



Amendment 12 to the Fishery Management Plan for the Dolphin Wahoo Fishery of the Atlantic

(Add Bullet Mackerel and Frigate Mackerel as Ecosystem Component Species)

Decision Document

June 2020

Background

Summary of the South Atlantic Fishery Management Council's previous discussions on bullet mackerel and frigate mackerel

In March 2018, the Mid-Atlantic Fishery Management Council (Mid-Atlantic Council; MAFMC) requested that the South Atlantic Fishery Management Council (South Atlantic Council; SAFMC) consider managing frigate mackerel (*Auxis thazard*) and bullet mackerel (*Auxis rochet*) as ecosystem component (EC) species in the Fishery Management Plan (FMP) for the Dolphin and Wahoo Fishery of the Atlantic (Dolphin Wahoo FMP). The National Marine Fisheries Service (NMFS) disapproved inclusion of these two species in the Mid-Atlantic Council's Unmanaged Forage Omnibus Amendment. NMFS stated that the reasons for disapproval included the following: 1) inconsistency with National Standard 2 and an insufficient

connection to that Council’s FMPs; 2) not meeting the Mid-Atlantic Council Scientific and Statistical Committee’s (SSC) criteria for forage species; and 3) inconsistency with criteria for EC species as outlined in the NS guidelines at 50 C.F.R. § 600.305 that explains EC species should not include target stocks that are caught for sale or personal use. NMFS goes on to state that the mackerel species “are caught and sold by commercial vessels and are retained for personal use as bait by recreational fisheries in Federal waters, creating competing interests and conflicts among user groups, both of which are criteria that could exclude consideration of bullet and frigate mackerel as EC species under the National Standard Guidelines.”¹

At the December 2018 meeting, the Dolphin Wahoo Committee of the South Atlantic Council (Committee) received a presentation on the presence of the two mackerel species in the diets of dolphin and wahoo and discussed the request from the Mid-Atlantic Council to manage bullet mackerel and frigate mackerel as EC species in the Dolphin Wahoo FMP. At the March 2019 meeting, the Committee discussed a white paper on mechanisms and regulatory parameters for adding EC species to a FMP, ways that other Councils have addressed EC species in their FMPs, as well as background information on fisheries for bullet mackerel and frigate mackerel. The Committee voted to send the topic of adding bullet mackerel and frigate mackerel to the Dolphin Wahoo FMP as EC species out for scoping in the spring of 2019.

During scoping, 117 comments were received with the vast majority of commenters expressing support for the Council adding the two mackerel species as ecosystem components. Over the next several meetings, the Committee developed the amendment and discussed potential regulatory measures. Upon receiving guidance from NMFS on the Council’s ability to designate bullet mackerel and frigate mackerel as ecosystem component species and implement associated regulatory measures, the Committee decided to move forward with a single action in the amendment and selected a preferred alternative that would designate bullet mackerel and frigate mackerel as ecosystem component species in the Dolphin Wahoo FMP.

Action in this amendment

Amendment 12 to the Fishery Management Plan (FMP) for the Dolphin Wahoo Fishery of the Atlantic (Dolphin Wahoo FMP) proposes to add bullet mackerel (*Auxis rochet*) and frigate mackerel (*Auxis thazard*) to the Dolphin Wahoo FMP and designate them as ecosystem component species.

Objectives for this meeting

- Review the purpose and need for the amendment and make modifications as appropriate.
- Review options in the amendment.
- Consider timing of the amendment and approving the amendment for public hearings.

¹ The Federal Register Notice with NMFS approved and disapproved measures can be found at <https://thefederalregister.org/82-FR/40721>

Expected amendment timing

March 2020	NMFS provided guidance on parameters of the South Atlantic Council's ability to add EC species to an FMP and implement regulatory measures. The Committee reviewed the amendment and selected a preferred alternative.
June 2020	Review amendment and consider approving for public hearings.
September 2020	Review public hearing comments, modify the amendment as appropriate, and consider approving for formal review.

Purpose and Need statement

The *purpose* and *need* is to add bullet mackerel and frigate mackerel to the Fishery Management Plan for the Dolphin Wahoo Fishery of the Atlantic as ecosystem component (EC) species to **safeguard** **acknowledge** their ecological role as forage fish **for wahoo**.

IPT Recommendation/Comments:

- Since the amendment does not implement management or regulatory measures, the action taken becomes more to acknowledge the ecosystem role of bullet and frigate mackerel as forage fish.

Committee Action:

- APPROVE THE IPT'S SUGGESTED PURPOSE AND NEED STATEMENT (HIGHLIGHTED IN YELLOW).
- DO NOT APPROVE THE IPT'S SUGGESTED PURPOSE AND NEED STATEMENT (COMMITTEE TO SUGGEST MODIFICATIONS).

Action in the Amendment

Amendment 12 to the Fishery Management Plan (FMP) for the Dolphin Wahoo Fishery of the Atlantic (Dolphin Wahoo FMP) proposes to add bullet mackerel (*Auxis rochet*) and frigate mackerel (*Auxis thazard*) to the Dolphin Wahoo FMP and designate them as ecosystem component (EC) species.

Option (No Action). There are no ecosystem component species in the Dolphin Wahoo Fishery Management Plan **of the Atlantic**.

Preferred Option 2. Add bullet mackerel and frigate mackerel to the Dolphin Wahoo Fishery Management Plan **of the Atlantic** and designate the two mackerel species as ecosystem component species.

Discussion:

- The action is necessary to add bullet and frigate mackerel to the Dolphin Wahoo FMP as EC species.
- The jurisdictional issue discussed at previous meetings is not relevant to the current action proposed in DW 12. Bullet mackerel and frigate mackerel are being added to the DW FMP as EC species and the EC species designation applies where the DW FMP applies. There are no management measures in conjunction with this EC species designation status, therefore, there is no need to discuss the geographical jurisdiction of the EC species.
- Consideration of the ten factors listed in the National Standard General Guidelines (50 C.F.R §600.305(c)(1)) for deciding whether a species is in need of “conservation and management” is included in **Appendix 1**. The IPT discussed these ten factors and after initial analysis determined that bullet and frigate mackerel do not appear to be in need of “conservation and management” and thus have the potential to be designated as EC species.
- This action is similar to actions taken to list some snapper grouper species as EC species in the Snapper Grouper FMP and may elevate the importance of the species for research and monitoring purposes.
- Listing bullet mackerel and frigate mackerel as EC species may help achieve ecosystem management objectives which have been addressed in the Council’s revised Dolphin Wahoo FMP goals and objectives. This is consistent with the definition of EC species in the National Standard Guidelines (50 CFR 600.305(d)(13)).
- Commercial landings of bullet mackerel and frigate mackerel have been variable but typically are relatively low, averaging 1,939 pounds whole weight (lbs ww) over the past five years (2014 through 2018) for the entire U.S. Atlantic Ocean. These landings were reported only from the Mid-Atlantic and New England regions, except for 2018 when relatively minor landings of frigate mackerel were reported from the South Atlantic Region as well. (**Appendix 2**).
- Recreational landings have been variable, averaging 4,665 lbs ww for bullet mackerel, 324 lbs ww for frigate mackerel, and 4,989 lbs ww for both species combined annually over the past five years of available data (2014 through 2018). Recreational landings (by weight) of bullet mackerel and frigate mackerel within this time series have all occurred in the South Atlantic Region (**Appendix 2**).

Public Comments:

Scoping was held in May 2019 to gather public comments on the concept of adding bullet and frigate mackerel to the Dolphin Wahoo FMP as EC species. The Council received 117 comments during scoping, with the vast majority of commenters expressing support for the Council adding the two species as ecosystem components. A summary of the comments can be found by clicking [HERE](#).

SSC/Advisory Panel Recommendations:

Dolphin Wahoo Advisory Panel Review

The Dolphin Wahoo Advisory Panel (AP) met via webinar on August 22, 2019 and was provided information on the South Atlantic Council’s consideration of adding bullet mackerel and frigate mackerel as EC species in the Dolphin Wahoo FMP, including background

information on the two mackerel species and options that the Council is initially considering in Amendment 12.

The AP expressed general support for designating bullet mackerel and frigate mackerel as EC species, with some members noting that in their experience wahoo target the *Auxis* species as forage and fishermen use them as effective live baits as well as troll around mackerel schools when targeting wahoo. The AP felt that the South Atlantic Council should consider a “conservative approach” that would help ensure there are not major increases in the harvest of bullet mackerel and frigate mackerel.

The AP made the following motions:

MOTION: RECOMMEND THAT THE SOUTH ATLANTIC COUNCIL DESIGNATE BULLET AND FRIGATE MACKEREL AS ECOSYSTEM COMPONENT SPECIES IN THE DOLPHIN WAHOO FMP. ALSO THE AP ENDORSES THAT THE SOUTH ATLANTIC COUNCIL PROACTIVELY PROTECTS THE SPECIES AS PREY.
APPROVED BY AP (6 IN FAVOR/0 OPPOSED/1 ABSTENTION)

MOTION: CONSIDER REGULATORY ACTIONS IN CONJUNCTION WITH ADDING BULLET AND FRIGATE MACKEREL AS ECOSYSTEM COMPONENT SPECIES.
APPROVED BY AP (6 IN FAVOR/0 OPPOSED/1 ABSTENTION)

Habitat Protection and Ecosystem- Based Management Advisory Panel Review

At the November 2018 meeting of the Habitat Protection and Ecosystem-Based Management AP, presentations were made outlining the scientific data identifying the importance of frigate mackerel and bullet mackerel as forage for wahoo and dolphin. In keeping with renewed efforts by fisheries management entities to proactively address potential threats to currently unmanaged species in addition to the growing emphasis on developing ecosystem management approaches the AP recommended that the Council begin monitoring the bullet and frigate mackerel species.

This topic was revisited by the AP at the May 2019 meeting. The AP recommended that the Council take proactive actions for bullet mackerel and frigate mackerel due to sound existing science regarding their importance as prey for wahoo and dolphin. Additionally, the AP felt that a dedicated scientific study should target bullet mackerel and frigate mackerel in conjunction with other identified forage prey to enable the future development of comprehensive fisheries management plans.

Scientific and Statistical Committee Review

The South Atlantic Council’s SSC was presented background information on Amendment 12 during their October 2019 meeting. The SSC discussed the amendment and recommended adding bullet mackerel and frigate mackerel to the Dolphin Wahoo FMP as ecosystem component species. The SSC had no additional recommendations, noting that additional guidance from NMFS would be forthcoming that may affect any regulatory measures that the South Atlantic Council may consider.

Committee Action:

- APPROVE THE IPT'S SUGGESTED EDITS TO THE OPTIONS (HIGHLIGHTED IN YELLOW).
- DO NOT APPROVE THE IPT'S SUGGESTED EDITS TO THE OPTIONS.

Committee Action:

- APPROVE DOLPHIN WAHOO AMENDMENT 12 FOR PUBLIC HEARINGS.
- DO NOT APPROVE DOLPHIN WAHOO AMENDMENT 12 FOR PUBLIC HEARINGS.

DRAFT MOTION: APPROVE DOLPHIN WAHOO AMENDMENT 12 FOR PUBLIC HEARINGS TO BE HELD VIA WEBINAR WITH COMMENTS BROUGHT BACK TO THE SEPTEMBER COUNCIL MEETING.

Appendix 1. Draft Consideration of Factors Related to the Need for Conservation and Management of Bullet Mackerel and Frigate Mackerel.

Ecosystem component species are defined as “stocks that a Council or the Secretary has determined do not require conservation and management, but desire to list in a fishery management plan (FMP) in order to achieve ecosystem management objectives” (50 C.F.R §600.305(d)(13)). According to National Standards General guidelines as found in 50 C.F.R §600.305(c)(1) “...a Council should consider the following non-exhaustive list of factors when deciding whether additional stocks require conservation and management:

- (i) *The stock is an important component of the marine environment.*
- (ii) *The stock is caught by the fishery.*
- (iii) *Whether an FMP can improve or maintain the condition of the stock.*
- (iv) *The stock is a target of a fishery.*
- (v) *The stock is important to commercial, recreational, or subsistence users.*
- (vi) *The fishery is important to the Nation or to the regional economy.*
- (vii) *The need to resolve competing interests and conflicts among user groups and whether an FMP can further that resolution.*
- (viii) *The economic condition of a fishery and whether an FMP can produce more efficient utilization.*
- (ix) *The needs of a developing fishery, and whether an FMP can foster orderly growth.*
- (x) *The extent to which the fishery is already adequately managed by states, by state/Federal programs, or by Federal regulations pursuant to other FMPs or international commissions, or by industry self-regulation, consistent with the requirements of the Magnuson-Stevens Act and other applicable law.”*

If it is determined that a stock requires conservation and management, then “such stocks must have ACLs, other reference points, and accountability measures. Other stocks that are identified in an FMP (i.e., EC species or stocks that the fishery interacts with but are managed primarily under another FMP)...do not require ACLs, other reference points, or accountability measures” (50 C.F.R §600.310(d)(1)). The following section provides an initial analysis of the aforementioned factors:

i. *The stock is an important component of the marine environment.*

Stocks of bullet mackerel and frigate mackerel are an important component of the marine environment in some contexts. While the species may play a minor role in the context of all species in the North Atlantic, both species are an important component in the diet of wahoo. Bullet mackerel can reach about 20 inches in length and resemble frigate mackerel. They feed on a variety of prey, especially clupeoids (i.e. herrings and sardines), crustaceans, and squids. Bullet mackerel are found nearly worldwide in warm waters. In the western Atlantic, they are found from Cape Cod to the Gulf of Mexico and often form schools. Frigate mackerel can reach two feet in length and exhibit schooling behavior as well. Frigate mackerel feed on a variety of fish, squids, and small crustaceans. In the western North Atlantic frigate mackerel are mostly found from North Carolina to Florida.

Both bullet mackerel and frigate mackerel (*Auxis* spp.) have been identified in the diets of dolphin and wahoo in the North Atlantic. Wahoo particularly have shown a strong reliance on bullet mackerel and frigate mackerel, with studies indicating that the *Auxis* species are the most dominant forage species observed in the diets of wahoo. While dolphin tend to have more diverse diets and a lower reliance on the *Auxis* species, bullet mackerel and frigate mackerel have been identified as important prey for dolphin at times. Additionally, bullet mackerel and frigate mackerel have been identified as important forage for other offshore pelagic predatory species such as blue marlin and yellowfin tuna.

ii. *The stock is caught by the fishery.*

Compared to many managed species, annual landings of Atlantic bullet mackerel and frigate mackerel are low along the entire Atlantic coastline. Over the past 20 years of available data (1999 to 2018), average annual commercial landings of bullet mackerel and frigate mackerel were 4,395 pounds whole weight (lbs ww). There were no reported landings of bullet mackerel other than in 2018. Bullet mackerel and frigate mackerel are similar in appearance and it is possible that some landings of bullet mackerel may have been misidentified as frigate mackerel. Over this same time period, there were 1,189 lbs ww of bullet mackerel and 3,569 lbs ww of frigate mackerel landed on average recreationally each year. The extent to which these landings occurred in the dolphin wahoo fishery is unknown; however, it is unlikely that these species were often harvested in conjunction with efforts to harvest dolphin and wahoo, especially in the commercial sector. Bullet mackerel and frigate mackerel have largely been landed commercially in the Mid-Atlantic region using gill net, pound net, float trap, and otter trawl gears, none of which are allowable gears in the dolphin wahoo fishery.

iii. *Whether an FMP can improve or maintain the condition of the stock.*

Neither stock has been assessed to date; thus, the stock condition is not well understood for either species. There are low reported landings of either species in the U.S. Atlantic Exclusive Economic Zone. However, there is no other available information suggesting that the stocks may be in a depleted or otherwise diminished condition, or that management is necessary to address such conditions. While the condition of the stocks is not well understood, conservation and management under a FMP usually presents some potential to improve or maintain the condition of the stock. Unless harvest is occurring in state waters, management under a FMP would allow management measures to be adopted that would at least be able to maintain the current condition of the stocks.

iv. *The stock is a target of a fishery.*

Given the relatively low landings of either bullet mackerel or frigate mackerel, the stocks of these species do not seem to be the target of any fishery. The species appear to be incidentally caught when fishing for other species commercially. Recreationally, there have been very few trips intercepted that indicated targeting bullet mackerel or frigate mackerel.

v. *The stock is important to commercial, recreational, or subsistence users.*

The stocks of bullet mackerel and frigate mackerel do not appear to be directly important to commercial, recreational, or subsistence users given the relatively low landings of the two species. Such stocks may be indirectly important in supporting wahoo populations that are important to and harvested by some commercial, recreational, or subsistence users given the strong reliance of wahoo on bullet mackerel and frigate mackerel as forage species.

vi. *The fishery is important to the Nation or to the regional economy.*

Given the low landings of either bullet mackerel or frigate mackerel, the fisheries for these species do not appear to be of notable importance to the Nation or the regional economy. However, in light of the strong reliance of wahoo on bullet mackerel and frigate mackerel as forage species, these species appear to be important prey items for wahoo, which is subject to a fishery with much greater importance to the national and regional economy.

vii. *The need to resolve competing interests and conflicts among user groups and whether an FMP can further that resolution.*

There are no known competing interests or conflicts among user groups within the current fisheries harvesting bullet mackerel or frigate mackerel; therefore, conservation and management under an FMP would not have any competing interests to resolve.

viii. *The economic condition of a fishery and whether an FMP can produce more efficient utilization.*

Given the low landings for the species, it appears that the bullet mackerel and frigate mackerel stocks are not being directly utilized to a significant extent. Therefore, efficient utilization of these stocks is not likely to be improved by conservation and management under an FMP.

ix. *The needs of a developing fishery, and whether an FMP can foster orderly growth.*

There is currently no known developing fishery for bullet mackerel or frigate mackerel in the South Atlantic Region. Therefore, there are no needs of a developing fishery to consider and there appears to be no growth in which to promote order.

x. *The extent to which the fishery is already adequately managed by states, by state/Federal programs, or by Federal regulations pursuant to other FMPs or international commissions, or by industry self-regulation, consistent with the requirements of the Magnuson-Stevens Act and other applicable law.*

There are no known regulations in place to directly manage bullet mackerel or frigate mackerel on the state, federal, or international levels. These species may be indirectly managed through existing state or federal fisheries regulations such as gear restrictions or generic bag limits and size limits.

Appendix 2. Information on fisheries landing bullet mackerel and frigate mackerel.

According to data provided by a query of the landings database for the Atlantic Coast Cooperative Statistics Program (ACCSP), commercial landings of bullet and frigate mackerel over the past 20 years (1999 to 2018) were reported only from the Mid-Atlantic and New England regions, with the exception of 2018 when relatively minor landings of frigate mackerel were reported from the South Atlantic Region as well. Over this same 20-year time period, there were no reported landings of bullet mackerel other than in 2018. Bullet mackerel and frigate mackerel are similar in appearance and it is possible that some landings of bullet mackerel may have been misidentified as frigate mackerel. Additionally, federal observer data in the Mid-Atlantic Region has included records of small amounts of bullet mackerel caught in bottom trawl tows which resulted in landings of longfin squid, black sea bass, and summer flounder, indicating that the species are caught in some commercial fishing operations as bycatch in previous years.

Commercial landings of bullet mackerel and frigate mackerel have been variable but typically are relatively low, averaging 1,939 pounds whole weight (lbs ww) over the past five years (2014 through 2018) (**Table 1**) for the entire U.S. Atlantic Ocean. These landings were reported only from the Mid-Atlantic and New England regions, except for 2018 when relatively minor landings of frigate mackerel were reported from the South Atlantic Region as well. Additionally, the only recorded commercial bullet mackerel landings occurred in 2018 and were reported as caught from the New England region. All landings were reported as sold for food purposes (i.e. not for bait). The annual total number of vessels that landed bullet mackerel and frigate mackerel ranged from two to seven vessels and landings were sold through two to four dealers, depending on the year examined. Based on the relatively low annual landings in recent years, it appears that bullet mackerel and frigate mackerel are typically caught incidentally to other species. The annual average ex-vessel value and price over the 5-year time period was \$1,499 and \$1.29/lb ww (2018 dollars).

Table 1. Commercial landings, ex-vessel value, and ex-vessel price for bullet mackerel and frigate mackerel landed from the U.S. Atlantic Ocean, 2014-2018 (2018 dollars). * denotes confidential data.

Year	Landings (lbs ww)	Ex-Vessel Value	Average Ex-Vessel Price
2014	5,674	\$6,349	\$1.12
2015	*	*	*
2016	894	\$1,374	\$1.54
2017	*	*	*
2018	*	*	*
5-year average	1,939	\$1,499	\$1.29

Source: ACCSP Commercial Landings Query. Accessed March 29, 2020.

Recreational landings have been variable, averaging 4,665 lbs ww for bullet mackerel, 324 lbs ww for frigate mackerel, and 4,989 lbs ww for both species combined annually over the past five years of available data (2014 through 2018) (**Table 2**). Recreational landings (by weight) of bullet mackerel and frigate mackerel within this time series have all occurred in the South

Atlantic Region. Based on the relatively low annual landings, it appears that bullet mackerel and frigate mackerel are typically caught incidentally to other species. Fishermen have noted that these species are used as bait. In most circumstances, the catch estimates are accompanied by a relatively high percent standard error (PSE), which is likely reflective of relatively few intercepts.

Table 2. Recreational landings of bullet mackerel and frigate mackerel from the U.S. Atlantic Ocean, 1999-2018.

Year	Bullet Mackerel Landings (lbs ww)	PSE	Frigate Mackerel Landings (lbs ww)	PSE	Combined Landings (lbs ww)
2014	786	50.5	0	-	786
2015	0	-	1,618	95.3	1,618
2016	11,467	31.5	0	-	11,467
2017	10,247	30.9	0	0	10,247
2018	825	44	0	0	825
5-year average	4,665	-	324	-	4,989

Source: ACCSP Recreational Landings Query based on MRIP data. Accessed March 31, 2020.