

# Skate Advisory Panel Meeting

June 12, 2023  
Webinar

# AP Introductions

## Skate Advisory Panel

Dr. Jeff Kneebone, MA (Chair)

James Dopkin, NJ

Patrick Duckworth, RI

Sonja Fordham, DC

Andrea Incollingo, RI

Gregory Mataronas, RI

Randall Morgan, MD

Daniel Nordstrom, RI

Ted Platz, RI

John Whiteside, MA

## Skate Committee

Scott Olszewski, RI DEM (Chair)

## Council Staff

Dr. Rachel Feeney (PDT Chair)

Connor Buckley

# AP Agenda

- 1:00** Introductions, approve agenda, timeline and other updates (assessment)
- 1:20** Thorny skate white paper (progress update, recommend finalizing and next steps)
- 2:10** Skate possession limits (performance data, recommend alternatives?)
- 4:50** Other business
- 5:00** Adjourn



# Skate Timeline: 2023

	Thorny Skate White Paper	Management Track Assessment	2024-2025 Specifications and other measures	2024 Management Priorities	Meeting/Date
Jan					
Feb	Input on outline, drafting	Brief update	Review action plan, discuss scope		2/17 PDT
March	Provide input	Brief update	Provide input		3/22 AP
	Review progress, provide direction	Brief update	Review progress, provide direction		3/22 Cte
April	Continue drafting	Brief update	Develop possession limit analyses		4/11 PDT
	Progress update	Brief update	Progress update		4/18-20 NEFMC
May	Finalize draft		Develop possession limit analyses		5/18 PDT
		Oversight Panel			5/22 AOP
June	Receive final draft, recommend next steps		Provide input re possession limits		6/12 AP
	Receive final draft, recommend next steps		Review progress, provide direction re possession limits		6/14 Cte
	Receive final draft		Progress update, may initiate action (if framework)		6/28-30 NEFMC
July			PDT developing action		7/10 PDT
August					
Sept			Provide input	Recomends draft	early Sept AP
			Review progress, provide direction	Recomends draft	early Sept Cte
		Peer Review			9/18-22 peer review
		Update	Initiate action (if framework)	Sets draft	9/26-28 NEFMC
Oct		Report available	PDT develops ABC		early Oct PDT
			SSC recommends ABC		10/11 SSC
			PDT finalizes alternatives, impacts		late Oct/early Nov PDT
Nov		Receive report, peer review	Preferred alternatives		Mid-Nov AP
		Receive report, peer review	Preferred alternatives		Mid-Nov Cte
Dec		Receive report, peer review	Final action	NEFMC finalizes	12/5-7 NEFMC

We are here →



## FY 2023

- Wing: 8% of Season 1 quota landed so far (May 1 – Aug 31), similar rate as FY 2022.
- Bait: 5% of Season 1 quota landed so far (May 1 – July 31), slower than FY 2022.

	TAL	Landings	
	lb	lb	%
<b>FY 2019</b>			
Wing	23,146,333	18,620,780	80%
Bait	11,660,249	8,537,124	73%
<b>Total</b>	<b>34,806,582</b>	<b>27,157,904</b>	<b>78%</b>
<b>FY 2020</b>			
Wing	26,188,712	20,200,770	77%
Bait	13,192,462	7,496,802	57%
<b>Total</b>	<b>39,381,174</b>	<b>27,697,572</b>	<b>70%</b>
<b>FY 2021</b>			
Wing	26,188,712	10,762,565	41%
Bait	13,192,462	6,361,527	48%
<b>Total</b>	<b>39,381,174</b>	<b>17,124,092</b>	<b>44%</b>
<b>FY 2022</b>			
Wing	30,994,753	12,766,450	37%
Bait	15,613,119	8,455,545	50%
<b>Total</b>	<b>46,610,076</b>	<b>21,221,995</b>	<b>46%</b>



# 2023 Skate Management Track Assessment

- Assessment Oversight Panel on May 22 reviewed and commented on skate assessment plan, set this as “Level 3” assessment.
- Will investigate each issue listed in the Council’s April 26 letter:
  - Adding recreational data in the fishery catch time series.
  - Evaluating methods for attributing commercial landings and recreational catch by species.
    - Current: species and length-frequency data in bottom trawl survey used to attribute fishery catch by species.
    - Potential: for species with possession restrictions, assume a level of fishery compliance; may cause shifts between landings and discards for species; not changing total catch.
  - Evaluate biomass target for thorny skate.
  - Update and report on abundance indices from the Gulf of Maine longline survey.

# 2023 Skate Management Track Assessment

- Other work expected:
  - Update the data time series used to calculate  $MSY_{proxy}$  and consider how frequently it should be updated.
  - Update abundance indices for the fall and spring bottom trawl surveys for all species.
  - Evaluate the potential for revising which survey is used to calculate biomass indices (e.g., averaging spring and fall survey vs using spring only for little skate and fall for all other skates per Original FMP).
  - Update abundance indices for surveys other than NEFSC bottom trawl and Gulf of Maine longline survey; include in report for perspectives on abundance trends.
  - Developing catch advice using the index-based skate method but examining other index-based method(s) as backup.
- September 18-22 peer review.



# 1:20 p.m.

## Thorny skate white paper

### Purpose

- Review progress on developing white paper
- Develop final recommendations

### Relevant documents

2 – Draft white paper



- Added trends from ASMFC shrimp survey, Mass inshore survey, ME-NH trawl survey (p.4).
- Added data showing a large decline in thorny skate across southern extent of range (IUCN assessment, p.5,13).
- Added research on the potential effects from offshore wind development on thorny skate recovery (p.6-7).
  - Results suggest floating offshore wind development likely to have minor/moderate affect on skates and other demersal species.
- Developed section on potential approaches to support rebuilding (p.8-9).
- Developed section summarizing ongoing research and research needs (p.9)
- Added biomass map (p.12).
- Added dealer reported and NEFSC calculated landings of thorny skate, landings of thorny skate relative to total skate landings (p.14-15).
  - NEFSC estimated landings are  $\leq 1\%$  total skate landings; dealer-reported are lower.
  - Roughly half of estimated thorny skate catch are dead discards.

# Potential Approaches

Approach	PDT notes/recommendations
Continue prohibition on thorny skate possession	Little evidence that species can support a fishery. Would allow opportunity to rebuild. Winter, barndoor, and smooth skate rebuilt. More needed?
Designate closed areas to minimize thorny skate bycatch	A sedentary species. Several existing closures in Gulf of Maine. PDT could examine degree of overlap with existing closures.
Consider gear configurations that reduce thorny skate bycatch	Skate FMP does not have gear measures, especially in Gulf of Maine. More literature review needed on potential gear solutions. Gear to exclude just thorny skate?
Revisit rebuilding plan	If assessment concludes thorny is still overfished, Council likely to be informed that there is inadequate progress towards rebuilding. New rebuilding plan needed.
Other potential approaches beyond the Council process	Could coordinate through NAFO to promote recovery.



# Discussion Questions

- Are there any additional/final recommendations for revising the white paper? For example:
  - Other research to include?
  - Other measures to explore?
- Are there recommendations on next steps to promote thorny skate rebuilding?

*Note:* Recommendations other than finishing this paper, the stock assessment, and development of specifications would require a change to 2023 Council work priorities.



# 2:10 p.m.

## 2024-2025 Specifications Action

### Purpose

- Continue discussion on if possession limits should change, especially barndoor and smooth skate restrictions
- Potentially recommend alternatives

### Relevant documents

3 – discussion document

**Table 3. Skate seasonal management with FY 2020-2023 possession limits.**

Fishery	Season	Dates	% of TAL	Possession Limit	Trigger	Incidental Limit
Wing	1	May 1 – Aug 31	57%	3,000 lb wing weight (6,810 lb whole weight)	85% of seasonal TAL	500 lb wing weight (1,135 lb whole weight)
	2	Sept 1 – Apr 30	remainder	5,000 lb wing weight (11,350 lb whole weight)	85% of annual TAL	
Bait	1	May 1 – Jul 31	30.8%	25,000 lb whole weight	90% of seasonal TAL	8,000 lb whole weight
	2	Aug 1 - Oct 31	37.1%		90% of seasonal TAL	
	3	Nov 1 – Apr 30	remainder		80% of annual TAL	

## Barndoor skate

- Declared overfished in 1999, possession prohibited.
- Declared rebuilt in 2016, possession allowed since FY 2018, 25% of wing limit.

## Smooth skate

- Declared overfished in 1999, possession prohibited in GOM (doesn't occur elsewhere).
- Declared rebuilt in 2018, possession still prohibited.

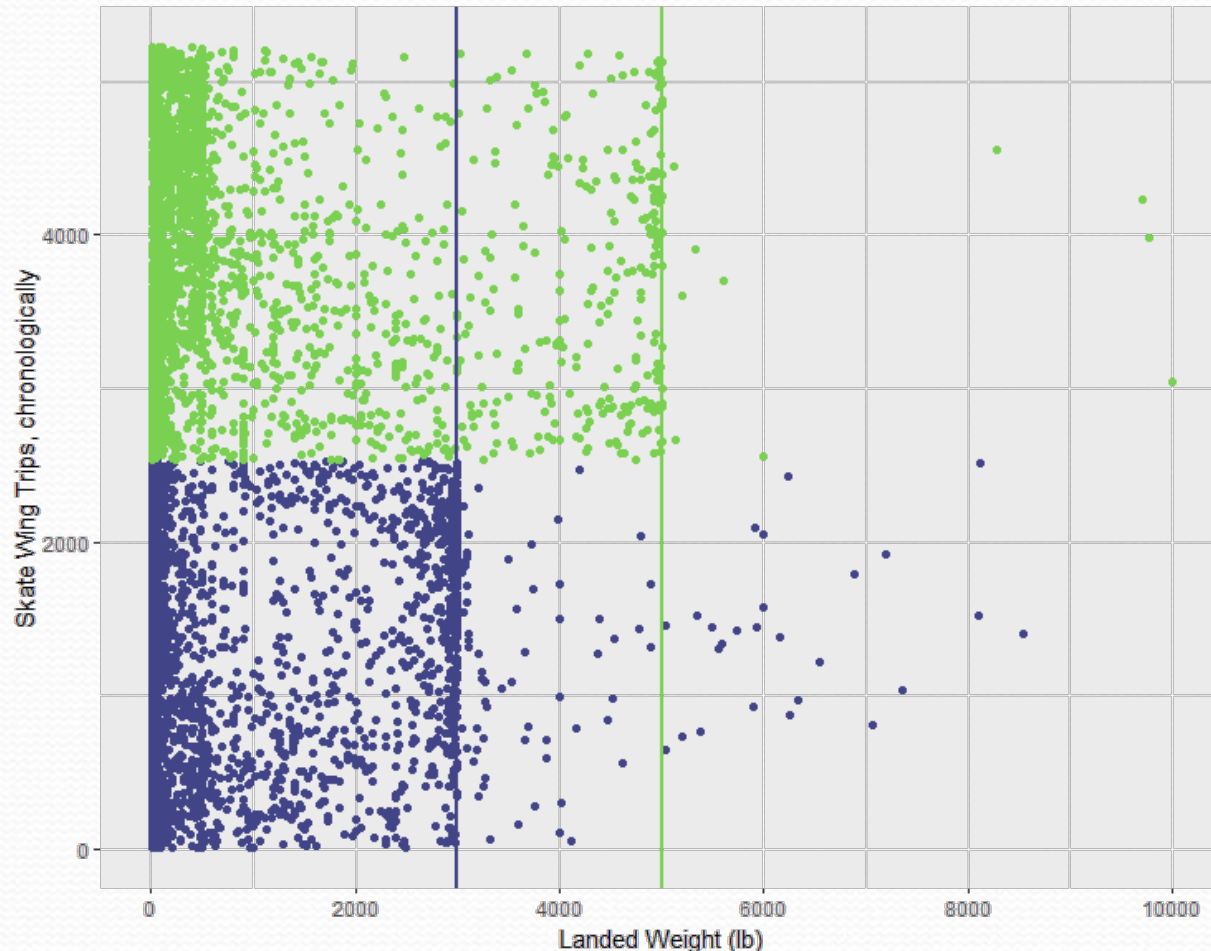


# Committee Tasking in March

- Develop information that would support decisions about:
  - Increasing possession limits in the wing and bait fishery,
  - Allowing possession of smooth skate,
  - Increasing the barndoor skate partial possession limit in the wing fishery (currently 25%).
- The Committee is interested in exploring approaches to increase barndoor possession such as having a separate barndoor limit, removing the barndoor partial possession, allowing incidental possession of barndoor, etc.
- This would help evaluate if there are opportunities to turn discards into landings and increase efficiency in the fishery.



Figure 3. Skate wing landings relative to possession limits by trip and season, FY 2021



- Trips in Season 1 (with a lower PL) tend to near the wing PL more so than in Season 2.
- No clear difference in the proportion of trips  $\pm 10\%$  of the PL between FY 2018-2019 and FY 2020-2021.
- $\sim 60\%$  of wing trips landed  $\leq 500$  lb wing weight.
  - 7 trips used a NMS B-DAS (220 lb PL).
  - 36% were **NOT** using a DAS (500 lb PL).
    - 15-18% of these trips landed  $\pm 10\%$  of the PL, 72-82% landed below limit.
    - Non-DAS trips were DOF and NMS Sector trip not using DAS.
  - The remainder of trips were subject to the general skate wing limit.

# Wing Possession Limits: Landings

- ~2% of wing trips appear to exceed PL. Reasons include:
  - Skates landed whole, and the dealer processed the wings (landed weight = live weight)
  - Vessels landing aggregated landings,
    - Federal fishing permit number ending in #998 that may fish in state waters and land an aggregate federal possession limit.
    - State-only permit landings by multiple vessels submitted by a state in aggregate (mostly a historic occurrence)
    - Single vessels landing aggregated possession limit (e.g., allowed in Rhode Island)
  - Miscoding between wing and bait disposition codes;
  - Data entry errors; or
  - Fishing activity that is inconsistent with regulations.



# Wing Possession Limits: Landings

Table 11. Skate wing trip landings by proportion of catch and possession limit performance, FY 2018 – 2021.

Catch	Mean proportion of landings by weight	
	Below PL	±10% of PL
Skate wing	18%	66%
Monkfish	16%	9%
Scup	10%	< 1%
Fluke	10%	< 1%
Silver hake	7%	< 1%
Dogfish	7%	18%
Loligo squid	7%	< 1%
Bait skate	3%	2%

- +/- 10% of PL
  - Mostly skate wings and dogfish.
  - Directed skate trips.
- Below PL
  - Greater species diversity of catch.



# Wing Possession Limits: Discards

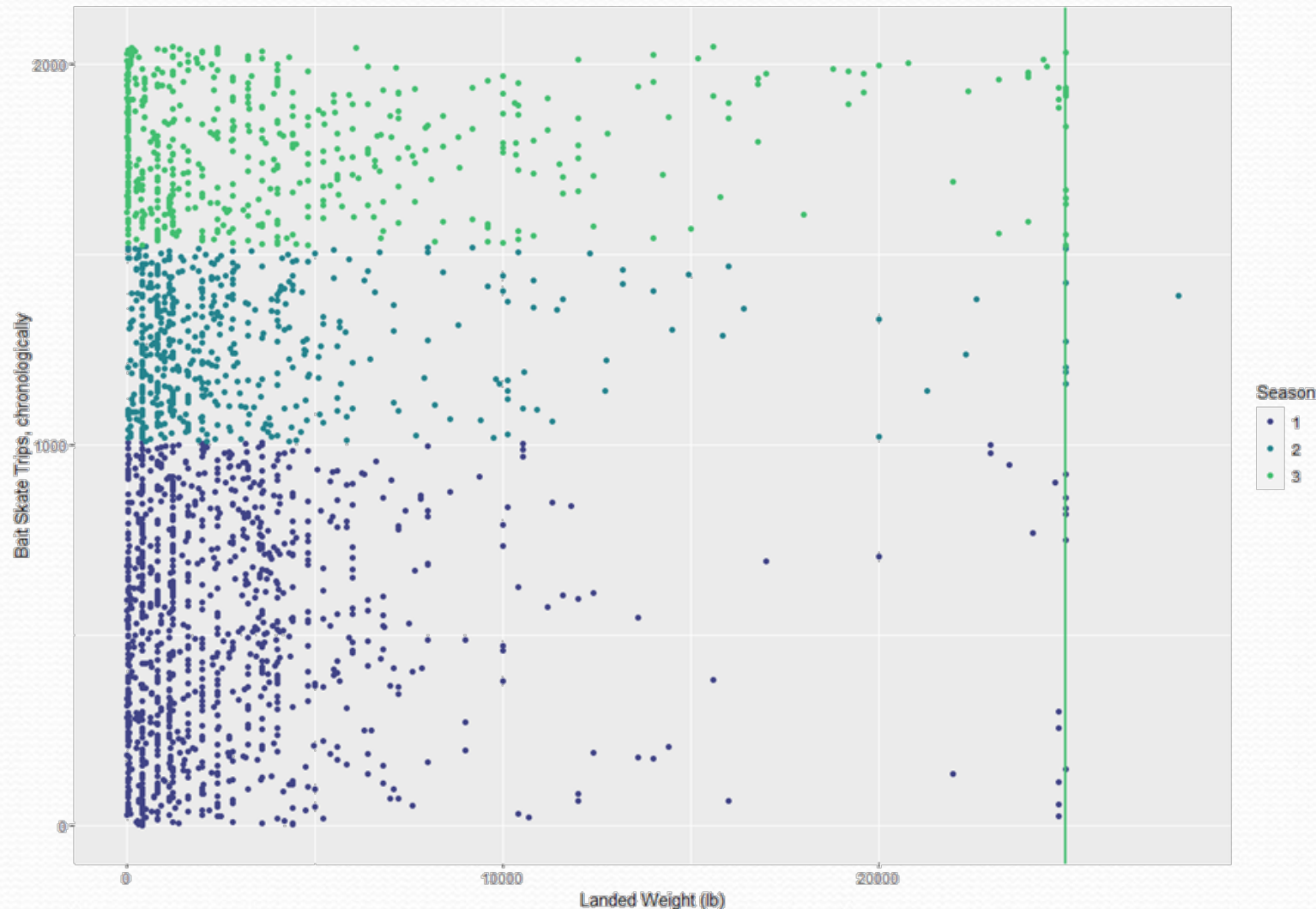
Table 10. Live skate discards on observed trips landing skate wings

FY	Below PL		+/- 10% of PL	
	Mean	# of trips	Mean	# of trips
2018	211 lb	819	458 lb	59
2019	201 lb	777	422 lb	89
2020	625 lb	155	7,588 lb	18
2021	180 lb	417	338 lb	63

- Trips landing  $\pm 10\%$  of the PL discarded significantly more than trips landing below the limit ( $p=.00006$ ).
- Non-DAS trips landing  $\pm 10\%$  of the 500 lb PL discarded significantly more skates than those landing below the limit ( $p<.000001$ ).
- 33 trips had discards  $> 50,000$  lb; one trip had discards  $> 100,000$  lb.

# Bait Possession Limits: Landings

Figure 5. Bait skate landings relative to possession limits by trip and season, FY 2021



- 2-7% of trips landed skate bait close to or at the seasonal possession limits from FY 2018 – FY 2021.
- Small number of trips (<1%) exceed possession limits.



# Bait Possession Limits: Landings

Table 13. Bait skate trip landings by proportion of catch and possession limit performance, FY 2018 – 2021.

Catch	Mean proportion of landings by weight	
	Below PL	± 10% of PL
Bait skates	63%	93%
Fluke	8%	2%
Skate wings	6%	< 1%
Scup	5%	1%
Dogfish	3%	3%
Monkfish	3%	< 1%
Silver hake	2%	< 1%

- ± 10% of PL
  - Mainly bait skate.
  - Directed fishing.
- Below PL
  - Greater species diversity of catch.



# Bait Possession Limits: Discards

**Table 12. Live skate discards on observed trips landing bait skates**

FY	Below PL		+/- 10% of PL	
	Mean	# of trips	Mean	# of trips
2018	665 lb	176	180 lb	14
2019	952 lb	223	1,346 lb	25
2020	391 lb	21	360 lb	4
2021	652 lb	158	8,240 lb	3

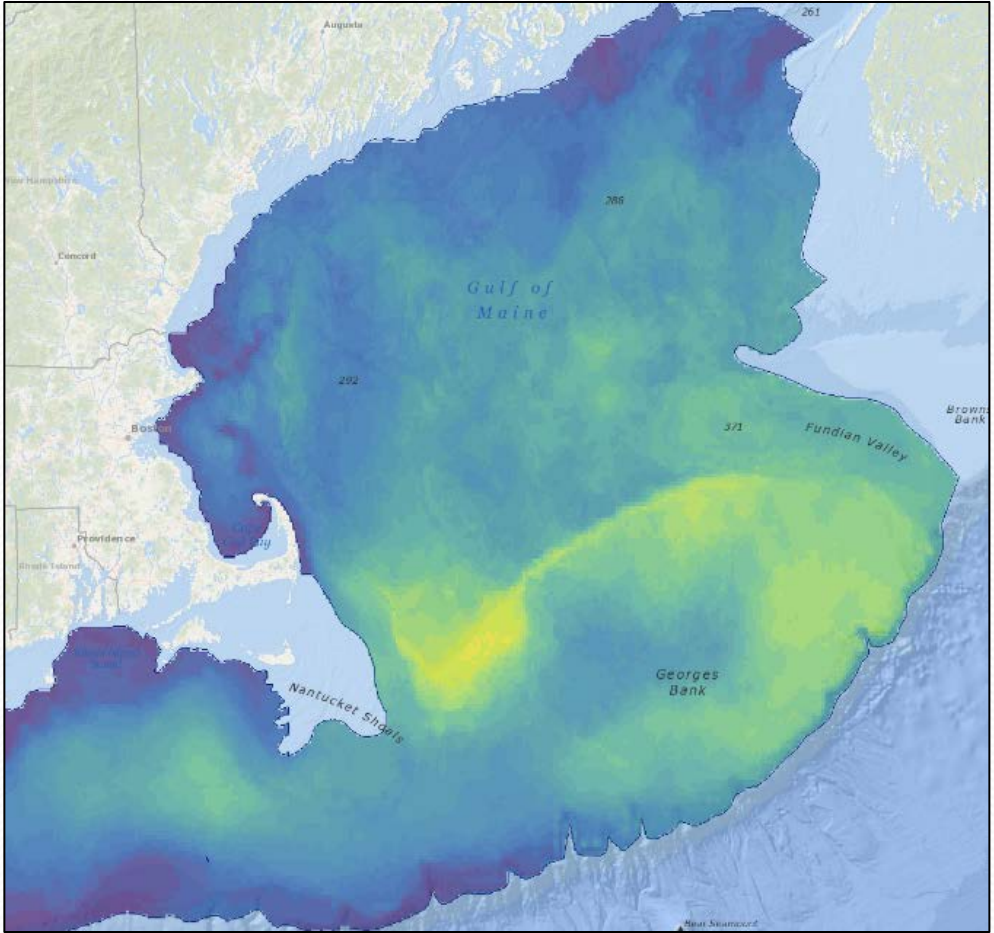
- Discards for trips landing  $\pm 10\%$  were not significantly different than trips landing below the limit ( $p=.4896$ ).

# Barndoor Skate Catch

- Trips landing within 10% of the partial possession limit discarded a larger proportion of their barndoor catch (9%) than those landing below the limit (1%).
- The proportion of trips landing within 10% of the limit increased in FY 2020 – 2021 relative to FY 2018 – 2019, despite a higher overall skate possession limit.

**Table 14. Barndoor skate partial possession limit performance, FY 2018 - 2021**

FY	Below limit		Within 10% of limit		Total
	# of trips	% of trips	# of trips	% of trips	# of trips
2018	293	94.2%	18	5.8%	311
2019	608	91.8%	54	8.2%	662
2020	367	85.5%	62	14.5%	429
2021	379	88.3%	50	11.7%	429

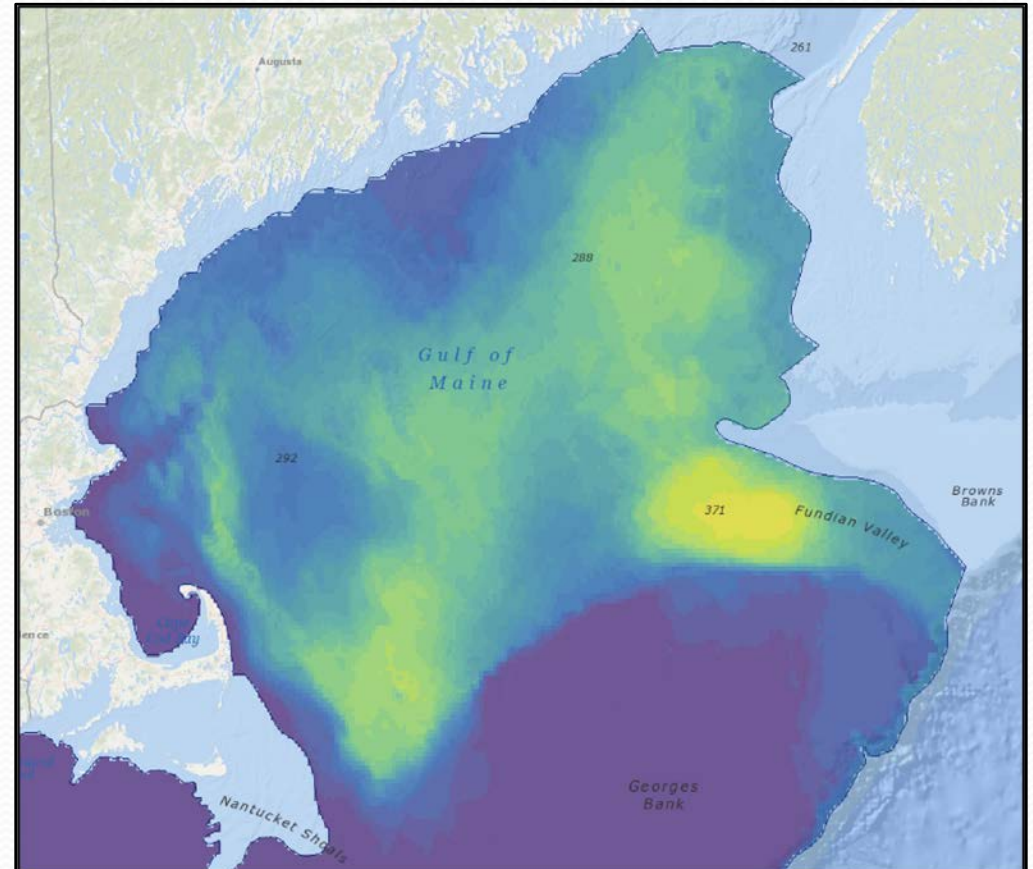




- Otter trawl gear is mainly responsible for smooth skate discards, mostly in eastern and southern Gulf of Maine.
- Allowing possession would not affect the directed bait skate fishery in Southern New England but would affect the groundfish fishery in the Gulf of Maine.

**Table 15. Smooth skate estimated discards, CY 2016-2019**

CY	Longline	Gillnet	Dredge	Trawl	Total
<b>2016</b>	1 mt	13 mt	73 mt	312 mt	399 mt
<b>2017</b>	1 mt	10 mt	105 mt	249 mt	365 mt
<b>2018</b>	<1 mt	13 mt	151 mt	169 mt	334 mt
<b>2019</b>	< 1 mt	24 mt	127 mt	180 mt	313 mt





# PDT Recommendations

## **Barndoor:**

- If expanding barndoor possession, reintegrate into the complex without restrictions for the bait fishery or incidental catch. Would simplify harvesting, management, and enforcement.
- Removing the 25% partial possession limit would eliminate a choke species for the fishery.
- Don't create separate barndoor skate possession limit. Doing so would pose added challenges for both enforcement and the fishery.

## **Smooth:**

- If the 2023 skate assessment indicates that smooth skate biomass is stable, reintegrating the species into the complex would ease enforcement and potentially shift discards into landings.
- Like barndoor skate, merge smooth skate back into the skate complex as opposed to keeping management of the species separate.

# Discussion Questions/Notes

- Should the possession limits in place for FY 2022-2023 be maintained in FY 2023-2024 or should adjustments be considered? How so?
  - The possession limits for wing and/or bait?
  - The wing possession limit for B-DAS (220 lb) and non-DAS (500 lb) trips?
- Should alternatives be considered that would change:
  - The partial possession limit for barndoor skate in the wing fishery?
  - The possession prohibition for smooth skate?
- The Council would need to initiate a framework adjustment action to consider the species-specific possession limits.



4:50 p.m.  
Other business



Webinar technical assistance: [helpdesk@nefmc.org](mailto:helpdesk@nefmc.org)

# Extra / back pocket slides



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# Skate Reference Points

- Skates are been assessed as a complex using an index-based method and proxies used to identify Maximum Sustainable Yield and the Biomass at MSY ( $B_{MSY}$ ).
  - Issues with species identification in fishery catch.
  - Skate population dynamics largely unknown.
- NEFSC bottom trawl data (spring survey for little skate, fall for other skate) used to indicate relative abundance.
- $B_{MSYproxy} = B_{target}$  = the 75<sup>th</sup> percentile (average for barndoor) of its survey biomass index, measured in kg/tow during a specific set of years for each species.
- Skate complex  $MSY_{proxy}$  calculated by:
  - “Catch” is total landings from dealer data, vessel to vessel transfers from VTR data and dead discards (kg).
  - “Biomass” is the survey biomass index (kg/tow).
  - The  $MSY_{proxy}$  for each species is the median catch/biomass across the entire time series is multiplied by its  $B_{MSYproxy}$  (kg/tow). Then, sum all seven skate  $MSY_{proxies}$ .

# Skate Reference Points

- Last formal assessment was in 2008, but NEFSC has updated stock status annually.
- Because of reliance on proxies, fishing mortality rates are undetermined.
- Overfishing definition:
  - If the % change in the 3-year moving average of the survey biomass index  $>$  average CV of the index time series, then fishing mortality is assumed to be  $> F_{MSY}$   $\rightarrow$  then overfishing is occurring.
- Overfished definition:
  - If 3-year moving average of survey biomass index  $< B_{threshold}$   $\rightarrow$  then overfished.
  - Where  $B_{threshold} = 0.5 * B_{MSYproxy}$
- ABC Control Rule:
  1. For each species, multiply the median ratio of catch/biomass for time series by the 3-year moving average stratified mean biomass.
  2. Sum over the seven skate species in the management unit.