



DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 648

[Docket No. 110707371-2346-03]

RIN 0648-BB28

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

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

ACTION: Final rule.

SUMMARY: NMFS is implementing final 2012 specifications and management measures for the butterfish fishery, which is managed as part of the Atlantic Mackerel, Squid, and Butterfish Fishery Management Plan. This action requires a 3-inch (76-mm) minimum codend mesh size in order to possess more than 2,000 lb (0.9 mt) of butterfish (up from 1,000 lb (0.45mt)). These specifications and management measures promote the utilization and conservation of the butterfish resource.

DATES: Effective on [insert date of filing for public inspection with the Office of the FEDERAL REGISTER].

ADDRESSES: Copies of the 2012 specifications document, including the Environmental Assessment (EA), is available from John K. Bullard, Northeast Regional Administrator, National Marine Fisheries Service, 55 Great Republic Drive, Gloucester, MA 01930. This document is

also accessible via the Internet at <http://www.nero.noaa.gov>. NMFS prepared a Final Regulatory Flexibility Analysis (FRFA), which is contained in the Classification section of this rule. Copies of the FRFA and the Small Entity Compliance Guide are available from: Daniel S. Morris, Acting Regional Administrator, National Marine Fisheries Service, Northeast Region, 55 Great Republic Drive, Gloucester, MA 01930-2276, or via the internet at <http://www.nero.noaa.gov>.

FOR FURTHER INFORMATION CONTACT: Aja Szumylo, Fishery Policy Analyst, 978-281-9195, fax 978-281-9135.

SUPPLEMENTARY INFORMATION:

Background

On October 26, 2011, NMFS published a proposed rule (76 FR 66260) that included the Mid-Atlantic Fishery Management Council's (Council) preferred butterfish specifications. Though an overfishing limit (OFL) was not able to be established for butterfish based on the most recent butterfish assessment, the Council's preferred specifications would have doubled the butterfish acceptable biological catch (ABC) for fishing year 2012 over the status quo level (to 3,622 mt). A public comment on the proposed rule submitted by the Herring Alliance, an environmental group that represents 52 organizations concerned about the status of the Atlantic coast's forage fish, accurately stated that the proposed increase to the butterfish ABC is prohibited by the Council's former risk policy. That policy, at 50 CFR 648.21(d), states: "If an OFL cannot be determined from the stock assessment, or if a proxy is not provided by the Scientific and Statistical Committee (SSC) during the ABC recommendation process, ABC levels may not be increased until such time that an OFL has been identified." To remedy this situation, NMFS published an interim final rule for butterfish specifications (March 21, 2012; 77

FR 16472) that temporarily reinstated the status quo butterfish specifications (1,811 mt ABC; 1,630 mt ACT; 500 mt domestic annual harvest (DAH) and domestic annual processing (DAP); 1,436 mt butterfish mortality cap) and allowed for public comment.

The interim final rule was published to address the procedural impediment to finalizing the original proposed butterfish specification identified in the comment noted above. This action finalizes the interim rule. Because NMFS already proposed the specifications and management measures contained in this final rule at the initial proposed rule stage, and the public already had an opportunity to comment on the proposed specifications (October 26, 2011; 76 FR 66260), there is no need to re-propose these final specifications. NMFS used the interim final rule to accept comments on the lower specification, but also responded to comments on the higher proposed specification in the interim final rule (March 21, 2012; 77 FR 16472). Comments on the interim final rule are addressed in the Comments and Responses section of this rule.

Since the publication of the interim final rule for butterfish specifications, the Council recommended, and NMFS has approved, Framework Adjustment 6 (Framework 6) to the Atlantic Mackerel, Squid, and Butterfish Fishery Management Plan. Framework 6 adjusts the Council's risk policy to allow the SSC to propose ABC increases for stocks that have stable or increasing trends in abundance, and for which there is robust scientific information to suggest that an increased ABC will not lead to overfishing. In accordance with the adjustments in Framework 6, the SSC reaffirmed its original 2012 butterfish ABC recommendation of 3,622 mt (initially recommended at the SSC's May 2011 meeting to recommend 2012 butterfish specifications) at its May 2012 meeting.

Following the SSC’s reaffirmation of the 2012 butterfish specifications, the Council reaffirmed its original suite of recommended specifications at its June 2012 meeting. Therefore, this action now sets butterfish specifications in accordance with the Council’s original recommendation for the remainder of the 2012 fishing year (until December 31, 2012). The butterfish ABC and ACL are specified at 3,622 mt, and the ACL is specified at 3,260 mt (reduced 10 percent from ACL). This action allocates 2/3 of butterfish catch (based on the 1999-2008 average) as discards, and maintains the allocation of 15 mt for Research Set-Aside (RSA) specified in the interim final butterfish specifications (March 21, 2012; 77 FR 16472), which results in a DAH and DAP of 1,072 mt (3,260 mt minus 2,173 mt discards minus 15 mt RSA). The total allowable level of foreign fishing (TALFF) for butterfish is only specified to address bycatch by foreign fleets targeting mackerel TALFF. Because there was no mackerel TALFF specified in the final 2012 specifications for mackerel, butterfish TALFF is also set at zero.

Table 1. Final Specifications, in Metric Tons (mt), for Butterfish for the 2012 Fishing Year.

Specifications	Butterfish
OFL	Unknown
ABC	3,622
ACL	3,622
ACT	3,260
RSA	15
DAH/DAP	1,072
JVP	0
TALFF	0

The butterfish mortality cap in the longfin squid fishery is specified at 2,445 mt (75 percent of 3,260 mt). If the butterfish mortality cap is harvested during Trimester I (January-April) or Trimester III (September-December), the directed longfin squid fishery will close for the remainder of that trimester.

The 2012 butterfish mortality cap is allocated by Trimester as follows:

Table 2. Trimester Allocation of Butterfish Mortality Cap on the Longfin Squid Fishery for 2012

Trimester	Percent	Metric Tons
I (Jan-Apr)	65	1,589.25
II (May-Aug)	3.3	80.69
III (Sep-Dec)	31.7	775.06
Total	100	2,445

Finally, this action implements a 3-inch (76-mm) minimum codend mesh size requirement for vessels possessing 2,000 lb (0.9 mt) or more of butterfish (up from 1,000 lb (0.45 mt) in 2011), in order to allow more butterfish that otherwise would have been discarded to be landed.

In its reaffirmation of its recommended 2012 butterfish ABC of 3,622 mt, the SSC also noted that the rationale for the 2013 butterfish ABC recommendation provides additional support for its 2012 butterfish ABC recommendation. The SSC's final butterfish ABC recommendation for 2013 is 8,400 mt, based on an OFL proxy of 16,800 mt. A detailed summary of the SSC's rationale for its 2013 butterfish ABC recommendation is available in its May 2012 Report (available, along with other materials from the SSC discussion, at: http://www.mafmc.org/meeting_materials/SSC/2012-05/SSC_2012_05.htm), and will be

discussed in the documentation for the 2013 MSB specifications recommendations. It is summarized below because of its relevance to the SSC's reaffirmation of its 2012 butterfish ABC recommendation.

Because of the uncertainty in the most recent butterfish stock assessment, on April 6, 2012, the Council requested that NMFS Northeast Fisheries Science Center (NEFSC) offer additional analysis of the butterfish stock to aid the SSC in the ABC setting process for the 2013 fishing year. The NEFSC analysis (May 2, 2012, also available with the SSC meeting report) applied ranges of a number of different factors (such as natural mortality and survey catchability) to develop a range of likely stock biomasses that would be consistent with recent survey results and observed butterfish catch. The NEFSC also examined a range of fishing mortalities that would result from these biomass estimates. The SSC used the NEFSC analysis, along with guidance (Patterson, 1992) that suggests maintaining a natural mortality/fishing mortality ratio of 67 percent for small pelagic species, to develop a proxy OFL for butterfish. Consistent with the 2010 butterfish assessment, the SSC assumed a high level of natural mortality ($M = 0.8$) and applied the 67-percent ratio to result in a fishing mortality of $F = 0.536$, which the SSC used as a proxy maximum fishing mortality rate threshold for butterfish. In the NEFSC analysis, a catch of 16,800 mt would only lead to fishing mortality rates higher than $F = 0.536$ (i.e., rates consistent with overfishing based on the maximum fishing mortality rate threshold proxy) under very extreme assumptions. The SSC therefore adopted 16,800 mt as a proxy OFL.

The SSC buffered the proxy OFL by 50 percent to reach the butterfish ABC of 8,400 mt. Its justification for this buffer noted that the short life history of butterfish gives limited time for management to respond to adverse patterns, that recruitment of butterfish is highly variable and

uncertain, that the stock status of butterfish is unknown, and that butterfish are susceptible to environmental and ecosystem variability, in particular inter-annual variability in natural mortality.

Comments and Responses

Five comments were submitted on the interim final butterfish specifications from: Seafreeze, Ltd. (Seafreeze), a frozen a frozen seafood producer based in Rhode Island; Dr. Joel Jay Sohn, a research associate at Harvard University; the Garden State Seafood Association (GSSA), an industry group representing members of the commercial fishing industry in New Jersey; the Herring Alliance, which represents 52 organizations concerned about the status of the Atlantic Coast's forage fish; and one member of the public.

Comments on the Specifications

Comment 1: Seafreeze noted that NMFS stated in the request for comments that all comments received are part of the public record and will generally be posted in the Federal Register without change. It noted that this had not been done for the comments received on either 2011 or 2012 MSB specifications, and speculated that this may be because NMFS did not want the public to see the comments. They also stated that we did not fully answer their comments.

Response: NMFS' requests for comment state that comments are part of the public record and will generally be posted to <http://www.regulations.gov>, not the Federal Register, without change. This was done for the Seafreeze comments on both the 2011 and 2012 specifications. It is never our practice to reprint full comment letters in the Federal Register. NMFS has not, and does not, "hide" comments from the public. The commenter's submission

focused primarily on the merits of the two most recent butterflyfish stock assessments. As noted below, comments on the merits of stock assessments are not generally addressed in the response to comment.

Comment 2: GSSA maintained its support for the Council's original butterflyfish specification recommendation (ABC = 3,622 mt; ACT = 3,260 mt; DAH and DAP = 1,087 mt; butterflyfish cap = 2,445 mt). It noted that recent trawl survey information, and information from the 49th Stock Assessment Workshop (SAW 49), suggest that fishing mortality is low, and therefore support the increase.

Response: This action implements the Council's original preferred recommendations.

Comment 3: The Herring Alliance supported NMFS' disapproval of the Council's proposed 2012 specifications and implementation of status quo specifications. It stated that the Council's proposed catch limits are inconsistent with the regulations implementing the Omnibus Amendment.

Response: NMFS agrees that the Council's initially proposed 2012 specifications were inconsistent with the Council's risk policy as implemented through the Omnibus ACL/AM Amendment (76 FR 60606, September 29, 2011), and so NMFS implemented the status quo (2011) specifications in an interim final rule for the beginning of the 2012 fishing year. The revised Risk Policy in Framework Adjustment 6 to the MSB FMP allows the SSC to recommend increases to the ABC for stocks without an OFL, provided that there is sufficient scientific evidence to suggest that such increases will not result in overfishing. Based on the new Risk Policy, the SSC has since reaffirmed its 2012 butterflyfish specifications recommendation in accordance with the new provisions in Framework Adjustment 6, which was recently approved

by NMFS, and this action promulgates the Council's original specifications recommendations.

Comment 4: Seafreeze disagreed with the determination that we are risking overfishing of the butterfish resource because no OFL has been determined.

Response: The butterfish quota was maintained at status quo because an increase was prohibited by the regulations, not because NMFS determined that the stock was at risk of overfishing due to the lack of an established OFL. The Council's Risk Policy at the time it recommended 2012 butterfish specifications did not permit the SSC to recommend increases to the ABC for stocks for which an OFL could not be determined. As discussed above, the Council has since adjusted the risk policy in Framework Adjustment 6 to the MSB FMP. The adjustments to the risk policy allow the SSC to recommend ABC increases for stocks without an OFL under certain limited circumstances, such as for butterfish, where the SSC can present information that suggests that stock abundance is stable or increasing, and information that supports its finding that increases in ABC are unlikely to result in overfishing.

Comment 5: Seafreeze claimed that scientists and managers have cited recent low butterfish landings as an indication that the butterfish stock must be in trouble. It claimed that this rationale creates a vicious cycle that has been used to make decisions to keep quotas low.

Response: Butterfish landings have never been used on their own as the rationale for the butterfish quotas that were set from 2005 to 2011. The quotas were initially lowered in 2005 to discourage a directed fishery after NMFS notified the Council that the butterfish stock was overfished based on the 2004 assessment. Past landings information is a single component within the suite of information used to make decisions about future landings levels. Among other things, the SSC considers information from recent assessments and survey indices when

making ABC recommendations

Comment 6: Dr. Sohn commented that the certification by the SSC that the best available science was employed in its butterflyfish ABC recommendation to the Council is a self-certification of the SSC's ABC development process.

Response: NMFS disagrees. In our view, the SSC's agreement that the best available science was used indicates its approval of the peer-review process. That fact that the independent peer-reviewers at SAW 49 proposed no radically different model for butterflyfish stock status determinations demonstrates that little can be done at this time to reduce the uncertainty in stock biomass estimates.

Comment 7: Dr. Sohn stated that the conclusion from the assessment that "butterfish populations appear to be declining over time" is untrue. He noted that evidence demonstrates that butterflyfish populations increase and decrease over time, and that currently NMFS surveys and all other long-term surveys indicate a period of increasing abundance.

Response: The butterflyfish population decline was noted by all independent reviewers of the SAW 49 butterflyfish assessment. The recent increase in survey trends occurred after the 2009 assessment. NMFS notes that the SSC analyzed additional information from 2010 and 2011 to reach its recommendation for the 2012 fishing year; specifically, a recommended doubling of the 2011 ABC recommendation.

Comment 8: The Herring Alliance was disappointed that NMFS did not respond to its claim that the Council's ABC recommendation of 3,622 mt was not 100-percent supported by the scientific analyses, including the technical report cited by the SSC, and is therefore inconsistent with National Standard 2. It claimed the record shows that the Council's original

recommendation of 3,622 mt was not based on the best available scientific information. It noted that the SSC doubled the ABC based on a NOAA Technical Memorandum used to set ABCs for stocks that only have reliable catch information, but did not apply the recommended methodology in the memorandum in any rigorous way. The Herring Alliance also asserted that other rationale for the increase cited by the SSC and NMFS, namely that there were anecdotal observations of increased butterfish abundance, and that fishing mortality appears low compared to natural mortality, cannot be supported by best available science.

Response: At the time of the proposed rule for 2012 specifications, NMFS determined that the SSC provided appropriate scientific justification for its recommended doubling of the butterfish ABC. The SSC relied on the findings of the most recent butterfish assessment, SAW 49, in conjunction with information from Council staff, to inform its final ABC recommendation. SAW 49 determined that the butterfish stock has a high natural mortality rate ($M=0.8$) and a low fishing mortality rate ($F=0.02$), and concluded that environmental factors, rather than fishing mortality, are driving stock abundance. The SSC also considered recent trawl survey indices, which indicate that butterfish abundance is stable or increasing.

The Herring Alliance referenced NOAA Technical Memorandum NMFS-SEFSC-616 (Calculating Acceptable Biological Catch for Stocks That Have Reliable Catch Data Only (Only Reliable Catch Stocks – ORCS; 2011)). The memorandum was developed by a Working Group comprised of representatives from seven of the eight SSCs, five of the six NMFS Science Centers, NMFS Headquarters, academic institutions, a state agency, and a non-governmental organization, to offer guidance which can be used to set ABCs for stocks that only have reliable catch data, are lightly fished, and appear to have stable or increasing trends. The SSC noted that

the butterfish stock met the criteria outlined for this approach, and relied on the concepts in this guidance document in developing its ABC recommendation. The report recommends doubling catch during a stable period to create an OFL, setting the ABC at 50 to 90 percent of the OFL, and then tracking the stock to see how the adjusted catch levels affect abundance. During its public process, the SSC discussed that, because butterfish fishing mortality was likely contributing very little to changes in stock abundance, the ABC could be doubled and still yield a fishing mortality rate that would not affect stock size. The SSC also commented during Council deliberations that establishing an OFL or OFL proxy would not have changed its ABC recommendation for 2012. NMFS considered the SSC's rationale for increasing the butterfish ABC and found it to be appropriate and well supported by the best available scientific information. Though the SSC used the guidance in NOAA Technical Memorandum NMFS-SEFSC-616, it used its scientific judgment to recommend an ABC that was expected to result in a level of fishing mortality documented in SAW 49, and, at the time of NMFS's initial proposed rule, was not expected to result in overfishing of the butterfish resource.

The observation that natural mortality is much higher than fishing mortality is not used as a justification for increasing catch levels; it is offered in SAW 49 as part of the determination that fishing mortality does not appear to be the major driving factor determining butterfish stock size, and that other environmental factors are the primary drivers of butterfish abundance levels. The relative contribution of fishing mortality compared to natural mortality is well documented in SAW 49. The anecdotal observations of increased butterfish abundance provided by the fishing industry were not noted as a basis for the decision, but were offered as part of the fishery performance reports generated during the Council's specification process. Observations from

the fishing industry are often used to contextualize the scientific information being considered by SSC members.

NMFS still supports the rationale that the SSC put forward in recommending the 3,622-mt ABC for butterfish during its initial deliberations for 2012 specifications. The SSC has also conducted deliberations for its 2013 butterfish ABC recommendation, and offered additional rationale in its 2013 ABC recommendation that supports the assertion that the 3,622-mt butterfish ABC will not result in overfishing. Their rationale for their recommended 2013 ABC (8,400 mt) is outlined in the Background section of the preamble to this action. Given that the additional analysis that the SSC used to derive its 2013 ABC recommendation of 8,400 mt suggests that this level has a low likelihood of resulting in overfishing, it is reasonable to conclude that ABCs of lower amounts, such as the 3,622-mt ABC that will be implemented in this action, will be unlikely to result in overfishing.

Comment 9: The Herring Alliance commented on the proposed rule and on the interim final rule for butterfish specifications that the role of butterfish as forage should have been taken into account in setting the butterfish ABC. It noted that the National Standard 1 guidelines specify that managers must pay serious attention to maintaining adequate forage for all components of the ecosystem, and that the FMP's specification of optimum yield (OY) must address ecological factors, even where quantification of ecological factors is not available. It reiterated that marine predators switch prey depending on the relative abundance and distribution of forage species, and concluded that, because the status of stocks such as Atlantic herring, blueback herring, alewife, American shad, hickory shad, and Atlantic menhaden are compromised, a lack of precautionary protection for butterfish may render these stocks more

vulnerable to collapse. Likewise, it also argued that, should predators switch to butterfish because of low availability of other forage species, the Council's high butterfish ABC recommendation could lead to collapse of the butterfish stock.

Response: As noted in the response to comments in the interim final rule for butterfish specifications, the impacts of natural mortality on the butterfish stock, including predation, are taken into account during the butterfish assessment process, and are addressed during the specification of the ABC. The assessment does not consider potential future increases or decreases in butterfish predation because information is not available on future trends in forage.

As noted by the commenter, National Standard 1 of the Magnuson-Stevens Act discusses the specification of OY, and requires that an FMP or amendment prevent overfishing while achieving, on a continuing basis, the OY from each fishery for the United States fishing industry (16 U.S.C. 1851(a)(1)). The Magnuson-Stevens Act defines "optimum" with respect to yield from a fishery, as being prescribed on the basis of maximum sustainable yield from the fishery, as reduced by relevant economic, social or ecological factors (16 U.S.C. 1802(33)). The Council's FMPs all contain a process for assessing, specifying, identifying, and adjusting OY, as needed, based on relevant economic, social, and ecological factors for each species. The guidelines state that achieving OY on a continuing basis means producing a long-term series of catches such that the average catch is equal to OY and other conservation objectives of the Magnuson-Stevens Act are met (§ 600.310(e)(3)(i)(B)). The guidelines further state that an FMP must contain measures, including ACLs and AMs, to achieve OY on a continuing basis. However, the Magnuson-Stevens Act and guidelines do not require that OY considerations be addressed when developing ACLs. The implementing regulations for the Council's Omnibus

Amendment require that the ACL be set equal to the ABC for all Council-managed species, but the Council may take these additional factors into account when establishing ACTs (see final NS1 guidelines, 74 FR 3178, 3189 (explaining OY, ABC, ACT, ACL relationships in response 33)).

Comment 10: One member of the public commented that butterflyfish quotas should be cut to save the species, and that this comment should not be dismissed by NMFS. This commenter also stated that NMFS has no clear, accurate information.

Response: The quota levels recommended by the Council and implemented through this final rule are based on the best available science, and was reviewed twice by the Council's SSC. The SSC is a Magnuson-Stevens Act-mandated Council body made up of independent scientists, which recommends the ABC levels for all fisheries. NMFS notes that the commenter made general allegations for which no supporting documentation was provided. NMFS encourages every commenter to provide documentation or specific references to reports or data to support statements and conclusions submitted in response to rulemaking and to enable the agency to be more specific in its responses.

Comment 11: Dr. Sohn urged the Secretary of Commerce to reject the Council's butterflyfish quota recommendations because they are based upon invalid scientific reasoning and methodology, and urged an orderly process of re-examination of the data and methodology used to assess butterflyfish so that the recommendations are based upon scientifically valid assumptions and methods.

Response: A benchmark butterflyfish assessment is scheduled for 2013. In the meantime, the current specification recommendations for butterflyfish are based on the best available scientific

information. Further comments on the current butterflyfish assessment are addressed below.

Comment 12: Dr. Sohn discouraged the adoption of short-term rules to govern butterflyfish harvest. He argued that, by adopting short-term rules, previous scientific and management errors will be perpetuated.

Response: The commenter does not explain what he considers to be a “short-term” rule. The Council typically recommends specifications for butterflyfish for 1 fishing year (January 1 – December 31), but may set specifications for up to 3 years for any of the species managed under the MSB FMP. The Council recommended butterflyfish specifications for 1 fishing year during the 2012 specifications process.

Comment 13: Seafreeze expressed its view that butterflyfish needs to be turned into export revenue and jobs rather than being discarded.

Response: Not all unharvested fish constitute foregone yield, as these animals serve as prey for other fishery stocks. Hence, fishery yields for predator species can theoretically improve when a very high quota for butterflyfish is reduced.

Comments on the Butterflyfish Assessment

In addition to comments on the regulatory content of this rulemaking, Seafreeze, and Dr. Sohn commented extensively on the butterflyfish stock assessment. NMFS does not typically respond in detail to comments on the merits of the assessment in the response to comments in rulemaking. This is because assessments are conducted and finalized prior to and separate from rulemakings, and feature their own process for public participation procedures. Comments on the merits of an assessment, and the information used in the assessment, can therefore not be addressed during the rulemaking process, but rather need to be addressed in the assessment

process. Given the nature of the comments on the interim final rule for butterfish specifications, NMFS recognizes that commenters are making a direct link between the merits of the butterfish assessment and our approval of the Council's recommended butterfish specifications as being supported by the best available scientific information. Although the assessment and its supporting information are not subject to NMFS' decision making in the specifications, responses to specific comments on the assessment are provided in the following to clarify our position on these matters.

Comment 14: Seafreeze noted that the assessment of fish stocks is an imprecise science and will remain so as long as we use a handful of fish to estimate the full size of a given fish stock, or until we count every fish in the ocean.

Response: We agree that there is uncertainty in fish stock assessments. However, even if all of the fish in the stock were counted, there would still be uncertainty in the size of the stock in the future, given a specified quota. We assess stocks based on data gathered from thousands of fish, not just handfuls, taken in the course of NEFSC (and other) fishery-independent surveys, as well as samples gathered directly from fishing vessels. Although some uncertainty is inherent in estimates of relative abundance, this uncertainty typically decreases with increased sampling whether these data are collected by scientists, fishery observers, or port samplers.

Comment 15: Dr. Sohn noted that the failure of the assessment process for butterfish has produced incorrect management decisions that stretch back to butterfish being listed as overfished in 2004. He implied that the failure of the butterfish assessment process is the result of a willful and deliberate misrepresentation of information on the part of NMFS.

Response: The unique life history of butterfish poses significant and well-documented

challenges for assessing the status of the resource and for management. The assessment process includes detailed discussion of this issue and the Council process utilizes and accounts for the uncertainty in the assessments by establishing butterfish management policies and measures through review and recommendations of its SSC. Responses to specific assessment issues below offer more explanation of the butterfish assessment.

Comment 16: Seafreeze claimed that the butterfish stock is assessed in the same way that assessments are done for cod. It noted that stock assessments are usually 5-7 years old by the time they are used for quota setting and that, given that butterfish have a 1.5-year lifespan, 3-4 generation old information is being used to set annual quotas for butterfish. It compared this to using 30-40 year old data for setting the annual quota for cod, which have a 10-year lifespan. Dr. Sohn also asserted that the use of “old” data means that NMFS will fail to conserve a resource when needed, and fail to open a fishery for harvest when the resource has recovered.

Response: Cod and butterfish are assessed using different methods. The assessment model for the cod stocks is completely age-structured, for instance. Because there are not sufficient data to use an age-structured model for butterfish at this time, the butterfish assessment uses a delay-difference model, in which several assumptions are made on the way these fish grow and transition from the younger group (fish that are too small to enter the fishery) and the older mature group (in which all the fish are available to the fishery). If sufficient data are eventually available, an age-structured model can be applied to butterfish because the same fundamental processes of mortality, growth, spawning, and recruitment occur. The important distinction is the very different parameters governing the dynamics of cod and butterfish. Although more real-time collection of data might be useful for estimating the status of the

butterfish stock throughout the year, for a recruitment-driven stock such as butterfish there will always be much uncertainty when attempting to predict what state the stock will be in during the next year.

Comment 17: Seafreeze expressed a lack of confidence in efforts to calibrate the FSV Bigelow to the RV Albatross IV and noted that it is likely impossible to mathematically calculate how the species captured in each tow will differ between vessels, especially if the vessels use different tow speeds and haul times.

Response: Estimating the relative capture efficiency at length for butterfish taken by the FSV Bigelow and RV Albatross IV is not easy. This is why external peer reviews were conducted of both the experimental design and estimation methodology of the vessel calibration experiment. It is also true that, for a given tow, a prediction of relative efficiency will be imprecise. Precision becomes much better for predicting the average relative efficiency over all tows in the calibration study, which is the procedure NMFS used to calibrate the surveys of the two vessels. This gain in precision occurs because the average becomes less variable as the number of tows used for inference increases. When conducting these analyses, we do not dictate the way that various changes in towing affect the relative efficiency of the two vessels. Instead, we allow this effect to be estimated from the data.

Comment 18: Seafreeze claimed that the recent high abundance of butterfish (as documented in East Coast state and university surveys, recent NEFSC surveys, data from nuclear plants, and other sources) has been explained away by citing the calibration factors between the FSV Bigelow to the RV Albatross IV.

Response: NMFS disagrees. The calibrated time series still shows this increase.

Comment 19: Dr. Sohn claimed that NMFS has refused to acknowledge that the peer review process has rejected the assessment for butterfish.

Response: NMFS acknowledges that the peer review results indicated that the fishing mortality level identified in the assessment may not be appropriate and that a stock biomass level could be determined. This is why there are no acceptable biological reference points for this stock.

Comment 20: Dr. Sohn asserted that NMFS has not been inclusive in its performance with respect to its assessment of butterfish, that NMFS has not sought advice widely, and that NMFS has not captured the full range of scientific thoughts and opinions on this subject matter. He noted that the assessment process has not been set up to work with its stakeholders in gathering information in a scientific fashion in order to assist in the assessment.

Response: In fishery assessments, we strive to account for a range of biological and ecosystem characteristics, to improve our results, and to bound them by explicitly identifying and considering underlying uncertainties. The scientific review process used in the Northeast for developing fishery stock assessments is public and transparent, and one of the most rigorous review processes of its kind in the United States. The assessment process used in the Northeast comprises a series of working group meetings that are open to the public. Scientists from industry, NGOs, academic institutions, and state governments regularly participate in these meetings, during which the working group comes to consensus on the data and models to be used to assess the stock. The primary goal of these meetings is to develop a scientifically defensible assessment that is vetted and subjected to independent, arms-length peer-review (by reviewers obtained through the Center for Independent Experts) at the final Stock Assessment Review

Committee (SARC) meeting.

Comment 21: Dr. Sohn stated that assessments are not done in a timely fashion so that rational management can take place.

Response: NMFS acknowledges that assessments are conducted within many constraints. Some of these constraints are not commonly in play in other areas of scientific research. Examples include deadlines that are driven by pending management events, the availability of scientific staff to analyze data and conduct the work within those deadlines, and the reliance of fishery managers on scientific information to inform their decisions. Assessments also involve continual evaluation and re-evaluation. New data are constantly arriving from multiple sources including monitoring by researchers and fishery observers, and reporting by fishing vessels and fish dealers.

Comment 22: Dr. Sohn noted that ocean larval transport from the southern end of the butterfish population range (north of Cape Hatteras) to the northern end of its range may have an important role in the population dynamics of butterfish. The commenter cited a number of scientific studies that demonstrate that, for various species, larvae produced in one area may be the foundation for populations of adult fish in another area. He argued that, by limiting the assessment to the northern portion of the range of butterfish, NMFS is not measuring abundance in the area that may produce the butterfish of the mid- and North Atlantic. The commenter asserted that NMFS has limited its survey to a political boundary rather than a biological boundary, and thus has no data on important butterfish breeding grounds. He concluded by noting that a zoogeographical ecosystem-based model of the butterfish population should be done for butterfish, and that the failure to incorporate new technology and theory is the result of

NMFS ignoring important scientific issues in the assessment process.

Response: The studies cited by the commenter do not analyze data on butterfish, but simply suggest that this transport might apply to butterfish. There is some movement of butterfish across the Cape Hatteras latitude. However, this occurs for any species over any specified stock boundary. For butterfish, there is no evidence that the degree of mixing is substantial. As spawning occurs north of the Cape Hatteras latitude, any larvae transported north of that latitude would only provide some fraction of the population. Overall levels of annual recruitment can still be estimated without knowing the mechanism that determines the proportion of recruitment from the southern stock area. Nonetheless, these issues, as well as a larval abundance index for butterfish, will be considered in the 2013 benchmark butterfish assessment.

There will be a series of public meetings to determine the data and model used in the benchmark butterfish assessment, and commenters are welcome to attend. Also underway are projects to determine ways in which measures of habitat association by butterfish might be incorporated into the next assessment model. Zoogeographical ecosystem-based models would be ideal for all species but, to the best of our knowledge, there are no stocks anywhere that are assessed using such a spatially-detailed model. The absence of such models reflects the real data limitations and our inability to parameterize such a complex model, rather than a naïve understanding of the species biology. While an enormous amount of information on the demography of butterfish is considered in the assessment, the rapid growth and short lifespan of butterfish, as well as other limitations, such as poor discard estimate precision, contribute to the poor precision of butterfish spawning biomass estimates. We are confident that the new comprehensive study will improve our knowledge of the butterfish population, and help NMFS

and the Council in future population estimates.

Comment 23: Dr. Sohn stated that the 2004 and 2009 assessments for butterfish failed because they used a mathematical model that assumes equilibrium conditions.

Response: Equilibrium (as used by the commenter) is an attribute of deterministic models, in which every set of variable states in the model are uniquely determined by parameters in the model and by sets of previous states of these variables. Deterministic models perform the same way for a given set of initial conditions. Because of the variability surrounding many of the parameters in models created for stock assessments, deterministic models, and deterministic equilibrium does not apply to any stock. Rather, stochastic or probabilistic models, in which randomness is present and variable states are not described by unique values, but rather by probability distributions, are used to for stock assessments. There can be a stochastic equilibrium, which is the average behavior of a stochastic model; this is how stock assessment scientists view fish populations. Reference points are determined under stochastic (probabilistic) conditions, and then uncertainty in the reference points caused by this stochasticity is considered.

Comment 24: Dr. Sohn commented that the claims that NMFS makes concerning the decrease of the butterfish population are the result of numbers and biomass caught during the NMFS spring and fall surveys. He noted that, while NMFS prides itself on the survey, it has destroyed continuity by not paying sufficient attention to ensure consistent sampling. He further discussed that the use of calibration techniques appears to provide ad hoc remedies that can never be tested as to their confidence.

Response: The use of calibration factors is well founded in the literature and their estimation for transitioning the survey from the RV Albatross IV to the FSV Bigelow was based

on rigorous statistical analysis. Therefore, the results are not ad hoc. The precision of the calculated confidence intervals for the FSV Bigelow-RV Albatross IV calibration factors is publicly available, and this uncertainty has been accounted for in calibrating butterflyfish indices from 2009 onward. NMFS does not currently consider the stock to be declining, nor has it been since 2008. The two NEFSC documents cited explain the careful attention paid to ensuring reliable transition of the survey from the RV Albatross IV to the FSV Bigelow. Fishing industry members were very involved in the design of the new trawl, and the gear comparison experiment was one of the most extensive ever performed in terms of numbers of replicates in space and time.

Comment 25: Dr. Sohn commented that NMFS failed to check its trawl survey results against independent data sets or long-term state surveys. He claimed that NMFS has found excuses not to “go outside” of their own data sets to examine butterflyfish abundance, believing that these are too local or not long-term. The commenter noted that we should know butterflyfish abundance, and that the fact that we do not know is because NMFS is not using all of the available data.

Response: State survey data are reviewed at the data meeting for a benchmark assessment. For butterflyfish, only the Massachusetts inshore and Connecticut Long Island Sound surveys were readily available. These data were reviewed, but not used in the assessment for several reasons. The state surveys cover only a very limited portion of the butterflyfish stock area. There are no age data associated with the samples. Age data are needed to distinguish the two age groups used in the model for the 2010 butterflyfish assessment. For the Long Island Sound survey annual indices, there were no associated measures of uncertainty. Regardless, using all

state and other regional survey indices does not allow one to estimate absolute abundance.

Comment 26: Dr. Sohn claimed that NMFS does not critically evaluate the methodology it uses for stock assessments.

Response: NMFS disagrees. The SARC process provides significant critical evaluation of assessment models by independent peer-reviewers.

Classification

The Administrator, Northeast Region, NMFS, determined that these specifications are necessary for the conservation and management of the butterfish fishery and that they are consistent with the Magnuson-Stevens Fishery Conservation and Management Act and other applicable laws.

The Assistant Administrator for Fisheries, NOAA, finds good cause under section 553(d) of the Administrative Procedure Act to waive the 30-day delay in effectiveness for this action because delaying the effectiveness of this rule would be contrary to the public interest.

Immediately implementing the final 2012 butterfish specifications will not only benefit the butterfish fishery directly, it will also aid the longfin squid fishery because the rule will increase the butterfish mortality cap in that fishery to 2,445 mt (a 1,009-mt increase from status quo). By the time the longfin squid fishery closed on July 10, 2012, in Trimester II, over 100 percent of the status quo annual allocation of the butterfish mortality cap was estimated to have been taken. Because the butterfish mortality cap closes the longfin squid fishery in Trimester III when 90 percent of the annual butterfish cap allocation has been taken, under the status quo allocation, the longfin squid fishery would not be opened at the start of Trimester III on September 1, 2012. The increased butterfish mortality cap implemented through the final 2012

butterfish specifications will allow for the longfin squid fishery to operate during Trimester III. Longfin squid migrate throughout their range and have sporadic availability. The fleet is quick to target longfin squid aggregations when they do appear, and is capable of landing over 550 mt in a single week. Analysis of this year's fishing activity indicates that longfin squid was particularly abundant this spring and summer, and historical availability patterns suggest that longfin squid abundance could still be high in the early fall. Only 7,761 mt of the 22,220 mt longfin squid quota has been harvested this year, meaning that well over half of the quota remains to be harvested during the final 4 months of the fishing year. A 30-day delay in the implementation of this rulemaking, may prevent fishermen from accessing longfin squid when it is temporarily available within portions of its range and prevent the harvest of a significant amount of longfin squid quota (up to 2,220 mt of the remaining 14,459 mt of longfin squid quota), negating any benefit of implementing this rule.

Moreover, the fishing entities affected by this rule need not change their practice or gear, or make any other modifications to come into compliance with this action. They can continue to fish as they do now without any change after this rule goes into effect. Accordingly, the 30-day delay in effectiveness is not necessary here, where there is no need for the affected entities to modify their behavior, purchase new gear, or otherwise adjust their activities to come into compliance with the rule.

The Council prepared an EA for the 2012 specifications, and the NOAA Assistant Administrator for Fisheries concluded that there will be no significant impact on the human environment as a result of this rule. A copy of the EA is available upon request (see ADDRESSES).

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

NMFS, pursuant to section 604 of the Regulatory Flexibility Act, has prepared a FRFA in support of the 2012 specifications and management measures. The FRFA describes the economic impact that this final rule, along with other non-preferred alternatives, will have on small entities.

The FRFA incorporates the economic impacts and analysis summaries in the IRFA, a summary of the significant issues raised by the public in response to the IRFA, and NMFS's responses to those comments. A copy of the IRFA, the RIR, and the EA are available upon request (see ADDRESSES).

Statement of Need for this Action

This action implements 2012 specifications for butterfish and adjusts the gear requirements for the butterfish fishery. A complete description of the reasons why this action is being considered, and the objectives of and legal basis for this action, are contained in the preamble to the proposed and final rules and are not repeated here.

A Summary of the Significant Issues Raised by the Public Comments in Response to the IRFA, a Summary of the Assessment of the Agency of Such Issues, and a Statement of Any Changes Made in the Final Rule as a Result of Such Comments

Comment 13 was not specifically directed to the IRFA, but expressed concern about negative economic impacts of the specifications for butterfish on small entities. The comment is fully described in the "Comments and Responses" section of the preamble to this final rule and, therefore, is not repeated here.

Description and Estimate of Number of Small Entities to Which the Rule Will Apply

Based on permit data for 2011, the numbers of potential fishing vessels in the 2012 MSB fisheries are as follows: 351 longfin squid/butterfish moratorium permits; 1,904 incidental squid/butterfish permits; and 831 MSB party/charter permits. Many vessels participate in more than one of these fisheries; therefore, permit numbers are not additive. Small businesses operating in commercial and recreational (i.e., party and charter vessel operations) fisheries have been defined by the Small Business Administration as firms with gross revenues of up to \$4.0 and \$6.5 million, respectively. There are no large entities participating in this fishery, as that term is defined in section 601 of the RFA. Therefore, there are no disproportionate economic impacts on small entities.

Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements

There are no new reporting or recordkeeping requirements contained in any of the alternatives considered for this action. In addition, there are no Federal rules that duplicate, overlap, or conflict with this final rule.

Description of the Steps the Agency Has Taken to Minimize the Significant Economic Impacts on Small Entities Consistent With the Stated Objectives of Applicable Statutes, Including a Statement of the Factual, Policy, and Legal Reasons for Selecting the Alternative Adopted in the Final Rule and Why Each One of the Other Significant Alternatives to the Rule Considered by the Agency Which Affect the Impact on Small Entities Was Rejected

Actions Implemented With the Final Rule

The butterfish DAH specified in this action (1,072 mt) represents a 114-percent increase over the 2011 DAH (500 mt). Though there has not been a directed butterfish fishery in recent

years due to market conditions, the butterfish DAH was exceeded during the 2010 and 2011 fishing years. The increase in the DAH has the potential to increase revenue for permitted vessels.

The adjustment to the gear requirement for the butterfish fishery, which requires vessels possessing 2,000 lb (0.9 mt) or more of butterfish to fish with a 3-inch (76-mm) minimum codend mesh, is expected to result in a modest increase in revenue for fishery participants. This adjustment will enable additional retention of butterfish by vessels using small-mesh fishing gear. Previously, the mesh size requirement applied to vessels possessing 1,000 lb (0.45 mt) or more of butterfish.

As discussed in the FRFA for MSB Amendment 10 (75 FR 11441; March 11, 2010), the butterfish mortality cap may potentially economically impact fishery participants. The longfin squid fishery closes during Trimesters I and III if the butterfish mortality cap is reached. If the longfin squid fishery is closed in response to butterfish catch before the entire longfin squid quota is harvested, then the fishery may lose revenue. The potential for longfin squid revenue loss depends upon the size of the butterfish mortality cap. The 2012 butterfish mortality cap of 2,445 mt specified in this action represents a 70-percent increase over status quo (1,436 mt). The 2011 butterfish mortality cap did not result in a closure of the longfin squid fishery in Trimester I. At the start of Trimester III, over 55 percent of the butterfish mortality cap (compared to 31.7 percent allocated at the start of the fishing year) was available for the longfin squid fishery for the duration of the fishing year. The status quo butterfish mortality cap was implemented in the interim final butterfish specifications during Trimester I of the 2012 fishing year, and did result in a closure of the longfin squid fishery. In addition, at the time of

publication of this action, the butterfish cap has already exceeded the Trimester III closure threshold, meaning that the lower status quo cap would not allow the longfin squid fishery to reopen during Trimester III. Given that the lower cap constrained the longfin squid fishery in 2012, it is reasonable to expect that the proposed increase to the cap may provide for additional fishing opportunities for the longfin squid fishery between the implementation of this rule and the end of the 2012 fishing year on December 31, 2012. For that reason, additional revenue losses are not expected as a result of this proposed action.

Alternatives to the Actions in the Final Rule for Butterfish

There were six alternatives to the preferred action for butterfish that were not selected. The first (status quo) and second non-selected alternatives were based on the specifications structure that existed prior to the implementation of the Omnibus Amendment, and were not selected because they no longer comply with the MSB FMP. The third alternative (least restrictive) would have set the ABC and ACL at 4,528 mt, the ACT at 4,075 mt, the DAH and DAP at 1,358 mt, and the butterfish mortality cap at 3,056 mt. The fourth alternative would have set the ABC and ACL at 2,717 mt, the ACT at 2,445 mt, the DAH and DAP at 815 mt, and the butterfish mortality cap at 1,834 mt. These two alternatives were not selected because they were all inconsistent with the ABC recommended by the SSC. The fifth non-selected alternative would have set ABC and ACL at 1,811 mt, the ACT at 1,630 mt, the DAH and DAP at 543 mt, and the butterfish mortality cap at 1,222 mt. This alternative was not selected because it is inconsistent with status quo. The sixth alternative was the modified status quo alternative that was implemented in the interim final butterfish specifications.

There were two alternatives regarding the adjustment to the butterfish gear requirement. The status quo alternative requires vessels possessing 1,000 lb (0.45 mt) or more of butterfish to

fish with a 3-inch (76-mm) minimum codend mesh. The selected alternative (3-inch (76-mm) mesh to possess 2,000 lb (0.9 mt)) could create some additional revenue in the form of butterfish landings for vessels using mesh sizes smaller than 3 inches (76 mm).

List of Subjects in 50 CFR Part 648

Fisheries, Fishing, Recordkeeping and reporting requirements.

Dated: August 21, 2012

Alan D. Risenhoover,

Director, Office of Sustainable Fisheries,

performing the functions and duties of the

Deputy Assistant Administrator for Regulatory Programs,

National Marine Fisheries Service.

For the reasons set out in the preamble, 50 CFR part 648 is amended as follows:

PART 648--FISHERIES OF THE NORTHEASTERN UNITED STATES

1. The authority citation for part 648 continues to read as follows:

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

2. In § 648.23, paragraph (a)(1) is revised to read as follows:

§ 648.23 Mackerel, squid, and butterfish gear restrictions.

(a) * * *

(1) Butterfish fishery. Owners or operators of otter trawl vessels possessing 2,000 lb (0.9 mt) or more of butterfish harvested in or from the EEZ may only fish with nets having a

minimum codend mesh of 3 inches (76 mm) diamond mesh, inside stretch measure, applied throughout the codend for at least 100 continuous meshes forward of the terminus of the net, or for codends with less than 100 meshes, the minimum mesh size codend shall be a minimum of one-third of the net, measured from the terminus of the codend to the headrope.

* * * * *

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