



Summary of Scoping Comments for
Council Action on Unmanaged Forage Species

October 5, 2015

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Summary of Scoping Results

The Council held eight scoping hearings between September 15 and October 1, 2015. 96 individuals attended these hearings. 38 individuals provided comments during the hearings. 143 individuals sent written comments. 62 of these written comments were virtually identical copies of the letter on page 113. In addition to the comments sent by individuals, the following organizations sent letters: Anglers Conservation Network, Chesapeake Bay Foundation, Greater Egg Harbor Watershed Association, Garden State Seafood Association, The Herring Alliance, Regal Bait, SeaFreeze Ltd., Seatuck Environmental Association, The Billfish Foundation, The Nature Conservancy, CCA Maryland, and Wild Oceans. Letters submitted on behalf of organizations are presented at the end of this document.

The scoping comments are summarized briefly below. For summary purposes, the comments are grouped according to the eight “issues for consideration” which were outlined in the scoping document. Detailed comments are contained in later sections of this document.

Which type of action should the Council develop?

- 85 individuals/organizations commented in favor of an amendment to one or more of the Council’s existing fishery management plans (FMPs). Several of these individuals cited efficiency as their reason for supporting an amendment. Only a few of these individuals had suggestions for which FMP(s) to amend (either bluefish or squid, mackerel, butterfish).
- 11 individuals thought the Council should develop a new FMP for this action. Many of these individuals said that the action was complicated enough or important enough to warrant its own FMP.

What provisions should the Council include in the action?

- 85 individuals and organizations supported the use of the Ecosystem Component species designation.
- No individuals commented in support of designating forage species as stocks in the fishery, or as components of Essential Fish Habitat (though a few individuals did describe the relationship between forage species and habitat).

Which forage species should the Council include in the action?

- 74 individuals supported the list of species contained in the white paper.
- The Council received many suggestions for species to add to the list. In the interest of providing this summary to Council members in a timely fashion, these species will not be summarized here, but will be available during the Council meeting on October 7, 2015.
- A few individuals suggested that chub mackerel, round herring, sand eel, bay anchovy, and/or silversides be excluded or given special exceptions due to existing fisheries (see below).

What type of fishing should the action regulate?

- 23 individuals said something along the lines of “any fishery that can have a significant impact on forage populations should be addressed, whether they are commercial or recreational”.
- 62 individuals (all those who sent the form letter) said the action should apply to all harvest in federal waters and should exclude “small-scale fisheries such as the raking by hand of sand lance”.

- 11 individuals said the action should only regulate commercial fishing.
- 3 individuals said the action should regulate certain gear types, such as small mesh nets.

Over what geographic scope should the action apply?

- 82 individuals said that the Council should first develop this action “in its jurisdiction” or “within the Council’s boundaries” (in most cases implying that the Council should act in federal waters in the Mid-Atlantic so as to not require coordination with other agencies, though in some cases the meaning of the comment was ambiguous).
- 16 individuals either stated that the action should include state waters or said it should apply to as large of an area as possible.

How should the Council prohibit the expansion of existing fisheries?

- 17 individuals simply stated that the Council should prohibit the expansion of existing fisheries.
- Several individuals described existing fisheries for unmanaged forage species.
 - o Four individuals noted that silversides and/or sand lance are important as recreational bait.
 - A few of these individuals owned bait wholesale businesses and stressed the importance of these species to their businesses.
 - One bait wholesaler noted that his business processes over 30,000 pounds of sand lance and over 60,000 pounds of Atlantic silversides annually, much of which is used by zoos and aquariums.
 - The form letter sent by 62 individuals asked that existing small-scale fisheries such as the raking of sand lance by hand not be included in this action.
 - o A few commercial fishermen from New Jersey stated that they occasionally target chub mackerel.
 - o A few commercial fishing representatives described landings of chub mackerel, Spanish sardine, and/or round herring.
 - o A few individuals described small-scale recreational bait markets for mummichugs, anchovies, sand lance, and mullets.
 - o One individual from North Carolina mentioned a developing market for Atlantic cutlass fish (also known as ribbon fish).

How should the Council allow new fisheries to develop?

- 76 individuals supported the use of Exempted Fishing Permits to allow new fisheries to develop.
- 3 individuals said there was no need for the Council to develop a process to allow new fisheries for unmanaged forage species to develop because they couldn’t imagine new large scale fisheries for these species developing.
- 3 individuals said that the Council should not allow any new fisheries for unmanaged forage species.

Other issues

- 9 individuals emphasized that pollution and/or habitat loss are major threats to forage species and should be addressed.
- 14 individuals described a decline in one or more forage species in their area. Many of these individuals attributed the decline to pollution and habitat loss.

Scoping Hearing Comments

Washington, NC

September 15, 2015

Attendees: Chris Batsavage (Council member), Julia Beaty (Council staff), Chris Elkins, Brent Fulcher, Cathy Fulcher, Aaron Kornbluth, Jason Rock, Tom Roller, David Sneed, Sara Winslow (Council member)

Comments:

Chris Elkins: I'll be speaking for CCA, giving some general comments. I sit on the South Atlantic Habitat and Ecosystem Management Advisory Panel. We've talked a lot over the years about forage fish and their importance. It actually is Essential Fish Habitat. Forage fish are found all over, in state waters and in federal waters. They go back and forth. Council-managed fish feed on them in both state and federal waters. It gets pretty complicated in how you manage them and coordinate efforts. It's going to be very important that you have state buy-in and inter-Council cooperation. Many of these fish migrate up and down the coast... I was involved at the AP level in helping write the South Atlantic aquaculture plan that was revised last year. New studies show that soy-based fish meals can perform just as well with certain species of farmed fish, such as black sea bass and striped bass, and hybrid striped bass. It's been used in other fishes for a while. The demand for forage fish is huge right now. 70% of the forage fish worldwide are going to fish meal. Hopefully that will go down and we'll have more soy-based product... Prior to the development of new fisheries for forage fish, we need more information and justification for the fishery needs to be shown. Forage fish provide the very foundation of the predatory fish that recreational fishermen seek, as well as many species that the commercial industry relies on... How exactly are you going to define experimental fishery at some level? I think you need to do that soon to help fishermen understand what they're getting into. You should also perhaps consider what observers you're going to have in the experimental fisheries to ensure that unexpected adverse effects, such as bycatch, are observed... If industrial-scale fisheries are developed, industry should bear the financial burden of observers... I would say that the panaeid shrimp industry is pretty much unmanaged. There's no limits on the amount that they can catch, of white and brown shrimp. And it's up and down the coast. And shrimp are a critically important fish, especially for inshore fisheries, yet they are managed by the South Atlantic Council. That's something that needs to be addressed.

David Sneed: I'm here representing the Coastal Conservation Association of North Carolina... We feel that this is a very important issue... We believe this should be done sooner rather than later, so an amendment to a Fishery Management Plan is probably the best option. We support prohibiting the direct harvest of unmanaged forage species by identifying them as Ecosystem Component species. We support including all the forage species that you have under consideration, specifically the white paper list. We would think that shrimp should also be considered. Any type of fishing that can have a significant impact on forage populations should be addressed, whether they are commercial or recreational. We think the Mid-Atlantic Council should lead the region and provide an example for other jurisdictions. We believe that the MAFMC plan should initially apply to federal and state waters within the Council's boundaries... Freeze the harvest of all unmanaged forage species at their current level or an average of the last few years. Determine what is currently being caught and what isn't. Set a level that triggers protection and effectively prohibits expansion or new fisheries beyond that level until effective

science and management are in place. We believe the Council action should require science and management to ensure ecosystem sustainability before fishing is allowed on a scale that could damage the fish population by adding them as Ecosystem Component species to a FMP and allowing a small experimental fishery to collect data, test gear, and develop markets. There is very little science on these species. We support further studies, both fishery independent and fishery dependent, that should provide the data necessary to inform management.

Tom Roller: I live in Beaufort, North Carolina. I'm a for-hire operator. Today I'm representing the North Carolina Guides Association, which is a 501-c-6 trade association. We commend the Council for being proactive on this issue. Forage species are critical for the health of the ecosystem, our recreational fisheries, and in turn, the valuable economic impacts. Recreational fishermen and the for-hire sector rely on an abundance of prey and predators. They are obviously very linked. The presence of forage species, particularly anchovies, silversides, and threadfin herring, make or break our seasons. When environmental conditions lead to a scarcity of bait, the quality of our fishing greatly suffers. If new fisheries were developed before we could assess their impacts to the ecosystem, it could potentially be devastating to our fisheries and our economy. In North Carolina fishermen have often been on the losing end of unregulated fisheries. Once fisheries developed, new or repurposed gears are used, political pressure often makes management so difficult that by the time change is made, we have often lost the fishery. There are many examples of this. Furthermore, as some fisheries decline, effort can shift into other fisheries. This is a huge concern to the recreational fishery. We rely on abundance and healthy ecosystems. We are often the ones who lose the most. The North Carolina Guides Association believes we should begin sooner rather than later and recommend amending an existing Fishery Management Plan to provide protection for forage. We recommend identifying forage species as Ecosystem Component species and prohibiting their direct harvest in new fisheries. We ask that all forage species under consideration be included. Atlantic cutlass fish also seem to make most of the stuff on the list of what is a forage fish. They're also called ribbon fish. The reason we bring this up is there seems to be an escalating fishery for them. They are becoming quite important to recreational and commercial fisheries. We're seeing them in fish markets. We believe shrimp should be included. They are virtually an unregulated fishery. We recommend that all fisheries, both commercial and recreational, that could have a significant impact, be included. We believe that the MAFMC should lead on this issue. We believe the plan should apply to both state and federal waters within its jurisdiction. We ask that the Council freeze the footprint of existing fisheries and prohibit expansion until effective science and management are put in place. We hope this will prevent new fisheries from developing until adequate science is available to promote ecosystem sustainability. We believe that the Pacific Council's action that allowed Exempted Fishing Permits is a safe path to follow. If new fisheries are allowed, they should be heavily observed to monitor impacts. This issue should be addressed as the very nature of this decision is to address species that we do not have good scientific data for.

No more comments. Opened the floor up to questions.

Brent Fulcher: The slime eel fishery. It's pretty big up in Maine. Offshore. I know you have to put in for it. I know there is a commercial fishery for it, but it's dabbled up and down over the years. I would think it's pretty important as a forage species for being considered just because it's probably such a big food fish for what the Mid-Atlantic Council already manages. Summer flounder, black sea bass, all of them feed on those eels. Both the slime eels and the sand eels.

Newport News, VA

September 16, 2015

Attendees: Robert Allen, Julia Beaty (Council staff), Pete Brunk, Joe Cimino, Peter deFur (Council member), Tim Edland, Katie May Laumann, Rob O'Reilly (Council member), Robert Ruhle, Kate Wilke.

Comments:

Joe Cimino: As this plan moves forward and looks at landings, it will be important to note that landings of included species (in the plan) will be confounded by such general categories as "bait". These unclassified landings will include managed species that do not have a legal minimum size, like bluefish and spot, in addition to forage species that are unmanaged. For this reason we can't always separate landings of unmanaged forage species from landings of managed species...Thread herring are found in large numbers, but their abundance goes through cycles. Anchovies are caught recreationally in Virginia. The list of species should include more than what is in the white paper... Inshore areas are important for many of these species. To be effective, this action should include state waters...I think this action needs its own FMP... There are data on some of these species, especially bay anchovy. The VIMS Juvenile Trawl Survey catches a lot of bay anchovies. There was a presentation at the Chesapeake Bay GIT meeting which showed data indicating that the size of bay anchovy in Maryland has been declining.

Pete Brunk: Why are we doing all this? We don't catch these small fish other than for bait. I just don't see the need of it. It's something else you can regulate. You'll regulate somebody out of business. I just don't understand it.

Robert Ruhle: Why is the Council considering tacking this on to something like the bluefish FMP? To steam-roll it through? In my opinion, ecosystem-based management is what needs to happen, but the learning curve is huge. We're just starting. You can't manage what you don't have any information on. There is data available on forage, but right now you're in a situation where high priority species, stock assessments are being put off and you fall behind. A thread herring is going to be so far down the list that by the time you get to it, the data's going to be useless...You need to understand the inter-relationships between species. Unfortunately the only thing the Council can do is recommend actions against industry, both commercial and recreational. My thinking is that the predator-prey issue is already taken care of because it's all part of mortality. Once you get into ecosystem-based management, you need to break down total mortality and subdivide it because you can't have total mortality and start adding more to it. It's virtually impossible to have all stocks at maximum high levels at the same time, that's one of the major problems. Hopefully ecosystem-based management can solve it. Now you're talking about having the food source at a high level...I think ecosystem-based management is the way we need to look at things, but I know it's been tried in other countries and it's failed miserably. It all depends on how minute you want to go. Last week I was in Baltimore for the AP meeting for Ecosystems and Ocean Planning. They've already got the luggage in the cart and the horse isn't even born yet. They want to weigh in on if you can put in a piling for a dock in the back of your house. It's over-stepping in one sense... I think you need a good baseline. Surveys are in place. One of the problems with the surveys is there's a lot of it done but everybody does it a little bit differently. I think everybody should follow the same steps, use the same protocols. You need to build a baseline. Some of the information is available.

We caught all the species you showed on the screen in the NEAMAP survey. The only time I've ever seen any amount of them is during the survey. There is no more unexploited fishery on this coast. Forage fish would have to be a high volume fishery. There are no more high volume fisheries that have not been tapped into. On the east coast, there's only one fish that can be used for reduction for fish oils. As far as having fisheries start for thread herring or anchovies for reduction, it can't happen because there's already a mechanism in place to make it illegal. As an industry member, I don't want to set any regulation that could put me out of business for a fishery that hasn't even developed. But honestly, I don't see these fisheries developing. We've caught tons of them on the survey. They're small. The gear that we have to use to catch them is illegal gear. I don't see commercial exploitation for that. In the bay, yeah, you probably have guys that cast net them for bait, but the volume is small enough that it's probably not going to have a significant impact. I really think you need to look at the inter-relationships between species to get your baseline. There's enough tentative data in place that you can start to look at it. Look for trends. If you see an uptick in thread herring, then look at its predators. What's the level of that? There's a lot of inter-relationships that need to iron out before we say, let's not have a fishery for this, as a pre-emptive move...For federally-licensed vessels fishing in state waters, we're required to fill out VTRs. Even species like thread herring will show up on that report. State-wide, I think it's the same way. You still have to record weight of a species even if it's not managed. So there's also industry records, besides the scientific information...By tacking the forage issue on as an amendment, it's not ready. In June I saw the Council pass something that in my opinion clearly was not ready. They didn't follow the steps, they didn't go through the procedure. They didn't talk to the participants, but it still got pushed through. Something as complex as this, which to me is just an ecosystem-based approach, the foundation hasn't even been built yet and the talk of tacking it on to something else just to get the ball rolling is all wrong...I know some amendments can go through in 6 months, some can take 6 years. But I think something as big as this should be a stand-alone action, just because of the scope. Once this goes into place you're not talking just about forage species. If you're talking about the relationship between that and other species, now you're talking about every managed species too. I would rather see you take the time and do it right the first time. You don't have that much data yet. To make it any type of regulatory action based off of little or no data – to me, the first thing you do is get more data...Once you get to that point with ecosystem-based management, looking at forage species can be a precursor to what is a stock doing. If you see an increase in abundance of one or a decrease in abundance of the other, that could point you to the way of realizing that you misjudged the stock in the model, the output was wrong, or something was not quite right. That can kind of point you in the direction of other things.

Pete Brunk: A lot of these fish are in state waters. The recreational fishery has more interest in this, with the bait, silver minnows and all that kind of stuff. They would have more interest, probably than the commercial fishermen. By cutting out the commercial fishermen, you really haven't done anything. The recreational fishermen are still going to be catching bait. If you're going to do it, do it for everybody that's involved in the process.

Robert Ruhle: I believe the Pacific Council has been working on this for a while. I'm pretty sure they have multiple platforms and they have long time series for their data. They've built their baseline and they're extracting from it. I think we need to build the baseline first...The way Magnuson is currently worded, is there the flexibility to be able to move to an ecosystem approach to management? Because Magnuson includes arbitrary rebuilding periods. If you look at it from an ecosystem-based point, say there's three primary stocks, two are doing really well but one is low and the food source is common

across all three. If an area has reached its environmental carrying capacity for one stock, but it's eating too much of the available food, you can't build these other stocks up. There's certain fish that you just can't get a good handle on. Weakfish is a perfect example. There is no fishery for weakfish, but where are they? We catch the little ones on the survey. Every year we think, when they grow up it's going to be great! But they stop. They get to a certain point and they're gone. If you looked at weakfish from a rebuilding perspective, it's a failure. Even though they've stopped every kind of fishing, it still hasn't rebuilt. With the stipulations that Magnuson has now, with the rebuilding time periods, do you actually have the flexibility to do that?

Pete Brunk: Same thing happened with big hard heads in the late '40s. It was nothing to catch a haul seine of big hard heads, croakers. My uncle was in the Merchant Marines, he was going out to Europe somewhere. He said the ocean was covered with dead croakers, millions of them. After that there weren't any little croakers. Somehow those fish got a blight in them and they all died. What can you do about that? The same thing with gray trout. The bay used to be full of them.

Robert Ruhle: We used to catch a lot of croakers, if we worked at it. I remember my dad telling me about croakers when I was a kid. At first they were only 200 box trips, but then we went to 300, 500, a thousand. We were getting them in 6 minute tows. It was unbelievable. It was a very short window. We started to see fish that didn't look right. They would look like big fish with a chunk missing from them. And then they started to disappear...There's a lot of things besides fishing pressure that influence a stock. Any herring stock, anywhere in the world, without the presence of fishing has the ability to fluctuate 50% naturally. That's just how it is. You can't say we're managing it to this level and it's going to stay at this level. They're going to go up and they're going to go down. How much of an allowance do we build into that?

Joe Cimino: This goes back to we need a baseline. With weakfish, it's a coast-wide species. Every state has fisheries-independent surveys. I know there's long-standing survey data for bay anchovy and for silversides here, both in the Bay and in Virginia we have data back to the '50s and '60s. What we're finding with weakfish, the juvenile surveys, every state has one, I've been the TC chair for 3 years now, I show the juvenile indices for each state and every year Rob asks me, what is that supposed to mean? Because it looks like a Jackson Pollock painting. It's all over the place. You may find that there's survey data in existence, but as you try to use it you may see that it's saying something completely different from state to state. You've got to take the time to figure out what that means, where your baseline is with all of this. That goes back to looking at variables. We've spent a lot of time and money funding Virginia Tech to work with the offshore surveys to standardize the indices to see what variables might be important, but it takes time.

Cape May, NJ

September 18, 2015

Attendees: Russ Allen, Lars Axelsson, Stefan Axelsson, Tom Baum (Council member), Julia Beaty (Council staff), Eleanor Bochenek, Michael Celestino, Greg DiDomenico, Peter Himchak, Keith Laudeman, Brady Lybarger, David Migliore, Rich Migliore, Wayne Reichle, Bill Shillingford, Raymond Szulczewski, Larry Wietsma.

Comments:

Ray Szulczewski: I'm a charter boat operator out of Cape May and also a member of the Cape May Charter/Party Boat Association. It seems like it's a great idea to manage the species. A lot of people in the fishery have noticed a lack of the bait fish species that you're talking about, the spearing, bay anchovies. I think of them as being more of a state-wide thing than a federal issue. You don't see many spearing past three miles, at least in most of my travels that I've seen. Most of the spearing, the bay anchovies, these very small bait fish, I associate with three miles in, along the beach front, along the surfline, in the back bays. Along with this issue of sustainability, it seems like you have to look at habitat. Most of the little ones that you see, each year you see little tiny spearing and bay anchovies along the dock. Over the last ten years I've seen less bait at the start of the season. It used to be that at the start of the season you'd see full size spearing and good sized anchovies. In places like Delaware Bay and Cape May Point there'd be tons of bay anchovies by April 15th. In recent years it seems like they've been very slow to develop for whatever reason. Same thing with the spearing. Just now you're finally starting to see full size spearing in some of the areas near Cape May. For most of the summer there was not the full-sized spearing. [*Another audience member said he saw the same thing in his area.*] I think the quality of the water in the Back Bay may not be conducive to spawning habitat. Our docks used to have a lot of mussels on them. All the docks now have no mussels because the seagulls eat them all. Years ago they never seemed to eat those mussels. I think it's because they don't have enough bait fish to eat so they changed their feeding habits. They're eating the mussels. You'd get a full moon tide and put your high beam light into the water, you'd see all kinds of curly-q worms. You'd see clam worms. You'd see little things that look like pods. You look now at a full moon tide and it looks barren. There's a few little things, but nothing like it was ten years ago. So no matter what you want to do with these things, maybe it's a matter of water quality, make better habitat for spawning. If you had to rate ten years ago as a ten, the Back Bays had plenty of forage fish, plenty of game fish. If you go in that Back Bay tonight, you'd find it dead compared to what it was ten years ago.

Bill Shillingford: I represent the Stathmere Fishing Club. I agree with everything Ray said, plus the fact that I think we're destroying the habitat just offshore with all the dredging that's going on and the beach replenishment. I've been fishing these waters for 60 years. We used to have huge groups of lumps that are now being destroyed by the dredges. And they're destroying the surfline, which is where these fish are most of the summer. If we want to address the habitat, we need to start thinking about what's destroying the habitat. Along with the dredging, they're pumping into the beach replenishment. That sand is choking our inlets and waterways. I think you've got to go further in. Don't just look at the fish species, look at the habitat in detail, and how it's being destroyed over the years.

Dave Migliore: I run light tackle fishing in Atlantic City. These guys brought up very good points. The bait fish have things like rising water temperature, they have pro-algae pollutants like nitrogen and

phosphorus in the water, they have ocean acidification, they have changes in geography. Inlets are getting cut off. Where I fish now the average water temperature is 85 degrees during the summer. It's 89 degrees some days. I do think that the bait fish population cannot sustain any more pressure. I'm really glad that you folks are trying to regulate the pressure on it because there are other things that we can't control. We can control phosphorus and nitrogen in the water, like Barnegat Bay did, banning fertilizer. That's the only piece of water in the entire state that's protected. I just wanted to say thanks and I really appreciate you guys doing what you're doing.

Rick Migliore: I'm also from that area. I fish from Atlantic City south. The populations are not what they used to be compared to ten, fifteen years ago. We used to have spearing, bay anchovies, mullet, come out of the back bays and come around the jetties and attract game fish like false albacore. I haven't seen a false albacore come to our jetty in ten years. They used to come often. Conservation is the biggest thing for us, especially the bait fish. They have to spawn back there. They have to move out. We used to go out into the ocean and catch false albacore and other fish that came in closer because the spearing went out that far. I don't know if they really go much past three miles, but the game fish use to come in to eat them regularly. Now they're not there anymore. From an ecological point of view, it's terrible. For people who enjoy nature, it's just destroying that enjoyment of our environment. And some people are trying to make a living on recreational fishing. It's destroyed. So it is a major matter of concern for us. They need to be regulated. Even the amount of fish that are allowed to be netted, like the mullet. Some years there were so many people with nets taking hundreds, if not thousands of them. They're not there like they used to be, and neither are the game fish. I think mullet should be on the list. Certainly the peanut bunker. Like he said, the peanut bunker are not in the numbers this year that they were last year, and that's a concern to us. Anything that we can do to help it, the research part, you should enlist the fishermen who fish Cape May and who fish Strathmere, and compare notes.

Stefen Axelsson: Fishing Vessel Flika. After listening to these guys, I think you need to take into consideration inshore versus offshore species. That's one complete different issue that none of the things I do affect. Also, some of these unmanaged fish are a bailout for many commercial fishermen when their targeted species isn't there, like this summer with illex. I changed over to chub mackerel fishing, that's an unmanaged species. But it sounds like you might have to do some work into inshore versus offshore. I just don't want at some to point to have an action taken that covers chub mackerel, but they're not the same. If you make a blanket action, that's all well and good for inshore species, but for mine, which there's not much known about it, in my experience there's a lot of them, they're migratory, they're only here for a certain amount of time and they leave. I just hope you take that into consideration when you do anything.

Ray Szulczewski: It seemed like there was a perfect storm that developed in our Back Bay fishery. I've been sending Russ Allen and the fisheries council a state of the bay address for every year almost for the last ten years. It seemed like it started back in the early 2000s when Cape May County used malafinin to spray for mosquitoes. They were spraying it very heavily, not in the marine environment, but right next to the marine environment. And even when we first started seeing the bait fish dying away, we checked to see where they were spraying, and they were nice enough to give us maps of where they were spraying until they found out that we were looking into whether they were causing damage. If you look at malafinin, as a chemical, it says not to be used in the marine environment. It was sprayed right up to the edge of a marine environment, which could leach in. Plus they were spraying it right on some dredge spoil areas, which would drain right back into the system. I think the life expectancy of malafinin was like

seven years before it would dissipate out. They were spraying it once a week. Right after that all the bait shops were having a hard time finding minnows. It seemed like the minnow population disappeared in a lot of south Jersey areas. They were shipping them in from Virginia for the bait and tackle shops. On top of that, we started to get warmer water. You also had beach replenishment. Everything that leads to a healthy environment got smothered along the beaches...Also with the offshore dredging, it killed the lumps, the mussel beds, which is habitat out there. All this is leading to the back bays. Another thing, the whole Jersey coast, everybody uses weed killer, everybody uses fertilization. Every sewer goes to the ocean and they go to the Bay. Our back bays, in the last ten years, where there used to be gravel and sandy bottom, are now covered with green, some kind of grassy mat...There were a few years when we had severe algae blooms in Cape May harbor. It seemed like it went away....Since they put the cap on the bunker, the last three years we haven't had the algae bloom. But between all those things, it's hard to imagine that these bait fish have a healthy environment to produce in. Nobody's seriously fishing for these species now that I know of. Maybe somebody's fishing them for bait, but I don't know that anybody is commercially fishing the back bays for bay anchovies, spearing. The populations aren't growing, so obviously you need a good, healthy environment to get these things growing better.

Rich Migliore: I know the sand eels are out beyond three miles. I know the spearing has been found, we've seen Bluefin tuna come in close and have seen spearing beyond three miles. So how far they go out, it is a concern.

Greg DiDomenico: Garden State Seafood Association. First what I'd really like to see is that the Council develop an amendment to gather the information necessary to manage these species instead of talking about developing an amendment until we have adequate information. I think the Council is in a situation here where they need to understand more about these species before they go head long into another amendment. I want there to really be a focus on accommodating existing fisheries. We have existing fisheries. We would like an exemption from this amendment for chub mackerel, Spanish sardine, and round herring. I also think that from a state perspective, there does need to be a focus to properly manage whatever bait fishing is going on in state waters to make sure that our local recreational fishermen and bait suppliers are not left out of this process and their needs are understood. As you know, this is a coastal economy and these bait shops are supplying bait and jobs for people. We'd like that also to be a focus. I also want to remind the Council that there is no threat. There is no potential for effort shifts into these fisheries. These are highly technical fisheries. Very difficult to make profitable. There's probably six boats maybe on the entire east coast that could prosecute these fisheries and make it work. So please understand that there's no possibility that there's going to be a rush of effort, vessels built, or anything else for that matter. The fleet is already hurting. They're certainly not going to invest money in these fisheries so that's why accommodating existing catch is really essential to this amendment. I'd also like to say that the Council has to prevent this amendment from causing choke species. A situation that can be easily out of control and would be absolutely unnecessary and would put a burden on commercial fisheries. That is absolutely unnecessary and unacceptable. We don't need another choke species for no reason. We've already been there with several species and it's unnecessary. I'd also like the Council to consider that the revisions to National Standards 1, 3, and 7 will have impacts on what we can do under this amendment. I'd like that clearly articulated at the next Council meeting when this is brought up.

Lars Axelsson: Fishing Vessels Fika and Dursten. We also do a little bit of bait fishing for bunker. I've been fishing on this coast for well over 40 years, within a hundred mile radius of Cape May. As these

gentlemen of the recreational community have aptly put, we are seeing these fish disappear in certain areas. I agree with a lot of their take. Non-point source pollution is probably the largest culprit. The second largest culprit is probably natural phenomena. We had Sandy. We had major shifts in currents. The Labrador Current used to run all the way down to North Carolina. It would run inside the Gulf Stream. There was a team of scientists about seven or eight years ago who were studying the ctenophores. It was determined that dogfish, as well as mackerel would feed on these. They followed these ctenophores down from Canada and lost sight of them off Massachusetts. They looked at temperature and found that the same characteristics that used to be inside of the Gulf Stream were now outside of the Gulf Stream. They found the ctenophores 200 miles east of where it normally ran. It happened during the so-called Perfect Storm. It upset the natural course of the current. That's just an example of how oceans can change without input from man. You have input from man on the beach as well. I fished literally on the beach as a commercial fishermen from age 12 on. I'm 60 now. We weren't allowed to fish inside the 2 mile limit. I saw all the fish that you guys were referring to. Spearing, we called them shiners, we called them bait fish. We used to fish for the pan trout. We used to fish for what we called the regular trout, the one-footers. We fished for the sow trout, the five-pounders. That got to be very political. The ASMFC came in and said we had to cut back by 50%. That forced us to move offshore. We re-rigged, re-routed and moved further offshore to get basically out of sight of recreational fishermen because we were an eyesore and every time there was a problem it was our fault. Bluefish started disappearing back 20 years ago. There was some seining going on. We would trawl for them periodically. It got political, we moved further offshore. We tried getting into tuna. We invested heavily in it but were denied the permit. We about lost our shirt on that one. But what it did was it pushed us off the edge. We found illex squid. These squid had never been brought ashore in RSW tanks before. We had the RSW for the tuna fish. We weren't allowed to use them on tuna fish. All of this is to say that over time we have progressed to stay out of sight of people so as not to create political unrest. People say the bluefish have disappeared, but I say if you go ten miles further out, you'll find them. But people say, no, they don't swim that far offshore. I have pictures where I would catch offshore squid in a hundred fathoms of water, 150 fathoms, I would catch 75-100 pounds of bluefish, and in the middle of it was a swordfish. And we know that they don't swim two miles off the beach. A regime shift had occurred. The same thing is happening in New England. They are catching fish that they've never seen before, but they used to be here. What I'm trying to say is fish have tails. They move. We as commercial fishermen try to revamp. Instead of one species, we try to have many species in our portfolio. We fish for dollars over time. If we can make more money on flounders than on trout, we'll fish for flounders. If we can make more money on squid than on flounders at the end of the week, that's what we'll do. We've always been very opportunistic. Green groups think it's supposed to be this way. Recreational groups think it's supposed to be this way. Commercial fishermen think it's supposed to be another way. There's a lot of finger pointing going on. Mackerel – there's been a regime shift. They're now off Iceland and Greenland...The number of boats fishing off the coast has greatly declined. But the Council seems to look at the coast as though that same thousand boats are out there every day producing fish when there's hardly none. There's a belief from the Council and from the green groups that sit there and look at computer screens, that this is what's going on and we've got to put a stop to it...Butterfish turned into a choke species. We know that butterfish live very heavily in certain parts of the ocean. We also know that the squid, the calamari that most people like to eat as appetizers, swim very close to the butterfish. What happens sometimes is you can run into the butterfish. But because they weren't seeing them on the beach in the normal areas, like now we aren't seeing the spearing and the minnows, for whatever

reason – once again, I think it's more towards pollution – a law was made. It turned into a choke species. For the past three years, we've used our electronics, which rival research vessels, to avoid these species. In the process of avoiding it, we catch little of the other. We know where fish exist. But because everything is being touted as a forage fish now, we're scared to death to even mention the fact that we're catching them. Because if we get more than so many percent, it will turn into a choke species and that will prevent us from doing the real fishing for loligo or illex...In the '80s when the foreigners, who fished for squid and other species, got kicked out, our Council wanted us to fish for the underutilized species. So we concentrated on them. Cape May invested heavily into it in the mid-'80s. Then the quotas came in. Suddenly butterfish aren't showing up in big numbers on the beach...When the green groups think, aha, choke species! Another way to hurt the commercial guys. Maybe I'm cynical...We invested heavily. If I had to replace my boats now, it would be about \$20 million. Fifteen years ago, we invested about \$8 million. We're still paying that loan because the quotas were lowered, choke species were put in, imaginary boxes were put into the ocean and we have to stay out. We still haven't paid that loan. We've literally gone bankrupt because of these actions. That magic word, "to the extent practicable", means shut the fishermen down. How can you have information that is 20-30 years old? ...When we had a thousand boats out there bringing it in, you had data on what's going on. Now there's only 6 vessels that fish the way I do and suddenly they're the problem... I am literally going out of business. In the past ten years I've broken even twice. For the past three years I've gone behind a quarter million each year. I don't know if I can make it another year. I hope to God that someone in Peru or Chile will buy my boat. I'll get a broom and I'll sweep the streets somewhere. Because the Council and the intent of all these good-willed people, thinking that we have to protect this and that to the extent practicable...The Council used to listen to the fishermen in the '80s. There were commercial, recreational, and academics represented around the table. Now there's maybe one real-life fishermen at the table. The green groups have the ear of the Council...I used to see every one of those fish that you mentioned when I was a kid. The fishermen have not caused those fish to go away. There are other things causing those fish to go away. It is not commercial fishermen and it is not recreational fishermen...It used to take three years to get an amendment through. Now they've got it fast-tracked where if they really push hard they can get it done in a year. In reality, it happens in about two...The forage fish works the same way as the corals because you're talking about creating Essential Fish Habitat...therefore another box will be drawn to stay out...Be real careful about how you approach this. Soon there won't be any fishermen left and then the drilling and windmills will move in.

Brooklyn, NY

September 21, 2015

Attendees: David Azar, Julia Beaty (Council staff), Kerry Heffernan, Cheryl McCarron, John McMurray (Council member), Jamie Pollack, Paul Risi, Paul Sieswerda

Comments:

Paul Sieswerda: I'm the director of Gotham Whale. We monitor whales and marine mammals around the waters of New York City. We've been doing this since 2011. Every year our sightings have increased. In 2011 we had three sightings of five whales. This is on a whale watch boat. We're seeing these whales at the entrance to New York Harbor. The importance of this area as a new feeding ground to whales is very dramatic and obvious. We go out and note where we see whales, how many, what the species are, what their behaviors are. In 2012 we saw 15 with 25 whales. A sighting is the number of whales at one place, at one time, so that's why there's more whales than sightings. In 2014 we had 87 sightings for a total of 106 whales. That was more than the previous three years put together. I think the trend is clear. We're getting more and more whales. We see they're clearly feeding on menhaden. I know it's a managed species, but there's two points I want to make about how important the study is to tell what is happening with these whales. Again, with their location and the inter-connection to the forage fish. This is clearly demonstrated by the menhaden that we're seeing more and more of. The management of the menhaden, I believe, has brought a substantial number of fish back to this area and it's clear that the whales are following the fish. The top predator that is so dependent on the forage fish. I would like to support the amendment. The same thing is happening in other areas of whale watching. Knowing what the species is that is being foraged on is so important.

David Azar: I work with John McMurray, One More Cast guide service for about 10 years. I fish about 150 days a year in the local water. The striped bass, bluefish, false albacore are very important to my recreational fishing and the fishing where we take people out on guided trips. All the species listed earlier are important to that fishery. I personally put about \$12,000 a year into the local economy. I don't know if I have my facts exactly correct, but around 7 or 8 years ago New Jersey prohibited state harvest of menhaden and we saw an explosion in the number of large striped bass coming back to the New Jersey shore. Numbers and size of fish that had not been seen for probably 20 years. Having large scale harvest of these other bait species would be just as detrimental to the recreational fishery, which brings in a lot of money to the local economies of the Mid-Atlantic states. I would be strongly against allowing new fisheries or expanding existing fisheries of these unmanaged forage species.

Cheryl McCarron: I'm a private citizen, a scuba diver, and I'm also a member of Shark Angels, which is a shark conservation organization. We have some of the same concerns as the gentleman with the whale industry. We want to protect the oceans for the sharks. As far as the points for consideration, we believe that amending a current FMP would be the most expedient way to do this. As far as which species to include, the 8 that are under consideration, since there is no management now, it's about getting ahead of the industry so all should be included. We recommend addressing all fisheries if they could have a significant impact on populations. For expediency it seems to make sense that the Mid-Atlantic Council focus on their jurisdiction first. As far as new fisheries developing, we think the path that the Pacific Council did makes sense, with Exempted Fishing Permits to help with scientific data collection. It makes sense to take some action so we can allow for data to be collected.

Kerry Heffernan: I'm a chef and angler. The chef part doesn't come into this very much because currently people aren't eating a lot of bait. I actually did do a dinner with some bait, but not to the extent that it would impact these species. I'm in agreement that we should pass this amendment that would provide strongest level of protection against future threats, prohibiting the directed harvest of these unmanaged forage species by identifying them as Ecosystem Component species as Pacific Coast has done. I think you've covered the 8 species correctly. The one thing I would think to add would be chub mackerel. It seems to be important. All types of fishing should be included if they could have a significant impact on fish populations. I think the Mid-Atlantic Council should focus on its jurisdiction first, allowing neighboring management bodies to follow suite. The impacts of what we've seen of menhaden on our fisheries. I didn't know what whales were feeding on menhaden, I'd love to see that. The Pacific Coast has done this and I think Florida has also done some good work on this. I think this is a plan obviously worth enforcing.

Jamie Pollack: I'm managing director of Shark Angels and New York State director for Pew Environment Group and avid scuba diver and ocean conservationist. I applaud the Mid-Atlantic Council for starting this. I recommend that we amend a current Fishery Management Plan. I recommend that we do it sooner rather than later. If we wait too long, things can get put off. I also recommend that we identify forage species as Ecosystem Components. I don't know specifically which species, I can only go by what the Council and other fishermen can recommend. I also think that addressing all fisheries that could have an impact – though, maybe we should look more towards the commercial sector because those are the big ones that are scooping up the fish, but I'm not sure. Again, leave it up to the Council. I think that we should not include New England right now. We should just concentrate on the Mid-Atlantic. Don't do more than we can do. We should start small and see how it goes. We should follow path of the Pacific Council because it seems like they're doing a good job. Without the bait, we don't have the fish, without the fish, you don't have the sharks, without the sharks you don't have a balanced and healthy ecosystem.

Paul Risi: I think it's a great idea. The action should go ahead. I don't think any type of fishery should be left out. Even the small ones, collectively – if there's an attraction for any fishery, you don't need large-scale bait fishing to target it. Especially when there's excess capacity, as we see in New England. It's very easy to gear up for bait fishing. I think every mode should be addressed. I wouldn't pressure the Council to keep it regional. I don't see any imminent threats or interest. If the Council does think that they can put something together coast-wide and in state waters in a reasonable time period without losing any power, then I think they should go for it. I'd like to see it along the coast.

Jamie Pollack: I've been to those Council meetings. There's so many parties involved. It takes forever.

Paul Risi: If the South Atlantic and the New England Council don't have a problem with it, and if the Commission wants to flow into it, let them do it... When you look at sand eels, Stellwagen, Georges Bank - if you're going to talk about sand eels, New England is important. Get it done, but if you can get the whole thing done, it would be awesome.

Narragansett, RI

September 28, 2015

Attendees: Katie Almeida, Walter Anoushian, Julia Beaty (Council staff), Anthony Cherry, Timothy Edland, Madeline Labriola, Theresa Labriola, Laurie Nolan (Council member), Eric Reid, Jeff Taylor.

Comments:

Theresa Labriola: I work with Wild Oceans. I usually represent Wild Oceans in the Pacific, with the Pacific Fishery Management Council. Wild Oceans is an organization that represents conservation-minded recreational fishermen for more than 40 years. We've worked in the Pacific advocating for an ecosystem-approach to fisheries management and have worked with the Pacific Council on their unmanaged forage initiative. I happened to be in town because I was born and raised in New York and spent more 20 years fishing in Rhode Island recreationally and commercially. We've seen the Councils and Commissions over the years struggle to make decisions to bring fish back, to bring back our favorite species like striped bass and summer flounder. The unmanaged forage initiative is a different tack. It's an opportunity to take a precautionary step to promote the health of the ecosystem by protecting unmanaged and unfished forage species that are the backbone of our food web. Broadly we support the Council's action on unmanaged forage. We do support the interest in following the Pacific Council approach. I thought I'd share a little history from the Pacific and some lessons we learned. Almost from the beginning the initiative had a lot of support from recreational fishermen, commercial fishermen, and the environmental community. The Council was left using words like "well this was a no-brainer" when they passed motions. This didn't end up being something very contentious in the Pacific and it's because they did address some of these issues that you mentioned. The intention in the Pacific was to hold status quo where it is because of the importance of forage. The Pacific drafted a list of potential species and then they reviewed the connection to each of the Council's managed species. They looked at the biological, the ecological, and the economic link to the Council's species. That might be a way to look at your current forage list. Who eats these fish? Make a decision of how far down do you want to go. An undertaking like that would help the Council, drilling down on the predator/prey data. This would help you decide whether to go with an FMP amendment, or an FMP that's Mid-Atlantic specific, or an FMP with other Councils. If you try to link these forage species – where are they? How far do we have to go? The Pacific Council chose to incorporate forage species in all FMPs as Ecosystem Component species and not go through the alphabet of fisheries management. We don't know a lot about these species so it would be extremely difficult to come up with overfished, overfishing, ABCs, AMs. They also chose to hold fishing at a current level. They used trip ticket data. Actually about three weeks ago they decided to have a cutoff on these species that if you got them on a trip you can get them, but it'd be a limit. I think it was something like 20,000 metric tons annually, a huge amount. It covered 99% of all the recorded data. At one point there was a groundfish fishermen who said, "More regulations!" And the Council looked at him and said, "99% we're covering!" And he calmed down. They used trip ticket data to come up with that number, but at the same time recognizing that these fish don't have a lot of data on them. They would come back and review it and say, is this hurting anybody? Is it having an effect? And now these fish are in the system and we can keep better track of what is being caught...Part of what we've been working on for a long time is trying to understand ecosystem indicators. There has been some progress. What are forage fish doing in the Mid-Atlantic to support our key commercial species? To guide decisions on whether we can remove additional forage from the ocean.

Eric Reid: We're supposed to present our comments on an action to prohibit new fisheries or expansion of fisheries for fisheries that have no science, have no management at all. You're asking me to talk about something that nobody knows anything about, including me. I'm a little confused about that. I would really like to see an additional public comment period well before this gets into drafts. At this point it's very hard to talk about anything when we don't know...We're talking about eight fish or so with no fisheries. Even if we include the South Atlantic and the 6.4 tons of silversides caught in New England, supposedly, it's only 1200 tons for the whole thing. There is already some activity in prohibiting forage fishing. The deep sea coral amendment. I like Theresa's point about saying, 99% - we want it all! When we did the Deep Sea Coral Amendment we protected 90-something percent of the coral at 800 meters. That wasn't enough for some people so we ended up at 450, more or less. 90% is not always enough for everybody, on one side of the issue. There's already legislation that prohibits bottom trawling outside of 450 meters, and in some cases shallower than that. To say that the industry is going to develop forage fishing in the future - except for scallopers, nobody's got any money. The industry is in severe decline for a lot of reasons. I don't really see - I'm trying to think of another fish outside of the eight, which aren't caught or fished anyway. I can't come up with one. Unless I'm using a dip net off one of the docks at Point Judith or a 4 by 20-foot beach seine you can buy at Walmart. We did that when I was a kid. We caught a lot of fish that we didn't know what they were. Some of them are probably on that list. If you want to start somewhere you can start in about three feet of water from Maine to Florida, because that's where these fish are important...As far as some of the issues, it would be my personal feeling that since we don't know what the fish are, we don't have any science, we don't know what we're talking about, I really think that deserves a Fishery Management Plan of its own. I understand the efficiency of attaching this to another plan. But it's not my experience that fisheries management is about promoting efficiency in the fishery. I think the Council should go through the exercise of executing a brand new FMP for that. I have a hard time accepting management efficiency when I see what management has done to fishing efficiency. As far as the types of fishing goes, I don't even know what fish we're talking about, so I don't know. Earlier I was talking about the kids on the beach with the beach seine, well you've got to put them out of business because they're the ones that are catching this stuff. Maybe they're the ones that are catching the 6.4 tons up in New England. I don't know. But those guys have got to go. If there is fishing for these fish, it's IUU fishing because it's certainly unreported. It's not illegal yet, but it's unreported. As far as prohibiting expansion of any fishery, of course, right now we don't have any. It'd be better to develop existing fisheries for which management plans already exist. Fishermen want to go fishing. That's what most of these guys have done all their lives. They don't want to stay home and collect unemployment. They want to go fishing. They just want to make a decent living. It's my opinion that if we had better management for fish like fluke and sea bass, we wouldn't even worry about trying to prohibit going to fish for something that we're not fishing for now in the future. I think we need a better sense of what we are managing instead of spending a tremendous amount of human energy trying to figure out how we're going to manage what we're not fishing. As far as the process for allowing a fishery to develop, to me the best way to do it is to allow a certain amount of bycatch. It would seem to me that since we don't have a fishery for anything right now, we don't have any data. If fishermen were allowed to bring in a certain amount of bycatch for any forage fish, we would have some information. It would also allow a market. You can't develop a market without having some product. You can't just show pictures. You have to physically show a product...Some amount of bycatch in any of these fisheries would allow collection of some data and would help determine if there is a possibility of some fishery, which then could move to an EFP. As far as the scientific data, I'd like another shot at

scoping after we have something to talk about. I thank you for coming to Rhode Island, I know we're not part of that voting bloc.

East Setauket, NY

September 29, 2015

Attendees: Julia Beaty (Council staff), David Berenbroick, Elizabeth Brown-Hornstein, T. Julie Cohen, Mark Cummings, Melissa Dearborn, Tim Edland, Michael Ferrigno, Dan Gulizio, Steve Heins (Council member), Jesse Hornstein, Thomas Jeffries, Carl LoBue, Jamie Pollack, Konstantine Rountos, John Turner, Charles Witek, Byron Young.

Comments:

Carl LoBue: I'm senior marine scientist with the Nature Conservancy here in New York. I also sit on the Council's Ecosystems and Ocean Planning AP. We're going to submit written comments so I'm not going to go into a lot of detail. We're supportive of the Council moving forward with this plan. It's a very timely thing to do. We also caution, this is as much for the state as it is for the Council, that we do have existing forage fisheries here in local waters. It's really important that they get documented. We got caught behind the eight ball with menhaden and eels. We knew it was going to happen, we know that we need to make sure that our fisheries are documented so that any action that is taken is intentional and not accidental because we didn't know about something.

Charles Witek: I'm going to submit written comments, so I'm not going to go too far. I am pleased that the Council is moving forward with this. I would suggest that we're careful to do it the right way. We want a plan that will stand up to litigation, should there be an industry challenge. If we try to fit it into a habitat issue, or stocks in the fishery, or something like that, we have to do it assuming that it will be challenged in court. Because of that I think I'm inclined to say what we really need is a new Fishery Management Plan where you can control the parameters and not try to force it into another plan of some sort. I know it's more difficult. I know a lot more information is required. It could be time consuming, but you don't have to worry about inter-jurisdictional problems. You don't have to worry about being forced, for example into the bluefish plan, which is probably the logical plan to attach this to otherwise. You don't have to worry about interacting with ASMFC if you choose not to, or the New England or South Atlantic Council. You have a lot more freedom of action. What we want to do here is freeze the footprint. We don't want to expand fisheries. We don't want to put existing fisheries out, which are very small at this point. We want to make sure we don't get any high-volume, low-value fisheries that impair the ability of forage fish to support other species and other fisheries. We have to remember that the amount of precaution you need is inversely proportional to the amount of data you have available. In a case like this where you have no data, you have to be very, very cautious before you open up a fishery.

Michael Ferrigno: L&L Wholesale Bait. With regard to the data they have now, which seems non-existent, what would they accept as realistic figures? We process, Regal and myself and Nelson's bait, probably process a quarter million pounds a year of silversides. How would they take those numbers? Via comment? Is that sufficient? ...In the short-term, in the interest of meeting the October 2nd deadline, I'll submit comments in writing, I guess I'll refer to these numbers that exist. They're real.

Melissa Dearborn: Regal Marine Products and New York Fishing Tackle Trade Association. I will also submit written comments, but just briefly, obviously we don't under-estimate the importance of forage species to the ecosystem, but it's going to be very important that we don't shut down existing fisheries purely because there's not enough scientific data. That's just not the right course of action. While there may not be extensive directed fisheries for these forage species, there are certainly directed commercial fisheries, mostly in our state waters. These are generational fisheries. Fisheries that support the recreational bait industry. Therefore I believe it's very important that we maintain these existing fisheries, especially in our local waters.

Konstantine Rountous: Stonybrook University's Institute for Ocean Conservation Science. I'm very pleased with the precautionary approach taken by the Council for forage species in general but also for these unmanaged forage species. I think we have good progress and good momentum here for these important species. I think it would probably be most appropriate for there to be amendments for these species, meaning if we could tie them in to current plans that are already in place, I think that would streamline getting them in the system. I would also encourage prohibiting the directed harvest of these unmanaged species until we know about them, until we know about their habits, until we know what services they serve both in local bays and offshore. Many of these species spawn in local bays, which have a number of issues, and then feed predators out in the ocean. It's important to understand that connection there. I recently submitted a paper that will be getting published in Fisheries in probably November or December. I really applaud the Council for defining forage species because scientists have a lot of different definitions and they're not consistent. It took managers to define what a forage species is. I think that's very good. We can wrap our heads around what they are. I recommend that we do not exclude invertebrates. We should prepare for and have the adaptability that as climate is changing we will have new species coming up here, maybe ones that could develop into fisheries. You should have the flexibility in defining what is forage and science should let us know if they are fulfilling that role. I'm pleased with the process that the Council is going towards. With this type of precautionary approach maybe some of these unmanaged forage fisheries, through experimental fisheries or collaboration with fisheries independent research, they could develop into fisheries. But it's important to be precautionary and make sure we know we have a good idea of what we're doing before we open up fisheries for them.

Dan Gulizio: Peconic Baykeeper. I just want to support the initiative. I'm a planner by background so the idea of being proactive and getting the information together before we have a problem seems to make a lot of sense. Not being flippant about it, but the saying that smart people can fix problems but really smart people prevent problems comes to mind. The idea of taking the proactive approach and getting the studies done ahead of time makes sense to us. The ecosystem approach also seems to make a lot of sense.

Berlin, MD

September 30, 2015

Attendees: Julia Beaty (Council staff), Steve Doctor, Joseph Gordon, Monty Hawkins, Garret (Bud) Homelsine, Jack Kaeufer, Kirby Kaeufer, Steve Kaeufer, Howard King (Council member), Rich King, C.L. Marshall, Lindsay Mason, Stephen Mason, Richard Nieman, Buddy Seigel, David Sikorski, Ron Smith, Brad Taylor.

Comments:

Steve Doctor: There are markets for species such as *Fundulus* (mummichugs) and mullets as bait, and rock crabs as food. They could be considered forage but are not on the list. What about green crabs? They are forage and unmanaged, but they're invasive. There's little to no data on a lot of these species. The Council says they only want to prohibit fisheries until there is data on them, but who is going to collect that data? Where will the funding come from? I'm worried that this could effectively prohibit fishing forever, because it will be difficult and expensive to collect good data on these species... This summer a head boat captain asked me why we closed the silverside fishery. The supplier said the fishery was closed and they were not going to be available for the rest of the summer. We looked at the box and it said they were from Canada. I did some searching and Canada has a forage species policy.¹

C.L. Marshall: Eastern Shore Angler's Club. I'd like to commend you for your proactivity. Fishing in Chesapeake Bay, I see first-hand the decimation of the menhaden and how that affects our rockfish, predominantly in the bay. I think recreational utilization of these forage species is minimal. I'd like to see the commercial side tagged with this thing as we move forward. The commercial fisheries are really the ones that pull the most out of these forage species, utilization for fish meal and oil and the like. I think that's something that needs to be tempered moving forward. I'd hate to see the tunas, the marlins, and the striped bass that we worked so hard to hold on to what we have, I'd hate to see them move elsewhere because we let these forage species decline.

Monty Hawkins: I really want to congratulate management. It's wonderful to move away from solely catch-based management into new frontiers. It's a good thing. Numerous times I see stomach content analysis cited as the sole reason behind what fish eat. Sea bass for instance are said to eat crabs and nothing but crabs. Well, the plankton and other things that they eat are digested much more rapidly. Crab might take 6, 8 weeks to digest. When they cut the stomach open, if the seabass ate a crab 6 weeks ago, you can still tell that it's a crab. If it's feeding on plankton 20, 30, 40 feet off the bottom for weeks on end, it's just a gray mush and they can't identify any of it. It happens a lot. It really skews the science off in the wrong direction... I really wonder if it shouldn't be any fishing-related action or removals,

¹ The following "Policy On New Fisheries For Forage Species" can be found at: http://www.dfo-mpo.gc.ca/csas-sccs/Schedule-Horraire/2009/12/12_15-16-eng.htm.

"Fisheries on forage species should be designed to ensure a high likelihood that five objectives are achieved: maintenance of target, bycatch, and ecologically dependent species within the bounds of natural fluctuations in abundance; maintenance of ecological relationships (e.g predator-prey and competition) among species affected directly or indirectly by the fishery within the bounds of natural fluctuations in these relationships; minimization of the risk of changes to species' abundances or relationships which are difficult or impossible to reverse; maintenance of full reproductive potential of the forage species, including genetic diversity and geographic population structure, allowance of opportunities to conduct commercially viable fisheries."

catches, that retard forage or availability of forage, especially for managed species, and these other animals like marine mammals and turtles that we're supposed to share the ocean with. For recreational fishing, if guys catching shiners off the dock begins to weigh on an ecosystem component, we'll then regulate it. Managers should be allowed to manage. You're never going to have the data. You've got to manage. You've got to call it like you see it. I think an exhaustive list of all species that could be managed would be a very, very long list.

Richard Neiman: I represent the Ocean Pines Anglers' Club and I'm also on the board of the Maryland Saltwater Sportfishermen's Association Atlantic Coast Chapter. It does concern me that, in the forage category are probably not the ones that you're aiming for. I would go with menhaden as an example. I think a lot of people would agree now in particular that the menhaden, taking so many out of Chesapeake Bay has impacted the stripers, has made them sick. A number of us also believe that, what did the stripers turn to to eat? Crabs maybe? Maybe they ate up the sea trout. Now we don't see sea trout. I haven't seen any this year...I hear the anglers in my club saying we don't see the spot like we used to...The question is, is the reduction in these species because of the fisheries? It seems like the flounder, for example, are moving north. We've got species here that I feel are more abundant than we've seen before, such as cobia. Grouper, for example. The problem is obviously bigger than who's taking this stuff? What are the fish doing regardless of that. The water's warming maybe. More species are going north. I commend you for making an effort, I just don't see how anybody's going to get their arms around this.

Jack Kaeufer: I think one of the things we want to remember is that blue marlin don't eat a lot of the species that you had up there. They'll eat a lot of fish that are 8 or 9 pounds. We're saying that something that's going out to eat a forage species, we've got to remember what kind of fish it is. I think it's one of the things you're going to want to find out. Just like bluefish. What is the main thing that they actually eat? What does a white marlin eat? What does a blue marlin eat? What does a shark eat? It goes on and on right on down to sea trout. I was catching sea trout two at a time. None of them reached 13 inches, but it surprised me that they were right on the beach. I've got a feeling that because of the lack of bunker, when the rockfish show up, they're going to eat these sea trout because they're just slurpee size. I think we want to stop and really take a look when you say forage fish, that covers a lot of things, not just something this small...We don't have the bluefish here that we used to have. We don't have the gray trout. We used to catch gray trout around here. You could fill a boat up with them. We don't have the Spanish mackerel. We used to have plenty of Spanish mackerel. There's a lot of species that you just don't see. You might bump into a small school of them here and there. But once upon a time people would go out on charters and target these species. Now it's just getting harder to do. They're just not there. I really believe it's because of the forage. When we go out of here rockfishing, in the beginning of rockfish season we'll catch rockfish that I believe are from Chesapeake Bay. They've got sores on them. They look real thin. About six weeks later they start getting down here from Massachusetts. They're bright silver, they're strong, not a sore on them. Something's up. We are pumping so much fluid into this ocean, running out of Delaware Bay, running out of the New York bight, running out of the Chesapeake Bay. If you see aerial shots, you can see the dirty water coming out of those places. I honestly think that until we fix that...Four years ago I picked up an infection. I was unconscious, I was in the hospital. What the Doctors told me is that all of the antibiotics that we're taking are being flushed into our bays and into the water system. These bacteria are becoming smart to it. We're working up bacteria that we can't do anything with.

Buddy Seigal: Ocean Pines Anglers and the MSSA, the Atlantic chapter. I'm an advisor for both ASMFC and ACCSP on scup, black sea bass, and summer flounder. They have changed because of the water. Our measurements, in many cases, have not changed. The mechanism for MRIP changed, however the outcome did not. So we changed the system and you're trying to match the old numbers with the new numbers. That's not what we had before. You're supposed to establish a new baseline, not match what it was...Certainly MAFMC can do a better job at trying to influence Washington than we can. But it's really screwed up. And now we have management of forage fish. Which forage fish? Which environment? We have the ocean, offshore, nearshore, and we have a bay. They're all different. Which fish in which area? Certainly there's a lot of thought of how do we approach which part of the ecology and the environment?

Monty Hawkins: I want to segue in on what Captain Jack Kaeufer said. Atlantic bonita, false albacore, little tunnies. These are a couple of feet long. If you're a blue marlin, that's forage fish...All the guys that fished when he was fishing, they all described the cockpit a mess with the white marlin spitting up sand eels. If you talk to fishers today, none of these boys today have ever seen white marlin eating sand eels. They're farther offshore. The sand eels are inshore. So there's a shift over time.

David Sikorski: Government relations chairman for CCA Maryland...These forage fish are the foundation for a lot of the fish that we pursue as recreational anglers, and even commercial fisheries. It is hard to track them and understand them through stomach content analysis and fishery independent and dependent studies that are out there. But this action to provide that protection so we know we're not creating another issue while we try to capture all the uncertainty, is very important. It's a good, proactive approach that will lead us to ecosystem based management. The species on the white paper list that you provided us are the obvious ones. They're well-known. We've been using them as bait. The species that are on the FMAT laundry list are important as well. There's even species missing. The chub mackerel...Anybody that's been out at Washington Canyon or any of the canyons around here on recreational fishing trips knows that they're there. They show up at night. They're all over the place. They are forage. It's important that they are added to the list...I talked to a charter captain who fishes out of Virginia Beach who spends a lot of time in Norfolk and Washington canyons. We spent 45 minutes trying to figure out what kind of mackerel he was catching. I finally convinced him it was a chub mackerel. That's one that's not on the list that's important. Another thing, is we call things tinker mackerel, but it's a general name, from what I can tell. It's a small mackerel. While Atlantic mackerel are managed, there are other species like scad, which are a mackerel. That's the difficulty of this exercise, is to encompass the right species. But these are all species that we know as fishermen are important forage species for the fish we pursue. You don't have to look very far in any of the towns up and down the coast to see the economic benefit that recreational fishing provides. The White Marlin Open – I'm surprised that somebody here doesn't have a White Marlin Open t-shirt on. That's just one tournament out of one small marina. You have the other marinas, and the fuel bills. I have a friend here who sells food and paper products to restaurants. Guess what? The fisheries support those restaurants. There's one restaurant, the Reel Inn, they make their year in one week because of the White Marlin Open. There's species on the list that the white marlin eat. And that's just one species... The more comprehensive this list can be, the better. I think there's much more to lose by not including species than there is to not put them on there because of uncertainty. The action that we're looking for to potentially open these fisheries will not be that cumbersome. But the action to stop overfishing or scale

back fishing is extremely cumbersome. It's one we continue to be involved with for a number of species. We have an opportunity to be proactive.

Joseph Gordon: Pew Charitable Trusts. We've been looking at this action for a while. One of the things that you do hear is, why do this now? I think the answer is partly for managed species today, for the fisheries and ecosystems that depend on these fish now...For example, sand eel is a very important part of the diet of summer flounder. We have to protect their food as well as addressing the overfishing that's happening. This is a lot about looking into the future. A lot species in the Mid-Atlantic are not managed and are not the target of a fishery. We don't want to take that for granted. Now's a really good time to protect them... It's hard to imagine 10 to 20 years down the road where an industrial fishery doesn't target something like sand eels on a very large scale. We're talking about ships like Omega Protein and the mid-water trawl fleet that tow nets that are capable of catching hundreds of thousands of pounds of fish in a single trip...We think you should do something that's regulatory and enforceable. That could be an omnibus amendment or it could just apply to one, but the important part is that it's regulatory and that it accounts for all the gears that could potentially harm the species or really be a threat to sustainability of that fishery. We like the approach that the Pacific took to ecosystem component species. There's going to be an effort to limit this, to shorten the number, to make it fit a particular definition. But we think you should make it as inclusive as possible. Really this kind of policy, a rational approach to adding new fisheries, is something that should be applied to all fish...We're very concerned that if this action doesn't include species like copepods which have been targeted in other areas of the world, you've somewhat missed the opportunity. We think start with the Mid-Atlantic first. It's great to do it through the bluefish plan if ultimately that doesn't require the other management bodies to approve it. Ultimately this should be a coast-wide policy, but at least start with what you can control now. Don't get hung up in New England. We don't think recreational fishing is what this Council was intending to address. One way to do this would be to set a trigger, a catch level. Beyond this catch level it becomes a fishery of concern. If you set a threshold that triggers action I don't think you have to have vast amounts of data because it's only large commercial fisheries that can catch it. If you were to say a thousand pounds, or ten thousand pounds – I think you could set a threshold that doesn't require you to know everything. The last question that got added at the end about whether there's enough science to do this action, I think that really misses the point. This is a policy decision about when you should allow a fishery and what amount of fishing should be protected. It's not a science review of the species. You don't need to know the stomach contents. You just need to set a rational policy.

Richard Neiman: It seems to me that anything that has commercial value is where you're most in danger of depleting a species. As a big example, menhaden. As a smaller one, spot in our bay. If it costs you \$2 for a spot, you're going to go out and catch a bunch of them and sell them instead of using them for recreational fishing. Even crabs up here. It's \$5 on the large ones now. \$60 a dozen. Mullet. All of a sudden you're getting \$2 a pound for mullet, well you're not doing it for recreational purposes. You're doing it commercial. You may be able to set your priorities based on if it were possible. You could say any new commercial to be introduced would get the attention of regulators, that way you're focused on the ones that are going to disappear first...I think if you focused on where in our region or where in the world some of these species have become a commercial fishery, I think you'd be putting your attention where you could do the most help.

Rich King: Delaware Surf Fishing. You're trying to protect forage fish, but you need to protect the environment it comes from. If it doesn't have the environment to live in, it's not going to thrive. Right

now we're fighting an outfall for Rehoboth. They're going to try to take the outfall out of the Lewes Canal and dump it right into the ocean in front of Rehoboth Beach. You need to protect the environment that all these forage fish come from. Protecting them to feed these predatory fish is great, but if they can't thrive and create the numbers that we need to feed these fish and create more numbers, you're really just spitting in the wind. In my state 9% of our waters will not sustain fish life. They're that polluted. That's an EPA thing, I know that. But you guys have a relationship with the government, you can work with them. Our biggest problem in the state of Delaware is pollution. We have fish consumption advisories. In Delaware Bay, two eight ounce fillets of striped bass a year. Young women, kids shouldn't even eat them. This is a migratory fish that shows up twice a year in Delaware Bay. It's crazy. You need to protect the environment to protect these forage fish or you're honestly just spitting in the wind. They've got eat, they have to feed, they have to thrive. You've got other fish that you've got to protect too, that don't come in the bay, that are way offshore. I think you guys have a very daunting task...I think you're going to have to look at a very broad scope. You're going to have to look at recreational fishing too. I know guys that catch peanut bunker just to throw them in the garden as fertilizer. We get enough peanut bunker [*a few words inaudible*]...which is driving you guys in the Chesapeake crazy because you don't have any peanut bunker. I have so much that I don't know what to do with it. They can't fit their trawlers in my little bay. You're going to have to look at the environment.

C.L. Marshall: – When I first came here I knew a lot of people that when they were younger there was a lot of pound nets off of here. They used to haul the nets out and haul them back in. When I started fishing here in the late 60s, five miles off the beach was crystal clear water. I have seen a blue marlin on the bottom swimming around. A big mako shark. We watched him for days. That's how clear the water was, you're talking about 60 feet of water. All the way in to the beach was blue water. We don't have it now. It's a shame.

Buddy Homelsine: I'm a recreational fisherman and a member of CCA Maryland. I agree with them. You have to address more than just the fishing, you have to address the environment. I remember when I was little – I'm a resident of Pennsylvania, but we used to come here and we'd go rake clams and fish in Delaware. You're not allowed to do it anymore because of pollution. You have to address the environment.

Webinar

October 1, 2015

Attendees: Lee Anderson (Council member), Julia Beaty (Council staff), Lora Clarke, Tim Edland, Clay Heaton (Council staff), Jeff Kaelin (Council member), Michael Kelly, Jake LaBelle, Joyce R, Rick Robins (Council member), Anonymous, Carol, Taylor.

Comments: None.

Written Comments

(Note: most comment letters submitted on behalf of organizations are at the end of this section)

From: Squarespace [mailto:no-reply@squarespace.info]
Sent: Friday, August 28, 2015 8:36 AM
To: Beaty, Julia <jbeaty@mafmc.org>
Subject: Form Submission - Unmanaged Forage

Comments: I do NOT endorse any proposed action which does not identify the fish or invertebrate stock that will be included in the proposed action.

This commission has over regulated many species (i.e. Red Drum, Gray Trout, etc.) to the point of putting commercial fisherman out of business. Recreational fishing regulations, especially when anglers wish to keep fish for consumption, have become so burdensome that anglers are going elsewhere. This deprives the region of a major source of economic activity and adversely affects the lifestyles of the residents who don't have the wherewithal to move out of states controlled by this commission.

Name: Virginia Luizer

Email Address: topsynturvy@msn.com

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](#))

From: William Bartlett [<mailto:wbartlett@md.metrocast.net>]

Sent: Tuesday, September 01, 2015 9:08 AM

To: Beaty, Julia <jbeaty@mafmc.org>

Subject: "unmanaged forage scoping comments"

Menhaden

All living things need nutrients to grow and thrive. For many animals it is grass and only grass; a green plant produced by photosynthesis. There is always plenty of grass as long as conditions are right; more than the grass eaters can eat. Nature abhors a vacuum and will grow grass. Many animals get all the nutrients they need from eating these animals that eat grass. Mother nature in her "infinite wisdom" provides many of the animals that are needed to feed the carnivores. They are prolific animals like rabbits, mice, deer, wildebeests, etc. And it is the same in the waters that surround us all.

With available nutrients, we have plants in the water called phytoplankton; plants just like grass that require the sun to produce photosynthesis. And we have the animals that eat the phytoplankton. They are called zooplankton (copepods, dinoflagellates). The phytoplankton and zooplankton are microscopic, but it is what makes the water cloudy in places around the world like the Chesapeake Bay where it finds the most nutrients (nitrogen and phosphorous washed off the land).

There are fish that eat the tiny plants and animals. They can filter out the planktons. These fish provide the same niche as the grass eaters on land. They are called forage fish. Without them we would have no fish that we like to eat.

Because so many forage fish are needed to provide food for many other fish, birds and mammals Mother nature has provided several species of very prolific fish. One of the most well known in our area is the menhaden. We need them in great abundance, but what is happening is that one company is taking over 300 million pounds of them every year from the mid-Atlantic area to be used as feed for some farm animals and farm raised fish. There was a time when the water in this area was a lot clearer. We do not need 300 million pounds of this fish to be removed from this area. We need even more to eat the planktons and clear the water.

Mother nature provided this fish in great numbers because they are needed in great numbers. The removal of so many menhaden upsets the balance of nature and should be stopped completely immediately.

The Chesapeake Bay will not return to any resemblance of its former self until the menhaden are brought back in sufficient numbers as nature intended.

William Bartlett

19124 Lake Drive

Leonardtown, MD 20650

wbartlett@md.metrocast.net

301 994 0671

From: Matt Spengler [<mailto:mspengler@pandora.com>]

Sent: Monday, September 14, 2015 2:03 PM

To: Beaty, Julia <jbeaty@mafmc.org>

Subject: Unmanaged Forage Scoping Comments

To whom it may concern,

I wanted to voice my interest in the current unmanaged forage fish situation.

I advocate amending one of our current fishery management plans, like bluefish.

- Unmanaged forage should be included under a plan as an "ecosystem component species"
- They should include crabs, worms, krill, shrimp in the list of species.
- It should address all fisheries, commercial and recreational
- The council should inventory existing fisheries and prevent expansion of those.

Thank you for your attention in this matter

Matt Spengler

From: Squarespace [mailto:no-reply@squarespace.info]
Sent: Monday, September 14, 2015 5:50 PM
To: Beaty, Julia <jbeaty@mafmc.org>
Subject: Form Submission - Unmanaged Forage

Comments: Dear Sir Madam,

In the past 3 to 4 years we start seeing a good comeback for tuna to our water in New York/ New Jersey.

Without the large scale presence of sand eel this comeback would not be possible.

I am a mere angler with no commercial interest that follows these fish for the angling challenge they present.

I have however spent a significant amount of money and time in chasing these fish, money that have contributed to the growth and proliferation of tackle shops and charter operations that make the pursuit of this fish possible.

I have witnessed first hand the appetite that these fish have for sand eel and how strongly a healthy sand-eel population correlates to healthy tuna populations. I believe that unmanaged forage species like sand eel are a vital part of the current ecosystem that removal or exploitation of such species is short sighted.

Regarding the position on the questions posed:

Question 1:

(A) Amending one of the current fishery management plans to include protections for forage;

Question 2:

(A) – “Identify forage species as ‘ecosystem component’ species and prohibit their directed harvest”

Question 3:

Sandeel, bay anchovy, striped anchovy, silver anchovy, round herring, thread herring, Spanish sardine, and silverside.

Question 4:

All types of fisheries should be addressed.

Question 5:

The Mid-Atlantic Council should probably focus on its jurisdiction first, and then encourage neighboring management bodies follow suit.

Question 6:

Prevent the exploitation of those unmanaged forage fisheries that currently exist.

Question 7:

The Council should follow the same path that the Pacific Council did with their unmanaged forage action.

Sincerely,
-- Bogdan Ilisie

Name: Bogdan Ilisie

Email Address: bilisie@gmail.com

Keep Me Informed:

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

From: Thomas Zoltner [<mailto:tzoltner@businessinsider.com>]

Sent: Monday, September 14, 2015 11:11 PM

To: Beaty, Julia <jbeaty@mafmc.org>

Subject: Unmanaged Forage Scoping Comments

Dear Sir or Madam,

In the past 3 to 4 years we have seen a wonderful improvement in the species of tuna for New York/ New Jersey waters. I have traveled from my home state of New Jersey, up and down the coast to fish responsibly for tuna. This was not possible 10 years ago.

This is mostly due to the amount of sand eels which have returned to the fishery. A permit to harvest the Sand eels will result in the disappearing of this fishery that we all enjoyed in the past couple of years, I am sure many had profited from that including hotels, tackle shops, Marinas, Gas station not to mention the smiles and tourism our Northeast anglers have brought to various areas.

As a result I ask you not to allow permits to harvest the Sand Eels!

Tight lines

Thomas Zoltner

Business Insider

From: Pierrepont, Stuyve [<mailto:Stuyve.Pierrepont@marsh.com>]
Sent: Thursday, September 17, 2015 7:51 AM
To: Beaty, Julia <jbeaty@mafmc.org>
Subject: Unmanaged forage scoping comments

Julia. Please consider carefully protecting Forage species for the good of the Ocean food chain. The destruction of the Menhaden bio mass is having a grave effect on not only the Striped Bass, Weak Fish, and Bluefish population and health but also water quality as they are key filter feeders. We cannot let the remaining feed or forage fish populations to be destroyed by commercial fishermen for fish meal for livestock. Please act not to protect the sand eel stocks as the last remaining food source for whales to ground fish. God cant save these valuable species, but you can. Regards. Stuyve

R. Stuyvesant Pierrepont III
Managing Director
Marsh Private Equity and M&A Services
1166 Avenue of the Americas, 43rd Floor
New York, NY 10036
phone: 212-345-8756
cell: 917-282-5110
Stuyve.Pierrepont@marsh.com

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From: Jane DiCosimo - NOAA Federal [<mailto:jane.dicosimo@noaa.gov>]
Sent: Thursday, September 17, 2015 11:33 AM
To: Beaty, Julia <jbeaty@mafmc.org>
Subject: forage fish management

Hello Julia

Regarding the MAFMC interest in evaluating revised management for forage fish in your region, I wanted to make you aware of actions the NPFMC has taken of forage fish, and other non-target species in the North Pacific (I was staff there for 20 years before my move to NMFS HQ). Olav Ormseth at the AFSC is your best contact on this topic for the science side, and perhaps Dave Witherell at the NPFMC for the management side.

Directed fishing for forage fish was banned in 1999, although a 2% bycatch limit is allowed. The forage fish category includes a number of species that play a central role in the North Pacific Ocean food chain, and are consumed by a wide variety of fish, marine mammals, and seabirds. This category includes all species in the families Osmeridae, Bathylagidae, Myctophidae, Ammodytidae, Trichodontidae, Pholidae, Stichaeidae, Gonostomidae, and euphausiid shrimps. This category was created in the FMP in 1998, when directed fishing was prohibited for these species, as a recognition of their importance in the food web. A small amount of forage fish caught incidentally in other groundfish fisheries may be retained, and typically is processed into fishmeal. The forage fish incidental catch consists primarily of osmerids (capelin, eulachon, other smelts). Collectively, forage fish form only a small part of the groundfish total catch, typically comprising less than 0.1 percent of the directed harvests.

Source: Forage fish category: BSAI Groundfish FMP Amendment 56, GOA Groundfish FMP Amendment 56; 64 FR 10952, implemented January 27, 1999.

The other species categories in the BSAI and GOA aggregate very different groups of animals under a common quota. Concerns that a species or species group could be disproportionately exploited under the aggregate TAC have resulted in a proposal to revise how these groups are managed. The 'other species' category includes species with diverse life histories, and in many cases little is known about their population dynamics and structure. Species that are long-lived and have low reproductive potential (sharks and skates) are particularly vulnerable to depletion, because it takes them longer to rebound from natural and fishing mortality. A lack of life history data and fishing data hampers assessments of stock status and bycatch effects. The Council has taken a stepwise process for addressing this issue. In 2005, skates were removed from the GOA 'other species' assemblage and now are managed under separate TACs for big, longnose, and 'other' skates. In 2006, the TAC for the GOA other species assemblage was revised from an inflexible formula (5% of the combined TACs of all species not in the 'other species' complex) to allow the Council to set a lower TAC if appropriate. In 2009, the Council set an overfishing level and acceptable biological catch for this complex, and sets a biologically based TAC. Beginning in 2011, the Council eliminated the other species assemblages, defined these groups as being "in the fishery," and set separate annual catch limits for sharks, skates, squids, sculpins, and octopuses in the BSAI and GOA. Prohibited species and forage fish species were defined under a

new ecosystem component (EC) category, and non-specified species were removed from the FMPs. More recently, grenadiers were added to the FMPs in the EC category.

Regards

Jane

--

Jane DiCosimo
National Observer Program Coordinator
National Marine Fisheries Service
Office of Science & Technology
1315 East West Highway
Silver Spring MD 20910
301 427-8109

From: Jerry Jarombek [<mailto:jerryjar@optonline.net>]
Sent: Thursday, September 17, 2015 8:50 PM
To: Beaty, Julia <jbeaty@mafmc.org>
Subject: Unmanaged forage scoping comments

Dear Ms. Beaty,

This summer on Long Island Sound dolphin and even a humpback whale have made an appearance due to restrictions on the cast netting of bunker.

Forage fish are much more valuable if left in the ocean rather than harvested.

Please support efforts to maximize the health of our marine ecosystem.

Thank you,
Jerry Jarombek
Riverside, CT

From: Squarespace [mailto:no-reply@squarespace.info]
Sent: Tuesday, September 22, 2015 1:20 PM
To: Beaty, Julia <jbeaty@mafmc.org>
Subject: Form Submission - Unmanaged Forage

Comments: I am a recreational fisherman who primarily fishes for saltwater species in the northeast. I write to urge you to implement ecosystem-based management plans for currently unmanaged forage species. Just like the managed forage species (e.g., menhaden), the unmanaged forage species are essential building blocks of our marine ecosystems, and are vital to the health of the commercially and recreationally important fish species (e.g., striped bass, fluke). Our fishery stocks are already so depleted that it is crucial for management plans to be established for currently unmanaged forage species. But it is very important that these species be managed on an ecosystem basis. To date, the fisheries management plans have largely been unintegrated and fail to consider the interrelationships among species in the ecosystems. Also, the current plans function all too much on the needs of commercial fishermen rather than upon the health of the ecosystem. The regional fishery management councils have done a terrible job overall, including the Mid-Atlantic Council, and we are now suffering from so many bad decisions which are based upon political pressures. Here, you have a chance to act responsibly on behalf of the ecosystems, and I urge you to do so.

Name: Robert Berg

Email Address: robertbergesq@aol.com

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](#))

From: Squarespace [mailto:no-reply@squarespace.info]
Sent: Tuesday, September 22, 2015 2:36 PM
To: Beaty, Julia <jbeaty@mafmc.org>
Subject: Form Submission - Unmanaged Forage

Comments: I feel that the following should be enacted:

1. Action B: Develop a new FMP with provisions for unmanaged forage species
2. Provision A: Identify forage species as ecosystem component species and prohibit their directed harvest
3. The previous two rules should apply to the following species:
 - sand lance (*Ammodytes americanus* and *A. dubius*)
 - white mullet (*Mugil curema*)
 - striped mullet (*Mugil cephalus*)
 - bay anchovy (*Anchoa mitchilli*)
 - striped anchovy (*Anchoa hepsetus*)
 - silver anchovy (*Engraulis eurystole*)
 - Atlantic silverside (*Menidia menidia*)
 - thread herring (*Opisthonema oglinum*)
 - round herring (*Etrumeus teres*)
 - Spanish sardine (*Sardinella aurita*)
 - sand crabs (*Emerita* spp.)
 - lady crabs (*Ovalipes ocellatus*)
 - grass shrimp (*Palaemonetes* spp.)
4. Large scale directed commercial fisheries for the above listed species should be prevented from existing.
5. This action should apply to the largest geographic area, encompassing all areas shoreward of the continental shelf.
6. Mandatory reporting off all species landed on VTR's. Increase on board observer effort to directly monitor for forage species.
7. Adopt a similar process to the Pacific Council:
 - I. For purposes of California fisheries management, forage species are defined as species that contribute significantly to the diets of larger organisms during some part of their life history, thereby transferring energy and nutrients to higher trophic levels in the ecosystem.
 - II. The Commission recognizes the importance of forage species to the marine ecosystem off California's coast and envisions management of forage species that: optimizes their ecological, economic and social values; accounts for the benefits rendered by forage species to other species, fisheries, wildlife, and the overall ecosystem; and considers recreational and commercial fishing interests and other economic sectors.
 - III. The Commission intends to provide adequate protection for forage species through management goals that:

Are precautionary and utilize the best available science in management decisions using clear and transparent methods;

Identify and progressively incorporate Essential Fishery Information (EFI) needed for ecosystem-based management of forage species, including physical factors, oceanographic conditions, the effects of fishing on forage species' dependent predators, the availability of alternative prey, spatio-temporal foraging hotspots for predators, and existing management, including marine protected areas;

Prevent the development of new or expanded forage fisheries until EFI is available and applied to ensure the sustainability of target forage species and protection of its benefits as prey; and

Facilitate consistency in the management of forage species, integrate with existing Fishery Management Plans, and encourage cooperation and collaboration across jurisdictions and international boundaries in managing forage species.

(Adopted: 11/07/12)

Name:

Email Address:

Keep Me Informed:

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

From: matadorsportfishing [<mailto:matadorsportfishing@yahoo.com>]

Sent: Tuesday, September 22, 2015 4:33 PM

To: Beaty, Julia <jbeaty@mafmc.org>

Subject: Unmanaged forage scoping

As a full time charter boat captain and commercial hook and line fisherman, I fail to grasp the what exactly fisheries managers are trying to accomplish by potentially further opening forage species to being targeted commercially. These small fish are essentially worthless commercially and the high volumes of these forage fish required to turn a profit would have a much larger, more expensive impact on the predatory species effected than commercial sale of these forage species could ever profit. Other commercially valuable species depend heavily on these forage fish to survive and allowing the depletion of these forage species from our waters will have a dramatic impact on other recreational and commercial fisheries. Please do not allow any targeted fisheries and zero commercial landings for these currently unmanaged species of forage fish. They are too valuable now to their environment to begin dabbling with the idea of creating new fisheries with these species.

Thank you,

Jake Hiles

Matador Sportfishing Charters

Virginia Beach, VA

7577496008

Matadorsportfishing@yahoo.com

From: Gary Mickus [<mailto:gary.mickus@gmail.com>]
Sent: Wednesday, September 23, 2015 10:33 AM
To: Beaty, Julia <jbeaty@mafmc.org>
Subject: Unmanaged forage scoping comments

Julia,

I support regulation of forage fish to preserve this essential food source for game and all fish. From my own shore stripers fishing in New Jersey I caught two in 2014 and none in 2015. A broader decline for stripers along the Atlantic coast was documented by Stripers Forever and I highly recommend you contact this organization for more details.

Gary A. Mickus

Sent from my iPad

From: Squarespace [mailto:no-reply@squarespace.info]
Sent: Thursday, September 24, 2015 4:45 PM
To: Beaty, Julia <jbeaty@mafmc.org>
Subject: Form Submission - Unmanaged Forage

Comments: recreational Spring moratorium March 1 too June 1st on all striped bass spawning grounds

Name: NYHC Fishing

Email Address: Aclay62@yahoo.com

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](#))

From: Ken Hastings [mailto:kensandyh@verizon.net]
Sent: Thursday, September 24, 2015 6:34 PM
To: Beaty, Julia <jbeaty@mafmc.org>
Cc: tedland@pewtrusts.org
Subject: unmanaged forage scoping comments

Kudos to the Mid-Atlantic Fishery Management Council (MAFMC) for taking this proactive initiative to manage these species.

Please accept these responses to the following items from the unmanaged forage scoping notice:

- 1) The most appropriate type of management action;
A new plan should be developed to put resource conservation as the top priority. Current plans are typically biased toward maximum exploitation, not conservation.
- 2) The most effective provisions of such an action;
Identify forage species as 'ecosystem component' species and prohibit their directed harvest.
- 3) Which forage species to address;
Sandeel, bay anchovy, striped anchovy, silver anchovy, round herring, thread herring, Spanish sardine, and silverside
- 4) The types of fishing to address;
In order to establish a reference baseline of abundance, there should be an immediate harvest moratorium on all species covered by this action with a hardship provision to allow those with a documented stake in the fishery to continue fishing under a permit system.
- 5) The most appropriate geographic scope of the action;
This should be a pilot effort within the Mid-Atlantic Council jurisdiction.
- 6) Effective ways to prohibit the expansion of existing fisheries;
The answer to No. 4 above may cover this one as well. Existing fisheries would be documented up front but probably not be able to validate their full stake in the resource.
- 7) An appropriate process for allowing new fisheries to develop;
Insist on mandatory cooperation and limited reported harvests to help establish reference abundances.
- 8) The ability of current scientific data and models to inform the action.
Much as is the case with other ecosystem initiatives, the science is probably immature and scarce. Maybe the first priority should be a comprehensive stock assessment.

Sincerely,

Ken Hastings
Mason Springs Conservancy
39044 Holly Drive
Mechanicsville, MD 20659

From: Squarespace [mailto:no-reply@squarespace.info]
Sent: Friday, September 25, 2015 3:32 PM
To: Beaty, Julia <jbeaty@mafmc.org>
Subject: Form Submission - Unmanaged Forage

Comments: STOP THE TAKING OF HERRING ESPECIALLY RIVER HERRING.

Name: HENRY SNOW

Email Address: HSNOW933@NETZERO.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](#))

From: Squarespace [mailto:no-reply@squarespace.info]
Sent: Friday, September 25, 2015 4:47 PM
To: Beaty, Julia <jbeaty@mafmc.org>
Subject: Form Submission - Unmanaged Forage

Comments: Please take the strongest measures possible to protect the unmanaged forage species. These are vital to the health of our fishery. Do not cave to corporate pressures of the menhaden reduction or herring trawl fleets! Thank you.

Name: jake

Email Address: jnasokushner@yahoo.com

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](#))

From: Squarespace [mailto:no-reply@squarespace.info]
Sent: Saturday, September 26, 2015 6:12 AM
To: Beaty, Julia <jbeaty@mafmc.org>
Subject: Form Submission - Unmanaged Forage

Comments: I am a Recreational fisherman from southern New England. I have been fishing from western RI to Cape Ann, both inshore and out to 100 fathoms. I fish for a variety of species that are managed by the MAFMC and I am concerned about the commercial harvest of forage species. Current practices of harvest are reducing the number and health of many of the species that I catch and as commercial fisheries are developed for new, currently unmanaged forage species, the situation could get significantly worse. Fishing down the food chain is unsustainable, as demonstrated over the past several decades in the Japanese fishery. I support Action A (amend one or more of the Council's existing FMPs to include provisions for unmanaged forage species.)

I support Provision A (identify forage species as ecosystem component species and prohibit their directed harvest)

I agree with the 8 unmanaged forage species included in the document (sand eel/sand lance, bay anchovy, striped anchovy, silver anchovy, round herring, thread herring and silverside). I would also like to see half beaks, krill & cinder worms included. And squid if they are not currently managed.

This action should include all harvest of currently unmanaged forage species in federal waters. Existing state waters small-scale fisheries such as the raking by hand of sand lance on New England beaches should not be included.

I support the MAFMC adopting this action in all waters under MAFMC jurisdiction.

The MAFMC should include within this action some language that prevents expansion of any ongoing fishery for the species covered that may not be known at this time.

New forage fisheries should only be allowed if proven to be sustainable and only when enough information is available to assess and protect ecosystem sustainability.

Thank you for the opportunity to comment.

Name: Richard Hittinger

Email Address: rhittinger@allianceegi.com

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](#))

From: KMWarchal@aol.com [mailto:KMWarchal@aol.com]

Sent: Sunday, September 27, 2015 12:50 PM

To: Beaty, Julia <jbeaty@mafmc.org>

Subject: Protecting Forage Fish

Dear Ms. Beaty

I'm very pleased to see the Council's interest in protecting forage fish. I am a very passionate recreational fisherman who values all species of fish. The health of the forage fish stock is paramount to maintaining the health of its predators. They are all interconnected in the sea of life. I'm very involved as VP of the Jersey Coast Anglers Assc, trustee of the Manasquan River Marlin and Tuna Club and secretary of the Ocean Reef Foundation of New Jersey. The following responses are my personal opinions though as the organizations mentioned haven't had time to review and comment as a group.

Thank you for your consideration.

Ken Warchal

What type of management action is most appropriate?

Amending one of the current fishery management plans to include protections for forage

What type of management provisions would be most effective?

Identify forage species as 'ecosystem component' species and prohibit their directed harvest

Which currently unmanaged forage species should the Council include in the action?

All forage species should be considered including but not limited to:

Bay anchovy

Striped anchovy

Silver anchovy

Round herring

Thread herring

Spanish sardine

Sand lance

Atlantic silverside

What type of fishing should the action regulate?

Recommend addressing all fisheries (whether they are commercial, recreational or whatever) if they could possibly have a significant impact on forage populations.

Over what geographic area should the action apply?

The Mid-Atlantic Council should focus on its jurisdiction first, and then encourage neighboring management bodies to act

How should the Council prohibit the expansion of existing fisheries?

It's important that with this action we prevent the expansion of those unmanaged forage fisheries that currently exist.

How should the Council allow new fisheries for forage species to develop? ***The Council should not allow new fisheries for forage species to be developed. The forage species are too important to commercialize when scientific data is incomplete or inaccurate. Very little is known about these species.***

From: Squarespace [mailto:no-reply@squarespace.info]
Sent: Tuesday, September 29, 2015 11:52 AM
To: Beaty, Julia <jbeaty@mafmc.org>
Subject: Form Submission - Unmanaged Forage

Comments: I have fished the Rhode Island shoreline from Narragansett to Pt. Judith to East Matunuck to Greenhill to Charlestown to East Beach to Westerly Beach to Watch Hill for over 35 years. In the last decade, the late October, early November massive schools of large menhaden that passed by, accompanied by equally massive schools of stripers and enormous bluefish, are missing. We have not had a good migration in over a decade. This year we have tons of small bait in the bay and along the south shore, but little to nothing feeding on them. Bluefish and bass blitzes used to run the coast, starting in late August and early December and continuing thru the end of November. That is now ancient history.

Bill Matteson
11 Ministerial Rd.
Wakefield, RI 02879
wmatteson@uri.edu

Name: William Matteson

Email Address: wmatteson@uri.edu

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](#))

From: KMWarchal@aol.com [mailto:KMWarchal@aol.com]

Sent: Wednesday, September 30, 2015 11:33 AM

To: Beaty, Julia <jbeaty@mafmc.org>

Cc: ralphm@comstockyachtsales.com; stevemellet@comcast.net; michael@benti.net; christian.s.guthrie@gmail.com; jcarton4@hotmail.com; marlintini@mac.com; Eidman, Paul <pauylfish@reeltherapy.com>

Subject: Re: Protecting Forage Fish

Dear Ms. Beaty

I write the following comments on behalf of Manasquan River Marlin & Tuna Club (www.mrmtc.com). Formed in 1936, We are the second oldest formally organized fishing club in the nation. As stated in our by-laws our purpose is "**to promote the sport of salt water angling, to foster good sportsmanship and cooperation among its members and like minded organizations, and to encourage conservation of salt water game species and their habitat.**" We raise thousands of dollars each year to donate monies to Rutgers University Field Station for marine life research projects, to the NJ Artificial Reef Program, Catch a Dream Foundation, George Burlew Scholarship Program (provides grants to marine studies grad students), Re-clam The (Barnegat) Bay, Menhaden Defenders, NJ Beach Buggy Association (wheelchairs for disabled persons) and Stripers Forever as well as recreational fishing groups such as the RFA and JCAA. We're proud of our accomplishments and contributions to the marine community. We are very pleased the Council is taking an eco-based view in fisheries management. Protection of the forage fish species is critical to the future of all fisheries. Below are our comments as requested in the Mid-Atlantic Marine Fisheries Council scoping document.

Ken Warchal. Trustee
Chair Fishing Regulations and Issues Committee
Manasquan River Marlin & Tuna Club

What type of management action is most appropriate?

Amending one of the current fishery management plans to include protections for unmanaged forage fish

What type of management provisions would be most effective?

Identify forage species as 'ecosystem component' species and prohibit their directed harvest

Which currently unmanaged forage species should the Council include in the action?

All forage species should be considered including but not limited to:

Bay anchovy

Striped anchovy

Silver anchovy

Round herring

Thread herring

Spanish sardine

Sand lance

Atlantic silverside

What type of fishing should the action regulate?

Recommend addressing all fisheries (whether they are commercial, recreational or whatever) if they could possibly have a significant impact on forage populations.

Over what geographic area should the action apply?

The Mid-Atlantic Council should focus on its jurisdiction first, and then encourage neighboring management bodies to act

How should the Council prohibit the expansion of existing fisheries?

It's important that with this action we prevent the expansion of those unmanaged forage fisheries that currently exist.

How should the Council allow new fisheries for forage species to develop? ***The Council should not allow new fisheries for forage species to be developed. The forage species are too important to commercialize when scientific data is incomplete or inaccurate. Very little is known about these species.***

From: stephen byrne [mailto:noreast.steve@gmail.com]

Sent: Thursday, October 01, 2015 8:41 PM

To: Beaty, Julia <jbeaty@mafmc.org>

Cc: Frank Crescitelli <FINFLY@aol.com>

Subject: Unmanaged Forage Scoping Comments

On behalf of the Fishermen's Conservation Association 501c3, I would like you to include the following comments as part of the scoping process related to the motion to initiate regulatory action related to directed fisheries on unmanaged forage species. From a wider perspective, the Fishermen's Conservation Association has long advocated a fisheries management plan that includes the entire ecosystem. Managing individual species without consideration for their forage base, is not the most intelligent approach.

1. What type of action would be most appropriate?

The FCA supports option A, amending one of the current fishery management plans to include protections for forage. This will provide the quickest path to action, and few concepts of fishery management are as obvious as the fact that fish need to eat.

2. What type of management provisions would be most effective?

The FCA supports option A, "Identify forage species as 'ecosystem component' species and prohibit their directed harvest." This option aligns with our position that fisheries management should be ecosystem based.

3. Which forage species should be included in this action?

At a minimum, FCA supports the inclusion of sandeel, bay anchovy, striped anchovy, silver anchovy, round herring, thread herring, Spanish sardine, and silverside.

4. What types of fishing should be addressed?

FCA supports action that addresses any type of fishing that results in significant removal of forage fish from the fishery.

5. What are the most effective ways to prohibit the expansion of existing fisheries?

Reporting of any type of removals from the fishery should be mandatory.

6. What scientific data and models are available to inform the action?

This is a strange question. We are talking about unmanaged species. So unless there are existing directed fisheries that can yield some historical catch data from commercial fishing financial transactions, there is no data.

Thank you for your consideration.

Respectfully,

Capt. Stephen Byrne - Fisheries Committee Chairman

Fishermen's Conservation Association 501c3

From: Squarespace [mailto:no-reply@squarespace.info]
Sent: Friday, October 02, 2015 12:13 AM
To: Beaty, Julia <jbeaty@mafmc.org>
Subject: Form Submission - Unmanaged Forage

Comments: 2. designate as many forage stocks as are local
3. include eels
4. directed fishing
5. Del Bay, Atlantic
8. contact CEOE, pronto!

Name: Charlie Davis

Email Address: chasfishn13@gmail.com

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](#))

-----Original Message-----

From: Chuck Etzel [mailto:chucketzal@yahoo.com]
Sent: Friday, October 02, 2015 5:12 AM
To: Beaty, Julia <jbeaty@mafmc.org>
Subject: Unmanaged forage fish

To Whom It May Concern,

Please do not go foreword in managing more species. Managements track rack record is appalling.
The resources to manage properly are not there.

Thank you , Chuck Etzel

Sent from my iPhone

-----Original Message-----

From: Chuck Etzel [mailto:chucketzal@yahoo.com]
Sent: Friday, October 02, 2015 5:25 AM
To: Beaty, Julia <jbeaty@mafmc.org>
Subject: Unmanaged forage species

There seems to be plenty of forage fish out there. Please stay out of adding species to management.

We need a completely opposite approach. The government has created a situation where commercial fishermen regulatory discard massive amounts of perfectly good fish. Until they fix that please stay out of more species to manage .

From: Squarespace [mailto:no-reply@squarespace.info]
Sent: Friday, October 02, 2015 5:43 AM
To: Beaty, Julia <jbeaty@mafmc.org>
Subject: Form Submission - Unmanaged Forage

Comments: As larger fish are having numbers and poundage cut for commercial fishermen, they will be looking at smaller fish to commercial fish. To keep the Eco in balance should be limiting on commercial fishing on the bait and smaller fish. Also need some research to see what species need protection. Thank you for your time.

Name: Henry Busby

Email Address: surfplug@verizon.net

Keep Me Informed:

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

From: B WILSON [mailto:bbump7@msn.com]
Sent: Friday, October 02, 2015 5:54 AM
To: Beaty, Julia <jbeaty@mafmc.org>
Subject: unmanaged forage scoping comments

Your just going to kill off our fishery in N J if you allow this to happen... DONT DO IT...

Sent from Windows Mail

From: Matiss Purins [mailto:aluskungs@gmail.com]
Sent: Friday, October 02, 2015 6:16 AM
To: Beaty, Julia <jbeaty@mafmc.org>
Cc: captpaul@anglersconservation.net
Subject: unmanaged forage scoping comments

Dear Julia Beaty,

Please prohibit the development of directed fisheries on unmanaged forage species until adequate scientific information is available to promote ecosystem sustainability.

Sand eels and Bay Anchovies feed our Stripers, Tuna, Fluke, Bluefish, False Albacore and many more. Both of these key species, among many others are "Unmanaged Forage Species", and need our protection to ensure the health of our game fish and ecosystem and protection for themselves, before they become over fished and stocks become depleted.

Please pass an amendment now and protect our forage fish species. We need to act BEFORE new fisheries develop in the future!

Thank You,
Matiss Purins

From: Squarespace [mailto:no-reply@squarespace.info]
Sent: Friday, October 02, 2015 6:23 AM
To: Beaty, Julia <jbeaty@mafmc.org>
Subject: Form Submission - Unmanaged Forage

Comments: After seeing how menhaden are overfished and how the striper population seems to be struggling these last few years, I am concerned about all forage species on the Atlantic coast. I believe we should prohibit the development of fisheries on unmanaged forage species until adequate scientific information is available to promote ecosystem sustainability. Species such as sand eel, grass shrimp, bay anchovy, and mullet should be studied and possibly protected to ensure that the viability of all fish we are concerned with, especially striped bass and others, is maximized. Thank you for considering my views.

Name: David Juth

Email Address: djuth@yahoo.com

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](#))

-----Original Message-----

From: Andy Furchak [mailto:afurchak@gmail.com]

Sent: Friday, October 02, 2015 6:25 AM

To: Beaty, Julia <jbeaty@mafmc.org>

Cc: captpaul@anglersconservation.net

Subject:

Sand eel, grass shrimp, bay anchovy, mullet etc. very definitely need to be included on the list for protection.

Andy Furchak

afurchak@gmail.com

-----Original Message-----

From: Mike Gentile [mailto:mgentile1963@aol.com]

Sent: Friday, October 02, 2015 6:29 AM

To: Beaty, Julia <jbeaty@mafmc.org>

Subject: unmanaged forage scoping comments

Please protect our oceans

Sent from my iPad

-----Original Message-----

From: Marc Levy [mailto:marcmichael@optonline.net]

Sent: Friday, October 02, 2015 7:21 AM

To: Beaty, Julia <jbeaty@mafmc.org>

Cc: captpaul@anglersconservation.net

Subject: Unmanaged Forage Scoping Comments

It is unthinkable given the abilities of commercial fisherman to use modern technology in the pursuit of forage fish in a directed fishery to leave these species unregulated and therefore unprotected. It is imperative that the MAMFC act in a responsible manner and insure the future of these "base of the food chain" species BEFORE there is a crisis situation.

Marc Levy

From: Lisa Doricchi [mailto:lisadoricchi@gmail.com]
Sent: Friday, October 02, 2015 7:37 AM
To: Beaty, Julia <jbeaty@mafmc.org>; captpaul@anglersconservation.net
Subject: Fisheries

Hi Julia

Please move to prohibit the development of directed fisheries on unmanaged forage species until adequate scientific information is available to promote the ecosystem sustainability.

Thank you

Regards,

Lisa Doricchi

From: Eric Root [mailto:hemlock5200@yahoo.com]

Sent: Friday, October 02, 2015 7:57 AM

To: Beaty, Julia <jbeaty@mafmc.org>

Subject: Prohibition on new or expanded directed fisheries on unmanaged forage species

Dear Ms. Beaty,

I am writing to support the proposed action to prohibit the development of new, or expansion of existing, directed fisheries on unmanaged forage species in the Mid-Atlantic until adequate scientific information is available to promote ecosystem sustainability.

Thank you.

Eric Root

P. O. Box 125

Fryeburg, Maine 04037

-----Original Message-----

From: Heavey, Mark [mailto:mheavey@mtahq.org]

Sent: Friday, October 02, 2015 8:15 AM

To: Beaty, Julia <jbeaty@mafmc.org>

Subject: Unmanaged Forage Scoping Project

Dear Ms. Beaty,

As an avid NJ angler concerned about the health and diversity of our inshore and offshore recreational fisheries, I am writing to urge you and the MAFMC Council to strongly consider adding sand eels, rain fish, mullet, grass shrimp and other varieties of existing NJ fisheries forage to the list of protected species.

A diverse species of fish demand a diversity of forage to thrive. Without such diversity, the allure of NJ fishing to anglers and tourists alike will decline, impacting revenues from both commercial and recreational fishing, and creating an unsustainable ecosystem.

Thank you for your consideration.

Kind regards,

--

Mark R. Heavey
Allenhurst, NJ

From: Michael DeFazio [mailto:michaeldef_97@yahoo.com]
Sent: Friday, October 02, 2015 8:28 AM
To: Beaty, Julia <jbeaty@mafmc.org>
Cc: Anglers Conservation Network Capt. Paul Eidman <captpaul@anglersconservation.net>
Subject: unmanaged forage scoping comments

Sir,

I have been a sport fisherman from the time that I was six. I have seen many threats to this sport and multi-billion dollar industry. New ones continue to appear. The latest is uncontrolled catch of the forage fish upon which game fish depend for their food. A reduction in forage means a reduction in game fish. Plain and simple. It is essential that we put controls and limits in place on the commercial taking of forage.

Sincerely,
Michael F. DeFazio
McLean, Virginia and Chatham, Massachusetts

From: James Crowley [mailto:jcrowley@oldstrategic.com]

Sent: Friday, October 02, 2015 8:58 AM

To: Beaty, Julia <jbeaty@mafmc.org>

Cc: captpaul@anglersconservation.net; James Crowley <jcrowley@oldstrategic.com>; H. Bruce Franklin <hbf@andromeda.rutgers.edu>

Subject: unmanaged forage scoping comments

Importance: High

Dear Ms. Beaty,

Please add protection for the forage fish species that are so vital to our ecosystem and all that depend on healthy forage fish populations in our oceans. You are in a position with the authority and profound responsibility for protecting the ocean ecosystems. Please act responsibly and with care. .

Sincerely,

James F. Crowley

-----Original Message-----

From: cnirome [mailto:cnirome@optonline.net]

Sent: Friday, October 02, 2015 8:45 AM

To: Beaty, Julia <jbeaty@mafmc.org>

Subject: The Future

Please work to prohibit the development of directed fisheries on unmanaged forage species until adequate scientific information is available to promote ecosystem sustainability. Your kids, kids, kids will thank you for it.

Sincerely

Peter B

From: Joe Tansey [mailto:joetansey@msn.com]
Sent: Friday, October 02, 2015 8:53 AM
To: Beaty, Julia <jbeaty@mafmc.org>
Cc: captpaul@anglersconservation.net
Subject: unmanaged forage scoping comments

Julia,

Forage fish are the grass roots of most all other game and need protection if we want to protect the game fish themselves. Without sufficient forage nature will manage the game fish. I used to take my kids netting in the bay and would always find loads of spearing and other bait fish. Today it is very hard to find any spearing. Bait such as like sand eel, grass shrimp, bay anchovy, mullet etc are on the decline in my 70yrs of looking for them to us for bait. Please consider managing them as well as the game fish because to manage one without managing the other is does not sound like we are looking at the total picture.

Thank you and good luck

Joe Tansy
24E bayberry
Beach Haven NJ 08008

From: flyfishrm@gmail.com [mailto:flyfishrm@gmail.com]
Sent: Friday, October 02, 2015 9:01 AM
To: Beaty, Julia <jbeaty@mafmc.org>
Cc: captpaul@anglersconservation.net
Subject: "Unmanaged forage scoping comments"

Ms. Beaty

These unmanaged forage species need our protection to ensure the health of our gamefish and ecosystem. Please prohibit the development of directed fisheries on unmanaged forage species until adequate scientific information is available to promote ecosystem sustainability.

Thank you,

Ron Mazarella
23 East Drive
Livingston, NJ 07039

-----Original Message-----

From: James Harris [mailto:bellhang@aol.com]

Sent: Friday, October 02, 2015 9:24 AM

To: Beaty, Julia <jbeaty@mafmc.org>

Subject: We need to protect our forage fish. I'm a 77 year old man that fish for fun and don't understand a lot of what they let people that catch fish and other things for a living take fish and other things until they are all gone.

Thanks James Harris

Colonial Beach Va.

Sent from my iPad

From: Ron Hoff [mailto:bronh22@yahoo.com]
Sent: Friday, October 02, 2015 9:47 AM
To: Beaty, Julia <jbeaty@mafmc.org>
Subject: unmanaged forage scoping comments

Julia Beaty,

Please do what's right to protect all unmanaged species. With out protection forage fish will disappear leaving very little food for other fish and result in a declining fish population. It would not be right to starve the fish we have left in our waters. Please I beg you do something good for the entire fishery.

Thank You,

Ron Hoff

806 East Chester Street
Long Beach, NY 11561

-----Original Message-----

From: Warren Gross [mailto:warrengross@optonline.net]

Sent: Friday, October 02, 2015 9:47 AM

To: Beaty, Julia <jbeaty@mafmc.org>

Subject: unmanaged forage scoping comments

Dear Sir;

This letter is a plea to ask for help to stop the future exploitation of the forage fish resource.

There should be a prohibition on the use of small mesh nets, capable of capturing forage species including, but not limited to grass shrimp, killies, mullet, bay anchovies(rain fish), and sand eels. These animals and others are an important food resource for larger species, such as bluefish, fluke, striped bass, weakfish. A resource that must be protected.

These fishes and others form an important recreational and commercial fishery for the entire east coast of the United States. The loss of, or a drop in the numbers of any of these and other species of marine animals, caused by commercial harvesting of the afore mentioned forage species, could be catastrophic.

Please support legislation that would stop the harvest of forage species before it starts.

We have enough sources for fish meal.

Sincerely yours,
Warren Gross

From: jmoy.ospf@gmail.com [mailto:jmoy.ospf@gmail.com] **On Behalf Of** John Moy
Sent: Friday, October 02, 2015 10:14 AM
To: Beaty, Julia <jbeaty@mafmc.org>
Cc: captpaul@anglersconservation.net
Subject: unmanaged forage scoping comments

Dear Mid-Atlantic Fishery Management Council:

Please take action to protect unmanaged forage species. Development or expansion of directed fisheries for unmanaged species should be prohibited until there is scientific evidence that such a fishery would be ecologically sustainable.

Forage fish such as sandeels, bay anchovies, grass shrimp and mullet provide essential food to prized sport fish such as striped bass, tuna, weakfish and bluefish. We have seen how a commercial fishery can decimate baitfish population - witness the menhaden reduction fishery. Don't let this happen again. These forage fish are too valuable to the ocean to be turned into fishmeal.

Thank you for your consideration,
John Moy
jmoy@ospf.org
617-784-1872

-----Original Message-----

From: Larry [mailto:landb.vifquain@comcast.net]

Sent: Friday, October 02, 2015 10:02 AM

To: Beaty, Julia <jbeaty@mafmc.org>

Subject: unmanaged forage scoping comments

Please move to prohibit the development of directed fisheries on unmanaged forage species until adequate scientific information is available to promote ecosystem sustainability. These forage fish form a vital part of the food chain and unregulated fishing can increase the already existing threat to larger fish up the food chain (striped bass, tuna, false albacore, bluefish, etc). Remember what happened in Chesapeake Bay when the menhaden were virtually fished out.

Larry Vifquain
Malborough, MA

From: Peter Grimbilas [mailto:peter@pcwfab.com]
Sent: Friday, October 02, 2015 10:37 AM
To: Beaty, Julia <jbeaty@mafmc.org>
Subject: Unmanaged Forage Scoping Comments

Dear Julia Beaty (Assistant Fishery Plan Coordinator),

Forage species are as important to recreational anglers as the gamefish they target. A lack of baitfish means gamefish go elsewhere to feed. They need to be protected to ensure a healthy fishery ecosystem and to keep the recreational fishing industry alive and well. All forage fish, especially sand eels, grass shrimp, bay anchovies and mullet need protection! Please include them in the management plan.

Captain Pete Grimbilas

Greater Point Pleasant Charter Boat Association

O: 973-696-1200

C: 973-454-0315

peterg@njOutdoorAlliance.org

From: William Bishop [mailto:wbishop38@verizon.net]
Sent: Friday, October 02, 2015 10:38 AM
To: Beaty, Julia <jbeaty@mafmc.org>
Subject: Unmanaged Forage Scoping Comments

FORAGE FISH PROTECTION FOR ALL

Let us start managing our forage fish before they are depleted and sent to China or some other countries market for their fish farms. Our fishery is being degraded by nonsensical management. All our forage fish need to be managed by people that have the ability to maintain our fishery for our children in the future. At the rate of decline of our fishery there may not be a productive fishery for our grandchildren. I say this as a life time angler that has been slowly seeing our fishery depleted.

Please START NOW!!

Sincerely,

William Paul Bishop Sr.

From: Al Heath [mailto:alsgonefishing2000@yahoo.com]
Sent: Friday, October 02, 2015 10:42 AM
To: Beaty, Julia <jbeaty@mafmc.org>
Subject: Unmanaged forage scoping comments

Please protect the sand eel from over fishing. Please prohibit the development of directed fisheries on unmanaged forage species until adequate scientific information is available to promote ecosystem sustainability.

Al Heath
Bath, ME
alsgonefishing2000@yahoo.com

From: Shane Yellin [mailto:shaneyellin@gmail.com]
Sent: Friday, October 02, 2015 10:54 AM
To: Beaty, Julia <jbeaty@mafmc.org>
Subject: unmanaged forage scoping comments

Hello Ms. Beaty,

I would like to encourage you to prohibit future fisheries directed at sand eels and bay anchovies. These species are critical forage for all fish in our inshore and offshore fisheries and a small mesh fishery that would be required to catch them would also result in disastrous amount of bycatch of larger game and food fish. If not for these forage species, the declines in herring and menhaden would have spelled the end of striped bass. We are just now seeing the results of proper management result in a rebound of juvenile menhaden and herring after their absence in many areas for a long time. We are now seeing some of the best fall fishing we have seen in years. Our bait fish are as critical to our fisheries as the target fish themselves. You can't have big fish without something to feed them.

Thank you for your time and attention,
Shane Yellin

From: Jim Magnanini [mailto:jamesmagnanini@yahoo.com]
Sent: Friday, October 02, 2015 10:56 AM
To: Beaty, Julia <jbeaty@mafmc.org>
Subject: Unmanaged forage scoping comments

Ms. Beaty,

I'm writing to bring to your attention the importance of the "Forage Species" of fish that provide a vital link in the marine food chain and support the recreational and commercial fishing industries. Allowing commercial fishing of these Forage Species could create an irrevocable impact on the larger fishery.

Please work to prohibit the development of directed fisheries on unmanaged forage species until adequate scientific information is available to promote ecosystem sustainability. A sustainable and productive fishery will continue to support the commercial fishing industry and allow me, and many like me, to continue willingly spend thousands of dollars per year fishing our coastal waters.

Thanks,
Jim Magnanini
Barnegat, NJ

From: pagsfish@comcast.net [mailto:pagsfish@comcast.net]
Sent: Friday, October 02, 2015 11:28 AM
To: Beaty, Julia <jbeaty@mafmc.org>
Cc: captpaul@anglersconservation.net
Subject: Forage speciec protection

I'm writing this letter urging you to include forage species (sand lance, grass shrimp, silversides, etc.) in any species protection regulations that exist for similar species such as sea herring and menhaden. These lesser species are no less important to the marine food chain as the more well known species!

Thank you.

Steven J Paglierani
67 Stoney Pond Circle
Marstons Mills, Ma. 02648

-----Original Message-----

From: Roy [mailto:singabus1@comcast.net]
Sent: Friday, October 02, 2015 11:39 AM
To: Beaty, Julia <jbeaty@mafmc.org>
Subject: unmanaged forage scoping comments

Dear Ms. Beaty,

Vital recreational species like stripers, bluefish, weakfish and fluke are under so many different pressures now, from over fishing, pollution, to degradation of spawning waters, it is more vital than ever to protect their feeding sources. Please extend strong protection to as many now unmanaged forage species as possible.

Thank you for your work on our behalf.

Roy N Rogers

From: scan man [mailto:scanman5@hotmail.com]
Sent: Friday, October 02, 2015 11:54 AM
To: Beaty, Julia <jbeaty@mafmc.org>
Subject: Nnmanaged Forage Scoping Comments

Dear Ms. Beaty,

I am writing to ask you to help protect the forage species in our oceans. Please support the proposed prohibition on the development of new, or the expansion of existing, directed fisheries on unmanaged forage species in the Mid-Atlantic waters. If these forage species become the target of a directed fishery, there will be less of a food supply for other fisheries (striped bass, sea bass, tautog, etc.) and I am afraid that their populations will crash.

Again, please support the prohibition of new forage species fisheries.

Thank you,
Andrew T. Scanlon
48 Broadway
Freehold, NJ 07728

-----Original Message-----

From: ggirl [mailto:ggirl@eyemaze.net]

Sent: Friday, October 02, 2015 12:01 PM

To: Beaty, Julia <jbeaty@mafmc.org>

Subject: Unmanaged Forage Scoping Comments

Dear Julia,

First off, bravo for the Council's initial forward-thinking move to study and consider the regulation of unmanaged fisheries. We've been down this road so many times when it seemed a constant uphill battle against corporate and commercial interests, at which point the best we could hope for was to mitigate the damage and pray for a stock recovery. Thanks to you and the MAFMC for devoting time toward species like sand eels, silversides, and bay anchovies—fish that are so important to the survival of striped bass, among others, that we at the Brooklyn Urban Anglers Association have advocated for many times in the past.

We are aware that NOAA has looked into some of these fisheries as potentially viable commercial sources before, so we feel it's very important the MAFMC take careful and deliberate steps to studying these unmanaged populations before the rendering plants determine the courses of action for us. You (the MAFMC) have asked that we consider eight questions in our comments. By now, you're probably familiar with Captain John McMurray's response to these eight considerations. In general, we at the BKUAA agree with McMurray's assessments.

1. What is the most appropriate type of action?

We believe amending a current management plan and adapting it to forage species is the best of the three options, out of consideration for time, effectiveness, and deliberate action. Waiting to address new fisheries for forage species as they arise (the third option) would only put us in a difficult, albeit familiar, position.

2. What type of management provisions would be most effective?

We believe adding forage species to the management plan as an "ecosystem component species" is obvious because of their importance to the vitality of other fisheries, and would initially give the unmanaged fisheries the attention they need before possibly opening these fisheries to commercial sources.

3. Which forage species should be included in this action?

Sand Eels. Chub Mackerel. Spearing. Silversides. Bay anchovy. Striped anchovy. Silver anchovy. Round herring. Thread herring. Spanish sardine.

4. What types of fishing should be addressed?

The commercial (especially) trawler fleets. See Omega Protein.

5. What is the most appropriate geographic scope of the action?

What areas the Council has under its jurisdiction would be an appropriate start.

6. What are the most effective ways to prohibit the expansion of existing fisheries?

Scientific studies and research with allowances for proper evaluation before opening the fisheries to the rendering plant. Not bowing to pressure from corporations or people from New Jersey.

7. What is an appropriate process for allowing new fisheries to develop?

McMurray suggested “exempted fishing permits,” which have had documented success on the West Coast fisheries in both data collection and exploring the vitality and sustainability of a controlled fishery.

8. What is the ability of current scientific data and models to inform action?

That’s more of a question for you to answer for us. There’s plenty of examples of poorly managed fisheries that teeter on collapse or have already collapsed (cod, menhaden, striped bass). There’s also examples of properly managed fisheries (Florida comes to mind) that worked and allowed the species to recover. We hope you make the right decisions with regards to the overall health and sustainability of the Atlantic fishery.

Thank you,
Geraldyn Shukwit

written by fellow member Michael Louie of The Brooklyn Urban Anglers Association

-----Original Message-----

From: tadkin2@uic.edu [mailto:tadkin2@uic.edu]

Sent: Friday, October 02, 2015 12:42 PM

To: Beaty, Julia <jbeaty@mafmc.org>

Cc: captpaul@anglersconservation.net

Subject: unmanaged forage scoping comments

Dear Ms. Beaty,

I am a passionate recreational angler, part time guide, flyfishing retail salesperson, and flyfishing instructor. These endeavors have exposed me firsthand to many marine estuaries and ecosystems, and I've had to learn how larger predatory fish relate to the presence and fluctuation of forage species in order to be successful. In doing so, I've inevitably explored a bit of the history of marine fish stocks for species such as the striped bass. Such a history is obviously contingent not just on how we humans have managed (or not) our harvest of such large predators, but also on the mismanagement of important forage such as Menhaden, which help supply post-spawn striped bass with much-needed fats and proteins to endure their long migration along the coast. Unfortunately, menhaden continue to be overharvested for human use. We have seen the menhaden problem worsen, and striped bass are in a bad place as a result. A similar story can be told of Atlantic Mackerel.

We can learn from history and make preventative change today. Ecosystems must be managed as ecosystems, holistically. And the best course of action is an early protection rather than a delayed reaction. We need to factor the role and presence of all prolific, Mid-Atlantic forage species--including sand eels, spearing/silversides, bay anchovies, herring, anadromous shad, menhaden, killifish, and more--into our decisions about the ecosystem--such as harvest limits, angling techniques, and coastal development. At a minimum, we should prevent large-scale commercial markets for these forage fish to develop. There are synthetic alternatives to fill the niche for which these fish have been exploited, and we should discourage the mass use of such species. Leave forage for the higher-trophic fish, so that these predator fish can be healthy and prolific inhabitants of earth's waters once again. It is in the interest of the public and the earth that these systems be fertile and life-sustaining.

Please consider these thoughts and take the proper action to protect forage species in the Mid-Atlantic and other marine ecosystems. Thank you.

Sincerely,

Timothy J. Adkins
Chicago, IL

From: Robert Abel [mailto:robert.abel@the-spa.com]

Sent: Friday, October 02, 2015 1:34 PM

To: Beaty, Julia <jbeaty@mafmc.org>

Subject: Fw: ADV: 🐟 ANGLER ALERT 🐟 Take action now: Please comment TODAY before Midnight deadline !

I am in full support of this call to protect the small baitfish supply. In addition, small weave net fishing is just too indiscriminate about the species it collects. Yours, Robert H. Abel

From: Jerry Duffy [mailto:delbassman@hotmail.com]
Sent: Friday, October 02, 2015 1:38 PM
To: Beaty, Julia <jbeaty@mafmc.org>
Cc: captpaul@anglersconservation.net
Subject: Unmanaged forage scoping comments

Julia -

I'm 67 years old. I've witnessed the enormous decline of the numbers of forage fish and other organisms throughout the states of North Carolina, Maryland, Virginia, Delaware and New Jersey. I feel it is important to prohibit the development of new, or expansion of existing, directed fisheries on unmanaged forage species in the Mid-Atlantic until adequate scientific information is available to promote ecosystem sustainability.

Thank You

Jerry Duffy
Bucks County
Pennsylvania

From: Juan Carlos [mailto:chpga@hotmail.com]
Sent: Friday, October 02, 2015 1:40 PM
To: Beaty, Julia <jbeaty@mafmc.org>
Cc: captpaul@anglersconservation.net
Subject: unmanaged forage scoping requirements

Please note that I support a prohibition on the development of new or the expansion of existing fisheries on unmanaged forage species. Thank you.

Carl Galarce
Rockaway, NJ

From: Squarespace [mailto:no-reply@squarespace.info]
Sent: Friday, October 02, 2015 1:44 PM
To: Beaty, Julia <jbeaty@mafmc.org>
Subject: Form Submission - Unmanaged Forage

Comments: As a member of the first Mid-Atlantic Council, I felt it was our clear duty under the Magnuson Act to manage all species within our jurisdiction -- not just those of commercial interest at the time. Looking back, it seems incredible that Bill Feinberg, Elliot Goldman and I had to fight to get management plans started for bluefish, sharks and even summer flounder - which some thought were only an ASMFC concern.

Managing individual species as if they existed independently with all the forage required and no problem with predators never made sense to me. I suspect that a freshwater biologist managing predators without accounting for the availability of prey to sustain them wouldn't have a job for long. I suggested that a move to realistic ecosystem management should be started in hope that ever-improving computer technology would eventually be able to handle the much greater complexity of saltwater ecosystems. Unfortunately, there hasn't been very much progress in that direction.

It's obvious to even casual fishermen that the quality of our fisheries are dependent on the availability of such forage species as menhaden, sand eels, and bay anchovies. Yet only menhaden have a management plan -- and only because of the valuable commercial fishery. Forage species should be managed with individual plans providing protection of the forage so proper levels of harvest can be determined until ecosystem management comes into place. .

Name: Al Ristori

Email Address: cristori@aol.com

Keep Me Informed:

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

From: martyoflodi@aol.com [mailto:martyoflodi@aol.com]

Sent: Friday, October 02, 2015 1:52 PM

To: jbeaty@mafmc.org.

Cc: captpaul@anglersconservation.net

Subject: unmanaged forage scoping comments

Dear Julia,

All forage fish are a vital link in the food chain and need to be protected. They must be managed first and foremost for the ecosystem.

Thank you,

Martin Adamkiewicz

5523 Bel-Vista Court

Lodi, NJ 07644

From: tothjohn@verizon.net [mailto:tothjohn@verizon.net]
Sent: Friday, October 02, 2015 2:19 PM
To: Beaty, Julia <jbeaty@mafmc.org>
Subject: Unmanaged Forage Scoping Comments

Ms. Beaty,

There has been and continues to be so much pressure on our fisheries that some of these fish like whiting have been severely decimated. On a recent fishing trip, I talked to a group of young and ardent anglers in their twenties and I mentioned whiting. To my astonishment, they did not know what a whiting is! While once plentiful, not one party/charter boat goes out for them because they are no longer around. Just tragic what happened to a stock that seemed endless!

I raise this issue of whiting since I fear that like whiting, a directed fishery for sand eels, grass shrimp, bay anchovies mullet etc. will be developed for fish meal going to Asian countries, fish oil and other products will decimate these species in a relatively short time.

These fish are vital in the food chain of our waters and their health must not be jeopardized for a quick buck by a large scale directed fishery.

Please protect these fish from a directed fishery!

John Toth

President, Saltwater Anglers of Bergen County

Trustee, New Jersey Outdoor Alliance (NJOA)

Membership Secretary, Jersey Coast Anglers Association (JCAA)

From: Captain Bob [mailto:captainbob@gynn.net]
Sent: Friday, October 02, 2015 3:28 PM
To: Beaty, Julia <jbeaty@mafmc.org>
Cc: captpaul@anglersconservation.net
Subject: unmanaged forage scoping comments

I strongly support that sand eel, grass shrimp, bay anchovy, mullet etc. are not included on the list for protection.

Capt. Bob Gynn

From: Captain Bob [mailto:captainbob@gynn.net]
Sent: Friday, October 02, 2015 3:56 PM
To: Beaty, Julia <jbeaty@mafmc.org>
Cc: Eidman, Paul <paulfish@reeltherapy.com>
Subject: unmanaged forage scoping comments

I strongly support that sand eel, grass shrimp, bay anchovy, mullet etc. are included on the list for protection.

Capt. Bob Gynn

From: Squarespace [mailto:no-reply@squarespace.info]
Sent: Friday, October 02, 2015 4:02 PM
To: Beaty, Julia <jbeaty@mafmc.org>
Subject: Form Submission - Unmanaged Forage

Comments: If and when such unmanaged "forage" species become commercially exploited, it will be another symptom of what Pauly and others have called the "march of folly". This doesn't merely involve targeting of one or another available species, it represents another step in the down escalator of fishing down the food web. And, this can only lead to massive ecological instability, as if we need more of that! Of course, we need just the opposite. Let's protect the lower trophic levels (no additional commercial harvest), so that they can help us rehabilitate the large predators that may one day restore ecological stability to our Atlantic waters. Gulf of Maine cod wrt. the alewife is a case in point.

As to what to call such protected species, how about "critical marine foodweb linkages"? As to which species to protect, try for starters: all engraulids; all clupeids (especially juveniles) not now properly managed as adults; Ammodytes; all atherinids; belonids; synodontids; Microgadus; all cyprinodonts; small carangids; stromateids, if not well managed now; ALL midwater fishes (e.g., myctophids); fiddler crabs; anomurid crabs; palaeomonid shrimps; hippolytid shrimps; crangonid shrimps; euphausiids & mysids; copepods; octopodids; squids other than Loligo... Management should be applied to the entire Atlantic coast and out as far as legally possible! Ban all destructive and overly effective fishing practices: fine mesh bottom trawling; midwater trawling; small mesh gill netting, etc.

New fisheries should not be allowed to develop unless the apex species of the trophic webs are restored to healthy, resilient population sizes/structures. Quotas should be predicated not on MSY, under any circumstances. People should be treated as among the mix of apex predators, and should be allowed to contribute to mortality only commensurate with that of other top predators, and certainly not to the extent that the stability of lower trophic levels, and the ecosystem itself, are jeopardized in any way. **THE PRECAUTIONRY PRINCIPLE MUST ALWAYS BE IN FORCE.**

The literature on this is voluminous. See: Pauly; Worm; Jackson; Lotze; MacCall; Estes; among many others.

QUESTION: Time series autocorrelation analysis can be used to successfully forecast population instability and imminent collapse well in advance of the fact. Why is this being systematically ignored? It could have saved the Newfoundland cod fishery. A similar pattern now exists for several groundfish species in the Gulf of Maine.

Name: Fred Cichocki

Email Address: drsciis@myfairpoint.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](#))

-----Original Message-----

From: David Berenbroick [mailto:dberenbroick@gmail.com]

Sent: Friday, October 02, 2015 4:07 PM

To: Beaty, Julia <jbeaty@mafmc.org>

Subject: Unmanaged Forage Species Comments

Hi Julia,

Thanks to you and Steve for the presentation and conversation at the Scoping Meeting regarding Unmanaged Forage Species held in East Setuaket, NY this past Tuesday evening.

As I mentioned when we were introduced, I'm a recreational fisherman and concerned member of the public with no affiliation to any professional or other organization that that would be directly impacted by any future regulations. That said, I believe it's everyone's responsibility to be stewards of our environment and resources and so I submit these comments for your consideration:

- I support the approach of gathering data first to make informed decisions about the proper course of action.

- I hope data will be gathered in a comprehensive manner such that a clear picture is painted of where the impacted species are most susceptible to over harvest given seasonal migrations, and how the harvest of stocks found in the different coastal regions impact the overall health and sustainability of the species.

- I hope consideration is paid to the size and type of fishing operations that are or may be involved in supplying current and future markets so that smaller operations, like several represented at the meeting on Tuesday evening, are given a fair chance to make a living at businesses that directly impact the local economy.

- I hope the Council seeks heavy involvement from the commercial and recreational fishing community in the collection of data where possible.

Thank you again for holding the hearing and for accepting public comment. All that I know of fisheries management comes from Michael Crocker's book titled "Sharing the Ocean: Stories of Science, Politics, and Ownership from America's Oldest Industry". I would welcome any recommendation on additional literature that would help me to expand my knowledge on the subject of unmanaged forage species and fisheries management in general.

I look forward to the updates on the process of identifying a management policy!

All the best, David Berenbroick

From: Timothy Doolan [mailto:tjdoolan57@gmail.com]
Sent: Friday, October 02, 2015 4:25 PM
To: Beaty, Julia <jbeaty@mafmc.org>
Subject: Management of Forage Fish Species

Dear Sir,

I'm writing to ask you to develop and support a plan for the management of forage fish species. I believe some species, such as the the sand lance, bay anchovy and other forage species, are in desperate need of protection from overfishing. Their role in maintaining the health of the entire ocean ecosystem is obvious to me as well as many other fishermen and to see them wiped out by commercial interests for fish oil and fertilizer is criminal in my opinion.

Please act.

Thank you,
Timothy J Doolan
29 W 24th Street
Bayonne, NJ 07002
tjdoolan57@gmail.com

v

From: joseph mariano [mailto:fishweed57@hotmail.com]
Sent: Friday, October 02, 2015 4:53 PM
To: Beaty, Julia <jbeaty@mafmc.org>; Eidman, Paul <paulfish@reeltherapy.com>
Subject: Unmanaged forage scoping comments

Dear Ms. Beaty,

I'm a concerned fisherman in both New Jersey, and Florida.
It is imperative that we increase our stock of forage fish, as I have seen
a decline in the game fish population here in New Jersey.
I support any legislature in sustaining forage fish through out the
Atlantic, and Gulf coasts.
Thank you for taking the time to read this email.

Sincerely
Joseph Mariano

><)))))*> ><)))))*> ><)))))*>

-----Original Message-----

From: Donald Bishop [mailto:db.flyz@gmail.com]

Sent: Friday, October 02, 2015 6:04 PM

To: Beaty, Julia <jbeaty@mafmc.org>

Cc: captpaul@anglersconservation.net

Subject: Unmanaged forage species

Dear Ms Beaty,

Unmanaged forage species (like sand eels and bay anchovies, etc) for sport fish are a crucial component of the salt water environment, and essential for the well being of the sport fishing industry!

Please act to protect our environment and the sport fishing industry.

Thank you,

DT Bishop
Belgrade, MT

-----Original Message-----

From: KC [mailto:bunkers2@aol.com]
Sent: Friday, October 02, 2015 6:25 PM
To: Beaty, Julia <jbeaty@mafmc.org>
Subject: Comments on unmanaged forage

Julia this is Mark Cummings I was at the meeting last Tuesday evening, at NYS DEC in East Setauket. My business Freeport Fish Dock has been involved with a commercial fishery for Silversides for 25 years. Seasonal landings have been between 5,000 and 50,000 pounds a year.

If you would like documentation I will get our records together for you. I would have brought papers to the meeting but I only found out about it a day before.

You can reach me at

bunkers2@aol.com

516-805-9671 cell

Thank you

Mark

From: AnglerPMH@aol.com [mailto:AnglerPMH@aol.com]
Sent: Friday, October 02, 2015 6:56 PM
To: Beaty, Julia <jbeaty@mafmc.org>
Subject: Unmanaged Forage Species

Jersey Coast Anglers Association
Working for Marine Recreational Anglers
1201 Route 37 East Suite 9 Toms River NJ 08753
TEL.: 732-506-6565 - FAX: 732-506-6975



October 1, 2015
Julia Beaty,
Assistant Fishery Plan Coordinator, at MAFMC
Re: Unmanaged Forage fish

Dear Julia,

I am writing to you on behalf of the Jersey Coast Anglers Association which represents approximately 75 clubs though out our state. We appreciate this opportunity to comment on unmanaged forage species. Starting up a fishery for sand eels, spearing, bay anchovy, etc would absolutely crush our eco-system and in turn, our recreational fishing.

Every single gamefish that we go for relies upon these and more for survival.

You should know that Small mesh Fisheries for these un-managed species are already in place around the world and the consequences are disastrous.

As the world's population grows, these fish will become more and more valuable.

Questions as asked by MAFMC to guide comments in bold, with Anglers Conservation Network reply in italics:

What type of management action is most appropriate?

Amending one of the current fishery management plans to include protections for unmanaged forage fish

What type of management provisions would be most effective?

Identify forage species as 'ecosystem component' species and prohibit their directed harvest

Which currently unmanaged forage species should the Council include in the action? All forage species should be considered including but not limited to:

Gizzard Shad
Round Herring
Atlantic thread herring
Spanish sardine
Striped anchovy
bay anchovy
silver anchovy
Sheepshead minnow
marsh killifish
banded killifish
mummichog
spotfin killifish
rainwater killifish
rough silverside
inland silverside
Atlantic silverside
silver perch
striped mullet
white mullet
American sand lance
Northern sand lance
chub mackerel
7 species of Exocoetidae (Flying fish)

Grass Shrimp

Forage species under consideration by FMAT:

- Rough scad (*Trachurus lathami*)
- Round scad (*Decapterus punctatus*)
- Antenna codlet (*Bregmaceros atlanticus*)
- Striated argentine (*Argentina striata*)
- Greater argentine (*Argentina silus*)
- Shortnose greeneye (*Chlorophthalmus agassizi*)
- Longnose greeneye (*Parasudis truculenta*)
- Weitzman spearsides (*Maurolucus weitzmani*)
- Lanternfish (many species)
- Spoon arm octopus (*Bathypolypus arcticus*)
- Bobtail squid (possibly *Stoloteuthis leucoptera*, *Semirossia tenera*, *Rossia megaptera*, *Rossia palpebrosa*)
- Copepods (*Calanus finmarchicus*)

What type of fishing should the action regulate?

Recommend addressing all fisheries (whether they are commercial, recreational or whatever) if they could possibly have a significant impact on forage populations.

Over what geographic area should the action apply?

The Mid-Atlantic Council should focus on its jurisdiction first, and then encourage neighboring management bodies to act

How should the Council prohibit the expansion of existing fisheries?

It's important that with this action we prevent the expansion of those un-managed forage fisheries that currently exist.

How should the Council allow new fisheries for forage species to develop?

The Council should not allow new fisheries for forage species to be developed. The forage species are too important to commercialize when scientific data is incomplete or inaccurate. Very little is known about these species.

We thank you in advance for your consideration when voting on this important matter.

Sincerely,

Paul Haertel

President, JCAA

Cell (973) 943-8201

Home (973) 472-5630

E-mail – anglerpmh@aol.com

From: Squarespace [mailto:no-reply@squarespace.info]

Sent: Friday, October 02, 2015 7:24 PM

To: Beaty, Julia <jbeaty@mafmc.org>

Subject: Form Submission - Unmanaged Forage

Comments: My name is Michael Ferrigno, I am the owner of L&L Wholesale Bait located in Bayshore NY, on Long Island. I purchased this bait processing company in 2012 from Leonard Nilson who owned it from 1988 until 2012. Before 1988 the company, which was formed by Mr Nilsons father, had been in operation since the early 1950's.

As a bait wholesaler we process and sell many species of fish. Many of these fish are caught locally by local fishermen and are processed by our facility. Usually put into bags or boxes of various sizes and frozen for distribution. Of all of the species we handle there are 2 listed on the forage fish list which are of great importance to our industry. The Atlantic Silverside and the Sandlance.

After attending a meeting held on 9/28/2015 and reviewing the document that was handed out I feel it is important that the council is made aware of the actual fishery that exists on Long Island for these 2 specific species, and has existed as an annual unregulated fishery since the end of world war 2.

L&L Wholesale Bait is 1 of at least 7 similar wholesaler/processors that exist on Long Island, all of whom process Silversides and to a lesser extent Sandlance. On a smaller scale there are at least 25 other smaller facilities such as bait and tackle shops or actual fishermen who also process these species for bait. There are more than 25 actual licensed commercial fishermen who annually pursue these species and depend on this harvest as part of their annual income. All of these fishermen own seine nets of various lengths to target the species in varying areas based on depth of water, current flow, sandy vs rocky bottom etc.

While Bait is the primary use of the Atlantic Silverside and Sandlance, L&L Wholesale Bait as well as other processors also pack these fish for sale to Zoos, Aquariums and Bird and Reptile rehabilitation facilities. Many of our customers are large municipal location such as the Bronx zoo, Coney Island aquarium, Boston aquarium and a variety of locations worldwide. When used as a bait the Silverside is the primary bait used for the Summer Flounder or Fluke industry in New York, used by all party boats and offered by all bait and tackle shops.

Although I do not have exact specifics at this time I can say that L&L Wholesale Bait processes over 30,000lbs of Sandlance annually, 90% of which is sold to the Zoo/Aquarium industry and over 60,000lbs of Atlantic Silversides, where 50% is sold to the Zoos and Aquariums and we are only one of many processors. I would estimate that providing the the year was conducive to harvest there could be an annual catch of over 300,000 pounds of Silversides and 100,000 pounds of Sandlance produced in our Long Island area. Please be aware that the catch does vary greatly from year to year based on how bad the winter is and how warm the spring is or if there was a habitat altering hurricane such as Sandy. I will say that this year, 2015 is showing the most

prolific stock of both Sandlance and Silversides that many old fishermen say they have seen in 20 years. This holds true in speaking with fishermen from Cape Cod down to Virginia. This is truly a vibrant fishery that has existed and thrived for well over 50 years and is totally unmanaged by anyone except the market and mother nature,

While I do support a management action to help protect this traditional fishery from potential large scale attack from other commercial entities. I do ask that the council PLEASE take a closer look at what has existed for many many years and is a successful fishery that supports many families and businesses.

Thank you for taking the time to hear our position.

Name: Michael Ferrigno

Email Address: llbait@yahoo.com

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](#))

From: Squarespace [mailto:no-reply@squarespace.info]
Sent: Friday, October 02, 2015 7:43 PM
To: Beaty, Julia <jbeaty@mafmc.org>
Subject: Form Submission - Unmanaged Forage

Comments: To Whom It May Concern:

In regards to this issue the management should implement an amendment to the existing FMP as a means to conserve time. The management plan should consider forage fish as part of essential fish habitat as they are essential to the health of many fisheries as well as many other marine organisms. The regulation should manage all directed fishing as there is no reason for recreation nor commercial interests to target such important resources of food. Many fisheries we largely depend on for recreation as well for commercial values depend on this forage. As for the specific species of forage that should be protected I believe that it would be in our best interest to adopt a plan where all species considered should be protected. Allowing any room for opportunity to take advantage of these resources will surely devastate these populations as greed seems to always prevail. Geographical area should cover all major estuaries, and waters extending out to the EEZ along the east coast. The reason to take action is simple, allow a resource to remain vulnerable for some time and eventually certain individuals will take advantage taking way more than their share. To keep a balance we need to take a step in the conservative direction in protecting these managed species. For once I think this decision should be based on ethics and on what is the right choice to make. Lets make the right decision so that the marine environment can prosper and as a whole many will greatly benefit.

Thank You,

David Price
Bayville, NJ

Name: David Price

Email Address: dap138@pitt.edu

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](#))

-----Original Message-----

From: nrpa2@aol.com [mailto:nrpa2@aol.com]

Sent: Friday, October 02, 2015 7:44 PM

To: Beaty, Julia <jbeaty@mafmc.org>

Cc: captpaul@anglersconservation.net

Subject: Unmanaged forage scoping comments

Dear Ms Beaty,

Please include sand eels and bay anchovies in the scoping docs for the Unmanaged forage study. These beautiful and tasty species need protection from unwarranted harvest.

Thank you.

Jim Scarcella

Natural Resources Protective Asso.

Sent from my iPhone

From: Dorothy Obropta [mailto:dobropta@verizon.net]
Sent: Friday, October 02, 2015 8:57 PM
To: Beaty, Julia <jbeaty@mafmc.org>
Subject: unmanaged forage scoping comments

Dear Ms. Beaty:

I am a recreational angler. Please put in some plan to manage the forage species. These species must be protected to insure the productive cycle in our fisheries. In nature, every species has a purpose.

Thank you....

avid angler

Dorothy Obropta
dobropta@verizon.net



From: Ming Shiao [mailto:shiaoml@yahoo.com]

Sent: Friday, October 02, 2015 10:06 PM

To: Beaty, Julia <jbeaty@mafmc.org>

Cc: Anglers Conservation Network Capt. Paul Eidman <captpaul@anglersconservation.net>

Subject: unmanaged forage scoping comments

I strongly urge you to pass the amendment to protect forage fish in our water! They are vital to our ecosystem and it would be devastating to our recreational fishing if we sit and do nothing to protect them. As a NJ angler, I'm very concerned about our overall fishery declining, so manage and protect the forage fish is therefor a must! Please pass the amendment!

Sincerely,
Ming Shiao
Concerned Citizen
Anglers Conservation Network

From: Laird [mailto:lairds11@comcast.net]
Sent: Saturday, October 03, 2015 8:26 AM
To: Beaty, Julia <jbeaty@mafmc.org>
Subject: unmanaged forage scoping comments

Julia Beaty,

I am writing you to ask that an ecosystem approach be considered by the council to assist in managing currently unmanaged forage species. I believe this should be the core of any fisheries management plan. Without an adequate forage base, restoration of any target species is not likely to succeed. Please consider this in the deliberations over managing of currently unmanaged forage species.

Thanks you,

Steve Laird

Steve Laird

 908.806.3484(h)  lairds11@comcast.net

From: JOHN STONE [mailto:jkstoneage@verizon.net]
Sent: Saturday, October 03, 2015 11:20 AM
To: Beaty, Julia <jbeaty@mafmc.org>
Subject: Unmanaged Forage Scoping

Sand eels feed our Stripers, tuna, fluke and more.
Bay Anchovies (rainfish) feed our Bluefish, False Albacore and more
Both of these key species, among many others are "UnManaged forage species" and need protection to ensure the health of our gamefish and ecosystem.
As a recreational angler I hope the Mid Atlantic Fishery Management Council will realize just how important this issue is to recreational anglers. Thank you
for your attention. Sincerely, J. Stone

From: SMachalaba@aol.com [mailto:SMachalaba@aol.com]
Sent: Saturday, October 03, 2015 3:59 PM
To: Beaty, Julia <jbeaty@mafmc.org>
Cc: capncasey@msn.com; captpaul@anglersconservation.net
Subject: Unmanaged Forage Scoping Comments

Ms. Beaty:

These comments are submitted on behalf of the members of the H-Mar Striper Club. We are a fishing club of approximately 40 members bases in Monmouth County, NJ. The Hi-Mar Striper Club would like to see the Mid Atlantic Fishery Management Council take the appropriate action to protect all unmanaged forage species and to prohibit the development or expansion of any existing directed fisheries for these species. These forage species are important to sustain the stock of all other species, including Striped Bass, Summer and Winter Flounder, Bluefish and many others. These forage species need to be protected and not allowed to be harvested for economic gain.

Stephen Machalaba
Secretary, Hi-Mar Striper Club

From: Squarespace [mailto:no-reply@squarespace.info]
Sent: Saturday, October 03, 2015 3:11 PM
To: Beaty, Julia <jbeaty@mafmc.org>
Subject: Form Submission - Unmanaged Forage

Comments: Hello- I wish to add my support for conservative management practices for these (heretofore) unmanaged species. They are an integral part of the food chain and multiple ecosystems depend on their success for the very basis of their existence

Thank you-

Bob Burger

Guilford CT

Name: Bob Burger

Email Address: bsqared@sbcglobal.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](#))

-----Original Message-----

From: Richard Nicholson [mailto:dicknsandynicholson@comcast.net]

Sent: Saturday, October 03, 2015 4:31 PM

To: Beaty, Julia <jbeaty@mafmc.org>

Subject: unmanaged forage scoping comments

Please try to develop common sense prohibition of greedy corporate operations like Omega Protein targeting smaller and smaller forage species for fish meal, oil, cat food and fertilizer, etc. The whole ocean food web would be undercut. There will be no need to regulate gamefish if they have nothing to eat. Ditto large marine mammals, sharks, etc. Pretty soon they will be straining out all the plankton, krill, etc!

Dear Dr. Moore;

I am a recreational angler from New England that fishes for multiple species that are managed by the MAFMC (bluefish, black sea bass, mackerel etc.). I am concerned that reductions of quota in existing commercial fisheries will lead to development of new commercial fisheries that target currently unmanaged forage species. Fishing down the food chain is a very real threat to ecosystems world wide. I support the MAFMC effort to be proactive and address the issue of protecting unmanaged forage species.

Additionally, I feel this action is a logical next step in the multiple year process of moving away from single species management and beginning the transition to ecosystem based management.

The following are my comments based on the 8 questions contained in the scoping document:

1: I support Action A (amend one or more of the Council's existing FMPs to include provisions for unmanaged forage species.)

2: I support Provision A (identify forage species as ecosystem component species and prohibit their directed harvest)

3: I agree with the 8 unmanaged forage species included in the document (sand eel/sand lance, bay anchovy, striped anchovy, silver anchovy, round herring, thread herring and silverside). Additionally, I would like to see half beaks, all species of krill & all species of cinder worms also included.

4: This action should include all harvest of currently unmanaged forage species in federal waters. Existing state waters small-scale fisheries such as the raking by hand of sand lance on New England beaches should not be included.

5: Although I feel this action should be a national regulation, I do not think that is a realistic option at this time. I support the MAFMC adopting this action in all waters under MAFMC jurisdiction.

6: The MAFMC should include within this action some language that prevents expansion of any ongoing fishery for the species covered that may not be known at this time. In today's world no fishery in federal waters should be allowed without a management plan that ensures sustainability.

7: New forage fisheries should be allowed if proven to be sustainable and only when enough information is available to promote ecosystem sustainability. The MAFMC should use the "EFP" permit system already being used by the Pacific Council to deal with a similar situation.

8: I am not a scientist, but I know that if there is enough information for a fishery to develop then NMFS science centers should be able to model and provide management advice to ensure sustainability of the target species. If the species cannot be modeled then the fishery should not be allowed due to a lack of information. Sustainable ecosystems are a key to all of our fisheries and without abundant forage all fisheries collapse.

Thank You for the opportunity to provide these comments.

Sent in separate emails or letters by the following individuals. Question marks indicate uncertainty in the spelling of names due to unclear handwriting.

Theodore Abbodessa	Jeffrey Gendron	Ken Ottariano
Francis Basile	Sheila Gustafson	Wendy Paquette
Joe Beck	Frank Hogan	Duncan Parker
James Bosch	William Horen	Rahn Pelrine
William Bryant	Mike Jones	L Perry
Michael Bucko	Evan Kauffman	Joshua Phillips
Ken Burke	George L	Michael Quinn
Paul C(?)	Robert Lee	Charles Reilly
Peter Chella	John Malloy	J Richardelli
Michael Colleary	Lawrence Manning	James Riggs
Thomas Conti	F Mazzulli	Herbert Robbins
J Crosta	Lisa McCollins	Jeff Rose
Brian Cunningham	Gary McGuire, Sr.	Paul Stroup
Paul Devitt	Roy McRae	Stephen Surprise
Doug Donahue(?)	Steve Medeiros	David Therrein
George Doucette	Ken Michin	Justin Trask
Edmund Dully(?)	Charles Murphy	Ray West
Al Elson	Charlie Netherland	Joseph Zecchin
Dawn Filliatreault Wood	Peter O'Biso	William Zech
Ryan Fontaine	Jonathan O'Connor	Anonymous
Glen Galfano(?)	R Oneil	

1075 Tooker Avenue
West Babylon, NY 11704
September 29, 2015

Dr. Chris Moore, Executive Director
Mid-Atlantic Fishery Management Council
800 North State Street, Suite 201
Dover, DE 19901

Dear Dr. Moore:

Thank you for the opportunity to comment on the proposed Mid-Atlantic Fishery Management Council (the "Council") Action on Unmanaged Forage Fish (the "Action"). I am pleased that the Council has decided to move forward with this matter; for all species managed by the Council, and for many species of fish, seabirds and marine mammals that are not, forage fish are a crucial factor that must be present to assure abundance. Without adequate forage for target stocks, abundance can never be maintained.

Thus, I submit the following suggestions in connection with the Action.

I

A new fishery management plan, is the most appropriate form for the Action; if that is not practical, then forage fish should be considered stocks "in the fishery" under the Fishery Management Plan for Bluefish.

Forage fish should be given comprehensive protection. That can best be done in a new fishery management plan that contemplates their biology, abundance and role in the ecosystem. The level of detail and volume of data that will ultimately be required in order to properly evaluate and manage each of the separate forage fish species contemplated in the Action fully justifies a stand-alone fisheries management plan, although such data is not necessary to protect forage fish stocks in the interim, when a simple moratorium on any new or expanded harvest will suffice to maintain such stocks at the level of abundance needed to maintain their current level of ecosystem services.

However, should the Council determine that preparing a new fishery management plan will be too time and labor intensive, or that the time necessary to prepare such a plan will unduly put one or more forage fish stocks at risk, incorporating forage fish as stocks "in the fishery" of an already-managed species would be an acceptable alternative, as doing so would still require that biological reference points and annual catch limits be established, critical habitat identified, etc. In the event that the Council elected to pursue such option, the Fishery Management Plan for Bluefish would probably be the most appropriate mechanism, as bluefish may be found, at certain times of the year, in both inshore and offshore waters, where they can and do feed on all of the species of forage fish contemplated by the Action; that is not true of any other Council-managed species. Having said that, however, I acknowledge

that, because the Fishery Management Plan for Bluefish also affects management in the New England and South Atlantic regions, as well as in state waters, using it as a vehicle for the Action may lead to extended negotiations with other management bodies that unduly delay forage fish management measures.

II

To be most effective, the Action must freeze the footprint of any fisheries currently targeting forage fish, prohibiting the start of new fisheries or the expansion of new fisheries absent clear and convincing scientific evidence that such fisheries will not diminish the ecosystem services provided by the target species.

Forage fish are critical to the health of many important commercial and recreational species. Without adequate forage, it will be impossible to maintain stocks of such species at target levels. That being the case, the Council must recognize that the primary management priority is to maintain forage fish stocks at high levels of abundance in order to support healthy populations of targeted sport and commercial species, rather than to allow directed, high-volume, low-value fisheries which harvest the forage fish themselves.

To the best of my knowledge, few fisheries currently target forage species, and those that do tend to be small-scale, state waters fisheries that provide small amounts of forage fish to the recreational bait market. Such fisheries generally fall outside of the Council's jurisdiction. The Action should prohibit the creation of new forage fish fisheries, or the expansion of existing fisheries, unless the proponents of such action are able to provide clear and convincing evidence adequate to convince both the Council and the Council's Science and Statistics Committee (the "SSDC") that the fishery will not impair the target species' role as forage for any fish, seabird or marine mammal and, a too-often overlooked point, will not impair the forage fish's ability to attract and hold various species targeted by commercial and recreational fishermen in areas where they are readily accessible to fishing effort.

Such requirement would cause absolutely no hardship to the fishing industry, as it would not impact existing fisheries. However, it would place proper emphasis on the need to manage forage fish stocks for an Optimum Yield that is based on the ecosystem services provided by each such stock, and recognize that Maximum Sustainable Yield is a concept that, while arguably appropriate for higher trophic level species, is entirely inappropriate in the case of forage fish, which should be managed in a way that maximizes their role in the ecosystem.

III

The forage species listed in the Scoping Document for Council Action on Unmanaged Forage Species provide a good basis for the initial Action

Any fish, from sand lance to bluefish to bluefin tuna, is potentially a "forage fish," as some other species, at some point in time, undoubtedly eats it. However, many of those fish are already managed, and even considering just those that are not, practical considerations make it necessary to keep the list of species addressed in the initial Action small enough to deal with in a somewhat timely fashion. If it is

later determined that other species would have benefitted by inclusion in the Action, they may be added by amendment at a later date.

Thus, limiting the initial Action to bay anchovy, striped anchovy, silver anchovy, round herring, thread herring, Spanish sardine, sand lance and Atlantic silverside will address many of the primary Mid-Atlantic baitfish while keeping the list of included species small enough to be manageable.

IV

The action should address both fishing directed at forage fish species and fishing that leads to significant incidental catch of such species.

As the intent of the Action is to preserve the abundance of forage fish stocks, such Action should address any fishery, whether or not directed at such stocks, which catches material numbers of forage fish. Existing fisheries in the Council region should be examined for possible forage fish bycatch, and any new fishery proposed for the Council region should be analyzed for its potential impact on forage fish stocks before it is permitted to begin fishing activities.

As a rule, forage fish fisheries regulated by the Council will be conducted strictly in federal waters. However, if any fishery conducted pursuant to a federal permit extends into state waters, and catches a material number of forage fish, incidentally or otherwise, then federal permit holders in such fishery should be included in the Action, even when operating in the waters of one or more states.

V

The Action should protect the specified forage fish over as great a range as possible; however, in the event that extending protections would lead to extended negotiations with another management entity, such protections should be limited to waters that fall directly under Council jurisdiction.

Ideally, all important forage fish species will be protected throughout their range. The value of the Action is significantly reduced if, in the course of their annual migration, members of a forage fish stock protected by the Council are vulnerable to large-scale fisheries once they leave the Mid-Atlantic region.

However, the Council should avoid extending protections beyond its region in the event that such extension is likely to require extended and potentially fruitless discussions with the Atlantic States Marine Fisheries Commission or a neighboring fishery management council. In such event, in order to complete the Action in a reasonable amount of time, it would probably be best to limit it to Council waters first, and consider extending its reach in later efforts.

VI

In the case of species of forage fish which already support a fishery, the ACL should be based on the current landings level in such fishery, while providing no room for expansion

The Action should effectively freeze the harvest of forage fish at current levels, until such time as proponents of expanding a fishery can prove, to the satisfaction of the Council and its SSC, that such fishery will not reduce the ecosystem services provided by the fish in question, and also prove that additional harvest of such forage fish would not degrade in any way existing commercial or recreational fisheries for other species.

VII

The creation of new fisheries for forage fish should be done with the utmost precaution, and only after proponents of creating such fishery have demonstrated that such fishery will cause no harm.

This comment closely tracks the comment made in Section VI, above. Given that the purpose of the Action is to maintain an abundance of forage fish and avoid the degradation of forage fish stocks, the Council must approach any effort to create a new forage fish fishery with the utmost caution.

The proponent of the new fishery should be required to demonstrate, to the satisfaction of the Council and its SSC, that such fishery will not reduce the ecosystem services provided by the fish in question, and also prove that additional harvest of such forage fish would not degrade in any way existing commercial or recreational fisheries for other species.

If that burden is met, and preliminary approval is granted, the next step should be an application for an Exempted Fishing Permit ("EFP"), which would allow experimental fishing in the new fishery with 100% observer coverage, to determine the manner in which the fishery is actually prosecuted, the amount and composition of any bycatch, interactions with marine mammals and other protected species, the impact on the local abundance of the target forage species and the impact of the forage fish fishery on fisheries for other species.

Once the results of the fishing under the EFP is compiled and analyzed, the Council would be in a position to determine whether creating a fishery is advisable and, if so, the conditions that should be imposed upon participants, including conditions intended to minimize bycatch of species feeding on forage fish and conditions intended to avoid interactions with protected species.

VIII

The current lack of data available on forage species demands that unusually high levels of precaution be taken in creating and/or managing forage fish fisheries.

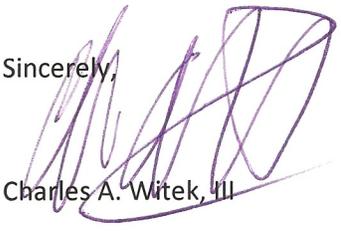
As a rule, the amount of precaution that must be employed when managing a fishery is inversely proportional to the amount of relevant data that is available. Thus, for data-poor species such as forage

fish, the level of precaution required would be very high, and would be increased even further by a lack of knowledge as to how the harvest of such forage would impact other species.

Given the importance of forage fish to the ecosystem, the current dearth of data would militate very strongly against allowing any forage fish fisheries at all, other than whatever small-scale operations already exist.

Thank you for considering my views on this matter.

Sincerely,



Charles A. Witek, III



October 1, 2015

Julia Beaty,

Assistant Fishery Plan Coordinator, at MAFMC

Re: Unmanaged Forage fish

Dear Julia-

Writing to you on behalf of our 2,500 recreational anglers/members from Maine to Florida. We want to make sure that the council members here us loud and clear.

Starting up a fishery for sand eels, spearing, bay anchovy, etc would absolutely crush our eco-system and in turn, our recreational fishing. Every single gamefish that we go for relies upon these and more for survival.

You should know that Small mesh Fisheries for these un-managed species are already in place around the world and the consequences are disastrous.

As the world's population grows, these fish will become more and more valuable.

Questions as asked by MAFMC to guide comments in bold, with Anglers Conservation Network reply in italics:

What type of management action is most appropriate?

Amending one of the current fishery management plans to include protections for unmanaged forage fish

What type of management provisions would be most effective?

Identify forage species as 'ecosystem component' species and prohibit their directed harvest

Which currently unmanaged forage species should the Council include in the action? All forage species should be considered including but not limited to:

Gizzard Shad
Round Herring
Atlantic thread herring
Spanish sardine
Striped anchovy
bay anchovy
silver anchovy
Sheepshead minnow
marsh killifish
banded killifish
mummichog
spotfin killifish
rainwater killifish
rough silverside
inland silverside
Atlantic silverside
silver perch
striped mullet
white mullet
American sand lance
Northern sand lance
chub mackerel
7 species of Exocoetidae (Flying fish)
Grass Shrimp

Forage species under consideration by FMAT:

- Rough scad (*Trachurus lathami*)
- Round scad (*Decapterus punctatus*)
- Antenna codlet (*Bregmaceros atlanticus*)
- Striated argentine (*Argentina striata*)
- Greater argentine (*Argentina silus*)
- Shortnose greeneye (*Chlorophthalmus agassizi*)
- Longnose greeneye (*Parasudis truculenta*)
- Weitzman spearsides (*Maurollicus weitzmani*)
- Lanternfish (many species)
- Spoon arm octopus (*Bathypolypus arcticus*)
- Bobtail squid (possibly *Stoloteuthis leucoptera*, *Semirossia tenera*, *Rossia megaptera*, *Rossia palpebrosa*)
- Copepods (*Calanus finmarchicus*)

What type of fishing should the action regulate?

Recommend addressing all fisheries (whether they are commercial, recreational or whatever) if they could possibly have a significant impact on forage populations.

Over what geographic area should the action apply?

The Mid-Atlantic Council should focus on its jurisdiction first, and then encourage neighboring management bodies to act

How should the Council prohibit the expansion of existing fisheries?

It's important that with this action we prevent the expansion of those un-managed forage fisheries that currently exist.

How should the Council allow new fisheries for forage species to develop?

The Council should not allow new fisheries for forage species to be developed. The forage species are too important to commercialize when scientific data is incomplete or inaccurate. Very little is known about these species.

We thank you in advance for your consideration when voting on this important matter.

Cheers,
Paul Eidman

Anglers Conservation Network
www.anglersconservationnetwork.org



CHESAPEAKE BAY FOUNDATION

Saving a National Treasure

October 2, 2015

Dr. Chris Moore
Executive Director
Mid-Atlantic Fishery Management Council
800 North State Street, Suite 201

Subject: Unmanaged Forage Scoping Comments

Dear Dr. Moore,

In regards to the Mid-Atlantic Fishery Management Council's (MAFMC) proposed action regarding unmanaged forage species, the Chesapeake Bay Foundation (CBF) submits the following comments in support of Action A using Provision A as described in the August 2015 Scoping Document for Council Action on Unmanaged Forage Species.

CBF is a non-profit environmental restoration, education, and advocacy organization dedicated to the restoration and protection of the Chesapeake Bay. With over 200,000 members, CBF works to ensure that changes in policy, regulation and legislation support the restoration and protection of the Chesapeake Bay. Ecosystem-based fisheries management is of particular importance to the health of the Chesapeake Bay, and therefore to CBF.

CBF recognizes that saving the Bay is uniquely tied to ensuring that all levels of the Bay's trophic levels are protected to further improve upon the ecosystem-based management approach to our region's natural resources. CBF has been involved with fisheries management within our respective states' waters, and continues to advocate for comprehensive environmental solutions for these valuable species.

Summary

As was mentioned within the MAFMC's White Paper on Managing Forage Species within the Mid-Atlantic Region (White Paper), ensuring that there is an adequate forage base for predatory fish is a high priority. One of the main challenges to this priority is providing the necessary scientific information to make reasonable decisions regarding the management of fisheries within our region. The MAFMC's decision to take action on unmanaged forage species shows a commitment to ecosystem-based approaches within fisheries management. CBF has long advocated for a comprehensive approach to fisheries management, and appreciates the Council's precautionary approach towards unmanaged forage species. CBF promotes the use of the best available scientific information as the basis for conservation decisions, but when information is incomplete, we advocate "erring on the side of the resource."

1. CBF's Emphasis on Ecosystem-Based Fisheries Management

The Chesapeake Bay Clean Water Blueprint is an all-encompassing, watershed wide effort to restore the Bay. However, natural resource management also needs to incorporate all aspects of the ecosystem. The Council's Scoping Document emphasizes the importance that forage species play in the Mid-Atlantic and how studies have shown that forage species warrant special considerations in fisheries management. CBF has long supported this fact when working with the Atlantic States Marine Fisheries Commission (ASMFC) on decisions related to Striped Bass and Atlantic menhaden, and commends the MAFMC for taking action towards an ecosystem-based approach for fisheries management.



CHESAPEAKE BAY FOUNDATION

Saving a National Treasure

In order for the MAFMC to be able to “ensure ecosystem sustainability,” there needs to be an enforceable regulatory action taken to allow for the collection of data on unmanaged forage species so appropriate management decisions can be made. For this reason, CBF supports Action A using Provision A, an amendment to an existing Fishery Management Plan (FMP) identifying a broad list of forage species as an ecosystem component species (EC species), prohibiting directed fishing of these species, with the option to include other species in the near future. As noted within the Council’s Scoping Document, this method has been proven legal and effective through the Pacific Fishery Management Council’s (PFMC) actions within their Comprehensive Ecosystem-Based Amendment 1 (CEBA-1). Including unmanaged forage species as an EC species will address nutrition concerns of highly valued predatory fish that live within and around the Chesapeake Bay.

2. Geographic scope of Striped Bass.

With regards to the FMP amendment, CBF supports an amendment to the Bluefish FMP given its large geographic scope. Striped Bass, or Rockfish, are a greatly valued fishery within the Chesapeake Bay region. These fish have a migratory nature ranging from North Carolina to Maine. Given its large geographic scope, utilizing the Bluefish FMP would allow for the cooperative approach between federally managed and state managed waters; ensuring that the ASMFC is included within the process, thus addressing concerns of interjurisdictional fisheries (e.g. Striped Bass/Rockfish).

CBF’s recent *State of the Bay* report has noted a decreased health score for Striped Bass/Rockfish given the elevated level of mortality that is occurring due to poor nutrition from a lack of preferred forage species. Listing unmanaged forage species as an EC species within the Bluefish FMP, prohibiting directed fishing, will allow for appropriate assessments of biomass to be made which will determine acceptable catch levels; and, thus provide improvements in the availability of forage species which will help bolster future Striped Bass/Rockfish populations.

Conclusion

Given the reasons stated above, the Chesapeake Bay Foundation supports Action A, using Provision A within the Scoping Document for Council Action on Unmanaged Forage Species. We thank the Mid-Atlantic Fishery Management Council for the opportunity to comment during the scoping process; and, please contact us should you have any follow-up questions.

Sincerely,

William J. Goldsborough
Fisheries Director, Chesapeake Bay Foundation
6 Herndon Ave.
Annapolis, MD 21403



The Great Egg Harbor Watershed Association & River Council

Fred Akers - Administrator
P.O. Box 109
Newtonville, NJ 08346
856-697-6114
Fred_akers@gehwa.org

October 2, 2015

Dr. Chris Moore, Executive Director
Mid-Atlantic Fishery Management Council
800 North State Street, Suite 201
Dover, DE, 19901

RE: Unmanaged Forage Scoping Comments

Dear Dr. Moore:

We sincerely appreciate the Council's initiative for a regulatory action to prohibit the development of new, or expansion of, directed fisheries on unmanaged forage species until adequate scientific information is available to promote ecosystem sustainability.

We also appreciate the challenge of determining the best way to do that, and also which species should be included.

We offer the following opinions on the issues for consideration in the scoping document:

3a. What type of management action is most appropriate?

Action B: Develop a new FMP with provisions for unmanaged forage species;

We do not see a sense of urgency to make an existing FMP more complicated and cloud the unmanaged forage species issues.

3b. What type of management provisions would be most effective?

Provision A: Identify forage species as ecosystem component species and prohibit their directed harvest

Prohibit the direct harvest of unmanaged forage species by identifying them as "Ecosystem Component Species," as has been done by the Pacific Council.

3c. Which forage species should the Council include in the action?

Include all the forage species under consideration, and add any non-silvery fish that the Council would deem to be appropriate. Also, make this list "frameworkable" to prepare for an uncertain future.

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Species to consider including:

- a. White Paper list
 - i. Bay anchovy
 - ii. Striped anchovy
 - iii. Silver anchovy
 - iv. Round herring
 - v. Thread herring
 - vi. Spanish sardine
 - vii. Sand lance
 - viii. Atlantic silverside
- b. FMAT laundry list – July SSC presentation by Julia Beaty
 - i. Rough scad (*Trachurus lathami*)
 - ii. Round scad (*Decapterus punctatus*)
 - iii. Antenna codlet (*Bregmaceros atlanticus*)
 - iv. Striated argentine (*Argentina striata*)
 - v. Greater argentine (*Argentina silus*)
 - vi. Shortnose greeneye (*Chlorophthalmus agassizi*)
 - vii. Longnose greeneye (*Parasudis truculenta*)
 - viii. Weitzman spearsides (*Maurolicus weitzmani*)
 - ix. Lanternfish (many species)
 - x. Spoon arm octopus (*Bathypolypus arcticus*)
 - xi. Bobtail squid (possibly *Stoloteuthis leucoptera*, *Semirossia tenera*, *Rossia megaptera*, *Rossia palpebrosa*)
 - xii. Copepods (*Calanus finmarchicus*)
 - xiii. Rainbow smelt
 - xiv. Red mullet
 - xv. Meeks halfbeak

3d. What type of fishing should the action regulate?

All types of fishing should be addressed, if they could have a significant impact on forage fish populations

3e. Over what geographic area should the action apply?

The Mid-Atlantic Council should focus on its jurisdiction first, and let the neighboring management bodies follow suit. Developing a joint plan now with the Atlantic States Commission and/or New England Council could delay or derail this effort.

3f. How should the Council prohibit the expansion of existing fisheries?

Determine what's currently being caught and what isn't, set a level of fishing that triggers protection, and effectively prohibit expansion or new fisheries beyond that level until effective science and management are in place.

3g. How should the Council allow new fisheries to develop?

This amendment must require science and management to ensure ecosystem sustainability before fishing is allowed on a scale that could damage the fish population, by adding them as Ecosystem Component Species to a fishery management plan and allowing a small-scale “experimental” fishery to collect data and test gear and markets.

3h. What scientific data and models are available to inform the action?

We have very little science about these species, but accepted models exist for data-limited situations; and an “experimental” fishery, along with increased fishing-independent research where possible, should provide the necessary data to inform management.

We thank you again for taking up this progressive initiative to protect both unmanaged forage fish and the ocean ecosystem.

Sincerely,

A handwritten signature in dark ink that reads "Fred Akers". The signature is written in a cursive, slightly slanted style.

Fred Akers



212 West State Street
Trenton, NJ 08628
Phone: (609) 898-1100

www.gardenstateseafood.org

Gregory P. DiDomenico, Executive Director
gregdi@voicenet.com
609-675-0202

October 3, 2015

Comments: Council Action on Unmanaged Forage Species

Please accept these comments on behalf of the Garden State Seafood Association (GSSA). The GSSA membership is comprised of commercial fishermen, vessel owners, seafood processors and associated businesses in the State of New Jersey. GSSA and its members are involved in all aspects of the fishery management process.

1) What type of management action is most appropriate?

We support the development of a new FMP with provisions for unmanaged forage species.

We request the Council develop an FMP that allows for the harvest and sale of Round herring, Spanish sardine and Chub mackerel. For these species, where recent landings have been documented we suggest an appropriate quota based upon those landings. In the event landings are not available a reasonable quota should be established.

In addition this policy should be coordinated with the New England Fishery Management ecosystem process. I think we need to work with NEFSC to develop an ecosystem-wide forage estimate and then look at the potential of each species for a directed fishery.

We support the Council prohibiting the harvest of all other forage species, with the potential to work with the Council to develop standards by which new fisheries could be pursued in the future.

2) What type of management provisions would be most effective?

We support the Council identifying forage species as ecosystem component species and considering the Agency's recent revisiting of National Standards the Council should support a

change in the NS1 guidance concerning ecosystem component species to non-target stocks in the fishery whereas “ecosystem component species do not require specification of reference points but should be monitored to the extent that any new pertinent scientific information becomes available...to determine changes in their status or their vulnerability to the fishery to the fishery.”

In addition, we recommend the Council support a change to the definition of what constitutes an ecosystem component species by striking the commercial sale component. Ecosystem component species are indeed non-target stocks but may be sold in small amounts in the context of the larger target fishery. Limiting the ecosystem component definition by negating any and all commercial sale is limiting use of the ecosystem component management concept.

3) Which forage species should the Council include in the action?

We support all species listed in the PID with the exception of Round herring, Chub mackerel and Spanish sardine. These 3 species are already existing fisheries, important bait sources for commercial and recreational fisherman and have documented landings.

4) What type of fishing should the action regulate?

We support the Council to address all types of directed fishing, including both small and large scale commercial, recreational, and subsistence fisheries.

5) How should the Council prohibit the expansion of existing fisheries?

It is premature to even consider doing so until data on current catches and reasonable estimates of biomass, on a species by species basis, can be developed.

6) How should the Council allow new fisheries to develop?

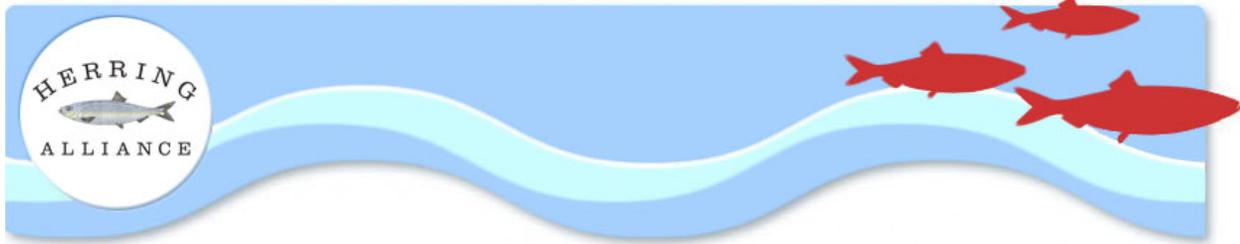
The possibility of a new fishery developing is remote and the Council should take no action on this.

7) What scientific data and models are available to inform the action?

The MAFMC needs to coordinate this ecosystem amendment with NEFSC, NEFMC and ASMFC ecosystem and forage-based policies, to enhance predictability within the commercial and recreational fisheries sectors.

Thank you for the opportunity to comment.

Gregory DiDomenico
Executive Director
Garden State Seafood Association



September 30, 2015

Chairman Rick Robins
Executive Director Chris Moore
Mid-Atlantic Fisheries Management Council
800 North State Street, Suite 201,
Dover, Delaware 19901

RE: Unmanaged Forage Scoping Comments

Dear Executive Chairman Robins and Director Moore:

We are writing on behalf of the Herring Alliance (HA)¹ to provide comments on the Scoping Document for Mid-Atlantic Fishery Management Council (MAFMC or Council) Action on Unmanaged Forage (UF Scoping Document).² We commend the MAFMC for proactively initiating an action to protect unmanaged forage species as part of its overall policy for forage fish. At present, 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 through state or federal fishery management plans. The MAFMC, and other councils around the United States (e.g., Pacific Fishery Management Council, North Pacific Fishery Management Council), recognize the need to implement proactive policies protecting these species to preserve the ecosystem and the reliant larger predatory fish now supporting fisheries. Regulatory protections for forage species is a crucial early step toward comprehensive Ecosystem-Based Fisheries Management (EBFM), healthy fisheries, and a healthy ocean ecosystem.

At its October 2015 MAFMC meeting, the Council should determine the appropriate management action through which to implement unmanaged forage protections, and begin the process without delay. The Council should also implement a control date to prevent the inception of new fisheries in the interim. Specifically, we recommend the MAFMC:

1. Amend one or more fishery management plans (FMPs) to prohibit the development of new, and expansion of existing, directed fisheries on unmanaged forage species until adequate scientific information is available to ensure ecosystem sustainability;³ and
2. Analyze a range of alternatives that protect unmanaged forage species in an environmental impact statement; and

¹ The Herring Alliance includes 110 organizations representing nearly 2.5 million individuals. The Herring Alliance is concerned about the Atlantic coast’s forage fish, including the stocks managed in the MSB FMP, and the impacts of forage fish fisheries on the ecosystem through food web depletion and bycatch.

² MAFMC (Aug. 4, 2015). [Scoping Document for Council Action on Unmanaged Forage Species](#).

³ *Id.* at 4.

3. Add currently unmanaged forage species to the relevant FMPs as ecosystem component species (EC species); and
4. Include all of the forage species under consideration in the Forage Fish White Paper,⁴ the FMAT species list, and additional species recommended below; and establish a mechanism for adding to the list of protected forage species when new scientific information becomes available through a process guided by the SSC; and
5. Make the amendment applicable to all directed commercial and recreational fishing on unmanaged forage species; and
6. Include within the geographic scope of the amendment[s] all federal waters seaward of the MAFMC's states (consistent with 16 U.S.C. § 1852(a)(1)(B)), at minimum, and encourage neighboring management bodies (e.g., states, Atlantic States Marine Fisheries Commission, New England Fisheries Management Council, and South Atlantic Fisheries Management Council) to develop and approve complementary amendments; and
7. Prohibit the expansion of existing, or the initiation of new directed fishing of unmanaged forage without a stock assessment and comprehensive ecological analysis that supports any such expansion; and
8. 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 dependent predators; and
9. Require, based on the outcome of the stock assessment and ecological analysis, that the amendment[s] also detail a process for opening a prerequisite small-scale "experimental" fishery similar to the Experimental Fishing Permit process used by the Pacific Fisheries Management Council, to gather additional fishery-dependent data upon which to base future stock assessments and an FMP; and
10. In addition to amending one or more FMPs to implement these unmanaged forage protections, update the List of Approved Fisheries and Gear (LOAF) to improve protections for forage.

In December 2014 the MAFMC voted to "initiate 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."⁵ The proposed action recognizes the important ecological role of forage species and aims to maintain adequate biomass of forage species in the Mid-Atlantic ocean food web as well as ensure sustained productivity and structure of the Mid-Atlantic marine ecosystem.⁶ The Council has identified eight issues for consideration.

⁴ Houde, E. *et al.* (Nov. 2014). [Managing Forage Fishes in the Mid-Atlantic Region, A White Paper to Inform the Mid-Atlantic Fishery Management Council](#).

⁵ MAFMC (Aug. 4, 2015). [Scoping Document for Council Action on Unmanaged Forage Species](#), p. 4.

⁶ *Id.*

Our recommendations for each of these issues are addressed below:

1) What is the most appropriate type of action?

An amendment to one or more of the Council's FMPs is the most appropriate vehicle to protect currently unmanaged forage species against future threats. Regardless of which FMP is amended, it is essential that the protections be regulatory and enforceable. The Council has a number of workable options. It could initiate an omnibus amendment, incorporating these species into all relevant MAFMC FMPs, similar to the process that the Pacific Council used when it implemented its recent unmanaged forage amendment.⁷ It could amend the existing Mackerel, Squid, Butterfish (MSB) FMP which includes all of the currently managed forage species, and thus would add value by managing the region's forage base in a more holistic way. Or it could amend the Bluefish FMP which has the broadest geographic coverage and includes state and federal waters from Maine to Florida, as bluefish prey on nearly all species of forage. However, any inclusion of state waters would necessitate cooperation with the Atlantic States Marine Fisheries Commission (ASMFC); if this would lead to delay, one of the other options should be favored. The MAFMC should lead the east coast in creating strong and meaningful protections for unmanaged forage and encourage other management bodies to follow suit.

In addition to amending one or more FMPs, the MAFMC should update its list of approved fisheries and gear (LOAF). Section 305(a) of the Magnuson Stevens Act requires that the LAOF be updated regularly.⁸ Completing an updated LOAF would help establish a baseline regarding what fishing already occurs on unmanaged forage species and focus attention on exempting or limiting expansion. However, this action alone is insufficient to prohibit new fisheries and would be inconsistent with the Council's intent.

2) What type of management provisions would be most effective?

The most effective way to add these species to the relevant FMP is to designate them as an ecosystem component species (EC species), unless the species is more appropriately added as a stock in the fishery.⁹ An EC species is currently defined in the National Standard 1 guidelines as a non-target species or stock that is not subject to overfishing or overfished, or likely to become so in the absence of conservation and management measures, and not generally retained for sale or personal use.¹⁰ The species on this list fit these criteria. This method of protecting forage species was first used by the Northern Pacific Fisheries Management Council (NPFMC)

⁷ PFMC (Mar. 2015). [Comprehensive Ecosystem-Based Amendment 1: Protecting Unfished and Unmanaged Forage Fish Species](#).

⁸ [50 C.F.R. §600.474](#).

⁹ River herring and shad are forage species that should be added to the relevant FMPs as stocks in the fishery, and are not a part of this action. The Herring Alliance has previously commented of this issue at the MAFMC and NEFMC on several occasions. *See* HA (June 6, 2014). HA comment letter Re: 2015 Specifications for Atlantic Mackerel, Squid, and Butterfish FMP.; HA (July 14, 2014). HA comment letter Re: Comments on Proposed Rule for Framework Adjustment 3 to the Atlantic Herring FMP.; HA (Oct. 11, 2013). HA comment letter Re: Public comment on Amendment 14 to the Mackerel, Squid, Butterfish FMP incorporating its Final Environmental Impact Statement and Proposed Rule.; HA (Dec. 5, 2012). HA comment letter Re: Scoping Comments on Amendment 15 to the Atlantic Mackerel, Squid, and Butterfish Fishery Management Plan.

¹⁰ [50 C.F.R. §600.310](#).

when it updated and reaffirmed its prohibition of new forage fisheries through amendments to its groundfish FMP.¹¹ The Pacific Fisheries Management Council (PFMC) also recently utilized an EC species designation to protect forage species in their omnibus Comprehensive Ecosystem-Based Amendment 1 (CEBA-1). This amendment protects a list of currently unfished and unmanaged forage species in the California Current Ecosystem.¹² In addition to CEBA-1, the PFMC and National Marine Fisheries Service collaborated to create new language codifying the declaration of these forage fish as EC species and prohibiting their direct harvest above a *de minimis* level in the implementing regulations of the Magnuson-Stevens Act (MSA).¹³

3) Which forage species should be included in this action?

All forage species included in the Forage Fish White Paper,¹⁴ the FMAT species list, and additional species, all as identified below, should be included in this action. In addition, any MAFMC policy on unmanaged forage species should anticipate the influx of new forage into the region, and be precautionary.¹⁵ It is important that the Council and NOAA Fisheries recognize that additional species may need to be included in the near future because ecosystems and fisheries are unusually dynamic under rapid climate change and species are migrating in and out of their historic range. Thus, the action should establish a required scientific evaluation of new information and a mechanism for adding to the list of species covered as forage by this new policy. This action should establish a clear role for the SSC in evaluating new scientific information for periodic review of the forage portfolio, to ensure that it continues to be based upon the best ecological scientific information available.

We also recommend that the new policy recognize forage at a higher taxonomic level than single species. Specifically, we suggest that the list be defined at the family level so that all species in the family are assumed to be forage species absent scientific information leading to a different conclusion. Thus, we recommend the following forage list be included in this action:

- *Engraulidae* family (anchovy)
 - Bay anchovy - *Anchoa mitchilli*
 - Striped anchovy - *Anchoa hepsetus*
 - Silver anchovy - *Engraulis eurystole*
- *Clupeidae* family (herrings, sardines, shad)
 - Round herring - *Etrumeus teres*
 - Thread herring - *Opisthonema oglinum*
 - Spanish sardine - *Sardinella aurita*

¹¹ NPFMC (Aug. 2009). [Fishery Management Plan for Fish Resources of the Arctic Management Area](#), pg. 17.; and NOAA Fisheries (Sept. 2010). [Environmental Assessment for Amendment 96 to the Fishery Management Plan for Groundfish of the Bering Sea and Aleutian Islands Management Area and Amendment 87 to the Fishery Management Plan for Groundfish of the Gulf of Alaska to Comply with Annual Catch Limit Requirements](#), pg. 8.

¹² PFMC (March 2015). [Comprehensive Ecosystem-Based Amendment 1: Protecting Unfished and Unmanaged Forage Fish Species](#).

¹³ NOAA Fisheries (Sept. 2015). [NMFS Report On Federal Regulations To Implement Comprehensive Ecosystem-based Amendment 1: Protecting Unfished Forage Fish Species](#), pp. 11-13.

¹⁴ Houde, E. *et al.* (Nov. 2014). [Managing Forage Fishes in the Mid-Atlantic Region, A White Paper to Inform the Mid-Atlantic Fishery Management Council](#).

¹⁵ *Id.*

- Gizzard shad - *Dorosoma cepedianum*
- *Ammodytidae* family (sand lance)
 - American sand lance - *Ammodytes americanus*
 - Northern sand lance - *Ammodytes dubius*
- *Atherinopsidae* family (silversides)
 - Atlantic silverside - *Menidia menidia*
 - Rough silverside - *Membras martinica*
 - Inland silverside - *Menidia beryllina*
- *Carangidae* family (scad)
 - Rough scad - *Trachurus lathami*
 - Round scad - *Decapterus punctatus*
- *Bregmacerotidae* family (codlet)
 - Antenna codlet - *Bregmaceros atlanticus*
- *Argentinidae* family (Argentine)
 - Striated argentine - *Argentina striata*
 - Greater argentine - *Argentina silus*
- *Chlorophthalmidae* family (greeneye)
 - Shortnose greeneye - *Chlorophthalmus agassizi*
 - Longnose greeneye - *Parasudis truculenta*
- *Sternoptychidae* family (pearlsides, hatchetfish)
 - Weitzman's pearlsides (*Maurolicus weitzmani*)
- *Myctophidae* family (Lanternfishes: many species)
- *Osmeridae* Family (smelts)
 - Rainbow smelt - *Osmerus mordax*
- *Sepiolidae* family (bobtail squid)
 - *Stoloteuthis leucoptera*,
 - *Semirossia tenera*,
 - *Rossia megaptera*,
 - *Rossia palpebrosa*
- *Mullidae* family (mullet)
 - Red mullet - *Mullus barbatus*
 - White mullet – *Mugil curema*
 - Striped mullet - *Mugil cephalus*
- *Octopodidae* family (octopus)
 - Spoonarm octopus (*Bathypolypus arcticus*)
- *Anguillidae* family (freshwater eels)
 - American eel - *Anguilla rostrata*
- *Fundulidae* family (killifish)
 - Marsh killifish – *Fundulus confluentis*
 - Banded killifish - *Fundulus diaphanu*
 - Spotfin killifish - *Fundulus luciae*
 - Rainwater killifish - *Lucania parva*
 - Mummichog - *Fundulus heteroclitus*
- *Hemiramphidae* family
 - Meek's halfbeak (American halfbeak) *Hyporhamphus meeki*
- *Cyprinodontidae* family

- Sheepshead minnow - *Cyprinodon variegatus*
- *Sciaenidae* family
 - Silver perch - *Bairdiella chrysoura*
- *Palaemonidae* family
 - American grass shrimp - *Palaemon pandaliformis*
 - American grass shrimp - *Periclimenes americanus*
- *Exocoetidae* family (flying fish - many species)
- *Scombridae* family
 - Chub mackerel - *Scomber colias*. Industry has already looked into targeting this species.¹⁶
- *Calanidae* family (copepods)
 - Copepods (*Calanus finmarchicus*)
- *Euphausiacea* family
 - Krill - All species – Although technically outside the definition of forage fish used by this council, there is no scientific doubt that a large part of the forage base is krill. The PFMC has banned krill harvest because of their importance to the marine food chain.¹⁷ It's omission from this list would allow unregulated elimination of a significant portion of the mid-Atlantic forage base.¹⁸ Additionally, there are a lot of unknowns about krill (how many other higher trophic animals rely on them and what the impacts of climate change will be on krill populations).¹⁹

4) What types of fishing should be addressed?

This action should address any and all commercial or recreational fishing on newly identified forage species in the region. To the extent possible without delaying the action, the MAFMC should assess the level of fishing already occurring on these forage species, and establish a *de minimis* exemption for existing small scale fishing, so long as that fishing level is determined not to be adversely impacting a species or its dependent predators. The *de minimis* exemption should not apply to bycatch in large-scale fishing. The action should also prohibit the development of new directed fisheries, and expansion of any *de minimis* fisheries, on unmanaged forage species until adequate scientific information is available to ensure ecosystem sustainability consistent with the requirements discussed below.

¹⁶ The Salton Kennedy Program, Haskin Shellfish Laboratories, Rutgers (Oct. 31, 2004). [Development of the Chub Mackerel Fishery, an Underutilized Species.](#)

¹⁷ PFMC (July 8, 2011). [Amendment 12 – Measures to Prohibit Fishing for Krill](#); PFMC (Feb. 2008). [Management of Krill as an Essential Component of the California Current Ecosystem. Amendment 12 to the Coastal Pelagic Species Fisheries Management Plan.](#)

¹⁸ Pinsky, M.L. & D. Byler (July 2015). [Fishing, Fast Growth and Climate Variability Increase the Risk of Collapse.](#); Houde, E. *et al.* (Nov. 2014). [Managing Forage Fishes in the Mid-Atlantic Region. A White Paper to Inform the Mid-Atlantic Fishery Management Council](#), pg. 12, 23 (stating that krill are 40% of food consumed by baleen whales, and noting that the PFMC has declared a moratoria on fishing krill because of their important role as forage).

¹⁹ Lenfest Forage Fish Task Force (May 5, 2008). [Overfishing Krill Threatens Ocean Ecosystems.](#)

5) What is the most appropriate geographic scope of the action?

Unmanaged forage protections are an important step toward ecosystem based fisheries management (EBFM) and the geographic scope of this action should include all federal waters to the east of the Council states (as defined in the Magnuson-Stevens Act²⁰), at a minimum. An action that includes state waters or federal waters north and south of MAFMC states could necessitate cooperation with ASMFC, NEFMC, or SAFMC. Protection of unmanaged forage species should ultimately be an Atlantic, and nationwide, policy but due to the importance of this matter, the MAFMC should lead and not complicate and/or delay the amendment. The MAFMC should also encourage neighboring management bodies to follow the MAFMC's lead in implementing complimentary amendments and EBFM.

6) What are the most effective ways to prohibit the expansion of existing fisheries?

As discussed above, the MAFMC should assess the level of fishing already occurring on forage species, and establish an appropriate *de minimis* exemption for existing small scale fisheries that are not adversely affecting a forage species or their dependent predators. The action should prohibit the development of new directed fisheries, and expansion of any *de minimis* fisheries, on unmanaged forage species until adequate scientific information is available to ensure ecosystem sustainability consistent with the requirements discussed below for new fisheries.

The UF Scoping Document rightly identifies the poor information on current fishing as an initial hurdle to preventing the expansion of existing fisheries on unmanaged forage species. The MAFMC has already begun remedying this information gap by reaching out to the Atlantic states to identify known existing small-scale fishing. This information paired with dealer information would be enough to gain a sufficient understanding of current fishing and determine a preliminary threshold for catch. The purpose of this threshold will be to prevent catch of unmanaged forage from expanding. However, further analysis will be required to determine if status quo catch is consistent with the MAFMC's goals for forage and the ecosystem. In the interim, fishing below this status quo threshold would be exempted from the prohibition under this action as *de minimis*. Alternatively, anything over the threshold would be prohibited. The action should establish a protocol for evaluating those cases where status quo catch is substantial. The MAFMC could monitor these prohibitions through electronic monitoring on midwater trawl boats and small mesh bottom trawlers.

The MAFMC should utilize the Ecosystem Status Reports that are produced by the Northeast Fisheries Science Center annually, including semi-annual *current* status updates.²¹ These reports track trends biological and oceanographic ecosystem indicators, including indicators of forage fish abundance and distribution. The MAFMC should coordinate with the NEFSC's Ecosystem Assessment Program to ensure that a suite of indicators appropriate to accomplishing the MAFMC's goals for forage species. The PFMC has partnered with National Oceanic and Atmospheric Association's (NOAA's) Integrated Ecosystem Assessment Program

²⁰ [16 USC § 1852\(a\)\(1\)\(B\)](#).

²¹ <http://www.nefsc.noaa.gov/ecosys/ecosystem-status-report/>.

(IEA)²² and annually produces a document that assesses the state of the California Current Ecosystem.²³ The Pacific state of the ecosystem report includes a section on copepods²⁴ and forage²⁵ in the California Current Ecosystem. Similar reporting for the NE Shelf ecosystem could be valuable for the MAFMC and the NEFMC.

7) What is an appropriate process for allowing new fisheries to develop?

Newly proposed fisheries should require a rigorous scientific management approach that ensures ecosystem sustainability before fishing is allowed on a scale that could potentially harm the unmanaged forage species individually, the aggregate forage base, or dependent predators. The MAFMC should require development of basic stock information and development of management measures before allowing directed fishing including the following:

- a. Peer reviewed assessment using the best available science including:
 - NOAA Survey Trawls
 - State surveys
 - Ecological models and indicators
 - Classification of forage species according to life-history characteristics and vulnerability; and
 - Data poor methods as appropriate (e.g., PSA,²⁶ ORCS²⁷)
- b. FMP governing a 2 year experimental fishery – with comprehensive catch monitoring
- c. Reassessment incorporating fishery dependent data and ecological indicators and/or reference points; and
- d. FMP for long-term fishing if supported by steps 1-3.

By adding all forage species as EC Species to one or more FMPs and allowing a small-scale experimental fishery through exempted fishing permits to collect data and test gear and markets, the MAFMC can compile information on the potential sustainability of a true directed fishery. The PFMC has set precedent on how to create a small scale experimental fishery. The PFMC's Council Operating Procedure (COP) 24²⁸ describes a rigorous and robust process for authorizing exempted fishing permits (EFPs) as a preliminary step towards creating a directed fishery. The PFMC accepts all EFP applications (not just that of forage ECS species) and reviews them before asking NMFS to issue the permit, if appropriate. There is a minimum of at least two (2) council meetings at which an EFP application must be part of the briefing book, be reviewed including public comment, and approved by the council to move forward. The PFMC SSC must also review EFP applications, along with the affected FMP's advisory bodies. For

²² NOAA (n.d.). [Integrated Ecosystem Assessment, California Current](#).

²³ NOAA Northwest, Southwest and Alaska Fisheries Science Centers (March 8, 2015). [California Current Integrated Ecosystem Assessment \(CCIEA\) State of the California Current Report, 2015](#).

²⁴ *Id.* Section 4.1, p. 8.

²⁵ *Id.* Section 4.2, p. 9.

²⁶ NOAA Fisheries (March 2010). [Productivity and Susceptibility Analysis](#).

²⁷ NOAA Fisheries: Berkson, J. *et al.* (May 2011). [Calculating Acceptable Biological Catch for Stocks that have Reliable Catch Data Only](#).

²⁸ PFMC (Sept. 2015). [Proposed Council Operating Procedure 24 – Protocol for Consideration of Exempted Fishing Permits for Shared Ecosystem Component Species](#).

ECS forage species, [PFMC COP 24](#) outlines specific information that must be included in the EFP application for an ECS, as well as the criteria necessary for Council approval.

The process to obtain an EFP at the PFMC is considerably more in depth and transparent than that of the MAFMC. For EFP's to be a stepping stone to a directed fishery in the mid-Atlantic, the MAFMC must follow the PFMC's lead and create a rigorous and robust process for EFP authorization for forage species.

8) What is the ability of current scientific data and models to inform action?

This question largely misses the point, because this action is primarily a policy decision by the Council, not a scientific review. The goal is to establish a stewardship process for adding new fisheries while protecting the public interest in the sustainable management of forage species and their predators. Current scientific data and models can, however, be used to inform the action. The Northeast region, including the Mid-Atlantic, is the most data-rich region of U.S. territorial waters. The Northeast Fisheries Science Center has been conducting seasonal surveys since the 1960s. Though originally designed for demersal fishes, the survey samples many organisms including forage species. Additionally, the ecosystems branch has been collecting ecological data for decades. States also have various sampling programs. All of these sources should be used for initial population and ecosystem assessments. Accepted models exist for data-limited situations and should also be used as needed.²⁹ An “experimental” fishery, along with increased fishing-independent research where possible, should provide the necessary data to inform management. Additionally, there is abundant science showing that in the face of a changing environment, precautionary management of forage species is necessary and prudent.³⁰

Conclusion

The Herring Alliance appreciates the MAFMC's ongoing efforts to protect the region's forage base and to transition to EBFM. We urge the MAFMC to ensure unmanaged forage protections are meaningful, regulatory, and enforceable. We look forward to continued participation in this important action.

Sincerely,

Erica Fuller
Roger Fleming
Attorneys
Earthjustice

On behalf of the Herring Alliance

²⁹ NOAA Fisheries, Berkson, J. *et al.* (May 2011). [Calculating Acceptable Biological Catch for Stocks that have Reliable Catch Data Only.](#); NOAA Fisheries (March 2010). [Productivity and Susceptibility Analysis.](#)

³⁰ Pinsky, M.L. & D. Byler (July 2015). [Fishing, Fast Growth and Climate Variability Increase the Risk of Collapse.](#); NOAA Fisheries (n.d.). [“Protected Species/Seabirds” in Ecosystem Status Report for the Northeast Large Marine Ecosystem.](#)



Regal Marine Products, Inc.
198 West 9th Street
Huntington Station, New York 11746
Phone: (631) 385-8284 Fax: (631) 271-5294



October 2, 2015

Dr. Chris Moore, Executive Director
Mid-Atlantic Fishery Management Council
800 North State Street, Suite 201
Dover, DE 19901
RE: Unmanaged Forage Scoping Comments

I am an owner of Regal Marine Products Inc., a wholesale bait and tackle distributor in NY. Our business serves over 300 Bait and Tackle shops from Cape May, NJ through Providence, RI. The forage fish up for discussion within the scoping document not only play a major role in our ecosystem, they play a major role as bait in the recreational industry. Forage fish such as silversides and sand eels are an essential part of our fishing industry. We do not look to see these fisheries expanded or exploited into new purposes such as fish meal or fish oil, however, any future management must include the protection of the current directed fishery.

The MAFMC voted to "initiate 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." While many forage species may not be subject to directed fisheries in the federal waters in the Mid-Atlantic region, there is a significant and historical directed fishery in the state waters that supplies bait to the recreational fishing industry. In the councils efforts to move towards "EAFM as a fishery management approach which recognizes the biological, economic, social and physical interactions among the components of ecosystems and attempts to manage fisheries to achieve optimum yield" we ask that the historical social and economic value of the local directed fisheries are not just taken into account, but preserved.

The type of management action that is most appropriate is one that must "allow existing fisheries to remain at their current levels by allowing specific exceptions for existing fisheries" and existing fisheries must be documented. With regards to the management provisions that would be most effective, the major concern once again is the ability to properly assess these fisheries. Not only do most of these forage fish have a short life cycle and high production rate but they are highly subjective to seasonal conditionals such as water temperatures and water quality. It is true that much more needs to be understood about their life cycles. Provision A, while it does not require assessments for maximum sustainable yield, it does not allow for any directed harvest. Provision B requires proper assessments, sustainable yields, catch limits and such. While a dedicated fishery management or stock in the fishery plan would allow the council to allow directed harvest, the ability to do a proper assessment on these fisheries may not be feasible. Provision C would define forage species as components of an essential fish habitat for a predator species, such as Bluefish. This approach is a major concern since it could include the regulation or maximum harvest level in state waters on jointly managed plans. How can you regulate current directed fisheries on species that you have not yet documented and cannot properly assess?

With regards to the type of fishing the action should regulate, it should not apply to current directed fisheries in state waters. Once again, commercial landings need to be ACCURATELY documented, and levels maintained until such time that a proper assessment of the fishery can be achieved. Even then there are many factors that impact these fisheries and harvest is easily impacted by natural occurrence as seasonal conditions such as temperature, wind, and rain all have an impact on an annual harvest.

If the desire to understand the stocks of forage fish like spearing is the mission, commercial landings will only be a small piece of a vast puzzle in determining any assessment. It has been a viable resource for a hundred years, and it is rich in culture and history that is represented in our industry. It would be a shame to regulate this industry without a full understanding of it before any decisions are made that could reshape and alter that for future generations. That understanding should not just be comprised of landings but of migratory and behavioral patterns that could answer even more questions about forage fisheries such as the Atlantic Silverside and the Sand Eel.

Sincerely,
Melissa Dearborn
Vice President, Regal Marine Products, Inc.

Spokesperson, New York Fishing Tackle Trade Association

100 Davisville Pier
North Kingstown, RI 02852

Unmanaged Forage Species Scoping Comments

1. This action is based on the assumption of little or no fishing activity on the species in question. Although the scoping document and 2014 Council motion mention the prohibition of “development of new, or *expansion of existing, directed fisheries* on unmanaged forage species”, the provisions on page 9-11 include only prohibition on harvest. This is inappropriate, because many of the species listed on Table 3 are currently the subject of directed harvest. For example, Seafreeze has multiple historic landings of round herring. We should not lose access to any species we have historically targeted. Additionally, many of our customers rely economically on various other species listed on Table 3. Should their businesses lose access to those species and become economically unsustainable, we will lose significant markets. Economic implications of this action should be of paramount Council consideration.
2. The current information available to the Council is inadequate to address management needs. Page 14 states that although the Council wishes to prevent the expansion of existing fisheries for unmanaged forage species, very little is known about these fisheries, which will pose difficulties for determining fishery expansion. For this reason, we submit that any species which is currently the subject of directed harvest should be removed from the species considered by the action at this time. An accurate time series of detailed fishery information would need to predicate any management action.
3. The scoping document states that this action is intended to move towards EAFM, which the Council defines as “a fishery management approach which recognizes the biological, economic, social and physical interactions among the components of ecosystems and attempts to manage fisheries to achieve optimum yield while taking those interactions into account.” However, without accurate economic, social, and biological information, this is impossible. It is evident that to date, these have not been obtained in relation to the species under consideration. In addition to the points raised above, page 13 states that the “Council has not yet discussed biomass goals or acceptable levels of catch, including bycatch, of unmanaged forage species”, and page 12 that there are no biomass- or even abundance estimates- for any of these species. This has significant implications for directed fisheries on these species as well as for bycatch in fisheries already managed by the Council. It takes years to develop a time series of science adequate enough to address fishery management needs. What kind of management will be possible in the absence of scientific data? How will currently managed fisheries be impacted if bycatch becomes a problem? This is especially an issue if South Atlantic species move into Mid Atlantic waters.
4. Provision A, designating forage species as an ecosystem component species, specifies an EC species be a non-target species and not generally be retained for sale or commercial use. This is

problematic for species currently commercially harvested. The scoping document references the Pacific Fishery Management Council FMP, which is using EC designation to prohibit commercial harvest of forage species. However, this action applied to new directed fisheries only, and a similar action in the Mid Atlantic could not apply to species with current or historic harvest. Provision B, designating forage species as stocks in the fishery, requires that Councils assess MSY, OY, define status determination criteria, ACLs and AMs. This requires science and biomass estimates. However, the scoping document states that there are no biomass or abundance estimates for any of the species identified on Table 3. While the suggestion is made that setting OY to zero to prohibit harvest on unharvested species but allowing existing fisheries to remain at their current levels is an option, it still does not address the issues arising from lack of science. For existing fisheries to continue, science would be required to assess MSY, OY, etc. Provision C, defining forage species as EFH, is ambiguous as to what effect that would have on existing fisheries or the potential to develop fisheries in the future.

5. We do not support the addition of unmanaged forage fish to any existing FMP.
6. Page 14 states that “the Council does not want to prohibit directed fisheries for unmanaged forage fish indefinitely, but only until enough scientific information is available to promote ecosystem sustainability”. Without a dedicated research plan, dedicated research funds, and dedicated research staff, enough scientific information will never become available. NOAA, state fishery departments, and universities operate on fixed budgets, and all of those funds are already allocated. To simply say that scientific information will be addressed at some point in the future is impractical. Unless there are actual mechanisms in place to do so, new fisheries (or continuation of existing fisheries) will remain prohibited for the foreseeable future. Absent well documented fishing activity, there is no way to collect data, since there is none available through current surveys. The document mentions the possibility of exempted fishing permits to allow data collection. This would be a necessary component of management action should this amendment go forward. However, the appropriate infrastructure and funding to process the data collected must also be addressed. Important “data poor” stocks exist in currently managed, directed fisheries, but lack data, as well as the time and resources required to collect/analyze that data- despite managed, directed and reported harvest. This does not bode well for stocks with no data at all, which will presumably not take priority in the event that research resources become available.

Due to the lack of overall data available for effective analysis and implementation, we do not support moving forward with this Amendment at this time.

TO: Julia Beaty, Mid-Atlantic Fishery Management Council
FROM: Seatuck Environmental Association
SUBJECT : Scoping Document on Unmanaged Forage Species
DATE: September 30, 2015

Thank you for the opportunity to comment on this Scoping Document for unmanaged Forage Species. We are strongly supportive of this effort and offer the following comments relative to the Scoping Document and look forward to the development of the management plan for unmanaged forage species.

a. What type of management action is most appropriate?

We support the development of a new Fishery Management Plan (FMP) with provisions for unmanaged forage species as the first option. However, such FMP must consider forage species in as wide a geographic range as possible for it to be effective. Therefore, we think any new unmanaged forage species FMP must include all three Councils and the ASMFC in its development. This comprehensive approach is desired in that it would help ensure adequate food supplies to wide-ranging migratory species, such as whales and seabirds, which move between jurisdictional boundaries. Our second choice would be to amend one or more of the Council's existing FMP's it include provisions for unmanaged forage species second. The Bluefish plans were used as an example that seems like a good choice since it would cover a wide range of unmanaged forage species both inshore and offshore as well as a wide geographic range.

b. What type of management provisions would be most effective?

This is a difficult question to answer and components of all three options probably need to come to bear in addressing this question. Given the lack of management attention that many of these species have received it is critical that we develop baseline information relative to their population status. Provisions A and B both call for the prohibition of directed harvest of unmanaged forage species which would prohibit several existing fisheries for forage species such as, Atlantic silversides and sand lance. Both of these species support relatively large commercial and recreation direct harvest components.

At this point in time we cannot ascribe to any of the provisions without further details relative to the effects of such action. We recognize that the Council operates under a set of rules and regulations, however in this case they seem to constrain effective management approaches.

c. Which forage species should the Council include in the action?

We support as a starting point the list of species provided in the Scoping Document and would like to add for consideration the following fish species:

Striped Killifish
Banded Killifish
Mummichog
Hickory Shad if not covered in the ASMFC Shad and River Herring FMP
For the mid-Atlantic at least juvenile mullet

In addition, there are many crustacean species and other phyla of marine invertebrates that should be considered as unmanaged forage species. We would urge you to provide a mechanism in a new FMP or amendments to existing FMP's the ability to add new forage species as they are identified.

One specific point that we would like to make relates to the reported harvest of Atlantic Silversides (Table 3 in the scoping document). Based upon a comment made at the New York Hearing on September 29 and through a quick review of materials available over the Internet we find that the reported harvest of 6.4 metric tons of Atlantic Silverside is vastly under-estimated. The number reported at the New York Hearing was approximately 110 metric tons, which is similar to the harvest reported for Canada. We have no reason to disbelieve the harvest reported at the New York Hearing based upon personal observations of harvest and knowledge on the amounts of Atlantic silversides used for bait, some food consumption and for the aquarium trade as food. The last item is a new one to consider in this FMP. The same consideration must be given to Sand Lance as they are also used as bait, food and probably aquarium food.

d. What type of fishing should the action regulate?

We would support regulating across all levels of harvest for unmanaged forage species given that many of these species, especially the inshore components are harvest by a wide variety of individuals and gear types. In many cases it may not be the gear type that needs control but the amount of harvest for personnel use. Setting total possession limits may be as effective for Atlantic Silversides as banning or restricting the gear used.

e. Over what geographic area should the action apply?

As stated above, we support application to the widest geographic area possible using whichever mechanism provides for that coverage. We also recognize that by increasing the scope of the geographic coverage of the proposal it increases the complexity of any FMP or FMP amendment but feel that this may be necessary to protect valuable forage species and other species that depend upon them, up and down the Atlantic seaboard.

We would further suggest that any such unmanaged forage species FMP or FMP amendment include the three Regional Councils and the ASMFC in it development. If this FMP is to be truly an ecologically based approach then all lines of demarcation

must be ignored and consider management over the complete range of the species as applicable to the Regional Council and ASMFC jurisdictions.

f. How should the council prohibit the expansion of existing fisheries?
We would suggest that the Council's and ASMFC provide for adaptive management within this FMP so that should a fishery begin to expand and pose a threat to a forage resource it can react quickly and provide some controlling mechanisms. We are uncertain as to what those might be at this time.

g. How should the Council allow new fisheries to develop?

The Scoping document provided an example of such an action, which might be applicable to forage species harvest. However, there would need to be safeguards to insure that such forage species harvest was not a method to circumvent other existing FMP's.

h. What scientific data and models are available to inform the action?

There are numerous inshore fisheries surveys that will provide snapshots relative to the status of unmanaged forage species. These include the Chesapeake Bay juvenile striped bass surveys; the New York juvenile striped bass surveys in the Hudson River and around western Long Island; the Peconic Bay trawl survey; Connecticut's Long Island Sound Trawl survey to name but a few. We would expect that each State has some survey data that would apply to the development of any unmanaged forage species FMP. We suggest that the Councils and ASMFC have to think outside of the box on this issue and employ all available data until such time as additional more rigorous forage based surveys can be undertaken.

We have no opinion relative to the appropriate models to be employed. Here again, thinking outside of the box may be necessary and being willing to utilize data strings that may not necessarily be compatible due to sampling techniques and methods, species specific sampling, (i.e. sampling targeted at a specific species or suite of species) or other reasons.

In conclusion: We strongly support the development of an FMP or FMP Amendment for unmanaged forage species and look forward to the upcoming decision by the Mid-Atlantic Council relative to this FMP and future development of any FMP for unmanaged forage species.

Thank you again for the opportunity to comment on this Scoping Document.

Sincerely,

Enrico Nardone
John Turner
Byron Young

MAFC Unmanaged Forage Action Scoping Comments

The Billfish Foundation commends the Mid-Atlantic Fishery Management Council (MAFMC) for taking a proactive approach to establishing management for forage fish, a critical step toward a comprehensive Ecosystem-Based Fisheries Management approach. TBF urges the Council to implement measures that will achieve the intended conservation benefits while maximizing the economic output of these resources.

TBF strongly advocates on the basis that healthy oceans are directly linked and often a strong driver of many economies. The Mid-Atlantic region is recognized as perhaps the best place in the world for anglers to catch white marlin and most species of tuna and home, and home to some of the largest and best recreational fishing fleets for highly migratory species (HMS) including the Outer Banks, NC, Cape May, New Jersey and Ocean City, MD. The 2011 HMS Recreational Fishing Expenditure Survey conducted by National Marine Fisheries Service (NMFS) estimated the economic impact of private HMS anglers from Maine to North Carolina to be \$147.2 million and generate 943 jobs. This survey only reflected the economic impact of anglers fishing on private boats, as opposed to charter vessels. The actual total economic impact for all HMS recreational fisheries, including charter boat and HMS tournaments, is much greater. Initial research conducted estimated that just the direct expenditure alone at a HMS tournament in Virginia was \$450,359. In addition, HMS tournaments are important in promoting tourism in coastal communities by bringing in participants from adjacent areas. More than one third (37%) of all registered Atlantic HMS tournaments take place from North Carolina to Maine.

In recent years, more anglers are targeting white marlin and other HMS species by using chub mackerel (*Scomber colias*). This species and other forage species are essential for the sustainability of fisheries and ecosystems in the Mid-Atlantic. We strongly urge the Council to recognize the importance of these species and take action on a timely manner to prevent any unsustainable fishing practices from developing or expanding.

What type of management action is most appropriate?

Amending the existing Bluefish FMP or Mackerel, Squid, Butterfish (MSB) FMP may offer the best options. Due to the migratory and reproductive characteristics of certain forage fish species, protection for these species is necessary in both state and federal waters which are encompassed in the bluefish FMP. Amending existing FMPs is recommended because of the urgency of this issue given commercial fisheries have already looked into targeting chub mackerel.

What type of management provisions would be most effective?

As there is little existing knowledge on most forage species we recommend the Council designate unmanaged forage fish as Ecosystem Components (EC). This action would minimize the regulatory burden for the Council. The precedent set by the Pacific Fishery Management Council will also aid the Council in future management decisions further minimizing efforts for the Council.

Which currently unmanaged forage species should the Council include in the action?

It is important to recognize that the species listed in the initial scoping documents was derived from using stomach contents of predator species. We urge that this not be the only means of determining what forage fish species are designated as EC. Given the lack of existing information on many forage species, the council should thoroughly analyze all species submitted through the comment process. Erring on the side of a more comprehensive, inclusive approach is warranted by the lack of information on forage species and the fact that the list of species has increased during the consultation period. For instance, chub mackerel was not included in the initial scoping document however anecdotal evidence indicates it is an important forage species for many predatory fish and there has been a shift in effort by mid-water trawling boats to target this species. We recommend the following species in addition to using a definition of species at a family level to protect species that have little or no existing information to be considered as a forage species.

- *Engraulidae* family (anchovy)
 - Bay anchovy - *Anchoa mitchilli*
 - Striped anchovy - *Anchoa hepsetus*
 - Silver anchovy - *Engraulis eurystole*
- *Clupeidae* family (herrings, sardines, shad)
 - Round herring - *Etrumeus teres*
 - Thread herring - *Opisthonema oglinum*
 - Spanish sardine - *Sardinella aurita*
 - Gizzard shad - *Dorosoma cepedianum*
- *Ammodytidae* family (sand lance)
 - American sand lance - *Ammodytes americanus*
 - Northern sand lance - *Ammodytes dubius*
- *Atherinopsidae* family (silversides)
 - Atlantic silverside - *Menidia menidia*
 - Rough silverside - *Membras martinica*
 - Inland silverside - *Menidia beryllina*
- *Carangidae* family (scad)
 - Rough scad - *Trachurus lathami*
 - Round scad - *Decapterus punctatus*

- *Bregmacerotidae* family (codlet) ➤ Antenna codlet - *Bregmaceros atlanticus*
- *Argentinidae* family (Argentine)
 - Striated argentine - *Argentina striata*
 - Greater argentine - *Argentina silus*
- *Chlorophthalmidae* family (greeneye)
 - Shortnose greeneye - *Chlorophthalmus agassizi*
 - Longnose greeneye - *Parasudis truculenta*
- *Sternoptychidae* family (pearlsides, hatchetfish)
 - Weitzman's pearlsides (*Maurolicus weitzmani*)
- *Myctophidae* family (Lanternfishes: many species)
- *Osmeridae* Family (smelts)
 - Rainbow smelt - *Osmerus mordax*
- *Sepiolidae* family (bobtail squid)
 - *Stoloteuthis leucoptera*,
 - *Semirossia tenera*,
 - *Rossia megaptera*,
 - *Rossia palpebroso*
- *Mullidae* family (mullet)
 - Red mullet - *Mullus barbatus*
 - White mullet – *Mugil curema*
 - Striped mullet - *Mugil cephalus*
- *Octopodidae* family (octopus)
 - Spoonarm octopus (*Bathypolypus arcticus*)
- *Anguillidae* family (freshwater eels)
 - American eel - *Anguilla rostrata*
- *Fundulidae* family (killifish) ➤ Marsh killifish – *Fundulus confluentis*
 - Banded killifish - *Fundulus diaphanus*
 - Spotfin killifish - *Fundulus luciae*
 - Rainwater killifish - *Lucania parva*
 - Mummichog - *Fundulus heteroclitus*
- *Hemiramphidae* family ➤ Meek's halfbeak (American halfbeak) *Hyporhamphus meeki*
- *Cyprinodontidae* family
 - Sheepshead minnow - *Cyprinodon variegatus*
- *Sciaenidae* family
 - Silver perch - *Bairdiella chrysoura*

- *Palaemonidae* family
 - American grass shrimp - *Palaemon pandaliformis*
 - American grass shrimp - *Periclimenes americanus*
- *Exocoetidae* family (flying fish - many species)
- *Scombridae* family
 - Chub mackerel - *Scomber colias*. Industry has already looked into targeting this species.¹⁶
- *Calanidae* family (copepods)
 - Copepods (*Calanus finmarchicus*)
- *Euphausiacea* family
 - Krill - All species

What type of fishing should the action regulate?

Actions by the Council to regulate commercial fishing, particularly gear used by the existing MSB Fishery, would be a good starting point. Assessing the level of fishing already existing on forage species would be crucial to determining whether limits should be placed on fishing effort or catches to ensure sustainability.

Given the importance of forage fish for the recreational fishery, it seems wise for the Council not to restrict recreational fishing, if data show impacts from the sector is not creating a decline.

Over what geographic area should the action apply?

Due to the migratory and reproductive characteristics of many forage fish species, protection for these species is necessary in both state and federal waters. A potential solution to cover the broad geographic range of forage species would be to amend the Bluefish FMP and designate forage species as EC. This would cover both state and federal waters as well as apply to waters managed by the Atlantic States Marine Fishery Council. Taking this approach and encompassing the entire geographic range would follow the principles of promoting ecosystem sustainability.

How should the Council prohibit the expansion of existing fisheries?

Amending the Bluefish FMP and designating forage fish as EC with provisions to prohibit the development of new, directed fisheries until adequate data is obtained would provide some protection until more is known about them. The potential impact from a directed fishery should be evaluated.

How should the Council allow new fisheries for forage species to develop?

EC designation for forage fish would mandate efforts to monitor EC species to determine if a species warrants being reclassified as “in the fishery.” TBF recommends that if monitoring efforts indicate potential for a directed fishery for a specific EC forage species, the Council could issue exempted fishing permits (EFPs). The council should establish strict requirements for issuing any EFPs with provisions that include bycatch reduction measures verified with 100% observer coverage on board. Any EFP issued should be consistent with responsible management principles to ensure ecosystem sustainability.

What scientific data and models are available to inform the action?

Ecosystem Status Reports along with dealer reports should be utilized to determine the existing level of fishing effort. Food web models in conjunction with economic models should also be incorporated to determine the effects of fishing effort on forage species.

Concluding Statements

TBF appreciates the opportunity to participate in this process. We urge the Council to take action in a timely manner and develop measures that ensure the sustainability of the ecosystems and important species they support. Management of forage fish species should be done in a manner that ensures healthy ecosystems and maximizes the economic benefits derived from important sectors including recreational fisheries.

Should you have questions, please contact Michael Kelly at (954) 938-0150, ext. 102 or via email at Michael_Kelly@billfish.org. Thank you for the opportunity to submit comments.

October 2, 2015

Dr. Chris Moore, Executive Director
Mid-Atlantic Fishery Management Council
800 North State Street, Suite 201
Dover, DE 19901
[sent via email]

Dear Dr. Moore,

Chris

On behalf of The Nature Conservancy, I am writing to express our appreciation for the Mid-Atlantic Fishery Management Council's initiation of action to address unmanaged forage species conservation. The Conservancy's marine conservation efforts in the Mid-Atlantic region include a focus on forage species because of their critical roles in connecting and supporting estuarine and marine food webs. Our deep investments in coastal and marine ecosystem conservation over several decades and the critical importance of forage species to long-term ecosystem integrity provide the foundation for our interest on this issue.

The value of forage species to ecosystem structure, function and productivity is critical, for us and for all the region's living marine resources and dependent communities. Regardless of the mechanism the Council ultimately selects, we support a common sense outcome—that development of new fisheries for unmanaged forage species should not proceed unless scientific information indicates a sustainable fishery is possible in consideration of ecosystem level impacts. Similarly, the decision to expand existing fisheries should be contingent on this test.

At this early stage, the approach we favor to achieve this outcome is by amending an existing fishery management plan, identifying forage species as "ecosystem component species" and defining forage species based on the guidance in the Council's 2014 White Paper (Managing Forage Fishes in the Mid-Atlantic Region). Limiting the geographic scope to this region may be more practical than a wider reaching action. However, we look forward to reviewing staff analysis and public comments regarding all options in the scoping document.

By initiating this action, the Council has highlighted the need for better understanding of current forage base removals including locations, timing and harvest levels for all types of fishing. While this information is needed to craft an action that achieves conservation objectives with minimal impacts to existing fisheries, the data compilation phase should not delay completion.

Thank you for the opportunity to share our comments and we look forward to working with the Council to make progress on forage species conservation. Please contact Kate Wilke at kate.wilke@tnc.org or (804) 249-3412 with any questions or ideas for how we might assist.

Sincerely,



Jay Odell
Mid-Atlantic Marine Program Director
The Nature Conservancy

OFFICERS

James Flannery, *Chairman*

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MARYLAND

**RECREATIONAL ANGLERS WORKING TO CONSERVE, PROTECT, AND ENHANCE
MARYLAND'S MARINE RESOURCES**

Via email only to: jbeaty@mafmc.org

Chairman Rick Robins
Executive Director Chris Moore
Mid-Atlantic Fisheries Management Council
800 North State Street, Suite 201,
Dover, Delaware 19901

RE: Unmanaged Forage Scoping Comments

Dear Executive Chairman Robins and Director Moore:

The members of Coastal Conservation Association Maryland(CCA MD) fully support the councils ongoing action initiated at the December 2014 MAFMC meeting by voting to:

"initiate 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". The Council passed this motion to protect the important ecological role that forage species play in the Mid-Atlantic."

Forage species are the very foundation of the predatory game fish that all recreational fishermen pursue. It is important that the council follows through with a comprehensive and proactive action to avoid chasing yet another fisheries management snowball down a steep hill.

As forage species are being targeted in ever increasing number by international fleets worldwide. The proactive action by MAFMC to protect unmanaged forage species is vitally important to economic stability and sustainability our regions fisheries.

CCA MD's recommendations for the issues for consideration contained in the scoping documents are as follows:

1) What is the most appropriate type of action?

An omnibus amendment, or an amendment to an existing fishery management plan, to provide the strongest level of protection against future expansion of harvest without management.

2) What type of management provisions would be most effective?

Prohibit the direct harvest of unmanaged forage species by identifying them as “Ecosystem Component Species,” (Same action as done by Pacific Council.)

3) Which forage species should be included in this action?

Include all the forage species under consideration, and make this list part of a framework action so that species can be added to prepare for an uncertain future. There are many important prey species not contained on the following lists, and many which are not considered “forage fish” by classical definitions. A big picture approach to determining species or higher order classifications should be considered as inclusive way to ensure the success of this action.

a. White Paper list

- i. Bay anchovy
- ii. Striped anchovy
- iii. Silver anchovy
- iv. Round herring
- v. Thread herring
- vi. Spanish sardine
- vii. Sand lance
- viii. Atlantic silverside

b. FMAT laundry list – July SSC presentation by Julia Beaty(MAFMC Staff)

- i. Rough scad (*Trachurus lathamii*)
- ii. Round scad (*Decapterus punctatus*)
- iii. Antenna codlet (*Bregmaceros atlanticus*)
- iv. Striated argentine (*Argentina striata*)
- v. Greater argentine (*Argentina silus*)
- vi. Shortnose greeneye (*Chlorophthalmus agassizi*)
- vii. Longnose greeneye (*Parasudis truculenta*)
- viii. Weitzman spearsides (*Maurolicus weitzmani*)
- ix. Lanternfish (many species)
- x. Spoon arm octopus (*Bathypolypus arcticus*)
- xi. Bobtail squid (possibly *Stoloteuthis leucoptera*, *Semirossia tenera*, *Rossia megaptera*, *Rossia palpebrosa*)
- xii. Copepods (*Calanus finmarchicus*)
- xiii. Rainbow smelt
- xiv. Red mullet
- xv. Meeks halfbeak

c. Additions needed (Important species not included?)

- i. Chub Mackerel (*Scomber Colias*)
- ii. Numerous crustacean and invertebrate prey species.

4) What types of fishing should be addressed?

Any type of fishing that could have a significant impact on forage fish populations

5) What is the most appropriate geographic scope of the action?

The MAFMC should lead the region and provide an example for other jurisdictions to consider in the future. We believe the MAFMC plan should initially apply to both Federal and state waters within Council boundaries.

6) What are the most effective ways to prohibit the expansion of existing fisheries?

Freeze harvest of all unmanaged species at current levels, or an average of the last few years. Determine what's currently being caught and what isn't, set a level of fishing that triggers protection, and effectively prohibit expansion or new fisheries beyond that level until effective science and management are in place.

7) What is an appropriate process for allowing new fisheries to develop?

Council action should require science and management to ensure ecosystem sustainability before fishing is allowed on a scale that could damage the fish population, by adding them as Ecosystem Component Species to a fishery management plan and allowing a small-scale "experimental" fishery to collect data and test gear and markets.

8) What is the ability of current scientific data and models to inform action?

There is very little science on these species. Efforts to support further studies and both fishery dependent and fishery-independent research where possible should provide the necessary data to inform management.

CCA MD appreciates the opportunity to provide input on this action, and looks forward continuing to work with fellow stakeholders, council members, and council staff on this important and forward thinking effort to properly manage our nations fisheries.

Regards,



David Sikorski
Chairman- Government Relations Committee



October 1, 2015

Dr. Chris Moore, Executive Director
Mid-Atlantic Fishery Management Council
Suite 201, 800 North State St.
Dover, DE 19901

RE: UNMANAGED FORAGE SCOPING COMMENTS

Dear Dr. Moore,

On behalf of *Wild Oceans* and as an advisor to the Mid-Atlantic Council, I am pleased to offer recommendations for moving forward with an action that efficiently and effectively safeguards the unmanaged component to the region's forage base. Maintaining adequate forage to support food web function and productive fisheries demands a long-term strategy that prioritizes the ecological value of the aggregate forage base, both managed and unmanaged forage species. In light of escalating demand for forage fish products,ⁱ prohibiting the expansion or development of fisheries for unmanaged species, until adequate science is available to assess and avoid negative impacts, is an essential precautionary step. However, as the Council moves forward, it is important to be mindful of the bigger picture, understanding how this action fits within a more holistic strategy for conserving the forage base in its entirety.

Below I outline our recommendations for each of the eight issue areas as presented in the "Scoping Document for Council Action on Unmanaged Forage Species" (Scoping Document).

Issue 1: The most appropriate type of management action

Through Objective 15 in the Mid-Atlantic Council's 2014-2018 Strategic Plan, the Council commits to a strategy (15.2) to "incorporate consideration of species interactions into fishery management plans and coordinate these considerations across appropriate management plans." In keeping with this strategy, *Wild Oceans* supports a management action that recognizes the critical links between forage species and the dependent predators managed by the Council through its fishery management plans (FMPs). Two options are promising for identifying these connections:

1. An omnibus amendment that will amend the Council's FMPs to explicitly recognize links between unmanaged forage and managed species. An omnibus action would follow the model of the Pacific Fishery Management Council's Comprehensive Ecosystem-based Amendment 1 (CEBA-1) in which trophic pathways are recognized between unmanaged forage species and predators within the ecosystem, including predatory fish managed under FMPs; or
2. An amendment to the Atlantic Mackerel, Squid and Butterfish FMP which recognizes that managed and unmanaged forage species, as an assemblage, comprise the region's forage base and together support the ecosystem's predators, including other FMP species.

Both of the above actions would set the stage to advance future ecosystem-based initiatives that recognize and account for species interactions and the ecological role of all forage fish. Amending the Bluefish FMP alone would fail to recognize links between unmanaged forage species and other Council-managed predators and would fall short of the Strategic Plan Strategy 15.2 described above. For example, a comprehensive analysis of stomach contents data collected from the Northwest Atlantic revealed that northern sand lance (*Ammodytes dubius*), an unmanaged forage species that ranges from Greenland to North Carolina, is prey for summer flounder, scup, black sea bass, spiny dogfish, monkfish and bluefish.ⁱⁱ Including sand lance in the bluefish plan alone would not acknowledge the importance of sand lance to these other Council-managed stocks.

Issue 2: The most effective provisions of such an action

Wild Oceans supports identifying unmanaged forage species as ecosystem component (EC) species and prohibiting their directed harvest until sufficient science is available and management policies in place to guide sustainable harvest (Provision A). The Magnuson-Stevens Fishery Conservation and Management Act (Magnuson Act) grants regional councils the authority to identify and manage EC species for "ecosystem considerations related to specification of optimum yield (OY) for the associated fishery", "and/or to address other ecosystem issues."ⁱⁱⁱ Once identified, councils should act to "protect their associated role in the ecosystem."^{iv} Arguably, forage fish populations directly support the growth and productivity of their predators, and it falls within the Council's purview to protect unmanaged forage species from unregulated harvest in order to enhance OY for dependent predator stocks and to support ecosystem structure and function.

Ecosystem component species may also be grouped as "Shared EC Species," as was done on the west coast, if an omnibus amendment is chosen. The Pacific Council incorporated the entire list of unmanaged forage species into each of its four plans as "Shared EC Species" in recognition that collectively, these species play an important ecological role throughout the ecosystem.

Issue 3: Which forage species to address

The authors of *Managing Forage Fishes in the Mid-Atlantic Region: A White Paper to Inform the Mid-Atlantic Fishery Management Council* (Forage Fish White Paper) have derived a list of unmanaged species from a detailed definition of forage fish. **We support the Forage Fish White Paper definition as *guidance* but not as a fixed definition for developing the list of species to be included in this action.** The Marine Stewardship Council (MSC), while finalizing its definition of lower trophic level species (i.e., forage fish), acknowledged that some species fulfill the critical niche of transferring energy from lower to higher trophic levels but do not exhibit all the typical characteristics associated with most forage fish. Therefore, the MSC developed appendices to guide assessors in identifying species that should be treated as lower trophic level species when evaluating the sustainability of fisheries.^v If some, not all, of the criteria on these menus are met, then the species is considered to be lower trophic level. We recommend that the approach to the Forage Fish White Paper definition be broadened in the same manner. We also recommend allowing the list to be modified through a framework action, in the event that new information reveals a previously omitted species.

The species list in Table 3 of the Scoping Document (p. 13) is a good starting point for developing a list of species to be included in this action, but further research by the Fishery Management Action Team (FMAT) is warranted. We recommend investigating data from the Northeast Fisheries Science Center (NEFSC) Food Web Dynamics Program to identify forage species important to managed stocks and other predators in the region.

Identifying EC species through higher taxonomic groupings (e.g., family or order) would likely be more straightforward and comprehensive. Species within the region that are classified under the following groups, recognized in the MSC's lower trophic level definition,^{vi} should be considered EC species for the purpose of this action.

- Family Ammodytidae (sandeels, sandlances)
- Family Clupeidae (herrings, menhaden, pilchards, sardines, sardinellas, sprats)
- Family Engraulidae (anchovies)
- Family Euphausiidae (krill)
- Family Myctophidae (lanternfish)
- Family Osmeridae (smelts, capelin)
- Genus *Scomber* (mackerels)
- Order Atheriniformes (silversides, sand smelts)

Issue 4: The types of fishing to address

Any new directed fishing activity, recreational or commercial, which would result in significant harvest of unmanaged forage fish should be prohibited. "Significant harvest" should be defined as a threshold of catch, informed by data on current or recent effort. Establishing a baseline of existing fishing activity on species identified through this action is essential for achieving the

stated purpose while verifying and allowing for the continued operation of established small-scale fishing activities, as long as these activities are monitored and not permitted to expand.

Issue 5: The most appropriate geographic scope of the action

Through the Council's "Ecosystem Approaches to Management Guidance Document," the Council intends to advance ecosystem-based fisheries management throughout the Mid-Atlantic Ecosystem under its jurisdiction. Therefore, minimally, the geographic scope of this action should extend throughout the mid-Atlantic waters of the Exclusive Economic Zone (EEZ). Initially focusing on mid-Atlantic EEZ will also facilitate completing this action in a timely manner in accordance with the timeline proposed in the Scoping Document (p. 17). As previously stated, we believe that pressure on forage fish populations will continue to increase with escalating demand for products such as fishmeal and fish oil, and it is important for the Council to take action now to get ahead of the curve.

Because ecosystems do not adhere to regional council boundaries, collaboration with the New England Council, South Atlantic Council and the Atlantic States Marine Fisheries Commission on actions to conserve and manage the forage base along the Atlantic coast should be a priority and complementary actions pursued. A Memorandum of Understanding, like the one developed for deep sea corals, could be used to clarify responsibilities of each of the management partners.

Issue 6: Effective ways to prohibit the expansion of existing fisheries

Opportunely, the Pacific Council recently reviewed proposed regulations for implementing CEBA-1,^{vii} and these can serve as a model for Mid-Atlantic Council action. These regulations define "directed fishing" through constraining catch ratios and by establishing hard landings limits based on historic landings data, accommodating those fisheries, like the whiting fishery, that incidentally capture Shared EC species.

Fishery dependent and independent monitoring programs will need to track landings data and collect biological information about the EC species. If an increasing trend in landings or a potential biological threat to the EC species is detected, actions should be triggered to reduce fishing effort as necessary.

Issue 7: An appropriate process for allowing new fisheries to develop

Foreseeing the need to address the potential development of new fisheries for unfished species, the Pacific Council articulated a policy within its Fishery Ecosystem Plan that describes an Exempted Fishing Permit (EFP) process. Applicants must include:

“a science plan for that EFP fishery, 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 an FMP fishery over the long term. EFP fishery data and analyses should, at a minimum, assess: the amount and type of bycatch species associated with the EFP gear, including protected species, such as marine mammals, sea turtles, sea birds, or species listed as endangered or threatened under the Endangered Species Act (ESA); how the gear will be deployed and fished, and its potential effects on essential fish habitat (EFH), including the portions of the marine environment where the gear will be deployed (surface, midwater, and bottom).”^{viii}

The Pacific Council policy then describes considerations for approving a permit, emphasizing impacts to the Council’s conservation and management measures, which include impacts on “species that are the prey of any: Council-managed species, marine mammal species, seabird species, sea turtle species, or other ESA-listed species.”^{ix} (emphasis added)

We urge the Mid-Atlantic Council to take a similar approach, using Exempted Fishing Permits to explore the feasibility and sustainability of a new fishery if rigorous application and review criteria are satisfied.

If and when these criteria are satisfied, a new or expanded directed fishery should only proceed if the Council is prepared to reclassify the target species as an actively managed stock, fulfilling all Magnuson Act requirements for a stock in the fishery. An accepted recent stock assessment must also be available that provides the Scientific and Statistical Committee (SSC) with sufficient information to establish catch limits according to its ecosystem-based fishery management policy so that the role of the species as forage is protected.

Issue 8: The ability of current scientific data and models to inform the action

We support the FMAT working with the SSC, the Ecosystems Approach to Fisheries Management Working Group, and the Council to gather and evaluate available information to inform this action. We also urge the FMAT to work with the NEFSC Food Web Dynamics Program on data collection and analyses. Because by its very nature this action is precautionary, information gaps should be used to help the Council assess risks and decide how to approach management options and address deficiencies, and *should not be used as an excuse to derail action.*

NOAA’s recently released Draft Policy on Ecosystem-Based Fishery Management (EBFM) is accompanied by a paper debunking “6 Myths of EBFM.” Pertinent to this issue, NOAA explains, “A common misconception is that EBFM requires comprehensive data and complex models, and can only be applied in exceptional, data-rich circumstances. The reality is that EBFM begins with what is known about the ecosystem. ... EBFM allows managers to work with the information available to best manage the resources in an ecosystem, aware of all the parts of the system simultaneously.”^x

In closing, *Wild Oceans* commends the Mid-Atlantic Council for its commitment to advance ecosystem-based approaches to fisheries management and for recognizing the importance of forage fish conservation in achieving the Council's avowed ecosystem-level goal: "to allow for ecologically sustainable utilization of living marine resources while maintaining ecosystem productivity, structure, and function." We look forward to working with you as the Unmanaged Forage Species Action develops.

Sincerely,



Pam Lyons Gromen
Executive Director

cc: Julia Beaty, Assistant Plan Coordinator

ⁱ Froese, R., et al. (2011) *as summarized in* Pikitch, E., Boersma, P.D., Boyd, I.L., Conover, D.O., Cury, P., Essington, T., Heppell, S.S., Houde, E.D., Mangel, M., Pauly, D., Plagányi, É., Sainsbury, K., and Steneck, R.S. 2012. *Little Fish, Big Impact: Managing a Crucial Link in Ocean Food Webs*. Lenfest Ocean Program. Washington, DC. 108 pp.

ⁱⁱ Bowman RE, Stillwill CE, Michaels WL, Grosslein MD. (2000). *Food of Northwest Atlantic Fishes and Two Common Species of Squid*. US Dep Commer, NOAA Tech Memo NMFS NE 155; 137 p.

ⁱⁱⁱ 50 CFR 600.310(d)(5)(iii)

^{iv} Ibid

^v Marine Stewardship Council. "TAB D-036 v1: Assessment of Low Trophic Level (LTL) Fisheries." (2011) https://improvements.msc.org/database/low-trophic-level-fisheries/documents/TAB_D_036_Low_Trophic_Level_Fisheries_v1-1.pdf/view

^{vi} Ibid

^{vii} "National Marine Fisheries Service Report on Federal Regulations to Implement Comprehensive Ecosystem-Based Amendment 1: Protecting Unfished Forage Fish Species http://www.pcouncil.org/wp-content/uploads/2015/08/D2a_SUP_NMFS_Rpt_forage_SEPT2015BB.pdf

^{viii} Pacific Fishery Management Council. *FEP Initiatives Appendix to the Pacific Coast Fishery Ecosystem Plan*. http://www.pcouncil.org/wp-content/uploads/FEP_Initiatives_Appendix_FINAL_July2013.pdf

^{ix} Ibid

^x NOAA. "6 Myths of EBFM." <http://www.st.nmfs.noaa.gov/ecosystems/ebfm/ebfm-myths>