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DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 648

[Docket No. 170713663-8176-02]

RIN 0648-BH04

Fisheries of the Northeastern United States; Atlantic Mackerel, Squid, and Butterfish Fisheries; Specifications

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Final rule.

SUMMARY: NMFS implements longfin squid, *Illex* squid, and butterfish specifications for the 2018 fishing year and projected specifications for fishing years 2019 and 2020.

This action is necessary to specify catch levels for the squid and butterfish fisheries based upon updated information on stock status. These specifications are intended to promote the sustainable utilization and conservation of the squid and butterfish resources.

DATES: Effective [*insert date 30 days after date of publication in the FEDERAL REGISTER*].

ADDRESSES: Copies of supporting documents used by the Mid-Atlantic Fishery Management Council, including the Environmental Assessment (EA), the Regulatory Impact Review (RIR), and the Regulatory Flexibility Act (RFA) analysis are available from: Dr. Christopher M. Moore, Executive Director, Mid-Atlantic Fishery Management

Council, 800 North State Street, Suite 201, Dover, DE 19901, telephone (302) 674-2331.

The EA/RIR/RFA analysis is also accessible via the Internet at

www.regulations.gov/#!docketDetail;D=NOAA-NMFS-2017-0089. Stock assessment reports and assessment update reports for all species are available online at:

www.nefsc.noaa.gov/saw/reviews_report_options.php. Performance reports for the

Atlantic mackerel, squid, and butterfish fisheries are available online at:

<http://www.mafmc.org/msb>.

FOR FURTHER INFORMATION CONTACT: Douglas Christel, Fishery Policy Analyst, (978) 281-9141.

SUPPLEMENTARY INFORMATION:

Background

The regulations implementing the Atlantic Mackerel, Squid, and Butterfish Fishery Management Plan (FMP) require the Mid-Atlantic Council's Atlantic Mackerel, Squid, and Butterfish Monitoring Committee to develop specification recommendations for each species based upon the ABC advice of the Council's SSC. The FMP regulations also require the specification of annual catch limits (ACLs) and accountability measure (AM) provisions for butterfish. Both squid species are exempt from the ACL/AM requirements because they have a life cycle of less than one year. In addition, the regulations require the specification of domestic annual harvest (DAH), domestic annual processing (DAP), total allowable level of foreign fishing (TALFF), joint venture processing (JVP), commercial and recreational annual catch targets (ACT), the butterfish mortality cap in the longfin squid fishery, and initial optimum yield (IOY) for both squid

species.

On December 13, 2017, NMFS published a proposed rule (82 FR 58583) for the 2018-2020 squid and butterfish specifications recommended by the Council. The proposed rule for this action included additional background on specifications and the details of how the Council derived its recommended specifications for longfin and *Illex* squid and butterfish. Those details are not repeated here. For additional information, please refer to the proposed rule for this action. Because we implemented Atlantic mackerel specifications for fishing years 2016-2018 on April 26, 2016 (81 FR 24504), this action does not consider revisions to existing Atlantic mackerel specifications.

Final 2018 and Projected 2019-2020 Illex Squid Specifications

Table 1. Final 2018 and Projected 2019 and 2020 *Illex* Squid Specifications in Metric Tons (mt).

OFL	Unknown
ABC	24,000
IOY	22,915
DAH/DAP	22,915

This action maintains the existing *Illex* squid ABC of 24,000 mt for 2018 and projects continuing that ABC for 2019 and 2020. The IOY, DAH, and DAP are calculated by deducting an estimated discard rate (4.52 percent) from the ABC. This results in a IOY, DAH, and DAP of 22,915 mt for 2018 that would be maintained for the 2019 and 2020 fishing years. These are the same specifications for the *Illex* squid fishery since 2012. The Council will review these specifications during its annual specifications process following annual data updates each spring, and may change its recommendations for 2019 or 2020 if new information is available.

Final 2018 and Projected 2019-2020 Longfin Squid Specifications

Table 2. Final 2018 and Projected 2019 and 2020 Longfin Squid Specifications in Metric Tons (mt).

OFL	Unknown
ABC	23,400
IOY	22,932
DAH/DAP	22,932

This action maintains the existing longfin squid ABC of 23,400 mt for 2018 and projects continuing that ABC for 2019 and 2020. The IOY, DAH, and DAP are calculated by deducting an estimated discard rate (updated from 4.08 to 2.0 percent) from the ABC. This results in a IOY, DAH, and DAP of 22,932 mt for 2018 that would be maintained for the 2019 and 2020 fishing years. This action also maintains the existing allocation of longfin squid DAH among trimesters according to percentages specified in the FMP (see Table 3). The Council will review these specifications during its annual specifications process following annual data updates each spring, and may change its recommendations for 2019 or 2020 if new information is available.

Table 3. Final 2018 and Projected 2019-2020 Longfin Quota Trimester Allocations.

Trimester	Percent	Metric Tons
I (Jan-Apr)	43	9,861
II (May-Aug)	17	3,898
III (Sep-Dec)	40	9,173

Final 2018 and Projected 2019-2020 Butterfish Specifications

Table 4. Final 2018 and Projected 2019-2020 Butterfish Specifications in Metric Tons (mt).

	2018	2019
OFL	28,628	37,637
39,592		
ABC = ACL	17,801	27,108

	32,063	
Commercial ACT	16,911	25,075
	28,857	
(ABC minus management uncertainty buffers for each year)		
DAH	12,093	20,061
	23,752	
(ACT minus butterflyfish cap and discards)		
Directed Fishery closure limit	11,093	19,061
	22,752	
(DAH minus 1,000 mt incidental landings buffer)		
Butterfish Mortality Cap (in the longfin squid fishery)	3,884	3,884
	3,884	

This action implements a butterflyfish ABC of 17,801 mt in 2018, and projected ABCs of 27,108 mt in 2019, and 32,063 mt in 2020. For butterflyfish, the ACL is set equal to the ABC. Deducting an estimate of management uncertainty from each year's ABC/ACL (5 percent in 2018, 7.5 percent in 2019, and 10 percent in 2020) results in commercial ACTs of 16,911 mt in 2018, and projected ACTs of 25,075 mt in 2019, and 28,857 mt in 2020. This action maintains the butterflyfish cap for the longfin squid fishery at the 2014 level of 3,884 mt for 2018 and projects maintaining that level for 2019 and 2020. Subtracting the existing butterflyfish mortality cap in the longfin squid fishery (3,884 mt), catch in other fisheries (637 mt), and an estimate of discards in the directed butterflyfish fishery (2.4 percent) results in a DAH of 12,093 mt in 2018, and projected DAHs of 20,061 mt in 2019 and 23,752 mt in 2020. This action also maintains the existing allocation of the butterflyfish mortality cap among longfin squid trimesters according to percentages specified in the FMP (see Table 5). Finally, this action maintains the existing 1,000-mt set aside in each year to account for incidental landings of butterflyfish after a closure of the directed fishery. We will close the directed butterflyfish

fishery once 11,093 mt is caught in 2018. The Council will review these specifications during its annual specifications process following annual data updates each spring, and may change its recommendations for 2019 or 2020 if new information is available.

Table 5. Final Trimester Allocation of Butterfish Mortality Cap on the Longfin Squid Fishery for 2018 and Projected Allocations for 2019 and 2020.

Trimester	Percent	Metric Tons
I (Jan-Apr)	43	1,670
II (May-Aug)	17	660
III (Sep-Dec)	40	1,554
Total	100	3,844

Comments and Responses

NMFS received 10 comments in response to the proposed rule for this action. Two comments were from industry groups, the Garden State Seafood Association (GSSA) and Seafreeze, Ltd., Eight comments were from individuals. Five comments received were not relevant to the proposed action and are not included in this final rule.

Comment 1: One individual requested that NMFS post weekly butterfish landings, including butterfish landings against the butterfish mortality cap in the longfin squid fishery, on the Greater Atlantic Regional Fisheries Office (GARFO) quota monitoring website so that the fishing industry has a better understanding of fishery operations during the year.

Response: We post weekly landings of all species on the GARFO quota monitoring website unless doing so violates Magnuson-Stevens Act requirements to protect the confidentiality of submitted data. We currently post butterfish landings against the mortality cap in the longfin squid fishery on the GARFO website. While we

had previously posted landings from the directed butterfish fishery, a recent review of landings data indicated that doing so is no longer consistent with the Magnuson-Stevens Act confidentiality requirements, as posting landings may inadvertently reveal landings or dealer purchases by an individual entity. Current regulations require us to reduce butterfish possession limits when landings reach the butterfish closure threshold and the DAH. Moving forward, we will post butterfish landings once catch has reached 75 percent of the closure threshold. This will inform the public of cumulative butterfish landings and allow fishery participants to plan operations sufficiently in advance of any required adjustments to possession limits without compromising efforts to protect the confidentiality of any entity's butterfish landings or purchases.

Comment 2: One individual stated generally that too many fish are being caught, resulting in overfishing and the possibility of resource decline into extinction and negative impacts to predators, recommending that quotas for all species should be reduced by 50 percent.

Response: Longfin squid is not overfished and is considered to be lightly exploited. *Illex* squid abundance in 2016 was near the long-term median, with the SSC suggesting that annual landings of up to 26,000 mt do not appear to have harmed the stock. Therefore, there is no scientific evidence to suggest that either of these species are subject to overfishing or that quota reductions for these species are warranted at this time. For butterfish, the latest stock assessment update indicated that the fishing mortality rate is well below the overfishing limit and that biomass is well above the target level in 2016. The SSC recommended, and this final rule implements, a 42-percent reduction in the

2018 butterfish ABC based on concerns regarding declining trends in both biomass and recruitment in recent years. The 2018-2020 specifications for these species should ensure sufficient forage for predators. Extinction is not a concern with these species.

Comment 3: One individual expressed concern with the substantial increase in butterfish ABCs in 2019 and 2020, stating that these increases are based on an expectation that a higher historic recruitment rate will return in those years despite reductions in observed recruitment in recent years. The individual suggested that there is no scientific evidence that historic recruitment will occur in 2019 or 2020 based on the declining trend in recruitment in recent years.

Response: We disagree. We recognize the recent declining trend in butterfish recruitment and its effects on spawning stock biomass and projected ABCs. We support the use of the low 2016 recruitment estimate to inform SSC recommendations for the 2018 butterfish ABC as it represents the best scientific information available. As documented in the 2017 butterfish assessment update, we know that terminal year recruitment estimates are highly uncertain. In 2014, the 58th Stock Assessment Workshop (SAW 58) (see ADDRESSES) concluded that the 2012 recruitment estimate (terminal year for that assessment update) was the lowest in the time series. Updated data have substantially raised the 2012 recruitment estimate, and 2013-2015 recruitment was estimated to be much higher than the 2012 estimate. The SSC recognized that predicting future recruitment is very difficult, as the butterfish stock has experienced years of low recruitment followed by substantially higher recruitment (see 2017 butterfish assessment update). They preferred to use yearly recruitment estimates taken from the entire time

series (1989-2016) to project 2019 and 2020 butterfish ABCs because the entire time series includes recruitment estimates from both high and low years. This is a practice used in other stock assessments, and was reviewed as part of the 2017 butterfish assessment update and SSC deliberations. Therefore, the use of time series recruitment to project 2018 and 2019 butterfish ABCs is consistent with the best scientific information available. Further, the Council expects to review future butterfish ABCs as additional information on butterfish recruitment becomes available. The Council could adjust 2019 and 2020 projected specifications if new information indicated recruitment conclusions for this action need to be updated.

Comment 4: One individual indicated that the butterfish ABC reduction is unnecessary due to the short lifespan of the species and recent mechanical problems and inefficiencies with the Northeast Fisheries Science Center's survey vessel. The GSSA and Seafreeze, Ltd., also opposed the proposed butterfish specifications. Instead, they supported an alternative that would specify a constant ABC of 24,500 mt for 2018-2020. They highlight that butterfish is neither overfished, nor subject to overfishing, and assert that it is unlikely that butterfish biomass will be reduced in half because of poor recent recruitment. Similar to other short-lived species, they suggest that butterfish may lack a strong stock-recruit relationship, noting that butterfish recruitment has been highly variable and unpredictable, with terminal year recruitment estimates previously underestimated. They contend that basing ABC decisions on recruitment alone in this action is not scientifically sound. Further, they state that without the fall 2017 NMFS survey to update recruitment estimates, the Council cannot verify the low 2016

recruitment estimate or adjust the 2019 ABC based on updated data. Similar to past SSC decisions to phase in summer flounder quota reductions, they argue that such an alternative would avoid substantially reducing commercial butterfish quotas unnecessarily and provide for a more stable fishery.

Response: We agree that butterfish is neither overfished, nor subject to overfishing and that recruitment is highly variable. According to SAW 58, because butterfish are a short-lived species that are typically dominated by one or two yearclasses of fish, recruitment has a strong influence over biomass. As a result, declining recruitment translates into declining biomass. The most recent stock assessment update showed continuing declines in both recruitment and biomass since the late 1990s. Catches of age zero butterfish were nearly absent in the fishery during 2016, have declined in the NMFS surveys since peaking in the mid 1990s, and were the lowest in the fall Northeast Area Monitoring and Assessment Program (NEAMAP) time series in 2016. Although recent NEAMAP survey indices have been more variable than NMFS surveys, a similar downward trend in both the fall NEAMAP and NMFS survey indices for butterfish have been observed since 2007 and 1989, respectively. These declining trends in both recruitment and spawning stock biomass, as documented in the best scientific information available, formed the basis for the SSC's recommended 2018 butterfish ABC of 17,801 mt.

As noted above in the response to Comment 3, terminal year recruitment estimates have been previously underestimated and revised upward based on additional data. We will not know whether the 2016 recruitment estimate was similarly

underestimated until additional data are available. We agree that mechanical problems with the RSV *Henry B. Bigelow* will prevent us from updating recruitment estimates from the fall NMFS survey and may limit the information available to the Council to adjust the 2019 or 2020 ABCs, as appropriate. However, these problems occurred after the completion of the butterfish assessment update and do not affect the 2018-2020 butterfish ABCs recommended by the Council. Further, an updated estimate of 2016 recruitment is unlikely to substantially affect the declining trend observed in recent years. The Council can revise future butterfish ABCs based on any available information, including NEAMAP data, during the required annual review of these specifications.

The SSC considered the constant ABC alternative advocated by the GSSA and Seafreeze, Ltd., but did not recommend it based on declining trends in biomass and recruitment. The SSC recognized that a stable ABC approach has been used in other fisheries, but noted that there are different needs for different species and that a stable ABC approach was not appropriate for butterfish for biological reasons. At the May 2017 meeting, the SSC also admitted that they lacked the social science expertise and Council guidance necessary for evaluating economic tradeoffs between the different alternatives and the associated impacts to fishing communities. The Council considered the SSC's input during their June 2017 meeting, and chose to follow the recommendations of the SSC instead of adopting a different suite of butterfish ABCs. We did not receive sufficient information through public comment to challenge recommendations by either the SSC or the Council, and have, therefore, implemented the proposed butterfish ABCs through this final rule.

Comment 5: The GSSA and Seafreeze, Ltd., highlighted seemingly conflicting estimates of the probability of overfishing butterfish between the SSC report, the proposed rule, and supporting materials for the Council's June 2017 meeting. Specifically, they note that the SSC report and the proposed rule state that the probability of overfishing (the P* metric) is estimated at 0.08, but the Council meeting supporting materials indicated $P^* = 0.34$. They sought clarification as to the correct probability of overfishing butterfish.

Response: The correct P* value is 0.34. In other words, there is an average 34 percent probability that the proposed butterfish ABCs would result in overfishing during 2018-2020 based on the SSC's judgement of true underlying assessment uncertainty. The 0.08 probability of overfishing is the average probability of overfishing that the projection model calculates when the proposed ABCs are entered. The 0.08 probability assumes that the model fully captures all elements of uncertainty. However, the SSC believes there is additional uncertainty that is not fully captured in the model. Therefore, the model is rerun using a 100 percent coefficient of variation (a measure of uncertainty – the higher the number, the higher the uncertainty) to estimate the probability of overfishing. This generated an average P* of 0.34 for the proposed 2018-2020 butterfish ABCs, which is consistent with the Council's policies for setting ABCs.

Comment 6: The GSSA and Seafreeze, Ltd., asked why the proposed butterfish ABCs have a P* value less than 0.4, when the Council's risk policy indicates that stocks with a typical life history should have a 40-percent chance of overfishing ($P^* = 0.4$) when the stock is above the biomass target. They note that in 2016, butterfish was at 141

percent of the target biomass and that the Council should have used a $P^* = 0.4$ to calculate butterflyfish ABCs.

Response: As noted in the response to Comment 4 above, while the 2016 spawning stock biomass estimate was above the target level, the 2017 butterflyfish assessment update projected that butterflyfish spawning stock biomass would decline to below the target level (45,616 mt) until 2020. The P^* values for 2018 and 2019 ABCs are 0.28 and 0.35, respectively, because the biomass is projected to be less than the biomass target in those years. In 2020, $P^* = 0.4$ because biomass was estimated to be above target levels. This is consistent with the Council's risk policy. The average of these values is 0.34, below 0.4, due to the lower biomass estimates in 2018 and 2019.

Comment 7: Noting that the fall 2017 NMFS survey was not conducted, the GSSA and Seafreeze, Ltd., asked for data from the recruitment indices from fall 2017 NEAMAP. They asked if integrating the NEAMAP and state survey recruitment and biomass indices would change the butterflyfish ABC projections.

Response: The fall 2016 NEAMAP indices were included in the 2017 butterflyfish assessment update model runs and presented to the SSC when they considered butterflyfish ABCs proposed in this action. As noted above in the response to Comment 4, the fall 2016 NEAMAP recruitment indices were the lowest in the time series. Fall 2017 NEAMAP indices are not available at this time but will be considered in the next assessment or update. State survey data were previously considered in the last assessment but were not used because they were not representative of the entire stock area. During the June 2017 Council meeting, the Council asked if state survey data could

be considered, but they were informed that a benchmark assessment would be needed to reconsider state survey data in a future assessment.

Comment 8: The GSSA and Seafreeze, Ltd., objected to the fact that the projections used to calculate butterfish ABCs in the 2017 assessment update assumed that the fishery would fully harvest the DAH of 20,652 mt during 2018-2020. They indicated that this assumption is completely erroneous and assumes that the fishing mortality rate would exceed the known rate by several orders of magnitude. They asked about the impact that this assumption has on the outcome of the specifications process.

Response: The 2017 fishing year was still ongoing when the SSC and Council recommended butterfish ABCs. Projections for 2018-2020 ABCs require some estimate of butterfish landings during each year. As a conservative approach, the projections assumed that 2017 landings would be equal to the DAH for 2017 – the bridge year between the assessment update and when proposed ABCs would be implemented – and that landings would equal the ABC in 2019 and 2020. These assumptions are consistent with standard practice. We agree that it is unlikely that the fishery would have caught 20,652 mt during 2017. Preliminary estimates indicate that only about 3,700 mt were landed during 2017, although discards are still unknown at this time. However, the projections were also run using several other estimates of butterfish landings, including 3,139 mt (the fishery landings when the projections were run), 6,278 mt (double the landings when projections were run), and 9,100 mt (2014 DAH). All of these sensitivity runs resulted in negligible changes on the resulting spawning stock biomass estimates used to calculate ABCs. Therefore, it is unlikely that an updated catch estimate would

have substantially changed the projected butterfish ABCs.

Comment 9: One individual indicated that NMFS is not recognizing shifts in economic, governmental, and ecological trends in setting future catch levels. The individual suggested that changes in tax law, economic booms, the impacts of offshore drilling, relative profitability between small and large operations, technological innovation, and demand may all affect future estimates of fish stocks and the appropriate levels of catch in future years.

Response: Each year, Council staff develop a fishery information document summarizing trends in fishery landings, revenues, and participation. In addition, the Council's Atlantic Mackerel, Squid, and Butterfish Advisory Panel meets to develop and discuss a fishery performance report. This report describes the factors that influence fishing effort and landings, including markets, environmental/ecological issues (weather, temperature, availability), management measures, or other issues relevant to the fishery's operations (see ADDRESSES). This input is used to provide context to fishery operations and help the Council and its SSC understand catch patterns when setting ABCs in each fishery. Therefore, we are considering many of the factors identified by the commenter when setting catch levels. Further, the profitability of affected entities, including both large and small operations, are explicitly considered in the National Environmental Policy Act and associated economic analyses conducted in support of this action and included in the EA prepared by Council staff (see ADDRESSES).

Classification

Pursuant to section 304(b)(1)(A) of the Magnuson-Stevens Act, the NMFS

Assistant Administrator has determined that this final rule is consistent with the Atlantic Mackerel, Squid, and Butterfish FMP, other provisions of the Magnuson-Stevens Act, and other applicable law.

This final rule has been determined to be not significant for purposes of Executive Order 12866.

This final rule is not an Executive Order 13771 regulatory action because it is not significant under Executive Order 12866.

The Chief Counsel for Regulation of the Department of Commerce certified to the Chief Counsel for Advocacy of the Small Business Administration during the proposed rule stage that this action would not have a significant economic impact on a substantial number of small entities. The factual basis for the certification was published in the proposed rule and is not repeated here. No comments were received regarding this certification and no other information has been obtained that suggests any other conclusion. As a result, a regulatory flexibility analysis was not required and none was prepared.

Authority: 16 U.S.C. 1801 *et seq.*

Dated: February 23, 2018.

Samuel D. Rauch III,
Deputy Assistant Administrator for Regulatory Programs,
National Marine Fisheries Service.

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