Summary of Scoping Comments on Adding Bullet and Frigate Mackerel as Ecosystem Components in the Dolphin Wahoo Fishery Management Plan

(Comments received through May 16, 2019)

Below is a summary of comments that were submitted online and comments received during the two scoping webinars held on May 7th and 9th. Comments provided during the webinars (n=8) are included in this attachment as well as the webinar attendees. Online comments (n=109) are available to view in full at: https://safmc.wufoo.com/reports/bullet-frigate-mackerel-public-comment-report/.

Respondent Characteristics:

State	Number of Respondents[1]
NC	16
SC	3
GA	3
FL	65
Mid-Atlantic	18
New England	1
Other	3

Affiliation	Number of Respondents[1,2]
Private Recreational	97
Commercial	6
For-Hire	8
Wholesale/Dealer/Retail	4
Non-Gov't Organization	10
Other	7

[1]Includes online respondents only.
[2]Some respondents chose more than one affiliation.

In general most commenters expressed support for the Council moving forward with adding bullet and frigate mackerel (*Auxis* species) as ecosystem component (EC) species in the Dolphin Wahoo Fishery Management Plan (FMP). A summary of the comments is provided below.

Comments in support:

- General support expressed for adding *Auxis* species to the Dolphin Wahoo FMP as an EC species. Also general support for protecting forage species.
- The *Auxis* species are not only important forage for wahoo and dolphin, but also are forage for other large pelagic predators such as billfish and tunas.
- These large pelagic predators support the offshore charter, private recreational, tournament, and commercial fisheries that are important economic components of many coastal communities.
- The *Auxis* species not only contribute to the stocks of wahoo, dolphin, and other large pelagic predatory species by maintaining the health of these stocks but also serve as a means to aggregate and maintain these predators in a general area so they are accessible to fishery participants.
- Development of new fisheries for *Auxis* species could negatively impact the abundance of those two species as well as other economically important species that rely on them as prey.
- Basic protections could be implemented for the *Auxis* species without disrupting any existing fisheries.

- Protecting bullet and frigate mackerel is a concrete way that the Council can put policies from the Fishery Ecosystem Plan (FEP) II into place.
- Adoption of bullet and frigate mackerel as EC species in the Dolphin Wahoo FMP would be a proactive, preventative approach.

Comments in opposition:

- There was some limited concern that the Council was creating or authorizing a new fishery for the *Auxis* species. While this is not the case and the two species are currently unmanaged, this perception generally accounted for the relatively few comments provided in opposition to adding the *Auxis* species to the Dolphin Wahoo FMP.

Comments on the potential for increased landings of Auxis:

- Bullet and frigate mackerel could be subject to large scale directed commercial fisheries. The example of chub mackerel landings in the Mid-Atlantic Region increasing to 5 million pounds in 2013 was cited several times.
- There are large scale fisheries that have developed for the *Auxis* species in other countries that have landings in the millions of pounds.
- Scarcity of some other forage species and demand for bait may open up new markets for the *Auxis* species that could drive increased landings.

Comments on options or potential ways to move forward:

- Analyze all management options presenting in the scoping document.
- Standalone support for Option 3 in the scoping document (Prohibit or limit a directed fishery through a trip limit).
- Standalone support for Options 3 through 8 in the scoping document (trip limit, annual vessel limit, reporting requirement, permit requirement, protocol for building directed fisheries for EC species, and "other").
- Consider options for fishery dependent and independent monitoring.
- Develop alternatives that provide protection for the *Auxis* species without negatively impacting any current commercial or recreational fisheries. Freeze harvested levels while they are low.
- Consider extending any conservation measures throughout the Dolphin Wahoo FMP's jurisdiction due to wide geographic range of the *Auxis* species.
- Prevent development of new directed fisheries for bullet and frigate mackerel until the necessary information can be gathered to sustainably manage these fisheries.
- Once management measures are in place, consider using Exempted Fishing Permits to gather necessary information to allow orderly growth of directed fisheries.
- Establish an ecosystem objective in the Dolphin Wahoo FMP to safeguard critical links between dolphin and wahoo and their prey.
- Consider developing an omnibus forage amendment.

SCOPING WEBINAR COMMENTS

MAY 7, 2019

KELLIE RALSTON: Hey John, it's Kellie Ralston with the American Sport Fishing Association. I appreciate you all taking the time to take this out to scoping; and just wanted to put on record that American Sport Fishing Association certainly supports the Council moving forward with the consideration of adding these two species as ecosystem components. We'll give some more specific recommendations on the various options in our written comments that we will submit. But I just wanted to have on the record verbally that we feel it is very important to proactively address management of preyed species like bullet and frigate mackerel, particularly as they relate to such economically important species as dolphin and wahoo. So, thanks again for the presentation and thanks again to the Council for moving forward.

PAMELA LYONS GROMEN: Okay, thank you again, this is Pamela Lyons Gromen and I am the Executive Director of Wild Oceans and I just want to echo what Kellie was just saying; especially when she used the word 'proactive'. We've been, Wild Oceans has been around since 1973 so we were there at the beginning when the Dolphin FMP was being created. The Dolphin Wahoo FMP and, also the Sargassum FMP, and those were groundbreaking because they charged the shift in management from kind of this reactive phase having to deal with problems-like ending overfishing to being proactive and to putting in place measures that maintain healthy fisheries. So, we're very supportive of the Council's efforts to designate bullet and frigate mackerel as ecosystem component species. We find that the diet link between wahoo and frigate is remarkable. Thirty to fifty percent of their diet, that's a link that needs protection and safe guarding. So, thank you for continuing with your progressive forward-thinking outlook on the Dolphin Wahoo FMP, and we are also going to be submitting more detailed comments on the options we support. But I will just say in general we do support action to be precautious to put in place conservation measures to prevent a directed fishery from escalating and ramping up a directed commercial fishery. We also work in the Mid-Atlantic with the Mid-Atlantic Fishery Management Council, so we were part of their unmanaged forage omnibus efforts and worked closely on the omnibus amendment and I can tell you that the chub mackerel fishery caught everyone a bit, I think, off-guard. The chub mackerel fishery was one that developed with really little to no oversight, it was kind of uncovered as we were working with the unmanaged forage omnibus, so it ramped up to five million pounds and the Mid-Atlantic Council was left having to react to that; and recently completed its plan to manage then as stocks in need of conservation and management which was a much bigger effort because you had to do stock determination criteria and it was very difficult and very challenging in the absence of a stock assessment. So, I applaud your efforts to be proactive and forward thinking; and look for our written comments to be submitted. Thank you very much.

RICHARD ROBINS: Thank you John, this is Rick Robins. I wanted to say a few things briefly, but first and foremost to express my appreciation for the Council moving this issue into scoping. When our Council went through the process in the Mid-Atlantic of developing the unmanaged forage fish amendment, it was very much a learning experience. I feel for us corporately, and for me personally, and one of the first people that I talked to when we started the action was John

Gray and I think you all know John. John is a billfish and tuna specialist Scientist at NMFS and I saw John and talked to him about it. And the first words out of his mouth were to 'protect', he told me to protect Auxis- and at the time, I didn't fully appreciate how important they were in the diet of the offshore predators, but when he communicated that to me, he was basing that on all of his own observations as he cuts out stomachs from the Billfish tournaments and tuna tournaments in the Mid-Atlantic and he's been doing that for over twenty five years. So, when he shared that advice, it was coming from his firsthand observation and I say I wasn't familiar with the importance of them because I think there's several reasons for that- this will be my thirty ninth year of fishing for marlin and tuna out of Virginia Beach, so I've been at this sport for a long time. But we don't really see the bullet tunas churning on the surface like we do some of the other forage fish; so just to draw a quick contrast, things like spanish sardines, we see them schooling on the surface and they'll attract predators in the late Summer- early Fall and will have white marlin on them and we sort of see that association a lot more, I think with bullet tunas. I've cut bullet tunas out of wahoo and tuna, but our fleet has basically stopped killing marlin with the exception of the occasional capture in a tournament and the occasional capture outside of that. So, we're not in the practice of cutting open the stomachs of marlin; so, I just think the awareness on it is relatively low, which John really pressed that point to me. And one of the other things that we have learned as a Council is the fact that we had some discussions about whether HMS could take this issue up and we had other discussions of things like false albacore and should they or should they not be in the amendment. I had a discussion with the agency leadership at a CCC meeting and they immediately pointed me back to the statutory language that defines tunas in the Magnuson-Stevens Act- and that basically lays them out as what we call the base species, once the albacore, bluefin, bigeye, skipjack and yellowfin. And they agreed that since those species are enumerated in the Act and defined as tuna species that these are the only ones that HMS can manage, and I just didn't know that going into it that was their advice at the time. And just talking about the bullet tunas, the issue of size came up and I know you all have highlighted that in your background materials and that was part of the agency's decision to not allow us to add Auxis to the unmanaged forage amendment and some of the background materials that we have said Auxis get up to, I think, ten or eleven inches long, maybe a hair bigger than that. And it's kind of rare that we catch them because they just blow up on our flatlines or short rigger baits while we're trolling and the way we rig our circle hook baits now, we catch one occasionally, but not often, but they're very small. I think the other component of that foraged decision that's with thinking about when and SSC tried to make a definition of forage and was one of the other elements or metrics was how important they are in diet of a species, and they set a threshold of like five percent or something like that. But regardless of what that number was in the case of the South Atlantic, you all have information indicating that they're the number one species in the stomach contents of wahoo and that was the other impediment that kept us from managing them is that it didn't manage directly a predator species for Auxis. So not withstanding their very high level of importance for the offshore ecosystem the agency wouldn't let us manage them. So at this point, I think the South Atlantic Council is the only body that can because the agency has previously told us that HMS could not; so I think the ecological importance of this question that is in the front of the Council is very high with respect to that offshore ecosystem and I think the other thing that we saw, just looking at what the Pacific Council did, because that was something we took a hard look at and that sort of encouraged us as we got ready to take this action up, but what they did- they tailored a solution that fit the needs of their regional fishery and that was very different from what we came up

with. But I think that's part of the strength of the regional system. I mean we did that in the consultation with our advisory panels and we had the industry people there and talked about how to best come up with a limit that would sort of accommodate the historical fisheries interacting and our actions, at least in our region. But I think that's one of the strengths of the regional systems, that's something I would expect that whatever comes out of this process will be unique. I think that it will appropriately be unique and suited to meet the needs of your fishery. I'll try to submit written comments, I'm traveling this week, but I'll try to get some in. And I appreciate what you all are doing on this issue. Thank you.

SCOPING WEBINAR COMMENTS

May 9, 2019

JASON SCHRATWIESER: Thanks a lot for the presentation, there was really a lot of good information presented there. My name is Jason Schratwieser, I'm the Conservation Director for the International Game Fishing Association and our organization has a long history of advocating for proper management of highly migrating species and we do believe that adding bullet and frigate mackerel as ecosystem component systems species is necessary to sustainably manage dolphin and wahoo which this Council manages. But we'll also have ancillary benefits for other highly migratory species, such as blue and white marlin that consumes these preyed species which are currently in a depleted state. We're going to be providing some additional written comments. I appreciate the opportunity to comment verbally this time, so thanks a lot.

TERRY GIBSON: Terry Gibson, Jensen Beach, Florida. I fish for dolphin and wahoo off the Southeast Florida coast for almost forty years. And I just want to applaud the Council for pursuing this, and obviously these are vitally more important forage fish and no fishery management plan is complete without managing what things eat, so thank you and God speed.

MITCHELL ROFFER: I would strongly urge the South Atlantic Fishery Management Council to bring these species into the fisheries management plan. I was one of the many authors that was involved in ecosystem-based fisheries management plans in the South Atlantic. And I would like to see these species brought in as more information is clearly needed in the biology and population dynamics of these species and the importance of the ecosystem. They're clearly an important pair of species for the ecosystem, currently right now in the Southeast and I suspect that in the future. Whether the future is ten, twenty or thirty years from now, these fish are likely to be in the Mid-Atlantic as well.

ANTHONY DIGIULIAN: Alright, I just wanted to say thank you for providing this opportunity for us to be involved and learn a little bit more about this situation, and thanks to Jason and Mitch as well, for always participating in this. I work with the IGFA as well, quite a bit on several projects and I have submitted my written comments, but I just want to make the point that in the recreational fishing industry in South Florida down here-we rely heavily on bulk of these species in particular for catching a whole variety of fish including: billfish, wahoo, tuna and mahi, just about everything eats them and sailfish. In my opinion, both of these species should definitely be part of the fishery's management plan. And thanks again for providing this time for us.

ZSOLT TAKACS: I appreciate you guys, thanks for bringing this into the forefront, I definitely appreciate it. I'm a former commercial fisherman and recreational angler. We absolutely have to protect the bait as a forage species. I'm definitely in support of adding the two mackerels to the FMP.

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VIRGINIA INSTITUTE OF MARINE SCIENCE

Department of Fisheries Science

9 May 2019

Ms. Jessica McCawley, Chair
South Atlantic Fishery Management Council
4055 Faber Pl Dr #201
Charleston, SC 29405

Dear Ms. McCawley

I would like to provide the following comments regarding whether or not the South Atlantic Fishery Management Council should pursue adding bullet and frigate mackerels (*Auxis* species) as ecosystem component species to the Dolphin Wahoo Fishery Management Plan.

In 2016 I strongly encouraged the Mid-Atlantic Fishery Management Council to include the two species of *Auxis* in the Mid-Atlantic Fishery Management Council's (MAFMC's) Unmanaged Forage Omnibus Amendment because these fish represent an important forage base for highly migratory species (HMS). For more than 25 years I have sampled HMS species landed at mid-Atlantic fishing tournaments. In addition to collecting genetic samples, I have noted reproductive condition and noted the stomach contents of literally hundreds of billfishes and large tunas. During this time period, small scombrid fishes have represented the major dietary component of the tuna and billfishes that I have dissected, but in some years have comprised the major food item. Based on field identifications of the scombrids that were relatively undigested, *Auxis* species were the dominant prey item, but we have also morphologically identified small blackfin tuna (*Thunnus atlanticus*), skipjack tuna (*Katsuwonus pelamis*), and little tunny (*Euthynnus alletteratus*) in tuna and billfish stomach contents at mid-Atlantic Tournaments.

Often, it is difficult to identify a fish's stomach contents based on morphological characters due to the state of digestion of the prey items. To get insights on the species composition of digested prey items, a former M.S. student in my program evaluated the utility of a molecular genetic key she developed for western Atlantic scombrids to identify well digested stomach contents. Six of the eight well digested fish removed from marlin stomachs were positively identified as bullet tuna (Paine et al. 2007. Bulletin of Marine Science 80:353-367.).

Considering the relative importance of *Auxis* as forage species for western Atlantic HMS, I was disappointed by the National Marine Fisheries Service's decision to disapprove the MAFMC's proposed inclusion of bullet and frigate mackerels as ecosystem component species. The agency's decision was based on two major issues, the size of the forage species as well as the fact that the MAFMC does not manage the HMS species that prey upon the forage species. I would like to consider each of these in order.

NMFS considered the size of bullet and frigate mackerels as being too large to classify as forage species, citing the maximum lengths reported for each of the species. Use of the maximum size in this case is completely inappropriate. What matters is the size of the forage species consumed by the predators, not the lengths of the oldest fish. Almost all of the hundreds of *Auxis* that I have removed from billfish and tuna stomachs have been 10 – 12 inches. Coincidentally, this is exactly the same size range of *Auxis* that I have caught when trolling small Clark spoons offshore in the late summer over the past 15 years in an effort to catch young-of-the-year Atlantic bluefin tuna for a variety of research projects. If larger *Auxis* were present, it is likely that we would have caught them using that

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terminal tackle, as the small Clark spoons also caught many large scombrids (including bluefin tuna up to 130 lb.).

In response to the second point provided by NMFS, I realize that the MAFMC does not have the authority to manage Atlantic HMS. However, I also note that the NMFS Highly Migratory Species Management Division, which manages Atlantic HMS, does not have the authority to manage *Auxis*. How then, one might ask, does the agency expect to implement ecosystem-based fisheries management for these species?

Fortunately, the South Atlantic Fisheries Management Council does manage two HMS, dolpin and wahoo. I do not have many direct observation of the food habits of dolphin and wahoo from the U.S. south Atlantic region, but I am familiar with published studies that show that both species prey upon *Auxis*, and that these species are a major food item for wahoo. This provides the SAFMC the rationale to include *Auxis* as ecosystem component species.

I am currently serving my 12th consecutive two-year term as chair of the U.S. Advisory Committee to the International Commission for the Conservation of Atlantic Tunas (ICCAT). In the past the committee has charged me to write letters to various federal fishery management councils considering management measures for forage species, to emphasize the importance of forage species to the United States' fisheries for Atlantic HMS. It should be noted that the forage species not only provide the energetic basis that ultimately limits the "carrying capacity" of the higher trophic levels, but in sufficient numbers (and density), the forage species attract and hold those HMS, making them available to our commercial and recreational fisheries.

Management of Atlantic HMS requires management requires management not only of the target species, but also of important forage species. It is clear that the two species of *Auxis*, typically 10 – 12 inches in length, are a major forage for Atlantic HMS, including wahoo and dolphin. The SAFMC can act on this by including *Auxis* as econsystem component species to the Dolphin Wahoo Fishery Management Plan, and I strongly encourage them to do so.

Sincerely,

John E. Graves
Chancellor Professor of Marine Science

WEST PALM BEACH FISHING CLUB

~ Established 1934 ~

May 7, 2019

South Atlantic Fishery Management Council
4055 Faber Place Drive, #201
North Charleston, SC 29405

Re: Protections for Bullet and Frigate Mackerel

Dear SAFMC Members,

On behalf of the nearly 1,400 members of the West Palm Beach Fishing Club (WPBFC), I am writing to let the South Atlantic Fishery Management Council (SAFMC) know that we support efforts to designate bullet mackerel (*Auxis rochei*) and frigate mackerel (Auxis thazard) as ecosystem component species in the SAFMC's Dolphin and Wahoo Fishery Management Plan (FMP).

Dolphin and wahoo are among the most sought after pelagic species in southeast Florida. Both species are extremely valuable to the recreational and commercial fishery, and help support a robust marine industry that is a significant economic driver in our region. Since bullet and frigate mackerel are primary forage for dolphin and wahoo, as well as other pelagic species like blue marlin, maintaining healthy forage fish populations is critical. The WPBFC is a strong advocate of ecosystem based management, which includes conservation measures for forage fish.

Too often fishery management approaches have been reactionary instead of precautionary. Implementing common-sense protections will help safeguard these valuable forage fish species from over-exploitation and will make management of our marine ecosystem more inclusive and sustainable.

The WPBFC encourages the SAFMC to designate bullet and frigate mackerel as ecosystem component species in the Dolphin and Wahoo FMP. This forward thinking approach represents good stewardship and is one of the best ways to ensure populations of pelagic species remain healthy.

Sincerely,

Tom Twyford
President

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Richard B. Robins, Jr.
208-B 79TH ST
Virginia Beach, VA 23451

May 13, 2019

Ms. Jessica R. McCawley, Chair
South Atlantic Fishery Management Council
4055 Faber Place Drive, Suite 201
North Charleston, SC 29405

Dear Chair McCawley:

I appreciate and fully support the South Atlantic Fishery Management Council's initiative to proactively consider the management of bullet tunas and frigate mackerel (*Auxis* spp.) Diet studies and stomach content observations from HMS tournaments along the east coast suggest that the conservation of *Auxis* may be the most ecologically significant action that can be taken to ensure the future resilience of blue and white marlin, and wahoo—and the fisheries they support—within the U.S. Atlantic EEZ.

The question of whether to manage *Auxis* is properly before the council, and is a matter of coast wide importance. The agency's HMS Management Division manages tunas, but those species are delimited and enumerated by statute in the 16 U.S.C. 1802 MSA § 3 101-627 (44) definition of "tuna species" in the Magnuson Stevens Fishery Conservation and Management Act as Albacore, Bigeye, Bluefin, Skipjack, and Yellowfin. The agency's decision foreclosing the Mid-Atlantic Fishery Management Council from including *Auxis* in its Unmanaged Forage (UMF) amendment leaves the South Atlantic Fishery Management Council as the only regional council with standing to initiate management actions to implement basic protections for the genus.

The peer-reviewed diet study spanning 10-plus years of observations in North Carolina's Big Rock Tournament indicate that *Auxis* are the top prey species, by a wide margin, for both wahoo and blue marlin.[1] Billfish scientist John Graves, 12-term chair of the U.S. Advisory Committee to ICCAT, has examined stomach contents of billfish and pelagic gamefish at HMS tournaments in the mid-Atlantic region for over 25 years, and his observations further amplify the finding that *Auxis* are the top prey species for billfish and pelagic predators in the region. *Auxis* are widely distributed in tropical and sub-tropical oceans and seas around the world. International diet studies strongly reinforce

[1] Feeding Ecology of Blue Marlins, Dolphinfish, Yellowfin Tuna, and Wahoos from the North Atlantic Ocean and Comparisons with Other Oceans PAUL J. RUDERSHAUSEN,* JEFFREY A. BUCKEL, AND JASON EDWARDS, Transactions of the American Fisheries Society 139:1335–1359, 2010

the ecological findings in the U.S. Atlantic EEZ that *Auxis* are a top prey species for blue marlin.

Small pelagics, including *Auxis*, are intensively fished around the world. FAO studies of fisheries for small tunas indicate that *Auxis* have been fished on an annual scale as high as 20 million pounds in the Mediterranean, with those landings data characterized by FAO as "greatly underestimated."[2] Similarly, ICCAT papers on small tunas indicate other countries in the Atlantic have landed as many as 8 million pounds of *Auxis* annually.[3] ICCAT and FAO confirm that *Auxis* are caught with a wide variety of gear including pelagic trawl, gill nets, longlines, purse seines, drift nets, handline and other gear. Directed foreign fisheries and international commercial markets for the species are well established and the sale of the genus is actively promoted at international seafood trade shows by foreign producers.

The susceptibility of *Auxis* to the development of a directed fishery along the east coast of the U.S. is neither notional nor novel. The risk of the susceptibility of *Auxis* to intensive development is well embodied in the parallel case of chub, or "tinker" mackerel in the mid-Atlantic, and is broadly reinforced through the existence of large-scale international fisheries and markets for *Auxis*. In the case of chub mackerel, the fishery went from insignificant landings to over 5 million pounds in a single season in 2013, blindsiding the council. The fishery was developed intensively by a handful of high-horsepower trawlers capable of overtaking the fast swimming chub, some with vessel hold capacities in excess of 500,000 pounds. This development occurred instantaneously, effectively depriving the council of any opportunity to review the risks and benefits associated with scaling a fishery for small pelagics without the benefit of any science, management plan, or evaluation of tradeoffs and risks to existing regional fisheries with ecological connections to the prospective target species.

By considering protecting *Auxis* on a proactive basis, the council has put itself in an excellent position to avoid a similar outcome to chub mackerel. The chub fishery was developed in a free-for-all existing under the status quo patchwork of regulations. It would have been far better to have a protocol in place at the regional level to consider the proposed development of a fishery for an important prey species. Such an approach could provide for a reasoned, stepwise approach marked by more incremental development, data collection, stock biology, scientific investigation of ecological roles and tradeoffs, and an evaluation by the council of fit or potential conflicts with extant regional fisheries.

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[2] General Fisheries Commission For The Mediterranean, Studies and Reviews, No. 85, 2009, Regional Study On Small Tunas In The Mediterranean Including The Black Sea, ISSN 1020-9549.

[3] J. VALEIRAS and E. ABAD, ICCAT Manual, International Convention For The Conservation Of Atlantic Tunas, Chapter 2.1.10.2, September 4, 2006.

Key forage species play a critical role in facilitating offshore recreational and commercial fisheries for HMS species, and dolphin and wahoo. HMS predators are not uniformly distributed in the ocean—they are often tightly concentrated in spatially discrete areas as a function of water conditions and bait (forage) concentrations. The close ecological associations between predator and prey are amplified in the offshore environment, and recreational and commercial HMS (and wahoo and dolphin) fishermen have to find the water conditions and bait concentrations in order to have access to their apex predator targets. Spanish sardines concentrated at the surface, for example, can dictate the difference between a slow day and a halyard full of flags for the marlin fleet. With determinative associations that strong between prey and predator, the potential for disruption of our existing fisheries for apex predators associated with overlaying a new, intensive fishery for small pelagics warrants a thoughtful and cautionary protocol. The aforementioned clupeids, Spanish sardines, *Sardinella aurita*, are now protected from Hatteras to Connecticut as a consequence of the UMF amendment in the mid-Atlantic, but the ecologically important *Auxis* remain naked.

Three regional fisheries management councils have implemented ecosystem-level protections for previously unmanaged forage fish species. The strength of the U.S. regional fishery management system is apparent in all 3 actions, through which the councils engaged their constituents, staffs, and advisors to develop regionally appropriate management strategies to attenuate risks associated with unmanaged forage species within their respective management areas. The strategy enjoys the benefit of administrative, regulatory precedent. The Mid-Atlantic Fishery Management Council's UMF Amendment, approved by the agency in 2017, brought 14 taxa and over 50 species of forage under management. The council overwhelmingly recommended similar protections for *Auxis*, in recognition of their importance as forage in the offshore marine ecosystem. The agency declined the council's request to protect *Auxis* and their declination turned principally on 2 issues: 1) Notwithstanding their importance to HMS species and other predators in the council's management area, *Auxis* were not forage for any of the council's managed fisheries, and 2) the maximum size of *Auxis* exceeded the size range in the Mid-Atlantic SSC's forage definition, and the agency used that point to argue that the action did not satisfy National Standard 2 (NS2.)

Fortunately, the South Atlantic Fishery Management Council has a direct and compelling ecological connection to the management of *Auxis*; specifically, peer-reviewed stomach content analyses from within your management area indicate that *Auxis* are the top prey species for wahoo. As a secondary benefit, the same study indicates that *Auxis* are the top prey species for blue marlin. With respect to the Mid-Atlantic SSC's forage definition, they indicated a maximum size of ~25 CM. The Mid-Atlantic SSC's forage definition is not binding on the agency, especially in its consideration of whether to implement regulatory designations of *Auxis* as an Ecosystem Component species within the South Atlantic's Dolphin Wahoo Plan. The size of forage species question is appropriately considered on a case-by-case basis. In this case, it is also appropriate to

consider the prevalence of the prey species in the diet of the predator. In the case of the Big Rock Tournament study, *Auxis* comprised a very high proportion of the stomach contents of wahoo and blue marlin. These observations are similar to the billfish and tuna observations communicated to both councils by John Graves based on over 25 years of observations at HMS tournaments in the mid-Atlantic. This will be my 39th season of fishing for HMS and the modal size of *Auxis* we encounter in the mid-Atlantic is typically 10-12 inches, which helps to explain their role as forage in the diets of fast swimming wahoo and blue marlin. The proof of their importance as forage is apparent in the stomach content analyses. This evidentiary confirmation of their ecological importance should subordinate the agency's NS2 concerns over size with the Mid-Atlantic UMF decision, and provides a direct predator/prey ecological basis in the South Atlantic for consistency with NS2 that the Mid-Atlantic lacked in its portfolio of managed species.

The stakes of the question of whether to develop basic protections for *Auxis* are of singular scope and scale along the east coast of the U.S. Canvassing the worldwide fisheries for *Auxis*, there is no other location in their range that has such a highly developed and economically significant recreational fishery for billfish, dolphin, tunas, and wahoo. Unfortunately, there is no single repository or comprehensive assessment of the economics of these fisheries along the east coast, but many of us are familiar with the economic components of the fishery. The White Marlin Open, for example, generated $16 million of direct and indirect spending in 2009, according to an assessment by the Maryland Department of Economic Development. The NE Florida Wahoo Shootout, SC Wahoo Series, the SC Governor's Cup tournaments, The Big Rock Tournament, The Hatteras Marlin Club Tournament, Alice Kelly, Pirate's Cove Big Game Tournament, Virginia Beach Invitational, Virginia Beach Billfish Tournament, Mid-Atlantic 500,000, and many more tournaments extend the tally of HMS (and wahoo and dolphin) tournament economics to an level unrivalled anywhere in the world. Add to that the economics of the regional boat building industries building boats purposed for these fisheries in Florida, the Carolinas, and New Jersey, and the scale of the economics that depend on the performance of our HMS (and wahoo and dolphin) fisheries take on a very important sense of scale. There are over 3,500 Atlantic HMS Charter/Headboat permit holders[4] and over 20,000 additional vessels with Atlantic HMS Angling permits.[5] The economics of the region's commercial fisheries and distribution chain for dolphin, wahoo, tunas, and swordfish further augment the social and economic importance of

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[4] Atlantic Highly Migratory Species; Charter/Headboat Permit Commercial Sale Provision, A Rule by the National Oceanic and Atmospheric Administration on 12/06/2017, 82 FR 57543, Page: 57543-57551, CFR: 50 CFR 635, Agency/Docket Number: Docket no. 170901859-7999-02, RIN: 0648-BH19, Document Number: 2017-26275

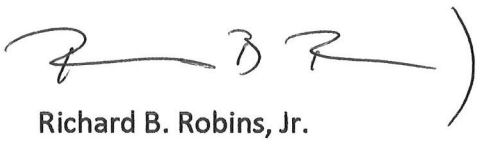
[5] DRAFT AMENDMENT 11 TO THE 2006 CONSOLIDATED ATLANTIC HIGHLY MIGRATORY SPECIES FISHERY MANAGEMENT PLAN, July 2018, Highly Migratory Species Management Division, Office of Sustainable Fisheries, National Marine Fisheries Service.

our HMS fisheries that are integrally connected to the structure and function of the offshore marine ecosystem.

As important as the fisheries are for offshore predator species along the east coast, the governance of the social, economic, biological and ecological intersections of these fisheries is disjointed. The science for predators and prey are typically generated by different shops, and the institutional integration between the agency's HMS Division, the regional fishery management councils, and their advisory bodies—including the respective SSCs—is both fragmented and limited. Successful consideration of these human and marine intersections necessitates an ecosystem approach to fisheries management. Overcoming these significant institutional obstacles to the implementation of ecosystem management requires a deliberate initiative by the council. Assessing risks and identifying priorities and strategies to mitigate risks within the council's managed fisheries is a proven way for the council to make an important and measurable step towards ecosystem management. In the instant case, *Auxis* are entirely unprotected, they are the #1 prey genus for wahoo and blue marlin, and they can be afforded basic protections through a coast wide designation as an Ecosystem Component species without disrupting any of the region's existing fisheries.

I appreciate the council's leadership on this issue and encourage the council to add *Auxis* as Ecosystem Component species to the Dolphin and Wahoo Fishery Management Plan.

Sincerely,



Richard B. Robins, Jr.
RBR/-

Florida Wildlife Federation

Keeping the Wild in Florida since 1936!

www.fwfonline.org

Preston T. Robertson | President & CEO
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AFFILIATED WITH THE NATIONAL WILDLIFE FEDERATION

May 13, 2019

Mr. Gregg Waugh
Executive Director, South Atlantic Fishery Management Council
4055 Faber Place Drive, Suite 201
Charleston, SC 29405

Re: Scoping for Adding Bullet and Frigate Mackerel as Ecosystem Component Species (ECS) to the Dolphin Wahoo Fishery Management Plan

Dear South Atlantic Fishery Management Council:

Please note the Federation's strong support for the addition of bullet and frigate mackerel as ECS to the Dolphin Wahoo Fishery Management Plan. Moreover, we encourage the Council to fully analyze all management options presented in the scoping document.

We recognize that managing forage fish for the needs of predators is necessary to support healthy marine ecosystems which benefit commercial and recreational anglers. As a founding member of the Florida Forage Fish Coalition, we are advocates for ecosystem-based management of forage fish such as Atlantic menhaden. In that relatively little scientific information exists on forage species, we engaged in the creation of the Forage Fish Research Program; this public-private partnership works to generate high-quality research and provide opportunities for the next generation of fisheries scientists.

Diet studies identify bullet and frigate mackerel as important prey for valuable recreational and commercial species. Studies conducted in the Carolinas show that these two forage species could represent 30-50 percent of the wahoo diet. Other species in Florida also feed on bullet and frigate mackerel, including blue marlin, dolphinfish and yellowfin tuna.

Florida's fisheries and coastal communities depend on an abundance of forage fish prey. As such, we ask that the Council please add bullet and frigate mackerel as ECS to the Dolphin Wahoo Fishery Management Plan and analyze all management options included in the scoping document.

We much appreciate the Council's consideration in this matter.

Sincerely,

Preston T. Robertson
President and CEO

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CONSERVATION THROUGH RESEARCH, EDUCATION AND ADVOCACY
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South Atlantic Fishery Management Council May 13, 2019
Dolphin and Wahoo - Amendment 10 Transmitted Via Portal

Dear Council/Committee Members:

The Billfish Foundation (TBF) is the leading, science-based, sportfishing conservation organization that advances the conservation and responsible management of billfish and tunas. Conserving billfish and tunas includes conserving their Important prey species, bullet and frigate mackerel, within the ecosystem where they interact. Billfish and tuna are prized targeted species for the recreational fishing community, a fishery dependent upon a healthy status and availability of bullet mackerel. A fishery who's well-being directly generates social and economic benefits to communities.

The predator prey relationship existing between Atlantic marlin and bullet mackerel and the competing relationship between marlin and wahoo chasing bullet mackerel are clear examples of ecosystem interaction where conservation is crucial. Part of these interactions often become apparent when an angler targets marlin and catches a wahoo because the two species were chasing the same prey mackerel. Within the NOAA/NMFS Ecosystem-Based Fishery Management Policy (2/5/2018) it states consideration be given to interacting elements within an ecosystem to support ecosystem functions, fishery sustainability and the well-being of fishing communities, social stability and economic benefits. https://www.fisheries.noaa.gov/resource/document/ecosystem-based-fisheries-management-policy. If bullet mackerel becomes overfished due to a failure to provide protections now, the status of Atlantic blue marlin can further be negatively impacted. The stock is already down by between 31% - 38%, based on the recent stock assessment. Taking action now to provide some protection for bullet and frigate mackerel through Option 3, in the current Scoping Document for Dolphin and Wahoo, will be consistent with the Ecosystem-Based Fishery Management Policy's positive goals of ecosystem functions, conservation of marlin and mackerel that help support fisheries and coastal communities.

With no current U.S. large-scale commercial or recreational fisheries targeting bullet or frigate mackerels, an excellent opportunity now exists for the Council, through Option 3, to help protect the species, insure ecosystem functioning and support fisheries. Action now can prevent a seriously challenging management problem if the mackerel are allowed to become overfished; it is harder to curb overfishing once it has been allowed to occur.

Thank you for the opportunity to share our perspective and recommendation. We encourage the Council members to protect bullet and frigate mackerel now in the Amendment to the Dolphin and Wahoo Fishery Management Plan, Option 3. Waiting will complicate the issue and do harm to the species, the fisheries and the related communities.

Respectfully,

Ellen Peel

Ellen Peel, President

May 14, 2019

Mr. Gregg Waugh
Executive Director, South Atlantic Fishery Management Council
4055 Faber Place Drive, Suite 201
Charleston, SC 29405

Re: Scoping for Adding Bullet and Frigate Mackerel as Ecosystem Component Species to the Dolphin Wahoo Fishery Management Plan

Dear South Atlantic Fishery Management Council Members,

On behalf of The Pew Charitable Trusts, please accept these comments during the scoping period to consider adding bullet mackerel (*Auxis rochei*) and frigate mackerel (*Auxis thazard*) as ecosystem component species to the Dolphin Wahoo Fishery Management Plan (FMP). We commend the South Atlantic Fishery Management Council (Council) for taking the first step to protect these important prey species and soliciting public input. Bullet and frigate mackerel, also called bullet and frigate tuna, play vital roles in the U.S. Atlantic marine ecosystem and the depletion or loss of these species could put the predators and commercially and recreationally valuable fisheries that depend upon them, such as wahoo, at risk. This simple step toward a comprehensive ecosystem-based approach to fisheries management (EBFM) could contribute significantly to the future of productive fisheries and a healthy marine ecosystem.

We support the continued development of this important action and offer the following recommendations:

Recommendation 1: Amend the Dolphin Wahoo FMP to designate bullet and frigate mackerel as ecosystem component species (ECS) with associated management measures.

Recommendation 2: Analyze all management options presented in the scoping document, including trip limits, annual vessel limits, a reporting requirement, a permit requirement, and a protocol for allowing the development of directed fisheries for EC species.

Background

Fisheries are a vital part of the South Atlantic region's economy. It is essential that we sustainably manage these resources to ensure abundant populations that can support thriving coastal communities. Identifying important predator-prey linkages and maintaining an adequate forage base to support dietary needs and production of valuable predator fish species are key components of ensuring abundant commercial and recreational fisheries.

Research shows that bullet and frigate mackerel, which are small tunas rather than true mackerels, are important prey for some of the region's most prized game fish. Data collected from tournaments, such as the Big Rock tournament in North Carolina and the SC Governor's Cup Billfishing Series, as well as other recreational landings show that bullet and frigate mackerel comprise 30-50% of the wahoo diet.[1,2] Wahoo showed the least diverse diet of any predator sampled in the studies, which suggests that wahoo may specialize in these two prey items. Bullet and frigate mackerel also appeared in the diets of popular pelagic predators such as dolphinfish, blue marlin, and yellowfin tuna, providing further evidence of their important role as forage species in the region.

Last year, we were pleased to see the Council approve the Fishery Ecosystem Plan (FEP) II, Implementation Plan, and Roadmap and formally recognized the importance of considering predator-prey relationships in management decisions. As stated in the Council's FEP II South Atlantic Food Webs and Connectivity policy statement, "A key tenet of ecosystem-based fisheries management (EBFM) is the consideration of potential indirect effects of fisheries on food web linkages when developing harvest strategies and management plans." An amendment to the Dolphin Wahoo FMP to protect bullet and frigate mackerel is a concrete way the Council can put these policies into action and continue to operationalize the FEP.

Recommendation 1: Amend the Dolphin Wahoo FMP to designate bullet and frigate mackerel as ecosystem component species (ECS) with associated management measures.

Given the clear scientific evidence showing the importance of bullet and frigate mackerel in the diets of wahoo and other pelagic predators, we encourage the Council to designate these important prey species as ECS with management measures. These species are currently unmanaged by any U.S. jurisdictional body. This simple designation will recognize their importance in the food web and help ensure any potential future growth is done sustainably from an ecosystem-based perspective. This is a straightforward management action that can be established with no impact on current commercial fisheries, but could have significant conservation benefits to protect wahoo and other pelagic predators.

Without these designations in place, fisheries have the potential to develop quickly and unsustainably. Though landings are relatively low, the chub mackerel fishery in the mid-Atlantic offers a cautionary tale of how a fishery can escalate without a council's awareness. In 2013, fishermen landed over 5 million pounds of chub mackerel – almost 32 times more than the 165,000 pounds landed the previous year.[3] The chub mackerel fishery is prosecuted by a handful of industrial-scale trawlers. The Mid-Atlantic Fishery Management Council had to act quickly to add chub mackerel to their existing Mackerel, Squid, and Butterfish FMP to ensure any future growth is sustainable.

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[1] Rudershausen, P. J., Buckel, J. A., Edwards, J., Gannon, D. P., Butler, C. M., & Averett, T. W. (2010). Feeding ecology of blue marlins, dolphinfish, yellowfin tuna, and wahoos from the North Atlantic Ocean and comparisons with other oceans. *Transactions of the American Fisheries Society*, 139(5), 1335-1359.

[2] Poland, S. J. (2014). Trophic dynamics of pelagic fishes in the U.S. South Atlantic inferred from diet and stable isotope analysis. Master's Thesis. University of North Carolina Wilmington. 76pp.

[3] MAFMC (2018). Chub Mackerel Amendment Briefing Materials. October meeting. Accessed at: http://www.mafmc.org/s/Tab10_Chub-Amendment_2018-10.pdf

Recommendation 2: Analyze all management options presented in the scoping document, including trip limits, annual vessel limits, a reporting requirement, a permit requirement, and a protocol for allowing the development of directed fisheries for EC species.

The scoping document presents several management options to improve reporting and monitoring of these species and to prevent large scale, unmanaged fisheries from developing before proper management actions can be put in place. The depletion of these species could have far-reaching ecological and economic impacts if it led to lower predator populations and commercial and recreational fisheries suffered as a result. Therefore, it is important to fully consider all management options at this early stage in the process.

We encourage the Council to fully analyze each of the options, consider trade-offs, and determine which would be viable management tools in the region.

Conclusion

Residents and visitors of the South Atlantic depend upon healthy fish populations and resilient marine ecosystems for nutrition, livelihoods, and recreation. Effective fisheries management requires managers to look at the bigger ecosystem picture and implement ecosystem-based fisheries management. This holistic approach considers the interconnectedness of fish populations and the environment surrounding them. Forage species are a critical piece of the ecosystem puzzle.

We appreciate the Council's efforts to add bullet and frigate mackerel as ecosystem component species to the Dolphin Wahoo FMP. We look forward to continuing to work with you on this and other measures to promote healthy South Atlantic fisheries.

Sincerely,

Lora M. Clarke, Ph.D.
Officer, U.S. Oceans

Leda A. Cunningham
Manager, U.S. Oceans

May 15, 2019

Jessica R. McCawley, Chair
Gregg Waugh, Executive Director
South Atlantic Fishery Management Council
4055 Faber Place Drive, Suite 201
North Charleston, SC 29405

RE: BULLET AND FRIGATE MACKEREL AS ECOSYSTEM COMPONENT SPECIES IN THE DOLPHIN WAHOO FISHERY MANAGEMENT PLAN

Dear Ms. McCawley and Mr. Waugh,

Wild Oceans was founded in 1973 as the National Coalition for Marine Conservation. Since that time, we have worked to bring together conservation-minded fishermen and pro-fishing environmentalists to promote a broad, ecosystems approach to fisheries management that reflects our expanding circle of concern for all marine life and the future of fishing.

We strongly support the South Atlantic Fishery Management Council moving forward with an amendment that would designate bullet mackerel (*Auxis rochei*) and frigate mackerel (*Auxis thazard*) as ecosystem component species in the Dolphin Wahoo Fishery Management Plan (FMP). In light of escalating demand for forage fish products,[1] prohibiting the development of fisheries for unmanaged prey species, like bullet and frigate mackerel, until adequate science is available to assess and avoid negative impacts, is a proactive, ecosystem-based management approach that will help ensure sustainable fisheries for the future. To this end, we recommend the following options be developed in an amendment to the Dolphin Wahoo FMP.

- **Establish an ecosystem objective to safeguard critical links between dolphin and wahoo and their prey. This objective would serve as the basis for designating bullet and frigate mackerel as ecosystem component (EC) species in the FMP.**

[1] 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.

Diet studies conducted in the South Atlantic have revealed a strong predator-prey connection between wahoo and frigate and bullet mackerel (*Auxis spp*.). *Auxis* comprise an impressive 30-50% of the wahoo diet.[2,3] These same studies found that *Auxis* contribute significantly to dolphinfish diets at times, even though dolphin are generalist feeders. Other species found to be highly reliant on bullet and frigate mackerel include blue marlin and yellowfin tuna, two species of great importance to the South Atlantic region.

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."[4] Once identified, councils should act to "protect their associated role in the ecosystem."[5] Arguably, *Auxis* populations directly support the growth and productivity of wahoo and dolphin, and it falls within the Council's purview to safeguard these unmanaged prey species from unregulated harvest in order to enhance OY for wahoo and dolphin stocks. Conserving *Auxis* will also help to maintain the pelagic food web structure on which the region's economically- valuable highly migratory species fisheries depend.[6]

- **Develop a suite of potential tools to discourage directed commercial fishing in the absence of science to ensure ecologically-sustainable fisheries.**

  Now is the time to freeze the fishing footprint for bullet and frigate mackerel, before directed fisheries for these vital unmanaged prey species develop. While there are no directed fisheries for *Auxis* within the United States, global commercial catch appears to be on the rise, increasing ten-fold over 15 years. The Food and Agriculture Organization of the United Nations (FAO) reports recent landings approaching 200,000 tons for both species combined.[7,8]

  Both the Pacific Fishery Management Council and Mid-Atlantic Fishery Management Council actions to conserve unmanaged forage species (designated as EC species) effectively prevent new directed fisheries by constraining catch to accommodate, but not exceed, existing levels of fishing. Determining a baseline of current fishing activity

[2] Rudershausen, P. J., Buckel, J. A., Edwards, J., Gannon, D. P., Butler, C. M., & Averett, T. W. (2010). Feeding ecology of blue marlins, dolphinfish, yellowfin tuna, and wahoos from the North Atlantic Ocean and comparisons with other oceans. *Transactions of the American Fisheries Society*, 139(5), 1335-1359.

[3] Poland, Stephen. (2018). Ecological importance of Auxis spp. as prey for dolphin and wahoo [PowerPoint Slides]. Retrieved from http://safmc.net/download/Briefing%20Book%20Council%20Mtg%20Dec%202018/TAB%2004%20-%20Dolphin%20Wahoo/TAB04_A02d_Presentation_Eco_Importance_of_Auxis.pdf.

[4] 50 CFR 600.310(d)(5)(iii)

[5] Ibid

[6] In the Southeast alone, Atlantic HMS angling supports 1,417 jobs and generates $115 million in sales. ftp://ftp.library.noaa.gov/noaa_documents.lib/.../atlantic-hms-rec-snapshot-2017.pdf

[7] FAO. "Species Fact Sheets: *Auxis thazard*." FAO Fisheries & Aquaculture - Aquatic Species, http://www.fao.org/fishery/species/2491/en.

[8] FAO. "Species Fact Sheets: *Auxis rochei*." FAO Fisheries & Aquaculture - Aquatic Species, http://www.fao.org/fishery/species/2492/en

related to bullet and frigate mackerel is essential to verifying and allowing for the continued operation of established small-scale fishing activities.

Tools to control catch that should remain on the table for development and analysis include a permitting system, landings limits, possession limits and annual vessel limits. Developing a variety of alternatives for stakeholder input will enable the Council to tailor a management system that best meets the needs of its constituents and achieves conservation goals. Options for fishery dependent and independent monitoring programs should also be developed to accurately track catch data and collect biological information.

- **Extend conservation measures throughout the FMP's geographic management unit, which covers the U.S. Exclusive Economic Zone (EEZ) from Maine through the Florida Keys.**

  Auxis range throughout the U.S. Atlantic Coast from Cape Cod to Florida, and conservation will be most effective if management measures encompass areas where their distribution overlaps with dolphin and wahoo. Collaboration with the New England Fishery Management Council and the Mid-Atlantic Fishery Management Council to conserve bullet and frigate mackerel should be pursued through the South Atlantic Council's Dolphin Wahoo Committee, which is comprised of representatives from all three councils. Anglers up and down the East Coast enjoy fishing for wahoo and dolphin and have a stake in this issue.

- **Outline the process for considering whether to allow a directed commercial fishery for bullet and frigate mackerel in the future, including specifying scientifically-rigorous criteria for evaluating ecological sustainability.**

  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)."[9]

[9] 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

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."[10] (emphasis added)

We urge the South 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, fulfilling all Magnuson Act requirements for a stock in need of conservation and management.

By taking action to conserve bullet and frigate mackerel, the South Atlantic Council is continuing the forward-thinking legacy of the original Dolphin Wahoo FMP, which from its onset sought to proactively maintain healthy fisheries. *Wild Oceans* appreciates the opportunity to provide input on this important initiative, and we look forward to working with you as the amendment progresses.

Sincerely,

Pam Lyons Gromen
Executive Director

[10] Ibid

May 16, 2019

Gregg Waugh
Executive Director
SAFMC
4055 Faber Place Drive, Suite 201
North Charleston, SC 29405

Dear Director Waugh:

The American Sportfishing Association (ASA) appreciates the opportunity to provide scoping comments to the South Atlantic Fishery Management Council (Council) on adding bullet and frigate mackerel (mackerel) to the Dolphin Wahoo Fishery Management Plan (DW FMP) as ecosystem components.

ASA is grateful for the Council's appreciation of the significant role of forage fish species in the successful management of its fisheries. Recent studies have indicated that mackerel are a component of dolphin diets and are the primary prey for wahoo, both of which are important recreational and commercial species in the South Atlantic. In addition, while commercial landings have been relatively low historically, there is a propensity for harvest variability (averaging 4,730 lbs per year and peaking at 52,000 lbs in 2012) and the potential for market development.

Because of the substantial relationship between mackerel and the all-important dolphin wahoo fishery and the possibility of increased harvest, we urge the Council to proactively address unmanaged bullet and frigate mackerel and explore appropriate management measures for them as ecosystem components. Potential options (3-8) as outlined in the scoping document should be considered, including trip limits, annual limits, reporting requirements, and developing a protocol for building directed fisheries.

ASA applauds the Council for their willingness to consider the inclusion of mackerel in the DW FMP and looks forward to working with you on this important issue.

Sincerely,

Kellie Ralston

Kellie Ralston
Southeast Fisheries Policy Director
American Sportfishing Association

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300 Gulf Stream Way, Dania Beach, Florida, 33004 U.S.A.
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May 14, 2019
Ms. Jessica McCawley, Chair
South Atlantic Fishery Management Council
4055 Faber Pl Dr #201
Charleston, SC 29405

Dear Ms. McCawley

Thank you for providing the International Game Fish Association the ability to comment on adding bullet and frigate mackerels as ecosystem component species to the Council's Dolphin Wahoo Fishery Management Plan. As you know, our organization has been involved in forage fish research and management for the last five years and I believe that this represents a significant opportunity for the Council to enact proactive measures for two incredibly important forage species. As such, we strongly support designating both species as ecosystem component species in the Dolphin Wahoo FMP.

Moving towards a holistic ecosystem-based fisheries management approach is a complex and difficult process. However, enacting management measures that protects the prey base of recreationally and commercially important species represents a big step in that direction. Bullet and frigate mackerel are currently unmanaged in federal waters and are thus vulnerable to the development of new fisheries that could not only negatively impact the abundance of these two species, but also a number of other economically important species that rely on them as a significant component of their diet.

Peer-reviewed research has demonstrated that bullet and frigate mackerel are the dominant prey species for wahoo and are also readily preyed on by dolphin, both of which are under the purview of the SAFMC. Strong predator-prey linkages such as this should not be ignored, as a single species approach to managing wahoo and dolphin may be rendered largely ineffective if the abundance of their dominant prey declines. The Mid-Atlantic Fishery Management Council made a big progress in protecting over 50 species of forage fish from overexploitation. Unfortunately, both bullet and frigate mackerel were excluded because they were deemed not to be forage for any of the species under the Council's purview. While this was indeed unfortunate, it now represents a significant opportunity for the SAFMC to take a leadership role in protecting these two vital forage species along the east coast of the United States.

While they are not managed by the SAMFC, blue and white marlin and yellowfin tuna have also been found to have strong linkages with bullet and frigate mackerel. Both blue and white marlin have been in a depleted condition for nearly three decades and are managed domestically by the NOAA Fisheries Highly Migratory Species Management

Division. However, NOAA Fisheries does not have management oversight over bullet or frigate mackerel.

Large highly migratory species such as billfish, dolphin, wahoo and tunas support vibrant domestic recreational fisheries that generate significant revenue. As such, protecting bullet and frigate mackerel will also help safeguard these important recreational fisheries that generate millions of dollars annually to the U.S. economy.

In closing, the International Game Fish Association strongly recommends that the SAFMC include both bullet and frigate mackerel as ecosystem component species to the Dolphin Wahoo Fishery Management Plan. We further recommend that these measures extend throughout the FMP's geographic management unit, which would protect these species from Maine through the Florida Keys in the U.S. EEZ.

Sincerely,

Jason Schratwieser
IGFA Conservation Director

WHERE ANGLERS COUNT

Angler Action Foundation

PO Box 1108, Lake Worth FL 33460
(561) 707-8923

May 16, 2019

Ms. Jessica McCawley, Chair

South Atlantic Fishery Management Council

4055 Faber Place Drive, Suite 201

Charleston, SC 29405

Dear Ms. McCawley,

Thank you for the opportunity to comment on scoping for adding bullet and frigate mackerel as ecosystem component species (ECS) to the Dolphin Wahoo Fishery Management Plan, currently under consideration by the South Atlantic Fishery Management Council (Council). We encourage the Council to add bullet and frigate mackerel as ECS to the Dolphin Wahoo Fishery Management Plan and analyze a full suite of related management options for public comment.

Research

Education

Conservation

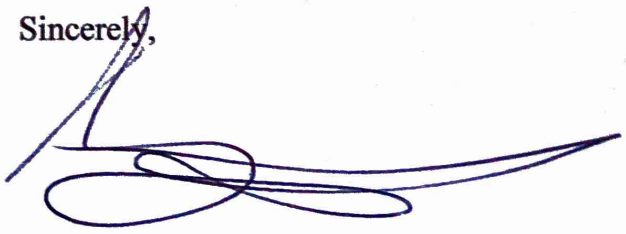
Angler Action Foundation is a founding member of the Forage Fish Coalition and a strong supporter of forage fish research and ecosystem-based management. Many of these small, schooling species support large commercial fisheries, but often at a significant cost to the health of the marine ecosystem and more valuable recreational and commercial fisheries targeting forage fish predators. The decades-long overfishing of Atlantic menhaden and recent rebuilding efforts provide a salient example of how important it is to manage forage fish species for their role as prey.

Bullet and frigate mackerel are currently a low volume and low value commercial fishery. However, diet studies indicate that these Auxis species are important prey for a variety of recreationally and commercially valuable coastal pelagic and highly migratory species. Research from the Carolinas highlight bullet and frigate mackerel as primary prey items for wahoo. Additional diet data, much of it collected from recreational fishing tournaments, identify Auxis spp., such as bullet and frigate mackerel, as prey items for blue and white marlin, dolphinfish and yellowfin tuna. Council action to manage these forage species could therefore provide significant benefits to the marine ecosystem and well-developed, existing fisheries, while having little or no negative impacts.

We understand adding bullet and frigate mackerel as ECS and associated management measures will have impacts. As such, we encourage the Council to analyze the full suite of management options presented in scoping for future public comment. This analysis will aid the Council and other fishery stakeholders in developing a strong final rule.

Thank you for this opportunity to provide comment and for your work on behalf of South Atlantic marine fisheries.

Sincerely,



Brett Fitzgerald

Executive Director

Angler Action Foundation