

RHODE ISLAND  
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

DIVISION OF MARINE FISHERIES



# **2020 Sector Management Plan**

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## INTRODUCTION

During the 2002 legislative session, the Rhode Island General Assembly adopted the Commercial Fisheries Management Act, establishing a new commercial fishing license system and ending the moratorium on the issuance of new commercial fishing licenses that had been in place since 1995. One purpose of the act was to allow for new entrants into commercial fisheries, while still restricting access to those fisheries where warranted to rebuild depleted marine fishery resources.

To meet the purposes of the act, regulations developed included fishery “endorsements” to restrict access to, or to otherwise manage commercial harvest for a particular marine species, group of species, or by gear type. As implied by name, access to a species or fishery that is included in the *restricted* endorsement category is *limited*; while species or fisheries included in a *non-restricted* endorsement category is *open*. Two commercial license types (i.e., Commercial Fishing License, Principal Effort License) requires the license holder to hold at least one fishery endorsement. The following fishery endorsements are currently included in regulation and addressed in this plan:

- *Restricted Finfish*
- *Non-Restricted Finfish*
- *Bay quahog*
- *Soft-shell clam*
- *Whelk*
- *Shellfish Other*
- *Lobster*
- *Non-lobster Crustacean*

Finfish species for which access is limited in the marine waters of Rhode Island and are therefore included in the *Restricted Finfish Endorsement* include striped bass, scup (during the summer sub-period only), summer flounder, black sea bass, and tautog. All other regulated species of finfish common in RI waters (e.g., winter flounder, monkfish) are included in the *Non-Restricted Finfish Endorsement*, which is available to any resident or non-resident license holder.

Shellfish species for which access is limited include bay quahog, soft-shell clam, and whelk, and are included in the *Bay Quahog, Soft-Shell Clam, and Whelk endorsements* respectively. All other regulated species of shellfish (e.g., blue mussel, oyster) are included in the *Shellfish Other Endorsement*, which is available to any Rhode Island resident license holder.

Species of crustaceans for which access is limited include lobster, which is included in the *Lobster Endorsement*. All other regulated species of crustaceans (e.g., Blue crab, Jonah crab) are included in the *Non-Lobster Crustacean Endorsement* which is available to any Rhode Island resident license holder.

The availability of any new restricted endorsements is determined annually as a ratio of licenses not renewed. These *exit:entry ratios* are a principal mechanism in the Rhode Island commercial licensing system used to manage harvest through license access restrictions. Exit:entry ratios are reviewed annually by the Industry Advisory Committee (IAC) and Rhode Island Marine Fisheries Council (RIMFC) (the Council) and presented for public comment at a public hearing in accordance with the requirements of the Administrative Procedures Act (R.I. Gen. Law §42-35). Determining the level of fishing effort, the impacts to the resource that a particular license type collectively represents, and thus determining the number of licenses desired in a given fishery as a means to limit such effort, is a primary goal of the licensing program.

Pursuant to R.I. Gen. Law §20-2.1-9(5), this management plan is prepared to address the state of the fishery resources of the state, with focus on those fishery resources with the greatest value to the state and is updated annually prior to any proposed changes to commercial license restrictions on effort and catch. Any amendments made to the commercial licensing regulations must be consistent with this management plan.

The primary goal for quota-managed fisheries is to maintain open seasons with economically viable possession limits while minimizing regulatory discards, avoiding harvest overages, maximizing harvest opportunities, and ensuring equitable access to the fishery. However, due to the multi-species nature of the commercial fishing industry, increased effort can result in shorter seasons and higher discards for many species. Information contained in this plan seeks to aid in understanding if management goals are being realized under existing management and to provide guidance as to the degree of potential new effort that could be sustained in RI's most important fisheries.

This plan includes up-to-date information on stock status, management programs, and fishery performance of commercially important species in the state and provides licensing recommendations based on these parameters for the following year. The plan is provided to the IAC in draft form in August, followed by a public hearing in September, and a RIMFC meeting in October. At their annual meeting in October, the Council offers final recommendations on all restricted endorsements and matters brought to the hearing in September.

# RESTRICTED FINFISH

## BLACK SEA BASS



### STOCK STATUS

The [2016 benchmark stock assessment](#) found black sea bass is not overfished nor experiencing overfishing. With improved recruitment and declining Fishing mortality (F) rates since 2007, Spawning Stock Biomass (SSB) has steadily increased. SSB in 2015 was estimated at 48.9 million pounds, 2.3 times the SSB target of 21.3 million pounds, and F was estimated at 0.27,

below the  $F_{target}$  of 0.36. Recruitment at age 1 averaged 24.3 million fish from 1989 to 2015, with peaks in 2000 (1999 cohort) at 37.3 million and at 68.9 million in 2012 (2011 cohort). The distribution of black sea bass continues to expand northward into the Gulf of Maine (GOM). Quotas since 2015 have been set based on projections from this benchmark assessment (NEFSC, 2017a). An operational assessment is expected to be completed in 2019. This new assessment will include the newly calibrated Marine Recreational Information Program (MRIP) time series and could have significant impacts to the assessment.

### MANAGEMENT PROGRAM

Black sea bass is managed jointly by the Atlantic States Marine Fisheries Commission (ASMFC) and the Mid-Atlantic Fishery Management Council (MAFMC) through the Summer Flounder, Scup and [Black Sea Bass Fishery Management Plan \(FMP\)](#) and its' subsequent amendments and addenda. The FMP establishes coast-wide quotas for each state annually; with Rhode Island's share of the quota currently at 11%. Minimum size, seasons, and possession limits are then established by each state annually, with review by the ASMFC/MAFMC to assure compliance with the FMP. The specifications for 2019 are presented in the table below. These recommendations are consistent with the advice of the RIMFC. A Multi-Purpose License or *Restricted Finfish Endorsement* is required to harvest black sea bass in RI waters.

### 2019 RI COMMERCIAL REGULATIONS

Min. Size	Season	2019 Allocation (%)	Possession Limit (lbs/vsl)
11"	1/1 – 4/30	25%	500/week
	5/1 – 6/30	25%	50/day
	7/1 – 7/31	19.5%	50/day
	8/1 – 9/14	CLOSED	
	9/15 – 10/31	19.5%	50/day
	11/1 – 12/ 31	11%	50/day

Currently, only the first sub-period January 1 – April 30 is managed by aggregate, or weekly, possession limits; all other sub-periods are managed by a daily possession limit. As a means to reduce regulatory discards and provide greater flexibility to fishing practices, the Division is currently working to determine if aggregate possession limits are feasible for other sub-periods through an aggregate landings pilot program.

### FISHERY PERFORMANCE

In 2018, 507 commercial fishers (Table 2) landed 375,853 pounds of black sea bass in RI valued at \$1,440,258 (Table 1). In 2019, the possession limit in the first sub-period was increased twice, on March 3 from 500 to 750 lbs/week, and then on March 24 to 850 lbs/week. The second sub-period closed on June 11, 19 days before the end of the sub-period. The sub-period beginning on July 1 closed on July 17, 14 days before the end of the sub period (Table 3).

### DMF RECOMMENDATIONS FOR 2020

NOAA fisheries has proposed interim specifications for the 2020 fishing year that will be replaced in early 2020 following the results of a black sea bass operational assessment. The coastwide quota for 2020 is anticipated to be 3.52 million lbs, a slight increase from the 2019 coastwide quota of 3.14 million pounds. The current management program is performing reasonably well given the low quota and high availability of this species in our area, with closures minimized to the greatest extent practicable given the current quota and level of effort. Based on the interim 2020 quota and performance to date in 2019, the Division recommends maintaining the level of effort at or below current levels; and maintain as a restricted category species. An important note for 2020 is that there has been a significant recalibration in an important data stream (recreational catch data), and the operational assessment could have major repercussions to the commercial quota, therefore there is high uncertainty in this recommendation for 2020.

## SCUP



### STOCK STATUS

The [2017 stock assessment update](#) found scup is not overfished nor experiencing overfishing. With improved recruitment and declining F rates since 2000, SSB has steadily increased. SSB in 2016 was estimated at 396 million pounds, higher than the SSB<sub>target</sub> of 192 million pounds, and F was estimated at 0.139, below the F<sub>target</sub> of 0.22. Recruitment at age 0 averaged 121 million fish from 1984 to 2016,

with peaks in 1999 at 222 million, 2006 at 222 million, and at 218 million in 2007. The 2015 year class estimate was large at 252 million fish while the 2016 estimate was below average at 65 million fish (NEFSC, 2017c).

### MANAGEMENT PROGRAM

Scup is managed jointly by the ASMFC and MAFMC through the [Summer Flounder, Scup and Black Sea Bass FMP](#) and its subsequent amendments and addenda. The FMP establishes coast-wide quotas for each state annually, with RI's share currently at 56.19%.

During the two federal sub-periods, the quota is available coast-wide and is managed through daily possession limits. Scup is classified as a non-restricted species in RI during these two federal sub-periods. In the summer however, scup is classified as a restricted species for the purpose of managing catch rates when landings by state waters fishermen increases. RI further manages the summer sub-period by allocating the state quota into a General Category (GC) (i.e., gear types other than floating fish traps) and Floating Fish Trap (FFT) sector, at 40% and 60% respectively, with allocations to these two sectors based on historical landings. Another key aspect of the management program includes DEM's authority to transfer quota between the FFT and GC sectors, which provides for the full harvest of the RI quota each year. A Multi-Purpose License or *Restricted Finfish Endorsement* (summer only, *Non-Restricted Finfish Endorsement* in winter) is required to harvest scup in RI waters.

### 2019 RI COMMERCIAL GENERAL CATEGORY REGULATIONS

Min. size	Season	2019 Allocation	Starting Poss. limit
9"	Winter I (federal): (1/1 – 4/30)	Coastwide	50,000 lbs/vsl/day
	Summer: (5/1 – 9/30)	40% of sub-period quota	10,000 lbs/vsl/week
	Winter II (federal): (10/1 – 12/31)	Coastwide	2,000/18,000 lbs/vsl/day*

\* Winter II possession limit begins at 2,000 lbs/vsl/day; change to 18,000/day if Winter I roll over available

### 2019 RI COMMERCIAL FLOATING FISH TRAP REGULATIONS

Min. size	Season	2019 Allocation	Starting Poss. limit
9"	Winter I (federal): (1/1 – 4/30)	Coastwide	50,000 lbs/vsl/day
	Summer: (5/1 – 9/30)	60% of sub-period quota	Unlimited
	Winter II (federal): (10/1 – 12/31)	Coastwide	2,000/18,000 lbs/vsl/day*

\* Winter II possession limit begins at 2,000 lbs/vsl/day; change to 18,000/day if Winter I roll over available

### FISHERY PERFORMANCE

In 2018, 433 commercial fishers (Table 2) landed 4,712,575 pounds of scup in RI valued at \$2,738,740 (Table 1). To date, no early closures have been needed. Two increases to the possession limit have been enacted in 2019 (July 21 to 15,000 lbs/week and August 4 to 20,000 lbs/week) (Table 3).

### DMF RECOMMENDATIONS FOR 2020

NOAA fisheries has proposed interim specifications for the 2020 fishing year that will be replaced in early 2020 following the results of a scup operational assessment. The coastwide quota for 2020 is anticipated to be 23.98 million pounds, the same as 2019. Given the anticipated quota, good stock status, and performance to date in 2019, the Division recommends allowing for small increases in effort during the summer sub-period. Additionally, the Division recommends maintaining scup in the restricted category in the summer sub-period and in the non-restricted category only during the federal sub-periods at this time. An important note for 2020 is that there has been a significant recalibration in an important data stream (recreational catch data), and the operational assessment could have repercussions to the commercial quota, therefore there is high uncertainty in this recommendation for 2020.

## STRIPED BASS



### STOCK STATUS

A [benchmark stock assessment](#) for striped bass was completed and peer reviewed in November 2018 and subsequently adopted for management use by the ASMFC management board in May

2019. The assessment findings indicate that the striped bass stock is overfished and experiencing overfishing relative to the updated Biological Reference Points (BRPs). SSB in 2017 was estimated to be 151 million pounds, below both the SSB<sub>target</sub> and SSB<sub>threshold</sub>, 252 million pounds and 202 million pounds respectively. SSB has been declining since 2003 and has been below the threshold since 2010. F in 2017 was estimated to be 0.31, above both F<sub>target</sub> and F<sub>threshold</sub>, 0.20 and 0.24 respectively. F has been at or above the threshold in 13 of the last 15 years (NEFSC, 2019).

### MANAGEMENT PROGRAM

Striped bass is managed by ASMFC through [Amendment 6](#) to the Interstate FMP for striped bass and its subsequent addenda I-IV, with [Addendum IV](#) being the most recent management document implemented in 2015. The recreational fishery is managed through minimum size and bag limits while the commercial fishery is managed with size limits and state-specific quota allocations. States can implement alternative management measures that are deemed to be equivalent to the preferred measures in the FMP through a Conservation Equivalency (CE) process. In RI, the recreational fishery has a 1 fish bag limit and a 28” minimum size. The commercial fishery is split between the GC and FFT sectors. The GC has a 5 fish possession limit, a 34” minimum size, and gets 61% of the RI allocation. The GC quota is divided between two sub-periods, designed to allocate harvest between inshore bay and offshore Block Island fishing. Days closed to fishing include Friday and Saturday as a means to extend the season as long as possible. The FFT sector operates under an ASMFC approved CE proposal that allows them to have a lower minimum size limit of 26” in exchange for a reduced quota. The FFT fishery opens annually on April 1 at an unlimited possession limit and continues until 70% of the sectors allocation is projected to be harvested. At the time a reduced possession limit of 500 pounds/fish trap licensee/day goes into effect until the FFT allocation is exhausted. If it is projected that the FFT sector will not be able to fully harvest their allocation, the Division may transfer a portion to the GC fishery. A Multi-Purpose License or *Restricted Finfish Endorsement* is required to harvest Striped bass in RI waters and the harvest of striped bass in federal waters (EEZ) is prohibited.

### 2019 RI COMMERCIAL GENERAL CATEGORY REGULATIONS

Min. Size	Season	2019 Allocation		Possession Limit
34”	5/20 – 6/30	61%	70%	5 fish/vessel/day
	7/1 – 12/31		30%	

### 2019 RI COMMERCIAL FLOATING FISH TRAP REGULATIONS

Min. Size	Season	2019 Allocation	Possession Limit
26"	4/1 – 12/31	39%	Unlimited until 70% of quota reached, then 500 lbs/licensee/day

### FISHERY PERFORMANCE

In 2018, 267 commercial fishers (Table 2) landed 176,639 pounds of striped bass in RI valued at \$782,131 (Table 1). In 2019, the first sub-period of the GC sector did not experience an early closure and closed at the end of the sub-period, with an underage of 3,685 lbs (Table 3). The second sub-period began immediately on July 1 and closed prior to the end of the sub-period on July 11 with an overage of 9,535 lbs. As of the writing of this report, 57,263 lbs remain in the FFT quota.

### DMF RECOMMENDATIONS FOR 2020

As a result of the findings of the 2018 striped bass benchmark stock assessments overfishing and overfished status, ASMFC is currently considering management changes for both the recreational and commercial fisheries in 2020 through Draft Addendum VI to Amendment 6 to the Interstate FMP for striped bass. The current timeline has the management board voting on final action on Addendum VI in October 2019. In the absence of information as to what management changes will occur in 2020, if any, the Division recommends maintaining effort at or below current levels and maintaining striped bass as a restricted category species.

## SUMMER FLOUNDER



### STOCK STATUS

The [2018 benchmark stock assessment](#) found summer flounder is not overfished or experiencing overfishing. With improved recruitment and declining fishing mortality rates since the late 1980s, SSB steadily increased, peaking in the early 2000s. SSB in 2017 was estimated at 98 million pounds, higher than the SSB<sub>threshold</sub> of 63 million pounds, and F was estimated at 0.334, lower than the F<sub>threshold</sub> of 0.448. Recruitment at age 0 was estimated to be below the time series average of 53 million fish, at 42 million fish in 2017 (NEFSC, 2019).

### MANAGEMENT PROGRAM

Summer flounder is managed jointly by the ASMFC and MAFMC via the [Summer Flounder, Scup and Black Sea Bass FMP](#) and its subsequent amendments and addenda. In RI, seasons are divided into three seasonal sub-periods. While previously the fishery had been closed for three days each week in the summer sub-period, following a quota increase in 2019 due to the findings of the benchmark stock assessment, these closed days were deemed no longer necessary and the fishery was restored to 7 days per week. Aggregate possession limits are currently only available to permit holders during the first sub-period. A Multi-Purpose License or *Restricted Finfish Endorsement* is required by license holders to harvest summer flounder in RI waters.

### 2019 RI COMMERCIAL REGULATIONS

Min. size	Season	2019 Allocation	Starting Poss. Limit (lbs/vsl/day)
14"	1/1 – 4/30 (Winter)	54%	100/1,500 Aggregate (bi-week)
	5/1 – 9/15 (Summer)	35%	50
	9/16 – 12/31 (Fall)	11%	100

### FISHERY PERFORMANCE

In 2018, 492 commercial fishers (Table 2) landed 1,022,618 pounds of summer flounder in RI valued at \$4,706,067 (Table 1). In 2019, no early closures or daily possession limit changes were implemented during the first sub-period. The aggregate possession limit was increased once on March 31 to 4,000 lbs/bi-week. The possession limit in the summer sub-period was increased to 75 lbs/day on June 9 and raised again to 100 lbs/day on June 30. There have been no fishery closures to date in 2019 (Table 3).

### DMF RECOMMENDATIONS FOR 2020

The coastwide quota for 2020 is estimated to be 11.53 million lbs, the same as 2019. Due to the current quota and current level of effort, the Division recommends maintaining effort at or below current levels and maintain as a restricted category species.

## TAUTOG



### STOCK STATUS

The [2016 stock assessment update](#), analyzes the stock in 4 regions (Massachusetts/Rhode Island - MARI, Long Island Sound, New Jersey/New York Bight, and Delaware/Maryland/Virginia); the updated assessment finds that the MARI region is not overfished and overfishing is not occurring. SSB has been

fairly steady over the past several years, and is estimated at 2,196 mt, above the threshold of 2,004 mt. F is estimated at 0.23, below the target of 0.28 (ASMFC, 2016).

### MANAGEMENT PROGRAM

Tautog is managed regionally by the ASMFC through [Amendment 1](#) to the Interstate [FMP](#) for Tautog. Although not specifically required by the FMP, RI has an established commercial quota, which in part achieves the F targets required by the FMP. The commercial quota has remained stable for the past several years at 51,348 pounds. Traditionally, the quota was split between 3 seasons (spring, summer and fall), however, for 2019 the summer sub-period has been removed. A Multi-Purpose License or *Restricted Finfish Endorsement* is required by license holders to harvest Tautog in RI waters.

### 2019 RI COMMERCIAL REGULATIONS

Min. Size	Season	2019 Allocation	Possession Limit
16"	1/1 – 3/31		Closed
	4/1 – 5/31	50%	10 fish/day
	6/1 – 10/14		Closed
	10/15 – 12/31	50%	10 fish/day

### FISHERY PERFORMANCE

In 2018, 242 commercial fishers (Table 2) landed 51,414 pounds of tautog in RI valued at \$196,178 (Table 1). The fishery experienced an early seasonal closure in the first sub-period in 2019 and closed early on May 24 (Table 3).

### DMF RECOMMENDATIONS FOR 2020

The quota for 2020 is anticipated to be 51,348 pounds, minus any overages that may occur in 2019. Due to uncertainty in stock status pending a stock assessment update with the newly calibrated MRIP data and difficulty with maintaining open seasons, the Division recommends maintaining effort at or below current levels and maintain as a restricted category species.

## 2020 LICENSING RECOMMENDATIONS - *RESTRICTED FINFISH ENDORSEMENT*

### DMF

Referring to Table 4, the number of licenses eligible to harvest restricted finfish has remained relatively stable in the last three years, which indicates that this ratio is maintaining a consistent number of licenses and participants in the fishery. More importantly however is that the new licenses that replaced the licenses not renewed has not led to an appreciable increase in effort, evidenced by the number of participants landing restricted species. Each of the restricted species had fewer participants in 2018 than 2017 and none have fluctuated more than 5% since 2014. (Table 2). **The Division therefore recommends that the 1:1 exit:entry ratio be maintained, and that the species currently included in the Restricted Finfish category also be maintained.**

In 2019, 13 licenses eligible to harvest restricted finfish were not renewed (8 MPURP, 5 PEL w/RFIN), which would *result in 15 new PEL restricted finfish endorsements being issued in 2020.*

### RIMFC

At their meeting on October 15, 2019, the Council did not offer any recommendations to alter the exit:entry ratio for the Restricted Finfish Endorsement.

## NON-RESTRICTED FINFISH

### ATLANTIC HERRING



#### STOCK STATUS

The [2018 Atlantic herring benchmark stock assessment](#), peer reviewed at the 65<sup>th</sup> [Northeast Regional Stock Assessment Review Committee \(SARC\)](#), indicates Atlantic herring are not overfished and overfishing is not occurring; however, recent estimates of herring recruitment have been below average, leading to in-season ACL

adjustments in 2018 and 2019. SSB in 2017 was estimated at 141,473 mt, below the SSB<sub>target</sub> (SSB<sub>MSY proxy</sub>) of 189,000 mt (416 million pounds) and above the SSB<sub>threshold</sub> (1/2 SSB<sub>MSY proxy</sub>) of 94,500 mt (208 million pounds). In 2017, F was estimated at 0.16, below the F<sub>threshold</sub> of 0.51 (NEFSC, 2018).

#### MANAGEMENT PROGRAM

Atlantic herring is managed jointly by the ASMFC, NOAA Fisheries and NEFMC. At ASMFC, Atlantic herring are managed through [Amendment 3 to the Interstate FMP for Atlantic Herring](#) and subsequent addenda I and II. Annual specifications are calculated and regional ACLs (quotas) are broken out into fishing areas. Area 2 encompasses Southern New England (SNE) waters including RI state waters. The 2019 Atlantic herring quota for Area 2 was set to 4,188 metric tons. River herring bycatch is a concern within the Atlantic herring fishery and also has regional ACLs (catch caps) that are set by fishing area and gear type. When the catch cap for river herring is reached in any given area, the Atlantic herring fishery is closed until the next fishing year. The 2019 Area 2 river herring catch cap was set at 251.9 mt. A Multi-Purpose License or *Non-Restricted Finfish Endorsement* is required to harvest Atlantic herring in RI waters.

In RI, any vessel is eligible to participate in the state waters Atlantic herring fishery, however a permit is required to possess greater than 2,000 pounds. This permit has been required since 2013 as a means to address issues arising from prohibited species interactions, mainly river herring, and gear conflicts. Fisheries violations may result in a vessel's state water Atlantic herring permit being revoked.

#### FISHERY PERFORMANCE

In 2018, 27 commercial fishers (Table 2) landed 2,159,432 pounds of Atlantic herring in RI valued at \$571,543 (Table 1). A state quota has not been established.

#### DMF RECOMMENDATIONS FOR 2020

It is recommended that the current permitting program be reviewed for effectiveness and continue to match federal landing limits in state waters. Maintain as a non-restricted category species.

## BLUEFISH



### STOCK STATUS

The most recent [ASMFC Benchmark Stock Assessment](#) was conducted by the Northeast Regional Stock Assessment Workshop (SAW) in August 2015. The assessment indicates lower biomass estimates and reference points relative to the previous assessment, though the species is not currently experiencing overfishing, nor is it overfished. SSB

in 2014 was estimated to be 191 million pounds, which is less than the SSB<sub>target</sub> (223 million pounds) but greater than the SSB<sub>threshold</sub> (112 million pounds). F in 2014 was estimated to be 0.157, below the F<sub>threshold</sub> (F<sub>msy proxy</sub> = F<sub>35%SPR</sub> = 0.19).

### MANAGEMENT PROGRAM

Bluefish is managed jointly by the ASMFC and MAFMC through the [FMP for Bluefish](#) and its subsequent amendment and addendum, which sets annual commercial coast-wide quotas for each state; Rhode Island receives 6.8%. Weekly aggregate possession limits in RI allow for fishermen to maximize harvest when they encounter bluefish in large numbers, while allowing for up-to-date quota tracking. In 2018, the first sub-period possession limit was changed from a 500/week aggregate to a 1000/bi-week aggregate, this approach was maintained in 2019. A Multi-Purpose License or *Non-Restricted Finfish Endorsement* is required to harvest Bluefish in RI waters.

### 2019 RI COMMERCIAL REGULATIONS

Min. Size	Season	Possession Limit (lbs/vsl)
12"	1/1 – 4/30	1000/bi-week
	5/1 – 11/9	8000/week
	11/10 – 12/31	500/week

### FISHERY PERFORMANCE

In 2018, 278 commercial fishers (Table 2) landed 237,121 pounds of bluefish in RI valued at \$245,049 (Table 1). In 2019, the first sub-period remained open for its entirety with no possession limit decreases imposed, with a harvest underage of 11,468 pounds, which carried over into the second sub-period. The possession limit in the second sub-period was increased to 12,000/week on June 30 (Table 3) and has ~400,818 pounds remaining as of the writing of this report.

### DMF RECOMMENDATIONS FOR 2020

The initial 2020 RI allocation is estimated to be 528,280 lbs., though NOAA may increase the quota in early 2020 in the event of a recreational to commercial sector transfer. This quota is subject to change depending on the performance of the recreational fishery in 2019, the results of the 2019 operational assessment, and any potential transfers that may occur from the recreational sector to the commercial

sector. Given a similar quota and current level of effort, the Division recommends maintaining effort in 2020 at current levels and maintaining bluefish as a non-restricted category species.

However, RI has required frequent commercial transfers from Atlantic states in past years. RI has received transfers ranging from 100,000 lbs. to 180,000 lbs. between 2014 and 2017, averaging an annual +55,949-lb transfer during that time. The Division will continue to monitor the situation and may consider adding bluefish to the restricted category in the future if transfers continue to occur frequently.

## COD



### STOCK STATUS

RI State waters are considered part of the George’s Bank (GB) cod stock. An updated [operational assessment](#) for the GB Atlantic Cod stock was completed in 2017. This was a data-limited assessment using the PlanBsmooth approach that updated commercial fishery catch data through 2016 and updated research

survey indices of abundance. Based on this assessment, stock status cannot be quantitatively determined due to a lack of biological reference points, however it is qualitatively assessed as overfished. Overfishing status is unknown. Projections cannot be computed using the PlanBsmooth assessment approach, but instead this approach applies an estimate of recent change in the smoothed survey biomass (rate of change is estimated to be 1.517 in 2017) to the average of the recent three years of catch to produce catch advice (thus influenced by uncertainty in survey estimates). The smoothed survey biomass is increasing, but without a biomass reference point it is not known if rebuilding is on schedule (NEFSC, 2017b).

### MANAGEMENT PROGRAM

Atlantic cod is managed on a federal fishing year (May 1 - April 30) under the NEFMC [Northeast Multispecies FMP](#). Due to the 35-day partial Federal government shutdown, there was a delay in the rulemaking process for Framework Adjustment 58 of the Northeast Multispecies Groundfish FMP. Beginning May 1<sup>st</sup>, 2019, the annual catch limit was set at 3,348,822 pounds under Framework 57, the same as for FY 2018. Framework 58 was passed and changes to the quota for seven species (including Atlantic Cod) were effective beginning July 18, 2019. The 2019 Annual Catch Limit (ACL) for the GB stock under this new framework is 3,838,248, up 14.6% from the 2018 ACL. In addition, the minimum size was lowered to 19” for the commercial fishery and 21” for the recreational and party/charter fisheries. In an effort to complement federal FMPs, RI has adopted a minimum size limit and daily possession limit consistent with federal regulations, and state quota set at 1% of the GB ACL (equal to 38,382 pounds for 2019). A Multi-Purpose License or *Non-Restricted Finfish Endorsement* is required to harvest Atlantic cod in RI waters.

### 2019 RI COMMERCIAL REGULATIONS

Min. Size	Season	Possession Limit (lbs/vsl/day)
19”	5/1 – 4/30	1,000

### FISHERY PERFORMANCE

In 2018, 87 commercial fishers (Table 2) landed 65,696 pounds of Atlantic cod in RI valued at \$151,667 (Table 1). These landings include fish caught in state waters, as well as fish caught in federal waters. State-water landings for RI during FY2018 totaled approximately 3,144 pounds, or 9.4% of the RI state-water quota (33,488.22 lbs). The state quota for cod has not been harvested since its inception in 2009.

Cod abundance in state waters is ephemeral and potential landings for a given year cannot be accurately projected. This fishery still appears to be resource limited and given the increase in the ACL for 2019, it is unlikely that the RI state quota will be fully harvested.

#### DMF RECOMMENDATIONS FOR 2020

The 2020 ACL for GB Atlantic Cod is 2,182 mt (4,810,487 pounds). RI's 2020 state quota is set at 1% of the ACL, equal to 48,105 lbs. It is recommended that effort be maintained at current levels and this species be maintained in the non-restricted category.

## MENHADEN



### STOCK STATUS

A [2017 Atlantic menhaden stock assessment update](#) indicates the stock is neither overfished nor experiencing overfishing. The current BRPs use F and Fecundity (FEC, number of mature ova) to determine stock status. F has been variable over time series ranging between 0.31 and 0.58 with F in 2016 estimated to be 0.51. Fecundity in 2016 was estimated to be 83,486 billion eggs, above the threshold of 57,295 billion eggs but below the target of 99,467 billion eggs (ASMFC, 2017a). Work is currently underway on two benchmark stock assessments for Atlantic menhaden, a single

species assessment and a series of assessment models that could be used for ecological reference points. Both assessment processes will be peer reviewed in November 2019 and are scheduled to go to the Atlantic menhaden management board in February 2020.

### MANAGEMENT PROGRAM

Atlantic menhaden are managed by the ASMFC under [Amendment 3](#) to the Interstate [FMP](#) for Atlantic Menhaden which maintains the management program's current single-species BRPs until the review and adoption of menhaden-specific ecological reference points as part of the 2019 benchmark stock assessment process. It also addresses multiple commercial management measures, including allocation, quota transfers, quota rollovers, incidental catch, and the Episodic Events (EE) Set Aside Program. The ASMFC's Atlantic Menhaden Management Board sets an annual Total Allowable Catch (TAC) for menhaden that is allocated to the Atlantic coast jurisdictions, with each jurisdiction getting a 0.5% minimum quota allocation, with the remainder of the TAC being distributed to the states based on landings history occurring from 2009-2011. A TAC set-aside of 1% is used each year by states in the New England region (New York to Maine) for EE, or periods of time when large amounts of biomass are present (ASMFC, 2017b). RI has participated in the EE Set-Aside Program, which has allowed RI state waters to re-open to the landing of menhaden until the set-aside quota was harvested or the program ended. The RI menhaden allocation is 0.52% of the overall TAC. Upon harvest of the RI quota, the landing of menhaden in RI is prohibited, except for non-directed fisheries which have a bycatch allowance of 6,000 pounds/vessel/day, or 12,000 pounds/vessel/day if two licensed fishermen are on board the vessel. A Multi-Purpose License or *Non-Restricted Finfish Endorsement* is required to harvest Menhaden in RI waters.

In Rhode Island, Narragansett Bay in its entirety is designated a Menhaden Management Area through RI statute, which provides the Division with the ability to manage menhaden through additional [management measures](#) including:

- Areas permanently closed to purse seining (i.e., Providence River, Greenwich Bay);
- A daily possession limit of 120,000 pounds/vessel;
- Net size certification;
- Vessel capacity restrictions;
- Call-in requirements;
- A threshold amount of 2,000,000 lbs of fish that must be present in the management area before opening the commercial bait fishery;

- An overall cap on the amount of fish that can be harvested (i.e., 50% of the standing stock in the Bay over the threshold amount);
- A threshold amount of fish that must be present for the commercial bait fishery to remain open (i.e., 1.5 million pounds);
- A Fall opening of the fishery (subject to quota or EE availability) in the southern portion of the management area, regardless of biomass levels, with a daily possession limit of 25,000 lbs/vessel.

Biomass levels in the Management Area are monitored on a weekly or bi-weekly basis through a contracted spotter pilot who provides school counts and an estimate of biomass in pounds of fish. A depletion model for open systems (Gibson 2007) uses these spotter pilot estimates, commercial bait landings, and biological information to provide an overall estimate of biomass present, which is then used to open and close the commercial bait fishery in the management area.

### FISHERY PERFORMANCE

In 2018, 7 commercial fishers (Table 2) landed 722,388 pounds of Atlantic menhaden in RI valued at \$54,990 (Table 1). As of the writing of this report, 50,431 pounds have been landed, with 2,390,949 pounds remaining in the quota. There have been no menhaden management area openings in 2019 to date as the biomass level has not reached the threshold amount to allow fishing to commence.

### DMF RECOMMENDATIONS FOR 2020

The TAC for Atlantic menhaden for 2020 has been set by the ASMFC management board at status quo. RI's initial commercial menhaden quota for 2020 is 2,440,542 lbs, minus any overages that occur; therefore, the Division recommends maintaining effort at or below current levels in 2020 and maintaining menhaden as a non-restricted species.

# MONKFISH



## STOCK STATUS

The [2016 monkfish operational assessment](#) did not include an update to the population model (SCALE) used in previous assessments, because of uncertainty about the ageing methodology used to estimate monkfish growth. As a result, components of the biological reference points, such as  $F_{threshold}$ , could not be updated resulting in no updates to the Over Fishing Limit (OFL). The 2016 operational assessment did not vacate the 2013 operational assessment, which showed that  $F$  was estimated to be 0.11, the updated  $F_{threshold}$  was 0.37, and the corrected total

Biomass ( $B$ ) estimate of 88,806 mt was above both the  $B_{target}$  of 71,667 mt (BMSY proxy) and the 2013 corrected  $B_{threshold}$  of 23,204mt ( $1/2 * B_{target}$ ). The 2013 BRPs indicated monkfish are not overfished and overfishing is not occurring in the Southern Fishery Management Area; however, high levels of uncertainty in the BRPs likely contribute to underestimates of  $F$  and overestimates  $B$  in each area (NEFSC, 2016). A new operational assessment is expected to be completed in 2019.

## MANAGEMENT PROGRAM

Monkfish is jointly managed by the NEFMC and MAFMC through the [Monkfish FMP](#) on a federal fishing year (May 1 - April 30), with the NEFMC having the administrative lead. Monkfish is managed as two stocks, with RI waters considered part of the Southern Management Area (SMA) stock. The SMA monkfish stock is regulated by the NEFMC through minimum size limits, gear restrictions, and Days at Sea (DAS) restrictions. A Multi-Purpose License or *Non-Restricted Finfish Endorsement* is required to harvest monkfish in RI waters.

In an effort to complement the FMP, RI has adopted a minimum size, daily possession limit, and state quota on monkfish harvested in state waters. The RI state-water quota is set at 3% of the SMA Total Allowable Landings (TAL) with a possession limit reduction to 50 lbs/vessel/day tail weight when state-water landings reach 2% of the SMA TAL

## 2019 RI COMMERCIAL REGULATIONS:

Min. Size	Season	Possession Limit (lbs/vsl/day)
17" whole/11" tail	5/1 – 4/30	3,027 whole/700 tail

## FISHERY PERFORMANCE

In the May 1, 2017 – April 30, 2018 fishing year, 174 commercial fishers (Table 2) landed 3,057,088 pounds of monkfish in RI valued at \$2,329,546 (Table 1).

## DMF RECOMMENDATIONS FOR 2020

Allowing for a modest increase in effort would appear to still provide for the directed fishery to remain open for the entire fishing year. Maintain in the non-restricted species category.

## WINTER FLOUNDER



### STOCK STATUS

The [2017 SNE/MA operational stock assessment](#) for Winter Flounder (WFL) indicates the stock is overfished, but overfishing is not occurring. SSB in 2016 was estimated to be 4,360 mt, which is 18% of the biomass target and 36% of the biomass threshold. F in 2016 was estimated to be 0.21 which is 62% of the overfished threshold (NEFSC, 2017d).

### MANAGEMENT PROGRAM

Winter flounder are jointly managed on a federal fishing year (May 1 - April 30) by the ASMFC and NEFMC. At the NEFMC, WFL are managed through the Northeast Multispecies (Groundfish) FMP. Under [Framework Adjustment 58](#), harvest of WFL is allowed in the federal SNE/MA stock management area, and federally permitted vessels participating in a sector are allowed to fish with no limit until they reach their sector allowable catch limit. Federally permitted vessels in the “common pool” are currently restricted to a possession limit of 2,000 lb/vsl/day, or 4,000 lbs/vsl/trip limit, which is adjustable by the NMFS regional administrator. The SNE/MA management area remains open to common pool vessels until the allowable catch limit is reached.

At the state level, ASMFC manages the inshore WFL stocks through the FMP for Inshore Stocks of WFL and its subsequent [amendments and addenda](#). WFL are managed with minimum size, daily possession limits, mesh size restrictions, and areas closed to harvest. In RI, regulations include areas within state waters closed to harvest, including Point Judith Pond, the Harbor of Refuge, Potters Pond, and Narragansett Bay north of the Colregs line, which aim to protect a recovery of the population in these areas due to the SNE closure. In order to maintain a stream of commercial landings for biological data collection used in the stock assessment, RI also adopted a 50 lb daily possession limit. A Multi-Purpose License or *Non-Restricted Finfish Endorsement* is required to harvest WFL in RI waters.

### 2019 RI COMMERCIAL REGULATIONS

Min. Size	Season	Possession Limit (lbs/vsl/day)
12”	1/1 – 12/31	50

### FISHERY PERFORMANCE

In 2018, 100 commercial fishers (Table 2) landed 191,198 pounds of winter flounder in RI valued at \$574,222 (Table 1). A state quota has not existed since 2006.

### DMF RECOMMENDATIONS FOR 2020

As the fishery is determined to be overfished, with no overfishing, the Division recommends maintaining effort at or below current levels in 2020 and maintaining winter flounder as a non-restricted species. Any future changes in state waters management would need approval of the ASMFC Winter Flounder Management Board.

## SPINY DOGFISH



### STOCK STATUS

The [2018 stock assessment update](#) indicated that the spiny dogfish population is not overfished, and overfishing is not occurring. Spawning stock biomass is estimated to be 235 million pounds, a level slightly above the threshold of 175 million pounds (ASMFC, n.d.).

### MANAGEMENT PROGRAM

Spiny dogfish is jointly managed on a federal fishing year (May 1 - April 30) by the MAFMC and NEFMC through a joint FMP, with the ASMFC overseeing the species interstate FMP. Spiny dogfish are managed under a quota system. The 2018 fishing season (May 1 - April 30) quota was 38.2 million pounds, with Rhode Island's quota is part of the Northern Region (Maine through Connecticut) at 58% of the coastwide allocation. Vessels are limited by a maximum possession of 6000 pounds per vessel per day. No minimum size exists currently with the species. A Multi-Purpose License or *Non-Restricted Finfish Endorsement* is required to harvest Spiny dogfish in RI waters.

### FISHERY PERFORMANCE

In the May 1, 2017 – April 30, 2018 fishing year, 35 commercial fishers (Table 2) landed 197,732 pounds of spiny dogfish in RI valued at \$32,359 (Table 1).

### DMF RECOMMENDATIONS FOR 2020

At this time, the Division recommends status quo of the current fisheries management plan. Any changes in state waters management would need approval of the ASMFC Spiny Dogfish Management Board. Maintain in the non-restricted species category.

## SMOOTH DOGFISH

### STOCK STATUS

The [2015 benchmark stock assessment](#) for smooth dogfish indicates that smooth dogfish are not overfished and not experiencing overfishing (SEDAR, 2015).

### MANAGEMENT PROGRAM

Smooth dogfish is jointly managed by NOAA Fisheries and [ASMFC](#). In November 2018, NOAA Fisheries published the 2018 Atlantic smooth dogfish quota of 1,802.6 dressed weight (dw) mt (3,973,902 dw lbs). This quota level has not been changed since the 2017 specification. In 2018, less than a quarter of the Atlantic smooth dogfish quota was harvested. Given that smooth dogfish is not overfished, and overfishing is not occurring, up to 50% of the (federal) base quota can be carried over to the following year if there is an under harvest. NOAA Fisheries rolled over 33% of unused 2018 quota to the 2019 base quota. For the 2019 fishing year, Rhode Island received 1.363% of the coastwide quota, equating to 24.6 dw mt (or 54,167 dw lbs).

For Rhode Island management, the fishing season is from January 1 through December 31. There is no possession limit or minimum size. A Multi-Purpose License or *Non-Restricted Finfish Endorsement* is required by license holders to harvest Smooth dogfish in RI waters.

### FISHERY PERFORMANCE

In 2018, 33 commercial fishers (Table 2) landed 55,053 pounds of smooth dogfish in RI valued at \$19,405 (Table 1).

### DMF RECOMMENDATIONS FOR 2020

At this time, the Division recommends status quo of the current fisheries management plan. Any changes in state waters management would need approval of the ASMFC Coastal Sharks Management Board. Maintain in the non-restricted species category.

## SKATE STOCK STATUS



The skate fishery is broken into two categories: winter skate (wing fishery) and little skate (bait fishery). Based on updated survey data, winter skate are not overfished, and overfishing is not occurring. The average biomass index of winter skate was 6.65 kg/tow, which is above the biomass threshold reference point (2.83 kg/tow) and above the  $B_{msy}$  proxy (5.66 kg/tow). The 2014-2016 average index is above the 2013-2015 index by 24.2%, thus overfishing is determined to not be occurring (GARFO, n.d.).

Little skate are not overfished, and overfishing is not occurring. For little skate, the 2015-2017 NEFSC spring average biomass index of 5.49 kg/tow is above the biomass threshold reference point (3.07 kg/tow) but below the  $B_{msy}$  proxy (6.15 kg/tow). The 2015-2017 average index is below the 2014-2016 average by 2.6%, which is less than the 20% change threshold, thus little skate are determined to be not overfished and overfishing is not occurring (GARFO, n.d.).

## MANAGEMENT PROGRAM

The skate complex is managed on a federal fishing year (May 1 - April 30) by the NEFMC under the [Northeast Skate Complex FMP](#), which specifies federal-water management for seven skate species (barndoor, clearnose, little, rosette, smooth, thorny and winter skates). The FMP has been updated through a series of amendments and framework adjustments, the most recent being Framework Adjustment 5 to the Northeast Skate Complex FMP. The FMP identifies two skate fisheries, the wing and bait fisheries that focus on winter and little skate, respectively.

In an effort to complement the federal FMP, RI has adopted a weekly possession limit for the wing fishery of 18,200 pounds/vessel/week for wings only; or 41,314 pounds/vessel/week for whole skate. The RI state-water bait fishery is managed and a combination of fishing seasons, daily possession limits, and a maximum size. A Multi-Purpose License or *Non-Restricted Finfish Endorsement* is required to harvest skate in RI waters.

## FISHERY PERFORMANCE

In the May 1, 2017 – April 30, 2018 fishing year, 139 commercial fishers (Table 2) landed 1,497,953 pounds (wing weight) of winter skate, a value in RI of \$ 839,618 (Table 1). Also, in 2018, 46 fishers (Table 2) landed 7,064,778 pounds of little skate with a value of \$ 881,935 (Table 1).

## DMF RECOMMENDATIONS FOR 2020

Allowing for a modest increase in effort and would appear to still provide for the directed skate wing and bait skate fisheries to remain open for the entire fishing year. Maintain in the non-restricted species category.

## LONGFIN SQUID



### STOCK STATUS

Based on the [2017 stock assessment update](#), the longfin inshore squid (*Doryteuthis pealeii*) stock is not overfished. In 2016 biomass was estimated to be 73,762mt; much greater than the threshold  $B_{msy}$  proxy of 21,203 mt. The overfishing status could not be determined because there are no fishing mortality reference points for the stock (NEFSC, 2017e).

### MANAGEMENT PROGRAM

Longfin squid is managed on a federal fishing year (May 1 - April 30) by the MAFMC under the FMP for Squid, Atlantic mackerel, and Butterfish. The management unit includes all U.S. waters off the U.S. East Coast. In RI, longfin squid is not a regulated species in state waters. A *Non-Restricted Finfish Endorsement* is required by license holders to harvest longfin squid in RI waters.

### FISHERY PERFORMANCE

In the May 1, 2017 – April 30, 2018 fishing year, 164 commercial fishers (Table 2) landed 14,044,883 pounds of longfin squid in RI valued at \$20,617,445 (Table 1).

### DMF RECOMMENDATIONS FOR 2020

There is no quota established for longfin squid in RI State waters. Maintain in the non-restricted species category.

## NORTHERN SHORTFIN (ILLEX) SQUID



### STOCK STATUS

Northern shortfin squid was last assessed in 2005 at SAW 42 (NEFSC 2006). At SAW 42, it was not possible to evaluate stock status because there were no reliable estimates of stock biomass or fishing mortality rates. Stock status with respect to biomass was unknown (NEFSC, 2005).

### MANAGEMENT PROGRAM

Northern shortfin squid is managed by the MAFMC under the [FMP for the Squid, Atlantic mackerel, and Butterfish](#). The management unit includes all U.S. waters off the U.S. East Coast. In RI, Northern shortfin squid is not a regulated species in state waters. A Multi-Purpose License or *Non-Restricted Finfish Endorsement* is required to harvest northern shortfin squid in RI waters.

### PERFORMANCE OF THE FISHERY IN 2019

In the May 1, 2017 – April 30, 2018 fishing year, 27 commercial fishers (Table 2) landed 20,786,875 pounds of northern shortfin squid in RI worth \$11,887,408 (Table 1).

### DMF RECOMMENDATIONS FOR 2020

There is no quota or regulations established for northern shortfin squid in RI State waters. Maintain in the non-restricted species category.

## 2020 LICENSING RECOMMENDATIONS - NON-RESTRICTED FINFISH ENDORSEMENT

### DMF

The *Non-Restricted Finfish Endorsement* is an open and available to anyone during the application period. The number of these endorsements issued has decreased over the past seven years (Table 4). This decrease in participation has not had a discernible effect on the landings of non-restricted species. It should be noted that this endorsement allows new entrants into the finfish sector, with landings generated from the endorsement used to establish priority in the issuance of the Restricted Finfish Endorsement. **The Division recommends maintaining this approach for entry into the fishery and to keep this as an open endorsement for 2019.**

### RIMFC

At their meeting on October 15, 2019, the Council did not offer any recommendations to alter the open entry status of the Non-Restricted Finfish Endorsement.

# SHELLFISH

## BAY QUAHOG



### RESOURCE ASSESSMENT

A formal, peer-reviewed stock assessment does not currently exist, but is being developed. However, both landings and relative abundance indices (the latter derived from DEM's hydraulic clam dredge survey) suggest the resource has been stable over the last several years. A new assessment is being developed to better assess the stock's status and improve its scientific rigor.

### MANAGEMENT PROGRAM

A minimum size of 1 inch (hinge width) and daily possession limits have been established, with reduced possession limits established in Shellfish Management Areas (SMA) to further manage harvest. The fishery is open year-round to RI residents only. A Multi-Purpose License or *Bay Quahog Endorsement* is required to harvest bay quahogs in RI waters.

In 2015, the exit:entry ratio for the *Bay Quahog Endorsement* was changed from 2:1 to 1:1, believing that the number of active fishermen and corresponding effort is more an industry-based economic issue than a resource management or availability issue. While landings have slightly declined over the past five years, the economic value has remained relatively stable. As such, the Division believes that maintaining the 1:1 ratio to increase in number of people participating in the fishery is not having a negative impact and should be continued.

### FISHERY PERFORMANCE

In 2018, 538 commercial fishers (Table 2) landed 512,678 meat weight pounds of bay quahogs, in RI worth \$4,805,137 (Table 1).

## 2020 LICENSING RECOMMENDATIONS - BAY QUAHOG ENDORSEMENT

### DMF

**The Division recommends maintaining effort at current levels by maintaining the 1:1 exit:entry ratio for the Bay Quahog Endorsement.** In 2019, 36 licenses eligible to harvest quahog were retired (8 MPURP, 12 PEL QUOH, 16 CFL QUOH). Under the current management program, *this would result in 36 new quahog endorsements on the CFL being issued in 2020.*

### RIMFC

At their meeting on October 15, 2019, the Council did not offer any recommendations to alter the exit:entry ratio for the Bay Quahog Endorsement.

## SOFT-SHELL CLAM



### RESOURCE ASSESSMENT

A dynamic depletion model for open populations, based on the work of Restrepo (1998) and Sosa-Cordero (2003), suggested that the soft shell clam population declined from 2006 to 2011 with recruitment failing to replace fishery removals (Gibson 2012). Thus, overfishing was occurring. Since 2012 the model has not been updated due to a collapse in the fishery and lack of a depletion. During the peak of the fishery in 2010, an increase in minimum size, by itself, did not stop overfishing, and catch limits needed to be reduced to less than three bushels per day to bring fishing mortality rates into balance with resource productivity (Gibson 2012).

In addition, there is evidence of a range-wide decline of soft-shell clams in response to *Mya* leukemia. (Metzger et al. 2016; Walker et al. 2009). In RI, densities have substantially declined in both fished and unfished soft-shell clam beds. Landings of soft-shelled clams continue to decline. Results from work in the coastal ponds combined with anecdotal observations and landings suggest that the stock is severely depleted.

### MANAGEMENT PROGRAM

A minimum size of 2 inches (longest axis) and daily possession limits have been established, with reduced possession limits established in SMAs to further manage harvest. The fishery is open year-round to RI residents only. A Multi-Purpose License or *Bay Quahog Endorsement* is required to harvest soft-shell clams in RI waters. The current exit:entry ratio for soft shell clam license endorsements 5:1. The Division is concerned with the low abundance of soft shell clams and thus supports a conservative approach to allowing new entrants in the fishery.

### FISHERY PERFORMANCE

In 2018, 31 commercial fishers (Table 2) landed 1,055 pounds meat weight of soft-shell clams in RI, valued at \$16,547 (Table 1). Currently, fishery landings are at the lowest recorded levels in the history of the time series.

## 2020 LICENSING RECOMMENDATIONS - SOFT-SHELL CLAM ENDORSEMENT

### DMF

Due to the continued poor status of the resource, **the Division recommends reducing effort by increasing the exit:entry ratio or prohibiting new entrants into the fishery.** In 2019, 23 licenses eligible to harvest soft shell clam were retired (8 MPURP, 7 PEL SSCLM, 8 CFL SSCLM). At the current 5:1 exit:entry ratio, ***this would result in 6 new CFL soft shell clam endorsements being issued in 2020.***

## RIMFC

At their meeting on October 15, 2019, the Council did not offer any recommendations to alter the exit:entry ratio for the Soft-Shell Clam Endorsement.

## WHELK (Channeled and Knobbed Whelk)



### RESOURCE ASSESSMENT

In 2010, DMF conducted its first comprehensive analytical assessment on whelk resources in Rhode Island using a Biomass Dynamic Model (BDM) (Gibson 2010). The whelk BDM stock assessment was updated in 2016 and included data through 2016 and resulted in an estimated  $F_{msy}=0.53$ . A target F rate was also developed for this fishery as a precautionary measure, the updated target F rate is 0.39. F has risen since the original assessment and is now estimated to be at  $F_{2015} = 0.5$ , which is at or above both  $F_{msy}$  and the F target level, so overfishing is likely occurring. Stock biomass is declining but remains above the threshold for overfished status. An updated whelk stock assessment has not been performed since 2016.

### MANAGEMENT PROGRAM

The two species of whelk commonly landed in RI are managed under the same regulatory provisions. The fishery is open year-round to RI residents only. All whelks must be landed whole in the shell and adhere to a minimum size (3-inch shell width or 5  $\frac{3}{8}$  inch shell length). A commercial possession limit of 35 bushels/day and a 300-pot limit/licensee have been established in rule. Effort is managed by restricting access to the fishery to MPURP holders or PEL and CFL license holders who hold a *Whelk Endorsement*. Eligibility for this endorsement is restricted to holders of a PEL or CFL, who already hold an actively fished *Quahog or Soft-Shell Clam Endorsement*.

### FISHERY PERFORMANCE

In 2018, 109 commercial fishers (Table 2) landed 678,433 pounds live weight of whelk (species combined) in RI, with a value of \$2,094,733 (Table 1). Of these two species commonly landed in RI, channeled whelk constitutes 98% of reported landings. Since peaking in 2012, whelk landings fluctuated but generally decreased during 2013-2016, however landings increased in 2017 and again in 2018 with total landings (all species) in 2018 of 674,433 pounds live weight, a 48% increase compared to 2017 (458,765 pounds live weight). Since peaking in 2010, the average whelk landings per license show an overall decreasing trend from 2011-2016 but increased sharply in 2017 (4,498 pounds/fisher) with an 86% increase over the 2016 average (2,421 pounds/fisher). Average whelk landings per fisher increased again in 2018 up to 6,224 pounds/fisher, a 38% increase over the 2017 average.

## 2020 LICENSING RECOMMENDATIONS - WHELK ENDORSEMENT

### DMF

Maintain effort at current levels by maintaining the restriction of new issuance of the whelk endorsement only to active quahog and soft-shell clam harvesters.

## RIMFC

At their meeting on October 15, 2019, the Council did not offer any recommendations to alter the eligibility criteria for the Whelk Endorsement.

## OYSTER



### STOCK STATUS

The status of the RI oyster stock is currently unassessed, but is considered greatly depressed compared to historic levels (Beck et al. 2011; Griffin 2016). According to local researchers studying oyster populations within Narragansett Bay, the effects of disease, environmental conditions, poor sets of new recruits, and fishing pressure are all responsible for the sharp decline

in abundance levels (Oviatt et al. 1998). Given the low abundance of the wild oyster population, increased fishing pressure would facilitate even greater depletions of the resource. Several oyster restoration and enhancement projects are currently being conducting in RI waters, as well as research investigating factors influencing recruitment or lack thereof, on natural and restored reefs. Until levels of recruitment increase, the stock will likely remain severely depleted. Further investigation into the effects of fishing effort will be revisited when the stock has recovered.

### CURRENT MANAGEMENT PROGRAM

Oysters are managed under the *Shellfish Other Endorsement*, which is an open entry endorsement. Minimum size and possession limits are established, with reduced possession limits in SMAs. Oyster restoration efforts are being conducted in a number of coastal ponds and portions of the Narragansett Bay, aimed at identifying the best restoration practices for establishing oyster reefs in the closed areas.

### FISHERY PERFORMANCE

In 2018, 28 commercial fishers (Table 2) landed 7,425 meat weight pounds, in RI worth \$31,948 (Table 1).

## OTHER SHELLFISH



### STOCK STATUS

Other species of shellfish commercially harvested within Rhode Island waters besides oysters include blue mussels, bay scallops, sea scallops, surf clams and razor clams. These species are not routinely assessed by DEM, in large part due to the low volume of landings, which results in a lack of available data to conduct comprehensive analytical assessments on the status of these populations. However, landings data and anecdotal evidence from the commercial

fishing industry are reviewed annually by Marine Fisheries and are used for identifying species that warrant further research.

### CURRENT MANAGEMENT PROGRAM

Species of shellfish other than bay quahog, soft-shell clam, and whelk are included and managed under the *Shellfish Other Endorsement*. Minimum size and possession limits are established for oysters, bay scallop, sea scallop, and surf clam. In addition to creating SMAs to support Oyster management (e.g., Jacobs Point, Bissel Cove, Narrow River, Green Hill Pond), the Sakonnet River SMA was created for the management of surf clams. The *Shellfish Other Endorsement* is an open license category available to any license holder and is not managed with an exit/entry ratio system.

### FISHERY PERFORMANCE

In 2018, 5 commercial fishers (table 2) landed 2,628 meat weight pounds of other shellfish species not including oysters, worth \$1,831 (Table 1). Combined with oyster landings, fishers of all shellfish other species landed a total of 10,053 meat weight pounds, worth \$33,779.

## 2020 LICENSING RECOMMENDATIONS - SHELLFISH OTHER ENDORSEMENT

### DMF

The Division recommends that the *Shellfish Other Endorsement* remains an open license category available to any license holder.

### RIMFC

At their meeting on October 15, 2019, the Council did not offer any recommendations to alter the open entry status of the Shellfish Other Endorsement.

# CRUSTACEANS

## LOBSTER



### STOCK STATUS

The [2015 American Lobster Benchmark Stock Assessment and Peer Review Report](#) indicates that the GOM /GB stock is at record high abundance and recruitment, whereas the SNE stock is at record low abundance and recruitment. The GOM/GB stock is not overfished and not experiencing overfishing. Conversely, the SNE stock is severely depleted with poor prospects of

recovery, necessitating protection (ASMFC, 2015).

### GOM/GB

GOM/GB stock abundance has increased since 1979, but at an accelerated pace since 2007. Current (i.e. 2008 – 2013) stock abundance is at an all-time high and recruitment has remained high. However, since 2012, there have been consistent declines in the young-of-year lobster surveys in the GOM/GB stock. This has been speculated to foreshadow declines in recruitment and landings (ASMFC, 2015).

### SNE

SNE stock abundance increased from the early 1980s, peaked during the late 1990s, then declined steeply through the early 2000s to a record low in 2013. Both the stock assessment and its peer review supported the conclusion that the SNE stock is severely depleted, with record low abundance and recruitment failure. This poor stock condition can be attributed to several factors including changing environmental conditions (e.g. warming waters and increased predation) and continued fishing mortality. Declines in population abundance are most pronounced in the inshore portion of the stock where environmental conditions have been increasingly unfavorable for lobsters since the late 1990s (ASMFC, 2015). Despite attrition among the commercial fleet and fewer traps fished for lobster, the population has continued to decline.

Declines in catch and fishery-independent survey indices in the offshore portion are evident as well; however, they are not as severe (ASMFC, 2015). It is believed the offshore area of SNE depends on nearshore larval settlement and offshore migration as the source of recruits (e.g., young of the year lobsters). Therefore, unless fishing effort is curtailed, the offshore component will be in jeopardy in the future when the poor year classes fail to materialize offshore.

### MANAGEMENT PROGRAM

Lobster is managed by the ASMFC through the [FMP for lobster](#) and its subsequent [amendments and addenda](#), which is organized by Lobster Conservation Management Areas (LCMA). Rhode Island state waters comprise a portion of LCMA 2. DEM complies with the FMP through a set of management measures including minimum/maximum gauge and escape vent sizes, trap limits, protection of egg-

bearing females, v-notching, a trap reduction schedule (currently in year 4 of a 6-year period), and a 10% conservation tax on trap allocation transfers designed to further reduce the number of traps fished and fishing mortality. Both state (RI-MA) and federal waters are included in LCMA 2, requiring cooperative management. Additionally, in RI, participants in the lobster fishery must possess either a Multipurpose Fishing License, a Principal Effort license with a *Lobster Endorsement*, or a Commercial Fishing License with *Lobster Endorsement*. Participants who do not hold a LCMA 2 Lobster Trap Allocation (LTA) are prohibited from harvesting lobster from pots and are limited to 100 lobsters per day or 500 lobsters for fishing trips 5 days or longer.

## FISHERY PERFORMANCE

The regional lobster resource has experienced a significant decline in abundance since the 1990's, which has resulted in the removal of latent effort in the fishery and reduced landings. The number of participants landing lobster decreased from 2017 to 2018 (Table 2). The trap reduction program continued in 2018-2019, with total traps reduced based on the 5% reduction and the conservation tax (Table 7). In 2018, 136 fishers (Table 2) landed 1,904,244 pounds of lobster in RI, with an ex-vessel value of \$10,947,054 (Table 1).

## DIVISION RECOMMENDATIONS FOR 2020

The state will continue to work with the ASMFC to rebuild the lobster resource throughout the region. Attrition is still occurring in the industry. The state began to reduce effort through the trap reductions included in Addendum XVIII starting in 2016. This effort aimed to remove latent effort from the fishery that could be reactivated if resource conditions improve, as well as reduce fishing mortality. Participation in LCMA 2 is based on historical performance and the state has reviewed lobster licensing and made appropriate changes in preparation for limited access-historical performance. An LTA transferability program that was initiated with Addendum XII has been developed in consultation with ASMFC and NOAA Fisheries via Addenda XVIII, XIX, and XXI. This can be used to bring new individuals into the fishery without increasing effort above that qualified in the initial trap allocation.

## 2020 LICENSING RECOMMENDATIONS - LOBSTER ENDORSEMENT

### DMF

In view of ASMFC compliance requirements and state law, it is recommended that the moratorium on the issuance of new lobster endorsements be continued for 2020.

### RIMFC

At their meeting on October 15, 2019, the Council did not offer any recommendations to alter the closed status of the Lobster Endorsement.

## HORSESHOE CRAB



### STOCK STATUS

The [2019 benchmark stock assessment](#) of horseshoe crab indicates high variability in trends among the coastal regions. The Southeast is the only area indicating an increase in abundance while Delaware Bay and the Northeast show consistent abundance and the New York region is seeing a decline (ASMFC, 2019). While this is an improvement for the Northeast region from the 2013 stock assessment update status which exhibited a decline, Rhode Island specific data continues to show a downward trend. This neutral status in 2019 was achieved by

Rhode Island's negative trend being counterbalanced by the improving Massachusetts stock status.

### MANAGEMENT PROGRAM

The commercial horseshoe crab fishery is managed at the regional level by the ASMFC [Interstate FMP for horseshoe crabs](#) and its subsequent [addenda](#). In RI waters, horseshoe crab is included and managed under the *Non-Lobster Crustacean Endorsement*. DEM uses temporal closures, possession limits, state established quotas, and a permitting/reporting program to achieve compliance with the FMP. In 2017, DEM regulations were adopted establishing broader time closures, improved reporting and reporting compliance measures, a minimum size of 7" (prosomal width), and daily possession limits for the bait fishery of 60 crabs per person per day. The biomedical daily possession limit is equal to the total annual quota.

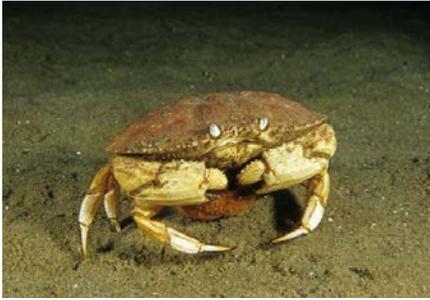
### FISHERY PERFORMANCE

The use of time closures and possession limits in the State's bait fishery has greatly restricted harvest during peak spawning activity and resulted in reduced fishing mortality rates and harvest equity among participants. However, due to a small quota and the nature of accountable commercial harvest, overages may occur annually and must be deducted from the following year possibly resulting in a shorter harvest season and may limit resource access. Annual bait harvest since 2017 has been less than 20% of the allotted quota. Biomedical harvest rates are driven by the needs of biomedical companies which bleed the crabs for medical testing. The estimated mortality rate of bled crabs is 15% (ASMFC, 2019). In 2018, 19 fishers (Table 2) contributed to the combined bait and biomedical fisheries landed 68,171 pounds of horseshoe crab worth \$29,737 in RI (Table 1).

### DMF RECOMMENDATIONS FOR 2020

The Division will continue to monitor harvest levels to determine the effects of the management measures and strategy implemented in 2017, however it is too soon to conclude if these measures are effective as intended as this species takes 10 years to reach maturity. Considering the bait fishery has remained open longer than it has in the last 10 years could be an indication of its effectiveness. The Division recommends maintaining as a non-restricted species in the *Other Crustaceans* endorsement category for 2020.

## JONAH CRAB



### STOCK STATUS

Previously regarded as bycatch in the American lobster fishery, Jonah crab started gaining attention in the mid 2000's as commercial landings started to increase, reaching a high of nearly 20 million pounds in 2018 (ASMFC, n.d.). As commercial landings have increased and since ASMFC has started to manage Jonah crab, state, federal, and academic scientists have endeavored to collect data on Jonah crab life history and population characteristics to perform a

formal stock assessment. No time table has been set for such an assessment.

### MANAGEMENT PROGRAM

Jonah crab is managed at the regional level by the ASMFC [Interstate FMP for Jonah crab](#) and its subsequent addenda I-III. The FMP was first adopted in 2016 and includes an LTA requirement, a minimum size limit of 4.75", and the prohibition of egg bearing females. Pursuant to the FMP, a control date of June 1, 2016 was established in RI. [Addendum I](#) establishes incidental bycatch limits for non-trap gear and non-lobster trap gear, [Addendum II](#) sets limits on claw harvest, and [Addendum III](#) stipulates requirements for harvester reporting and biological data collection.

Per Addendum I, a bycatch limit of 1,000 crabs per trip for non-trap and non-lobster fishermen was set. To avoid the unintentional outcome of this addendum of creating small industries operating solely under this provision, the ASMFC Jonah Crab Board aimed to define bycatch. As per ASMFC, Jonah crab caught under the bycatch limit must comprise an amount lower, in pounds, than the target species the deployed gear is targeting. Target species is further defined as: "those species primarily sought by the fishermen in the fishery" and are "the subject of directed fishing effort." Addendum II, adopted in early 2017, allows Jonah crab fishermen to detach and harvest claws at sea, with a required minimum claw length of 2.75" if the volume of claws landed is greater than five gallons. Claw landings less than five gallons do not have to meet the minimum claw length standard.

In RI, Jonah crab is included and managed under the *Non-lobster Crustacean Endorsement*. The directed fishery is limited to any licensed person who holds an LTA, or any person who does not hold an LTA but can prove participation in the Jonah crab fishery prior to the control date.

### FISHERY PERFORMANCE

In 2018, 67 fishers (Table 2) landed 4,645,747 pounds of Jonah Crab, with an ex-vessel value of \$4,295,861 (Table 1).

### DMF RECOMMENDATIONS FOR 2020

The Division recommends that RI remains compliant with the ASMFC provisions, and continues its work toward collecting biological and fishery information on Jonah Crab for a future, formal stock assessment. No changes to Jonah crab licensing requirements are recommended for 2019. Maintain as a non-restricted crustacean species as well as continue requirements for the directed fishery.

## ATLANTIC ROCK CRAB



### STOCK STATUS

Status unknown; No stock assessment has been performed on Atlantic rock crab.

### MANAGEMENT PROGRAM

In RI, Atlantic rock crab is included and managed under the *Non-Lobster Crustacean Endorsement*. As an unrestricted/open endorsement, any license holder may access the fishery. There is neither a possession limit nor any additional restrictions in effort or harvest at this time

A control date was established on June 1, 2016.

### FISHERY PERFORMANCE

Being an unregulated fishery, overall performance cannot be determined. In 2018, 31 fishers (Table 2) landed 67,447 pounds of Atlantic rock crab with an ex-vessel value of \$35,322 (Table 1).

### DMF RECOMMENDATIONS FOR 2020

The Atlantic rock crab fishery is not managed under any FMP; it is an unregulated species. Effort limitations are not subject to lobster trap allocation and tagging requirements making enforcement of untagged traps problematic in state waters. Consideration should be given to a dedicated trap tag program to potentially control effort and identify fishery specific gear. No changes to licensing requirements are recommended for 2019. Maintain as a non-restricted crustacean.

## OTHER CRUSTACEANS



### STOCK STATUS

Commercial landings in RI of crustacean species other than lobster, horseshoe crab, Jonah crab, and Atlantic rock crab include green crab (*Carcinus maenas*), blue crab (*Callinectes sapidus*), deep-sea red crab (*Chaceon quinque-dens*), and mantis shrimp (*Squilla empusa*). These species are not routinely assessed by DEM, in large part due to the low volume of landings, which results in a lack of available data to conduct comprehensive analytical assessments. However, landings data and anecdotal evidence

from the commercial fishing industry are reviewed annually by DMF and are useful pieces of information in identifying populations that warrant further research.

### MANAGEMENT PROGRAM

In RI, Blue crab are subject to a minimum size of 5" from shell tip to tip. Harvest is limited to 25 individuals, unless using a scoop or crab net, trot, or hand line. Deep-sea red crab is managed by a federal permit.

### FISHERY PERFORMANCE

In 2018, 11 fishers (Table 2) landed 27,625 pounds of these species, in RI valued at \$6,958 (Table 1).

## 2020 LICENSING RECOMMENDATIONS - NON-LOBSTER CRUSTACEAN ENDORSEMENT

### DMF

The Division recommends that the Non-Lobster Crustacean Endorsement remains an open license category available to any license holder and is not managed with an exit:entry ratio system.

### RIMFC

At their meeting on October 15, 2019, the Council did not offer any recommendations to alter the open entry status of the Non-Lobster Crustacean Endorsement.

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## TABLES

Table 1. 2018 pounds landed and total x-vessel value for species landed in Rhode Island.

SPECIES	POUNDS	VALUE (X-VESSEL)
Black Sea Bass	375,853	1,440,258
Scup	4,712,575	2,738,740
Striped Bass	176,639	782,131
Summer Flounder	1,022,618	4,706,067
Tautog	51,414	196,178
Bluefish	237,121	245,049
Atlantic Cod	65,696	151,667
Atlantic Herring	2,159,432	571,543
Menhaden	722,388	54,990
Monkfish	3,057,088	2,329,546
Winter Flounder	191,198	574,222
Skates (Wings)	1,497,953	839,618
Skates (Bait)	7,064,778	881,935
Spiny Dogfish	197,732	32,359
Smooth Dogfish	55,053	19,405
Squid (Longfin)	14,044,883	20,617,445
Squid (Illex)	20,786,875	11,887,408
Lobster	1,904,244	10,947,054
Jonah Crab	4,645,747	4,295,861
Horseshoe Crab	68,171	29,737
Atlantic Rock Crab	67,447	35,322
Other Crabs	27,625	6,958
Quahog*	512,678	4,805,137
Soft-shell Clam*	1,055	16,547
Whelk (Channeled and Knobbed)	678,433	2,094,733
Other Shellfish*	2,628	1,831
Sea Scallops*	2,492,618	22,170,026
Oyster*	7,425	31,948
* meat weight		

Table 2: Number of participants per species per year (2014-2018)

SPECIES	2014	2015	2016	2017	2018
Bait skate	32	30	36	42	46
Bluefish	370	340	362	339	278
Quahog	539	524	562	538	538
Clam, soft	58	62	41	35	31
Cod, Atlantic	109	127	139	107	87
Crab, Atlantic Rock	25	20	31	23	31
Crab, Horseshoe	6	3	17	17	19
Crab, Jonah	74	67	69	74	67
Dogfish, Smooth	34	42	32	39	33
Dogfish, Spiny	57	54	57	48	35
Flounder, Summer (fluke)	491	484	527	502	492
Flounder, Winter	140	120	110	115	100
Monkfish	164	145	165	174	174
Herring, Atlantic	30	32	34	30	27
Lobster	164	149	154	149	136
Menhaden	9	9	8	11	7
Other crustacean	6	13	12	12	11
Oyster, eastern	33	39	20	14	28
Sea Scallop	49	36	56	54	57
Scup	449	418	450	437	433
Black Sea Bass	474	484	504	543	507
Shellfish other	5	5	3	4	5
Skate wings	138	127	140	142	139
Squid, long finned (loligo)	161	153	162	160	164
Squid, short finned (illex)	15	6	12	21	27
Striped bass	330	292	267	286	267
Tautog	232	226	231	250	242
Whelk	159	153	140	102	109

Table 3. Possession limit (pounds) modifications for common Rhode Island commercial fisheries January through August 14, 2019.

SPECIES	POSSESSION LIMIT (LBS)	POSSESSION LIMIT MODIFICATION
Black Sea Bass	500/wk (1/1)	750/wk (3/3) 850/wk (3/24)
	50/day (5/1)	Closed (6/11)
	50/day (7/1)	Closed (7/17)
Bluefish	1,000/bi-week (1/1)	
	8,000/week (5/1)	12,000/week (6/30)
Scup (Gen. Cat.)	50,000/day (1/1)	
	10,000/wk (5/1)	15,000/wk (7/21) 20,000/wk (8/4)
	50,000/day (1/1)	
Scup (FFT)	Unlimited (5/1)	
	5 fish/vessel (5/20)	
Striped Bass (Gen. Cat.)	5 fish/vessel (7/1)	Closed (7/11)
	Unlimited (4/1)	
Striped Bass (FFT)	100/day (1/1)	
Summer Flounder	50/day (5/1)	75/day (6/9) 100/day (6/30)
	10 fish/vessel (4/1)	Closed (5/24)

Table 4. Historical commercial license counts (2012 – 2019).

LICENSE TYPE	2012	2013	2014	2015	2016	2017	2018	2019
<b>MULTI-PURPOSE LICENSE</b>	853	829	816	804	802	789	771	751
<i>Gillnet Endorsement</i>	233	227	221	218	218	214	213	204
<i>Dockside Sale Endorsement</i>	251	241	236	236	245	242	239	237
<i>Midwater/Pair Trawl Endorsement</i>	131	132	133	137	139	145	145	144
<i>Purse Seine Endorsement</i>	139	134	134	129	136	140	144	145
<b>PRINCIPAL EFFORT LICENSE</b>	690	655	615	593	580	586	585	560
<i>Lobster Endorsement</i>	36	30	27	21	20	19	16	16
<i>Non-lobster Crustacean Endorsement</i>	33	35	36	33	33	35	36	32
<i>Quahog Endorsement</i>	398	376	347	340	322	321	327	305
<i>Restricted Finfish Endorsement</i>	266	262	258	251	252	266	277	279
<i>Non-restricted Finfish Endorsement</i>	131	135	133	130	152	159	168	159
<i>Soft Shelled Clam Endorsement</i>	256	235	204	194	183	186	176	154
<i>Whelk Endorsement</i>	146	118	79	62	53	63	60	55
<i>Dockside Sale Endorsement</i>	13	13	12	11	13	15	14	11
<i>Midwater/Pair Trawl Endorsement</i>	9	8	9	7	10	9	13	13
<i>Purse Seine Endorsement</i>	8	7	6	5	9	9	13	13
<i>Other Shellfish Endorsement</i>	225	211	186	177	177	173	166	148
<b>COMMERCIAL FISHING LICENSE</b>	398	420	404	412	416	429	433	445
<i>Lobster Endorsement</i>	16	15	14	14	12	11	9	7
<i>Non-lobster Crustacean Endorsement</i>	114	100	101	95	95	104	104	110
<i>Quahog Endorsement</i>	158	165	181	189	197	217	215	227
<i>Restricted Finfish Endorsement</i>	0	0	0	0	0	0	0	0
<i>Non-restricted Finfish Endorsement</i>	252	256	240	243	248	253	270	213
<i>Soft Shelled Clam Endorsement</i>	174	163	155	148	139	129	124	125
<i>Whelk Endorsement</i>	109	92	75	65	58	56	53	50
<i>Dockside Sale Endorsement</i>	16	14	16	16	15	18	17	18
<i>Midwater/Pair Trawl Endorsement</i>	40	46	39	39	40	37	41	41
<i>Purse Seine Endorsement</i>	42	40	42	43	41	40	42	45
<i>Other Shellfish Endorsement</i>	171	160	149	152	142	129	145	158
<b>OVER 65 SHELLFISH LICENSE</b>	240	268	289	309	350	369	389	372
<b>STUDENT SHELLFISH LICENSE</b>	49	48	47	37	48	39	30	37

Table 5. Historical RI whelk landings and value (2006-2018).

Year	Total Landings (Live Pounds)	Total Landings Value (\$)
2006	368,028	450,137.43
2007	361,486	336,485.75
2008	423,952	407,997.33
2009	716,386	742,411.90
2010	659,204	973,404.09
2011	746,495	1,312,836.57
2012	773,885	1,599,227.40
2013	584,896	1,268,155.53
2014	446,154	1,036,116.42
2015	493,166	1,279,090.83
2016	338,914	909,068.20
2017	458,765	1,318,209.76
2018	678,433	2,094,732.73

Table 6. Rhode Island commercial fishing license and lobster license/endorsement issuance data, 2014-2019 fishing years.

LICENSE TYPE	2014	2015	2016	2017	2018	2019
<b>MULTI-PURPOSE LICENSE</b>	816	804	802	789	771	751
MPL with Area 2 Lobster Trap Allocation (LTA)	308	298	304	304	304	302
Dockside Sale Endorsement	236	236	245	242	239	237
<b>PRINCIPAL EFFORT LICENSE</b>	615	593	580	586	585	560
Lobster Endorsement with LTA	29	25	21	19	19	19
Non-Lobster Crustacean Endorsement	36	33	33	35	36	32
Dockside Sale Endorsement	12	11	13	15	14	11
<b>COMMERCIAL FISHING LICENSE</b>	404	412	416	429	433	445
Lobster Endorsement with LTA	4	4	4	4	4	3
Non-Lobster Crustacean Endorsement	101	95	95	104	104	110
Dockside Sale Endorsement	16	16	15	18	17	18

Table 7. Description of allocated traps, maximum traps fished, and the reduction of traps in 2018. Traps retired include those associated with the reduction program decrease and the conservation transfer tax.

AREA	# OF TRAPS ALLOCATED	# OF TRAPS TRANSFERRED	MAX # OF TRAPS FISHED	# OF TRAPS RETIRED DUE TO REDUCTIONS
Area 2	70,321	3,034	35,406	3,811
Area 3	33,529	100	31,722	1,697

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## SIGNATURE PAGE

Plan approved:

A handwritten signature in black ink that reads "Jason E. McNamee". The signature is written in a cursive style and is positioned above a horizontal line.

Dr. Jason McNamee, Chief  
Division of Marine Fisheries

**October 16, 2019**

Date