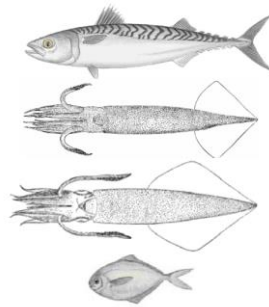




# Illex Permits and MSB FMP Goals and Objectives Amendment - *Scoping Guide*

<http://www.mafmc.org/actions/illex-permitting-msb-goals-amendment>

January 2019



## WHAT IS SCOPING?

**Scoping** is the process of identifying issues, potential impacts, and reasonable alternatives associated with an action. It provides the first and best opportunity for the public to make suggestions as development of an amendment begins.

This is the public's opportunity to inform the Council about actions that should or should not be taken in terms of management and regulation, or any other concerns about the Atlantic mackerel, squid, and butterfish (MSB) fisheries.

Your comments early in the amendment development process will help us develop effective alternatives that address issues of public concern in a thorough and appropriate manner.

No management measures have yet been analyzed. Please comment on which kinds of management measures may or may not be useful or practical, and explain your rationale. Please also comment on any other issues you believe should be addressed in the amendment. The list of relevant issues may be expanded as suggestions are offered during the scoping process.

## INTRODUCTION

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The Mid-Atlantic Fishery Management Council is seeking public input for the development of an “Illex Permit and MSB FMP Goals and Objectives Amendment” to the Atlantic Mackerel, Squid, and Butterfish (MSB) Fishery Management Plan (FMP).

This action was identified as a priority in the Council’s 2019 Implementation Plan (<http://www.mafmc.org/strategic-plan/>), and the Council is now seeking public input to inform development of an amendment. The Council would like your comments on the range of issues and the information that should be considered.

### **WHY IS THIS ACTION BEING PROPOSED?**

Related to *Illex*, the Council is proposing to develop an amendment because there is considerable latent effort in the *Illex* squid fishery, which closed early in 2017 (<https://www.greateratlantic.fisheries.noaa.gov/nr/2017/September/illexclosure.html>) and 2018 (<https://www.greateratlantic.fisheries.noaa.gov/nr/2018/August/IllexClosure082018.html>). In most years, the majority of landings are harvested by a small number of vessels with limited access permits. The Council is concerned that activation of latent effort/permits could cause problems such as further shortened seasons. Related to MSB goals and objectives, the current MSB objectives have not been reviewed since the merged MSB plan was adopted in 1981, and the Council’s 2014-2018 Strategic plan indicated the Council wanted to “Review and update FMP objectives as appropriate to ensure that they remain specific, relevant, and measurable” (page 8, <http://www.mafmc.org/s/MAFMC-2014-2018-Strategic-Plan.pdf>).

### CURRENT AMENDMENT OBJECTIVES

- Consider modifications to the *Illex* permitting system
- Consider modifications to the MSB FMP goals and objectives

### **WHAT APPROACHES MAY BE CONSIDERED?**

The amendment may consider a variety of modifications to the *Illex* permitting system. These could include, but would not have to be limited to:

- Requalification of permits
- Tiered limited access system
- Consideration of needs of freezer trawlers versus refrigerated sea water (RSW) trawlers
- Limited access privilege program (LAPP) - more commonly referred to as an “individual fishing quota” (IFQ) or “individual transferable quota” (ITQ) or “catch share system”

The Council recently reaffirmed the August 2, 2013 control date for *Illex* squid. The Council may (or may not) use the control date as a reference point as it considers whether, and/or how, to limit the number of participants in the *Illex* fishery.

The MSB FMP's objectives generally guide Council action and serve as potential measures to examine management's effectiveness. The current objectives are:

1. Enhance the probability of successful (i.e., the historical average) recruitment to the fisheries.
2. Promote the growth of the U.S. commercial fishery, including the fishery for export.
3. Provide the greatest degree of freedom and flexibility to all harvesters of these resources consistent with the attainment of the other objectives of this FMP.
4. Provide marine recreational fishing opportunities, recognizing the contribution of recreational fishing to the national economy.
5. Increase understanding of the conditions of the stocks and fisheries.
6. Minimize harvesting conflicts among U.S. commercial, U.S. recreational, and foreign fishermen.

The Council may retain or modify these objectives. A separate action is developing goals and objectives for management of chub mackerel, which will be added to this FMP, and those goals and objectives will be integrated into the overall FMP depending on the final decisions made by the Council for chub mackerel. The draft chub mackerel goals and objectives are included below.

A draft Environmental Assessment or Environmental Impact Statement will be developed for public comment and used by the Council to evaluate any proposed measures. The Council will consider the biological and socio-economic impacts of any management measure before making a final decision.

## **STAKEHOLDER INPUT**

The Council would like your input on the range of issues and information that should be considered during development of this amendment, including the specific issues identified in this document, as well as any other issues that might be of concern to you regarding the MSB fisheries. Please also comment on the level of environmental assessment/impact analysis you believe would be appropriate (an Environmental Assessment or an Environmental Impact Statement - <https://www.epa.gov/nepa>). If there are any particular kinds of analyses you believe would be important, please also comment on those.

## **LEARN MORE**

Find additional information at <http://www.mafmc.org/actions/illex-permitting-msb-goals-amendment>.

## GET INVOLVED

### ATTEND A SCOPING HEARING

Date and Time	Location
Monday, February 4, 2019, at 6:00 pm	Corless Auditorium University of Rhode Island Bay Campus 215 South Ferry Road Narragansett, RI 02882 401-874-6440
Tuesday, February 5, 2019, at 5:30 pm	Gurney's Inn 290 Old Montauk Highway Montauk, NY 11954 631-668-2345
Wednesday, February 6, 2019, at 5:30 pm	Congress Hall Hotel 200 Congress Place Cape May, NJ 08204 609-884-8421
Thursday, February 7, 2019, at 6:00 pm	Internet webinar: <a href="http://mafmc.adobeconnect.com/msb-scoping-2019/">http://mafmc.adobeconnect.com/msb-scoping-2019/</a> Webinar help: 302-397-1131 With a listening station at the new location of the Virginia Marine Resources Commission: 380 Fenwick Road Ft. Monroe, VA 23651 757-247-2200

### SUBMIT WRITTEN COMMENTS:

In addition to providing comments at any of the scoping hearings, you may submit written comments at the scoping hearings. An additional written comment opportunity will be noticed via the Federal Register, and posted to <http://www.mafmc.org/actions/illex-permitting-msb-goals-amendment> soon after.

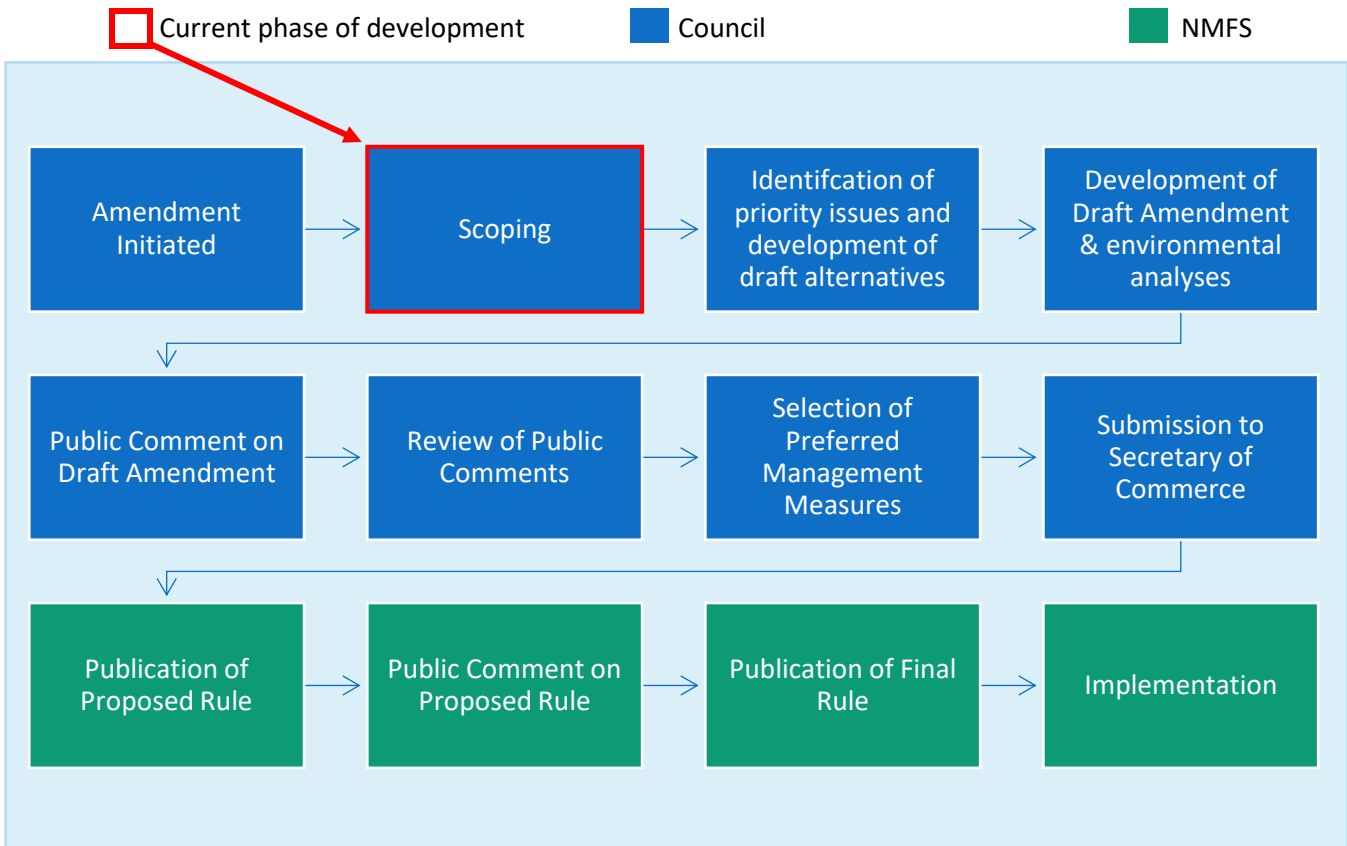
All comments, regardless of submission method, will be compiled into a single document for review and consideration by the Council.

**WHAT HAPPENS NEXT?**

After the initial phase of information gathering and public comment, if the Council decides to proceed with the amendment the Council will evaluate potential management alternatives.

The Council will then develop a draft amendment, incorporating the identified management alternatives, for public review. The Council will also prepare draft environmental analyses as required by the National Environmental Policy Act (NEPA) and subject those analyses to review and comment by the public as appropriate.

Finally, the Council will choose preferred management measures for submission with the appropriate environmental analyses to the Secretary of Commerce for publishing of a proposed and then final rule, both of which have additional comment periods. While there are many opportunities for public comment in the process, this scoping comment opportunity is particularly important for assisting the Council in establishing the overall focus and direction of the amendment.



**Figure 1. Amendment Development Process**

## FISHERY BACKGROUND

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To assist the public in developing comments, background information on the MSB fisheries are provided below, with emphasis on the *Illex* fishery. Additional information can be found on the Council's websites for the MSB fisheries (<http://www.mafmc.org/msb/>), the Scientific and Statistical Committee (SSC) (<http://www.mafmc.org/ssc>), and the Council's Ecosystem Approaches to Fisheries Management (<http://www.mafmc.org/eafm/>).

### **ILLEX SQUID**

*Illex* squid is a semi-pelagic/semi-demersal schooling species distributed between Newfoundland and the Florida Straits. Current research indicates they live less than one year but several aspects of their life cycle are unknown due to their generally offshore habitat. Spawning is believed to take place in the water column with pelagic egg masses. *Illex* squid prey mostly on fish, other squid, and crustaceans, and cannibalize. A wide variety of fish and other animals are predators of *Illex* squid. Additional life history information is detailed in the EFH document for the species, located at:

<http://www.nefsc.noaa.gov/nefsc/habitat/efh/>.

International fleets initially fished *Illex* in U.S. waters, ramping up quickly in the 1970s and landing about 20,000-25,000 metric tons (MT)<sup>1</sup> (52.9-55.1 million pounds) annually before being phased out in the early 1980s. Development of the domestic *Illex* squid bottom trawl fishery began in the early 1980s as the U.S. industry developed the appropriate technology to catch and process squid in large quantities. The fishery became solely domestic in 1987. Domestic landings have been highly variable, generally between 5,000 MT (11.0 million pounds) and 20,000 MT (44.1 million pounds) in most years.

The status of *Illex* is unknown with respect to whether it is overfished and whether it is experiencing overfishing or not. Like landings, recent results from the NEFSC Trawl surveys are highly variable.

*Illex* squid are in multi-year specifications for 2018-2020. Based on a recent review by the SSC, the Acceptable Biological Catch for *Illex* may be increased from 24,000 MT (52.9 million pounds) in 2018 to 26,000 MT (57.3 million pounds) in 2019. This is based on the SSC's evaluation of indicators of abundance after catches in that range. There is no seasonal allocation, but the fishery generally occurs June through October when *Illex* are available to the fishery. Annual landings have been variable over the course of the fishery, but were high in 2017 (Figure 2), and 2018 landings will be somewhat higher than 2017 (Figure 3). Due to reaching its quota, the *Illex* fishery shut down on September 15 in 2017 and on August 15 in 2018.

There are approximately 80 *Illex* squid limited access/moratorium permits. In any given year, a small portion of these vessels account for most *Illex* squid landings (Table 1). The number of vessels participating depends on both *Illex* availability and price. *Illex* price has been increasing (see Figure 4 – *Illex* prices are tied to world prices for squid), and the combination of higher prices and good availability has led to increasing participation in 2017 and 2018 compared to the immediately preceding years. In 2017, 10 vessels landed over 1,000,000 pounds and those 10 vessels accounted for 90% of the landings. In 2018 12 vessels landed over 1,000,000 pounds and it took 15 vessels to account for 90% of the landings. Most landings in recent years have gone into Rhode Island and New Jersey with smaller amounts into Massachusetts and Virginia. Further breakdowns by port may violate data confidentiality requirements.

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<sup>1</sup> 1 metric ton (MT) equals about 2204.62 pounds

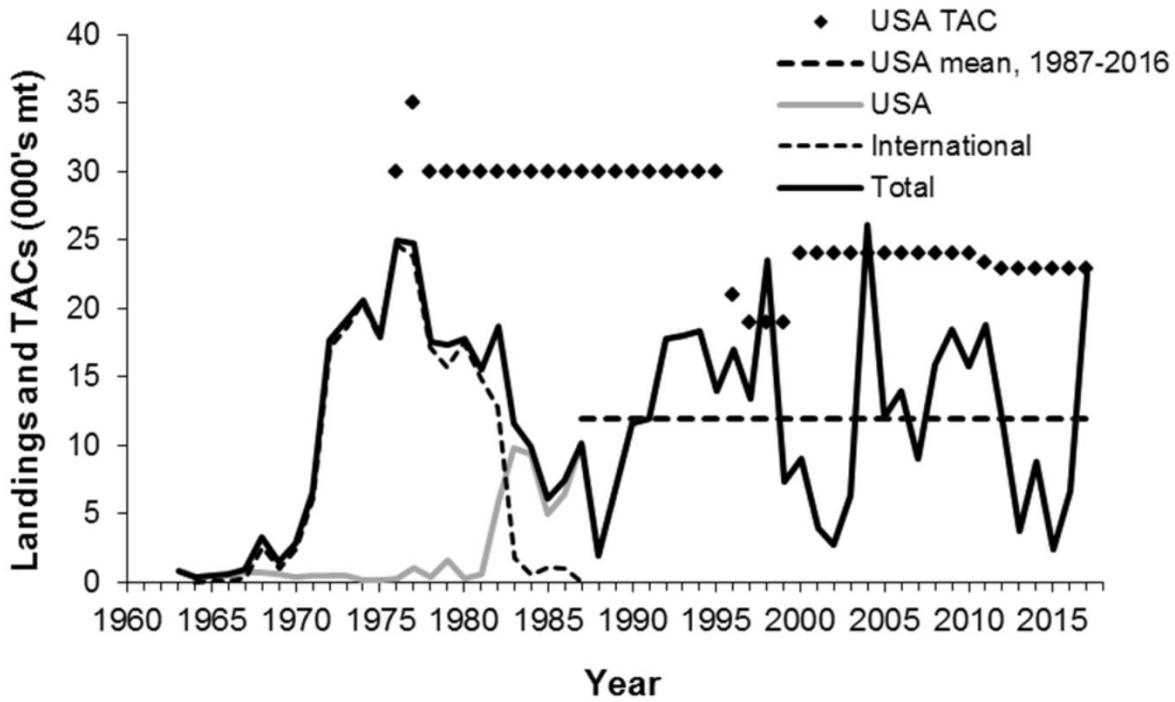


Figure 2. *Illex* Squid Landings 1963-2017.

Source: Unpublished NMFS Dealer/Permit Data, preliminary

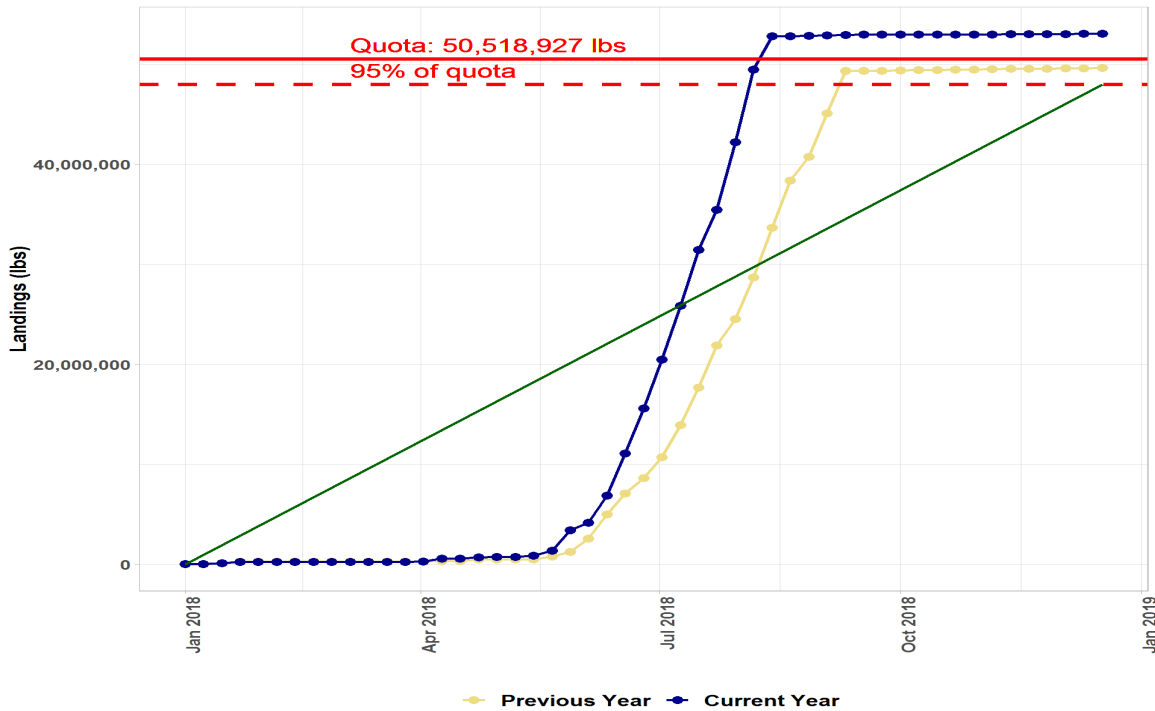
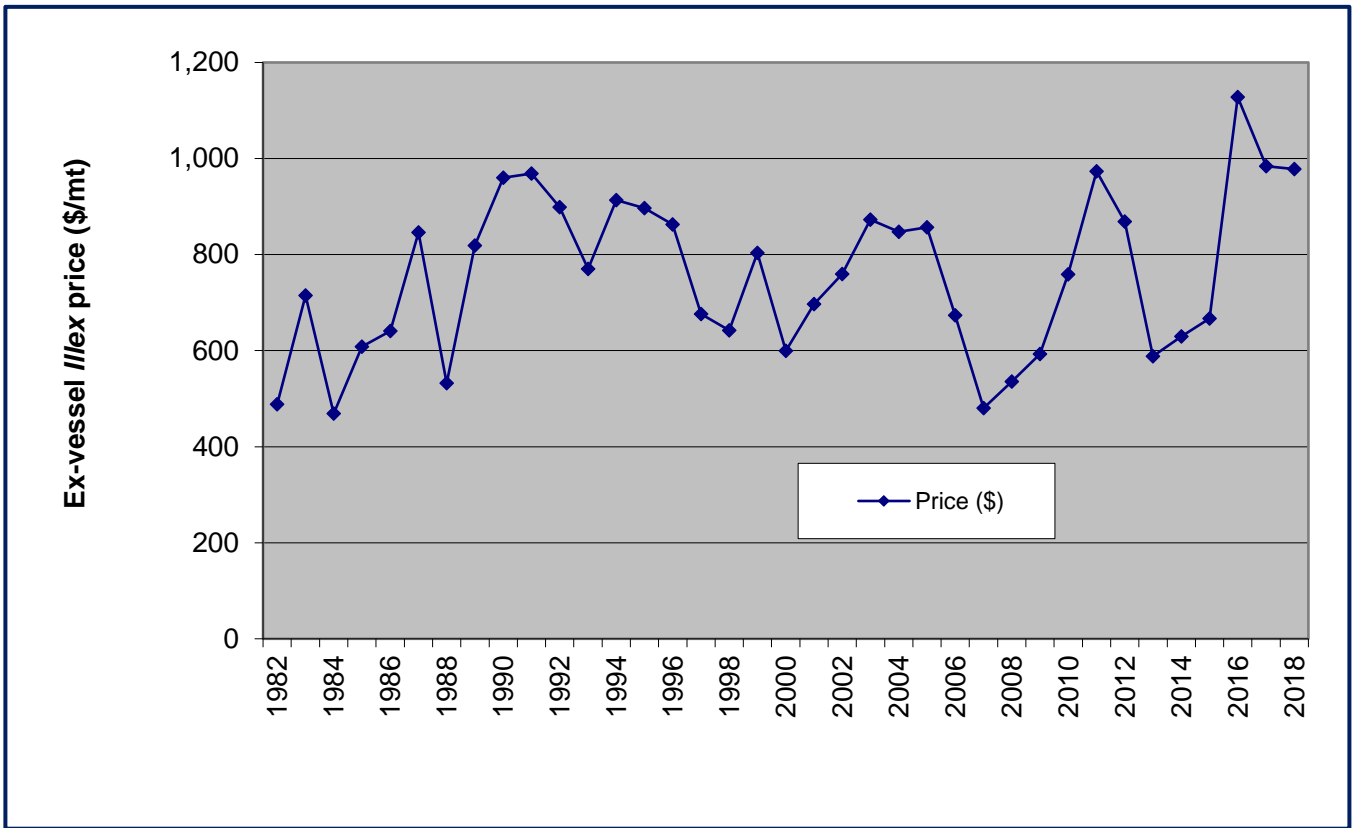


Figure 3. 2017 (orange) and 2018 (blue) *Illex* quota monitoring reports.

Source: Unpublished NMFS Dealer/Permit Data, preliminary



**Figure 4. *Illex* Squid Inflation-Adjusted Prices 1982-2018.**

*Source: Unpublished NMFS Dealer/Permit Data, preliminary*

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**Table 1. Activity by federal vessels in *Illex* squid fishery.**

<b>YEAR</b>	<b># Vessels 500,000+ pounds</b>	<b># Vessels 100,000 - 500,000 pounds</b>	<b># Vessels 50,000 - 100,000 pounds</b>	<b># Vessels 10,000 - 50,000 pounds</b>	<b>Total # Over 10,000 pounds</b>
1982	7	7	0	10	24
1983	1	8	7	11	27
1984	4	15	4	6	29
1985	2	6	4	3	15
1986	8	6	4	3	21
1987	7	10	2	1	20
1988	3	3	1	2	9
1989	8	5	1	3	17
1990	12	3	0	1	16
1991	12	1	1	0	14
1992	16	1	0	1	18
1993	19	3	1	3	26
1994	21	7	5	8	41
1995	24	5	2	7	38
1996	24	5	6	4	39
1997	13	9	2	0	24
1998	25	4	1	3	33
1999	6	9	2	10	27
2000	7	7	0	2	16
2001	3	4	1	2	10
2002	2	3	1	1	7
2003	5	6	1	2	14
2004	23	5	2	0	30
2005	10	10	2	2	24
2006	9	8	1	2	20
2007	8	2	1	0	11
2008	12	4	0	0	16
2009	10	3	1	1	15
2010	12	3	0	6	21
2011	17	4	2	0	23
2012	8	3	2	2	15
2013	5	4	3	5	17
2014	5	3	2	2	12
2015	3	0	1	1	5
2016	4	3	3	2	12
2017	14	6	0	0	20
2018	18	8	0	5	31

*Source: Unpublished NMFS Dealer/Permit Data, preliminary*

**Table 2. Limited access moratorium Illex permits by homeport state in 2017**

Homeport State	Number of Vessels
NJ	27
MA	16
RI	8
NC	7
VA	5
CT	3
NY	4
Other or permit in confirmation of permit history (CPH)	About 10

Source: Unpublished NMFS Permit Data, preliminary

## OTHER MSB FISHERIES IN GENERAL

Given the intent to revisit the FMP goals and objectives in this amendment, an overview of life history, fishery performance, and stock status is provided for the other MSB FMP species: Atlantic mackerel, longfin squid (formerly known as *Loligo*), and Atlantic butterfish. The Council is also considering adding chub mackerel to this FMP (see <http://www.mafmc.org/actions/chub-mackerel-amendment>). Detailed life history information for current MSB species is available at <https://www.nefsc.noaa.gov/nefsc/habitat/efh/>. Recent assessments are available at <https://www.nefsc.noaa.gov/saw/>, and assessment or biological updates along with Fishery Performance Reports from Advisory Panels are available at <http://www.mafmc.org/ssc>.

## MSB SPECIES OVERVIEW

### Mackerel

Atlantic mackerel is a semi-pelagic/semi-demersal (may be found near the bottom or higher in the water column) schooling fish species primarily distributed between Labrador (Newfoundland, Canada) and North Carolina. The stock is considered to comprise a northern contingent spawning primarily in the southern Gulf of St. Lawrence and a southern contingent spawning in the Mid-Atlantic Bight, Southern New England and the western Gulf of Maine. The two contingents mix to some degree during winter months on the Northeast U.S. shelf. The Canadian fishery catches largely the northern contingent while the U.S. fishery catches both contingents. Mackerel Spawning occurs during spring and summer and progresses from south to north as the surface waters warm. Atlantic mackerel are serial, or batch spawners with pelagic eggs. 50% of fish are mature at age 2 and about 98% are mature at age 3. Atlantic mackerel are opportunistic feeders that can ingest prey either by individual selection of organisms or by passive filter feeding. A wide variety of fish and other animals are predators of mackerel.

Foreign catches dominated the early fishery, with total catch peaking at over 430,000 MT (948.0 million pounds) in 1973. Foreign catches declined and then were eliminated, though there was also

some joint venture activity from the mid-1980s through 1991. From 1992 through 2001, total catches averaged about 35,000 MT (77.2 million pounds) before increasing to peaks of just over 110,000 MT (242.5 million pounds) in 2004 and 2006 (US plus Canada – expected Canadian catch is deducted from total catch limits). Total catch then declined and since 2011 has averaged about 14,000 MT (30.9 million pounds) per year. Preliminary estimated 2017 total catch was the highest since 2010 and equaled 17,508 MT (38.6 million pounds). U.S. recreational catch represented an average of 26.4% of total U.S. catch in the 1980's, decreased to an average of 5.2% during the 1990's and 2000's, and has averaged 17.0% since 2010. A substantial portion of U.S. mackerel landings in recent years have come incidental to Atlantic herring fishing.

The current status of Atlantic mackerel is overfished with overfishing occurring as of data through 2016 based on the results of SAW 64 (NEFSC 2018), and the Council has approved a rebuilding action with implementation pending. However, because of a median-level recruitment year-class in 2014 (eggs spawned in 2014) and a relatively high-level recruitment year-class in 2015, the stock was growing at the end of the assessed time period and is projected to rebuild to target levels relatively quickly. While the terminal year recruitment estimates are generally among the most uncertain outputs of any assessment, they are part of the assessment that has been accepted as the best available scientific information. Catch limits (U.S. plus Canada) during rebuilding are expected to be in the 19,000-33,000 MT (41.9-72.8 million pounds) range.

### Butterfish

Atlantic butterfish is a semi-pelagic/semi-demersal schooling fish species primarily distributed between Nova Scotia, Canada and Florida. They are most abundant from the Gulf of Maine to Cape Hatteras and are fast-growing, short-lived, and form loose schools. They winter near the edge of the continental shelf in the Middle Atlantic Bight and migrate inshore in the spring into Mid-Atlantic, southern New England, and Gulf of Maine waters. During the summer, butterfish occur over the entire mid-Atlantic shelf from sheltered bays and estuaries out to about 200 m. In late fall, butterfish move southward and offshore in response to falling water temperatures. Few individuals live beyond 3 years and most are sexually mature at 1-2 years of age. The maximum age reported is 6 years. Butterfish prey mostly on plankton. A wide variety of fish and other animals are predators of butterfish.

Atlantic butterfish were landed exclusively by U.S. fishermen from the late 1800's until 1962. Reported foreign catches of butterfish increased from 750 MT (1.7 million pounds) in 1965 to about 32,000 MT (70.5 million pounds) in 1973. With the advent of extended jurisdiction in U.S. waters, reported foreign catches were phased out by 1987. Low abundance and reductions in Japanese demand for butterfish probably had a combined negative effect on butterfish landings in the 1990s-early 2000s and then regulations kept landings low from 2005-2012. Quotas were increased somewhat in each year 2012-2014 and more substantially in 2015 based on a new assessment and currently are about 12,000 MT (26.5 million pounds) . Through 2017, the fishery/markets have not redeveloped to take full advantage of the higher quotas, with landings between 1,000-4,000 MT (2.2-8.8 million pounds) in recent years.

The current status of butterfish is not overfished (above target biomass) with no overfishing occurring. An assessment update found that butterfish was at 141% of the target biomass in 2016. However, the update integrated recent trawl survey information that indicates recent recruitment has been poor, so biomass is expected to decline to below the target biomass in 2017, but not below the overfished threshold. Fishing mortality appears to have been very low in recent years, so the decline is not a

result of overfishing but rather poor recruitment. If recruitment returns to average levels, then the stock is predicted to build above the target biomass by 2020.

### Longfin Squid

Longfin squid is a neritic (from the shore to the edge of the continental shelf), semi-pelagic schooling cephalopod species primarily distributed between Georges Bank and Cape Hatteras, NC. Longfin squid, and the fishery, generally occur offshore in the winter and inshore during the summer, with mixing and migrations from one to the other in spring and fall. Current research indicates they live less than one year and spawning takes place in overlapping micro-cohorts, with spawning peaks inshore in the summer and somewhere offshore in the winter. Eggs are attached to various substrates in masses known as egg mops. Smaller immature longfin squid prey mostly on plankton while larger individuals prey on fish and crustaceans, and cannibalize. A wide variety of fish and other animals are predators of longfin squid.

U.S. fishermen have been landing longfin squid since the 1880's but early fisheries were minor in scope. Reported foreign landings of longfin squid increased from 2,000 MT (4.4 million pounds) in 1964 to a peak of 36,500 MT (80.5 million pounds) in 1973. Foreign longfin squid landings averaged 29,000 MT (63.9 million pounds) for the period 1972-1975. Foreign fishing for longfin squid began to be more regulated with the advent of extended fishery jurisdiction in the U.S in 1977. Initially, U.S regulations restricted foreign vessels fishing for squid (and other species) to certain areas and times ("foreign fishing windows"), primarily to reduce spatial conflicts with domestic fixed gear fishermen and minimize bycatch of non-target species. Later, foreign allocations were eliminated as the domestic fishery became established. Recent landings have been variable and between about 6,000 MT (13.2 million pounds) and 20,000 MT (44.1 million pounds). The current quota is about 23,000 MT (50.7 million pounds) with seasonal allocations to three 4-month trimesters.

Based on a new biomass reference point from the 2010 stock assessment, the longfin squid stock was not overfished in 2009, but overfishing status was not determined because no overfishing threshold was recommended (though the assessment did describe the stock as "lightly exploited"). Longfin squid relative abundance and biomass indices from the NEFSC fall bottom trawl surveys are highly variable. Longfin had a stock assessment update in 2017, which found the stock biomass to be at 174% of the target in 2016.

## **ECOSYSTEM APPROACHES TO FISHERIES MANAGEMENT**

The Council has recently adopted an Ecosystem Approach to Fisheries Management (EAFM) guidance document, which is available at <http://www.mafmc.org/eafm/>. EAFM attempts to manage species while considering the broader interactions within the ecosystem, so EAFM may inform potential modifications to MSB goals and objectives. EAFM recognizes the biological, economic, social, and physical interactions among the components of ecosystems and attempts to manage fisheries to achieve optimum yield taking those interactions into account. The EAFM goal is to manage for ecologically sustainable utilization of living marine resources while maintaining ecosystem productivity, structure, and function. The Council is currently assessing all Council-managed species, fishing fleets, and ecosystem factors and determining the highest risk elements that may threaten achieving the

biological, economic, or social objectives the Council sets for a fishery. This assessment will then help the Council set management and science priorities to consider potential management responses.

## **CHUB MACKEREL**

The Council recently adopted draft goals and objectives for managing chub mackerel within the MSB FMP, which will be taken out for public hearings and comment before final action. Given the work that has gone into developing those already, they are included below in case they are useful for the public during this scoping process:

- **Goal 1:** Maintain a sustainable chub mackerel stock.
  - **Objective 1.1:** Prevent overfishing and achieve and maintain sustainable biomass levels that achieve optimum yield in the fisheries and meet the needs of chub mackerel predators.
  - **Objective 1.2:** Consider and account for, to the extent practicable, the role of chub mackerel in the ecosystem, including its role as prey, as a predator, and as food for humans.
- **Goal 2:** Optimize economic and social benefits from utilization of chub mackerel, balancing the needs and priorities of different user groups.
  - **Objective 2.1:** Allow opportunities for commercial and recreational chub mackerel fishing, considering the opportunistic nature of the fisheries, changes in availability that may result from changes in climate and other factors, and the need for operational flexibility.
  - **Objective 2.2:** To the extent practicable, minimize additional limiting restrictions on the *Illex* squid fishery.
  - **Objective 2.3:** Balance social and economic needs of various sectors of the chub mackerel fisheries (e.g. commercial, recreational, regional) and other fisheries, including recreational fisheries for highly migratory species.
- **Goal 3:** Support science, monitoring, and data collection to enhance effective management of chub mackerel fisheries.
  - **Objective 3.1:** Improve data collection to better understand the status of the chub mackerel stock, the role of chub mackerel in the ecosystem, and the biological, ecological, and socioeconomic impacts of management measures, including impacts to other fisheries.
  - **Objective 3.2:** Promote opportunities for industry collaboration on research.

## **CONCLUSION**

Thank you for participating in this scoping process. If you have any questions please visit the website for this action, <http://www.mafmc.org/actions/illex-permitting-msb-goals-amendment>, or contact the MSB FMP Fishery Management Specialist, Jason Didden, at [jdidden@mafmc.org](mailto:jdidden@mafmc.org) or (302) 526-5254.