MEETING SUMMARY OF THE

ATLANTIC STATES MARINE FISHERIES COMMISSION

EXECUTIVE COMMITTEE

The Westin Crystal City
Arlington, VA
May 1, 2019

INDEX OF MOTIONS

ATTENDANCE

Committee Members

Pat Keliher, ME
Doug Grout, NH
Dennis Abbott, NH (LA Chair)
David Pierce, MA
Craig Miner, CT
Jason McNamee, RI
Jim Gilmore, NY
Joe Cimino, NJ
John Clark, DE
Roy Miller, DE (GA Chair)
Andy Shiels, PA
Lynn Fegley, proxy for Dave Blazer, MD
Rob O'Reilly, proxy for Steve Bowman, VA
Steve Murphey, NC
Robert Boyles, SC
Doug Haymans, GA
Erika Burgess, proxy for Jessica McCawley, FL

Other Commissioners

David Borden, RI (GA)
Justin Davis, CT (AA)
Raymond Kane, MA (GA)
Spud Woodward, GA (GA)

Staff

Bob Beal
Laura Leach
Toni Kerns
Deke Tompkins
Geoff White

Others

Chris Batsavage, NCDMF
Casey Brennan, NOAA
Jon Hare, NOAA
Mike Millard, USFWS
Derek Orner, NOAA Fisheries
Cheri Patterson, NHF&GD
Chris Wright, NMFS

CALL TO ORDER

The Executive Committee of the Atlantic States Marine Fisheries Commission convened in the Crystal V/VI Room of The Westin Crystal City in Arlington, Virginia May 1, 2019. The meeting was called to order at 8:00 a.m. by Chair Jim Gilmore.

APPROVAL OF AGENDA

The agenda was approved with the following additions: discussion on the annual report, an update on the For-Hire Telephone Survey and information on a MRIP funding opportunity.

APPROVAL OF PROCEEDINGS

The summary minutes from the February 6, 2019 meeting were approved as presented.

PUBLIC COMMENT

There was no public comment.

REPORT OF THE ADMINISTRATIVE OVERSIGHT COMMITTEE (AOC)

Mr. Keliher presented the FY20 Proposed Budget with the following motion, **"On behalf of the AOC, I move approval of the FY20 Budget as presented."** The motion passed unanimously.

Mr. Keliher reported the AOC discussed the issue of the Commonwealth of Pennsylvania being in arrears on its annual assessment, and recommends sending a letter to the Governor of Pennsylvania requesting he address the problem. Mr. Shiels said PFBC would welcome the letter.

Mr. Keliher also reported the AOC recommends the Commission needs a policy addressing non-payment of state assessments. Chair Gilmore directed staff to draft this policy for action at the Summer Meeting.

UPDATE ON ACCSP RECREATIONAL DATA COLLECTION ACTIVITIES

Mr. Beal reported on two MRIP issues. With regard to the For-Hire Telephone Survey (FHTS), ACCSP staff has been working with NOAA Fisheries to transition conduct of the FHTS to the states and ACCSP. At this time, the states who are interested can conduct the FHTS, and for those states not ready, ACCSP staff will handle the calls.

National Academy of Sciences has set aside $3 million for dealing with the findings of the 2017 MRIP review. Mr. Beal will send an email with funding possibilities options. It does require matching and it is a one-time funding opportunity that may not be available in future years.

ALLOCATION OF ACA PLUS-UP FUNDING

Mr. Beal reported the Council/Commission line in the FY19 Federal Budget received an increase of 12%, which is the biggest bump since the Council/Commission line was established in 2008.

He reported the AOC passed the following motion and brings it to the Executive Committee for consideration, **"Move to roll the FY19 increase to the ACFCMA line into the formula for allocation to the states."** Mr. Murphey moved the motion and was seconded by Mr. Grout. The motion passed unanimously.

Regarding the $200,000 from the FY18 plus-up funds the Commission received, Mr. Beal recommends waiting to allocate until later, since we have three years to spend those funds and the FY20 budget is highly uncertain.

USE AND STRUCTURE OF MANAGEMENT BOARD WORK GROUPS

Staff developed SOPPs detailing the use and structure of work group by Management Boards, and after good discussion and some minor edits, the following motion was made by Mr. Grout and seconded by Mr. Murphey: **"Move to adopt the Management Board Work Groups SOPPs as modified today."** The motion passed unanimously.

OTHER BUSINESS

Mr. Keliher asked if the Commission's Annual report was meeting the needs of Commissioners, believing the time used to develop such a beautiful comprehensive report might be better used on the Commission's website. After a thorough discussion, Chair Gilmore requested staff develop a proposed revision to the annual report, making it a much shorter document containing the appropriate information for it to serve as the report to Congress, the State Governors and a snapshot in time for historical purpose. This proposed revision will be discussed at the Summer Meeting.

CLOSED SESSION

At 9:30 a.m. the Executive Committee went into a closed session to discuss the Executive Director's Performance Review.

ADJOURN

CHAIR JIM GILMORE adjourned the Executive Committee meeting at 10:05 a.m.

Atlantic States Marine Fisheries Commission

July 29, 2019

Discussion Paper on Non-Payment of State Appropriations

Background

On a few occasions Commission member states have fallen into arrears with their annual appropriations. According to the Commission's Compact, Pub. Law 77-539, Art. XI (1942), each member state is assessed an annual appropriation in support of the Commission. States have expressed concern over the fairness of a state being allowed to participate in the Commission process while being in arrears on annual appropriations. If a member state is significantly in arrears, the shortfall can adversely affect not only the Commission's financial situation, but also the foundation of mutual obligation and trust among states on which the successful carrying out of the Commission's cooperative mission depends.

The Commission's Compact, Rules & Regulations, and the ISFMP Charter do not speak directly to what remedies are available if a member state does not pay its annual obligation to the Commission. The following section provides concepts that will need to be considered prior to the establishment of a policy to address non-payment of state appropriations.

Discussion

A policy to address non-payment would need to be approved by the Commission; and the Rules and Regulations modified to reflect the policy. A policy can be established during a regularly-scheduled Commission Business Session provided there is adequate public notice that a change to the Rule and Regulations is being considered.

The policy will need to consider:

- When is a state in arrears (no payment, partial payment, one year, two years, etc.)?
- What notifications should be provided to a state (Commissioners, Governor, timing)?
- What are the consequences of non-payment (no votes, no participation, technical representatives)?
- Can a state appeal to the Commission for relief or are consequences compulsory?

Policy Example

If a state is in arrears with its annual appropriation, the following steps will be taken:

- When a state's payment is three months late, the Executive Director will notify the state's three Commissioners in writing of the delinquency.

- When a state's payment is six months late, the Executive Director will notify the state's governor in writing of the delinquency.
- When a state's payment is one year late, the State in question will no longer be able to vote on management boards/sections, the ISFMP Policy Board, or during the Commission Business Sessions. The state's three commissioners will be able to attend Commission meetings and participate in deliberations, but not be able to cast votes. The state's representatives will be able to participate on Technical groups (e.g. species technical committee, Habitat Committee, plan review teams, etc.)
- A state that is in arrears will have the opportunity to appeal to the Commission. During this appeal the state can present information on why payments have not been made, present a timeline for payment, and seek relief from the approve provisions.
- A state will immediately be allowed to vote in Commission activities upon payment of the full balance that is in arrears.

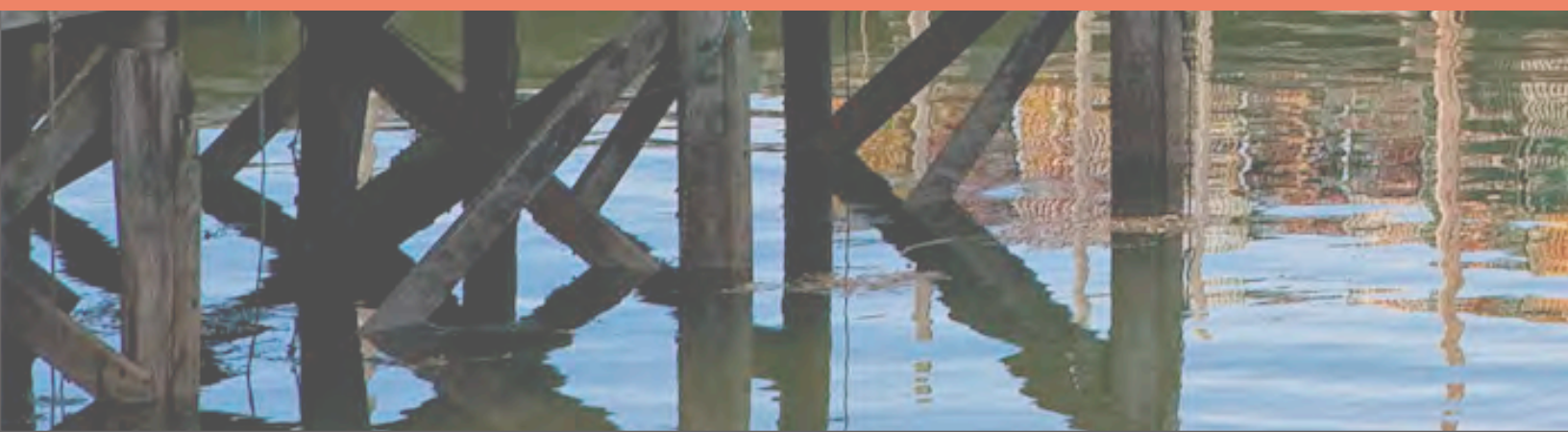
Next Steps

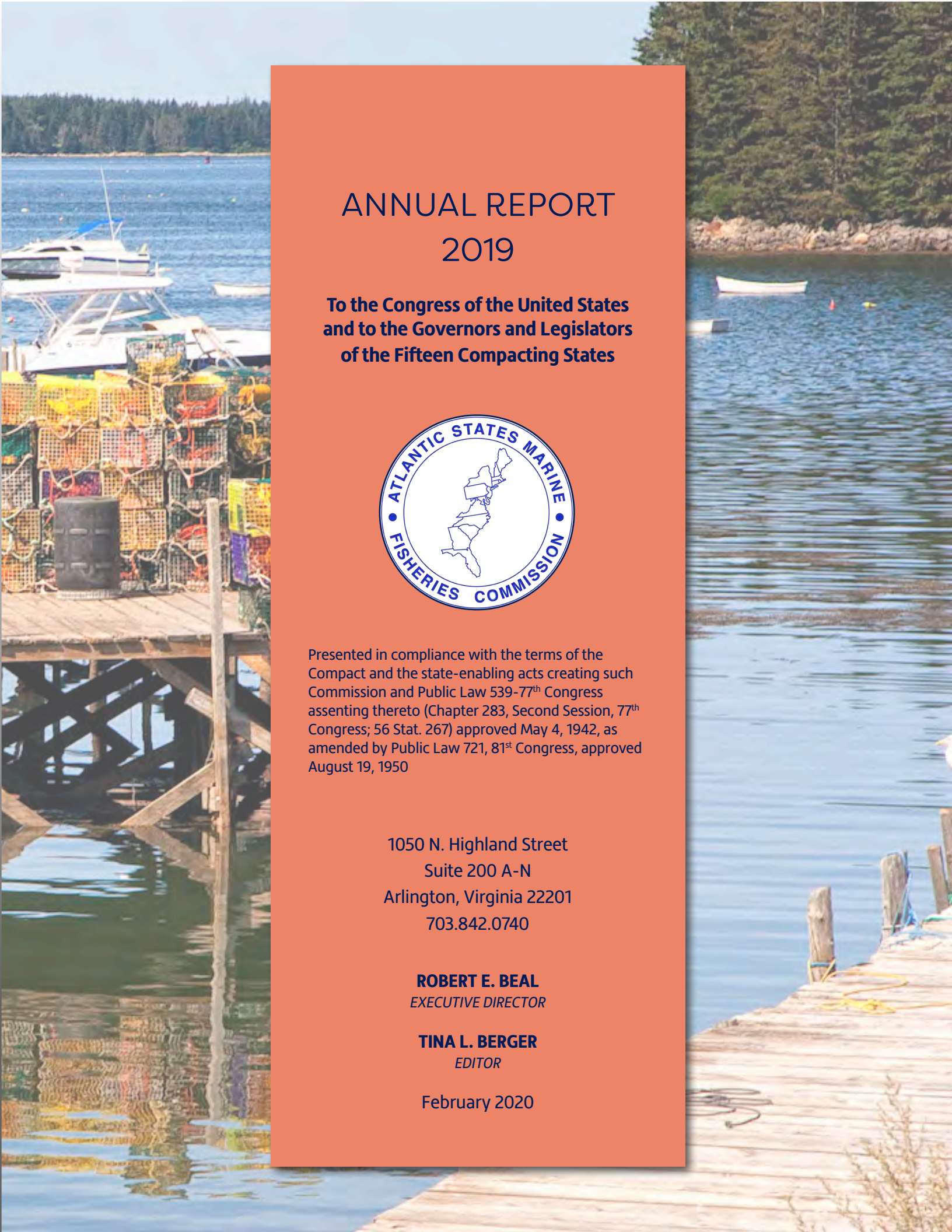
If the Executive Committee agrees a policy should be developed, staff can draft a policy for consideration by the Commission at the Annual Meeting in October. This action will be noticed in the agenda for the Annual Meeting.

ANNUAL
REPORT
2019

Atlantic States Marine Fisheries Commission

Sustainable and Cooperative Management of Atlantic Coastal Fisheries





ANNUAL REPORT 2019

To the Congress of the United States and to the Governors and Legislators of the Fifteen Compacting States

Presented in compliance with the terms of the Compact and the state-enabling acts creating such Commission and Public Law 539-77th Congress assenting thereto (Chapter 283, Second Session, 77th Congress; 56 Stat. 267) approved May 4, 1942, as amended by Public Law 721, 81st Congress, approved August 19, 1950

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ROBERT E. BEAL
EXECUTIVE DIRECTOR

TINA L. BERGER
EDITOR

February 2020

INTRODUCTION

The Atlantic States Marine Fisheries Commission (Commission) is pleased to present our 2019 Annual Report. The report fulfills our obligation to inform Congress on the Commission's use of public funds, and provides our stakeholders with a summary of activities and progress in carrying out our cooperative stewardship responsibilities for the marine, shell, and diadromous species under our care.

In the report, you will find a quick guide to stock status for the 27 species groups the Commission manages; a fisheries management section, which focuses on species which had the most significant management or stock assessment activities in 2019; and sections highlighting our major accomplishments in 2019 in the areas of fisheries science, habitat conservation and fishery-dependent data collection and management. Please visit the Commission's website at www.asmfc.org for additional information on any of our programs or activities.

The Commission was formed 78 years ago by the 15 Atlantic coastal states to assist in managing and conserving their shared coastal fishery resources. With the recognition that fish do not adhere to political boundaries, the states formed an Interstate Compact, which was approved by the U.S. Congress in 1942. The Commission's mission as stated in the Compact is "to promote cooperative management of fisheries – marine, shell, and diadromous – of the Atlantic coast of the United States by the protection and enhancement of such fisheries, and by the avoidance of physical waste of the fisheries from any cause." The states have found that their mutual interest in sustaining healthy coastal fishery resources is best promoted by working cooperatively, in collaboration with the federal government. With this approach, the states uphold their collective fisheries management responsibilities in a cost-effective, timely, transparent, and responsive fashion.

The Commission serves as a deliberative forum for the Atlantic coastal states to come together to discuss the biological, socioeconomic, and environmental issues central to developing management programs for each species. Further supporting our management activities are programs focused on fisheries science, habitat conservation, data collection and management, and law enforcement. Each state is represented on the Commission by three Commissioners: the director of the state's marine fisheries management agency, a state legislator, and an individual appointed by the state's governor to represent fishery interests.

The task of managing finite marine resources continues to grow more complex with the consideration of changing ocean conditions, competing ocean uses, predator/prey interactions and marine mammal interactions, in addition to the more traditional considerations of stock maintenance, rebuilding, and allocation of fisheries resources. To support these activities at both the Commission and state level, the Commission has a budget of $11.6 million, which comes from a combination of state and federal grants, the largest being a line-item in the NOAA Fisheries budget appropriated to implement the Atlantic Coastal Fisheries Cooperative Management Act (ACFCMA).

IWe remain grateful to Congress, the Administration, our Governors and state legislators for their continued support of the Commission and its vision of "Sustainable and Cooperative Management of Atlantic Coastal Fisheries." Many of our accomplishments would not have been possible without their trust and confidence. In addition, the technical support provided by NOAA Fisheries and USFWS staff to the Commission and states is an invaluable component of our interstate fisheries management, science, and data collection activities.

REPORT FROM THE CHAIR

It was my pleasure and honor to present this, my Chair's Report, to my fellow Commissioners as both their Chair and host of the Commission's 77th Annual Meeting in New York City in October 2018. The meeting held special meaning for me. As a New Yorker, born and raised, and someone who has worked in the city (and in the South Tower of the Twin Towers), I am profoundly proud of this city and its people, who have had to come together to deal with one of the nation's worst tragedies. As horrible as 9/11 was, the ability of New Yorkers to set aside their differences and personal losses to come to each other's aid was inspiring and uplifting. It renewed my faith in the goodness of people and their ability to unite and accomplish great feats for a common cause.

My fellow New York Commissioners and I felt so strongly about this notion of strength through unity – the ability of people with diverse interests and backgrounds to unify for a greater good – that we chose to use the image of the One World Trade Center as our Annual Meeting logo.

New York also has immense historical significance to the Commission. It was one of a handful of states that came together through the Eastern States Conservation Conference in 1937 to discuss the concept of forming an interstate commission for the purpose of coordinating state marine fisheries activities along the Eastern Seaboard. Upon the Commission's establishment in 1940, New York served as its headquarters with Wayne Heydecker, New York State Regional Representative for the Council of State Governments, serving as the Commission's Secretary-Treasurer, a position he would hold for the next two decades. The Roosevelt Hotel itself played an important part in the Commission's history, serving as the meeting place for 11 out of the first 17 Annual Meetings. It's at the Roosevelt Hotel where Commissioners solidified their commitment to seek solutions that were in the best interests of their shared fishery resources.

So now we find ourselves back at the Roosevelt Hotel 60 years later, dealing with many of the same issues – declining fish stocks, changing environmental conditions, and growing stakeholder demands. And, I'm here to tell you, as it was so many years ago and throughout the evolution of the Commission, we are all in this together. We are all inextricably connected and it's reflected in our shared interests and the challenges we face. Just look at the resources we manage. They show no loyalty to one region or state. They move up and down the coast, inshore and offshore. Filling the roles of predators and prey, seeking optimal environmental conditions to maximize their survival, and striving to produce more offspring than are removed - all part of one big interconnected ecosystem. No one piece of it belongs to New York, or Maine, or North Carolina. And yet we divvy up the resources, each of us seeking the biggest piece of pie we can get. I don't blame us, I'm in there with the next guy trying to do what I think is right for our fishermen. But, in doing so, in our struggle to ensure that we get our fair piece, I think we can easily lose sight of the larger picture, of all the reasons why we all choose to be in fisheries management: our love of the ocean and its marine resources, and the deep desire to be effective stewards and ensure that these resources are available to those who want to use them now and over the long-run.

While the issues may seem daunting, they are not insurmountable. What is required is a renewed commitment by all of us to work through our challenges with respect for each other and the integrity of our process.

JAMES J. GILMORE, JR.

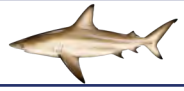
As your Chair, I see it as my responsibility to remind you why we are all here and why now, more than ever, we need to reenergize ourselves and recommit to our shared vision of sustainable Atlantic coastal fisheries. Our greatest strength is in our ability to work cooperatively for the benefit of the fishery resources under our care and those that depend on these resources – recreational anglers and the industries they support, commercial fishermen and processors, who enable consumers to purchase and eat fresh fish, as well as those who place value in the non-consumptive aspects of our coastal resources.

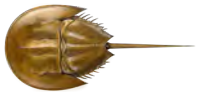
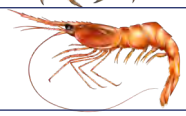
The issues before us are great. They include changing ocean conditions and their effect on species distribution and survival; reallocation of resources between recreational and commercial sectors, as well as between the states; increased

QUICK GUIDE TO STOCK STATUS

The following section provides a summary of the status of the species managed by the Commission and highlights management activities that occurred throughout 2019. For this summary, a stock that is experiencing **overfishing** has fish removed at a rate faster than the population can sustain in the long run. Over the long-term, this will lead to declines in the population. An **overfished** determination occurs when stock biomass falls below the biomass threshold established by the FMP, significantly reducing the stock's reproductive capacity to replace fish removed through harvest. The term **depleted** reflects low levels of abundance, though it is unclear whether fishing mortality is the primary cause for reduced stock size.

Recovering/rebuilding occurs when stocks exhibit stable or increasing trends and stock biomass is between the threshold and the target levels. A **rebuilt/sustainable** stock is one whose biomass is equal to or above the biomass level to ensure population sustainability. When between benchmark assessments, a stock can still be considered rebuilt/sustainable if it drops below the target, but remains above the threshold. **Concern** is when a stock develops emerging issues, e.g., increased effort, declining landings, or impacts due to environmental conditions. **Unknown** stock status occurs when there is no accepted stock assessment to estimate the stock condition.

STATUS/ TRENDS	SPECIES		OVERFISHED	OVERFISHING	REBUILDING STATUS & SCHEDULE
↓		**American Eel**	Depleted	Unknown	2017 stock assessment update indicates resource remains depleted
✓	 **American Lobster**	**Gulf of Maine/ Georges Bank (GOM/GBK)**	Not Depleted	N	GOM/GBK stock abundance has increased since the 1980s. SNE stock has collapsed and is experiencing recruitment failure.
↓		**Southern New England (SNE)**	Depleted	N	
↓		**American Shad**	Depleted	Unknown	Depleted on coastwide basis; Amendment 3 established 2013 moratorium unless river-specific sustainability can be documented; benchmark assessment scheduled for 2020
?		**Atlantic Croaker**	Unknown	Unknown	Status unknown; TLA indicates relatively low harvest in 2017; no management action was triggered
✸		**Atlantic Herring**	N	N	2018 stock assessment indicates declines in total biomass, SSB, and recruitment over the past 5 years
✓		**Atlantic Menhaden**	N	N	2018 and 2019 TACs set at 216,000 mt
↑ ⇔		**Atlantic Striped Bass**	N	N	Rebuilt; harvest reductions implemented in 2015; fishing mortality estimated below target level in 2015, female SSB continues to decline towards the threshold; benchmark assessment scheduled for 2019
↓		**Atlantic Sturgeon**	Depleted	N	40+ year moratorium implemented in 1998; listed in 2012 under the ESA; 2017 benchmark assessment indicates stock is depleted coastwide though slow recovery has been occurring since 1998 and total mortality is sustainable
✓		**Black Drum**	N	N	FMP approved in 2013; status based on 2015 benchmark assessment, which found 2012 median biomass well above median biomass that produces MSY
✓		**Black Sea Bass**	N	N	Improved recruitment and declining fishing mortality rates since 2007 have led to steady increases in SSB; operational assessment scheduled for 2019
✓		**Bluefish**	N	N	Biomass above threshold but below target; operational assessment scheduled for 2019
✸		**Coastal Sharks**			Varies by species & species complex

STATUS/ TRENDS	SPECIES		OVERFISHED	OVERFISHING	REBUILDING STATUS & SCHEDULE
✓		**Cobia**	N	N	FMP approved in 2017; SEDAR research track assessment scheduled for 2019 and SEDAR operational stock assessment scheduled for 2020
✸		**Horseshoe Crab**	Unknown	Unknown	2013 assessment update found New England & NY stocks to have declined, while DE Bay & Southeast stocks have increased over time series. ARM Framework used since 2013 to set harvest levels for horse-shoe crabs of DE Bay origin; benchmark assessment scheduled for 2019
?		**Jonah Crab**	Unknown	Unknown	No range-wide assessment; Interstate FMP adopted in August 2015
🡻		**Northern Shrimp**	Depleted	N	2018 benchmark assessment indicates biomass has declined since 2010 and recruitment in recent years has been low; fishery moratorium in place since 2014 to protect remaining spawning population
⇔	**Red Drum** 	**Northern Region**	Unknown	N	sSPR above target and threshold SPRs
		Southern Region	Unknown	N	sSPR above target and threshold SPRs, though high uncertainty
🡻		**River Herring**	Depleted	Unknown	2017 assessment update indicates stock remains depleted on coastwide basis; Amendment 2 established 2012 moratorium unless river-specific sustainability can be documented
✓		**Scup**	N	N	Rebuilt
✓		**Spanish Mackerel**	N	N	Rebuilt
✓		**Spiny Dogfish**	N	N	Rebuilt since 2008
?		**Spot**	Unknown	Unknown	Status unknown; TLA indicates relatively low harvest in 2017; no management action was triggered
?		**Spotted Seatrout**	Unknown	Unknown	Omnibus Amendment includes measures to protect spawning stock & establishes 12" minimum size limit
✸		**Summer Flounder**	N	Y	2016 assessment update shows biomass trending downward since 2010; benchmark stock assessment scheduled for release in 2019
✸	**Tautog** 	**MA-RI**	N	N	Amendment 1 establishes regional stock units and reference points
		Long Island Sound	Y	Y	
		NJ-NY Bight	Y	Y	
		DE / MD / VA	Y	N	
🡻		**Weakfish**	Depleted	N	6-year rebuilding period if spawning stock biomass < threshold level; restricted harvest since 2009; stock assessment update scheduled for 2019
✸	**Winter Flounder** 	**Gulf of Maine**	Unknown	N	Stock biomass is unknown; unknown why stock is not responding to low catches and low exploitation rates
🡻		**Southern New England/ Mid-Atlantic**	Y	N	Current biomass at 18% of SSB target based on 2017 operational assessment

✓= Rebuilt /Sustainable ⇔ = Recovering/Rebuilding 🡻 = Depleted ? = Unknown ✸= Concern

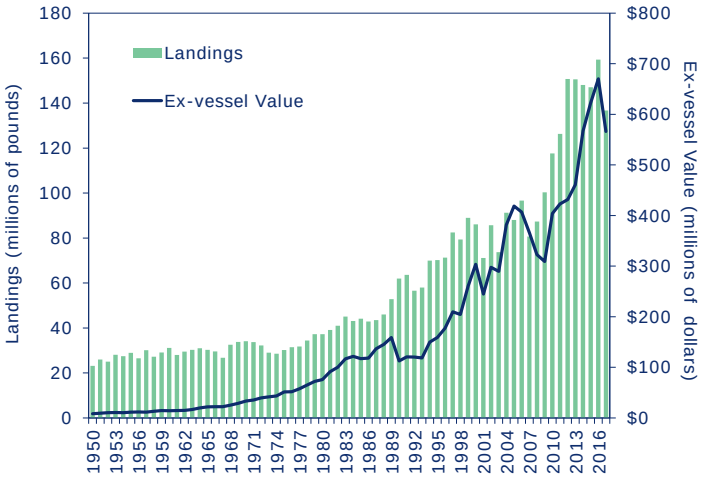
SPECIES HIGHLIGHTS

AMERICAN LOBSTER

The American lobster fishery is one of the most valuable fisheries along the Atlantic coast. However, there are several important issues facing the industry including changes in ocean conditions, reductions in bait availability, and the decline of the Atlantic right whale population. In 2017, 136.7 million pounds of lobster were landed coastwide, representing a $566.4 million ex-vessel value. The vast majority of these landings came from the Gulf of Maine/Georges Bank (GOM/GBK), where the stock is at record high abundance. In contrast, there has been an overall decrease in the percentage of landings from the Southern New England stock, which is depleted and experiencing recruitment failure.

In 2018, the American Lobster Management Board approved Addendum XXVI to Amendment 3 to the FMP. The Addendum addresses concerns regarding limitations in existing reporting requirements by expanding the mandatory harvester reporting data elements, improving the spatial resolution of harvester data, establishing a five-year timeline for implementation of 100% harvester reporting, and prioritizing the development of electronic harvester reporting. In addition, the Addendum improves biological sampling requirements and encourages states with more than 10% of coastwide landings in either the lobster or Jonah crab fisheries to conduct additional sampling trips.

American Lobster Landings and Ex-Vessel Value
Source: ACCSP Data Warehouse, 2018



Throughout 2018, the Board continued to develop Draft Addendum XXVII. The document was initiated to increase the resiliency of the GOM/GBK stock by considering the standardization of management measures across Lobster Conservation Management Areas. This is a proactive management action in response to signs of reduced lobster settlement in the GOM. While trawl surveys and ventless trap surveys continue to show high levels of lobster abundance, the young-of-year surveys show declines since 2013. This decrease could foreshadow a decline in recruitment and landings. Work on this addendum will continue in 2019.

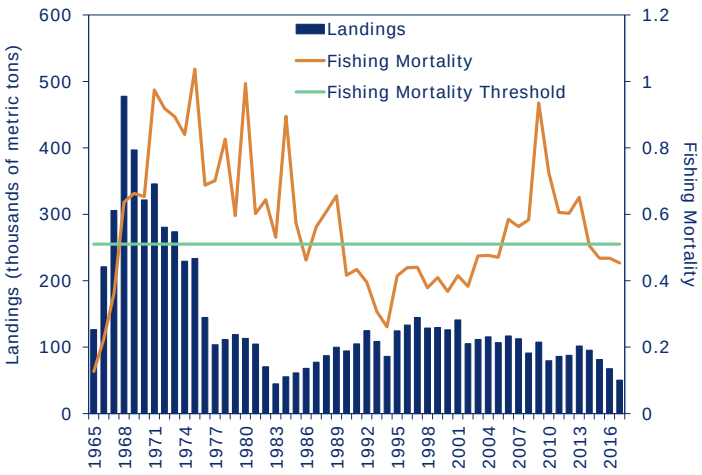
A prominent issue facing the lobster fishery has been the decline of the endangered Atlantic right whale population. A recent stock assessment showed declines have been occurring since 2010. In addition, NOAA Fisheries declared an unusual mortality event in 2017 after there were 17 confirmed mortalities due to entanglement and vessel strikes. Given the potential entanglement risk posed by lobster gear, Commission staff and Board members have participated on the Atlantic Large Whale Take Reduction Team, which is charged with reducing the serious injury and mortality of right whales as the result of fishing gear. The Board is also considering what action, if any, should be taken to modify the FMP to reduce the threats to right whales.

Work on the next benchmark stock assessment for American lobster continued throughout 2018, the results of which will be presented to the Board in 2020.

ATLANTIC HERRING

Atlantic herring are oceanic, plankton-feeding fish that occur in large schools and inhabit coastal and continental shelf waters from Labrador to Virginia. The commercial fishery supports bait and food fisheries, with a total domestic harvest of 108 million pounds valued at $27 million in 2017. As a baitfish, herring primarily support the American lobster

Atlantic Herring Spawning Stock Biomass & Recruitment
Source: 65th Northeast Regional Stock Assessment Workshop, 2018



fishery. The herring fishery is managed cooperatively by the Commission's Atlantic Herring Management Board and the New England Fishery Management Council (NEFMC). In 2018, the Atlantic Herring Section, which was composed of the states of Maine through New Jersey, became a Management Board to allow the addition of the NEFMC and NOAA Fisheries as voting members to the Board and further strengthen cooperative state/federal management of the resource.

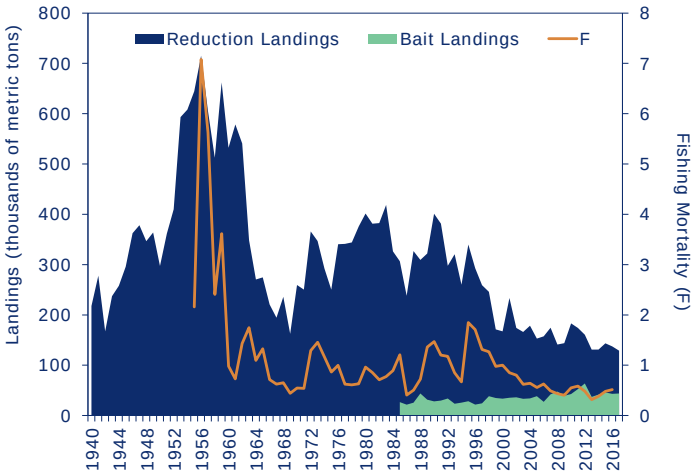
The 2018 benchmark stock assessment, conducted by the Northeast Fisheries Science Center (NEFSC), provided an updated picture of stock health. While Atlantic herring are not overfished and not experiencing overfishing, the report highlighted concerns about trends in recruitment and spawning stock biomass (SSB). Specifically, recruit-ment has been below the time series average for the past five years, with 2016 recruitment being the lowest on record at 1.7 million fish. While recruitment has been variable throughout time, these recent and continuing low levels of recruitment indicate there will be fewer fish available to harvest in future years. SSB has also been lower in recent years, with 2017 SSB estimated at 311.9 million pounds. Fishing mortality has decreased in recent years, with a 2017 level of 0.45, below the fishing mortality threshold of 0.51.

In response to the results of the stock assessment, NOAA Fisheries reduced the 2018 sub-annual catch limits (ACLs) for the four herring management areas via in-season action. In total, this action resulted in a roughly 50% reduction in Atlantic herring catch across the four management areas. In response, the Board approved a motion to adjust the 2018 sub-ACLs to match those promulgated by NOAA Fisheries.

Also in response to the stock assessment, the Board initiated Draft Addenda II and III to consider strengthening spawning protections in Area 1A (inshore GOM) and extending spawning protections to Area 3 (off of Cape Cod and Georges Bank). Under Amendment 3, the Board uses a series of closures to protect spawning aggregations in the GOM. Recent analysis by the Technical Committee found that under the current protocol, spawning closures are initiated when there are approximately 25% spawners in the fishery. Greater protection could be provided by initiating a closure when a lower percentage of the population is spawning and extending the closure for a longer time. As a result, the Board initiated Draft Addendum II to consider these modifications to the GOM spawning closure protocol. In addition, the Board initiated Draft Addendum III to consider establishing a spawning protection program in Area 3. This management area encompasses GBK and the back side of Cape Cod, two regions which are recognized as important herring spawning areas but do not currently have protections specific to spawning. To help inform the development of the addendum, the Commission dedicated funds to support sampling of the Atlantic herring fishery, with a focus on investigating spatial and temporal spawning patterns in GBK and Nantucket Shoals.

Atlantic Menhaden Bait and Reduction Landings and Fishing Mortality (Ages 2-4)

Sources: NOAA Fisheries and State Compliance Reports, 2018



ATLANTIC MENHADEN

Atlantic menhaden are a small, oily, schooling fish of historical, economic, and ecological importance. Atlantic menhaden not only support reduction and bait fisheries but also play an important role in marine ecosystems as a forage fish (prey) for many fish, sea birds, and marine mammals.

2018 marked the first year of the Atlantic menhaden management program established by Amendment 3. The Amendment maintains the management program's single-species biological reference points until the review and adoption of menhaden-specific ecological reference points as part of the 2019 benchmark assessment process. This measure demonstrates the Atlantic Menhaden Management Board's continued commitment to managing the menhaden resource in a way that balances the species' ecological role with the needs of its stakeholders. Amendment 3 also establishes new fishery allocations which aim to improve the balance between gear types and jurisdictions. Specifically, Amendment 3 allocates a baseline quota of 0.5% of the total allowable catch (TAC) to each jurisdiction, and then allocates the remaining TAC based on historic landings from 2009-2011. Performance of the fishery under the new allocations will not be realized until spring 2019 when the previous year's harvest estimates are available.

At the end of 2017, the Board set the TAC for 2018 and 2019 at 216,000 metric tons (mt), a 16,000 mt increase from 2017, with the expectation that the setting of the TAC for subsequent years will be guided by menhaden-specific ecological reference points. Commercial landings in 2017, including reduction, bait, bycatch, and episodic event landings, were 172,751 mt, or 86% of the TAC. This represents a 4.6% decrease in landings from 2016. While the episodic events set aside (EESA) quota (1% of the TAC) has been relatively constant since its inception, annual landings under the EESA have increased rapidly and the quota was exceeded for the first time in 2017.

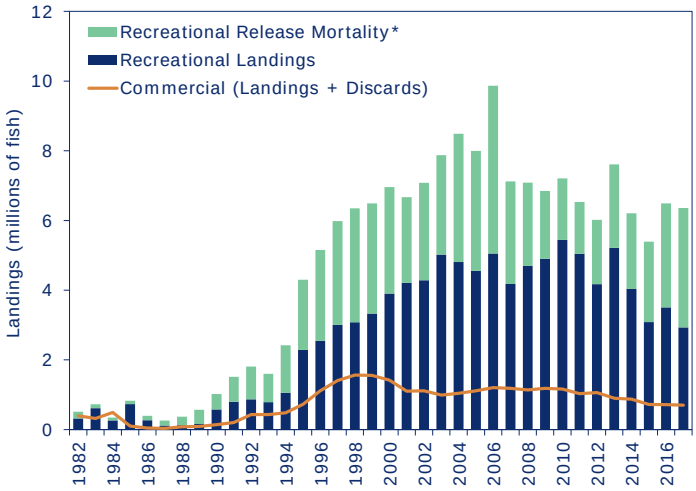
In 2018, the Commission continued to work on two Atlantic menhaden benchmark stock assessments: a single-species assessment and the highly anticipated ecosystem-based assessment, which aims to develop ecological reference points specific to menhaden. Both assessments will be used to evaluate the health of the stock and inform the management of the species in an ecological context. The Stock Assessment Subcommittee (leading the single-species assessment) also began exploring single-species modeling approaches while the Ecological Reference Point Workgroup, as the name implies, continued to explore modeling approaches that estimate the abundance of menhaden and account for the species' role as a forage fish. Both benchmark assessments will be peer-reviewed through the SouthEast Data Assessment Review (SEDAR) process at the end of 2019.

ATLANTIC STRIPED BASS

Known throughout New England and the Mid-Atlantic as striper, rockfish, linesider, rollers, squidhound, or simply as "bass," Atlantic striped bass is regularly referred to as America's greatest game fish on the U.S. Atlantic coast. High demand for this species among fishermen and consumers, coupled with the complexity of its seasonal distribution along the coast, make sustainable management of the Atlantic coast striped bass population complex and challenging.

A 2016 stock assessment update indicates that although the population is not overfished and overfishing is not occurring, female SSB has been declining since the mid-2000s. In 2015, female SSB was estimated at 130 million pounds, which is just above the SSB threshold of 127 million pounds. Fishing mortality in 2015 was estimated at 0.16, which is below both the fishing mortality threshold and target levels. In November 2018, the highly anticipated benchmark assessment and peer review was completed. The final assessment and peer review reports will be presented to the Atlantic Striped Bass Management Board in February 2019.

Atlantic Striped Bass Commercial Landings and Discards & Recreational Landings and Release Mortality
Source: ASMFC Atlantic Striped Bass Technical Committee, 2018



The Atlantic striped bass fishery is predominately recreational, with the anglers accounting for 83% of fish harvested annually since 2000 (89% by weight). In 2017, total removals (commercial and recreational harvest plus discard mortality from both sectors) are estimated at 7.06 million fish, which is a 2% decrease relative to 2016. The recreational fishery is managed via bag and size limits. From 2004 to 2014, recreational harvest averaged 4.74 million fish under Amendment 6 measures. Since the implementation of harvest reductions through Addendum IV, harvest has averaged 3.17 million fish, and was estimated at 2.93 million fish in 2017. Recreational release mortality peaked in 2006 at 4.81 million fish, declined to 1.48 million fish in 2011, and has been increasing steadily to 3.42 million fish in 2017.

Between 2004 and 2014, commercial landings were relatively stable due to the commercial quota system, with average landings of 943,000 fish per year. Since implementation of Addendum IV, which included reductions to the commercial quota beginning in 2015, coastwide commercial landings decreased to an average of 608,000 fish per year. In 2017, commercial harvest was estimated at 592,576 fish, with commercial discards estimated at 108,475 fish.

BLACK SEA BASS

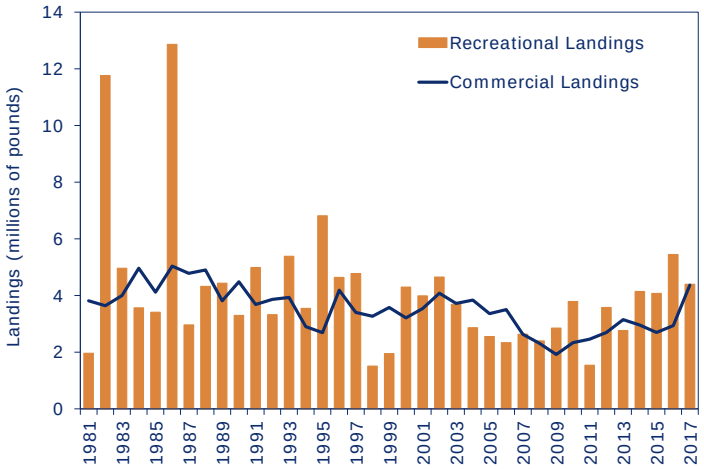
Black sea bass are an abundant and popular commercial and recreational species throughout Southern New England and the Mid-Atlantic region. According to the latest stock assessment, which modeled fish north and south of Hudson Canyon separately, the majority of the stock occurred in the south prior to the mid-2000s.

Since then, the biomass in the north has grown considerably and currently accounts for the majority of SSB. Additionally, catch by region has generally increased in the north while remaining stable in the south during the past decade. While quota restrictions have held regional proportions of total commercial landings relatively stable, recreational harvest in the northern states has increased over the past decade.

Shifting distributions of abundance and biomass spurred several management changes in 2018. In early 2018, the Commission approved Addendum XXX, which established regional management of the recreational fishery with allocations of the recreational harvest limit (RHL) based on a combination of historical landings data and exploitable biomass information from the 2016 stock assessment.

Three management regions were defined as Massachusetts through New York, New Jersey, and Delaware through North Carolina. Following an appeal of the allocations specified in Addendum XXX by the northern states of Massachusetts, Rhode Island, Connecticut and New York, the Summer Flounder, Scup and Black Sea Bass Management Board approved revised 2018 recreational measures for the northern states to mitigate the impacts of the allocations specified in Addendum XXX.

Black Sea Bass Commercial and Recreational Landings
Source: ACCSP Data Warehouse, 2018



In December, the Board approved Addendum XXXII, which allows the Board to set recreational measures in 2019 and future years through an annual specifications process. The specifications process will take into account changes in the distribution of biomass and abundance of black sea bass to provide equitable access to the resource.

Additionally in December, through joint action with the Mid-Atlantic Fishery Management Council (MAFMC), the Commission approved Addendum XXXI, which expands the suite of tools available for managing summer flounder, scup and black sea bass, and reduces inconsistencies between state and federal regulations. Addendum XXXI allows for conservation equivalency for the recreational fishery. Further, through the addendum, the Board has recommended NOAA Fisheries implement regulations to allow transit through federal waters in Block Island Sound for non-federally permitted vessels in possession of summer flounder, scup and black sea bass.

The Commission approved status quo specifications for the 2019 season. The 2018 black sea bass commercial fishery continued to use state-by-state quota management to mitigate potentially disproportionate impacts of coastwide measures on individual states. At 3.88 million pounds, 2017

commercial landings were 5% under the annual coastwide quota of 4.12 million pounds. In 2017, recreational harvest was estimated at 4.16 million pounds, 3% below the RHL of 4.29 million pounds. Similar to 2018, the Board and MAFMC agreed to open a recreational fishery in federal waters during February 2019.

COBIA

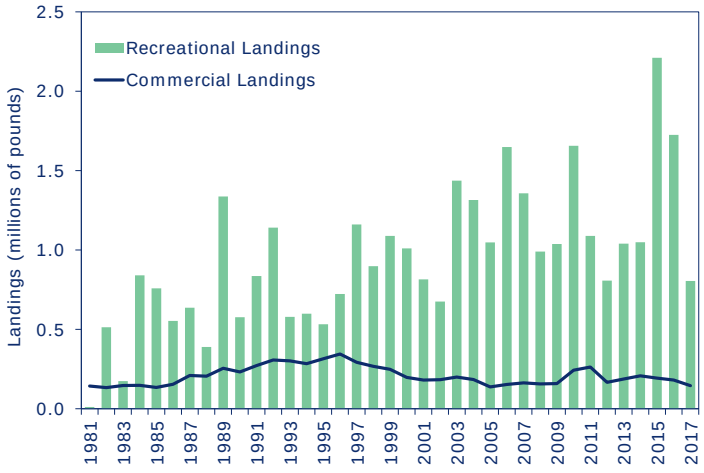
In 2017, the Commission approved the Interstate FMP for Atlantic Migratory Group (Atlantic) Cobia. Complementing many aspects of the South Atlantic Fishery Management Council's (SAFMC) cobia regulations for federal waters extending from New York through Georgia, the FMP was initiated in response to recent overages of the federal ACL for Atlantic cobia. Under the Interstate FMP, the recreational fishery is managed using coastwide bag, minimum size, vessel and season limits set by individual states. The vessel and season limits were approved by the South Atlantic State/Federal Fisheries Management Board, with the goal of achieving 2018 state harvest targets. State harvest targets were derived as allocations of the federal recreational ACL, but will be evaluated every three years. The commercial fishery is managed using coastwide size, possession, and vessel limits. The federal commercial ACL of 50,000 pounds is allocated to the entire commercial fishery from New York through Georgia. The commercial Atlantic cobia fishery closes if the ACL is projected to be reached.

In 2018, the SAFMC and Gulf of Mexico Fishery Management Council approved Amendment 31 to the FMP for Coastal Migratory Pelagic Resources in the Gulf of Mexico and Atlantic Region (CMP FMP), which would remove Atlantic cobia from the CMP FMP and make the Commission the sole management authority for this stock. Amendment 31 currently awaits final approval by the Secretary of Commerce.

In anticipation of approval of Amendment 31 to the CMP FMP, the Board initiated development of Amendment 1 to the Interstate FMP in 2018. This amendment would reflect the Commission's sole management authority by updating complementary portions of the Interstate FMP, which are dependent upon the CMP FMP, to be free-standing regulations. Additionally, Amendment 1 would establish the protocol for the Board to recommend federal waters management measures to be implemented by NOAA Fisheries. The Board will continue the development of the Amendment into 2019, with final action anticipated in late summer/early fall.

In 2018, a Stock Identification Workshop was held as a preliminary part of the SEDAR 58 stock assessment process for Atlantic cobia. The results of the Workshop recommended maintaining the current stock structure of separate Atlantic and Gulf stocks, existing north and south, respectively, of the Georgia-Florida border. The Atlantic cobia stock will be assessed in 2019 through SEDAR.

Atlantic Cobia Commercial and Recreational Landings
Source: ACCSP Data Warehouse, 2018



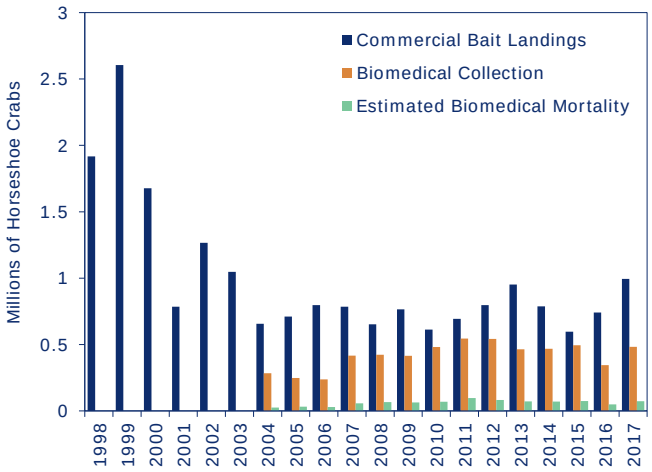
HORSESHOE CRAB

Horseshoe crab are an ecologically important species that provide a variety of human and environmental services. Horseshoe crab blood is used by the biomedical industry to produce Limulus Amoebocyte Lysate, an important tool in the detection of contaminants in patients, drugs, and medical supplies. A chemical in the horseshoe crab tissue also makes it an ideal bait to catch conch and American eel. The Delaware Bay not only supports the largest spawning population of horseshoe crabs in the world, but is also the largest staging area for shorebirds in the Atlantic Flyway, with an estimated 425,000 to one million migratory shorebirds converging on the Delaware Bay each year to feed on horseshoe crab eggs and rebuild energy reserves prior to completing their northward migration.

With their eggs playing an important ecological role in the food web of migrating shorebirds, horseshoe crabs are the first Commission-managed species to incorporate ecosystem principles into its management program. To address this food web dynamic, the species is managed using an Adaptive Resource Management (ARM) Framework, which incorporates both shorebird and horseshoe crab abundance levels into the horseshoe crab specifications for the Delaware Bay states. Red knots, the shorebird that most relies on horseshoe crab eggs for food, were listed as threatened under the ESA in 2014. The ARM Framework was cited as one of the main reasons the species was not listed as endangered (due to adequate management in place). The ARM Framework's performance continues to be evaluated and improved by the Commission's ARM Subcommittee, with input from the Horseshoe Crab and Delaware Bay Ecosystem Technical Committees. The Mid-Atlantic Horseshoe Crab Benthic Trawl Survey has historically provided abundance data for use in the ARM Framework, although funding for this survey in recent years has been inconsistent. The 2017 survey showed increased numbers of adult female horseshoe crabs and decreased numbers of adult males and juveniles of both sexes from 2016. The survey was conducted in 2018 and has been funded for 2019 as well. The Commission will continue working with state and federal partners to secure long-term funding for this important survey.

For the 2016-2019 fishing seasons, harvest in the Delaware Bay area was set at 500,000 male horseshoe crabs. Reported coastwide bait landings in 2017 remained well below the coastwide quota (1.59 million crabs) at approximately one million crabs. Biomedical collections in 2017 were estimated

Horseshoe Crab Bait Landings and Biomedical Collection
Source: State Compliance Reports, 2018



Please note the following details regarding biomedical collection numbers:

- Biomedical collection numbers, which are annually reported to the Commission, include all horseshoe crabs brought to bleeding facilities except those that were harvested as bait and counted against state quotas.
- Most of the biomedical crabs collected are returned to the water after bleeding; a 15% mortality rate is estimated for all bled crabs.

at about 576,000 crabs, including bled crabs sold in the bait fishery. Mortality observed during the collection and bleeding process is reported annually. Additionally, 15% of crabs that are bled are assumed to die due to this process. As required by the FMP, crabs processed by the biomedical industry that are not sourced from the bait fishery are returned to the water from where they were harvested.

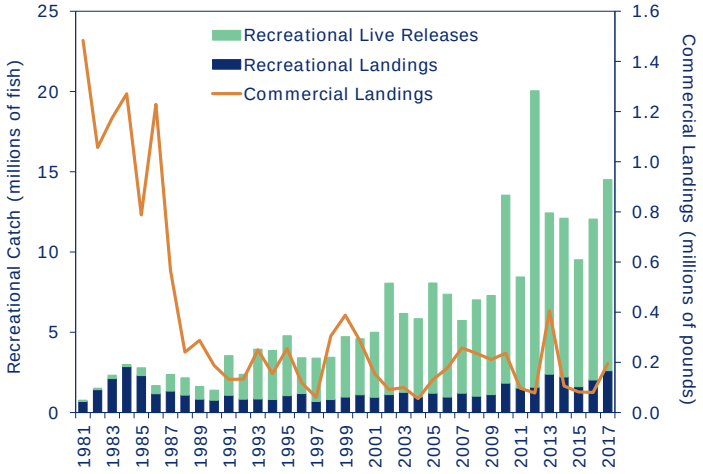
A benchmark stock assessment is scheduled for comple-tion in the spring of 2019. This assessment will be the first to incorporate biomedical mortality data. It will also evaluate stock status or trends for each of the four regional horseshoe crab populations.

RED DRUM

Red drum is one of the most recreationally sought-after fish throughout the South Atlantic. Juveniles are most abundant in estuarine waters and inlets, while fish older than age four inhabit deeper waters. As a result, the fishery is primarily nearshore with small red drum targeted in shallow waters and large trophy fish targeted along the Mid- and South Atlantic barrier islands. The 2017 recreational landings of two million pounds were above the ten-year average of 1.8 million pounds. Florida anglers landed the largest share of recreational harvest in numbers (40%).

The commercial fishery is largely dominated by North Carolina, which was responsible for 96% of the approximately 194,000 pounds harvested by the commercial fishery in 2017. Commercial landings in 2017 reversed the declining trend of the previous three years and were greater than the most recent 10-year average of about 171,000 pounds.

Red Drum Commercial Landings and Recreational Catch
Source: ACCSP Data Warehouse, 2018



The 2017 Benchmark Stock Assessment indicates overfishing is not occurring for red drum for either the northern (New Jersey through North Carolina) or southern stocks (South Carolina through Florida). The assessment was unable to determine an overfished/not overfished status because population abundance could not be reliably estimated due to limited data for older fish (ages 4+) that are not typically harvested under the current fishery measures (slot-limits). through federal waters in Block Island Sound for non-federally permitted vessels in possession of summer flounder, scup, and black sea bass.

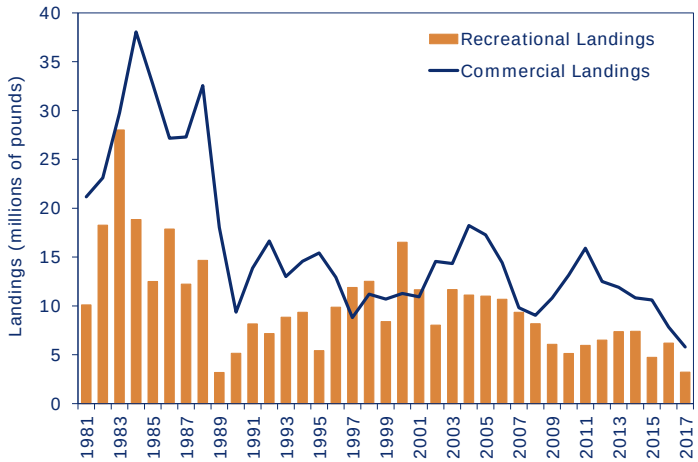
Addendum XXXII, approved only by the Commission, allows the Board to set recreational measures starting in 2019 through an annual specifications process. The specifications process will allow the same regional alignment from recent years while providing guidelines on how measures can be developed and adjusted year-to-year moving forward.

SUMMER FLOUNDER

One of the most important commercially and recreationally targeted flatfish species along the U.S. Atlantic coast, summer flounder have been jointly managed by the Commission and MAFMC for more than three decades. Over the past five years, commercial landings have been on the decline, in part due to annual quota limits, dropping from 10.6 million pounds in 2015 to 5.8 million pounds in 2018. Recreational harvest from 2005 to present has also shown a steady decline, in part due to declines in the coastwide RHL. In 2017, recreational anglers harvested 3.2 million pounds of summer flounder.

The 2016 stock assessment update indicates summer flounder are not overfished, but are experiencing overfishing. These results appear to be driven largely by below-average recruitment; the stock has experienced six years of below average year classes from 2010 to 2015. Additionally, indices of abundance from state and federal surveys have indicated declines in abundance ranging from nine to 97% from their most recent peaks (generally 2009 to 2012). The next benchmark stock assessment will be presented to the Summer Flounder, Scup, and Black Sea Bass Management Board and MAFMC in early 2019. In August 2018, the Board and MAMFC preliminarily approved for the 2019 fishing season a commercial quota of 7.72 million pounds and a RHL of 5.15 million pounds, a 16% increase from 2018 levels for both sectors. Both the commercial quota and RHL may be changed in early 2019 pending the results of the benchmark stock assessment.

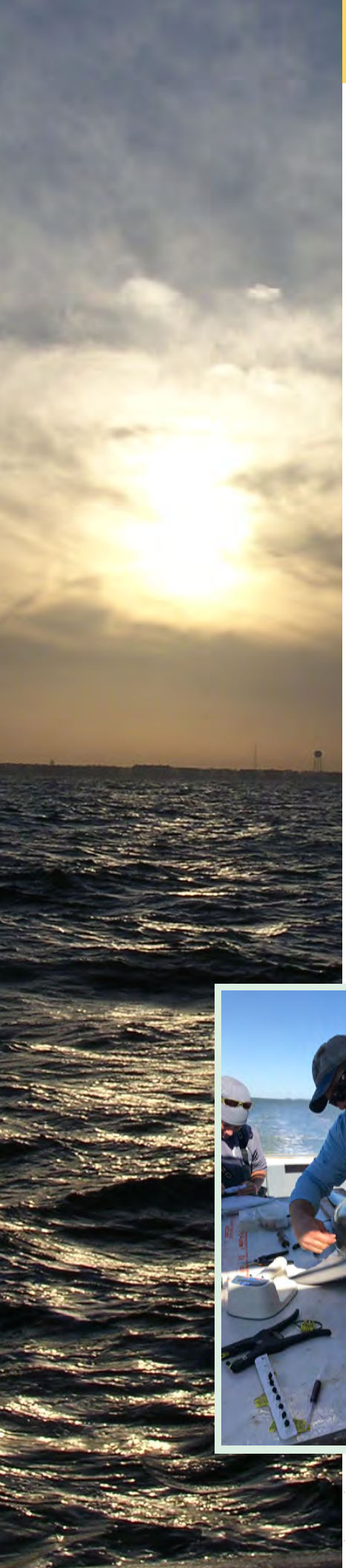
Summer Flounder Commercial and Recreational Landings
Source: ACCSP Data Warehouse, 2018



In 2018, the Board and MAFMC gathered public comment on the Summer Flounder Commercial Issues Draft Amendment. The Amendment considers modifications to the current management program's goals, objectives, and commercial management strategies, including federal permit qualifying criteria, state allocations, and landings flexibility. In December, the Board and MAFMC considered final action on the Amendment but, after significant deliberations, delayed approval until both bodies have an opportunity to consider additional allocation options. Final action on the Amendment is anticipated for 2019.

Additionally in December, the Board adopted Addenda XXXI and XXXII. Addendum XXXI, approved jointly with MAFMC, expands the suite of tools available for managing summer flounder, scup, and black sea bass, and reduces inconsistencies between state and federal regulations. Further, through the Addendum, the Board recommended NOAA Fisheries implement regulations to allow transit through federal waters in Block Island Sound for non-federally permitted vessels in possession of summer flounder, scup, and black sea bass.

Addendum XXXII, approved only by the Commission, allows the Board to set recreational measures starting in 2019 through an annual specifications process. The specifications process will allow the same regional alignment from recent years while providing guidelines on how measures can be developed and adjusted year-to-year moving forward.



FISHERIES SCIENCE TO SUPPORT MANAGEMENT

Management of Sustainable Fisheries relies on accurate and timely scientific advice. The Commission strives to produce sound, actionable science through a technically rigorous, independently peer-reviewed stock assessment process. Assessments are developed using a broad suite of fishery-independent surveys and fishery-dependent monitoring, as well as research products developed by a network of fisheries scientists at state, federal and academic institutions along the coast. The Commission's scientific goals include the development of innovative scientific research and methodology, and enhancement of the states' stock assessment capabilities. Achieving the goals ensures sound science is available as the foundation for the Commission's evaluation of stock status and adaptive fisheries management actions.

New Commission science initiatives include development of long-term science strategies as part of the Commission's new 2019-2023 Strategic Plan, and collaborations with the U.S. Geological Survey to expand its support of diadromous and coastal fisheries research, stock assessments, and habitat restoration.

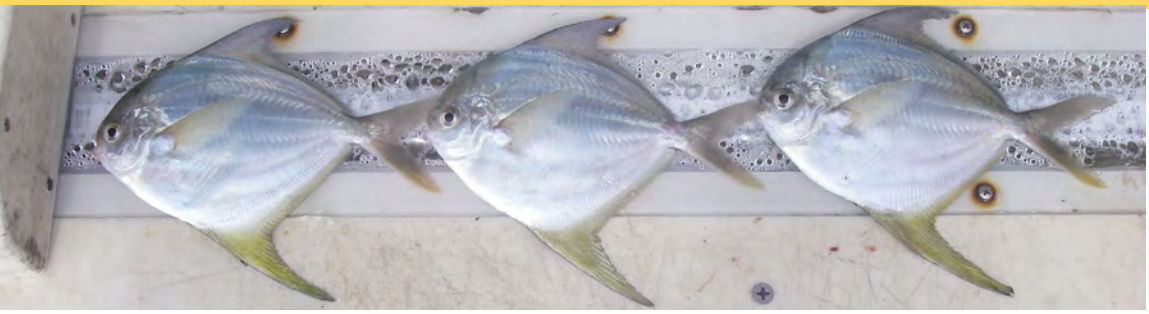
FISHERY-INDEPENDENT DATA COLLECTION

Fishery-independent surveys provide insight into the status of fish stocks without the biases inherent to commercial and recreational fisheries catch information. Data collection by numerous survey programs is a fundamental component of the Commission's stock assessment and fisheries management processes. The Commission coordinates two regional fishery-independent data collection programs on the Atlantic coast – the Southeast Area Monitoring and Assessment Program (SEAMAP) and the Northeast Area Monitoring and Assessment Program (NEAMAP).

SEAMAP

SEAMAP is a cooperative program among state and federal agencies, and universities to carry out the collection, management, and dissemination of fishery-independent data in the South Atlantic. Since 1982, SEAMAP has conducted long-term standardized surveys that provide the scientific basis for fisheries and habitat management in the region. SEAMAP conducts surveys and disseminates data in close collaboration with NOAA Fisheries' Southeast Science Center and Regional Office.

In 2018, SEAMAP-South Atlantic surveys (trawl, longline, and trap) continued to collect data on the distribution and abundance of a variety of important commercial and recreational species from North Carolina to Florida (e.g., red drum, Spanish mackerel, snapper, grouper, shrimp). More than 250 stations from Cape Hatteras to Cape Canaveral were sampled by the SEAMAP-South Atlantic Coastal Trawl Survey. The Pamlico Sound Trawl Survey completed over 100 stations to monitor estuarine finfish and shrimp populations, while the Coastal Longline Surveys completed 600 sets with more than 890 red drum and 860 sharks caught. Many drum were sampled



for genetic analysis, then tagged and released to study migration and survival rates. Data collected from all SEAMAP-South Atlantic surveys provide long-term population metrics such as abundance trends, feeding habits, and population age structure for use in state, interstate, and federal stock assessments of recreationally and commercially important fish and crustaceans.

The Program has a long track record of collecting data that are used to address real world questions in fisheries management. SEAMAP survey data are readily available online at *www.seamap.org*. Fisheries scientists, managers, and the public can search the SEAMAP database to examine population trends, set annual fishing regulations, and evaluate management strategies for numerous commercial and recreational species that migrate between the states' coastal waters and estuaries. Additionally, SEAMAP-South Atlantic continues to support ocean bottom mapping and fish habitat surveys, which gather seabed mapping data for managers to use when designating marine protected areas and other fish habitat conservation areas. Maps of SEAMAP and other South Atlantic fishery-independent data are available through an extensive geographic information system at *http://ocean.floridamarine.org/safmc_atlas/*.

NEAMAP

NEAMAP is a cooperative state/federal fishery-independent research and data collection program for coastal waters from Maine to North Carolina. Its mission is to carry out the collection and distribution of fishery-independent data obtained in the Northeast for use by state and federal fisheries management agencies, commercial and recreational fishermen, and researchers. Since 2007, the Mid-Atlantic Nearshore Trawl Survey has completed spring and fall surveys, sampling inshore waters from Cape Hatteras, North Carolina northward to Martha's Vineyard, Massachusetts. In addition, NEAMAP includes the Massachusetts Inshore Trawl Survey and the Maine-New Hampshire Inshore Trawl Survey. Survey data are used to complement data from NOAA Fisheries' NEFSC Trawl Survey, which samples in deeper, offshore waters of the Mid-Atlantic and New England.

In 2018, the Mid-Atlantic Nearshore Trawl Survey conducted tows at 150 locations in depths ranging from three to 25 fathoms. A portion of the spring survey stations was not sampled due to a vessel fire and associated delay in starting the survey. To date, over seven million individual fish and invertebrates, representing over 175 different species, have been collected by the survey. The Maine-New Hampshire Inshore Trawl Survey, which has been in operation since 2000, conducted spring and fall surveys with over 200 tows in five regions along the Maine and New Hampshire coasts in depths ranging from 30 to 330 feet. The Massachusetts Inshore Trawl Survey, which has conducted spring and fall surveys since 1978, surveyed 200 stations in 2018 in five geographic regions at depths up to 180 feet.

Data collected by both the Maine/New Hampshire and Massachusetts Surveys included information on length, sex and maturity, age and food habits of dozens of fish and crustacean species, as well as ocean bottom temperatures. Data from all three surveys – catch numbers, and individual fish and invertebrate lengths, weights, ages and diets – are used in stock assessments and are vital to improving our ability to track annual changes in population sizes and demographics. For further information about NEAMAP and its partner surveys, please visit *www.neamap.net*.

A NEAMAP Summit was held in 2018, bringing together chief scientists, gear experts, and data managers from state and regional fishery-independent surveys. In addition to the three surveys above, scientists partici-pated from the NEFSC and trawl surveys in Rhode Island, New York, New Jersey, Maryland, and the SEAMAP South Atlantic region. The Program welcomed the addition of a new Nearshore Trawl Survey that the New York State Department of Environmental Conservation started conducting in 2018. After more than a decade of survey data collection and coordination, it is time for the Program to transition into a new phase. The Summit was designed to revisit and modify Program goals and objectives. NEAMAP is shifting gears from testing pilot surveys and developing standardized methods to identifying and designing new surveys to address fisheries data gaps, as well as heightening Program visibility. A renewed focus on outreach is underway to increase data use in stock assessments, ecosystem studies, and fisheries management. NEAMAP staff and survey scientists are also communicating data uses to the fishing industry and other stakeholders to promote buy-in of survey results for use in resource management decisions.

RESEARCH INITIATIVES

The Commission worked on several fisheries research initiatives in 2018 to address high priority issues for the Atlantic states and their fisheries stakeholders. Information gathered from the initiatives improved the scientific basis for Commission stock assessments and is fundamental to advising fisheries managers on the health of fish and crustacean populations.

ATLANTIC STRIPED BASS

A long-term research question in the assessment and management of coastal striped bass is how to determine the rates of migration and residency for striped bass originating from major nursery areas in Chesapeake Bay, Delaware Bay, and the Hudson River. Atlantic striped bass are currently managed as a single coastwide stock because of the lack of data on age- and sex-specific migration from these primary nursery areas. An assessment model that captures the stock-specific population dynamics of the coastal population would provide better management advice and reduce the risk of overexploiting each stock.

In 2018, the Commission gathered striped bass tagging data from state and university partners from North Carolina to Massachusetts. Tag and recapture results were input to a new multi-stock spatial assessment model to evaluate the migratory patterns and relative contributions of major coastal estuaries to the coastwide population. The Commission presented the new multi-stock model as part of the striped bass benchmark stock assessment that was completed in 2018.

BLACK SEA BASS

A black sea bass research fleet was recently established to sample fish off of the Southern New England coast. The new sampling program is led by the Rhode Island Division of Fish and Wildlife and the Commercial Fishermen's Research Foundation. Sampling is addressing major data gaps in biological information for the species that have hindered advances in black sea bass stock assessment. To date, nine fishing vessels comprising the research fleet have sampled more than 7,700 sea bass. Fish size, maturity, and age data are derived from samples and used to characterize the population in Southern New England. A subset of sea bass are also tagged and returned to the water in order to improve our understanding of stock structure and inshore-offshore migration patterns.

HORSESHOE CRAB

From 2002 to 2011, the Horseshoe Crab Trawl Survey, conducted by Virginia Tech University's Horseshoe Crab Research Center, was the only fishery-independent survey designed to sample horseshoe crab populations in Atlantic coastal waters. Survey data have been an important component of the Commission's coastwide stock assessment and ARM Framework, which incorporates both horseshoe crab and shorebird abundances to set optimized horseshoe crab harvest levels for the Delaware Bay area. The ARM Framework was used to set specifications for the 2013 to 2019 fishing seasons.

Due to funding shortfalls, the Horseshoe Crab Trawl Survey was not conducted between 2013 and 2015. The temporary break in the survey and its data present challenges for use of the ARM Framework, which depends on the adult abundance indices derived from the Horseshoe Crab Trawl Survey. The Commission received short-term funding to conduct the Trawl Survey from 2016 to 2019. While the renewed funding is a positive development, the Commission will continue to seek long-term funding for the survey.

JONAH CRAB

The Jonah crab commercial fishery has undergone substantial growth in recent years. Historically, Jonah crab were considered bycatch in the New England lobster fishery. However, in the past 15 years, market demand has more than quadrupled, increasing targeted fishing pressure on Jonah crab. In areas where most of the U.S. Jonah crab fishery is conducted, no information exists on the movement patterns and size at maturity for male and female crab, key information for understanding crab population dynamics. The absence of maturity data prohibits estimation of the stock's spawning size and reproductive potential, limiting the Commission's ability to set biological reference points and conduct a stock assessment. A Jonah crab maturity study was initiated in 2015 and continued through 2018. Study results will improve our understanding of stock dynamics and

DEPENDABLE AND TIMELY FISHERIES STATISTICS

Effective management depends on quality fishery-dependent data (e.g., information collected from recreational and commercial fisheries, such as landings, effort, or discards) and fishery-independent data (e.g., information collected through monitoring programs and research surveys) to inform stock assessments and fisheries management decisions. However, just as fisheries management responsibilities are divided among agencies, so too are fisheries data collection efforts. Developed by different agencies with different data needs, these fisheries data collection programs are heterogeneous in their temporal and spatial coverage, the data elements they collect, and in the codes used to enter and store the data.

Recognizing the need for consistency across Atlantic coast fishery-dependent data collection efforts, the 23 agencies responsible for fisheries manage-ment on the Atlantic coast established the Atlantic Coastal Cooperative Statistics Program (ACCSP). Using a committee-based approach, ACCSP works with its partners to increase data utility by:

- Developing and implementing coastwide data standards
- Providing electronic applications that improve partner data collection
- Integrating and sharing partner data via a coastwide repository
- Facilitating fisheries data access while protecting confidentiality
- Supporting further technological innovation

Improving Data Collection and Integration across Jurisdictions

COMMERCIAL FISHERIES

In 2003, using data standards developed through a committee process, ACCSP developed and deployed the Standard Atlantic Fisheries Information System (SAFIS) to enable online dealer reporting in Rhode Island. Over the past 15 years, SAFIS has evolved into a coastwide fishery-dependent data reporting system used by both dealers and harvesters. Today, the system houses live data collected via the three online and two mobile-based reporting applications, one of which is also used by the for-hire sector. Refreshed nightly, these live data can be accessed by the Program Partners for use in quota monitoring and in-season management.

MODERNIZING SAFIS

Now 15 years old, the SAFIS database requires modernization in order to keep pace with the needs of the Program Partners. Partners want better, more accurate data available in real-time, all while reducing the duplicative reporting burden on fishermen and dealers. Since 2016, ACCSP has been working on developing a blueprint for a redesigned database flexible enough to accommodate all partners' data requirements.

In 2018, ACCSP invited partner representatives to provide input to the design at two technical meetings. Staff used the input gathered from these workshops to develop a general systems specification document that outlines the proposed database design. ACCSP will use multi-level rules for all possible permit, gear, and species combinations to render the system flexible enough to accommodate all Partners' requirements. Software will be developed to build reporting forms on the fly based on the rules set by the agency to which the user is reporting. This will likely require the creation of an administrative console for the Partners to set up and manage their jurisdictions' rules. The redesigned SAFIS will also be capable of integrating with vessel monitoring and electronic monitoring systems, two areas of growing interest to fisheries managers. Per SAFIS user feedback, the new system will support smartphone-based reporting.

RECREATIONAL FISHERIES

ACCSP is also continuing its work to improve recreational fisheries data collection. The cooperative approach among ACCSP, the Atlantic states, and NOAA Fisheries' MRIP is

helping move the entire coast to a consistent recreational data collection design with unified catch and effort estimates across state and federal jurisdictions.

APAIS IMPROVEMENTS

Since 2016, ACCSP has coordinated state conduct of the Access Point Angler Intercept Survey (APAIS), the dockside intercept component of MRIP, from Maine to Georgia. It has helped foster collaborative efforts to identify and implement survey improvements to attain more angler intercepts, including better site selection/pressure estimation, building rapport with local fishermen, and modifications to the vessel directory.

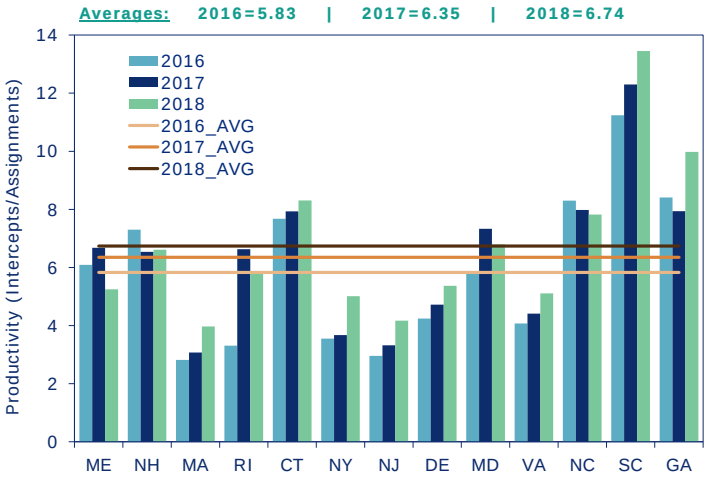
The collaborative efforts appear to be paying off, as intercept productivity (the number of intercepts per assignment) through Wave 5 was up by more than 6% in comparison to 2017, and up more than 15% over 2016. While the average number of site assignments conducted per state between Waves 1 and 5 has increased roughly 10% since 2016, site assignment intercepts have increased by more than 28%. Charter intercepts between Waves 1 and 5 have increased nearly 50% since 2016. These increases will help provide catch information that is more representative of recreational fishing trips on the Atlantic coast.

ACCSP will be introducing a tablet-based version of the APAIS in 2019 to move the survey from paper to electronic data collection. Identified as a priority item in the ACCSP Recreational Technical Committee's 2017 Atlantic Coast Recreational Implementation Plan, electronic data transmission will eliminate time spent on shipping and scanning paper forms, reducing ACCSP's processing time by two to three weeks. This will provide state partners with additional time to review edits and perform final data checks before the data are submitted to NOAA Fisheries at the end of each month. The tablet application also features built-in logic that hinders introduction of errors during data entry, meaning there should be fewer edits to be made. ACCSP staff spent 2018 preparing for the transition by further developing an electronic adaptation of the paper-based survey, which originated from a SAFMC pilot project and field testing it with state partners.

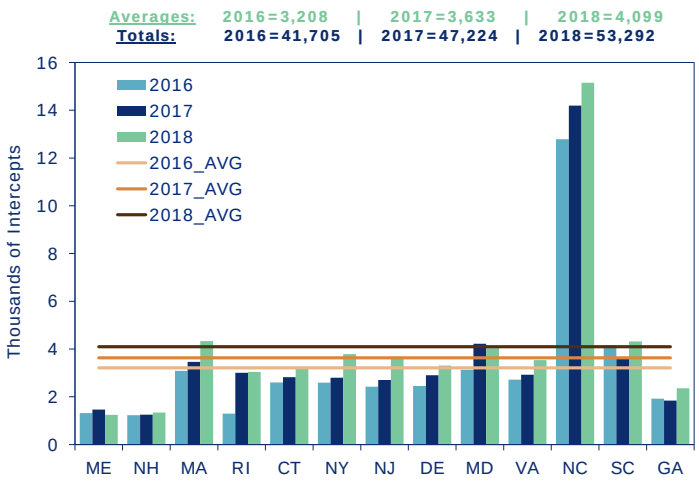
EFFORT ESTIMATION

In 2018, MRIP completed its three-year transition to a new effort survey for private anglers. Previously collected via the Coastal Household Telephone Survey, effort information for shore and private boat fishing trips is now gathered using the mail-based Fishing Effort Survey. Effort information from the for-hire sector will continue to be gathered via the For-Hire Telephone Survey (FHTS). In 2018, ACCSP's Recreational Technical Committee recommended moving to state conduct of the FHTS on the Atlantic coast by 2020. State conduct of FHTS would provide states with direct contact with captains, allowing state staff to learn captains' preferences and tailor approaches accordingly. It would also provide states with ownership of the Vessel Directory, making it easier for states

Comparison of Site Assignment Productivity in Waves 1-5 from 2016-2018



Comparison of APAIS Site Assignment Intercepts in Waves 1-5 from 2016-2018



THE 2019 CAPTAIN DAVID H. HART AWARD

The Commission presented **ROY W. MILLER**, Delaware's Governor Appointee to the ASMFC and former Director of Delaware's Division of Fish and Wildlife (DE DFW), the Captain David H. Hart Award, its highest annual award, at the Commission's 77th Annual Meeting in New York City. For the past 40 years, Mr. Miller has admirably served the State of Delaware and the Commission.

From the outset of his career in 1978 through passage of the Atlantic Striped Bass Conservation Act in 1984, Mr. Miller served on the Striped Bass Science and Statistical Committee (now known as the Striped Bass Technical Committee), working with the Committee to address the precipitous decline of the striped bass population. As part of those discussions, he was instrumental in getting Delaware to join Maryland in implementing a moratorium on the Delaware striped bass fishery. To this day, he considers the recovery of the striped bass population and the return of the Delaware Bay as a productive and important spawning area as two of his proudest Commission moments.

Beginning in 2003, as Section Administrator for DE DFW, Mr. Miller became the state's Administrative Commissioner Proxy. In that position, he served on and chaired numerous management boards, including Shad and River Herring, Weakfish, and the Horseshoe Crab Board. His chairmanship of the Horseshoe Crab Board was during the highly contentious development and implementation of the FMP, which sought to balance the needs of watermen, who wanted to continue to harvest crabs to use as bait, with the desires of environmentalists, who wanted to preserve the crabs so their eggs could feed migrating shorebirds. Mr. Miller skillfully guided the Board through some intense Board meetings, including significant public comment provided at the meetings. In addition to a management program that accommodated the needs of all the stakeholders and the resource, those meetings also resulted in revised comment protocols for public speaking at ASMFC meetings.

Immediately after his retirement in 2009, Mr. Miller was chosen by Governor Jack Markell (D-DE) to serve as his Appointee to the Commission. Notably, Mr. Miller didn't miss a meeting between his retirement and the Governor's appointment and continues to serve to this day without fail. As Governor Appointee, Mr. Miller continues to chair management boards and has been a regular visitor to Capitol Hill, keeping staffers apprised of important developments in Delaware and at the Commission. At one such meeting with former Congressman Carney's staff, Mr. Miller expressed his concern about funding shortfalls that resulted in the discontinuance of the Mid-Atlantic Horseshoe Crab Trawl Survey. That meeting and others that followed ultimately led to the restoration of the survey's funding in 2016. The survey is now supported by Senators and Representatives throughout the Mid-Atlantic; the survey's third consecutive year was completed this October.
Throughout his four decades of service, Mr. Miller has distinguished himself by his dedication to the Commission's management process. An insightful and respectful debater, and one of the most collegial Commissioners, Mr. Miller has consistently sought compromise instead of contention. These traits, combined with his long and meritorious record of accomplishments and dedication to sustainable fisheries management, make him a most worthy award recipient.

The Commission instituted the Hart Award in 1991 to recognize individuals who have made outstanding efforts to improve Atlantic coast marine fisheries. The Hart Award is named for one of the Commission's longest serving members, who dedicated himself to the advancement and protection of marine fishery resources, Captain David H. Hart, from the State of New Jersey.

FINANCIAL REPORT

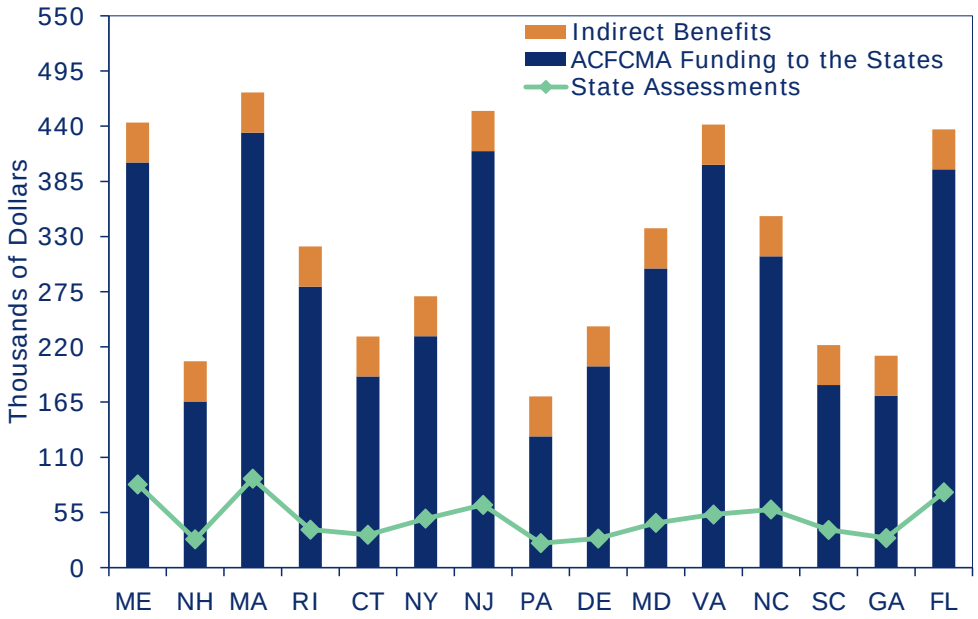
The Commission's FY2019 budget was $11.6 million. The base funding ($733,444) is provided by the member states' annual appropriations, which are determined by the value of commercial fishing landings and saltwater recreational trips within each state. The bulk of the Commission's funding is received through federal cooperative agreements, the largest being a line-item in the NOAA Fisheries budget appropriated to implement the Atlantic Coastal Fisheries Cooperative Management Act (ACFCMA), including the Atlantic Coastal Cooperative Statistics Program (ACCSP). The Commission also receives funds from NOAA Fisheries to carry out the provisions of the Interjurisdictional Fisheries Act (IFA) (P.L. 99-659). As you can see in the accompanying graph, which illustrates the benefits states receive from ACFCMA and IFA, the majority of our budget goes directly to support the fisheries management, monitoring and science activities of the states.

The U.S. Fish and Wildlife Service also provides funding to the Commission through its Federal Aid in Sport Fish Restoration Program (Wallop/Breaux). In 2016, through ACCSP, the Commission was given responsibility for oversight and management for state conduct of the Access Point Angler Intercept Survey. Funding for this program is provided by NOAA Fisheries.

The following two pages provide a financial snapshot of the Commission's assets and expenses for the years ended June 30, 2018 and 2017.

Return on State Assessments to the Commission

Source: FY19 ASMFC Assessments and FY18 ACFCMA and IFA Allocations



*Indirect benefits include travel and per diem for 6 people from each state to participate in Commission meetings. Please note that this figure does not include the collective benefits derived from the work of the FMP Coordinators and Science Staff.

The Commission was once again fortunate to receive adequate funding to conduct all fundamental programmatic activities and maintain current staffing. Of note, the Commission's total assets were nearly constant (less than a 3% decrease) from FY 2017 to FY 2018. This maintenance of funding is necessary to support the core mission of the Commission. Following is a financial snapshot of the Commission for the years ended June 30, 2018 and 2017. Detailed financial statements audited by the firm Dixon Hughes Goodman LLP, are available from the Commission office.

Atlantic States Marine Fisheries Commission
Condensed Statement of Financial Position Information
For the Years Ended June 30, 2018 and 2017

ASSETS

	2018	2017
CURRENT ASSETS:		
Cash and cash equivalents	$ 512,317	$ 1,019,597
Grants and accounts receivable	2,639,344	2,260,197
Prepaid expenses	83,265	50,288
Total Current Assets	3,234,926	3,330,082
Investments	842,812	841,328
Property and Equipment, Net	3,424,638	3,558,567
TOTAL ASSETS	$ 7,502,376	$ 7,729,977

LIABILITIES AND NET ASSETS

CURRENT LIABILITIES:		
Accounts payable and accrued expenses	$ 1,483,956	$ 1,562,887
Deferred revenue and contract advances	302,626	819,821
Current maturities of long term debt	180,000	180,000
Total Current Liabilities	1,966,582	2,562,708
OTHER LIABILITIES:		
Long term debt	250,912	430,912
Obligation under interest rate swap	1,696	10,144
Total Other Liabilities	252,608	441,056
TOTAL LIABILITES	2,219,190	3,003,764
UNRESTRICTED NET ASSETS	5,283,186	4,726,213
TOTAL LIABILITIES AND NET ASSETS	$ 7,502,376	$ 7,729,977

Atlantic States Marine Fisheries Commission
Condensed Statement of Activities Information
For the Years Ended June 30, 2018 and 2017

	2018	2017
REVENUE:		
Contract reimbursements	$ 14,140,269	$ 14,071,392
Contributions from member states	698,519	665,257
Other	27,521	26,591
Total Revenue	14,866,309	14,763,240
EXPENSES:		
Salaries and fringe benefits	5,993,209	5,824,678
Subcontracts	5,502,547	6,171,518
Travel	1,368,771	1,323,386
Other	1,453,257	975,428
Total Expenses	14,317,784	14,295,010
OTHER INCOME (EXPENSES):		
Interest rate swap obligation adjustment	8,448	23,042
Gain (loss) on disposal of property	-	-
Total Other Income (Expenses)	8,448	23,042
CHANGE IN NET ASSETS	556,973	491,272
NET ASSETS, BEGINNING OF YEAR	4,726,213	4,234,941
NET ASSETS, END OF YEAR	$ 5,283,186	$ 4,726,213

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Mike Schmidtke, Ph.D.	*Fishery Management Plan Coordinator*
Caitlin Starks	*Fishery Management Plan Coordinator*

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James J. Gilmore, Jr. (NY), Chair *Patrick C. Keliher (ME), Vice-Chair* *Robert E. Beal, Executive Director*

Vision: Sustainable and Cooperative Management of Atlantic Coastal Fisheries

Draft Resolution 19-01(?)

Draft Resolution to Establish State Risk Assessment Processes for Imported American Lobster and Jonah Crab Bait

Whereas, the Atlantic States Marine Fisheries Commission (Commission) is comprised of representatives of the fifteen Atlantic coastal states and is charged with management of fisheries resources; marine, shell, and diadromous; and

Whereas, those fisheries resources include American lobster (*Homarus americanus*) and Jonah crab (*Cancer borealis*), which are managed to maintain healthy lobster and crab resources to provide continued harvest, maintain opportunities for participation, and provide for cooperative development of conservation measures by all stakeholders; and

Whereas, lobster and crab are fished with baited traps and require viable sources of bait to remain a sustainable fishery; and

Whereas, lobster and crab bait is recognized as a potential pathway to introduction of viral, bacterial, and parasitic pathogens, and invasive species that can harm indigenous marine species, habitats, and environment; and

Whereas, preventing the introduction and establishment of exotic pathogens and parasites is necessary to protect the lobster and crab resources and other indigenous marine species; and

Whereas, pathogens are specific to species and region of origin; and

Whereas, lobster and crab bait originating from the same biogeographic region as the fishery poses the least risk to lobster, crab, and other indigenous marine species; and

Whereas, lobster and crab bait sourced from a different biogeographical region than the fishery (domestic and foreign locations) poses a greater risk (biologically, environmentally, and economically) to lobster, crab, and other indigenous marine species; and

Whereas, detection of pathogens listed by the World Organization for Animal Health requires reporting and can result in temporary or permanent loss of certain export markets of live organisms; and

Whereas, although processing and freezing may mitigate the risk of parasites and aquatic nuisance species, it is not effective against all pathogens; and

Whereas, documenting bait species, sources, and regions of origin is necessary to evaluate potential risk; and

Whereas, risk screening processes using information from international databases, scientific literature, climate models, and flow charts can be used to evaluate deleterious characteristics of proposed or current lobster and crab bait; and

Whereas, a bait product risk assessment can provide managers with information on the risk associated with certain lobster and crab bait and be used to develop risk mitigation protocols by each state, such as designation of prohibited and acceptable baits, establishment of requirements for disease testing or bait processing (e.g., freezing), chain of custody documentation, or other mechanisms to reduce risk; and

Now, therefore, be it resolved that the Commission's American Lobster Management Board will establish a Risk Assessment Workgroup to develop a lobster and crab bait risk assessment process to evaluate potential baits for the trap/pot fishery. This process will be used to evaluate potential nonindigenous baits separately according to species, processing (e.g. fresh or frozen), and region of origin. Those baits determined to pose risk to lobster, crab, and other indigenous marine species, their habitats and environment, will be prohibited under state rules or laws as soon as possible, based on applicability to each state. After completion of the initial risk assessment process, the Workgroup will continue the risk assessment process in the future as deemed necessary by the American Lobster Management Board.

The Risk Assessment Workgroup shall be composed of a management representative from each jurisdiction represented on the Lobster Management Board, and at least one member with expertise in each of the following fields: 1) risk assessment and 2) diseases or pathogens of international and domestic fishes and invertebrates.

Risk assessment processes have been implemented for other species or areas. Figure 1 depicts a flow chart that could describe a potential process for evaluating baits for level of risk and recommendation for management action. This is included as a general template that should be further detailed when applied to meet the needs of specific states. Additionally, references for current invasive species (bait or otherwise) risk assessment processes, which may be helpful as states implement the process defined by the Risk Assessment Workgroup for lobster and crab, are included below.

References:

Maine Department of Marine Resources Regulations, Chapter 25 Part 11. Available at: https://www.maine.gov/dmr/laws-regulations/regulations/documents/dmrchapter25_03132019.pdf

https://www.maine.gov/dmr/science-research/species/lobster/bait.html

Phillips, KA, Noyes, A, Shen, L, and Whelan, G. 2014. Model program for fish health management in the Great Lakes. Gt. Lakes Fish. Comm. Spec. Publ. 14-02. Available at: http://www.glfc.org/pubs/SpecialPubs/Sp14_02.pdf.

US Fish and Wildlife Service (USFWS). 2016 (with later edits). Standard Operating Procedures for the Rapid Screening of Species' Risk of Establishment and Impact in the United States. US Fish and Wildlife Service. Available at: https://www.fws.gov/injuriouswildlife/pdf_files/ERSS-SOP-Final-Version.pdf.

Figure 1. Example flowchart of a general risk assessment process for bait species.