

MAFMC Monkfish Report

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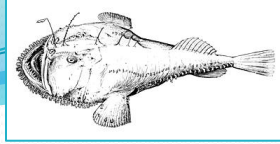
New England Fishery Management Council

February 7, 2023



New England
Fishery Management Council

Monkfish report plan



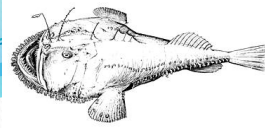
Framework Adjustment 13 (FY 2023-2025 specifications, other measures)

- SSC's revised Acceptable Biological Catches recommendations based on remand request of both Councils in December.
- Updated range of alternatives and impact analysis.
- NEFMC January 25 decisions on final preferred alternatives.
- Recommend final preferred alternatives.

2023-2024 Monkfish Research Set-Aside Priorities

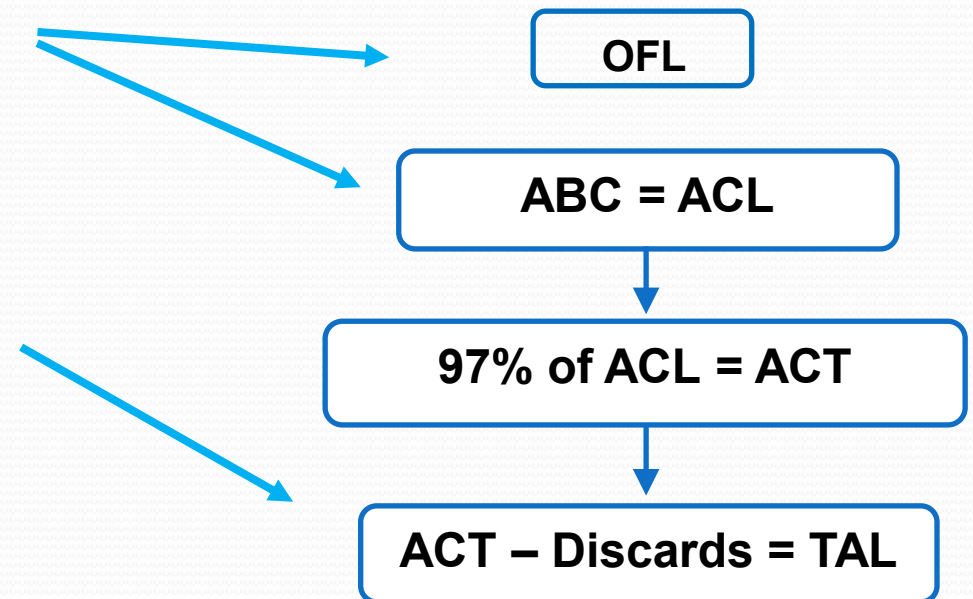
- Receive update on plans for issuing a Request for Proposals and research priorities approved by NEFMC.
- Approve research priorities.

Framework Adjustment 13 scope



Actions:

1. Overfishing limit and acceptable biological catch for North and South for FY 2023-2025 and other specifications (e.g., discard deduction, total allowable landings)
2. Effort controls (Days-At-Sea, ~~possession limits~~)
3. Gillnet mesh size (12" selected as preferred alternative in December)



Outcomes of December meetings of the Councils

Outcomes (related to ABC)

- Suspended criteria for remanding ABCs back to the SSC.
- Accept the SSC ABC recommendations for FY 2023-2025 (i.e., keep in range of alternatives).
- Remand the Monkfish ABCs back to SSC to “facilitate a transition to the appropriate application of Ismooth for monkfish.”
- Consider setting ABCs as the average of the Ismooth approach and the recent ABC approach (i.e., average of October SSC recommendation and method used to set FY2020-2022 ABCs).
- Recommended that use of Ismooth multipliers be revisited during next assessment.

Alternatives as of December

1. No Action – no specifications
2. Status Quo (higher than SSC rec)
3. October SSC Recommendation



Revised alternatives

1. No Action – no specifications
2. October SSC Recommendation
3. Council request (could be replaced if SSC makes other recommendation on 1/20.)

Status Quo provided for comparison

Councils' Request (accepted by the SSC Jan 20)

- Take the average of October SSC recommendation and “recent ABC approach”

October SSC recommendation

Trawl survey multiplier * latest 3-year average catch / 0.97 = ABC

North: $0.829 * 6,465 \text{ mt} / 0.97 = 5,526 \text{ mt}$

South: $0.646 * 5,655 \text{ mt} / 0.97 = 3,766 \text{ mt}$

Recent ABC approach

Trawl survey multiplier * FY 2020-2022 ABC = ABC

North: $0.829 * 8,351 \text{ mt} = 6,923 \text{ mt}$

South: $0.646 * 12,316 \text{ mt} = 7,956 \text{ mt}$

Table 2. December 2022 NEFMC request for FY 2023-2025 ABCs.

	Northern FMA (mt)	Southern FMA (mt)
October SSC ABC recommendations	5,526	3,766
Recent ABC approach	6,923	7,956
Averages of above two rows	6,224	5,861

Alternatives: Action 1 – 2023-2025 specifications

Alternative 1: No Specifications. OFL, ABC, ACL, TAL = 0 mt. This FMP does not have “default” specifications. Current specifications expire April 30. Accountability measure still in place (pound for pound payback of ACL overage).

Alternative 2: October 2022 SSC Recommendation. Would use 10-year median for discard deduction (change from 3-year discard:catch). These would become the default specifications.

Table 3. Updated specifications for FY 2023-2025 (Alternative 2).

	Northern FMA (mt)	Southern FMA (mt)
OFL	undetermined	undetermined
ABC = ACL	5,526	3,766
Management Uncertainty (3% of ACL)	166	113
ACT (97% of ACL)	5,360	3,653
Expected Discards (10-year median)	729	2,205
Federal TAL (ACT – discards)	4,632	1,449

Alternatives: Action 1 – 2023-2025 specifications

NEFMC preferred alternative

Alternative 3: December Councils' request [and revised SSC recommendation]. 10-year median for discard deduction. These would become the default specifications.

Table 4. Updated specifications for FY 2023-2025 (Alternative 3).

	Northern FMA (mt)	Southern FMA (mt)
OFL	undetermined	undetermined
ABC = ACL	6,224	5,861
Management Uncertainty (3% of ACL)	187	176
ACT (97% of ACL)	6,038	5,685
Expected Discards (10-year median)	729	2,205
Federal TAL (ACT – discards)	5,309	3,481

Jan 23 AP and Committee recommendations

Action 1 - Specifications

- AP recommended Alternative 3. (8/0/0)
- Cte recommended Alternative 3. (10/0/1)

- Rationale: highest ABCs within latest SSC recommendation, least economic harm while transitioning to use of Ismooth. Other surveys indices (beyond NEFSC bottom trawl) should be included in catch setting, which show differing trends. Fishermen are seeing a healthy resource on the water.

Comparison of Action 1 alternatives

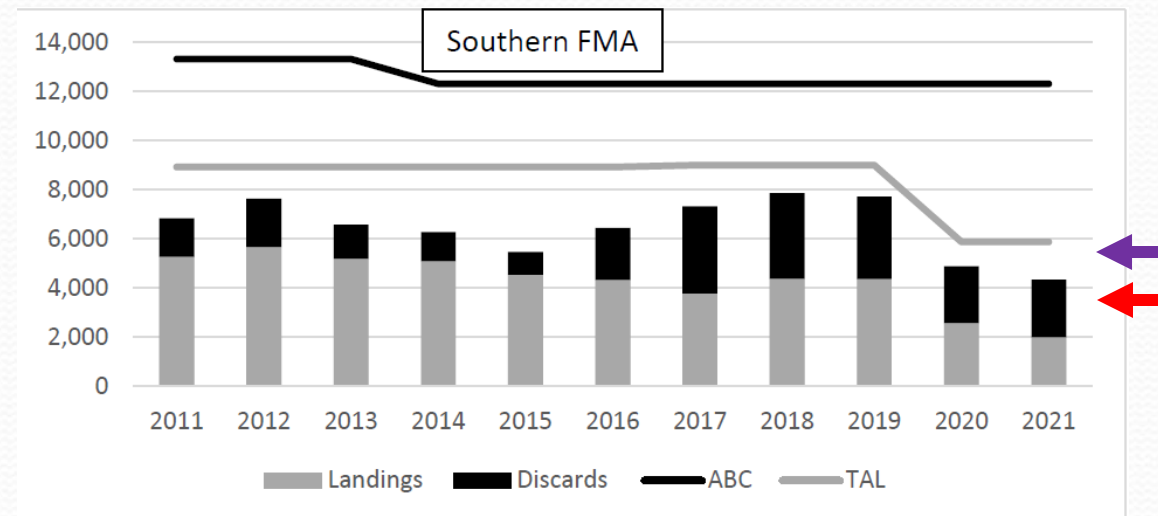
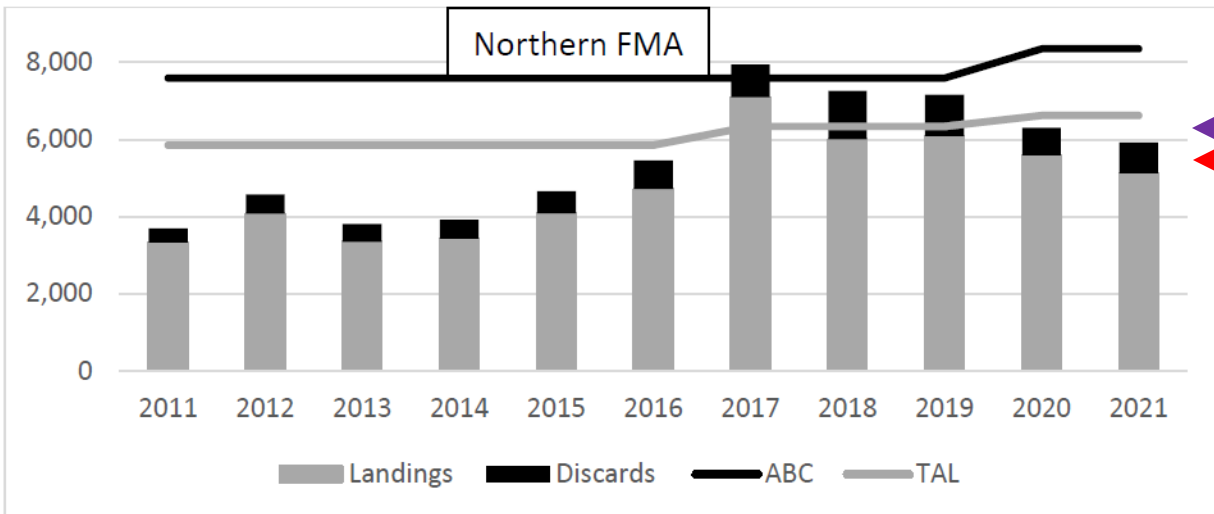
Table 3. FY 2023-2025 ABCs/ACLs and TALs under the alternatives and relative to status quo (mt).

	ABC = ACL	% change from SQ	Federal TAL	% change from SQ
Northern FMA				
Alternative 1 (no specifications)	0	-100%	0	-100%
Alternative 2 (Oct 2022 SSC recommendation)	5,526	-34%	4,632	-30%
Alternative 3 (Dec 2022 NEFMC request)	6,224	-25%	5,309	-20%
Status Quo (FY 2020-22, SQ)	8,351		6,624	
Southern FMA				
Alternative 1 (no specifications)	0	-100%	0	-100%
Alternative 2 (Oct 2022 SSC recommendation)	3,766	-69%	1,449	-75%
Alternative 3 (Dec 2022 NEFMC request)	5,861	-52%	3,481	-41%
Status Quo (FY 2020-22, SQ)	12,316		5,882	

Comparison with recent fishery

	FY 2021 actual (mt)		Oct SSC		Jan SSC	
	Catch	Landings	ABC	TAL	ABC	TAL
North	6,973	5,215	21% < FY21	11% < FY21	11% < FY21	2% > FY21
South	5,298	1,968	29% < FY21	27% < FY21	11% > FY21	76% > FY21

Figure 2. ABC, TAL, landings, and discards (mt), 2011-2021



Impacts: Action 1 – Specifications

Target Species – Monkfish

- Uncertain impacts due to unknown stock status.
- Alt 1 (ACL = 0). Directed fishery precluded, minimum mortality (uncertain, moderate +).
- Alt 2 (Oct. SSC Rec.). Fishery within SSC recommendations (uncertain, moderate +).
- Alt 3 (Jan. SSC Rec.). Fishery operate under reduced levels but higher than Oct 2022 SSC recommendation (uncertain or slight +)

Economic and Social

- Alt 1 (ACL = 0). Directed fishery precluded, no landings, businesses may fail (high -).
- Alt 2 (Oct. SSC Rec.). Reduced revenue, 16% lower than FY 2021 (-\$1.6M), \$800K profit loss, lower fishery participation, but less long-term risk (- to moderate -).
- Alt 3 (Jan. SSC Rec.). Fishery not constrained relative to FY 2021 but fishery could exceed TAL in N. Increase in revenue (+\$116k in N, +\$2.14M in S if TALs fully utilized) (+ to slight -).

Alternatives: Action 2 – Effort controls

Alternative 1: No Action. DAS Allocation unchanged: 46 DAS per LA permit (45.2 after RSA deduction), 37 DAS may be used in the South.

Alternative 2: Make North and South DAS distinct. Vessels can use up to total in each area. Carryover of 4 DAS still allowed. RSA deduction to be subtracted. **NEW:** “If the Councils select options in each area that add up to a total that exceeds the current 46 DAS allocation, then there would be a cap of 46 DAS total for an individual vessel.”

NEFMC
preferred
alternative

NFMA DAS options (select one)

- Option 2A – Set NFMA DAS at 35 DAS.
- Option 2B – Set NFMA DAS at 30 DAS.
- Option 2C – Set NFMA DAS at 20 DAS.
- Option 2D – Set NFMA DAS at 10 DAS.

SFMA DAS options (select one)

- Option 2A – Set SFMA DAS at 35 DAS.
- Option 2B – Set SFMA DAS at 30 DAS.
- Option 2C – Set SFMA DAS at 20 DAS.
- Option 2D – Set SFMA DAS at 10 DAS.

NEW: Option 2E – Set SFMA DAS at 37 DAS

Preferred
Options

Jan 23 AP and Committee recommendations

Action 2 – Effort Controls

- AP recommended
 - Alternative 2, Option A for North and South (35 DAS). (8/0/0)
- Cte recommended
 - Alternative 2, Option A for North (35 DAS) and new Option for South (37 DAS). (11/0/1; 10/0/1)
 - Supported the 46 DAS use cap across both areas as drafted by the PDT (10/0/1).
- Rationale: Would reduce effort in the North to help constrain landings within the new TALs, and in the South, fishery expected to be within TAL. 37 DAS for South is like status quo. Feels that stock is in a healthy condition. Use cap would help overall effort to not increase, though DAS allocation is increasing from 46 to 72.
- Cte asked Council to ask NEFSC to investigate Ismooth assumptions and develop a detailed research plan to prepare for next research track assessment to help improve assessment accuracy and consistency with fishermen observations (10/0/1).

Impacts: Action 2 – Effort Controls

How would effort, landings change? See Tables 37 & 38 (p. 81 & 82)

	% Monk Landings using MNK DAS	# Vessels Impacted by DAS reduction	Keep landings within Oct SSC TALs?	Keep landings within Jan SSC TALs?
NORTH	14%	3-23	Only Options C (20 DAS) and D (10 DAS)	Yes, all 4 options
SOUTH	73%	17-61	Only Option D (10 DAS)	Yes, all 4 options

Notes: RSA landings data not included in impact analysis; analysis doesn't quantify any changes in discards.

Impacts: Action 2 – Effort Controls

Target Species – Monkfish

- Alt 1 (46 DAS). No change in fishing effort, may not prevent exceeding ACLs/ABCs (negligible to slight –).
- Alt 2 (DAS ↓). Likely to reduce #/length of trips in the S, minimal effect in N (slight - to moderate +).

Economic and Social

- Alt 1 (46 DAS). Fishery continues as is; no reduction in revenue/profit; TALs likely to be exceeded (negligible to slight -).
- Alt 2 (DAS ↓). 1-yr losses in profit (up to \$413k in N, \$36k-712k in S); mostly impacts directed fishery (slight – to negative).

RSA – Recent Activity

- **June 2022:** NEFMC approved priorities for 2023-2024 Monkfish RSA program
 - NOAA indicated that a Request for Proposals for 2023-2024 not likely
- **November 2022:** AP, Committee discussed potential future priorities
- **December 2022:** Scientists, fishermen expressed interest in participating in 2023 Monkfish RSA to NOAA
- **January 2023:** PDT, AP, Cte reviewed, commented on RSA priorities
 - **TODAY:** make final recommendations on what Council recommends for research priorities
- Next
 - MAFMC will approve
 - NOAA expected to proceed with Request for Proposals after Councils approve monkfish RSA priorities (see Jan 18 NOAA letter to Councils)

Committee Recommendation (10/0/0)

- No AP motion, just comments
- Highest Priority
 1. Development of alternative stock assessment models, and analyze existing survey indices (e.g., dredge survey) for potential use in the Ismooth model and/or alternative assessment;
 2. Develop a standardized CPUE index for the commercial directed monkfish gillnet fishery for potential use in the assessment;
- Other Priorities (not in priority order):
 3. Research on monkfish life history focusing on: (a) age and growth, (b) longevity, (c) reproduction and (d) natural mortality;
 4. Trawl and gillnet gear studies focusing on (a) bycatch reduction, including reducing interactions, and injury/mortality associated with these interactions, with sea turtles, Atlantic sturgeon, right and humpback whales, and other protected species and (b) size and/or species selectivity;
 5. Research on the pingers used for monkfish gillnet gear to reduce porpoises, so that interaction with seals is reduced;
 6. Research to improve the monkfish market (e.g., increasing domestic demand, making new markets); and.
 7. Research on discard mortality rates for gillnet and trawl gear (scallop dredge discard mortality rate was adjusted down in the 2022 assessment based on research. Need research for other gears).

Background slides



New England
Fishery Management Council

NEFMC meeting on December 7

Rationale:

- Substantial concern about whether the Ismooth approach is appropriate for setting monkfish catch advice.
- Trawl survey may not be catching monkfish consistently.
- Fishery landings have been low recently due to the pandemic, low prices, trip costs.
- Alternative 1 (ACL = 0) is not practical, Alternative 2 (ABC > SSC recommendation) not viable, and Alternative 3 has substantial economic impacts.
- An average of the Ismooth approach and recent ABC approach for these specifications would help the fishery transition to using Ismooth in the future.

Other Council comments:

- Council understands that the request means the Council is willing to accept a higher level of risk of overfishing in making the transition to the correct use of the Ismooth method for setting catch advice.
- Council is willing to have the SSC consider an alternate ABC-setting approach should the specific request be deemed inappropriate.

What are the FMP Objectives?

Objectives unchanged from original FMP (1998):

1. To end and prevent overfishing; rebuilding and maintaining a healthy spawning stock;
2. To optimize yield and maximize economic benefits to the various fishing sectors;
3. To prevent increased fishing on immature fish;
4. To allow the traditional incidental catch of monkfish to occur.

Brief History of OFLs & ABCs

<p style="text-align: center;">FY 2011-2013</p>	<ul style="list-style-type: none"> • Control rules adopted (Amendment 5) <ul style="list-style-type: none"> • OFL = fishing mortality threshold (F_{max}) * current exploitable biomass ($B_{current}$) • ABC = avg recent exploitation rate * current exploitable biomass ($B_{current}$) • Analytical assessment (2010); status: not overfished, overfishing not occurring • Specifications set using control rules
<p style="text-align: center;">FY 2014-2016</p>	<ul style="list-style-type: none"> • Analytical assessment (2013); status: not overfished, overfishing not occurring • Specifications informed by control rules; biomass above targets but retrospective patterns and low recruitment • OFL lowered: 17,805 mt in North; 23,204 mt in South • ABC status quo: 7,592 mt in North; 12,316 mt in South

Brief History of OFLs & ABCs

FY 2017-2019

- Assessment (2016)
 - Rejected age and growth model, no estimate of absolute biomass or fishing mortality rate; strong 2015 recruitment event observed; **status: unknown.**
 - Ismooth approach: Trawl survey multiplier * latest 3-year average catch = catch advice; multipliers were 1.02 in North, 0.87 in South
- PDT and SSC rejected control rules, considered a few ABC approaches, catch < TAL, expected recruitment event to enter fishery.
 - Trawl survey multiplier * latest 3-year average catch = OFL; ABC = 0.75*OFL
 - Trawl survey multiplier * latest ABC = ABC
 - Trawl survey multiplier * latest ACT = ABC
- OFL status quo: 17,805 mt in North; 23,204 mt in South
- ABC status quo: 7,592 mt in North; 12,316 mt in South
- **NOAA did not formally change stock status.**

Brief History of OFLs & ABCs

FY 2020-2022

- Assessment (2019) used Ismooth for catch advice; survey index increased in 2016-2018 but declined in 2019. Did the 2015 year-class recruit to fishery? Multipliers = 1.2 in North, 1.0 in South.
Status: unknown.
- PDT recommendations
 - OFL = status quo
 - ABC = Trawl survey multiplier * latest ABC; changed North multiplier to 1.1
- SSC recommended undetermined OFL, accepted PDT's ABCs.
- OFL status quo: 17,805 mt in North; 23,204 mt in South
- ABC status quo: 8,351 mt in North; 12,316 mt in South
- **NOAA did not formally change stock status.** Concurrent workgroup on consistency in changing stock status from known to unknown.

Affected Environment

Table 25. FY 2019 & 2021 average landings, vessels, trips by Plan code.

Declaration/ Plan Code	Program Code Description	DAS used	Whole weight, live lb (mt in parentheses)	# of Vessels	# of Trips
		NORTH			
Monkfish	<i>Monkfish Northern Management Area Common Pool Vessel Trip</i>	Monkfish and Northeast Multispecies	C	C	C
	<i>Monkfish Northern Management Area Sector Vessel Trip</i>	Monkfish and Northeast Multispecies	1,347,155 (611)	21	222
	<i>Monkfish Northern Management Area Monkfish-Only Vessel Trip</i>	Monkfish	26,851 (12)	6	20
Northeast Multispecies	<i>Multispecies Common Pool Vessel Trip</i>	Northeast Multispecies	55,255 (25)	5	100
	<i>Multispecies Sector Vessel Trip</i>	Northeast Multispecies	8,289,963 (3,760)	99	2,992
Scallop	<i>Special Access Area</i>	Scallop	43,979 (20)	20	28
	<i>Limited Access General Category</i>	Scallop	17,145 (8)	19	223
	<i>Limited Access</i>	Scallop	12,611 (6)	7	11
Other	<i>Herring; undeclared; surfclam, ocean quahog, mussel; squid, mackerel, butterfish</i>	-	61,447 (28)	22	469
	Declared out of Fishery (DOF)	-	10,820 (5)	11	32
NORTH Landings Total			> 9,865,226 (4,475)		

**NO
monkfish DAS**



Affected Environment

Table 25. FY 2019 & 2021 average landings, vessels, trips by Plan code.

		SOUTH			
Monkfish	<i>Monkfish Southern Management Area Common Pool Vessel Trip</i>	Monkfish and Northeast Multispecies	62,203 (28)	5	25
	<i>Monkfish Southern Management Area Sector Vessel Trip</i>	Monkfish and Northeast Multispecies	493,536 (224)	15	178
	<i>Monkfish Southern Management Area Monkfish-Only Vessel Trip</i>	Monkfish	3,200,563 (1,452)	50	1,183
Northeast Multispecies	<i>Multispecies Common Pool Vessel Trip</i>	Northeast Multispecies	50,555 (23)	14	145
	<i>Multispecies Sector Vessel Trip</i>	Northeast Multispecies	100,963 (46)	27	482
Scallop	<i>Special Access Area</i>	Scallop	168,319 (76)	91	210
	<i>Limited Access General Category</i>	Scallop	87,994 (40)	56	986
	<i>Limited Access</i>	Scallop	145,156 (66)	69	106
Other	<i>Herring, undeclared, surfclam/ocean quahog/mussel and squid/mackerel/butterfish</i>	-	575,484 (261)	243	2,195
DOF		-	293,271 (133)	152	2,094
SOUTH Landings Total			5,178,044 (2,349)		

NO monkfish DAS

