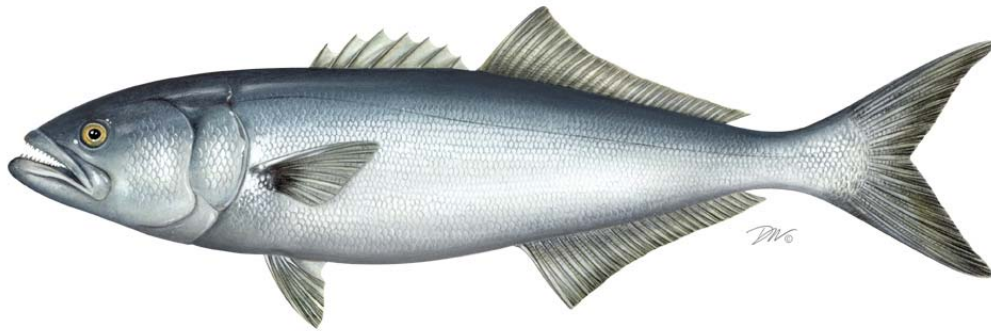


2011 REVIEW OF THE
ATLANTIC STATES MARINE FISHERIES COMMISSION
FISHERY MANAGEMENT PLAN FOR
BLUEFISH
(Pomatomus saltatrix)



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2010 REVIEW OF THE ASMFC FISHERY MANAGEMENT PLAN FOR BLUEFISH (*Pomatomus saltatrix*)

I. Status of the Fishery Management Plan

<u>Date of FMP Approval:</u>	March 1990
<u>Amendments:</u>	Amendment 1 (October 1998)
<u>Management Unit:</u>	Migratory stocks of bluefish in the U.S. waters of the western Atlantic Ocean and state waters (Maine through Florida)
<u>States with Declared Interest:</u>	Maine through Florida, excluding Pennsylvania and the District of Columbia
<u>Active Committees:</u>	ASMFC Bluefish Management Board, MAFMC Coastal Migratory Species Committee, Technical Committee, Plan Review Team, and Stock Assessment Subcommittee

The bluefish fishery management plan (FMP) was adopted by the Atlantic States Marine Fisheries Commission (ASMFC) and the Mid-Atlantic Fishery Management Council (MAFMC) in October 1989. It is a joint management plan and is the first FMP developed jointly by an interstate commission and a federal fishery management council.

Bluefish is currently managed under Amendment 1 to the FMP approved in October 1998 and implemented in 2010. The goal of the Amendment is to conserve the bluefish resource along the Atlantic coast, specifically:

1. Increase understanding of the stock and fishery
2. Provide highest availability of bluefish to U.S. fishermen while maintaining, within limits, traditional uses of bluefish
3. Provide for cooperation among the coastal states, the various regional marine fishery management councils, and federal agencies involved along the coast to enhance the management of bluefish throughout its range
4. Prevent recruitment overfishing
5. Reduce the waste in both the commercial and recreational fisheries.

States with a declared interest in the bluefish FMP include all member states, with the exception of Pennsylvania and the District of Columbia. Management issues are addressed through the ASMFC Bluefish Management Board and the MAFMC Coastal Migratory Species Committee. The ASMFC Bluefish Technical Committee provides technical advice. A joint ASMFC-MAFMC Technical Monitoring Committee conducts annual plan monitoring, which is reviewed by a joint Advisory Panel, and recommendations are provided to the Board. The ASMFC Stock Assessment Subcommittee addresses stock assessment matters.

II. Status of the Stock

The most recent ASMFC bluefish stock assessment was completed in 2005. The assessment passed peer review and was approved by the ASMFC Bluefish Management Board and the MAFMC Coastal Migratory Species Committee. The assessment developed biological reference points for both bluefish biomass and fishing mortality ($\frac{1}{2}B_{MSY} = 73,526$ mt; $F_{MSY} = 0.19$). The ASAP model used to calculate population abundance in this assessment has been updated annually since 2005. The output from this model is used to set the annual Total Allowable Catch (TAC).

The most recent stock status information indicates that bluefish are not overfished and overfishing is not occurring. The biomass estimates in 2008 exceeded the B_{MSY} and therefore bluefish were considered rebuilt two years ahead of the 2010 rebuilding deadline. The 2011 stock assessment update suggests that total biomass in 2010 was 95% of its target. For 2010, fishing mortality rates estimated in ASAP using state and federal indices show a low fishing mortality and a stable trend in population biomass ($B_{2010} = 140,297$ MT; $F_{2010} = 0.14$). Abundance estimates peaked in 1982 at 166 million fish, but declined to 58 million in the mid-1990s. Since 1997 abundance has generally increased to a high of 99.88 million fish in 2008, although since then, abundance estimates declined to 72.18 million fish in 2010.

III. Status of the Fishery

Recreational catch of bluefish has averaged 18.33 million pounds since 1981. In 2010, recreational anglers along the Atlantic Coast caught 15.803 million bluefish, a 24% increase from 2009. Recreational harvest has been increasing since a low of 3.7 million fish in 1999. Since then, recreational harvest averaged over 7.05 million fish annually. In 2010, 6.1 million bluefish were harvested in the recreational fishery. The majority of recreational activity occurred from May to October, with the peak activity in September and October.

Landings from the commercial bluefish fishery have been consistently lower than the recreational catch. Commercial landings decreased from 16.5 million pounds in 1981 to 7.3 million pounds in 1999. Commercial landings have been regulated by quota since implementation of Amendment 1 in 2000 and since then have averaged 7.17 million pounds annually. The landings estimates for 2010 is 7.07 million pounds, which is a 1% increase from 2009. The majority of the harvest (~76%) came from New York, New Jersey and North Carolina.

V. Status of Research and Monitoring

Many states, NMFS, and SEAMAP conduct fishery-independent surveys. New Hampshire, Massachusetts, Connecticut, New York, New Jersey, Delaware, Maryland, and Florida monitor juvenile abundance. Rhode Island, Connecticut, New Jersey, Delaware, North Carolina, South Carolina, Georgia, and Florida monitor adult abundance. Year class strength is monitored through the NMFS autumn trawl survey.

Commercial landings information is collected by most states from dealer or fisherman reporting programs. Fishermen in the EEZ are required to report their landings to the NMFS. North Carolina and Virginia are the only states that significantly sample bluefish commercial fisheries for size and age composition of the catch. A bluefish ageing workshop conducted in 2011 indicated the need for coast wide sampling to obtain bluefish age data for the stock assessment. Recreational harvest is monitored by the Marine Recreational Fisheries Statistics Survey.

VI. Status of Management Measures and Issues

The ASMFC and MAFMC adjust the quota and harvest limit annually using the specification setting process detailed in Amendment 1. The recreational fishery is allocated 83% of the entire quota. Coastwide, the commercial fishery is limited to 17% of the total allowable landings each year. The commercial quota can be increased (but not to exceed 10.5 millions pounds) if it is anticipated that the recreational fishery will not land their entire allocation for the upcoming year. The coastwide commercial quota is divided into individual state-by-state quotas based on landings from 1981-1989.

The Technical Monitoring Committee is responsible for reviewing the best available data and recommending an annual commercial quota and recreational possession limit. Based on the 2009 stock assessment update the Commission and the Council approved the Monitoring Committee recommendation of a total allowable landings (TAL) of 29.26 million pounds for 2010. Additionally, the Commission and the Council recommended a transfer of 5,387,000 pounds from the recreational sector to the commercial sector to achieve a commercial quota of 10,213,222 pounds and a recreational harvest limit of 18,630,842 pounds.

VII. Current State-by-State Implementation of FMP Compliance Requirements

These states or jurisdictions are required to comply with the provisions of the Bluefish FMP: Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Delaware, Maryland, Potomac River Fisheries Commission, Virginia, North Carolina, South Carolina, Georgia, and Florida. The following are specific FMP compliance requirements:

- Each state must restrict the possession of bluefish by anglers to not more than fifteen fish per day, or have an ASMFC-approved equivalent conservation program.
- Each state must restrict its commercial fishery to the quota adopted under procedures specified in the FMP.

The final compliance criteria include:

- Monitoring requirements for the commercial fishery
- Commercial and party/charter vessel permitting requirements
- Dealer permitting requirements
- Annual compliance reporting

The Chair of the Plan Review Team has reviewed all of the compliance reports and recommends that each state be found in compliance with respect to implementing the recreational bag limit and limiting their commercial fishery to their state quota.

South Carolina and Georgia have requested *de minimis* status for 2011. The Chair of the Plan Review Team finds that the State of South Carolina and the State of Georgia qualify for *de minimis* status because their commercial landings from the most recent year were less than 0.1% of the coastwide commercial landings.

VIII. Prioritized Research Needs

1. Collect size, otoliths and age composition of the fisheries by gear type and statistical area. Focus age sampling on as wide a range of sizes as possible.
2. Target commercial and recreational landings for biological data collection when possible
3. Initiate fisheries-dependent and independent sampling of offshore populations of bluefish during the winter months
4. Age any archived age data for bluefish and use the data to supplement age keys
5. Test the sensitivity of the bluefish assessment to assumptions concerning age-varying M, level of age-0 discard, and selection patterns
6. Evaluate amount and length frequency of discards from the commercial and recreational fisheries
7. Continue work on catch and release mortality
8. Increase intensity of biological sampling of the NER commercial and coastwide recreational fisheries
9. Conduct research to determine the timing of sexual maturity and fecundity of bluefish
10. Study tag mortality and retention rates for ALS dorsal loop and other tags used for bluefish
11. Initiate research on species interactions and predator-prey relationships
12. Initiate a coastal surf-zone seine study to provide more complete indices of juvenile abundance
13. Investigate the long term, synergistic effects of combinations of environmental variables on various biological and sociological parameters such as reproductive capability, genetic changes, and suitability for human consumption
14. Conduct studies on the interactive effects of pH, contaminants, and other environmental variables on survival of bluefish.

Table 1. Estimated number of bluefish caught (A + B1 + B2, by count) and the estimated number of bluefish harvested (A + B1, by count) by marine recreational fishermen each year, 1981 to 2010. Source: MRFSS

Year	Catch ('000)	Harvest ('000)
1981	31,261	23,888
1982	27,220	23,724
1983	30,137	24,884
1984	26,508	20,798
1985	22,474	19,246
1986	30,411	24,441
1987	27,603	21,076
1988	13,365	9,905
1989	18,637	13,600
1990	16,446	11,365
1991	18,292	11,943
1992	11,440	7,158
1993	9,925	5,725
1994	11,920	5,768
1995	10,494	5,168
1996	9,521	4,205
1997	12,574	5,413
1998	9,204	4,202
1999	11,488	3,682
2000	16,260	4,897
2001	20,412	6,663
2002	15,217	5,300
2003	15,049	5,888
2004	19,011	6,939
2005	22,320	8,256
2006	19,783	16,831
2007	23,785	8,368
2008	20,454	6,927
2009	12,786	4,748
2010	15,803	6,127
total	549,800	327,135
average	18,327	10,905

Table 2. Bluefish Commercial Landings and Recreational Catch (thousands of pounds), 1981-2010.

Year	Commercial	Recreational	Total	% Commercial
1981	16,457	95,288	111,742	15
1982	15,426	83,006	98,436	16
1983	15,798	89,122	104,921	15
1984	11,861	67,453	79,316	15
1985	13,497	52,515	66,016	20
1986	14,663	92,887	107,564	14
1987	14,502	76,653	91,157	16
1988	15,787	48,222	64,012	25
1989	10,450	39,260	49,601	21
1990	13,779	30,557	44,336	31
1991	13,580	32,997	46,578	29
1992	11,475	24,275	35,753	32
1993	10,600	20,292	30,414	33
1994	9,489	15,541	25,036	38
1995	7,998	14,306	22,310	36
1996	9,068	11,746	21,041	44
1997	8,960	14,302	23,366	39
1998	8,246	12,334	20,588	40
1999	7,351	8,253	15,346	46
2000	8,066	10,605	18,588	43
2001	8,698	13,239	21,916	40
2002	6,868	11,371	18,221	38
2003	7,403	13,135	21,200	34
2004	8,015	15,827	26,188	28
2005	7,052	18,132	22,080	27
2006	6,072	16,752	36,268	20
2007	7,507	21,180	28,687	26
2008	5,957	18,900	24,876	24
2009	6,990	13,582	22,081	32
2010	7,069	18,042	25,111	28

Source: NMFS General Canvass and MRFSS data.

Table 3. 2010 State Commercial bluefish quotas (Federal and ASMFC) based on a coastwide quota of 10.5 million pounds and 1981-1989 NMFS General Canvass Data.

State	% of Federal Quota	2010 Federal Quota (lbs)*	2010 Transfer	Final Quota	2009 Landings **	2010 Landings **	% Quota Used	% Change from '09	% Coastwide Total
ME^^	0.6685	68,275		68,275					0.00
NH	0.4145	42,334		42,334	3,447	2,817	6.7%	-18.28	0.04
MA	6.7167	685,991		685,991	385,580	586,818	85.5%	52.19	8.26
RI	6.8081	695,326		695,326	497,268	351,035	50.5%	-29.41	4.94
CT	1.2663	129,330		129,330	40,478	40,421	31.3%	-0.14	0.57
NY	10.3851	1,060,653		1,060,653	1,295,513	836,257	78.8%	-35.45	11.76
NJ	14.8162	1,513,211		1,513,211	1,410,167	1,328,734	87.8%	-5.77	18.69
DE	1.8782	191,825		191,825	22,152	19,061	9.9%	-13.95	0.27
MD	3.0018	306,580		306,580	141,547	94,551	30.8%	-33.20	1.33
PRFC						51,512			0.72
VA	11.8795	1,213,280		1,213,280	438,833	266,759	22.0%	-39.21	3.75
NC	32.0608	3,274,441		3,274,441	2,360,077	3,214,601	98.2%	36.21	45.22
SC	0.0352	3,595		3,595	177	389	10.8%	119.77	0.01
GA^^	0.0095	970		970			0.0%		0.00
FL	10.0597	1,027,419		1,027,419	213,750	315,442	30.7%	47.58	4.44
TOTAL^^^	100	10,213,222		10,213,230	6,810,083	7,108,544	70%	4.38	100

**Landings as reported in state compliance reports.

^^landings values are confidential data.

^^^Totals in table may not match listed quotas due to rounding.

Table 4. Status of Bluefish Fishery Management Plan Implementation by States in 2010.

State	Recreational Bag Limit	Recreational Season	Recreational Size Limit	Commercial Trip Limit	Commercial Open Season
ME	3 fish	All year	None		
NH	10 fish	All year	None		JUL 1 – SEP 30
MA	10 fish	All year	None	5,000 lbs/day	
RI	10 fish	All year	None		
CT	10 fish	All year	None	500 lbs/day	APR 15 – DEC 31
NY	15 fish	All year	Only 10 under 12" TL	Varies based on available quota	
NJ	15 fish	All year	None		Gear-specific
DE	10 fish	All year	None		
MD	10 fish	All year	8" minimum		
PRFC	10 fish	All year	None	Daily limits when 80% of VA and MD quotas are met	
VA	10 fish	All year	None		
NC	15 fish	All year	Only 5 greater than 24" TL		
SC	15 fish	All year	None		
GA	15 fish	MAR 16 – NOV 30	12" minimum FL	15 fish	MAR 16 – NOV 30
FL	10 fish	All year	12" minimum FL	7,500 lbs/day	

Figure 1. Estimate number of bluefish caught and the estimated number of bluefish landed by marine recreational fishermen each year, 1981-2010.

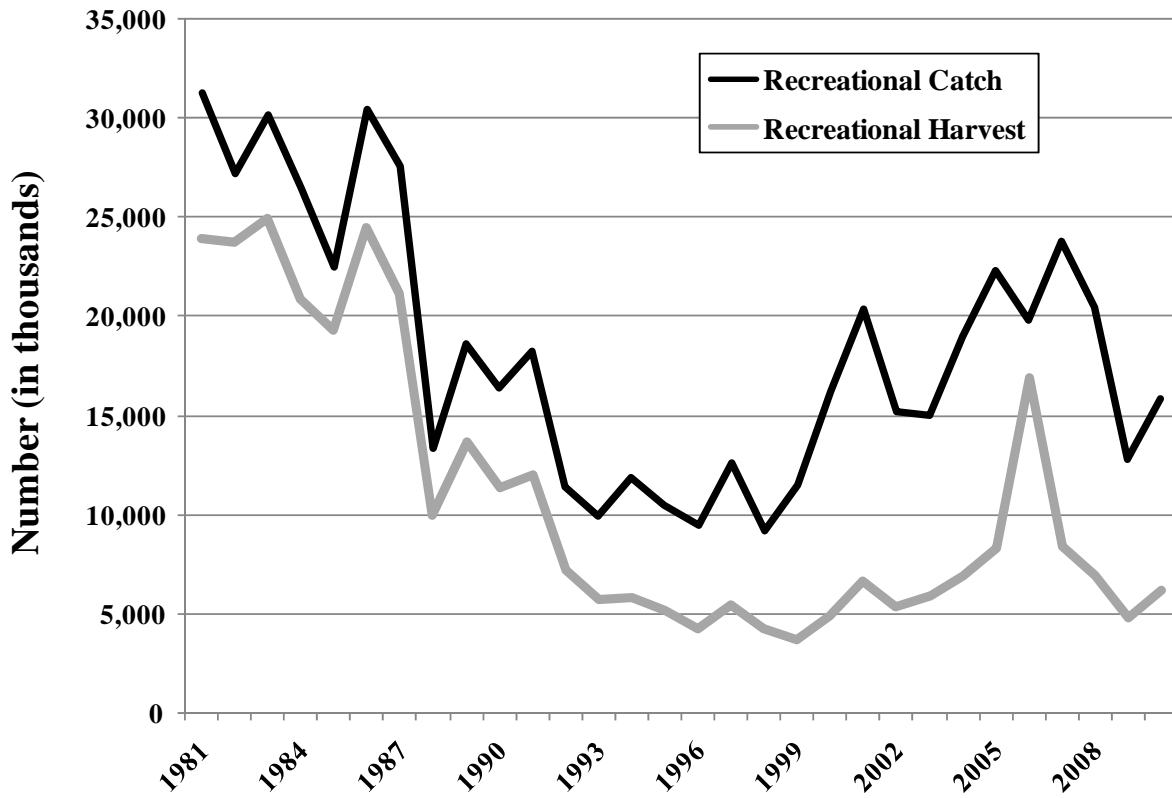


Figure 2. Bluefish commercial landings and recreational harvest (thousands of pounds), 1981-2010.

