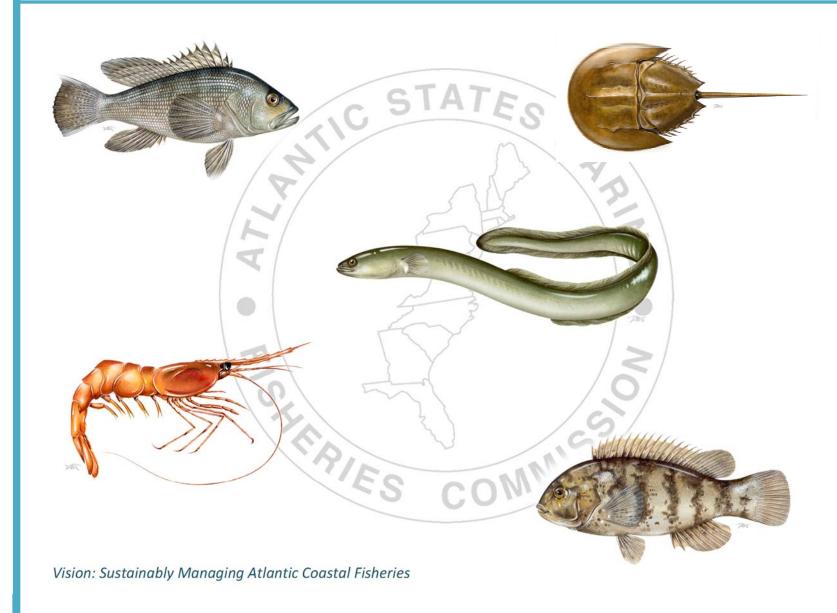
American Eel American Lobster Atlantic Croaker Atlantic Herring Atlantic Menhaden Atlantic Striped Bass Atlantic Sturgeon Black Drum Black Sea Bass Bluefish **Coastal Sharks Horseshoe Crab Jonah Crab Northern Shrimp Red Drum** Scup **Shad & River Herring Spanish Mackerel Spiny Dogfish** Spot **Spotted Seatrout Summer Flounder Tautog** Weakfish Winter Flounder

ASMFC Stock Status Overview

This document provides an overview of stock status for the Commission's 26 managed species or species groups. Graphs contain the most recent information available and have been vetted through the relevant species technical committee. Where biomass data is lacking, other fishery indicators are used (i.e., landings, fishing mortality rates). Time frames differ based on data availability.

September 2015



Quick Guide to ASMFC Species Stock Status

(Current as of September 2015)

*= Concern ? = Unknown ◆ = Depleted ♠/⇔ = Recovering/Rebuilding √ = Rebuilt/Sustainable

REBUILDING STATUS & SCHEDULE	Harvest restrictions adopted for glass, yellow, and silver eel fisheries in response to 2012 benchmark assessment	GOM/GBK stock rebuilt Board approved 10% reduction in exploitation on SNE stock as 1st phase in rebuilding program as well as	trap reductions in Areas 2 & 3 pending NOAA Fisheries rulemaking. Board considering additional restrictions for SNE in response to 2015 benchmark assessment.	Amendment 3 establishes 2013 moratorium unless sustainability can be documented	Overfished status unknown; however, biomass has been increasing & age structure has been expanding since late 1980s; benchmark assessment scheduled for 2016	Rebuilt; new assessment to be developed which may change stock status	Amendment 2 implemented ~20% reduction from 2011 levels, beginning in 2013	Rebuilt since 1995 although female SSB has continued to decline since 2004; Board adopted harvest reductions for implementation in 2015 in response to 2013 benchmark assessment	40+ year moratorium; to be rebuilt by ~2038; listed in 2012 under the ESA; benchmark assessment scheduled for 2017	FMP approved in 2013; status based on 2015 benchmark assessment which found 2012 median biomass well above median biomass that produces MSY
OVERFISHING	Unknown	Z	z	Unknown	z	z	Z	z	z	z
OVERFISHED	Depleted	Not Depleted	Depleted	Depleted	Unknown	Z	Z	z	>	z
IES	American Eel	Gulf of Maine (GOM)/ Georges Bank (GBK)	Southern New England (SNE)	American Shad	Atlantic Croaker	Atlantic Herring	Atlantic Menhaden	Atlantic Striped Bass	Atlantic Sturgeon	Black Drum
SPECIES		American Lobster				X				
STATUS/ TRENDS	→	7	→	→	د.	٨	^	*	6.	7

√= Rebui	= Rebuilt/Sustainable 🖪	♠ /⇔ = Recoverin	Recovering/Rebuilding	◆ = Depleted	? = Unknown *= Concern
*		Black Sea Bass	Z	z	Benchmark assessment scheduled for 2016 may change stock status
>		Bluefish	Z	Z	Biomass above threshold but below target
*		Coastal Sharks	۸	aries by species	Varies by species & species complex
*		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; since 2013 ARM Framework has been used to set harvest levels for horseshoe crabs of DE Bay origin
٠٠		Jonah Crab	Unknown	Unknown	Interstate FMP adopted in August 2015
→		Northern Shrimp	Depleted	Z	Abundance & biomass indices lowest on record; recruitment indices also very low; fishery moratorium in place in 2014 and 2015 to protect remaining spawning population
1	Red Drum	Northern Region	Unknown	z	SPR above target and threshold SPRs; benchmark assessment scheduled for 2015
		Southern Region	Unknown	z	SPR above threshold SPR; benchmark assessment scheduled for 2015
→		River Herring	Depleted	Unknown	Depleted on coastwide basis; Amendment 2 established 2012 moratorium unless river- specific sustainability can be documented
>		Scup	Z	z	Rebuilt
>		Spanish Mackerel	z	z	Rebuilt
>		Spiny Dogfish	Z	z	Rebuilt

√ = Rebui	= Rebuilt/Sustainable	♠ /⇔ = Recovering/Rebuilding	g/Rebuilding	◆ = Depleted	? = Unknown *= Concern
٠٠		Spot	Unknown	Unknown	Traffic light approach adopted to assess stock trends & initiate management response; benchmark scheduled for 2016
ċ		Spotted Seatrout	Unknown	Unknown	Omnibus Amendment includes measures to protect spawning stock & establishes 12" minimum size limit
*		Summer Flounder	z	*	2015 assessment update shows biomass trending downward since 2010 and 2014 fishing mortality (F) is 16% above F threshold
*		Tautog	>	Varies by region	Overfished on a coastwide basis; 2015 benchmark assessment presented stock status based on 3 regions; Board has initiated amendment to address regional stock units and reference points
→		Weakfish	Depleted	z	6-year rebuilding period if spawning stock biomass < threshold level; Board approved further harvest restrictions in 2009; benchmark scheduled for 2015
*	Winter Flounder	Gulf of Maine	Unknown	z	Overfished status unknown since assessment model was not accepted by peer review
→		South New England/ Mid-Atlantic	>	z	Current biomass at 16% of SSB target

What Does a Status Mean?

Rebuilt/Sustainable - Stock biomass is equal to or above the biomass level established by the FMP 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.

Recovering/Rebuilding - Stocks exhibit stable or increasing trends. Stock biomass is between the threshold and the target level established by the FMP.

Unknown - There is no accepted stock assessment to estimate stock status.

Depleted - Reflects low levels of abundance though it is unclear whether fishing mortality is the primary cause for reduced

Concern – Those stocks developing emerging issues, e.g., increased effort, declining landings, or impacts due to environmental conditions.

Overfished - Occurs when stock biomass falls below the threshold established by the FMP, significantly reducing the stock's reproductive capacity to replace fish removed through harvest.

Overfishing - Occurs when fish are removed from a population at a rate that exceeds the threshold established in the FMP, which over the long-term will lead to declines in the population. A stock that is experiencing overfishing is having fish removed at a rate faster than the population can sustain in the long run, which will lead to declines in the population.

Stable/ Unchanged - Stock biomass has been consistent in recent years.

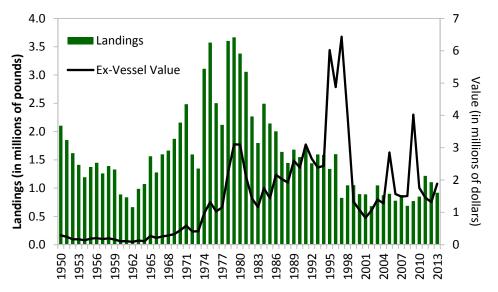
sources and newer or improved assessment models. This assessment is generally conducted every 3-5 years and undergoes a formal peer review by a panel of independent scientists who evaluate whether the data and the methods used Benchmark stock assessment - A full analysis and review of stock condition, focusing on the consideration of new data to produce the assessment are scientifically sound and appropriate for management use.

Stock assessment update - Incorporates data from the most recent years into a peer-reviewed assessment model to determine current stock status (abundance and overfishing levels)

Overview of Stock Status American Eel, Anguilla rostrata

American Eel Total Commercial Landings and Value

Source: 2012 American Eel Benchmark Stock Assessment Report (2012), ASMFC State Compliance Reports & NMFS Fisheries Statistics Division, 2014



Timeline of Management Actions: FMP (1999); Addendum I (2006); Addendum II (2008), Addendum III (2013); Addendum IV (2014)

Management Considerations:

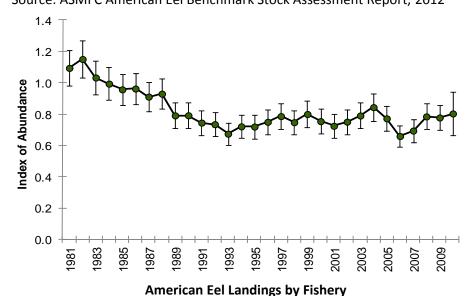
Condition: Depleted (2012 Benchmark Stock Assessment Report).

FMP Stock Rebuilding Goals: Protect and enhance the abundance of American eel in inland and territorial waters of the Atlantic states and jurisdiction and contribute to the viability of the American eel spawning population and provide for sustainable fisheries by preventing overharvest.

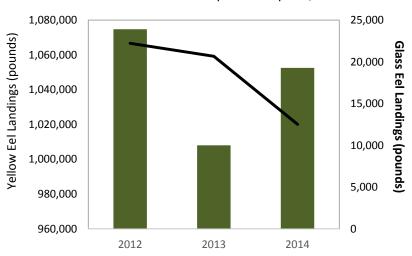
FMP Status:

FMP approved in 2000, implemented in 2001. Addendum I, approved in 2006, required mandatory reporting of catch and effort data. Addendum II, approved in 2008, advocates for increased emphasis on improving upstream and downstream passage for American eel.

30-Year Index of Abundance for Yellow-phase American Eels along the Atlantic Coast (error bars represent standard errors about the estimates). Source: ASMFC American Eel Benchmark Stock Assessment Report, 2012



Source: ASMFC State Compliance Reports, 2015



Overview of Stock Status American Eel, Anguilla rostrata

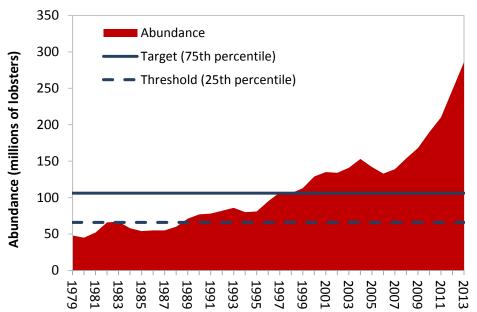
Addendum III (August 2013) and Addendum IV (October 2014) seek to reduce mortality and increasing conservation of American eel stocks across all life stages. Addendum III establishes new management measures for both the commercial (glass, yellow, and silver) and recreational eel fisheries, and implements fishery-independent and fishery-dependent monitoring requirements. Addendum IV establishes a 907,671 pound coastwide quota for yellow eel fisheries, reduces Maine's glass eel quota to 9,688 pounds (2014 landings), and allows for the continuation of New York's silver eel weir fishery in the Delaware River.

Primary Management Measures: Recreational fisheries are managed by minimum size limits and possession limits. Commercial fisheries are managed by quotas.

Overview of Stock Status American Lobster, *Homarus americanus*

American Lobster Abundance for the Gulf of Maine and Georges Bank Stock Unit

Source: ASMFC American Lobster Benchmark Stock Assessment Report, 2015



Timeline of Management Actions: Amendment 3 ('97); Addendum I ('99); Addendum II ('01); Addendum III ('02); Addenda IV & V ('04); Addenda VI & VII ('05); Addenda X & XI ('07); Addendum XIII ('08); Addendum XIV ('09); Addendum XV ('09); Addendum XVII ('10); Addendum XVIII ('11); Addendum XVIII ('12); Addenda XIX – XXIII ('13); Addendum XXIII ('14)

Management Considerations:

Condition:

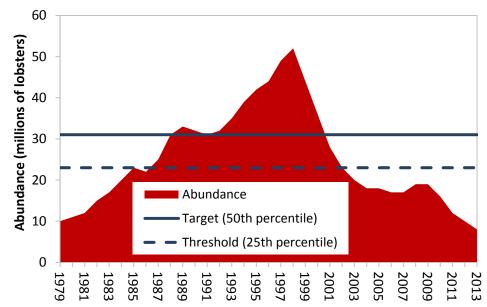
Gulf of Maine/Georges Bank – Not depleted and not experiencing overfishing Southern New England – Depleted and not experiencing overfishing. Abundance is below abundance threshold; Board action is required to rebuild stock

Stock Rebuilding Goals:

The 2015 benchmark stock assessment established new abundance and exploitation reference points. Board will be considering new management measures for SNE in response to assessment findings.

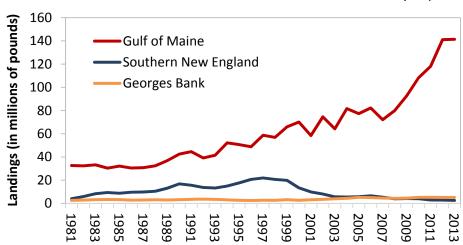
American Lobster Abundance for the Southern New England Stock Unit

Source: ASMFC American Lobster Benchmark Stock Assessment Report, 2015



American Lobster Landings by Area

Source: ASMFC American Lobster Benchmark Stock Assessment Report, 2015



FMP Status:

Amendment 3 and Addenda I – XXIII, established 7 management areas and specific management measures to meet the rebuilding schedule by 2022.

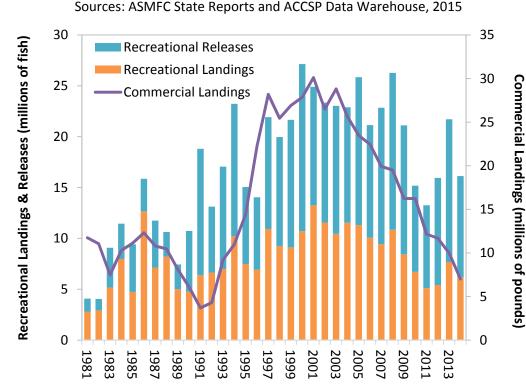
Addendum XII establishes guidelines for areas implementing a transferable trap program. Addendum XIII finalized the Outer Cape Cod's effort control plan.

Addendum XIV alters LCMA trap transfer program. Addendum XV establishes limited entry for LCMA 1 federal water fishermen. Addendum XVI establishes new biological reference points to determine stock status for three stock units. Addendum XVII institutes a 10% reduction in exploitation by all fishing sectors and all gear types starting January 1, 2013 as the first phase in the Board's efforts to rebuild the Southern New England stock. Addenda XVIII and XIX, address the second phase of rebuilding efforts by proposing area-specific measures to scale the scope of the Southern New England fishery to the size of the resource. Addendum XX, establishes bottom-sharing in Closed Area 2 in order to protect large concentrations of egg-bearing females and prevent gear conflicts. Addenda XXII and XXII implement changes to the trap transferability program for Areas 2 and 3. Addendum XXIII addresses habitat considerations.

Primary Management Measures: Lobster is managed through 7 specific management areas. Each area has unique regulations that could include minimum/maximum size limits, trap limits, and v-notching definitions.

Overview of Stock Status Atlantic Croaker, *Micropogonias undulatus*

Atlantic Croaker Commercial Landings & Recreational Landings and Releases



Timeline of Management Actions: FMP (1987); Amendment 1 (2005); Addendum I (2011; Addendum II (2014)

Management Considerations:

Condition: Not experiencing overfishing. Although model estimates of spawning stock biomass (SSB) were too uncertain to be used to precisely determine overfished stock status, biomass has been increasing and the age-structure of the population has been expanding since the late 1980s. Next benchmark assessment scheduled for 2016.

FMP Stock Rebuilding Goals (Addendum I):

Fishing Mortality Rate (F) Threshold = F_{MSY} (or a reasonable proxy thereof)

F Target (F_{target}) = a fraction of the F threshold. F target is the rebuilding rate. Exceeding F threshold constitutes overfishing. Biomass target = B_{MSY} (or a reasonable proxy thereof) B target is the rebuilt level.

Biomass threshold = a fraction of the biomass target. Falling below B threshold constitutes overfished

FMP Status:

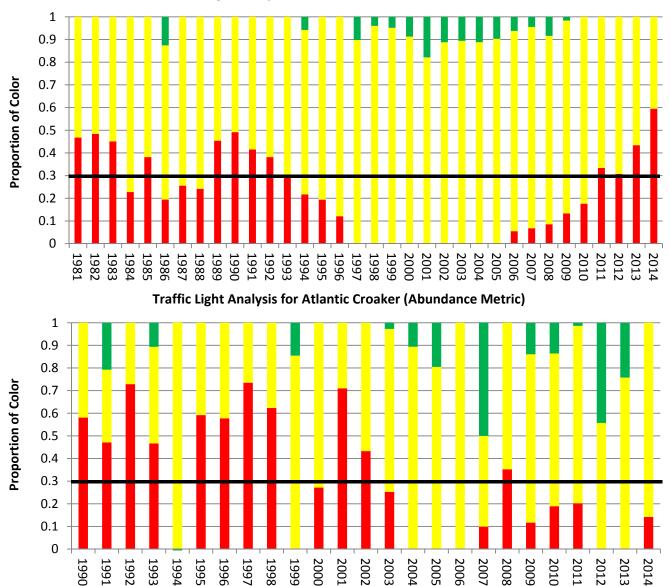
Amendment 1 revised plan's goals and objectives and established biological reference points. Addendum I revised the management area (change to coastwide stock versus Mid-Atlantic and South Atlantic stock components) and adopted biological reference points. Addendum II established traffic light approach to assess stock trends and initiate management response.

Primary Management Measures: Amendment 1 established

biological reference points for the Mid-Atlantic region and established a benchmark stock assessment to be conducted every five years. In each non-assessment year, the Atlantic Croaker Technical Committee will use the traffic light approach to evaluate changes in stock trends and the fishery. Although the plan does not require states to implement specific management measures, some states have implemented size and bag limits.

Overview of Stock Status Atlantic Croaker, *Micropogonias undulatus*



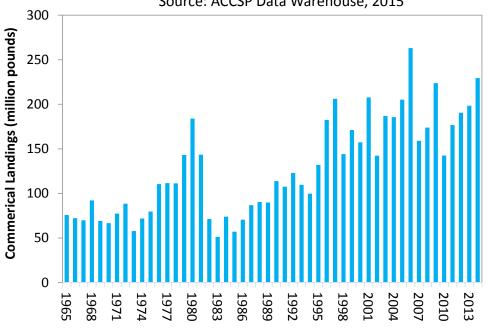


Management response is triggered when proportion of red exceeds the 30% threshold level for three consecutive years in both fishery characteristics (harvest and abundance metrics).

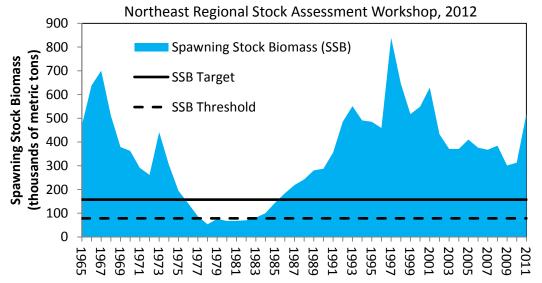
Overview of Stock Status Atlantic Herring, Clupea Harengus

Atlantic Herring Commercial Landings

Source: ACCSP Data Warehouse, 2015



Atlantic Herring Spawning Stock Biomass



Management Considerations:

Condition: Not overfished and overfishing is not occurring. SSB rebuilt.

FMP Reference Points and Current Values:

SSB Target = 157,000 mt (345 million lbs) SSB Threshold = 78,500 mt (173 million lbs) 2011 SSB = 518,000 mt Fishing Mortality Threshold $(F_{MSY}) = 0.27$ 2011 F = 0.14

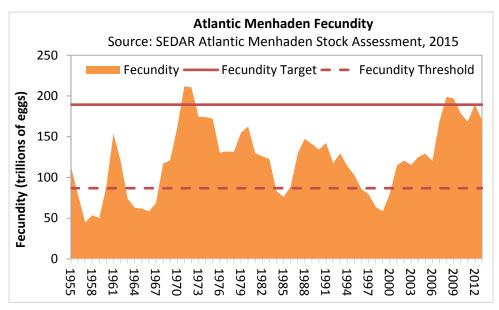
FMP Status:

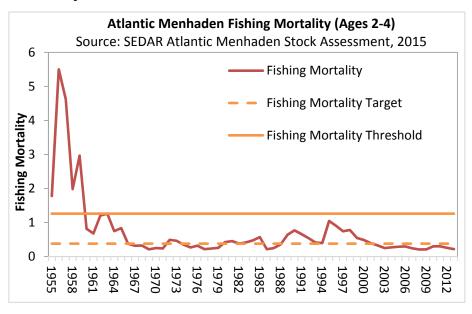
Amendment 2 was developed to achieve optimum yield on a continuing basis for the US fishery and to prevent overfishing of the Atlantic herring resource. Technical Addendum I clarifies zero tolerance spawning closures. Addendum I gives the Section the flexibility to distribute the Area 1A quota seasonally. Addendum II modified the process to set specifications and the definitions used to set the specifications. Addendum V refined and clarified the spawning regulations through a comprehensive addendum. Addendum VI complemented the federal Atlantic Herring FMP's Framework 2 by allowing consistent measures for the four management areas: seasonal splitting of annual catch limit subcomponents, up to 10% carry-over of unused sub-ACLs, triggers to close directed fisheries, and using the specifications process to set triggers. Section has initiated development of Amendment 3 to address spawning area boundaries and closures in Area 1A, a fixed gear set-aside rollover provision, declaration of fishing gear and a requirement for a vessel's hold to be emptied of fish before a fishing trip departure.

Primary Management Measures:

Annual total allowable catch is determined based on the optimum yield of the coastal stock complex and divided between 4 management areas. Effort is controlled by selecting 'days out' of the fishery, on which fishermen cannot land more than a bycatch allowance of 2,000 lbs; area closures during spawning events; and closure of a directed fishery when 92% of the sub-quota is projected to be reached, and when 95% of the stockwide ACL is projected to be reached. The Section set specifications for the 2013-2015 fishing seasons through consultation with NEFMC.

Overview of Stock Status Atlantic Menhaden, *Brevoortia tyrannus*





Timeline of Management Actions: FMP (1981); FMP Revision (1991); Amendment 1 (2001); Addendum I (2004); Addendum II (2005); Addendum III (2006); Addendum IV (2009); Addendum V (2011); Amendment 2 (2012); Technical Addendum I (2013)

Management Considerations

Condition: Not overfished and not experiencing overfishing (2015 benchmark stock assessment)

FMP Stock Rebuilding Goals:

Fecundity Target (FEC_{57%MSP}) = 189 trillion maturing or ripe eggs

Fecundity Threshold (FEC_{26%MSP}) = 86.8 trillion maturing or ripe eggs

Current Fecundity (2013) = 170 trillion maturing or ripe eggs

Fishing Mortality Target $(F_{57\%MSP}) = 0.38$

Fishing Mortality Threshold $(F_{26\%MSP}) = 1.26$

Current Fishing Mortality (2013) = 0.22

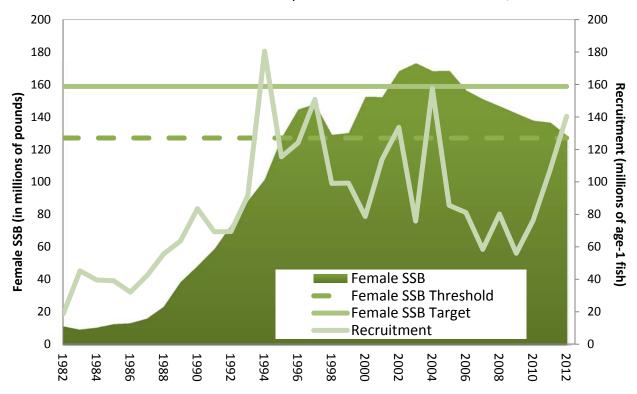
FMP Status: Draft Amendment 3 initiated in May 2015 to establish ecological based reference points and consider changes to the current state-by-state allocation scheme. Addendum I established new biological reference points and changed the frequency of assessments to every 3 years. Addendum II initiated a research program to assess the status of menhaden in Chesapeake Bay. Addendum III set a harvest cap in Chesapeake Bay for the reduction fishery, allowing annual adjustments for harvest overages and underages; these provisions were extended through 2013 through Addendum IV. Addendum V established new fishing mortality reference points based on MSP. Amendment 2 established a 170,800 MT TAC beginning in 2013. The TAC represents a 20% reduction from the average of landings from 2009-2011 and an approximately 25% reduction from 2011 levels. The Amendment also establishes new biological reference points for biomass based on MSP.

Primary Management Measures: A 170,800 MT TAC beginning in 2013, which is allocated on a state-by-state basis based on landings history of the fishery from 2009-2011; allocation will be revisited three years after implementation. States will be required to close their fisheries when the state-specific portion of the TAC has been reached; any overages must be paid back the following year. Further, the Chesapeake Bay reduction fishery harvest cap will be reduced by 20% (this is an adjustment of cap which was in place since 2006). Technical Addendum I, approved in 2013, further clarifies Amendment 2's provisions for episodic events.

Overview of Stock Status Atlantic Striped Bass, Morone saxatilis

Atlantic Striped Bass Female Spawning Stock Biomass (SSB) & Recruitment (Age-1)

Source: ASMFC Atlantic Striped Bass Benchmark Assessment, 2013



Timeline of Management Actions: Amendment 1 & 2 (1984); Amendment 3 (1985); Amendment 4 (1990); Amendment 5 (1995); Amendment 6 (2003); Addendum I (2007); Addendum II (2010); Addendum III (2012); Addendum IV (2014)

Management Considerations

Condition: Not overfished and overfishing is not occurring.

FMP Stock Control Rules:

SSB target = 159 million pounds

New Proposed F target = 0.18 (or 0.27 in Chesapeake Bay and Albemarle/Roanoke)

SSB threshold = 127 million pounds New Proposed F threshold = 0.219

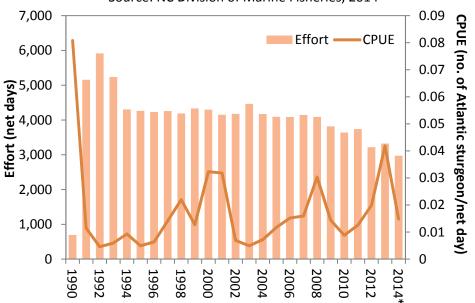
FMP Status: Amendment 6 (2003) established new biological reference points and includes triggers for Board action. Addendum I (2007) established a data collection program to increase the accuracy of discard and discard mortality estimates and recommends an angler education program to reduce discard mortality. Addendum III (2012) established a mandatory commercial tagging program for all states and jurisdictions with commercial striped bass fisheries and recommends increasing penalties for illegally harvested fish. Based on the findings of the 2013 benchmark, the Board approved Addendum IV in October 2014. The Addendum establishes new fishing mortality reference points (F target and threshold). In order to reduce F to a level at or below the new target, the coastal states are required to implement a 25% harvest reduction from 2013 levels, and the while Chesapeake Bay states/jurisdictions are required to implement a 20.5% harvest reduction from 2012 levels.

Primary Management Measures: The commercial fishery is controlled through state-by-state quotas (for coastal and bay fisheries), minimum size limits, and seasons. The recreational fishery is managed through bag and size limits.

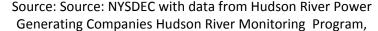
Overview of Stock Status Atlantic Sturgeon, *Acipenser oxyrinchus*

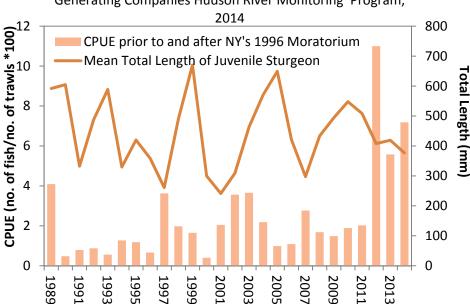
Fishery-independent Catch Rates of Juvenile Atlantic Sturgeon in Albermarle Sound





CPUE of Hudson River Juvenile Atlantic Sturgeon





Timeline of Management Actions: FMP (1990); Amendment 1 (1998); Addendum I (2001); Addendum II (2005); Addendum III (2006)

Management Considerations:

Condition: Overfished; NOAA Fisheries listed Atlantic sturgeon under the Endangered Species Act in 2012. Benchmark assessment scheduled for 2017.

FMP Stock Rebuilding Goals: To have at least 20 protected age classes of females in each spawning stock.

FMP Rebuilding Schedule: Approximately 20 to 40 years from initiation of Amendment 1 (1998), depending on a number of factors, including individual spawning stock's maturity rate; longevity; geographic area; and length of prior fishery closures.

FMP Status:

FMP approved in 1990; Amendment 1 to the FMP approved and implemented in 1998; Addendum I approved and implemented in 2001; Addendum II approved in May 2005; Addendum III approved in November 2006. Combined, all three Addenda permit the importation of non-indigenous Atlantic sturgeon as well as the development of private Atlantic sturgeon aquaculture facilities in Florida and North Carolina.

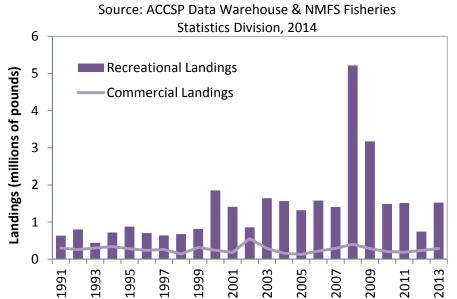
Primary Management Measures:

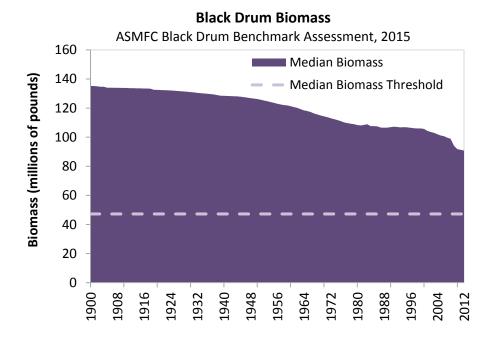
Amendment 1 mandated all Atlantic coastal states to enact a moratorium on harvest and possession of Atlantic sturgeon.

^{*2014} data are preliminary.

Overview of Stock Status Black Drum, *Pogonias cromis*

Black Drum Commercial and Recreational Landings





Management Considerations

Condition: Not overfished and not experiencing overfishing

FMP Stock Rebuilding Goals: None

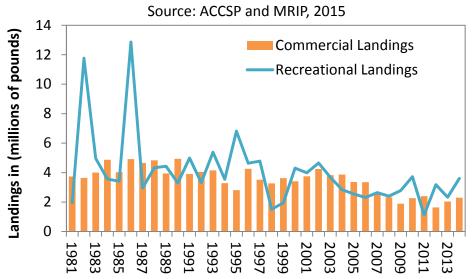
FMP Rebuilding Schedule: None

FMP Status: The South Atlantic State/Federal Fisheries Management Board approved the Black Drum FMP in May 2013.

Primary Management Measures: The FMP requires all states to maintain current regulations for black drum and implement a maximum possession limit and minimum size limit (of no less than 12 inches) by January 1, 2014. States will be required to further increase the minimum size limit (to no less than 14 inches) by January 1, 2016. The FMP also establishes a management framework to address future concerns or changes in the fishery or population

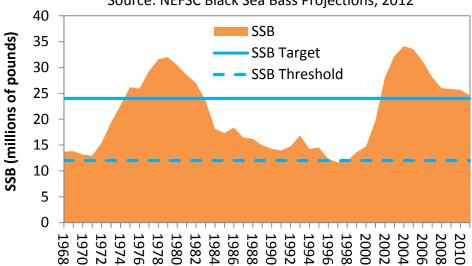
Overview of Stock Status Black Sea Bass, Centropristis striata

Black Sea Bass Commercial and Recreational Landings



Black Sea Bass Spawning Stock Biomass (SSB)

Source: NEFSC Black Sea Bass Projections, 2012



Timeline of Management Actions: FMP (1996); Amendment 10 (1997); Amendment 11 (1998); Amendment 12 (1999); Amendment 13 (2003); Addenda II & III (2004); Addendum XVI (2005); Addendum XIX (2007); Addendum XX (2009); Addendum XXI (2011); Addendum XXIII (2013); Addendum XXV (2014)

Management Considerations:

Condition: Although the resource was declared rebuilt in 2009, black sea bass' unique life history characteristics (e.g., the species changes sex from female to male) contributes to some level of uncertainty about the size of the stock, as well as the species' response to exploitation. 2012 assessment indicates resource is not overfished nor experiencing overfishing, with biomass estimated at 102% of the biomass target. Next benchmark assessment scheduled for 2016.

FMP Biological Reference Points:

SSB Target = 24 million pounds

Fishing Mortality Threshold = 0.44

SSB Threshold = 12 million pounds

FMP Status:

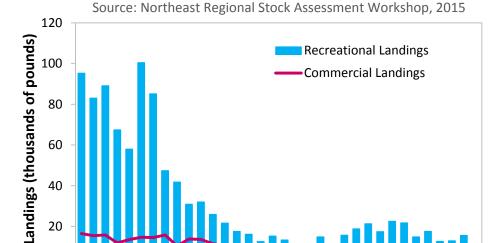
Joint management with Mid-Atlantic Fishery Management Council (Council). Amendment 13 approved in 1998. Addendum XIII (August 2004) allows the TAL to be set up to three years in a given year. Addendum XIX (2007) sets the current state-by-state shares for the commercial fishery. Addendum XXII (February 2012) modified the management measures for the 2012 recreational black sea bass fishery.

Primary Management Measures:

Annual total allowable landings (TAL) divided into a state-by-state commercial quota (49% of TAL) and recreational harvest limit (51% of TAL). Coastwide commercial management measures include minimum fish and mesh sizes, as well as pot/trap specifications. The Commission and the MAFMC determine coastwide recreational bag/size limits each year, but in 2011 they set state-by-state regulations for the first time.

Overview of Stock Status Bluefish, *Pomatomus saltatrix*

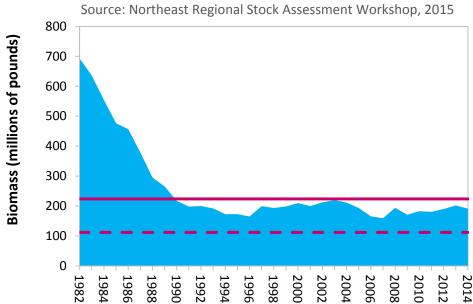
Bluefish Recreational and Commercial Landings



1995

1999 1997

Bluefish Biomass



Management Considerations

1983 1981 1985

Condition: Rebuilt; not overfished and overfishing is not occurring

Biological Reference Points from SAW/SARC 60 (2015):

199319911989

1987

Spawning Stock Biomass threshold (1/2 SSB_{MSY PROXY}) =111,712,637 lbs (50,672 mt) Spawning Stock Biomass target (SSB_{MSY PROXY}) = 223,423,070 lbs (101,343 mt) Spawning Stock Biomass₂₀₁₄ = 190,774,814 lbs (86,534 mt)

200520032001

2013 2011 2009 2007

Fishing Mortality Threshold ($F_{MSY PROXY=} F_{35\% SPR}$) = 0.19 Fishing Mortality₂₀₁₄ = 0.157

FMP Status:

Joint management with the Mid-Atlantic Fishery Management Council. Amendment I approved in July 2000 and implemented in August 2000. The last benchmark stock assessment was reviewed and approved by SAW/SARC in June 2015. Addendum I to Amendment I, approved in February 2012, establishes a coastwide sampling program to improve the quantity and quality of information available for use in future bluefish stock assessments.

Primary Management Measures: Annual total allowable landings (TAL) are divided into a commercial quota (17% of TAL) and recreational harvest limit (83% of TAL). Commercial trip limits and seasons are determined on a state-by-state basis. The coastwide recreational bag limit is 15 fish.

Overview of Stock Status Coastal Sharks

Management Considerations

Condition: See accompanying table for stock status information by species and species group.

FMP Status: FMP (2008), Addendum I (2000), Addenda II & III (2013)

Primary Management Measures

Commercial and recreational fishermen are prohibited from possessing silky, tiger, blacktip, spinner, bull, lemon, nurse, scalloped hammerhead, great hammerhead, and smooth hammerhead sharks species from May 15 – July 15 from VA-NJ to protect pupping females. All fishermen, with the exception of commercial fishermen who land smooth dogfish, are required to keep the fins attached to the carcass through landing. Addendum I modifies the FMP to allow commercial fishermen to process (remove the fins) smooth dogfish at sea from March – June of each year but requires a 95-5% carcass to fin ratio for all dressed smooth dogfish carcasses. Addendum II modifies the FMP to allow commercial fishermen to process smooth dogfish year round but requires a 12-88% fin-to-carcass ratio. Addendum III updated the species groupings to ensure consistency with NOAA Fisheries and increased the recreational size limit for hammerhead sharks.

Stock status information by species and species group						
Species or Complex Name		Status	References/Comments			
	Overfished	Overfishing				
		is Occurring				
		Pe	lagic			
Porbeagle	Yes	No	Porbeagle Stock Assessment, ICCAT Standing Committee			
			on Research and Statistics Report ('09); Rebuilding ends in			
Blue	No	No	2108 (HMS Am. 2)			
ыие	No	No	ICCAT Standing Committee on Research and Statistics Report ('08)			
Shortfin mako	No	No	ICCAT Standing Committee on Research and Statistics			
Shortim make	110	110	Report ('12)			
All other pelagic sharks	Unknown	Unknown				
		Large Coasta	al Sharks (LCS)			
Blacktip	Unknown	Unknown	SEDAR 11 ('06)			
Aggregated Large Coastal	Unknown	Unknown	SEDAR 11 ('06); difficult to assess as a species complex due			
Sharks - Atlantic Region			to various life history characteristics/ lack of available data			
Non-Blacknose Small Coastal Sharks (SCS)						
Atlantic Sharpnose	No	No	SEDAR 34 ('13)			
Bonnethead	Unknown	Unknown	SEDAR 34 ('13)			
Finetooth	No	No	SEDAR 13 ('07)			
Hammerhead						
Scalloped	Yes	Yes	SEFSC Scientific Review ('09): Rebuilding ends in 2023 (HMS			
			Am. 5a)			
		Blac	knose			
Blacknose	Yes	Yes	SEDAR 21 ('10); Rebuilding ends in 2043 (HMS Am. 5a)			
		Smoot	thhound			
Smooth Dogfish	No	No	SEDAR 39 ('15)			
			earch			
Sandbar	Yes	No	SEDAR 21 ('10)			
			ibited			
Dusky	Yes	Yes	SEDAR 21 ('10); Rebuilding ends in 2108 (HMS Am. 2)			
All other prohibited sharks	Unknown	Unknown				

Overview of Stock Status Coastal Sharks

Recreational fishermen are prohibited from harvesting any species that is illegal to land in federal waters. Smooth dogfish are not prohibited (or currently managed) in federal waters and anglers may harvest them. Recreational fishing is controlled through minimum size limits with a 6.5' fork length size limit for the hammerhead species group; and a 4.5' fork length size limit for all other species except for Atlantic sharpnose, finetooth, blacknose, and bonnethead which do

not have a size limit. In addition, recreational anglers can only harvest sharks caught with a handline or rod & reel.

The commercial fishery is managed based on MSY using quotas and possession limits to control harvest level and effort. Sharks are split into eight commercial species groups based on fisheries, biology, and stock status — prohibited, research, small coastal, blacknose, aggregated large coastal, hammerhead, pelagic, and smooth dogfish (see table for species by species grouping). ASMFC does not set quotas for the blacknose, hammerhead, SCS, LCS, or pelagic species groups but rather opens and closes the fishery in response to the federal quota. The Board may set a quota for smooth dogfish but it is not required. Fishing effort for the smoothhound, blacknose, hammerhead, SCS, LCS, and pelagic species groups is controlled through possession limits; fishermen may harvest species within these groups as long as the fishery is open and all sharks are caught according to the regulations contained in the FMP.

Commercial fishermen must have a general state commercial fishing

Comn	nercial Coastal Sharks Groups for Management
Species Groups	Species Within Group
Prohibited	Sand tiger, bigeye sand tiger, whale, basking, white, dusky, bignose, Galapagos, night, reef, narrowtooth, Caribbean sharpnose, smalltail, Atlantic angel, longfin mako, bigeye thresher, sharpnose sevengill, bluntnose sixgill, and bigeye sixgill sharks
Research	Sandbar sharks
Small coastal	Atlantic sharpnose, finetooth, and bonnethead sharks
Blacknose	Blacknose
Aggregated large coastal	Silky, tiger, blacktip, spinner, bull, lemon, and nurse
Hammerhead	Scalloped hammerhead, great hammerhead, and smooth hammerhead sharks
Pelagic	Shortfin mako, porbeagle, common thresher, oceanic whitetip, and blue sharks
Smoothhound	Smooth dogfish, Florida smoothhound

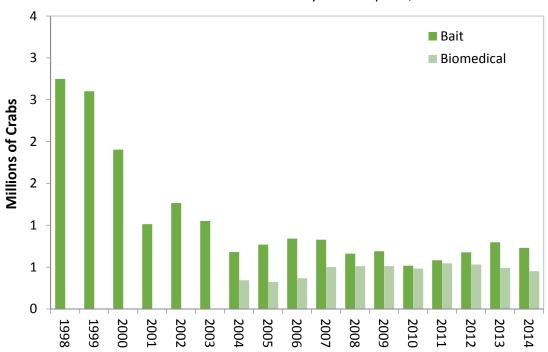
license or permit to harvest sharks. Dealers are required to hold a federal Commercial Shark Dealer permit to buy and sell sharks. Federal dealer permits were required in order to monitor the quota as efficiently as possible and reduce the chance of quota overages. Fishermen may use handlines, gillnets, trawl nets, shortlines, pound nets/fish traps, and weirs to harvest sharks commercially. Captains and vessel owners must use circle hooks and attend a Protected Species Safe Handling, Release, and Identification Workshop offered by NOAA Fisheries in order to harvest sharks using shortlines.

Overview of Stock Status

Horseshoe Crab, Limulus polyphemus

Coastwide Horseshoe Crab Bait Landings & Biomedical Harvest

Source: ASMFC Preliminary State Reports, 2015



2014 harvest numbers for both bait and biomedical are preliminary and do not include all state landings

Please note the following details regarding biomedical harvest numbers:

- * Harvest numbers include all horseshoe crabs brought to bleeding facilities, including those that were harvested as bait and counted against state quotas.
- * Most of the biomedical crabs harvested are returned to the water after bleeding; a 15% mortality rate is estimated for all bled crabs.

Timeline of Management Actions: FMP (1999); Addendum I (2000); Addendum II (2001); Addendum III (2004); Addendum IV (2006); Addendum V (2008); Addendum VI (2010); Addendum VII (2012)

_	Trends in Horseshoe Abundance orseshoe Crab Stock Assessment Update, 2013				
Region	Time series duration of longest dataset	Conclusion about population change			
New England	1978 - 2008	Declined			
New York	1987 - 2008	Declined			
Delaware Bay	1988 - 2008	Increased			
Southeast		Increased			

Management Considerations

Condition: Unknown

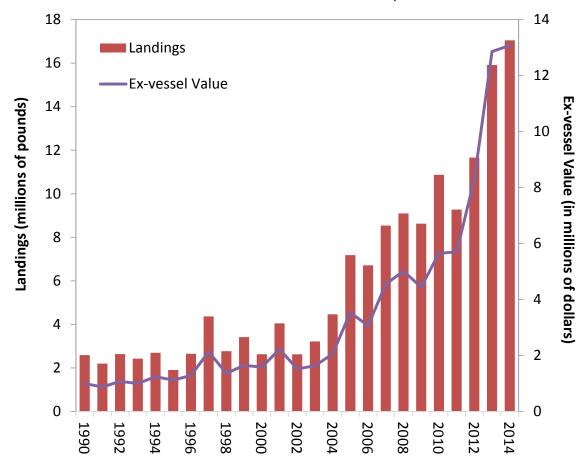
FMP Stock Rebuilding Goals & Schedule: None

FMP Status: FMP approved in 1998 and implemented in 1999. Addendum I (2000) required states to cap harvest at 25% below the 1995-1997 levels of ~3 million crabs and encouraged states with more restrictive measures to maintain those measures. Addendum II (2001) allowed for state-to-state quota transfers. Addendum III (2004) capped annual harvest in NJ and DE at 150,000 crabs/state and set MD's annual quota at its 2001 landings level (170,653 crabs); the 3 states also prohibited harvest and landings for bait from May 1 to June 7. Addendum IV (2006) established a male-only harvest of up to 100,000 crabs annually from June 8 to December 31 through September 2008 in NJ and DE. It also set an annual closed season in MD waters from January 1 through June 7 through 2008. Addendum IV further restricted Virginia's ocean harvest to no more than 40% of its quota and required that the sex ratio of the harvest comprise at least 2 to 1 males to females. Its provisions were extended to April 2013 through Addenda V & VI. Addendum VII (2012) implements the Adaptive Resource Management (ARM) framework that incorporates both shorebird and horseshoe crab abundance levels when considering the optimized horseshoe crab harvest level for the Delaware Bay area.

Overview of Stock Status Jonah Crab, Cancer borealis

Jonah Crab Landings and Ex-vessel Value

Source: ACCSP Data Warehouse, 2015



Management Considerations:

Condition: Unknown

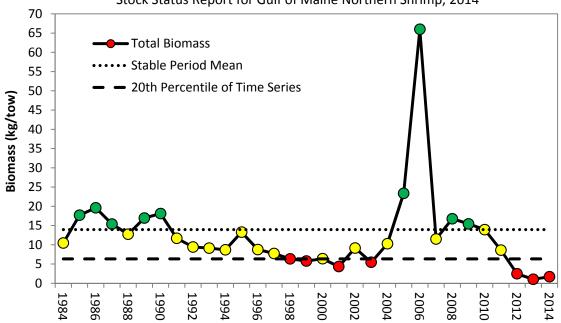
FMP Stock Rebuilding Goals: None.

FMP Status: Interstate FMP (approved by the American Lobster Management Board in August 2015). The goal of the FMP is to promote conservation, reduce the possibility of recruitment failure, and allow the full utilization of the resource by the industry. The plan lays out specific management measures in the commercial fishery. These include a 4.75" minimum size with zero tolerance and a prohibition on the retention of eggbearing females. The FMP also specifies the fishery be strictly whole crab except for those individuals who can prove a history of claw landings in the states of New Jersey through Virginia. To prevent the fishery from being open access, the FMP states that participation in the trap fishery is limited to lobster permit holders or those who can prove a history of crab-only pot fishing. All others must obtain an incidental permit. In the recreational fishery, the FMP sets a possession limit of 50 whole crabs per person per day and prohibits the retention of egg-bearing females. Due to the lack of data on the Jonah crab fishery, the FMP implements fisherydependent data collection. The Plan requires both harvester and dealer reporting along with port and sea sampling.

Overview of Stock Status Northern Shrimp, *Pandalus borealis*

Total Biomass of Northern Shrimp from the Gulf of Maine Summer Shrimp Survey

Stock Status Report for Gulf of Maine Northern Shrimp, 2014



The graph represents the annual biomass index relative to the reference period (dashed line) and to the 20th percentile of the time series (dotted line). The reference period (1985-1994) is the time period during which the fishery experienced stable landings and value. Green dots are values that are equal to or above the stable period mean (SPM); red dots are values that are equal to or below the 20th percentile of the time series; yellow dots are values between the SPM and the 20th percentile.

Timeline of Management Actions: FMP (1986); Amendment 1 (2004); Amendment 2 (2011); Addendum I (2012)

Management Considerations:

Condition: Abundance and biomass indices lowest on record; recruitment indices also very low

FMP Stock Rebuilding Goals:

Fishing Mortality Target = 0.38 Fishing Mortality Threshold = 0.48

FMP Rebuilding Schedule: None. Management action triggered when fishing mortality exceeds F = 0.48 or biomass falls below threshold.

FMP Status:

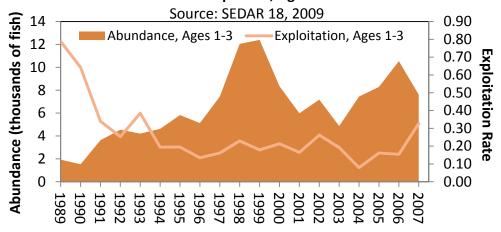
- Amendment 2 includes a suite of management tools, such as trip limits, trap limits, and days out of the fishery, to control catch rates. The Amendment also modifies the fishing mortality reference points to include a threshold level, includes a more timely and comprehensive reporting system, and allows for the initiation of a limited entry program through the adaptive management addendum process. Addendum I, approved in November 2012, clarifies the annual specification process, and allocates the TAC with 87% for the trawl fishery and 13% for the trap fishery based on historical landings by each gear type.
- The Section placed a moratorium on the fishery for the 2014 and 2015 fishing seasons to protect the remaining spawning population and reduce pressure on the collapsed stock. It also initiated development of a new amendment to consider limited entry in the fishery.

Primary Management Measures:

Fishery specifications are set annually and primarily consist of seasonal closures, gear restrictions, and catch controls.

Overview of Stock Status Red Drum, Sciaenops ocellatus

Estimates of Abundance & Exploitation for the Northern Stock Component, Ages 1 - 3



Management Considerations

Condition: Overfishing is likely not occurring

FMP Stock Rebuilding Goals: Fishing Mortality Threshold = F at 30% static spawning potential ratio (SPR) Fishing Mortality Target = F at 40% static SPR

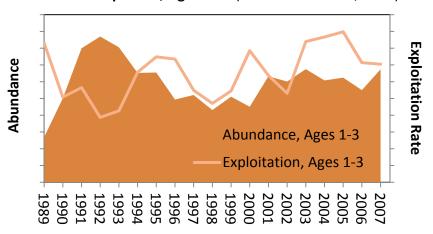
FMP Rebuilding Schedule: None

FMP Status: Amendment 2 approved June 2002 and implemented January 2003

Primary Management Measures:

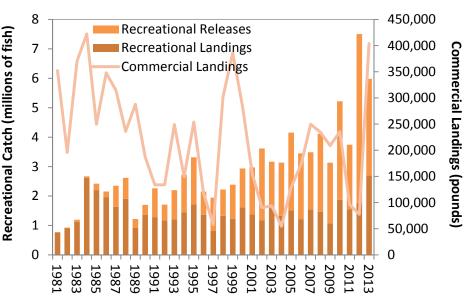
All states have implemented recreational bag and size limits to attain the management goal of 40% SPR, and a maximum size limit of 27 inches total length or less for all red drum fisheries. All states must also maintain current or more restrictive commercial fishery regulations for red drum.

Trends in Abundance & Exploitation for the Southern Stock Component, Ages 1 - 3 (Source: SEDAR 18, 2009)



Red Drum Recreational Catch and Commercial Landings

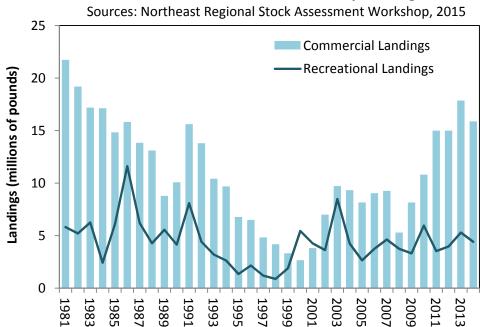
Source: NMFS Fisheries Statistics Division, 2015



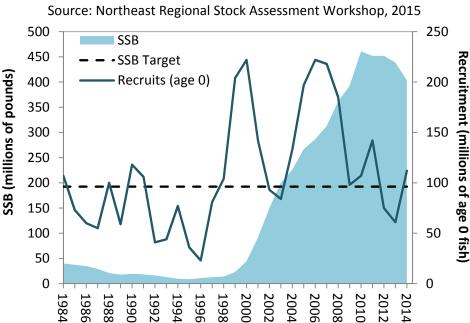
Timeline of Management Actions: FMP (1984); Amendment 1 (1991); and Amendment 2 (2002); Addendum I (2013)

Overview of Stock Status Scup, Stenotomus chrysops

Commercial and Recreational Scup Landings



Scup Spawning Stock Biomass (SSB) and Recruitment



Timeline of Management Actions: FMP (1996); Amendment 13 (2002); Addendum IX (2003); Addenda XI & XIII (2004); Addendum XVI (2005); Amendment 14 (2007); Addendum XX (2009)

Management Considerations:

Condition: Rebuilt; overfishing not occurring.

Biological Reference Points from SAW/SARC 60 (2015):

Spawning Stock Biomass threshold (1/2 $SSB_{MSY\ PROXY}$) = 96.23 million pounds Spawning Stock Biomass target = SSB_{MSY} = $SSB_{40\%}$ = 192.47 million pounds Spawning Stock Biomass₂₀₁₄=403.6 million pounds

Fishing Mortality Threshold ($F_{MSY PROXY} = F_{40\%}$) = 0.22-Fishing Mortality₂₀₁₄=0.040

FMP Status:

Joint management with Mid-Atlantic Fishery Management Council (MAFMC). Amendment 13 approved in 2002. Addendum XIII (multi-year TALs) was approved in August 2004. In 2007, Amendment 14 set a rebuilding plan for scup.

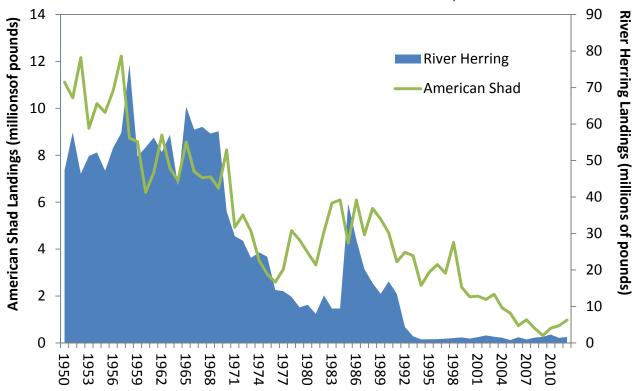
Primary Management Measures:

Total annual quotas are divided between the recreational fishery (22%) and the commercial fishery (78%). Recreational fishery management measures are developed annually and include a combination of minimum size limits, bag limits and fishing seasons. A coastwide quota regulates the winter period (November-April), while state-by-state quotas regulate the summer period (May-October). Specific management measures for the commercial fishery include minimum size limits, minimum mesh requirements for trawls and closed seasons.

Overview of Stock Status Shad & River Herring

American Shad & River Herring Commercial Landings

Source: NMFS Fisheries Statistics Division, 2014



Timeline of Management Actions: FMP (1985); Amendment 1 (1995); Amendment 2 – River Herring (2009); Amendment 3 – American Shad (2010)

Management Considerations:

Condition: Depleted on a coastwide basis, overfishing status unknown

FMP Stock Rebuilding Goals: Protect, enhance, and restore East Coast migratory spawning stocks of American shad, hickory shad, and river herring in order to achieve stock restoration and maintain sustainable levels of spawning stock biomass.

FMP Rebuilding Schedule: None.

FMP Status: Amendments 2 (River Herring Management) & 3 (American Shad Management) establish 2012 and 2013 moratorium unless sustainability can be documented.

Primary Management Measures:

Shad - Amendment 3 establishes 2013 moratorium unless sustainability can be documented. Commercial ocean-intercept fishery for American shad is closed. Limited ocean bycatch of American shad is permitted. All jurisdictions shall not exceed an aggregate 10 fish daily creel limit in the recreational fisheries for hickory shad. River Herring – Amendment 2 establishes 2012 moratorium unless sustainability can be documented.

Overview of Stock Status Shad & River Herring

Trends in Stock Status of American Shad Populations from the 2007 and 1998 Benchmark Assessments. A "?" indicates either insufficient data or various data analyses gave conflicting indications of trend.

Source: ASMFC American Shad Stock Assessment Report, 2007

Stata	River	2005 Status	1998 Status
State	River	Trend	Trend
ME	Merrymeeting Bay	Declining	
	Kennebec		
	Androscoggin		
	Saco		
NH	Exeter	Declining	
MA	Merrimack	Stable	Stable
RI	Pawcatuck	Declining	Stable
CT & MA	Connecticut	Stable	Stable
NY	Hudson	Declining	Declining
NY, PA, NJ, DE	Delaware River & Bay	Stable	Stable
MD	Nanticoke	Stable	Increasing
PA & MD	Susquehanna River & Flats	Declining	
MD, DC, VA	Potomac	Increasing	
VA	York	Increasing	Declining
	James	Declining	Stable
	Rappahannock	Stable	Stable
NC	Albemarle Sound	Stable	
	Roanoke	Stable	
	Tar-Pamlico	?	
	Neuse	?	
	Cape Fear	?	
SC	Winyah Bay Stable		
	Waccamaw	?	
	Great Pee Dee	?	
	Santee	?	Increasing
	Cooper	Stable	
	Combahee	?	
	Edisto	Declining	Stable
SC & GA	Savannah	Stable	
GA	Altamaha (+ Ocmulgee)	Declining	Increasing
	Ogeechee		
FL	St. Johns	Stable	

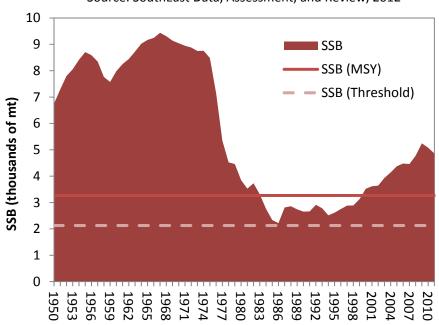
Status of Select Alewife and Blueback Herring Stocks along the Atlantic coast. Status relative to historic levels is pre-1970. Recent trends reflect last ten years of data. A = Alewife only; B= Blueback herring only; A,B = Alewife and blueback herring by species. Source: ASMFC River Herring Benchmark Stock Assessment Report, 2012.

State	River**	Status Relative to Historic Levels / Recent Trends*
NAF	Damariscotta	Depleted ^A , Stable ^A
ME	Union	Increasing ^A , Stable ^A
	Cocheco	Unknown ^{A,B} , Stable ^{A,B}
	Exeter	Depleted ^A , Increasing ^A
NH	Lamprey	Depleted ^A , Unknown ^A
INIT	Oyster	Depleted ^B , Stable ^B
	Taylor	Depleted ^B , Decreasing ^B
	Winnicut	Depleted ^{A,B} , Unknown ^{A,B}
	Mattapoisett	Depleted ^A , Unknown ^A
MA	Monument	Depleted ^A , Unknown ^A
IVIA	Parker	Depleted ^A , Unknown ^A
	Stony Brook	Depleted ^A , Unknown ^A
	Buckeye	Depleted ^A , Unknown ^A
RI	Gilbert	Depleted ^A , Decreasing ^A
	Nonquit	Depleted ^A , Decreasing ^A
СТ	Connecticut	Depleted ^B , Decreasing ^B
NY	Hudson	Depleted ^{A,B} , Stable ^{A.B}
MD, DE	Nanticoke	Depleted ^{A,B} , Decreasing ^{A,B}
VA, MD, DC	Potomac	Depleted ^{A,B} , Unknown ^{A,B}
NC	Chowan	Depleted ^{A,B} , Stable ^{A.B}
sc	Santee- Cooper	Depleted ^B , Increasing ^B

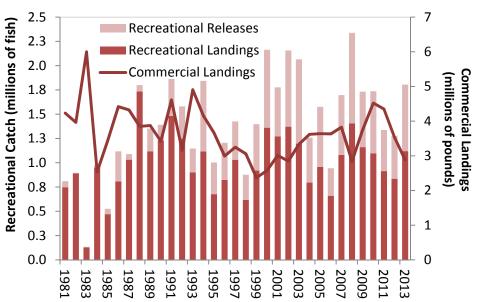
Overview of Stock Status Spanish Mackerel, Scomberomorus maculatus

Spanish Mackerel Spawning Stock Biomass (SSB)

Source: SouthEast Data, Assessment, and Review, 2012



Spanish Mackerel Commercial Landings and Recreational Catch (Landings and Alive Releases). Source: ACCSP Data Warehouse and NMFS Fisheries Statistics Division, 2014



Management Considerations:

Condition: Rebuilt; Not overfished and overfishing is not occurring FMP Stock Rebuilding Goals: Biomass threshold = $(1-M)^*$ B_{MSY}

Fishing mortality threshold = $F_{30\%SPR}$

FMP Status:

Complementary management with the South Atlantic Fishery Management Council. Interstate Fishery Management Plan (FMP) approved in 1990. The Omnibus Amendment to the Interstate FMPs for Spanish Mackerel, Spot, and Spotted Seatrout, approved in August 2011, updates the Spanish Mackerel FMP with compliance measures and Commission standards, as well as modifies the Commission's management program so that it is consistent with federal management in the exclusive economic zone. The plan also provides mechanisms to review and track federal management changes. The South Atlantic Board passed Addendum I (modifying minimum size for select gear types and seasons) to the Omnibus Amendment for Spanish Mackerel, Spot, and Spotted Seatrout in August 2013.

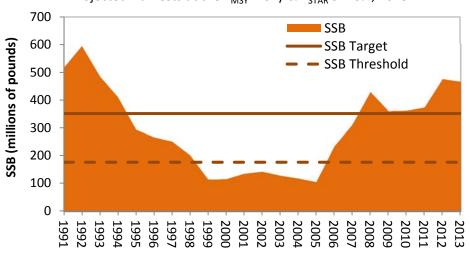
Primary Management Measures:

The annual catch limit (ACL) was set at 5.29 million pounds in the most recent Amendment 18 to the Federal FMP. The ACL is allocated on a 55/45 basis between the commercial and recreational fisheries. The commercial fishery is controlled mainly through an annual quota and trip limits, while the recreational fishery is primarily managed through a maximum bag limit of 15 fish and at least a minimum size limit of 12" fork length (between NY and FL and consistent with federal measures) or 14 inches total length. In addition, both Amendment 18 and the Omnibus Amendment include accountability measures for payback of overages if the total ACL is exceeded and the stock is overfished.

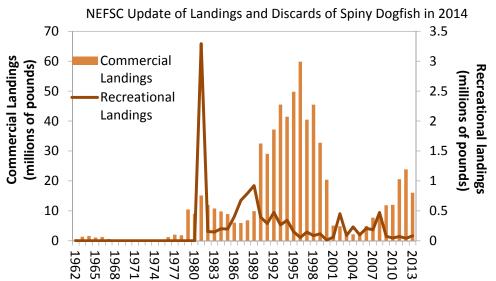
Overview of Stock Status Spiny Dogfish, Squalus acanthias

Spiny Dogfish Spawning Stock Biomass (SSB) (>=80 cm)

Source: NEFSC Update on the Status of Spiny Dogfish and Projected Harvests at the F_{MSY} Proxy & P_{STAR} of 40%, 2013



Spiny Dogfish Landings



Timeline of Management Actions: Emergency Action (2000); FMP (2003); Addendum I (2005); Addendum II (2008); Addendum II (2011), Addendum IV (2012); Addendum V (2014)

Management Considerations

Condition: Rebuilt; not overfished/overfishing not occurring

FMP Reference Points:

Female SSB threshold (1/2 SSB max) = 79,644 mt (175 million pounds) Female SSB target (100% SSB max) = 159,288 mt (351 million pounds) Fishing Mortality Threshold ($F_{threshold}$) = 0.325 Fishing Mortality Target (F_{MSY}) = 0.207

Stock Rebuilding 2002 - 2008:

Spiny dogfish were determined to be rebuilt in 2008 when spawning stock biomass (SSB) exceeded the target for the first time since ASMFC management began in 2002. SSB, estimated to be 211,372 mt (466 million pounds), exceeded the target biomass for the fifth year in a row in 2012. The Northeast Fisheries Science Center's (NEFSC) Update on the Status of Spiny Dogfish in 2013 and Projected Harvests at the F_{MSY} Proxy and P_{STAR} of 40% predicts SSB to remain above the target and then decline because of poor recruitment from 1997 – 2003.

FMP Status:

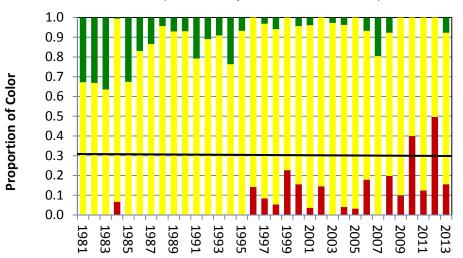
The 2002 FMP established the annual quota and possession limit system; Addendum I (2005) allowed the Board to set multi-year specifications; Addendum II (2008) established regional allocation of the annual quota with 58% to states from ME – CT; Addendum III established state shares for New York – North Carolina; Addendum IV (2012) aligned the fishing mortality threshold definition with the federal plan; and Addendum V (2014) prohibits processing at-sea, including the removal of fins.

Primary Management Measures:

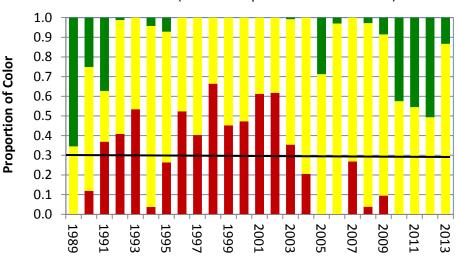
Spiny dogfish is managed under an annual quota with possession limits for the commercial fishery only. The ASMFC Spiny Dogfish Board approved a 49.37 million pound quota for the 2014/2015 fishing season (May 1 – April 30) and a 50.6 million pound quota for 2015/2016, with a maximum possession limit of 5,000 pounds per day for the northern region states (ME-CT).

Overview of Stock Status Spot, *Leiostomus xanthurus*

Traffic Light Analysis of Spot Commercial and Recreational Harvest (Solid line represents 30% threshold)



Traffic Light Analysis of Spot Fishery-independent Survey Indices (Solid line represents 30% threshold)



Management response is triggered when proportion of red exceeds the 30% threshold level for two consecutive years in both fishery characteristics (landings and fishery-independent survey indices).

Management Considerations

Condition: Unknown; benchmark assessment scheduled for 2016.

FMP Stock Rebuilding Goals: None

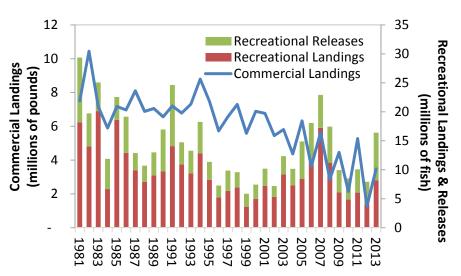
FMP Rebuilding Schedule: None

FMP Status: FMP approved in 1987. The Omnibus Amendment to the Interstate Fishery Management Plans (FMPs) for Spanish Mackerel, Spot, and Spotted Seatrout, approved in August 2011, updates the Spot FMP with compliance measures and Commission standards that were developed in response to the Atlantic Coastal Fisheries Cooperative Management Act (e.g., adaptive management, *de minimis* criteria).

Primary Management Measures: Addendum I established traffic light approach to assess stock trends and initiate management response.

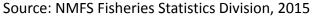
Spot Commercial Landings and Recreational Landings/Releases

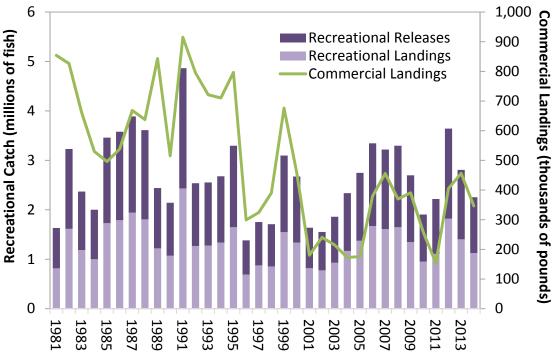
Source: NMFS Fisheries Statistics Division, 2014



Overview of Stock Status Spotted Seatrout, Cynoscion nebulosus

Spotted Seatrout Commercial Landings & Recreational Catch





Timeline of Management Actions: FMP (1985); Amendment 1 (1991); Omnibus Amendment (2011)

Management Considerations

Condition: Unknown

FMP Stock Rebuilding Goals: Maintaining Spawning Potential Ratio (SPR) of at least 20%

FMP Rebuilding Schedule: None

FMP Status: FMP approved in 1984; Amendment I approved in 1991. The Omnibus Amendment to the Interstate Fishery Management Plans (FMPs) for Spanish Mackerel, Spot, and Spotted Seatrout, approved in August 2011, updates the Spotted Seatrout FMP with compliance measures and Commission standards that were developed in response to the Atlantic Coastal Fisheries Cooperative Management Act (e.g., adaptive management, *de minimis* criteria).

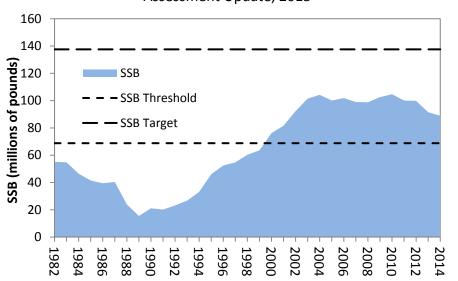
Primary Management Measures: Coastwide management measures, adopted in the Omnibus Amendment and implemented in July 2012, include a coastwide minimum size of 12 inches total length and comparable mesh size requirements. The Omnibus Amendment retained the goal of a 20% SPR. Florida's Spotted Seatrout

FMP has a goal of 35% SPR, while North Carolina, South Carolina, and Georgia have adopted the ASMFC's recommended goal of 20% SPR.

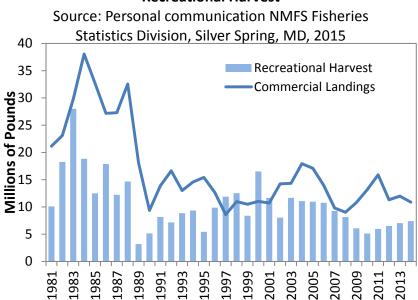
Overview of Stock Status Summer Flounder, *Paralichthys dentatus*

Summer Flounder Spawning Stock Biomass (SSB)

Source: Northeast Fisheries Science Center Stock
Assessment Update, 2015



Summer Flounder Commercial Landings and Recreational Harvest



Timeline of Management Actions: FMP ('88); Amendment 1 ('91); Amendments 2-5 ('93); Amendment 6 ('94); Amendment 7 ('95); Amendment 8 & 9 ('96); Amendment 10 ('97); Amendment 11 ('98); Amendment 12 ('99); Amendment 13 ('03); Addenda VIII & XV ('04); Addenda XVI & XVII ('05); Addendum XVII ('06); Addendum XIX ('07); Addendum XXV (2014); Addendum XXVI (2015)

Management Considerations:

Condition: Rebuilt; not overfished but overfishing is occurring. Current fishing mortality is F=0.359 and SSB is equal to 88.9 million pounds (2014) **FMP Stock Rebuilding Goals: FMP Rebuilding Schedule:** Rebuilt in 2010

SSB Target = 137.555 million pounds Fishing Mortality Threshold = 0.309

SSB Threshold = 68.8 million pounds

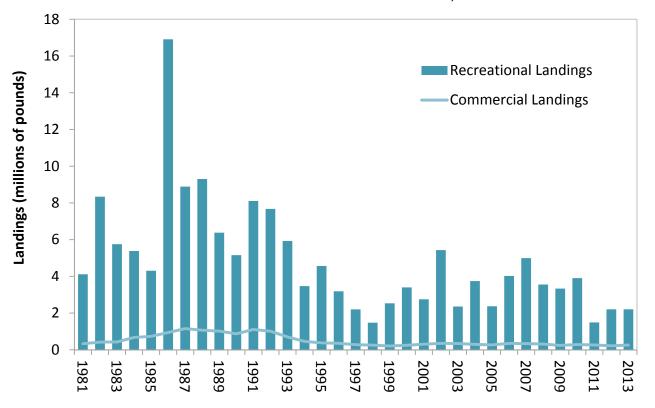
FMP Status: Joint management with Mid-Atlantic Fishery Management Council. Amendment 12 approved in 1998. Addendum XIII (multi-year TALs) was approved in August 2004. Addendum XVII (August 2005) provides additional management strategies in setting recreational regulations. Addendum XVIII (February 2006) allows states to voluntarily maintain their 2005 recreational management measures in order to transfer savings to states facing severe reductions. In March 2015, in accordance with Addendum XXVI, the Board approved a continuation of regional management measures for the 2015 summer flounder fishery. The Board and MAFMC have initiated the development of a Comprehensive Summer Flounder Amendment in August 2014 to reconsider all aspects of summer flounder management.

Primary Management Measures: Annual total allowable landings (TAL) divided into a state-by-state commercial quota (60% of TAL) and recreational harvest limit (40% of TAL). Coastwide commercial management measures include minimum fish and mesh sizes. Recreational bag/size limits and seasons are determined on a state-by-state basis using conservation equivalency.

Overview of Stock Status Tautog, *Tautoga onitis*

Tautog Commercial and Recreational Landings

Source: NMFS Fisheries Statistics Division, 2014



Timeline of Management Actions: FMP ('86); Addendum I ('97); Addendum II ('99); Addendum III ('02); Addenda IV & V ('07); Addendum VI ('11)

Management Considerations:

Condition: Overfished on a coastwide basis (based on 2011 assessment update). 2015 benchmark assessment presented stock status based on 3 regions; Board to take final action on regional stock units in May 2015.

FMP Stock Rebuilding Goals:

SSB target = 26,800 mt (59.1 million pounds)
SSB threshold (75% target) = 20,100 mt (44.3 million pounds)

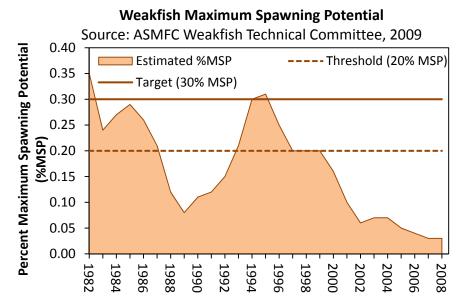
Fishing Mortality Target $F_{target} = 0.15$

FMP Status: Addendum VI established a new F_{target} = 0.15 for 2012 and beyond. All states in the management unit must implement measures to achieve F = 0.15 by January 1, 2012, which is estimated to be a 39% reduction relative to the 2008-2009 average total harvest. The Board reduced the target F in response to the 2011 assessment update findings. SSB has remained at low levels for the last decade and continued to be overfished and experiencing overfishing; therefore, the Technical Committee recommends F = 0.15 or lower to rebuild the stock.

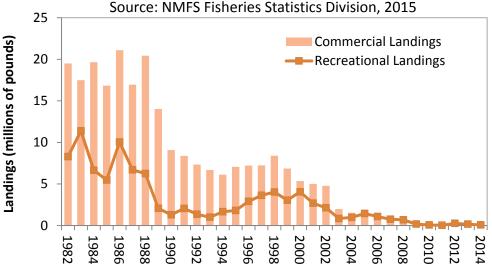
Primary Management Measures:

Tautog is managed as a single coastwide stock (this may change based on May 2015 Board action regarding regional stock units). The FMP requires a fishing mortality rate of 0.15 to be controlled by recreational and commercial possession limits, size limits (a 14-inch minimum is required by the FMP), and seasonal closures.

Overview of Stock Status Weakfish, Cynoscion regalis



Weakfish Commercial and Recreational Landings Source: NMFS Fisheries Statistics Division, 2015



Timeline of Management Actions: FMP (1985); Amendment 1 (1991); Amendment 2 (1995); Amendment 3 (1996); Amendment 4 (2002); Addendum IV (2005); Addenda II & III (2007); Addendum IV (2009)

Management Considerations:

Condition: depleted, overfishing not occurring

FMP Stock Control Rules:

Spawning Stock Biomass Threshold = 20% Maximum Spawning Potential (MSP; i.e., SSB that is 20% of an unfished stock)

Spawning Stock Biomass Target = 30% MSP (i.e., SSB that is 30% of an unfished stock)

Next benchmark assessment scheduled for 2015.

FMP Rebuilding Schedule: 6-year rebuilding period if SSB falls below the threshold level in any given year.

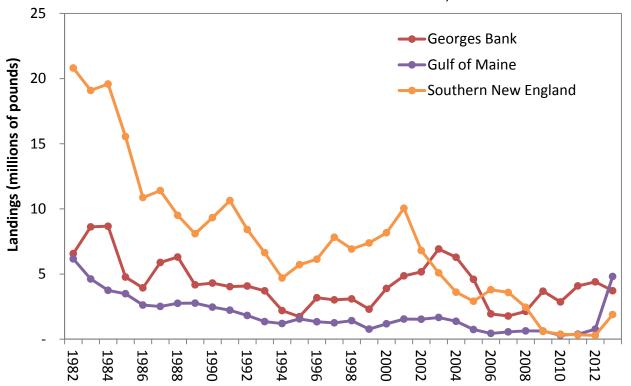
FMP Status: Amendment 4, implemented in 2003, established overfishing and overfished definitions, provided alternative recreational fish size and creel limit options, and increased the commercial bycatch limit. Addendum I (2005) replaced Amendment 4's biological sampling program. Addendum II (2007) implemented several management measures (i.e., reduced creel and bycatch limits, landings triggers) to control expansion of the fishery in the event that stock status improved. Addendum III altered the bycatch reduction device certification requirements for consistency with the South Atlantic Fishery Management Council's Shrimp FMP. Addendum IV (2009) responded to the most recent stock assessment, and implemented a one fish recreational creel limit, 100 pound commercial trip limit, 100 pound commercial bycatch limit, and 100 undersized fish allowance for finfish trawls. The addendum maintained all previously implemented weakfish management measures, and also removed the fishing mortality reference points and implemented percentage-based spawning stock biomass reference points. States had until May 1, 2010 to implement Addendum IV.

Primary Management Measures: The commercial fishery is controlled through minimum size limit, trip limit, closed season, closed area, mesh size, bycatch limit, and bycatch reduction device requirements. The recreational fishery is managed through bag limit and minimum size limit requirements.

Overview of Stock Status Winter Flounder, *Pseudopleuronectes americanus*

Winter Flounder Commercial Landings by Management Area

Northeast Fisheries Science Center, 2014



SOUTHERN NEW ENGLAND/MID-ATLANTIC STOCK

Management Considerations:

Condition: Overfished and overfishing is not occurring. Stock is at 16% of target SSB.

FMP Stock Rebuilding Goals:

F Target (75%FMSY) = 0.217 SSB Target (BMSY)

= 96.2 mil.lbs (43,661 mt)

F Threshold (FMSY) = 0.29 SSB Threshold (½SSBMSY) = 48.1 mil.lbs (21,831 mt)

GULF OF MAINE STOCK

Management Considerations:

Condition: Overfished status is unknown and overfishing is not occurring*

FMP Stock Rebuilding Goals:

* The SAW/SARC GOM analytical assessment model was not accepted, BMSY and FMSY are unknown, and consequently the F and SSB targets could not be generated. A proxy F Threshold was derived from a length-based yield per recruit analysis. The overfishing status is based on the ratio of 2010 catch to survey based swept area estimate of biomass exceeding 30 cm in length.

FMP Status:

FMP & Addendum I (1992); Addendum II (1998); Amendment 1 (2005); Addendum I (2009); Addendum II (2012); Addendum III (2013)

Primary Management Measures:

Winter flounder are managed as two separate stocks in state waters: Southern New England/Mid-Atlantic (SNE/MA) and Gulf of Maine (GOM), with commercial and recreational specifications set annually by the management board (Addendum III, 2013). In 2014, the Board maintained commercial and recreational management measures for the GOM and SNE/MA stock, with an extension to the SNE/MA recreational season to be open from March 1 through December 31. Currently, the possession limit for non-federally permitted commercial fishermen is 500 lbs per trip in the GOM (Addendum II, 2012) and 50 lbs or 38 fish in SNE/MA. Gear requirements mandate use of a minimum 6.5" square or diamond mesh in the cod-end. Recreational measures include possession limits and seasons. For the SNE/MA, there is a two fish recreational bag limit with a 12-inch size limit. In GOM, the recreational measures are an eight-fish bag limit and 12-inch size limit.