FMPs as Ecosystem Component species, to recognize that, as a group, these species serve as prey for many higher order California Current Ecosystem predators, including FMP species. The advantage of this pathway is that it does not require the Council to assess the specific links each of the species or species groups have to FMP fisheries. Under this pathway Ecosystem Component species would be identified in all FMPs to address 'other ecosystem issues,' because these species are the broadly used prey of marine mammal, seabird, and fish species in the West Coast EEZ." The data in the spreadsheet are limited. It would be great if the FMP had more time to do more review of HMS and marine mammals. I think we could simplify this by looking at the taxonomic levels that are higher such as families.

Steve Ross: This subject seems to be complex enough that we really need to have a different kind of meeting. In terms of how we define prey items that are driving this list, stomach content analysis is imprecise, and that's frustrating. There are other tools that we could use, stable isotope analysis, genetic analysis, different kinds of chemical analysis. Nobody's got the money for those. These data are from big programs that have been going on for a long time. What we're suffering from is not having enough information for why these numbers were put in front of us. It seems like all of us are wondering where these numbers come from. Instead of trying to say if one number is better than another, we need more background information. There are other ways to examine prey. Frequency can be just as important as weight. It seems that we're getting bogged down in details. I would like to caution that this prey analysis is probably as good as we're going to get in the northeast, at least for now.

Fred Akers: I think the marine food web is much too complex for science to sort out any time soon. The column that has what species are listed in the Mid-Atlantic should be the ones to focus on. The more inclusive the better because this is about ecosystem protection.

Judith Weis: We have to trim down this list a lot. We should go for a 1%, rather than 0.1%, and 0.1 instead of 0.001. We should insert a bit of realism and practicality. The odds of developing a fishery for amphipods or for these various kinds of worms or brittle stars or jellyfish is so incredibly low. If a fishery ever develops for any of those, that would mean we've fished everything else out. I would recommend getting rid of those extremely impractical taxa.

Monty Hawkins: This whole thing about stomach content analysis is troubling to me. I believe sea bass primarily eat krill. We also know they eat sand lance, butters, even surf clams once in a while. But if you look at the science, the only thing they eat is crabs and lobsters. We haven't come terribly far with the stomach content analysis yet. I certainly don't agree with 0.1% unless science says otherwise.

David Kaplan: It does seem that the stomach content analysis is more dangerous than it's worth. If we're going to do it, we should probably do it better. It's true that in stomach contents a lot of the stuff is all mush and you can't really tell what it is. Usually in stomach content analysis there's an indication of how digested the stuff was. You could limit your analysis to just the fresh stuff. Maybe we could reduce the data so we could get a more robust number of out if. People have mentioned lipids and stable isotopes. I don't think those would help at all. You wouldn't be able to get species. You could do genetic bar coding, but that's really expensive. I think stomach contents are the best you're going to get. The problem is that whatever percentage we chose will seem arbitrary. It would be better if that percentage

could be backed up in some way. It could come from the literature or you could look at what's biologically important. One worry with this type of analysis is that maybe the percentages aren't low enough. Maybe there are species that are eaten at certain times of year that aren't even showing up. In pelagic species modeling, consumption is usually treated as random, they eat whatever species they encounter. In those cases, the most important forage species will be at a certain trophic level and will represent a certain level of biomass. We could just forget the stomach content analysis and just look at what's out there, according to trawl surveys.

Erica Fuller: I'd like more clarification on the GARFO advice that if you chose to amend the existing FMPs that you have to restrict this amendment to just Council-managed predators. Based on my reading of the National Standard Guidelines, the Ecosystem Component category can be used for a lot of reasons and in a lot of ways. If the intent is to advance EAFM, the whole idea that you need a nexus or a very specific food content percentage seems like a policy choice, not a legal limitation. I think it would be helpful if GARFO could point to exactly what they're relying on when making that advice. The Pacific did tie their species to Council-managed predators, but that wasn't the primary reason for doing it. I've heard lots of talk during FMAT meetings of prey for HMS, marine mammals, and even sea turtles. It seems like it's a Council choice just to limit to Council-managed predators, rather than an FMAT choice.

Monty Hawkins: What I left off in my comment was the reason crabs show up so often in the sea bass stomach contents is because they take so long to digest. The bigeye krill comes out as a mush.

David Kaplan: This list - do we want it to be as inclusive or as exclusive as possible? You could see it either way. Maybe we want to err on the side of being more inclusive, in which case the exact details of how you make that list are not important. Or maybe we want to be more strict. Maybe we're making a big deal out of the details of the analysis and maybe those details aren't important. But it really depends on how those details are going to be used. If it's going to be used to place restrictions, then it's useful. If it's just saying we want to keep track of these species, then maybe it's important that the list include all the important species.

Meghan Lapp: We catch swordfish with huge chunks taken out of them. Clearly that fish was forage for something. By this definition, swordfish could be a forage fish and I don't think that's what the Council intended. I do think there needs to be a more restrictive set of criteria. Otherwise you could have that showing up.

David Kaplan: Forage is probably intended to refer to a mid-trophic level.

Bonnie Brady: I believe the Clay paper said 5%, wasn't that the rule? Even if we go with 1% instead of 0.1%, why are we going with such a small value for importance? Important to me means something that is a vital component of their daily diet. To me, even 1% isn't an important component of their diet. Can we not as an advisory panel chose a higher number? Can we come up with a consensus?

Unknown: I would rather not until I understand how they came up with these numbers in the first place.

Unknown: I would echo that. I would say that in the end it's going to have to be more than just a percentage that ends up on the final list.

David Kaplan: Looking across the ecosystem at some percentage indicator is probably a bad way to go. What's lost in this discussion is when you talk in an ecosystem sense, you usually talk about important

prey species that are important for individual predators or for a wide swath of the ecosystem. That ecosystem effect is lost in this discussion. I would almost put more confidence in expert opinion. We know what the important species are. I'd rather go with that than try to choose an arbitrary percentage.

Robert Ruhle: This list is mammoth. There's not enough information to drive any of this. You're using ludicrously low values for stomach content information, and that's all you're basing this off of. I think the list should start small. Start with the species you have the most information for and build off that. You've got to have the science to back it up and it's not there. To me, from an industry standpoint, to include things and then remove them after you have the science, is not going to work. I think you should start small and use solid information on dietary complexes of known species and the importance of forage as a food source, but you also need to understand the natural biological fluctuations in these species. Most of these species I'm looking at, there's just no information on them.

Joseph Gordon: This is about landings. This is about directing and this is about large scale. We don't have those defined yet, but once we do, a lot of these species will become irrelevant for the amendment. The length of the list – we could get caught up in it and I hope we don't. Going from here there's the talk of a PID and another public process so there'll be ample opportunity for input, for all stakeholders including industry to provide their data. I think we can do what the Pacific did and focus on the higher taxonomic levels like families and get beyond the need to prove importance and focus on what scientists and stakeholders believe are the most important forage, and hopefully that's a big list, and come up with a rational policy for adding new fisheries.

Julia Beaty: I've heard a few comments like, "We know what's important." Would anyone be willing to share which species they personally think are important for including, or not including?

Greg DiDomenico: I'd just as soon go back to the original list you took out to public comment.

Joseph Gordon: I would argue that the larger list that came out of public comment should be included, for example, Spanish sardines, chub mackerel, sand lance, and copepods.

Greg DiDomenico: I don't argue with you over chub mackerel and Spanish sardines. The list should be less than a dozen.

Bonnie Brady: If the list is supposed to cover those with emerging fisheries...to pare down to those fisheries which are probably...*(poor reception, did not catch full comment)*.

Carl LoBue: I think eventually there will be some whittling down of this. I think there's danger with going too far with too big a list. It raises red flags with things that might not be that abundant and could already be harvested as bycatch. I think the intent was to focus on things that could be harvested in large volumes.

Pam Lyons Gromen: In looking at the landings numbers, is there a way to discern what was part of incidental catch and what gears? I think it would be helpful to understand more about the nature of these landings.

Meghan Lapp: I think stuff like this landings information needs to be analyzed in more detail at future AP meetings. We only got this Friday afternoon. I haven't had time to look it over and compare it to any of our landings reports. I think it would be worth looking at this in more detail at a future AP meeting.

Greg DiDomenico: Can we access these landings data after we chose the list of species? I think it would only be helpful once we have the list of species. I don't think we're going to make heads or tails of this list, with the exception of removing those with landings that we know are from inshore state fisheries or something like that. For example, hermit crabs, razor clams, bay anchovy. Otherwise, I don't see this being particularly helpful right now.

Judith Weis: I think these landings data could be useful for what's not on it. Like the little things that nobody pays attention to that I mentioned early, like amphipods and brittle stars and comb jellies and jellyfish and copepods. I think that might be one use for this.

Joseph Gordon: I think we can give advice on that, but I don't think that should be decided here. There's an active copepod fishery elsewhere in the world, so I definitely think that should be included. At high volumes, they can be marketed, like krill is. I think krill and copepods should be on the list.

David Wallace: There was one comment earlier today that was appropriate. The original scoping document had one set of alternatives and then others were added after scoping. There were additions to the list which were not part of the scoping process. So the real question is should it go back out to scoping so everyone has an opportunity to look at the new list, which is very much expanded to 286 species or groups? I think there's some real consideration to be given to re-scoping this amendment.

Robert Ruhle: Do we have any stock status information for any species on this list or any biological information at all to go by? A lot of these species don't show up in trawl surveys. It's going to be hard to get an estimate of abundance for a lot of these species.

Fred Akers: I thought the purpose of this amendment was to protect the species that we don't have data on and don't know a lot about and that we wouldn't direct on them until there's more data to tell us how many we could take. I'm interested in the landings information. Those are unmanaged species on that list. Is there any sustainability information for those species? How are we fishing for them without that information?

David Wallace: I'm trying to remember all the NEPA requirements. There's going to have to be a lot of scientific analysis, a cost benefit analysis for each one and a cumulative analysis after the public hearings and then the Council decides if they are going to come up with a preferred alternative. There's huge amounts of work that have to be done that aren't illustrated here at all. I don't know how you can move forward until you pull that information together and run it through the committee and council process. I don't think this amendment is ready for show time.

Bonnie Brady: The difference between 12 species and 280 is exponential. When industry got the scoping packet and saw what was there, they're not going to pull nematodes and sea squirts out of their back pocket if they don't see them on the list. I think it's the only fair thing to do. If you want to actually find out from a variety of stakeholders, you'd need to re-scope or stay with something that's limited. Use the list in the white paper as a starter and add whatever the rest of us can agree on. Otherwise I don't think it's an adequate scoping process.



Ecosystem and Ocean Planning Committee Meeting

January 22, 2016

Meeting Summary

Committee members in attendance: Warren Elliott (committee chair), John McMurray (vice-chair), Lee Anderson, Patricia Bennett, Peter deFur, Jeff Kaelin, Mike Luisi, Laurie Nolan, Adam Nowalsky, Rob O'Reilly, Sara Winslow

Others in attendance: Rick Robins (Council chair), Julia Beaty (Council staff), Rich Seagraves (Council staff), Jessica Coakley (Council staff), Kiley Dancy (Council staff), Fred Akers, Katie Almeida, Carly Bari, Purcie Bennett-Nickerson, Noah Chesnin, Greg DiDomenico, Emilie Franke, Erica Fuller, Joseph Gordon, Annie Hawkins, Bev Landstreet, Meghan Lapp, Carl LoBue, Katie Richardson, Tom Rudolph, Laurel Smith, David Stevenson, David Wallace, Kate Wilke, Aaron, Rebecca

The Ecosystems and Ocean Planning (EOP) Committee met via webinar to discuss several aspects of the Unmanaged Forage Omnibus Amendment and to develop recommendations for the full Council. The Committee ended their meeting earlier than planned due to hazardous weather conditions and was not able to discuss all items on the agenda. Committee recommendations are summarized below.

Purpose statement, goals and objectives

The Committee discussed a draft purpose statement and a draft statement of goals and objectives developed by the Unmanaged Forage Fishery Management Action Team (FMAT). The full FMAT recommendations can be found in the summary of the January 2016 FMAT meeting, which is included in the February 2016 Council meeting briefing materials. The Committee debated whether or not "...until adequate information is available to promote ecosystem sustainability" should be included in the purpose statement. The Committee ultimately agreed that this phrase should not be included in the purpose statement and recommended adding "to advance ecosystem approaches to fisheries management in the Mid-Atlantic" to the FMAT-recommended goal statement. The full goal statement recommended by the Committee reads:

"The goal of this amendment is to prohibit the development of new and expansion of existing directed commercial and recreational fisheries on unmanaged forage species in Mid-Atlantic Federal waters until the Council has had an adequate opportunity to both assess the scientific information relating to any new or expanded directed fisheries and consider potential impacts to existing fisheries, fishing communities, and the marine ecosystem, in order to advance ecosystem approaches to fisheries management in the Mid-Atlantic."

Management alternatives

Council staff presented the following management alternatives, which were developed by the FMAT:

1: No action

2: Prohibit harvest

2a: Prohibit all possession

2b: Prohibit directed fishing, but allow an incidental possession limit

2c: Prohibit possession once a catch limit (e.g. a directed fishery possession limit or an annual landings limit) is met

3: Limit capture

3a: Spatial closures

3b: Seasonal closures

3c: Gear regulations

4: Administrative alternatives

4a: Modify list of approved fisheries and gear types (50 CF 600.725)

4b: Frameworkable items

i: List of ecosystem component species

ii: Spatial and seasonal closures (if any)

iii: Gear regulations (if any)

iv: Possession limits (if any)

The Committee agreed to add an additional sub-alternative to alternative 2. The new alternative (alternative 2d) would allow an incidental possession limit once an annual catch limit is met.

The Committee also agreed to remove alternative 3 from further consideration; however, they wished to retain alternatives 4b ii-iv, which would make the items previously listed under alternative 3 frameworkable.

List of unmanaged forage species to include in the amendment

The committee recommended that the following taxa be included in a public hearing document and considered for inclusion in the amendment (excluding species which are currently managed and those that are not found in Federal waters):

- Engraulidae (anchovies)
- Clupeidae (herrings, sardines) – round and thread herring/Spanish sardines
- Argentinidae (argentines)
- Atherinopsidae (silversides)
- Ammodytidae (sand lances)
- Sternoptychidae (pearlsides)
- Moronidae (perches)
- Chlorophthalmidae (greeneyes)
- Trachipteridae (ribbonfish)
- Scombridae (chub, bullet, frigate, little tuna “false albacore”)
- Scomberesox saurus (Atlantic saury)
- Hemiramphidae (halfbeaks)

- Peprilus paru (harvestfish)
- Tautogolabrus adspersus (cunner),
- Ophidiiformes (cusk eels)
- Pelagic molluscs (squids, cuttlefish etc.)
- Copepods, Krill, Amphipods and any other species under 1 inch as adults

The Committee agreed that this list seemed appropriate for presentation at public hearings. A few committee members requested that the species within each family on the list be delineated. The Committee recommended that the FMAT review the list to determine if any species of high ecological importance are missing. An incomplete version of an expanded list is included in the appendix to this document.

Process for allowing new fisheries to develop

The Committee recommended that the FMAT develop a proposal for a process to allow new fisheries for unmanaged forage species to develop. Several Committee members thought the existing process for obtaining Exempted Fishing Permits from the NMFS Greater Atlantic Regional Office was insufficient, namely because it does not ensure meaningful involvement of the Council and also because, in the opinion of some Committee members, it does not require sufficient consideration of the ecosystem impacts of new fisheries.

APPENDIX: Expanded list of taxa recommended by EOP Committee

Council staff expanded the list of taxa recommended by the EOP Committee to the species level where possible. The list recommended by the EOP Committee included 17 taxa. Council staff identified at least 51 unmanaged species and 10 higher-level groupings (e.g. orders and families) based on the Committee's list. The following list was not reviewed by the Committee. It has not been reviewed by the FMAT or other experts and is incomplete. Council staff will solicit feedback from the FMAT prior to the February 2016 Council meeting.

Engraulidae (anchovies)

This family contains 146 species, at least four of which are found in the Mid-Atlantic:

- Striped anchovy, *Anchoa hepsetus*
- Dusky anchovy (aka shortfinger anchovy), *Anchoa lyolepis*
- Bay anchovy, *Anchoa mitchilli*
- Silver anchovy, *Engraulis eurystole*

No anchovy species in the Mid-Atlantic are managed by a regional fishery management council or by the Atlantic States Marine Fisheries Commission (ASMFC)¹.

Clupeidae (herrings, shads, sardines, menhadens)

This family contains 198 species, 11 of which occur in the Mid-Atlantic. The following five species are not currently managed by a regional fishery management Council or by the ASMFC:

- Gizzard shad, *Dorosoma cepedianum*
- Round herring, *Etrumeus teres*
- Scaled sardine, *Harengula jaguana*
- Atlantic thread herring, *Opisthonema oglinum*
- Spanish sardine, *Sardinella aurita*

Staff recommend that gizzard shad not be included in the amendment as they occur primarily in freshwater and estuaries.

This family contains six species which are managed by the ASMFC and/or the New England Fishery Management Council: blueback herring (*Alosa aestivalis*), hickory shad (*Alosa mediocris*), alewife (*Alosa pseudoharengus*), American shad (*Alosa sapidissima*), Atlantic menhaden (*Brevoortia tyrannus*), and Atlantic herring (*Clupea harengus*). These species will not be included in the Unmanaged Forage Omnibus Amendment. Because this family contains more managed species than unmanaged species, staff recommend that the species proposed for inclusion in the amendment be listed individually, rather than grouped at the family level.

¹ The Council has indicated that, for the purposes of this amendment, "unmanaged" means not managed by the New England, Mid-Atlantic, or South Atlantic Fishery Management Councils, or by the Atlantic States Marine Fisheries Commission.

Argentinidae (argentines or herring smelts)

This family contains 27 species, at least three of which are found in the Mid-Atlantic. No argentine species are managed by a regional fishery management council or by the ASMFC.

- Atlantic argentine, *Argentina silus*
- Striated argentine, *Argentina striata*
- Pygmy argentine, *Glossanodon pygmaeus*

Atherinopsidae (neotropical silversides)

This family contains 110 species, at least three of which are found in the Mid-Atlantic. None of these species are managed by a regional fishery management council or by the ASMFC.

- Rough silverside, *Membras martinica*
- Inland silverside, *Menidia beryllina*
- Atlantic silverside, *Menidia menidia*

Ammodytidae (sand lances)

This family contains 31 species, two of which are found in the Mid-Atlantic. Neither of these species are managed by a regional fishery management council or by the ASMFC.

- American sand lance, *Ammodytes americanus*
- Northern sand lance, *Ammodytes dubius*

Sternoptychidae (marine hatchetfishes)

This family contains 73 species, at least two of which are found in the Mid-Atlantic. Neither of these species are managed by a regional fishery management council or by the ASMFC.

- Muller's pearlside, *Maurolicus muelleri*
- Weizman's pearlside, *Maurolicus weitzmani*

Moronidae (temperate basses)

This family contains 6 species, two of which are found in marine waters in the Mid-Atlantic. Both of these species occur primarily in freshwater, brackish water, and coastal marine environments. This family contains striped bass (*Morone saxatilis*), which is managed by the ASMFC. This family contains one marine species which is not managed in the Mid-Atlantic:

- White perch, *Morone Americana*

Chlorophthalmidae (greeneyes)

This family contains 17 species, at least one of which is found in the Mid-Atlantic. No species of greeneye are managed by a regional fishery management council or by the ASMFC.

- Shortnose greeneye, *Chlorophthalmus agassizi*

Trachipteridae (ribbonfishes)

This family contains ten species, at least two of which are found in the Mid-Atlantic. No species of ribbon fish are currently managed by a regional fishery management council or by the ASMFC.

- Polka-dot ribbonfish, *Desmodema polystictum*
- Scalloped ribbonfish, *Zu cristatus*

Scombridae (mackerels, tunas, bonitos)

This family contains 54 species, at least 16 of which are found in the Mid-Atlantic. At least 6 species in this family are not currently managed by a regional fishery management council or by the ASMFC:

- Bullet mackerel, *Auxis rochei*
- Frigate mackerel, *Auxis thazard*
- Little tunny (aka false albacore), *Euthynnus alletteratus*²
- Skipjack tuna, *Katsuwonus pelamis*
- Atlantic bonito, *Sarda sarda*
- Atlantic chub mackerel, *Scomber colias*
- Blackfin tuna, *Thunnus atlanticus*

The following nine species of scombridae are managed by the Mid-Atlantic or South Atlantic Fishery Management Council or by the NMFS Office of Highly Migratory Species: wahoo, *Acanthocybium solandri*, Atlantic mackerel, *Scomber scombrus*, King mackerel, *Scomberomorus cavalla*, Spanish mackerel, *Scomberomorus maculatus*, Cero, *Scomberomorus regalis*, Albacore, *Thunnus alalunga*, Atlantic bluefin tuna, *Thunnus thynnus*, Yellowfin tuna, *Thunnus albacares*, and Bigeye tuna, *Thunnus obesus*.

Because this family contains more managed species than unmanaged species, staff recommend that the species proposed for inclusion in the amendment be listed individually, rather than grouped at the family level.

***Scomberesox saurus* (Atlantic saury)**

The Atlantic saury, *Scomberesox saurus*, is the only member of the Scomberesocidae family that is found in the Mid-Atlantic. It is not managed by a regional fishery management council or by the ASMFC.

² Little tunny were included in the South Atlantic Council's Coastal Migratory Pelagics Fishery Management Plan for over two decades for data collection purposes to determine if future management was warranted. The South Atlantic Council never developed regulations for little tunny and removed them from the FMP in 2011 through Amendment 18.

Hemiramphidae (halfbeaks)

This family contains 63 species, four of which are found in the Mid-Atlantic. None of these species are managed by a regional fishery management Council or by the ASMFC. Two of these species, balao and ballyhoo, are managed by the Florida Fish and Wildlife Conservation Commission.³

- Flying halfbeak, *Euleptorhamphus velox*
- Balao, *Hemiramphus balao*
- Ballyhoo, *Hemiramphus brasiliensis*
- False silverstripe halfbeak (aka American halfbeak), *Hyporhamphus meeki*

***Peprilus paru* (harvestfish)**

The EOP Committee recommended that harvestfish, *Peprilus paru*, be included in the amendment at the species level, rather than being listed at the family level. Harvestfish are a member of the Stromateidae family. Only one other member of the Stromateidae family is found in the Mid-Atlantic: the butterfish, *Peprilus triacanthus*, which is managed by the Mid-Atlantic Council.

***Tautogolabrus adspersus* (cunner)**

The EOP Committee recommended that cunner, *Tautogolabrus adspersus*, be included in the amendment at the species level, rather than being listed at the family level. Cunner are a member of the labridae family. Only one other member of the labridae family is found in the Mid-Atlantic: tautog, *Tautoga onitis*, which is managed by the ASMFC.

Ophidiiformes (cusk eels)

Ophidiiformes is an order which contains three families and 506 species, at least three of which are found in the Mid-Atlantic. None of these species are managed by a regional fishery management council or by the ASMFC.

- Chain pearlfish, *Echiodon dawsoni*, carapidae family (pearlfishes)
- Fawn cusk-eel, *Lepophidium profundorum*, ophidiidae family (cusk-eels)
- Striped cusk-eel, *Ophidion marginatum*, ophidiidae family (cusk-eels)

³ <http://myfwc.com/fishing/saltwater/recreational/history/a-g/>

Pelagic molluscs (squids, cuttlefish, etc.)

There are over 50,000 species of molluscs. Council staff were unable to delineate all pelagic mollusc species in the Mid-Atlantic prior to the briefing book deadline for the February 2016 Council meeting. Council staff identified the following taxa which contain at least one pelagic mollusk species; however, this list is likely not comprehensive:

- Squids
 - Ommastrephidae (the arrow squid family)
 - This family contains northern shortfin squid, *Illex illecebrosus*, which is managed by the Mid-Atlantic Council
 - This family contains at least three species which are not managed by a regional fishery management council or by the ASMFC:
 - Sharptail shortfin squid, *Illex oxygonius*
 - Neon flying squid, *Ommastrephes bartramii*
 - Oceanic squid, *Todarodes sagittatus*
 - Loliginidae (the pencil squid family)
 - This family contains longfin squid, *Doryteuthis pealii*, which is managed by the Mid-Atlantic Council.
 - This family contains at least two unmanaged species:
 - Slender inshore squid, also known as arrow squid, *Doryteuthis plei*, which is not managed. Staff recommend that this species not be included in the Unmanaged Forage Omnibus Amendment as it is not possible to visually distinguish *D. pealii* from *D. plei*.⁴
 - Atlantic brief squid, *Lolliguncula brevis*
 - Sepiolidae (bobtail squids). No species in this family are managed by a regional fishery management council or by the ASMFC. At least five species are found in the Mid-Atlantic:
 - Odd bobtail squid, *Heteroteuthis dispar*
 - Big fin bobtail squid, *Rossia megaptera*
 - Warty bobtail squid, *Rossia palpebrosa*
 - Lesser shining bobtail squid, *Semirossia tenera*
 - Butterfly bobtail squid, *Stoloteuthis leucoptera*
 - Cranchiidae (glass squid, aka bathyscaphoid squid). Council staff were unable to identify how many species in this family occur in the Mid-Atlantic prior to the briefing book deadline. No members of this family are managed by a regional fishery management council or by the ASMFC.
- Cuttlefish
 - Cuttlefish are in the family sepiidae. Council staff were unable to identify how many species of cuttlefish are found in the Mid-Atlantic prior to the briefing book deadline. No members of this family are managed by a regional fishery management council or by the ASMFC.

⁴ Cohen, A. 1976. The systematics and distribution of Loligo (Cephalopoda, Myopsida) in the western north Atlantic, with description of two new species. *Malacologia*. 15 (2). 299-367

- Octopods
 - The order octopoda contains twelve families and at least 600 species.
 - No species in this order are currently managed by a regional fishery management council in the Mid-Atlantic or by the ASMFC.
 - Council staff identified one unmanaged species in this order which could be considered pelagic. This order could contain other pelagic species.
 - Tuberculate pelagic octopus, *Ocythoe tuberculata*, family Ocythoidae
- Pteropods
 - Order gymnosomata (sea angels). This order contains seven families. Council staff were unable to identify how many species in this order are found in the Mid-Atlantic. No species in this order are currently managed by a regional fishery management council or by the ASMFC.
 - Order thecosomata (sea butterflies). This order contains five families. Council staff were unable to identify how many species in this order are found in the Mid-Atlantic. No species in this order are currently managed by a regional fishery management council or by the ASMFC.

Copepods, krill, amphipods, and other species under 1 inch as adults

Council staff were unable to identify all species which meet this definition prior to the briefing book deadline. This category includes the following taxa, at a minimum:

- Calanidae (the copepod family)
- Euphausiidae (the euphausid krill family)
- Order amphipoda (amphipods)
- Class ostracoda (ostracods)
- Order isopoda (isopods)

None of the taxa listed above are currently managed by a regional fishery management council in the Mid-Atlantic or by the ASMFC.



Mid-Atlantic Fishery Management Council
800 North State Street, Suite 201, Dover, DE 19901-3910
Phone: 302-674-2331 | FAX: 302-674-5399 | www.mafmc.org
Richard B. Robins, Jr., Chairman | Lee G. Anderson, Vice Chairman
Christopher M. Moore, Ph.D., Executive Director

MEMORANDUM

Date: January 15, 2015
To: Ecosystems and Ocean Planning Committee
From: Julia Beaty
Subject: NMFS Exempted Fishing Permit Guidance

The Council requested that the Unmanaged Forage Fishery Management Action Team (FMAT) develop a draft process to allow new fisheries for unmanaged forage species to develop as part of the Unmanaged Forage Omnibus Amendment. The FMAT noted that the National Marine Fisheries Service (NMFS) Research Documentation Guidance includes a process for obtaining Exempted Fishing Permits (EFPs), which can be a first step to allowing new fisheries to develop on a small scale with NMFS and Council oversight. The NMFS Research Documentation Guidance describes the process through which EFPs may be obtained. Relevant sections of this guidance are included in this memo. The full NMFS Research Documentation Guidance is available at:

www.greateratlantic.fisheries.noaa.gov/aps/permits/forms/efploaeeaaapossessionloaguidance.pdf

An EFP is a permit issued by the Greater Atlantic Regional Fisheries Office (Regional Office) that authorizes a fishing vessel of the United States to conduct fishing activities that would be otherwise prohibited under the regulations at 50 CFR part 648 or part 697. Generally, EFPs are issued for activities in support of fisheries-related research, including seafood product development and/or market research, compensation fishing, and the collection of fish for public display. Anyone who intends to engage in an activity that does not meet the definition of scientific research but that would be otherwise prohibited under these regulations is required to obtain an EFP prior to commencing the activity.

Exempted fishing may not be conducted unless authorized by an EFP issued by a Regional Administrator or Director. An EFP exempts a vessel only from those regulations specified in the EFP. All other applicable regulations remain in effect. The Regional Administrator shall consult with the Executive Director of the MAFMC regarding such exemptions for the Atlantic mackerel, squid, butterfish, summer flounder, scup, black sea bass, spiny dogfish, bluefish, and tilefish fisheries. The Regional Administrator may not grant an exemption unless he/she determines that the purpose, design, and administration of the exemption is consistent with the management objectives of the respective FMP, the provisions of the Magnuson-Stevens Act, and other applicable law, and that granting the exemption will not:

1. Have a detrimental effect on the respective resources and fishery;
2. Cause any quota to be exceeded; or
3. Create significant enforcement problems.

Individuals may apply for an EFP by submitting a letter and a complete EFP application to the Regional Office, along with a copy of a research plan. The EFP application, including applicable NEPA documents (if necessary), must be submitted at least 60 days before the desired effective date of the EFP. The application must include the following items:

1. The date the application is submitted.
2. The applicant's and/or project coordinator's name, mailing address, telephone number, email, and fax number, if available.
3. A point of contact who can respond to any questions regarding the project that Regional Office staff may have during consideration of the application.
4. A statement of the purposes and goals of the activity for which an EFP is needed.
5. A list of the specific regulations from which an exemption is being requested and why each exemption is required for the experiment to succeed.
6. The following catch information:
 - a. The species (target and incidental species must be clearly differentiated) expected to be harvested and/or discarded under the EFP.
 - b. The weight, by species, of such harvest and/or discard anticipated to occur during the experimental fishing, regardless of whether or not it is retained for sale.
 - c. The expected disposition of all regulated species harvested under the EFP (e.g., what will happen to the fish once it is caught).
 - d. Any anticipated impacts on marine mammals or endangered species.
7. The following anticipated effort information for each vessel:
 - a. For fixed gear:
 - i. Type and size of gear to be used.
 - ii. Amount of gear to be used (e.g., number of pots, number of gillnets, etc.).
 - iii. Number of gear hauls.
 - iv. Average soak time.
 - b. For mobile gear:
 - i. Type and size of gear to be used.
 - ii. Number of tows to be made per day.
 - iii. Duration and speed of each tow.
 - iv. Number of days during which the experiment will be conducted.

Applications for an EFP trigger review under the National Environmental Policy Act (NEPA). This review may require the preparation of additional documentation beyond the EFP application, including analyses of the potential environmental impacts associated with the EFP project. If the EFP project may result in any interactions with endangered or otherwise protected species (e.g., sea turtles, dolphins, whales, sea birds, etc.), the EFP application may trigger additional review under either the Endangered Species Act (ESA) or the Marine Mammal Protection Act (MMPA). This review may require the preparation of additional documentation beyond the EFP application.

The Pacific Fishery Management Council developed a formalized Protocol for Consideration of Exempted Fishing Permits for Shared Ecosystem Component Species (Council Operating Procedure 24; available at: <http://www.pcouncil.org/wp-content/uploads/2015/12/cop24.pdf>) as part of their omnibus amendment on unmanaged and unfished forage species. The Pacific Council approach to EFPs for their Shared Ecosystem Component Species differs from the NMFS Greater Atlantic Region approach described above in that it involves more thorough review by Pacific Council advisory bodies, as illustrated by the following paragraph from Council Operating Procedure 24:

“The [Pacific] Council and its advisory bodies [Ecosystem Advisory Subpanel (EAS), Scientific and Statistical Committee (SSC), and any applicable FMP-specific advisory bodies] shall review EFP proposals prior to issuance; the advisory bodies may provide comment on methodology and relevance to science and management data needs and make recommendations to the Council accordingly. The public may also comment on EFP proposals...The EAS and any other applicable advisory bodies identified by the Council will review EFP proposals in November and make recommendations to the Council for action; the Council will consider those proposals for preliminary action. Final action on EFPs will occur at the March Council meeting. Only those EFP applications that were considered in November may be considered in March; EFP applications received after the November Council meeting for the following calendar year will not be considered.”

**HERRING ALLIANCE
THE PEW CHARITABLE TRUSTS
WILD OCEANS
EARTHJUSTICE
STEVEN ROSS, PH.D.
TIMOTHY O'BRIEN, PH.D.
NATURAL RESOURCES DEFENSE COUNCIL
GREAT EGG HARBOR WATERSHED ASSOCIATION
ANGLERS CONSERVATION NETWORK
GOTHAM WHALE
CONSERVATION LAW FOUNDATION
PECONIC BAYKEEPER
MATTAWOMAN WATERSHED SOCIETY
SPRUILL FARM CONSERVATION PARTNERSHIP
AUDUBON CONNECTICUT
RIVERS ALLIANCE OF CONNECTICUT
CONNECTICUT ORINTHOLOGICAL ASSOCIATION
NAUGATUCK RIVER REVIVAL GROUP
PAWTUXET RIVER AUTHORITY**

January 20, 2016

Chairman Rick Robins
Executive Director Chris Moore
Ecosystems and Ocean Planning Committee Chairman G. Warren Elliot
Mid-Atlantic Fisheries Management Council
800 North State Street, Suite 201
Dover, Delaware 19901

RE: Unmanaged Forage Amendment Comments

Dear Chairman Robins, Executive Director Moore, and Committee Chairman Elliot:

We are writing to provide our consensus comments to the Ecosystems and Ocean Planning Committee (EOPC) on the Mid-Atlantic Fishery Management Council (MAFMC or Council) Amendment on Unmanaged Forage (UMF). We commend the MAFMC and the EOPC for proactively initiating an action to protect unmanaged forage species as part of its overall policy for conserving the forage base. Although the Squid, Mackerel, Butterfish Fishery Management Plan is composed entirely of forage species, the vast majority of forage species in the mid-Atlantic, including a wide variety of fish and invertebrates that hold vital roles in ecosystems, are not part of a directed fishery. These species are referred to as “unmanaged” because harvesting them is not regulated by the MAFMC or the Atlantic States Marine Fisheries Commission (ASMFC). The MAFMC, and other councils around the United States (e.g., Pacific Fishery Management Council and North Pacific Fishery Management Council), recognize the need to implement proactive policies protecting these species to preserve the health of ecosystems and dependent predators, including larger predatory fish targeted by recreational and

commercial fisheries. Regulatory protection for unmanaged forage species is a crucial early step toward comprehensive Ecosystem-Based Fisheries Management (EBFM), a healthy Northeast Large Marine Ecosystem (NLME), and productive fisheries.

At its December 2015 meeting, the MAFMC tasked the UMF Fisheries Management Action Team (FMAT) with several issues to analyze in order to advance the omnibus amendment. We strongly support the Council's firmly stated intent to keep the amendment on schedule. The FMAT and the EOP Advisory Panel (EOP AP) have met to assist the EOPC in resolving important UMF issues. Considering all of the information available, we support the following actions:

1. **Maintain a purpose and need statement that accurately reflects the Council's intent for**, "a regulatory action to prohibit the development of new, or expansion of existing, directed fisheries on unmanaged forage species until adequate scientific information is available to promote ecosystem sustainability;"¹
2. **Include a comprehensive list of Ecosystem Component Species** "to address 'other ecosystem issues,' because these species are broadly used prey of marine mammal, seabird, and fish species"² of the NLME;
3. **Determine appropriate *de minimis* exemptions** to the prohibition on fishing for unmanaged forage species, generally following the methodology chosen by the Pacific Council to prohibit directed fishing while allowing for reasonable existing levels of catch and transition to managed stocks as necessary,
4. **Describe a Council review process to monitor and review catch of EC Species** so that large catch events that exceed the *de minimis* threshold can be expeditiously addressed, including through accountability actions;
5. **Detail a robust and transparent process for issuing Experimental Fishing Permits (EFP)** under this amendment that advances the Council's objectives for ecosystem sustainability;
6. **Outline requirements necessary to open a new directed fishery**, including reclassifying the target species through an amendment process, as an actively managed stock, fulfilling all MSA requirements for adding stocks to a fishery in accordance with a recent peer-reviewed stock assessment and the Council's *Ecosystem Approaches to Fisheries Management Guidance Document*; and
7. **Update the List of Allowable Fisheries and Gear (LOAF)** to be consistent with measures established by the amendment and strengthen protections for forage.

These requests are discussed in further detail below:

1. Purpose and Need

The Purpose and Need for the Amendment is not only critical to guide policy development, but it also has legal significance under NEPA because the identification and evaluation of a reasonable range of alternatives must flow from it.³ The MAFMC clearly stated

¹ August 2015, MAFMC, [Scoping Document for Council Action on Unmanaged Forage](#).

² September, 2015. PFMC. [CEBA-1, Section 2.1.2, p. 7](#).

³ November 1, 2008, NOAA, [Guidance related to the Purpose and Need](#) section of an EIS.

the purpose and need for the amendment (see 1 above). This language is contained in the motion initiating the amendment and is the purpose and need stated in the scoping document. The FMAT, however, only recommended including the first half of the original motion, effectively eliminating the need to analyze a range of alternatives that would determine the scientific basis for opening a fishery or expanding an existing fishery. This issue central to the Council's stated intent and its elimination has significant legal implications. We recommend that the Council formally re-add "...until adequate scientific information is available to promote ecosystem sustainability" to the Purpose and Need.

The Council record for this action can provide a definition of "ecosystem sustainability" for use in this action. For example, the Forage Fish White Paper discusses maintaining an adequate forage base in the ecosystem; increasing the beneficial contribution of forage fish to the dynamics of both managed and unmanaged species; bolstering the resilience of the system; and, enhancing the role forage fish play in the economy, and society more generally.⁴ The National Standard 1 guidelines also provide support for this goal.⁵ Amendment objectives should be developed that clarify the Council's goal of ecosystem sustainability along the lines of the biological principles described above.

The FMAT offered the purpose and need used by the PFMC as an alternative to the MAFMC's current purpose and need. The Purpose and need of CEBA-1 fails to meet the needs of the MAFMC in ensuring adequate protections for forage species.⁶ There are many similarities between the PFMC's efforts to protect forage and that of the MAFMC. However, their purpose and need falls short in two places. First, the intent of the MAFMC is to "prohibit the development of new, or expansion of existing, directed fisheries on unmanaged forage species." CEBA-1 only prohibits new directed commercial fishing. The MAFMC's inclusion of the prohibition of the expansion of existing fisheries was deliberate. There is current and ongoing directed commercial fishing effort on forage species. While there is no intent to eliminate such fisheries, there is a desire to prevent their expansion.

Second, CEBA-1 prohibits directed commercial fishing until scientific information is *assessed* and impact *considered*. The MAFMC's proposed purpose and need would require a comparable analysis, but additionally it would prohibit fishing unless and until it can be demonstrated that the fishery can be done in a way that promotes ecosystem sustainability. A new or expanded directed fishery, or one no longer meeting EC classification criteria, could only

⁴ Managing Forage Fishes in the Mid-Atlantic Region: A White Paper to Inform the Mid-Atlantic Fishery Management Council, pp. 4, 22, [Forage White Paper](#).

⁵ The National Standard 1 guidelines recommend that Councils should "maintain[] adequate forage for all components of the ecosystem," 50 C.F.R. §600.310(e)(3)(iii)(C), by "managing forage stocks for higher biomass than B MSY to enhance and protect the marine ecosystem," *id.* § 600.310(e)(3)(iv)(C), and reducing MSY to account for ecological factors, including identification as a "forage fish stock[]," *id.*

⁶ The purpose and need of CEBA-1 states: "The purpose of this action is to prohibit new directed commercial fishing in Federal waters on unmanaged, unfished forage fish species until the Council has had an adequate opportunity to both assess the scientific information relating to any proposed directed fishery and consider potential impacts to existing fisheries, fishing communities, and the greater marine ecosystem. This action is needed to proactively protect unmanaged, unfished forage fish of the U.S. West Coast Exclusive Economic Zone (EEZ) in recognition of the importance of these forage fish to the species managed under the Council's FMPs and to the larger CCE. This action is not intended to supersede tribal or state fishery management for these species, and coordination would still occur through the existing Council process." See September, 2015. PFMC. [CEBA-1](#). p. 2.

proceed if the Council is prepared to reclassify the target species, through an amendment process, as a managed stock in the fishery, fulfilling all Magnuson-Stevens Fishery Conservation and Management Act (MSA) requirements in accordance with a recent peer-reviewed stock assessment and the Council’s *Ecosystem Approaches to Fisheries Management Guidance Document*.

2. List of EC Species

The current FMAT list of species is robust and the Coalition supports inclusion of nearly all species identified. However, the list could be more manageable and streamlined if redundancy was eliminated using the following methodology:

1. Review the first tier of the diet data offered by the FMAT and round up to taxonomic family or order where appropriate.
2. Consider current catch of all species and ensure that species already being caught in large numbers are included in the list.
3. Consider market drivers and whether there are other fisheries and markets for the same or similar species in other parts of the world.
4. Review the remaining three tiers of the FMAT diet data and include any species the MAFMC demonstrates was erroneously omitted.

Using this methodology, we have created a manageable, comprehensive list for forage species that must be protected in the mid-Atlantic. For your convenience, it is attached as Appendix 1.

a) A nexus to managed predators is not required

Certain representatives from NOAA Fisheries have stated that forage EC Species included in this Omnibus Amendment must have a nexus to a council managed species, however, they have not articulated any authority for this assertion. Further, it is counter to PFMC precedent, the MSA (which provides “exclusive fishery management authority over *all fish* ... within the exclusive economic zone”),⁷ and the National Standard 1 Guidelines. The EOP committee and the Council should follow the precedent of the Pacific Council and create a truly comprehensive list of forage species to address “ecosystem issues”⁸ because these forage species “are the broadly used prey of marine mammal, seabird, and fish species in the” Northeast Large Marine Ecosystem.⁹

- i. *Magnuson-Stevens Fishery Conservation and Management Act and National Standard 1 Guidelines*

The MAFMC will determine the scope of its forage protection when it finalizes the development of a list of EC forage species. Using its discretionary authority under the MSA, the MAFMC can “...include management measures in a plan to conserve target **and non-target species** and habitats, considering the variety of ecological factors affecting fishery

⁷ 16 U.S.C. § 1811(a).

⁸ 50 C.F.R. § 600.310(d)(5)(iii).

⁹ September 2015. PFMC. [CEBA-1](#).

populations.”¹⁰ The National Standard 1 Guidelines state: “In determining the greatest benefit to the Nation, the values that should be weighed and receive serious attention when considering the economic, social, or ecological factors used in reducing MSY to obtain OY are: ... The benefits of protection afforded to marine ecosystems are those resulting from maintaining viable populations (**including those of unexploited species**), **maintaining adequate forage for all components of the ecosystem**, maintaining evolutionary and ecological processes (e.g., disturbance regimes, hydrological processes, nutrient cycles), maintain the evolutionary potential of species and ecosystems, and accommodating human use”, (emphasis added).¹¹

There is no legal limitation to creating a truly comprehensive list of forage species. In fact, National Standard 1 guidance suggests that MAFMC can and should consider *all* predators in the ecosystem. The NS1 definition of EC Species says: “EC species may, **but are not required to, be included in an FMP or FMP amendment** for any of the following reasons: for data collection purposes; for ecosystem considerations related to specification of OY for the associated fishery; as considerations in the development of conservation and management measures for the associated fishery; **and/or to address other ecosystem issues** (emphasis added). While EC species are not considered to be “in the fishery,” “the Council should consider measures for the fishery to minimize bycatch and bycatch mortality of EC species consistent with National Standard 9, and to protect their associated role in the ecosystem...”¹² **Stocks that do not meet the definition of an EC species should be reclassified as stocks “in the fishery” as soon as possible.**

ii. *Similar Action Taken By the Pacific Council*

The Pacific Council considered three pathways when determining the CEBA species list. They considered using a gear nexus, a “managed predators” nexus, or a much broader approach of bringing “all EC species into all of the FMPs to acknowledge their broad trophic role as the prey of Council managed fish species and other predators.”¹³ The PFMC rejected the gear nexus and managed species nexus options and chose to include species for their broader roll as prey in the ecosystem.

The National Standard 1 guidelines state: “EC species may, but are not required to, be included in an FMP or FMP amendment for any of the following reasons:... to address other ecosystem issues.”¹⁴ This recommendation provided the Pacific Council with support and justification for its action to protect unmanaged forage using an ecosystem approach. CEBA-1 states:

[A]ll of the Shared EC Species would be identified in all four FMPs as EC species, to recognize that, as a group, these species serve as prey for many CCE predators, including FMP species. Shared EC Species would be identified in the FMPs as EC species under 50 CFR 600.310(d)(5)(iii) to address “other ecosystem issues,” because these species are the

¹⁰ 16 USC § 1853(b)(12).

¹¹ 50 C.F.R. § 600.310(e)(3)(iii)(C).

¹² 50 C.F.R. § 600.310(d).

¹³ September 2015. PFMC. [CEBA-1](#).

¹⁴ 50 C.F.R. § 600.310(d)(5)(iii).

broadly used prey of marine mammal, seabird, and fish species in the U.S. West Coast EEZ. Shared EC Species are among the known prey of FMU species of all four of the Council's FMPs; therefore, Shared EC Species support predator species' growth and development and may also be identified as EC species under 50 CFR 600.310(d)(5)(iii) "for ecosystem considerations related to specification of optimum yield for the associated fishery."¹⁵

The Council's clear intent in this amendment is to protect the unmanaged forage base in the mid-Atlantic marine ecosystem. Thus, there is no reason to arbitrarily limit which species are protected by the action. By definition, all forage species are important at some level to one or more predators and to marine ecosystems as a whole. Including marine mammals, highly migratory species, turtles, and seabirds as predators to be considered when determining which forage species to protect is exactly what is required by an ecosystem approach to fisheries management.

3. De minimis Possession Exemption for EC Species

The EOPC should recommend and the Council should implement an appropriate *de minimis* exemption to the prohibition on fishing forage species generally following the methodology chosen by the Pacific Council. The PFMC approach prevents: 1) relatively small bycatch levels from limiting current fisheries; 2) shutting down small-scale forage fishing; and 3) large-scale targeting of forage species. The *de minimis* limits should be designed to prevent intense, directed fishing but allow for existing, low levels of incidental catch consistent with the EC classification, so that managed and small-scale fisheries are not unduly restricted. The PFMC and NOAA Fisheries set a precedent with their chosen methodology to determine an appropriate *de minimis* catch exemption. In the PFMC's case, it and NOAA Fisheries compiled catch data for all EC Species on per-trip and annual bases, separating squids from these analyses. They determined that for the combined EC Species and for the combined EC squid species, there were several significantly higher incidents of catch that indicated targeting. They also determined that 99 percent of per-trip catch and 97 percent of annual catch was incidental. This allowed them to prevent large-scale directed fishing on EC species while simultaneously minimizing or eliminating any impact on existing small-scale fisheries for bait.

4. Council Review Process to Monitor EC Catch

It is important to consider how Council operations will be adapted to ensure successful implementation of the amendment, including which of the Council's committees will oversee the effectiveness of measures designed to protect EC species. The EOPC should describe a Council review process for monitoring EC catch so that large catch events that exceed the *de minimis* threshold can be expeditiously addressed, including through accountability actions and possible management follow up. The designated committee should review EC species catch data (e.g., Vessel Trip Reports, observer data, and dealer reports) on an incidental (large event) and annual basis to determine if existing regulations are effective or if additional action, through a framework or amendment, is required to prevent overages and provide necessary management. Options for accountability actions, designed to ensure that any established catch limits (either

¹⁵ September 2015. PFMC. [CEBA-1](#).

vessel limits or an annual catch limit) are not exceeded, should also be developed as part of the amendment.

5. Experimental Fishing Permits to Advance Ecosystem Sustainability Prerequisite for New Fisheries

While developing CEBA-1, the Pacific Council recognized the need to adapt their operational procedures in order to satisfy their purpose and need statement, which reads, “The purpose of this action is to prohibit new directed commercial fishing in Federal waters on unmanaged, unfished forage fish species **until the Council has had an adequate opportunity to both assess the scientific information relating to any proposed directed fishery and consider potential impacts to existing fisheries, fishing communities, and the greater marine ecosystem** [emphasis added].” Council Operating Procedure 24 (COP 24) was developed on a separate but parallel track to CEBA-1 to clarify how the Council will “assess scientific information” and “consider potential impacts.” COP 24 outlines how the exempted fishing permit program will be used to gather data about shared ecosystem component species and the potential for sustainable fisheries to develop. EFP applicants must include a science plan, describing the data to be collected by the EFP fishery and the likely analyses needed to assess the potential effects of converting the fishery to a managed fishery with an FMP over the long term. The purpose of COP 24 is as follows:

This Council Operating Procedure (COP) provides a standard process for the Council, its advisory bodies, and the public to consider EFP proposals for Shared EC Species. The specific objectives of a proposed exempted fishing activity may vary. EFPs can be used to explore ways to develop stock surveys and assessments, explore the potential for a new non-tribal commercial fishery on Shared EC Species, or to evaluate current and proposed management measures. The scope of this COP is limited to EFP proposals for exempted commercial fisheries intended to target species identified in all four of the Council’s FMPs as Shared EC species for the purpose of developing scientific information useful to evaluating the potential for a future fishery on one or more Shared EC species.¹⁶

Currently, experimental fishing permits submitted to the Greater Atlantic Regional Fisheries Office (GARFO) are reviewed by NMFS personnel with minimal review by the Council and very little opportunity for public review. The application requirements do not entail any criteria that would help the Council advance its stated goal of promoting ecosystem sustainability. For EFPs to be a useful tool in this regard, the EOPC must detail a process, to be incorporated into Council operating procedures, for opening a prerequisite small-scale “experimental” fishery on ecosystem component species protected through the unmanaged forage amendment. These procedures should require a minimum of two council meetings and an SSC meeting for EFP review, discussion and revisions before the EFP is submitted to GARFO.

Criteria for EFP approval should reflect the purpose and need of the amendment, “to promote ecosystem sustainability.” The following priority considerations described in COP 24 would serve as an excellent starting point:

¹⁶ September 2015. PFMC. [COP 24](#).

- “The Council will give priority consideration to those EFP applications that:
- a. Emphasize resource conservation and management with a focus on evaluating the effects of catching Shared EC Species on the larger California Current Ecosystem;
 - b. Can assess the potential effects of a directed fishery for one or more Shared EC Species on:
 - i. Any Council-managed species;
 - ii. Species that are the prey of any: Council-managed species, marine mammal species, seabird species, sea turtle species, or ESA-listed species;
 - iii. Habitat that is identified as essential fish habitat or otherwise protected within one of the Council’s FMPs, critical habitat identified or protected under the Endangered Species Act, or habitat managed or protected by state or tribal fishery or habitat management programs;
 - iv. Species that are subject to state or tribal management within 0-3 miles offshore of Washington, Oregon, or California; or
 - v. Species that migrate beyond the U.S. EEZ.
 - c. Encourage full retention of fishery mortalities;
 - d. Involve data collection on fisheries stocks and/or habitat; and
 - e. Encourage innovative gear modifications and fishing strategies to reduce bycatch.”¹⁷

The Coalition recommends that the EOPC undertakes a review of COP 24 and initiates a process, separate from the scope of the Unmanaged Forage Amendment, to develop a Mid-Atlantic Council operating procedure for reviewing ecosystem component species EFPs that would meet the Council’s intent of promoting ecosystem sustainability.

6. Requirements to Open a New, Directed Fishery

A new or expanded directed fishery that does not meet the EC classification criteria should only proceed if the Council is prepared to reclassify the target species, through an amendment process, as a managed stock in the fishery, fulfilling all MSA requirements in accordance with a recent peer-reviewed stock assessment and the Council’s *Ecosystem Approaches to Fisheries Management Guidance Document*.

The EOPC should define and codify the process for starting a new fishery on an unmanaged forage species, specifically including requirements for a stock assessment for the specific population or stock, and an analysis of ecosystem impacts, including an evaluation of the impacts to predators. Robust scientific information must be available that provides the SSC with sufficient information to establish catch limits in accordance with strategies for protecting the role of forage species. The Council should work in concert with the SSC to determine what scientific information would be necessary to ensure ecosystem sustainability, and the gathering of this information should be prioritized in the EFP program described above.

7. Updating the List of Allowable Fisheries and Gear (LOAF)

¹⁷ September 2015. PFMC. [COP 24](#).

To avoid administrative confusion and potential loopholes that would weaken conservation measures for unmanaged forage fish, the List of Allowable Fisheries and Gear (LOAF) should be updated to be consistent with the amendment.

Conclusion

The Coalition appreciates the Ecosystem and Ocean Planning Committee and Mid-Atlantic Council's ongoing efforts to protect the region's forage base and to transition to ecosystem-based approaches to fisheries management. As Brad Sewell from Natural Resources Defense Council stated on the January 11 advisory panel webinar, "This amendment, to us, seems particularly progressive in how it guides economic development and ecological protection. This enables economic development to not occur in a vacuum, but to occur with oversight of the Council and to allow for maximum benefits to existing fisheries and the ecosystem." As work on the amendment continues, we urge the Committee and the Council to ensure unmanaged forage protections achieve the council's bold vision encompassed in its Purpose and Need, and can ultimately be supported by regulations that are effective and enforceable. We look forward to our continued participation in this important action.

Sincerely,

Herring Alliance

(A coalition of 110 organizations representing nearly 2.5 million individuals from every coastal state from Maine to North Carolina, including most of the undersigned groups:

www.herringalliance.org/alliance-members)

The Pew Charitable Trusts

Peter Baker, Director, U.S. Oceans, Northeast

President of the Herring Alliance

Joseph Gordon, Manager, U.S. Oceans, Northeast

MAFMC Ecosystems and Ocean Planning AP Member

Purcie Bennett-Nickerson, Senior Policy Associate, U.S. Oceans, Northeast

Wild Oceans

Pam Lyons Gromen, Executive Director

MAFMC Ecosystems and Ocean Planning AP Member

Ken Hinman, President

Earthjustice

Roger Fleming, Attorney

Erica Fuller, Attorney

Steven Ross, Ph.D.

MAFMC Ecosystems and Ocean Planning AP Member

Timothy O'Brien, Ph.D.

MAFMC Ecosystems and Ocean Planning AP Member

Natural Resources Defense Council

Brad Sewell, Senior Attorney
MAFMC Ecosystems and Ocean Planning AP Member

Great Egg Harbor Watershed Association

Fred Akers, Administrator
MAFMC Ecosystems and Ocean Planning AP Member

Anglers Conservation Network

Captain Paul Eidman, Founder
MAFMC River Herring and Shad AP Member

Gotham Whale

Paul L. Sieswerda, President

Conservation Law Foundation

Peter Shelley, Vice President and Senior Counsel

Peconic Baykeeper

Dan Gulizio, Executive Director

Mattawoman Watershed Society

Jim Long, President

Spruill Farm Conservation Partnership

John R. Spruill, Director

Audubon Connecticut

Patrick M. Comins, Director of Bird Conservation

Rivers Alliance of Connecticut

Margaret Miner, Executive Director

Connecticut Ornithological Association

Tom Robben, COA Research Committee

Naugatuck River Revival Group

Kevin Zak, President

.

Pawtuxet River Authority

Robert J. Nero, Chairman

cc: Julia Beaty, Assistant Plan Coordinator, and MAFMC staff

cc: Ecosystems and Ocean Planning AP

cc: Unmanaged Forage Amendment FMAT

Appendix 1: Ecosystem Component Species to be included in the Unmanaged Forage Species Amendment at the MAFMC

*****Managed species (such as Atlantic menhaden, Atlantic herring, Atlantic mackerel, American eel, and Atlantic bluefin tuna) are excluded from this amendment, so please don't consider them part of the list below, which is simplified to higher taxonomic levels. Species that are not found in Mid-Atlantic federal waters would also be excluded*****

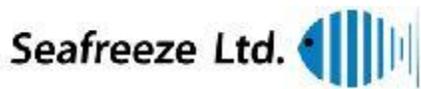
a. Order

- i. Anguilliformes (eels)
- ii. Ophidiiformes (cusk eels)
- iii. Sepiolida (bobtail squids)
- iv. Teuthida (squids)
- v. Sepiida (cuttlefish)
- vi. Octopoda (octopus)

b. Families

- i. Engraulidae (anchovies)
- ii. Clupeidae (herrings, sardines)
- iii. Argentinidae (argentines)
- iv. Atherinopsidae (silversides)
- v. Triglidae (sea robins)
- vi. Scombridae (mackerel and tuna)
- vii. Ammodytidae (sand lances)
- viii. Mugilidae (mulletts)
- ix. Osmeridae (smelts)
- x. Myctophidae (lanternfish)
- xi. Sternoptychidae (pearlsides)
- xii. Lotidae (cusk, rockling)
- xiii. Chlorophthalmidae (greeneye)
- xiv. Hemiramphidae (halfbeaks)
- xv. Myxinidae (hagfishes)
- xvi. Moronidae (perches)
- xvii. Stromateidae (harvestfish)
- xviii. Tetraodontidae (pufferfish)
- xix. Sparidae (sheepshead)
- xx. Trachipteridae (ribbonfish)
- xxi. Batrachoididae (toadfish)
- xxii. Carangidae (scads)
- xxiii. Tautogolabrus (cunner)
- xxiv. Osmeridae (smelt)
- xxv. Chlorophthalmidae (greeneyes)
- xxvi. Gasterosteus (sticklebacks)
- xxvii. Fundulidae (killfish)

c. Copepods, Krill, Amphipods and any other species under 1 inch as adults



**100 Davisville Pier
North Kingstown, R.I. 02852 U.S.A.
Tel: (401)295-2585**

January 21, 2016

Dear Ecosystem and Ocean Planning Committee Members,

I am writing to express our concerns with some of the recent developments of the Unmanaged Forage Fish Amendment. We do not believe the direction of this amendment is in keeping with its original intent and is straying into the realm of scientific unsoundness. There are also other issues of constraining existing fisheries which need to be addressed.

The original definition of a “forage fish”, given in the scoping document and agreed upon by the Council’s Ecosystem Approach to Fisheries Management Working Group and the Ecosystem Subcommittee of the SSC to be used to identify “forage fish” species in the Mid Atlantic, has been virtually abandoned. On October 2, the last day of scoping, the FMAT met and decided that the definition should be “broadened” to include benthic fish and other species.¹ This memorandum was only made available to the public and affected stakeholders on October 5, after the public comment period had ended. All subsequent analysis of the amendment has used the new FMAT definition, and not the Council/SSC definition. Including benthic fish in the amendment has the potential to affect every bottom trawl fishery in Southern New England and the Mid Atlantic. Not only were engaged stakeholders unable to comment on this broadened scope, but other stakeholder groups that were unaffected by the original definition but may be seriously affected by the new definition, have been completely bypassed in this procedure. If this amendment is not being sent back to the public for additional scoping, it should be returned to the original forage definition.

Also of concern is that the Council limited this Amendment to apply to “Mid Atlantic federal waters only”. However, analysis for the amendment is not being limited to the Mid Atlantic. In its diet data analysis, the FMAT is using stomach samples collected from the trawl survey in Southern New England. This is inappropriate if the amendment is to apply to Mid Atlantic waters only. While there are similar species present in both jurisdictions, some may be more or less prevalent in one or the other. To take an example of a managed species, Southern New England yellowtail flounder is a managed stock found primarily in Southern New England waters. While some of these fish may be present in Mid Atlantic waters, they are present in smaller numbers, and the bulk of the biomass is in New England waters. If this species were unmanaged, based on the current analysis protocol, it would be considered in the Unmanaged Forage Fish Amendment. Since Southern New England has no voting representation

¹ “Revised Unmanaged Forage FMAT Recommendations”, Council Memorandum, October 5, 2015. Available at: http://static1.squarespace.com/static/511cdc7fe4b00307a2628ac6/t/5612e600e4b0472d47ee0db3/1444079104766/UnmanagedForageFMAT_Oct2015.pdf.

on the Mid Atlantic Council, and since this area is outside the scope of the amendment, this data should be removed from analysis.

The threshold being used to define “important” and “potentially important” prey species is extremely unsound. The FMAT defined “important” prey as those which, according to diet data, make up more than 0.1% of the mean stomach weight of one or more predators of interest, and “potentially” important prey as those which make up at least 0.001% of the mean stomach weights.² This stunningly low threshold means that a bird found in the stomach of a monkfish is “important” prey for the purposes of this amendment, as are sunglasses and beer cans for striped bass (all of which have occurred). It also means that documented “net feeding” that occurs when a predator is caught in a survey trawl with another species that it would normally never eat has the possibility of becoming “important” or “potentially important” forage species. In fact, even an “importance” threshold as low as 2% of mean stomach weights would indicate that striped bass and white perch are “important” forage species for bluefish.³ The low percentage threshold, combined with the requirement that the prey in question be found in only two fish stomachs in the diet database⁴, is too low to erase the possibility for error or misrepresentation in the resulting analysis.

It is also too low to erase the subjectivity in the stomach sampling process itself. The FMAT is utilizing both NEFSC and NEAMAP trawl survey data in its analysis. In the NEFSC survey, fish stomachs are sampled on board the vessel, in contrast with the NEAMAP survey which preserves the stomachs and brings them back to a lab for sampling. As a result, historically, the percentages of species composition found in each fish stomach on the NEFSC survey are recorded as an eyeball estimate by the sampler. If a threshold of 0.1% and 0.001% of mean stomach weights for a minimum of two fish is the standard, that subjectivity will not be statistically smoothed out. NEAMAP, on the other hand, weighs each piece of prey present in every sampled fish stomach, for a precise weight. However, even VIMS in its Fish Food Habits Data Summary System cautions against using raw databases of individual specimens, due to spatial/temporal variations, variations in size groups, prey concentrations and other factors.⁵ All of these issues with bias the FMAT results at such low prey thresholds.

Importance of specific prey to specific predators is not a new type of analysis. In fact, the Atlantic herring assessment conducted by the NEFSC incorporates time varying natural mortality of the primary herring predators on the stock. The determination as to the top 13 predators that comprise 97%

² “Materials for Ecosystems and Ocean Planning Committee Meeting on Unmanaged Forage Omnibus Amendment”, Council Memorandum, January 15, 2016, p.2. Accessible at: http://static1.squarespace.com/static/511cdc7fe4b00307a2628ac6/t/569e594aa976af8774fa5219/1453218122976/EOP_commJan20_2016_briefing.pdf.

³ Gartland, et. Al., “Diet Composition of Young-of-the-Year Bluefish in the lower Chesapeake Bay and Coastal Ocean of Virginia”, “Transactions of the American Fisheries Society”, 2006, p. 373.

⁴ “Unmanaged Forage Amendment- list of species and range of alternatives”, Council Memorandum, November 30, 2015. Accessible at: http://static1.squarespace.com/static/511cdc7fe4b00307a2628ac6/t/565c76a3e4b06edc0ae3a274/1448900258998/Tab08_Forage_Unmanaged+Forage.pdf.

⁵ Fish Food Habits Data Summary System, Virginia Institute of Marine Science. Accessible at: http://www.vims.edu/research/departments/fisheries/programs/multispecies_fisheries_research/fish_food_habit_s/index.php. See explanations for the necessity of cluster sampling analysis when analyzing raw data.

of all herring consumption was analyzed using the food habits database for the entire survey time series, from 1973 (for Gadiformes) and 1977 (for all other species) until the present. However the *adequacy of stomach sample sizes was assessed and a minimum sample size was equal to approximately 20 stomachs for each predator per season (spring and fall), and minimum herring consumption was estimated with a minimum of 100 stomachs per predator-year-season to compare with the original approach.*⁶ This is a far more rigorous and adequate way to assess major consumptive needs of Mid Atlantic predators, and a far cry from the Unmanaged Forage Fish Amendment's current methodology. Unless a time series of consistent and considerable consumption can be determined, no species can be claimed to be "important" to the dietary need of another.

Furthermore, the SSC Ecosystems Subcommittee has *already* set a dietary threshold in its definition of a "forage fish". This definition, found on page 12 of the scoping document, states that a forage fish "comprises a considerable portion of the diet of other predators in the ecosystem in which it resides throughout its lifespan", and this is usually greater than 5% diet composition for greater than 5 years. A >5% diet composition for >5 years should have been the starting point of analysis by the FMAT. Not 0.1% and 0.001% mean stomach weight with a two fish stomach threshold. The current analysis is unacceptable.

Many of the current alternatives in the amendment are also unacceptable. All of the facets of Alternative 3, Limit Capture- spatial closures, seasonal closures, and gear regulations- are completely unacceptable. These alternatives should be removed from the document immediately. The Unmanaged Forage Fish Amendment was designed to prevent new directed fisheries from occurring on unmanaged species, not constrain currently managed fisheries. The alternatives are potentially disastrous for the current operations of regulated fisheries, and these fisheries should not be inhibited in any way by the adoption of this amendment. In addition to being unjustified and costly burdens to industry, they are nonsensical. For most of the species under consideration, we have little or no data upon which to base a spatial or seasonal closure. Gear regulations, or modifications as they have been suggested at prior meetings, are species specific and take time and experimentation to be developed, and are unsuitable as a panacea for an "Omnibus" amendment, as this amendment has been recently termed.

Another issue not yet raised, even as the Mid Atlantic Council looks to the Pacific Council for guidance, is the fact that unlike the Pacific coast which has one Council, the Atlantic Coast is comprised of three Councils and jurisdictions. This makes a very real difference between the two coasts, and the fact that this amendment is to apply to Mid Atlantic federal waters only. Vessels may cross the New England/Mid Atlantic line multiple times in one fishing trip. Vessels fishing in New England land in the Mid Atlantic, and vessels fishing in the Mid Atlantic land in New England. The enforcement implications are obvious. Rather than develop a complex, on the water system which will inevitably make existing fishing operations more costly and difficult to execute, the Committee and the Council should consider a simple way to enforce landings at the dock.

⁶ 54th Northeast Regional Stock Assessment Workshop (54th SAW), Assessment Report, Northeast Fisheries Science Center, 2012, p. 131-132.

Finally, it is troubling that the pervasive sentiment of this amendment seems to be that fishing on “forage” species is not desirable and should not be encouraged. On the contrary, healthy fisheries for “forage” species exist worldwide, and fisheries considered relatively “new” such as the Antarctic krill fishery have been MSC certified.⁷ Even fisheries on “unmanaged forage” species in the Mid Atlantic have been encouraged by the National Marine Fisheries Service.

In 2003-2004, NMFS awarded Saltonstall-Kennedy Program funding to a project entitled “Development of the Chub Mackerel Fishery, An Underutilized Species”.⁸ The purpose of the grant and project, as reported by NMFS to the US Congress in its 2004 Saltonstall-Kennedy Grant Program, Fisheries Research and Development Report, was to “develop a fishery for chub mackerel” in the Mid Atlantic.⁹ The project itself concluded that, in certain conditions and situations, the “chub mackerel fishery may be a viable option for fishermen when illex squid are not available in the Mid Atlantic Bight”¹⁰, although many caveats exist in the form of significant investment in the gear, electronics, and time required to gain expertise in the fishery¹¹. Considering the federal encouragement in creating and developing a Mid Atlantic chub mackerel fishery, we suggest that the Council continue to allow this fishery to operate and develop. Encouraging the US fishing industry to invest in developing an underutilized fishery and then restricting or barring access once that investment has been made is inequitable.

Thank you for your attention to these matters.

Sincerely,

Meghan Lapp
Fisheries Liaison, Seafreeze Ltd.

⁷See <https://www.msc.org/newsroom/news/msc-responds-to-questions-about-antarctic-krill-certification> .

⁸ “Development of the Chub Mackerel Fishery, An Underutilized Species”, Grant No.: NA03NMF4270275, by Haskin Shellfish Research Laboratory, Rutgers, The State University, 2004.

⁹ “The Saltonstall- Kennedy Grant Program Fisheries Research and Development Report 2004”, National Marine Fisheries Service, p. 8. Accessible at: http://www.nmfs.noaa.gov/mb/sk/2004_report/2004_sk_report_to_congress.pdf.

¹⁰ See n. 8, p. 5.

¹¹ Ibid, p. 1.

Beaty, Julia

From: Squarespace <customercare@squarespace.info>
Sent: Wednesday, January 27, 2016 5:02 PM
To: Beaty, Julia
Subject: Form Submission - Unmanaged Forage

Comments: The loss of New England's adult menhaden schools has wreaked havoc on our fisheries here. If you are eating fish on the east coast you are eating menhaden. This has been going on for fifty years with no attitude change in sight?

We need a FMP from NMFS for Atlantic menhaden . This plan should seek immediate changes that leave 70% or more of the unfished biomass in the water. ASMFC's management has been corrupted by Omega and bait industry money.

This is a national disgrace.

Name: Wendelin Giebel

Email Address: captainwen@optonline.net

Keep Me Informed: Please add my email address to the Unmanaged Forage Interested Parties email list to receive future updates about this action.

(Sent via [Mid-Atlantic Fishery Management Council](#))