

# **Atlantic Bluefish**



# Timeline



# **Meeting Goal**

 Approve a range of alternatives to be included in the Council's Public Hearing Document and the Commission's Draft Amendment

- Slim down the alternatives, if possible





# **Outline: FMAT Summary**

- 1. FMP Goals and Objectives
- 2. Commercial and Recreational Sector Allocations
  - Phase-in Approach
- 3. Commercial Allocations to the States
  - Phase-in, Trigger, and Minimum Default Allocation Approaches
- 4. Regional Commercial Allocations
- 5. Rebuilding Plan
- 6. Sector Transfer
- 7. Management Uncertainty
- 8. De minimis





## **Issue 1: FMP Goals and Objectives**

#### **Current FMP Goals and Objectives**

#### **Goal:** Conserve the bluefish resource along the Atlantic coast.

- Objective 1: Increase understanding of the stock and of the fishery.
- Objective 2: Provide the highest availability of bluefish to U.S. fishermen while maintaining, within limits, traditional uses of bluefish.
- Objective 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.
- Objective 4: Prevent recruitment overfishing.
- Objective 5: Reduce the waste in both the commercial and recreational fisheries.



## **Issue 1: FMP Goals and Objectives**

#### **Proposed FMP Goals and Objectives**

**Goal 1** Conserve the bluefish resource through stakeholder engagement to maintain sustainable recreational fishing and commercial harvest.

- Objective 1.1. Achieve and maintain a sustainable spawning stock biomass and rate of fishing mortality.
- Objective 1.2. Promote practices that reduce discard mortality within the recreational and commercial fishery.
- Objective 1.3. Maintain effective coordination between the National Marine Fisheries Service, Council, Commission, and member states by promoting compliance and to support the development and implementation of management measures.
- **Objective 1.4.** Promote compliance and effective enforcement of regulations.
- Objective 1.5. Promote science, monitoring, and data collection that support and enhance effective ecosystem-based management of the bluefish resource.



## **Issue 1: FMP Goals and Objectives**

#### **Proposed FMP Goals and Objectives Continued**

**Goal 2** Provide fair and equitable access to the fishery across all user groups throughout the management unit.

- **Objective 2.1** Ensure the implementation of management measures provides fair and equitable access to the resource across to all groups along the coast.
- Objective 2.2 Consider the economic and social needs and priorities of all groups that access the bluefish resource in the development of new management measures.
- Objective 2.3 Maintain effective coordination with stakeholder groups to ensure optimization of economic and social benefits.



## **Issue 2: Sector Allocations**







## **Issue 2: Sector Allocation Alternatives**

Alternative	Basis - Landings Based	Recreational Allocation	Commercial Allocation
2.1 (Status quo)	1981-1989 (Landings-based)	83%	17%
2.1.1	5 year (2014-2018) and 10 year (2009-2018)	89%	11%
2.1.2	20 year (1999-2018)	87%	13%
2.1.3	Full Time Series (1981-2018)	86%	14%

Alternative	Basis - Catch Based	Recreational Allocation	Commercial Allocation	
2.1 (Status quo)	1981-1989 (Landings-based)	83%	17%	
2.2.1	5 year (2014-2018) and 10 year (2009-2018)	86%	14%	
2.2.2	20 year (1999-2018) and Full Time Series (1981-2018)	84%	16%	





### **Issue 2: Sector Allocations Phase-in Approach**

- Both sectors are impacted by a reduced quota
  - Overfished designation
  - Sector transfers from recreational to commercial sector halted
- Alternatives currently in development decrease the commercial allocation
- FMAT recommends streamlining phase-in timeline with rebuilding timeline
- Phasing in allocation changes allows for commercial/recreational allocation percentages to transition slowly over time.
  - Potential to reduce economic burden
- Changing allocations on a continual basis during a rebuilding plan may unnecessarily overcomplicate management.





# **Issue 2: Sector Allocations**

Issue	Approach	Summary of FMAT Recommendation
Sector Allocations	Allocations	Keep all alternatives (catch and landings based) for further development but combine alternatives when the allocation percentage is the same.
	Phase-in	Streamline the timing with the selected rebuilding duration. Keep for inclusion in a public hearing document.





### **Issue 3: Commercial Allocations to the States**

	Landings-Based Allocation Alternatives									
	3.1	3.1.1	3.1.2	3.1.3	3.1.4	3.1.5				
State	Status quo (1981-1989)	5 year (2014-2018)	10 year (2009-2018)	20 year (1999-2018)	<i>Time Series (1981-2018)</i>	1/2 '81-'89 1/2 '09-'18				
ME	0.67%	0.00%	0.01%	0.01%	0.43%	0.49%				
NH	0.41%	0.03%	0.12%	0.17%	0.65%	0.33%				
MA	6.71%	10.64%	10.16%	7.53%	7.18%	7.66%				
RI	6.80%	11.81%	9.64%	8.00%	7.96%	7.59%				
СТ	1.26%	1.18%	1.00%	0.73%	1.12%	1.19%				
NY	10.37%	20.31%	19.94%	19.44%	14.76%	13.01%				
NJ	14.79%	11.23%	13.94%	15.23%	15.57%	14.57%				
DE	1.88%	0.58%	0.40%	0.39%	1.09%	1.47%				
MD	3.00%	1.50%	1.84%	1.54%	2.10%	2.68%				
VA	11.86%	4.62%	5.85%	6.92%	8.79%	10.26%				
NC	32.01%	32.06%	32.38%	36.94%	33.52%	32.13%				
SC	0.10%	0.00%	0.00%	0.00%	0.02%	0.03%				
GA	0.10%	0.00%	0.00%	0.01%	0.01%	0.01%				
FL	10.04%	6.07%	4.75%	3.10%	6.91%	8.59%				
Total	100.00%	100.01%	100.03%	100.02%	100.10%	100.00%				





### Issue 3: Commercial Allocations to the States <u>Phase-in</u> Approach

#### Same FMAT comments for Issue 2 apply here

- Phasing in allocation changes allows for commercial state allocation percentages to transition slowly over time.
  - Potential to reduce economic burden
- The commercial sector is impacted by a reduced quota
  - Overfished designation
  - Sector transfers from recreational to commercial sector halted
- Changing allocations on a continual basis during a rebuilding plan may unnecessarily overcomplicate management.
- FMAT recommends streamlining a phase-in timeline with rebuilding timeline





### **Issue 3: Commercial Allocations to the States** <u>**Trigger</u> Approach**</u>

- FMAT is concerned about the tradeoff between perceived benefit and added complexity
- May not an be appropriate management tool during rebuilding
- What is an appropriate trigger threshold level?
  - Recent biomass levels have remained low (Post Transfer)
- Refine equity across states

Commercial Quota Time Series	Pre-Transfer	Post Transfer
No Action/Status quo	N/A	N/A
5-year (2014-2018)	3.67 M lbs	6.67 M lbs
10-year (2009-2018)	4.31 M lbs	8.21 M lbs
20-year (1999-2018)	4.88 M lbs	8.84 M lbs
Time series (1981-2018)	4.88 M lbs*	8.84 M lbs*
1/2 1981-1989 and 1/2 2009-2018	4.31 M lbs*	8.21 M lbs*

Time Series of Commercial Quotas with Post Transfer Trigger Thresholds





### **Issue 3: Commercial Allocations to the States** <u>**Trigger</u> Approach**</u>

	Allocation of <u>additional</u> quota beyond the trigger threshold.										
State	Status quo (1981-1989)	5 year (2014-2018)	10 year (2009-2018)	20 year (1999-2018)	<i>Time Series (1981-2018)</i>	1/2 '81-'89 1/2 '09-'18					
ME	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%					
NH	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%					
MA	7.50%	16.60%	19.60%	7.50%	7.50%	7.50%					
RI	7.50%	16.60%	7.50%	7.50%	7.50%	7.50%					
СТ	3.00%	3.00%	0.10%	0.10%	3.00%	3.00%					
NY	15.12%	16.60%	19.60%	23.63%	20.20%	17.03%					
NJ	15.12%	16.60%	19.60%	23.63%	20.20%	17.03%					
DE	3.00%	0.10%	0.10%	0.10%	3.00%	3.00%					
MD	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%					
VA	15.12%	3.00%	7.50%	7.50%	7.50%	17.03%					
NC	15.12%	16.60%	19.60%	23.63%	20.20%	17.03%					
SC	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%					
GA	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%					
FL	15.12%	7.50%	3.00%	3.00%	7.50%	7.50%					
Total	100%	100%	100%	100%	100%	100%					

Range of Baseline Quota	Associated Additional Quota Allocations			
<=1%	0.10%			
>1-5%	3.00%			
>5-10%	7.50%			
>10%	Remainder			



### **Issue 3: Commercial Allocations to the States** <u>Minimum Default Allocation</u>

#### Modeled after Amendment 3 for Atlantic Menhaden

- "The Atlantic menhaden commercial TAC is managed with jurisdictional quotas. Each jurisdiction is allocated a 0.5% fixed minimum quota and the <u>remainder</u> of the TAC is allocated based on a three-year average of historic landings from 2009-2011".
- Sufficient range of percentages (0.10%, 0.25%, 0.50%)
- Minimum default allocations were applied to each state by allocating a baseline quota of 0.10-0.50% to each state
- Then, the rest of the annual commercial quota is allocated based on historic landings under different time series





### **Issue 3: Commercial Allocations to the States** <u>Minimum Default Allocation</u>

			0.10% Minimum Default Allocation								
State	No Action 1981-1989	Status quo 1981-1989	5-year 2014-2018	10-year 2009-2018	20-year 1999-2018	<i>Time Series 1981-2018</i>	½ '81-'89 ½ '09-'18				
ME	0.67%	0.76%	0.10%	0.11%	0.11%	0.52%	0.58%				
NH	0.41%	0.51%	0.13%	0.22%	0.27%	0.74%	0.42%				
MA	6.71%	6.72%	10.59%	10.12%	7.53%	7.18%	7.65%				
RI	6.81%	6.81%	11.74%	9.61%	7.98%	7.95%	7.58%				
СТ	1.27%	1.35%	1.26%	1.09%	0.82%	1.20%	1.28%				
NY	10.38%	10.33%	20.12%	19.76%	19.27%	14.65%	12.93%				
LN	14.81%	14.70%	11.17%	13.85%	15.11%	15.45%	14.46%				
DE	1.88%	1.95%	0.67%	0.49%	0.48%	1.17%	1.55%				
MD	3.00%	3.06%	1.57%	1.92%	1.62%	2.17%	2.75%				
VA	11.94%	11.88%	4.65%	5.87%	6.93%	8.77%	10.22%				
NC	32.03%	31.68%	31.71%	32.03%	36.52%	33.15%	31.78%				
SC	0.04%	0.13%	0.10%	0.10%	0.10%	0.12%	0.13%				
GA	0.01%	0.11%	0.10%	0.10%	0.11%	0.11%	0.11%				
FL	10.06%	10.02%	6.08%	4.78%	3.16%	6.91%	8.57%				





### **Issue 3: Commercial Allocations to the States**

Approach	Alternative	Basis	FMAT Recommenda	tions	
Allocations	3.1 (Status quo)	Amd. 1 (1981-1989)	Must remain in Amendment		
	3.1.1	5 year (2014-2018)	Recommends further consideration		
	3.1.2	10 year (2009-2018)	Recommends further consideration		
Allocations	3.1.3	20 year (1999-2018)	Recommends removal		
	3.1.4	Time Series (1981-2018)	Recommends removal of either 3.1.4	4 or 3.1.5	
	3.1.5	1/2 '81-'89 1/2 '09-'18	Recommends removal of either 3.1.4 or 3.1.5		
Dhaca in	3.2 (Status quo)	No Phase-in	Must remain in Amendment	Streamline timing	
Phase-in	3.2.1	Phase-in	Recommends further consideration	rebuilding duration	
	3.3 (Status quo)	No Trigger	Must remain in Amendment		
Trigger	3.3.1	Pre-Transfer Trigger	Recommends removal	Trigger (and post	
	3.3.2	Post Transfer Trigger	Recommends further consideration	transfer threshold)	
	3.4 (Status quo)	No Minimum Default Allocation	Must remain in Amendment	and minimum default allocation time series should	
Minimum Default Allocations	3.4.1	0.10% - No Minimum Default Allocation	Recommends further consideration	match the preferred	
	3.4.2	0.25% - No Minimum Default Allocation	Recommends removal	alternative under section 3.1-3.1.5	
	3.4.3	0.50% - No Minimum Default Allocation	Recommends removal		





- Originated as a proposal from FL
  Regionalization: NE, MA, SA
  - Race to fish?
  - Biological basis?
    - Landings as a proxy for abundance?
      - Lacking biological backing, there is less technical merit
  - Trip limit step downs and/or adjusted quotas
    - Requires a high level of state buy-in
  - Transfer approval may be less likely to occur





Alternative	Time Series	New England (ME-CT)	Mid-Atlantic (NY-VA)	South Atlantic (NC-FL)	
4.1	Status quo: 1981-1989	N/A (15.86%)	N/A (42.00%)	N/A (42.13%)	
4.1.1	2014-2018	23.66%	38.23%	38.13%	
4.1.2	2009-2018	20.93%	41.97%	37.13%	
4.1.3	1999-2018	16.44%	43.53%	40.05%	
4.1.4	1981-2018	17.34%	42.31%	40.45%	
4.1.5	<sup>1</sup> ⁄2 `81-`89 -½ `09-`18	17.25%	41.99%	40.75%	





	New England Trips		Mid-Atlantic Trips			South Atlantic Trips			
Pound Bin	2019	2018	2017	2019	2018	2017	2019	2018	2017
5000+	<1%	<1%	<1%	0%	0%	<1%	<1%	<1%	<1%
4000-4999	<1%	<1%	<1%	0%	0%	<1%	<1%	<1%	<1%
3000-3999	<1%	<1%	<1%	0%	0%	<1%	<1%	<1%	<1%
2000-2999	<1%	<1%	<1%	0%	<1%	0%	<1%	<1%	<1%
1000-1999	<1%	<1%	1.25%	<1%	2.45%	1.45%	1.58%	1.13%	1.26%
500-999	2.34%	1.42%	3.42%	2.29%	3.12%	3.31%	3.69%	3.08%	2.99%
<500	95.84%	96.69%	94.10%	97.20%	94.40%	95.20%	94.31%	95.33%	94.76%

	New England Landings		Mid-Atlantic Landings			South Atlantic Landings			
Pound Bin	2019	2018	2017	2019	2018	2017	2019	2018	2017
5000+	3.95%	4.49%	4.39%	0%	0%	1.29%	5.80%	12.93%	25.82%
4000-4999	7.12%	1.86%	11.30%	0%	0%	0.64%	1.30%	1.83%	2.17%
3000-3999	5.36%	5.29%	8.45%	0%	0%	0.46%	1.72%	2.01%	2.26%
2000-2999	11.79%	19.80%	6.91%	0%	1.13%	0%	5.40%	4.23%	8.19%
1000-1999	13.21%	9.54%	11.56%	7.04%	25.26%	16.21%	18.64%	13.84%	11.86%
500-999	15.42%	8.59%	16.00%	20.48%	23.36%	25.78%	22.54%	18.99%	14.07%
<500	43.15%	50.43%	41.39%	72.49%	50.25%	55.62%	44.60%	46.18%	35.64%

New Englar	d (ME-CT)	Mid-Atlant	ic (NY-VA)	South Atlantic (NC-FL)			
Harvest Trigger	larvest Trigger Trip Limit (lbs)		Trip Limit (lbs)	Harvest Trigger	Trip Limit (lbs)		
0%	3,500	0%	2,000	0%	10,000		
75%	1,500	75%	1,500	50%	3,500		
90%	500	90%	500	75%	1,500		
		-	-	90%	500		





#### FMAT Recommendation – Remove from the Amendment

- 1. FMP contains provisions to combine quotas
- 2. Loss of state autonomy and flexibility in setting comm. measures
- 3. Difficulty with setting equitable trip limits
- 4. Lack of biological basis
- Spearman correlation analysis
  - Rec. CPUE was used as a proxy for total abundance
  - Commercial landings were not used because they are assumed to be influenced by market factors and restricted by state quotas
  - Analysis is in the FMAT Summary
  - Expect to see green groupings closely surrounding the diagonal gray plots if there were correlations in total abundance across neighboring states.





## CFR § 648.162 Bluefish Specifications

 Two or more states implementing a state commercial quota for bluefish may request approval from the Regional Administrator to combine their quotas, or part of their quotas, into an overall regional quota.





Issue	Approach	Summary of FMAT Recommendation
Regional Commercial Allocations	Regional Allocations	<ul> <li>Recommends removal of the alternative set.</li> <li>Regionalization lacks biological backing</li> <li>Regionalization will result in a loss of autonomy</li> <li>Reduced flexibility to manage fisheries at the state level.</li> <li>Difficulty developing equitable trip limits</li> <li>Multiple states already have the ability to combine their quotas (CFR § 648.162)</li> </ul>





### **Issue 5: Rebuilding Plan**

- 2019 Operational Stock Assessment overfished stock status
- Adjustments to the Council's risk policy (for bluefish only) are necessary under alternatives 5.1.2, 5.1.3, and 5.1.4.
- Rebuilding plan reassessed each year through specifications





### **Issue 5: Rebuilding Plan**







### **Issue 5: Rebuilding Plan**

Alternative	Rebuilding Plan	Duration	*Adjustment to Council Risk Policy	Summary of FMAT Recommendation
5.1	Status Quo	N/A	N/A	Must include in amendment
5.1.1	Constant Harvest	4 years	No	Recommends further consideration
5.1.2	Constant Fishing Mortality	10 years	Yes	Recommends removal
5.1.3	Constant Fishing Mortality	7 years	Yes	Recommends further consideration
5.1.4	Constant Harvest (Highest Catch)	10 years	Yes	Recommends removal
5.1.5	P* (Council Risk Policy)	5 years	N/A	Recommends further consideration

\*Adjustment to the Council Risk Policy will be done through development of the Environmental Assessment and adds minimal work.





## **Issue 6: Sector Transfers**

Need for transfer addressed annually through the specifications process

Prior to August meeting, MC develops projections for next years landings for each sector

Scenario	<b>Commercial Sector</b>	<b>Recreational Sector</b>	Outcome
1	Projected to achieve quota	Projected to achieve RHL	No transfer
2	Projected to achieve quota	Projected to not achieve RHL	Transfer to comm
3	Projected to not achieve quota	Projected to achieve RHL	Transfer to rec
4	Projected to not achieve quota	Projected to not achieve RHL	No transfer





# **Issue 6: Timing and Process**

Existing bluefish transfer process

- Implements specifications in January for the new fishing year
- NOAA Fisheries reassesses transfer amount in February based on new data and an adjustment notice is released in March/April
- Post-specifications adjustment problematic
  - Recreational measures set in December
- Without adjustments, projections are based off incomplete data from prior year, increasing potential for overages



## **Issue 6: Criteria for Prohibiting a Transfer**

FMAT agreed that prohibiting transfers when the stock is overfished is appropriate

- Considered, but rejected
  - Overfishing is occurring
  - Stock is rebuilding



# **Issue 6 Transfer Cap**

- The ABC under a rebuilt stock is projected to equal approximately 60 million lbs.
- A 10% cap would result in a transfer cap of 6 million lbs
- Transfers from the recreational to the commercial fishery never exceeded 5.93 million lbs (2000-2020)



# Sector Transfers (2000-2019)

Year	Sector Transfer Amount
2000	0
2001	3.150 million lbs
2002	5.933 million lbs
2003	4.161 million lbs
2004	5.085 million lbs
2005	5.254 million lbs
2006	5.367 million lbs
2007	4.780 million lbs
2008	4.088 million lbs
2009	4.838 million lbs
2010	5.387 million lbs
2011	4.772 million lbs
2012	5.052 million lbs
2013	4.686 million lbs
2014	3.340 million lbs
2015	1.579 million lbs
2016	1.577 million lbs
2017	5.033 million lbs
2018	3.535 million lbs
2019	4.000 million lbs

Sector transfer cap of 5% for a rebuilt stock equals approximately 3 million pounds under current projections FMAT thought this value to be overly restrictive



# **Issue 6: Sector Transfers**

Alternatives	Transfer Cap	FMAT Recommendations
6.1	No Action/Status Quo	Must remain in.
6.1.1	5% of the ABC	Recommends removal
6.1.2	10% of the ABC	Recommends further consideration
6.1.3	15% of the ABC	Recommends removal

Alternatives	<b>Bi-directionality</b>	FMAT Recommendations				
6.2	No Action/Status Quo	Must remain in.				
6.2.1	<b>Bi-directional</b>	Recommends further consideration				



#### **Issue 7: Sector Specific Management Uncertainty**

- The FMAT agreed that this concept should be left in the amendment for further consideration.
- Refining the management uncertainty tool will enable it to target one specific sector without negatively affecting the other sector.
  - E.g. Recreational discard calculations have been a management uncertainty concern, however, no reductions for management uncertainty have occurred in recent years because it would lead to reductions in the commercial quota.





#### Issue 7:

#### Sector Specific Management Uncertainty

Status Quo





#### Issue 7:

Sector Specific Management Uncertainty

Post-Sector Split





#### **Issue 7: Sector Specific Management Uncertainty**

Alternatives	Approach	FMAT Recommendations				
7.1	No Action/Status Quo	Must remain in.				
7.1.1	Post-Sector Split	Recommends further consideration				





- During scoping, Georgia DNR proposed a *de minimis* provision
- De minimis status would relieve a state from having to adopt fishery regulations
- To qualify for *de minimis* status:
  - 3-year average of total landings (commercial + recreational) < 1% coastwide landings</li>
- Commission has an existing de minimis status provision which provides exemption of the requirement to conduct fishery independent monitoring.





### FMAT Comments:

- The FMAT agreed that the *de minimis* provision should be kept in the amendment but should remain a state waters only provision.
- Applying the *de minimis* provision to federal waters would overcomplicate the issue and would likely not be approved by NOAA Fisheries.





### Important considerations:

- For-hire operators with a federal permit would be required to adhere to the more restrictive regulations (federal or state) regardless of where they are fishing.
- If a state's de minimis status is not granted for the following year it would be required to implement all current commercial and recreational regulations for the next fishing year or be found out of compliance





Alternatives	Approach	FMAT Recommendations				
8.1	No Action/Status Quo	Must remain in.				
8.1.1	Revised De minimis (state waters)	Recommended further consideration				





# Summary

### FMAT recommendation for removal

- Issue 3: Commercial Allocations to the States
  - 20-year time series and full time series or 1/2 1/2
  - Pre-transfer trigger threshold
  - 0.25% and 0.50% minimum default allocations
- Issue 4: Regional Commercial Allocations
- Issue 5: Rebuilding Plan
  - Constant Fishing Mortality (10 years)
  - Constant Harvest (10 years)
- Issue 6: Sector Transfers
  - 5% and 15% transfer cap



# **Next Steps**

- February 2021: Approve Draft Amendment for public comment (public hearing document)
- September 2021: Formal submission to NOAA Fisheries
- 2021: Management Track Assessment
- 2022: SAW/SARC Research Track Assessment





# **Backup Slides**





### **Issue 3: Commercial Allocations to the States**

	Landings-Based Allocation Alternatives												
	3.1	3.	.1.1	<b>3.</b> 1	1.2	3.1	L.3	3.1	.4	3.1.5			
	Status							Time Cor	ing 1001	1/2/01/0	0 1 / 2 / 00		
State	quo	5 year (2	2014-2018)	10 year (2	009-2018)	20 year (1	999-2018)	nime sen	10 1981- 10	1/2 81- 89 1/2 09-			
	(1981-							20	10	18			
ME	0.67%	0.00%	-100%	0.01%	- <b>99</b> %	0.01%	- <b>99%</b>	0.43%	- <b>36%</b>	0.49%	- <b>27%</b>		
NH	0.41%	0.03%	- <b>93</b> %	0.12%	-71%	0.17%	- <b>59%</b>	0.65%	<b>59%</b>	0.33%	- <b>20%</b>		
MA	6.71%	10.64%	<b>59%</b>	10.16%	<b>51%</b>	7.53%	<b>12%</b>	7.18%	7%	7.66%	14%		
RI	6.80%	11.81%	74%	9.64%	<b>42%</b>	8.00%	<b>18%</b>	7.96%	<b>17%</b>	7.59%	<b>12%</b>		
СТ	1.26%	1.18% -6%		1.00%	- <b>21%</b>	0.73%	- <b>42%</b>	1.12%	-11%	1.19%	<b>-6%</b>		
NY	10.37%	20.31%	20.31% <b>96%</b>		<b>92%</b>	19.44%	<b>87%</b>	14.76%	<b>42%</b>	13.01%	25%		
NJ	14.79%	11.23%	- <b>24%</b>	13.94%	-6%	15.23%	3%	15.57%	<b>5%</b>	14.57%	-1%		
DE	1.88%	0.58%	- <b>69</b> %	0.40%	- <b>79%</b>	0.39%	- <b>79%</b>	1.09%	- <b>42%</b>	1.47%	- <b>22%</b>		
MD	3.00%	1.50%	- <b>50%</b>	1.84%	- <b>39</b> %	1.54%	- <b>49%</b>	2.10%	- <b>30</b> %	2.68%	-11%		
VA	11.86%	4.62%	- <b>61%</b>	5.85%	- <b>51%</b>	6.92%	- <b>42%</b>	8.79%	- <b>26%</b>	10.26%	- <b>13%</b>		
NC	32.01%	32.06%	0%	32.38%	1%	36.94%	<b>15%</b>	33.52%	<b>5%</b>	32.13%	0%		
SC	0.10%	0.00%	- <b>100%</b>	0.00%	- <b>100%</b>	0.00%	- <b>100</b> %	0.02%	- <b>80%</b>	0.03%	- <b>70%</b>		
GA	0.10%	0.00%	-100%	0.00%	- <b>100%</b>	0.01%	- <b>90%</b>	0.01%	- <b>90%</b>	0.01%	- <b>90%</b>		
FL	10.04%	6.07%	- <b>40%</b>	4.75%	- <b>53</b> %	3.10%	- <b>69%</b>	6.91%	<b>-31%</b>	8.59%	-14%		
Total	100.00%	100.01%		100.03%		100.02%	100.02%			100.00%			





### **Issue 4: Regional Commercial Allocations -Correlations Among Rec CPUE**

Total catch divided by total recreational directed effort; primary, secondary, and caught; by state, all modes combined) 2000-2018.

		0.0 0.4 0.8 1.2	2	1 2 3 4 5		2 3 4 5		2468		3 5 7 9		5 10 15 20 25		4 6 8 10
	MAINE				°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°									
0.0 1.0	0.71 0.43	NEW.HAMPSHIRE										8 <u> </u>		
	0.13 0.042	0.20 0.079	MASSACHUSETTS	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			8000					• • • • • • • • • • • • • • • • • • •	80° 000 000	88.00 89.00 12 2.0
135	0.40 0.18	0.35 0.078	-0.11 0.011	RHODE.ISLAND					0000 00 0000 00 0000 00	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		80 80 80 80 80 80 80 80 80 80 80 80 80 8	8° 8°	
	0.44 0.23	0.23 0.057	0.06 0.053	0.52 0.24	CONNECTICUT		****	°Å~~	000 000 0000 000	ಁಁೢ	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	००० १९ <sub>८०</sub> ०१०	° %~	4 4 4 4 4 4 4 4 4 4 8 8 8 8 8 8 8 8 8 8
2 4	0.47 0.062	0.24 0.011	0.24 0.019	-0.021 0.022	0.37 0.31	NEW.YORK	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	%%% %	<b></b>	ൟ൙൙	Å.	۶. ۲	° 3 <b>%</b> ~~~
	0.019 0.0046	-0.061 0.0047	0.12 0.044	-0.074 0.0051	0.20 0.055	0.14 0.13	NEW.JERSEY		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	0000 aao				2:0 4:0
2 6 1111	-0.07 0.015	0.26 0.16	-0.22 0.0091	0.10 3.7e-05	0.081 0.0014	-0.17 0.056	0.095 0.028	DELAWARE	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	<u> </u>	• <del>•••</del> ••••••	ൟൟൄഀ		¢ do de
	0.067 0.00037	0.075 0.0029	-0.021 0.0066	0.37 0.092	0.28 0.14	0.25 0.27	-0.22 0.0054	0.075 2.1e-05	MARYLAND	6 00 000 000 000 000 000 000 000 000 00	<u> </u>	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	00000000000000000000000000000000000000	
369	0.18 0.07	0.093 0.012	-0.15 0.059	-0.45 0.12	-0.23 0.035	0.46 0.093	-0.27 0.063	0.093 0.0036	0.0088 0.0025	VIRGINIA				° & & ~ ~ ~
	-0.23 0.029	-0.46 0.15	0.11 0.0087	-0.18 0.061	-0.089 0.00086	-0.25 0.032	0.098 0.018	-0.12 7.8e-05	-0.04 0.0018	-0.11 0.0019	North.carolina			
5 20	-0.49 0.18	-0.42 0.095	0.21 0.093	-0.43 0.09	-0.21 0.054	-0.24 0.13	0.14 0.017	0.079 0.0096	-0.61 0.34	-0.089 0.11	0.28 0.051	South.carolina	۹ <u>۹</u> ۵ ۹	0 200 0 0 0 400 200
	-0.13 0.049	-0.0079 0.017	-0.18 0.065	-0.086 0.034	-0.60 0.22	-0.32 0.046	-0.33 0.12	0.084 0.0013	0.035 9.6e-05	0.11 0.013	0.32 0.068	-0.17 0.031	GEORGIA	, , , , , , , , , , , , , , , , , , ,
0 4 8 1111	-0.12 0.00064 .0 0.4 0.8	-0.38 0.13	0.10 0.024 1.2 1.6 2.0	0.17 0.019	0.19 0.11 2 3 4 5	-0.075 0.0014	0.14 3.8e-05 2.0 3.0 4.0	-0.13 0.0078	-0.22 0.034 2 3 4 5 6 7	-0.39 0.11	0.63 0.35 6 7 8 9	0.29 0.10	0.093 0.012 0 10 30	FLORIDA



### **Issue 4: Regional Commercial Allocations -Correlations Among Rec CPUE**

Total catch divided by total recreational effort; by state, all modes combined from 2000-2019.

ANTIC .

	Rec CPUE													
		0.00 0.04 0.08		0.2 0.6 1.0	)	0.4 0.6 0.8		0.1 0.3 0.5 0.7	7	0.10 0.25		0.1 0.3 0.5		0.10 0.25 0.40
	MAINE	° ° ° ° °	00000000000000000000000000000000000000						80000	2000 2000 2000			∞e°°°°	
e T	0.75 0.50	NEW.HAMPSHIRE	° 800° 100° 2000			°°°°°°	°, & °,	000000 00000	°°°°°		**************************************	<u> </u>	8°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
	0.32 0.034	0.30 0.039	ASSACHUSETTS			000 000 000 000 000	8	<u>م</u>		8090 600 600	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0.2 0.8	0.51 0.26	0.45 0.23	-0.044 0.002	RHODE.ISLAND	6°00 6°000 8°000	00 00 80 80 80 80 80 80 80 80 80 80 80 8			80000	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~				
	0.44 0.16	0.28 0.022	0.25 0.097	0.60 0.39	CONNECTICUT			္ စစ္တ <u>ိ</u> စ္စာ <del>တိ</del> စ္စ	46°°°		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			12 12 12 12 12 12 12 12 12 12 12 12 12 1
0.4 0.0	0.43 0.12	0.50 0.21	0.32 0.12	0.31 0.13	0.48 0.15	NEW.YORK	°°°°°		00000000000000000000000000000000000000	00 00 00 00 00 00 00 00 00 00 00 00 00			°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°	
	-0.18 0.094	0.071 0.00045	-0.045 0.0033	0.0075 0.0045	-0.023 0.022	0.039 2.7e-06	NEW.JERSEY		80° 000 0000000000000000000000000000000	Å	૾૾૾ૢ૾૾ૢૢૢૢૢૢૢૢૢૢૢૢૢૺ	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		
0.1 0.6 11111	-0.021 0.016	0.38 0.18	-0.28 0.065	0.12 0.041	-0.024 0.004	0.21 0.022	0.28 0.087	DELAWARE					<u> </u>	
_ ي	0.42 0.17	0.46 0.03	0.069 0.0039	0.11 0.0021	0.18 0.022	0.51 0.18	-0.41 0.21	0.29 0.033	MARYLAND		<u> </u>	 • 000 g		
0.10 0.3	0.57 0.41	0.55 0.16	0.30 0.047	-0.051 0.00036	0.11 0.017	0.42 0.091	-0.37 0.17	0.15 0.029	0.57 0.39	VIRGINIA		ೲೲೲೢ		૾ૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢ
	-0.31 0.061	-0.48 0.22	0.0075 0.00032	-0.34 0.085	-0.11 0.0015	-0.34 0.11	-0.15 0.015	-0.21 0.042	-0.18 0.015	-0.078 9.7e-05	ORTH.CAROLINA		<u>~~</u> ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	33 35 35 35 35 35 35 35 35 35 35 35 35 3
0.1 0.4	-0.17 0.0053	-0.31 0.047	0.0045 0.0031	-0.24 0.056	0.038 0.02	-0.32 0.074	0.099 0.0076	-0.11 0.0096	-0.31 0.036	-0.057 0.01	0.54 0.16	OUTH.CAROLINA	°°°°°°°	° ° ° °
<del>9</del>	0.038 0.0013	-0.0038 0.032	-0.047 0.012	-0.13 0.029	-0.16 0.053	0.18 0.009	-0.34 0.11	0.05 0.0012	0.35 0.13	0.44 0.26	0.31 0.094	-0.074 0.00015	GEORGIA	g
0.0 10 10 0.10 0.10 0.10	0.17 0.0079 0 0.06	0.14 0.0035	0.12 0.01 0.10 0.25 0.40	0.46 0.26	0.64 0.31 0.2 0.6 1.0 1.4	0.11 0.0075	0.048 3.3e-08 0.3 0.5 0.7	-0.075 0.00083	0.11 0.0025 0.1 0.3 0.5	-0.12 0.0046	0.075 0.0033 0.35 0.50 0.65	-0.095 0.0092	0.15 0.0052 0.02 0.08	FLORIDA

MID-ATLANTIC

# Spatial distribution of live releases vs. release at length data (2016-2018)



\*MRIP i9s not included; i9s represent a much smaller proportion of total length frequency data

# Catch vs. landings-based allocations

- Blue and green sectors.
- 50/50 allocation.
- In recent years, both sectors have equal landings, but dead discards in the green sector are double those in the blue sector.
- If the allocation is landingsbased, both sectors will have the same quota, but the green sector will have a higher ACL due to its greater expected discards.
- If the allocation is catch-based, both sectors will have equal ACLs, but the blue sector will have a higher quota due to lower expected discards.

#### How do you make the first cut to the pie?



An increase in expected discards in the green sector impacts the blue quota under a landingsbased allocation, but not under a catch-based allocation.



#### Same, but with higher expected green discards:



### **Issue 4: Commercial State-to-State Transfers**

### FMAT recommends status quo

- Very useful tool for adaptive management
- If removed, ensure transfers are added as a frameworkable action

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Average
ME	0	-52,000	-25,000	-45,000	0	0	0	0	0	-45,000	-30,000	-32,000	0	0	-16,357
NH	0	0	0	0	0	0	0	100,000	0	0	0	-20,000	0	0	5,714
MA	0	0	0	0	0	0	0	0	200,000	45,000	250,000	225,000	0	0	51,429
RI	0	60,000	155,000	-50,000	0	0	0	0	0	100,000	180,000	132,000	150,338	0	51,953
СТ	0	0	0	-20,000	-75,000	0	0	0	0	0	0	0	0	0	-6,786
NY	0	250,000	450,000	455,000	425,000	0	200,000	50,000	300,000	250,000	550,000	420,000	0	0	239,286
NJ	0	0	309,125	0	0	0	0	0	-300,000	-50,000	0	-40,000	-50,000	0	-9,348
DE	0	-15,000	-80,000	-90,000	0	0	0	0	0	0	0	-50,000	0	0	-16,786
MD	0	-45,000	-50,000	-50,000	0	0	0	0	0	-50,000	0	-50,000	0	0	-17,500
VA	0	-525,000	-350,000	0	-150,000	0	0	0	0	0	-250,000	-210,000	-338	0	-106,096
NC	0	652,000	0	-100,000	0	0	0	-100,000	-200,000	0	-550,000	-225,000	-100,000	0	-44,500
SC	0	0	0	0	0	0	0	0	0	0	0	-150,000	0	0	-10,714
GA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FL	0	-325,000	-409,125	-100,000	-200,000	0	-200,000	-50,000	0	-250,000	-150,000	0	0	0	-120,295



## TAC through 2011, ABC 2012 onwards 2002-2020 average = 14% of ABC

	Sector	TAC/ABC	Sector
Year	Transfer	(million	Transfer %
	(million lbs)	lbs)	of ABC
2002	5.933	29.1	20%
2003	4.161	39.5	11%
2004	5.085	34.22	15%
2005	5.254	34.22	15%
2006	5.367	29.15	18%
2007	4.78	32.03	15%
2008	4.088	31.89	13%
2009	4.838	34.08	14%
2010	5.387	34.38	16%
2011	4.772	31.74	15%
2012	5.052	32.04	16%
2013	4.686	27.47	17%
2014	3.34	24.43	14%
2015	1.579	21.54	7%
2016	1.577	19.45	8%
2017	5.033	20.64	24%
2018	3.535	21.81	16%
2019	4	21.81	18%
2020	0	16.28	0%



### Bi-directional Comm>Rec Transfer Example

### Summer 2020

- MC develops rec and comm landings projections
- Comm sector projected to underachieve quota
- Joint Meeting August 2020
  - Board and Council set RHL with transfer to Rec sector included
- Joint Meeting December 2020
  - Set Rec measures to achieve RHL





#### Bluefish projection assuming 2019 ABC, Avg ABC AOP 2019 for rest































# **Risk Policy**





	Timeline
Jun-20	Refine alternatives
Jul-20	
Aug-20	
Sep-20	
Oct-20	
Nov-20	
Dec-20	Approve range of alternatives for public hearing document
Jan-21	
Feb-21	Approve public hearing document
Mar-21	
Apr-21	Public Hearings
May-21	
Jun-21	Final Action
Jul-21	
Aug-21	
Sept-21	Submit
Oct-21	
Nov-21	



