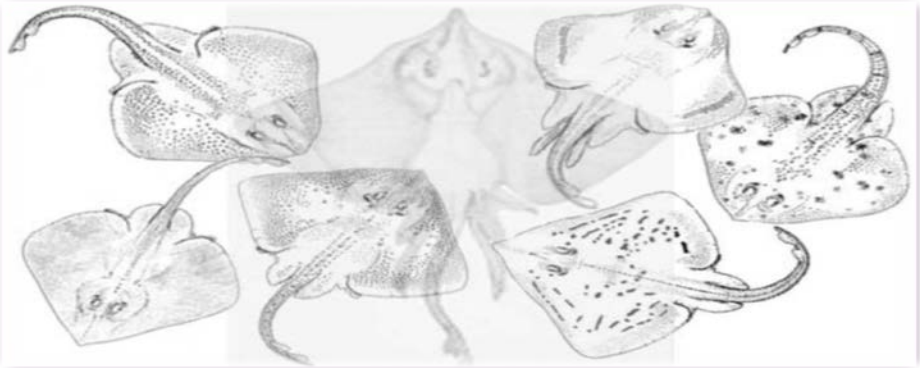
Northeast Skate Complex

Fishery Management Plan

Framework Adjustment 9



DRAFT

As of January 20, 2022

for February 1-3, 2022, Council meeting

Prepared by the

New England Fishery Management Council

In consultation with the

National Marine Fisheries Service

New England Fishery Management Council

NOAA

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Preliminary Submission:	Month ##, 20##
Final Submission:	Month ##, 20##

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FRAMEWORK ADJUSTMENT 9 TO THE NORTHEAST SKATE COMPLEX FISHERY MANAGEMENT PLAN

Proposed Action: Propose a ???? [to be written after the Council takes final action].

Responsible Agencies:

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Abstract:

The New England Fishery Management Council, in consultation with NOAA's National Marine Fisheries Service, has prepared Framework Adjustment 9 to the Northeast Skate Complex Fishery Management Plan, which presents the range of alternatives to achieve the goals and objectives of the action. The proposed action focuses on …??? [to be written after the Council takes final action]. The document addresses the requirements of the Magnuson-Stevens Fishery Conservation and Management Act, the Regulatory Flexibility Act, and other applicable laws.

1.0 EXECUTIVE SUMMARY

[to be written]

2.0 TABLE OF CONTENTS

2.1 TABLES

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2.3 ACRONYMS

ABC	Acceptable Biological Catch	MSA	Magnuson-Stevens Fishery Conservation and Management Act
ACL	Annual Catch Limit	NEFMC	New England Fishery Management Council
AP	Advisory Panel	NEFSC	Northeast Fisheries Science Center
CPH	Confirmation of Permit History	NMFS	National Marine Fisheries Service
EEZ	Exclusive economic zone	NOAA	National Oceanic and Atmospheric Administration
FMP	Fishery management plan	PDT	Plan Development Team
FW	Framework	SAFE	Stock Assessment and Fishery Evaluation
FY	Fishing year	TAL	Total allowable landings
GARFO	Greater Atlantic Regional Fisheries Office	VTR	Vessel trip report
LOA	Letter of authorization		
MRIP	Marine Recreational Information Program		

3.0 INTRODUCTION

The Northeast Skate Complex Fishery Management Plan (FMP) contains the management measures for seven skate species (barndoor, clearnose, little, rosette, smooth, thorny, and winter skates) off the New England and Mid-Atlantic coasts. The FMP has been updated through a series of amendments, framework adjustments, and specification packages.

This framework adjustment to the Northeast Skate Complex Fishery Management Plan stems from the development of Amendment 5, through which the Council considered revising FMP objectives and developing a limited access skate permit and other measures that may prevent the triggering of incidental possession limits, improve catch reporting, and more clearly define participants in federal skate fishery. In September 2021, the Council decided to stop work on Amendment 5 and initiate a framework adjustment to further consider a sub-set of the issues developed through Amendment 5: updating the FMP objectives and revising the conditions of the open-access federal skate permit.

[The following problem statement and goals were added by the Committee in November.]

Problem Statement for Framework Adjustment 9

> There is a need to improve the reliability and accountability of catch reporting in the skate fishery (and other fisheries that catch skate) to ensure there is precise and accurate representation of catch (landings and discards). Accurate catch data are necessary to ensure that catch limits are set at levels that prevent overfishing and to determine when catch limits are exceeded. Additionally, the goal and objectives of the Northeast Skate Complex Fishery Management Plan are unchanged since the original FMP was adopted in 2003, and a few aspects of the objectives are out of date.

Goals of Framework Adjustment 9

1. Improve skate data, leading to more effective in-season monitoring, improved assessments (e.g., no longer be considered data-poor), and more precise and accurate understanding of the landings and discards in different segments of the fishery.
2. Better understand the true potential for vessels to enter the fishery.
3. Minimize the impact on any other fisheries that have interactions with skates and to avoid restricting the ability to transfer permits, upgrade vessels, and place limited access permits in Confirmation of Permit History (CPH).
4. Update the FMP objectives to reflect current stock status and rebuilding progress and to reflect how the Council identifies research priorities.

4.0 GOAL AND OBJECTIVES OF NORTHEAST SKATE COMPLEX FMP

The goal and objectives of the Northeast Skate Complex Fishery Management Plan are unchanged since the original FMP was adopted in 2003. However, an update to Objectives 2 and 5 are being contemplated in this action (Section 4.2).

4.1 EXISTING FMP GOAL AND OBJECTIVES

Goal: Consistent with the requirements of the Magnuson-Stevens Fishery Conservation and Management Act and other applicable laws, to develop a Fishery Management Plan to research and manage the Northeast Skate Complex at long-term sustainable levels.

Objective 1: Collect information critical for substantially improving knowledge of skate fisheries by species and for monitoring: (a) the status of skate fisheries, resources, and related markets and (b) the effectiveness of skate management approaches.

Objective 2: Implement measures to: protect the two currently overfished species of skates (barndoor and thorny) and increase their biomass to target levels, reduce fishing mortality on winter skate, and prevent overfishing of the other species in the Northeast skate complex – this may be accomplished through management measures in other FMPs (groundfish, monkfish, scallops), skate-specific management measures, or a combination of both as necessary.

Objective 3: Develop a skate permit system, coordinate data collection with appropriate state agencies for vessels fishing for skates or catching skates as bycatch only in state waters, and work with the fishing industry to establish a catch reporting system consistent with industry capabilities, including the use of study fleets.

Objective 4: Minimize the bycatch and discard mortality rates for skates caught in both directed and non-directed fisheries through the promotion and encouragement of experimentation, conservation engineering, and gear development.

Objective 5: Promote and encourage research for critical biological, ecological, and fishery information based on the research needs identified in the Skate SAFE Report and scoping document, including the development and dissemination of a skate species identification guide.

Objective 6: Minimize, to the extent possible, the impacts of skate management approaches on fisheries for other species on which New England and Mid-Atlantic fishermen depend (for example, groundfish, monkfish, scallops, and fluke), recognizing the interconnected nature of skate and other fisheries in the Northeast Region.

Objective 7: To the extent possible, manage clearnose and rosette skates separately from the other five species in the skate complex, recognizing that these two species are distributed primarily in the Mid-Atlantic and South Atlantic regions.

4.2 UPDATES TO FMP OBJECTIVES

Council:

The Council approved these updates in April 2021. In January 2022, the Skate Committee recommended that "skate" be added to Objective 5. See below in **green**. Does the Council approve?

> *Objective 2 - UPDATE:* Implement measures to: protect any overfished species of skates and increase their biomass to target levels and prevent overfishing of the species in the Northeast skate complex – this may be accomplished through management measures in other FMPs (groundfish, monkfish, scallops), skate-specific management measures, or a combination, as necessary.

Rationale for Update: Objective 2 should be generalized to apply to any skate species. Barndoor skate was declared rebuilt in 2016, so the language is out of date. The skate stock assessment in 1999 (SAW 30) concluded that barndoor, thorny, smooth, and winter were overfished and overfishing was occurring on winter skate. After the fall 2001 survey, only barndoor and thorny skates were considered overfished. Likely, the degree of uncertainty about the condition of winter skate motivated the Council to include reducing fishing mortality on this stock as an FMP objective. Today, winter skate is one of the most abundant in the complex, according to the survey index. It is a target species for the fishery, particularly in the wing fishery. There is no longer a need to single out winter skate in Objective 2.

> *Objective 5 - UPDATE:* Promote and encourage **skate** research for critical biological, ecological, and fishery information based on the research needs identified and updated by the Council.

Rationale for Update: Objective 5 should be consistent with how the Council currently sets research priorities. The scoping document referred to is the one for the original scoping for the FMP, now long out of date. Rather than list the research priorities in separate documents for each FMP (e.g., SAFE reports), the Council now maintains one list of priorities. Also, a species identification guide was created and disseminated to fishermen a few years ago and information is available on the website of the Greater Atlantic Regional Fisheries Office (GARFO).

5.0 ALTERNATIVES UNDER CONSIDERATION

The action alternatives would revise the conditions of the open-access federal skate permit, which currently can be added and dropped throughout the year. While limiting the ability to do so may restrict flexibility, when a vessel does not have a federal skate permit, it can fish in a state skate fishery with potentially higher possession limits and, if there are no other federal fishing permits on the vessel, landings are not monitored in-season against the federal TAL. A federal skate permit is required to catch and land skates from the Exclusive Economic Zone (50 CFR, Chapter VI, Part 648). This requirement would not change with these alternatives. The fishing year for federal skate permits begins on May 1.

Council:

Skate Committee members were concerned during the November 2021 meeting that the prohibition on cancelling the federal skate permit in Alternatives 2 and 3 may inhibit the ability for permits to be transferred or placed in confirmation of permit history. In January 2022, the Committee clarified the intent of these alternatives. See below.

5.1 ALTERNATIVE 1 – NO ACTION *(SKATE COMMITTEE PREFERRED)*

Under No Action, anyone with a valid vessel operator permit can obtain and subsequently drop a federal skate permit at any point in the fishing year. Open access permits may be added/dropped as often as desired throughout the fishing year (the vessel must be enrolled for a minimum period of 7 days), but there is natural processing time for the permit office in between.

5.2 ALTERNATIVE 2 – YEAR-ROUND FEDERAL SKATE PERMIT

Under Alternative 2, an application for a federal skate permit must be submitted 30 days prior to the start of each fishing year[1] and must be retained with the vessel for the entire year.

Rationale: Alternative 2 would prevent vessels from entering and leaving the federal skate fishery mid-year and more landings would be monitored in-season against the bait and wing TALs. If vessels had to commit to either state or federal fishing on an annual basis, the total number of potential federal vessels would be known at the beginning of the fishing year. This would also make state and federal fishing more distinct. Requiring a 30-day application deadline would be consistent with the deadline for submitting a permit renewal application for the limited access Northeast multispecies permits, which has the same fishing year start date (May 1), and a substantial portion of skate landings are on groundfish trips.[2] The GARFO Permit Office would likely enforce this deadline consistent with other permit application deadlines (e.g., postmarked, time-stamped electronically).

Intent: The intent of Alternative 2 is to have vessels annually commit to fishing either with or without a federal skate permit, and thus would restrict the cases in which a skate permit cancellation would be allowed. In cases of vessel replacement or placing the limited access permits from a vessel into

[1] Should this alternative be implemented, NOAA Fisheries would determine when the exact deadline is. This document was prepared assuming the deadline would be March 31. Also, the analyses in this document are based on the day permits have been issued rather than the date the permit application was received (which is not in the database). There is a natural application processing time that is not explicitly accounted for in the analysis.

[2] The scallop fishery also has a 30-day application deadline prior to the April 1 start of its fishing year, and the monkfish fishery has no specific restriction on the timing of permit applications/renewals, just if it is received before the start of the fishing year, May 1.

Confirmation of Permit History (CPH), the fishing history and limited access permit eligibility from the old vessel gets transferred to the new vessel (or CPH). All active permits, including open access permits, on the old vessel are cancelled upon issuance of permits to the new vessel or placing the limited access permits into CPH. This is consistent with GARFO policies, as described in the Application for Vessel Replacement or Confirmation of Permit History. Alternative 2 would not change this policy for open access skate permits. There may be other cases such as permit sanctions or vessel sinkings where it may make sense to allow the skate permit to be cancelled. With the intent clear, the specific exceptions for cancellations can be an implementation detail for NOAA Fisheries.

5.3 Alternative 3 – Retain Federal Skate Permit for Remainder of Fishing Year Once Obtained

Under Alternative 3, the federal skate permit may be obtained at any point in the fishing year and must be retained for the remainder of the fishing year.

Rationale: Alternative 3 would allow for flexibility for when vessels could enter the federal fishery, as vessels could switch from a state fishery to the federal fishery mid-year, as opposed to Alternative 2. There would be improved tracking of participation, since once a federal skate permit is obtained, all subsequent skate landings would be monitored in-season against the bait and wing TALs. Switching from federal to state fishing, for example when a federal incidental limit is in place, would not be permitted.

Intent: The intent of Alternative 3 is to prevent skate fishing without a federal skate permit once the federal permit is obtained during the year, and thereby ensure the landings are accounted for against the Federal TAL. This would also restrict the cases in which a skate permit cancellation would be allowed. The same logistical exceptions described under Alternative 2 would apply to Alternative 3 as well.

6.0 SKATE FISHERY DESCRIPTION

6.1.1 Commercial Skate Fishery

Skates are harvested in two very different fisheries, one for bait and one for human consumption (NEFMC 2009). As bait, skates are used primarily for the American lobster (*Homarus americanus*) fishery, which prefers small, whole skates. The skate bait fishery is more historic and directed relative to the fishery for human consumption, which harvests skates for their wings (NEFMC 2020, Section 5.6.1).

6.1.1.1 Federal Skate Permit

There is only one federal skate permit category, an open-access permit. Anyone with a valid federal fishing permit can obtain a federal skate permit. Doing so enables participation in the federal skate fishery and allows landing wing or bait. To land the higher bait possession limit, a Letter of Authorization (LOA) is also needed. Vessels with a federal skate permit may commercially fish for, possess, and land skate caught in federal waters.

If a vessel has a federal fishing permit but does not have a federal skate permit, it must fish for skate in state waters under state regulations. If a vessel has a federal fishing permit, then all skate landings must be sold to a federal dealer (or transferred to another vessel at sea under a bait LOA) and are considered federal landings and contribute to the federal in-season quota monitoring.

6.1.1.1.1 Obtaining the federal skate permit

This section investigates trends in the issuing and cancelling of federal skate permits to inform the analysis of alternatives (Section 7.0).

From FY 2016-2021, the number of unique vessels that were issued a federal skate permit for use that fishing year declined from 2,075 to 1,817 (Table 1). On average, more than half of the vessels with a federal skate permit (65%) had the permit issued before April 1 of the prior fishing year (i.e., more than 30 days prior to the start of the fishing year). The remainder (507-816 per year, 35%) were issued their permit on or after April 1 of the prior fishing year, mostly in April (about 270-340/year) and May (about 125-160/year; Figure 1). However, after June, federal skate permits continue to be issued throughout the remainder of the fishing year at a consistently low level (about 32 on average/month). Likely, many of the permits issued in April were applied for in March, due to the processing time of permit applications within GARFO.

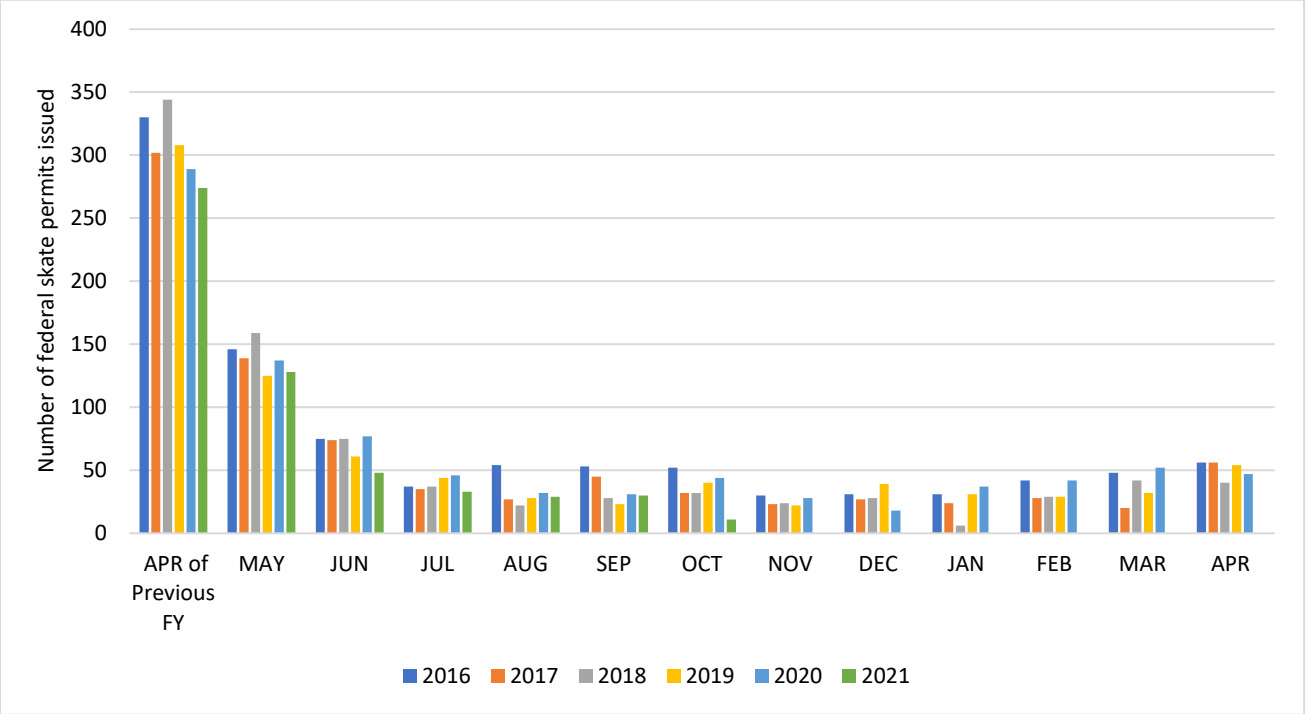
Of the 507-816 vessels that were issued a federal skate permit on or after April 1 since FY 2016, 99-122 were active, with subsequent landings with this permit (Table 1). Just 18-29 vessels had skate landings prior to being issued a federal skate permit, likely in state fisheries.

Table 1. Vessels with federal skate permits issued, FY 2016-2021.

FY	Total unique vessels[a]	Federal skate permits issued on or after April 1[b]			
		Total	Active landing skate		
			Before issued[d]	After issued	Total
2016	2,075	816 (39%)	19	122	128
2017	2,049	714 (35%)	20	105	110
2018	2,033	756 (37%)	23	99	106
2019	2,032	727 (36%)	18	99	108
2020	1,997	754 (38%)	29	102	111
2021[c]	1,817	507 (28%)	N.A.	N.A.	N.A.

[a] Number of unique vessels with a federal skate permit starting (able to be fished) in each fishing year.
[b] Number of unique vessels which had at least one federal skate permit issued within 30 days or during the FY (on or after April 1).
[c] Preliminary data. Year in progress.
[d] Landings without a federal skate permit.

Figure 1. Federal skate permits issued on or after April 1 of prior fishing year by month, FY 2016-2021.



Note: Currently, a vessel could add and drop a permit multiple times within a year; each issuance counts towards the total number of permits issued. Those that fall in the April previous fishing year category were issued their permit in that month, but the start date would be for the coming fishing year.

Source: Federal skate permit data (PERMIT.VPS_VESSEL), originally queried for any plan code indicating "SKT" in April 2021 and re-queried for additional years in October 2021.

6.1.1.1.2 Cancellations of the federal skate permit

Federal skate permits can be cancelled for a variety of reasons (Table 2). The data on permit cancellations provided here is based on the cancellation date of individual permit applications. There is no cancellation code specific to cancelling a federal skate permit for the purpose of fishing in a state fishery. Permit cancellations were filtered, as highlighted in Table 2, to identify the cancellations that are more likely for this purpose. Only the cancellation reasons highlighted in Table 2 are included in the count of permit cancellations. Results shown here are likely to be an upper bound on permit cancellations for the purpose of fishing in a state fishery.

Table 2. Federal permit cancellation codes, including those used in analysis (highlighted).

Code	Cancellation Description	Code	Cancellation Description	Code	Cancellation Description
1	Permit Sanction	8	Permitted Fisheries Changed	15	Bad Check
2	Vessel Sunk	9	Documentation Number Issued	16	HMS 3-year Permit Renewal
3	Vessel Destroyed	10	State Registration Number Issued	17	Renewal with Compliance Issues
4	Cancelled by Owner or NMFS	11	Annual Permit Renewal	19	Black Sea Bass Cancelled
5	Vessel Characteristics Changed	12	Duplicate Hull Number	20	Transfer
6	Vessel Name Changed	13	Change in Address		
7	Vessel Owner Changed	14	Permit Expired		

Note: There is no cancellation code specific to cancelling the federal skate permit with the intent of entering a state fishery. Codes highlighted here may be related to this purpose and were included in this analysis.

Each year since FY 2016, there were 48-118 unique vessels that cancelled their federal skate permit during the fishing year using a code identified in Table 2 (3-6% of total unique vessels with a federal skate permit; Table 4). These cancellations were potentially for the purpose of entering a state fishery, though this is difficult to determine and is likely an upper bound. These cancellations occurred across all months (Figure 2). While there is no clear trend in permit cancellations over the course of the year and between years, the spring months trend towards more cancellations (March – June), though there are exceptions for years in which permit cancellations were highest in September and October.

Table 3. Vessels with federal skate permits cancelled (or ended), FY 2016-2021.

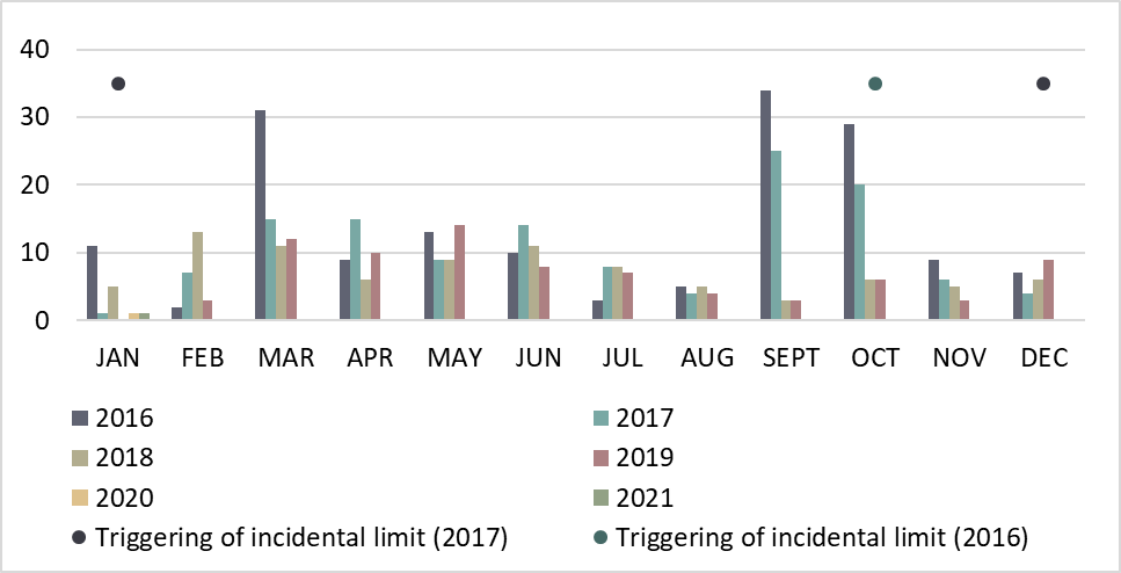
FY	Total unique vessels[a]	Unique vessels that cancelled (or ended) a federal skate permit [b]			
		Total	active landing skate		
			Before cancellation	After cancellation	Total
2016	2,075	118 (6%)	12	10	16
2017	2,049	106 (5%)	18	11	21
2018	2,033	72 (4%)	14	10	16
2019	2,032	87 (4%)	9	7	11
2020	1,997	93 (5%)	14	8	15
2021[c]	1,817	48 (3%)			

[a] Unique vessels with a federal skate permit starting (able to be fished) in the fishing year.
[b] Cancellation codes included here are those highlighted in Table 2, those more likely for the purpose of entering a state fishery. Only cancellations that are within the fishing year are included.
[c] Preliminary data. Year in progress.

Of the 48-118 vessels that cancelled a federal skate permit mid-fishing year for the reasons identified in Table 2, just 9-18 had skate landings with the federal skate permit prior to cancellation (Table 3). A similar number, 7-11 vessels per year (about 0.5% of all vessels with a federal skate permit), had subsequent landings without a federal skate permit after cancellation, likely in state fisheries. The reason why active permits before cancellation is less than total cancellations in the last column (for every FY) is because there are a few vessels that cancelled their federal skate permit prior to any skate fishing.

It is difficult to determine the degree to which cancellation tendencies are impacted by the anticipation and result of triggering of the federal incidental possession limits or other factors such as vessels following the skate resource or being impacted by fish markets. Federal permit cancellations around the time that federal incidental limits have been triggered were examined to determine the degree to which vessels may have exited the federal fishery to continue fishing in state fisheries. There are three instances where the incidental possession limits were triggered in this analysis: October 2016 (bait only), January-March 2017 (wing and bait), and December-April 2017 (wing only; Table 5). Changes in permits before and after incidental limit triggers might be somewhat masked if only one fishery segment is operating under full possession limits, while the other fishery is operating under the incidental limit. There is no notable uptick in permit cancellations just prior to or after the January (bait and wing) and December 2017 (wing only) events when triggering of the incidental limit occurred, however, there is a relatively high number of cancellations in September and October of 2017 which might be attributed to the triggering which occurs in the coming months (Table 5). The incidental limit was also triggered briefly in October 2016 (bait only) and there are large numbers/percentages of cancellations in September and October of 2016, however, there are relatively few cancellations in July and August which would suggest that there are inconsistencies in cancellation behavior leading up to trigger events.

Figure 2. Number of skate permit cancellations by calendar month and year, 2016-2021.



Source: Federal skate permit data (PERMIT.VPS_VESSEL), originally queried for any plan code indicating "SKT" in April 2021 and re-queried for additional years in January 2022.

Note: Cancellation codes included here are those highlighted in Table 2, those more likely for the purpose of entering a state fishery. Only cancellations that are within the fishing year are included. Incidental limit was triggered October 18, 2016, and possession limit was lowered until October 31 of that same year.

6.1.1.1.3 Federal skate permit activity

Since the beginning of the Skate FMP (FY 2003), at least 94% of vessels with a federal fishing permit obtained a federal skate permit each year (Table 4). Following the decline in vessels with federal fishing permits since FY 2007, the number of vessels with a federal skate permit has declined from 2,686 in FY 2007 to 2,028 in FY 2019. The number and percent of active federal skate permits has generally declined, with a high 594 active permits (30%) in FY 2003 down to 323 (16%) in FY 2019.

Table 4. Federal fishing permits landing skate, FY 2003-2019.

Fishing Year	All federal fishing permits			Active federal fishing permits (landing skate)		
	Total	Had federal skate permit at some point in the year		Total landing skate	Had federal skate permit at some point in the FY	
					Yes	No
2003	2,082	1,967	94%	709	594	115
2004	2,443	2,391	98%	575	523	52
2005	2,686	2,629	98%	585	528	57
2006	2,727	2,669	98%	595	537	58
2007	2,738	2,686	98%	586	534	52
2008	2,673	2,630	98%	549	506	43
2009	2,632	2,576	98%	572	516	56
2010	2,557	2,503	98%	550	496	54
2011	2,390	2,326	97%	567	503	64
2012	2,322	2,263	97%	527	468	59
2013	2,246	2,202	98%	455	411	44
2014	2,187	2,147	98%	452	412	40
2015	2,131	2,084	98%	440	393	47
2016	2,114	2,075	98%	418	379	39
2017	2,093	2,049	98%	425	381	44
2018	2,079	2,033	98%	394	348	46
2019	2,062	2,028	98%	357	323	34

Source: CFDERS tables, accessed 04/22/2020. 2019 data are preliminary.

6.1.1.2 Possession Limits

The wing and bait fisheries have differing seasonal possession limits and triggers for when an incidental limit may be implemented under the discretion of the Regional Administrator. If for both skate fisheries, at the end of a fishing year, it is calculated that the TAL was exceeded by more than 5%, an automatic adjustment to that fishery's TAL trigger would occur for the next fishing year. A straight one-for-one percent reduction in a TAL trigger for prior overages reduces the likelihood that future landings would exceed that TAL. This increases the buffer between the TAL and trigger to account for incidental landings in a skate fishery when the skate possession limit declines to the incidental limit. An overage of less than 5% would not be alarming and might be offset by reductions in skate discards.

6.1.1.2.1 Federal possession limits

In FY 2020 and 2021, the bait fishery has three seasons with a 25,000 lb whole weight possession limit. The wing fishery has two seasons, with 3,000 lb and 5,000 lb wing weight possession limits. In the wing fishery, if an 85% trigger is reached, the incidental limit will be in place until the end of the season. In the bait fishery, if a 90% trigger is reached in Seasons 1 and 2, or 80% in Season 3, the incidental limit will be in place until the end of the season. In both fisheries, the Regional Administrator has some discretion to not implement, or to later lift, the incidental limit if the full TAL is not expected to be reached.

The wing possession limits for both seasons have remained relatively constant since annual catch limits and accountability measures were implemented in 2010, with seasonal possession limit increases effective beginning in FY 2020 (Table 12 in March 11, 2020, PDT memo). The bait possession limits have varied since annual catch limits and accountability measures were implemented in 2010, with Season 3 possession limit increases effective beginning in FY 2020 (Table 13 in March 11, 2020, PDT memo). The incidental limit trigger and incidental possession limit have also changed over time. As previously explained, the in-season adjustments to possession limits were linked between the bait and wing fisheries through March 15, 2018, which was problematic in FY 2016. An incidental limit has been triggered five times (two for bait, three for wing) since first implemented July 2010, out of over 50 seasons of the wing and bait fisheries (Table 5).

Table 5. Dates when the incidental limits have been triggered in the skate fishery.

Fishery	Date	Action
Wing	Sept. 3, 2010	Possession limit reduced from 5,000 to 500 lb (wing weight) when 80% of annual TAL was expected to be reached due to increase wing landings and delay in implementing Amendment 3 which reduced wing possession limit to 5,000 lb. Remained in place until the end of the fishing year, April 30, 2011.
Bait	Oct. 18, 2016	Season 2 PL reduced from 25,000 to 9,307 lb (whole weight; equal to the 4,100 landed lb wing limit) when 90% of Season 2 TAL was expected to be reached. Remained in place until the end of Season 2, October 31, 2016.
Wing & Bait	Jan. 30, 2017	**WING:** Season 2 PL reduced from 4,100 to 500 lb (wing weight) when 85% of annual wing TAL was expected to be reached. Remained in place until March 14, 2017. PL returned to 4,100 lb as RA projected that the wing TAL would not be exceeded.
		BAIT: Season 3 PL reduced from 25,000 to 1,135 lb (wing weight; equal to the 500 landed lb wing limit; bait incidental limit tied to wing incidental limit) when 90% of the annual bait TAL was expected to be reached. Remained in place until March 14, 2017. PL increased to 9,307 lb as RA projected that the bait TAL would not be exceeded.
Wing	Dec. 27, 2017	Season 2 PL reduced from 4,100 to 500 lb (wing weight) when 85% of annual TAL was expected to be reached. Remained in place until April 8, 2018. PL returned to 4,100 as RA projected that TAL would not be exceeded.

6.1.1.2.2 State Possession Limits

When fishing in state waters, federal regulations require vessels to adhere to the most stringent regulations, state or federal, of the permits on the vessel. Vessels may drop their federal skate permit and fish in a state skate fishery with potentially higher possession limits. If a vessel has a federal fishing permit but does not have a federal skate permit, it must fish for skate in state waters under state regulations. If the vessel also has other federal fishing permits that are year-round (e.g., limited access groundfish and monkfish) it could not drop those permits. In that case, the vessel would need to follow the federal requirements for the federal fishing permits it has and sell its landings to a federal dealer. Note that the federal Skate FMP cannot impinge on state regulations or control skate fishing in state waters when a vessel does not have a federal skate permit.

State skate possession limits are provided here for the five states most active in the skate fishery, Massachusetts south to New Jersey. In Rhode Island, the possession limit is 35,000 lb per week, which on a weekly basis, is like the federal daily wing limit of 5,000 landed pounds, if the vessel fishes seven days a week. While a vessel could land 35,000 lb in one day, that is logistically unlikely. When a federal skate incidental limit is imposed, Rhode Island does not reduce its weekly possession limit to match the lower federal limit (to 3,500 landed pounds of skates per week). Fishermen may drop their federal skate permit and, rather than catch 500 lb in the federal fishery, land 35,000 lb per week in the Rhode Island fishery. Massachusetts, Connecticut, New York, and New Jersey do not have any state possession limits for skates, meaning vessels could land unlimited quantities of skate per trip if they do not have a federal skate permit.

6.1.1.3 Annual Catch Limits, Landings and Discards

6.1.1.3.1 Methods for In-season Quota Monitoring and Year-end Catch Accounting

The skate landings that are monitored in-season against the federal wing and bait TALs (and thus contribute towards triggering federal incidental possession limits) are those made by vessels with a federal fishing permit on the day of landing. If a vessel drops the federal skate permit, but retains other federal fishing permits, its skate landings are monitored against the TAL. The “state landings” in year-end ACL accounting and the deduction in the specifications flow chart are only landings from vessels with a permit number of 000000. If a vessel has no federal fishing permit on day of landing but has a 6-digit permit number due to having had a federal permit at some point in the past, its skate landings are not monitored in-season against the federal TAL (i.e., not counted towards triggering incidental limits) and are not “state landings” in year-end accounting or in specifications (they are in “commercial landings” in ACL accounting) even though they could be landings from a state fishery.

Federal landings are landings made by vessels where permit # is non-zero while state landings are landings from vessels with permit # = 0. More information on how state landings are defined, specified, and accounted for in the Skate FMP is included in the March 10, 2021, PDT memo. The March 14, 2020, PDT memo has more information on regulations important to understanding skate fishery data.

6.1.1.3.2 Fishery Landings and Discards

From FY 2017-2020, the overall federal skate TAL was not exceeded (Table 6). Federal landings were 99% of the TAL in FY 2017 and decreased to 71-79% in subsequent years. The TAL increased for FY 2018 and 2019 over FY 2017 by about 25%, then increased again in FY 2020, yet landings were relatively constant across these years.

From FY 2017-2020, the ACL was not exceeded and has never been (Table 7). Total Northeast skate catch (elements as defined above) was 81% of the ACL in FY 2017 (25,294 mt) and decreased to 78%, 66%, and 69% in FY 2018 - 2020, respectively. State landings, defined as vessels that have never had a federal fishing permit, has decreased from 795 mt in FY 2017. Recreational catch has been higher than

state landings since FY 2017 (1,528 mt in FY 2017; Framework 8, Section 5.2.5). Dead discards have been about 19-27% of total catch since FY 2017. In FY 2018, the uncertainty buffer was reduced from 25% to 10%, redefining the ACT as 90% of the ACL.

Total skate landings have fluctuated between FY 2010 and 2020, largely attributable to the wing fishery as landings in the bait fishery have been more stable. It is unclear what is driving the trend in wing landings as quota is likely not limiting the fishery. A potential explanation is the decrease in winter skate survey index that suggests fewer winter skate were available to the fishery. Skate landings relative to TALs have also fluctuated during this time. In FY 2016 and 2017, when in-season incidental possession limits were triggered, TALs had been lowered by 23% relative to FY 2014 and 2015. Landings were also lower, but not by that much.

Table 6. FY 2017 - 2020 in-season monitoring of federal Northeast skate wing and bait landings.

Disposition	Live Landings		TAL (live weight)		Percent of TAL Landed
	(lb)	(mt)	(lb)	(mt)	
FY 2017					
Wing	18,662,000	8,465	18,457,000	8,372	101.1%
Bait	8,769,989	3,978	9,299,098	4,218	94.3%
Total	**27,431,989**	**12,443**	**27,756,098**	**12,590**	**98.8%**
FY 2018					
Wing	17,278,000	7,837	23,146,333	10,499	74.6%
Bait	7,398,714	3,356	11,660,249	5,289	63.5%
Total	**24,676,714**	**11,193**	**34,806,582**	**15,788**	**70.9%**
FY 2019					
Wing	19,038,306	8,636	23,146,333	10,499	82.3%
Bait	8,515,179	3,862	11,660,249	5,289	73.0%
Total	**27,553,485**	**12,498**	**34,806,582**	**15,788**	**79.2%**
FY 2020					
Wing	20,478,599	9,289	26,188,712	11,879	78.2%
Bait	7,453,195	3,381	13,192,462	5,984	56.5%
Total	**27,931,794**	**12,670**	**39,383,331**	**17,864**	**70.9%**

Notes:

- "Live Landings" aggregates landings from the weekly, in-season quota monitoring reports. Although this is a year-end tally, it only includes the skate landings by vessels with a federal fishing permit on the day of landing, sold to a federal dealer or reported solely via VTRs (this includes vessel-to-vessel transfers).
- "Live Landings" excludes all landings by vessels that do not have any federal fishing permits on the day of landing, landings from research, and recreational landings (e.g., these landings are excluded from TAL monitoring).
- These data are pulled a few months after the end of each fishing year.

Source: cfders, Vessel Trip Reports, and permit databases. 2020 data accessed 7/02/2021.

Table 7. Year-end Northeast skate complex annual catch limit (ACL) accounting, FY2017-2019.

Catch accounting element	Pounds	Metric tons	% of ACL
FY 2017 (ACL = 31,081 mt)			
Commercial landings	31,854,574	14,449	46.5%
State-permitted only vessel landings	1,752,206	795	2.6%
Estimated dead discards	18,790,080	8,523	27.4%
Recreational catch (MRIP landings and dead discards)	3,367,634	1,528	4.9%
Total Northeast skate catch	**55,764,494**	**25,294**	**81.4%**
FY 2018 (ACL = 31,327 mt)			
Commercial landings	32,155,182	14,585	46.9%
State-permitted only vessel landings	1,268,820	576	1.9%
Estimated dead discards	17,369,954	7,879	25.3%
Recreational catch (MRIP landings and dead discards)	2,398,508	1,088	3.5%
Total Northeast skate catch	**53,192,464**	**24,128**	**77.6%**
FY 2019 (ACL = 31,327 mt)			
Commercial landings	29,869,783	13,549	43.2%
State-permitted only vessel landings	383,529	174	0.6%
Estimated dead discards	13,144,115	5,962	19.0%
Recreational catch (MRIP landings and dead discards)	2,229,125	1,011	3.2%
Total Northeast skate catch	**45,626,552**	**20,696**	**66.1%**
FY 2020 (ACL = 32,715 mt)			
Commercial landings	29,457,636	13,362	40.8%
State-permitted only vessel landings	577,288	262	0.8%
Estimated dead discards	18,791,428	8,524	26.1%
Recreational catch (MRIP landings and dead discards)	692,135	314	1.0%
Total Northeast skate catch	**49,518,487**	**22,461**	**68.7%**

Notes:

- Live weight is used instead of landed weight to compare in-season and year-end accounting.
- "Commercial landings" are all skate landings by vessels with a permit number greater than zero. This includes landings by: 1) vessels with a federal fishing permit on the day of landing, 2) vessels with a federal fishing permit at any time of the year, and 3) vessels without a federal fishing permit that year but had one in the past.
- "Northeast skate state-permitted only vessel landings" are landings from vessels that never had a federal fishing permit (so the permit #=0) that were reported to the federal database
- "Northeast skate estimated dead discards" is based on landings of all species and skate discards on observed trips extrapolated to all commercial landings of all species (weighted by area, gear, etc.) to calculate total skate discards. Then, a discard mortality rate is applied to the calculated total skate discards (discard estimation method differs from how discards are estimated during specifications setting, which uses the NEFSC method).
- "Northeast skate recreational catch" includes landings from private angler and party/charter and dead discards from MRIP.

- Not included in the year-end ACL accounting:
  - Vessel-to-vessel skate transfers (e.g., 210 mt in FY 2019, reported via VTRs).
  - Skate for personal use/home consumption (unknown, not reported to a federal dealer).
  - Skate landings by state-only permitted vessels not reported to the federal database but reported by state dealers to the Atlantic Coastal Cooperative Statistics Program at varying frequencies, updated daily (likely minor, but possible).

Source: Commercial fisheries dealer database and Northeast Fishery Observer Program database; FY 2020 data accessed June 30, 2021; MRIP reports accessed July 2, 2021.

6.1.1.3.3 State landings

Generally, the federal skate fishery is defined as landings under a federal skate permit. Most of the landings were by vessels that had a federal fishing permit and a federal skate permit on the day of landing (Table 8, Column D), however, a small proportion of landings did not.

Table 8. Skate landings (live pounds), FY 2010-2020.

Fishing Year	Permit # > 000000					Permit # = 000000	All landings
	Total Landings with #>0	Had federal fishing permit on day of landing?		Had federal skate permit on day of landing?			
		Yes	No	Yes	No		
	A	B	C	D	E	F	G = A+F
2010	33,513,658	30,505,342	3,008,316	29,514,964	3,998,694	532,368	34,046,026
2011	41,590,300	37,406,163	4,184,137	36,372,576	5,217,724	545,385	42,135,685
2012	33,246,583	31,255,321	1,991,262	30,621,070	2,625,513	380,563	33,627,146
2013	31,530,991	30,034,832	1,496,159	28,816,879	2,714,112	281,487	31,812,478
2014	34,980,103	33,481,839	1,498,264	32,937,821	2,042,282	489,355	35,469,458
2015	33,243,583	32,022,300	1,221,283	31,476,552	1,767,031	1,925,930	35,169,513
2016	30,227,576	27,733,400	2,494,176	27,623,870	2,603,706	1,094,706	31,322,282
2017	31,419,640	27,631,495	3,788,145	26,929,157	4,490,483	1,659,606	33,079,246
2018	31,000,668	29,578,533	1,422,135	29,184,945	1,815,723	906,558	31,907,226
2019	29,179,875	27,975,597	1,204,278	27,550,331	1,629,544	*264,350	*29,444,225
2020	28,772,273	28,181,785	590,488	27,850,982	921,291	*No data	*28,772,273

Column B is the landings monitored in-season against the Federal TAL. Column F is the permit=0 skate landings from AA tables to include updates that may not be added/corrected in the CFDERS databases.

Note: Data are in live pounds.

Source: Columns A-E = CFDERS_ALL_YEARS, Permit tables, and VTR as of 11/23/2021; Column F = AA tables as of 11/19/2021. *AA data available through December 2019.

There are several types of skate landings that are considered state landings depending on the circumstances (Table 8). The more common are landings by:

- Vessels that have a permit number equal to zero (Table 8, Column F). These are vessels that have never been assigned a federal 6-digit permit number. These landings are not monitored in-season against the TAL. In year-end ACL accounting, these are the "state-only permitted landings," a recent three-year average of which forms the state landings deduction in the specifications flow chart. Note that the values in Column F of Table 8, data pulled in

November 2021, are different than the data pulled at the end of each fishing year (Table 7) used for ACL accounting and specifications.

- Vessels with 6-digit a federal permit number that:
    - Had no federal skate permit on the day of landing (Table 8, Column E).
    - Had no federal fishing permit on the day of landing (Table 8, Column C).

State landings, based on the definition of having no federal fishing permit on the day of landing (i.e., not monitored against Federal TAL; Table 8, Column C), ranged from 4.2M pounds in FY 2011 to 590,000 lb in FY 2020 (2-10% of total skate landings;). State landings defined as having no federal skate permit on the day of landing (Table 8, Column E) ranged from 5.2M pounds in FY 2011 to 921,000 lb in FY 2020 (3-13% of total skate landings;). Skate landings by vessels that never had a federal fishing permit (permit=0; Table 8, Column F) were about 281,000-1.9M lb during these years (1-6% of total skate landings).

6.1.1.4 Skate Disposition (bait and wing)

6.1.1.4.1 Effort by Disposition

For FY 2018, otter trawl trips were more frequent than gillnet trips overall and for each disposition combination: food only, bait only, food and bait trips (Table 9). Food only trips accounted for the greatest number of trips by a large margin followed by bait only trips, and then food and bait trips.

Table 9. Number of trips landing skate by disposition and gear, FY2018.

Disposition	Gear Type	Total number of trips
Food only	Gillnet	4,929
	Otter Trawl	6,067
	Other	740
	Total	*11,736*
Bait only	Gillnet	57
	Otter Trawl	2,100
	Other	34
	Total	*2,191*
Food and bait	Gillnet	68
	Otter Trawl	142
	Other	2
	Total	*212*
Total	Gillnet	5,054
	Otter Trawl	8,309
	Other	776
	Total	*14,139*

Source: CFDETT/CFDETS database.
Note: Data only include the disposition codes for bait and wing, not "VTR only," "Unknown," or any other codes. These other disposition codes should be analyzed separately because in-season and year-end catch monitoring account for disposition codes differently, especially research and state landings.

During FY 2018, gillnets accounted for over twice as much skate revenue as otter trawls for all trips landing skate. On trips where skates were landed for food only, gillnets are the overwhelming revenue source, with otter trawls a distant second. Quite the reverse is true of the bait only fishery, where otter trawls accounted for most of the skate revenue. On trips where skates were landed as both food and bait, the pattern is like the food only fishery, though at reduced levels.

6.1.1.4.2 Disposition of Landings by Permit Type

This section investigates the trends in the disposition of skate landings by vessels with and without a federal skate permit at the time of landing (Table 10-Table 12). There are many disposition types (market codes) used by the fishery, but only the main dispositions, bait and wing, are included here (over 99% of landings since FY 2010). The focus here is on landings where permit #>0, so the vessel had a federal fishing permit at some point in the past (to have the 6-digit number), but no federal skate permit on the day of landing.

From FY 2010-2020, about 2-29% of bait landings and 2-13% of wing landings have been by vessels without a federal skate permit on the day of landing (Table 10). Though the percent of bait landings is generally higher than the percent of wing landings each year without a federal skate permit, since total wing landings are higher, the poundage of wing landings without a federal skate permit is higher than bait each year. Over these years, the percent of wing landings without a federal skate permit has been declining, from 11% in FY 2010 to 2% in FY 2020. The percent of bait landings has been fluctuating with a notable peak in FY 2016-2017 of 14-29%.

Table 10. Skate landings (live weight) by disposition without a federal fishing permit and without a federal skate permit on the day of landing and where permit # >0, FY 2010-2020.

Fishing Year	Total skate landings with #>0	No federal fishing permit on day of landing		No federal skate permit on day of landing	
	A	C		E	
BAIT					
2010	11,424,385	1,194,359	10.5%	1,552,984	13.6%
2011	12,346,764	1,537,230	12.5%	1,551,265	12.6%
2012	12,005,626	176,678	1.5%	187,379	1.6%
2013	12,580,172	238,210	1.9%	793,025	6.3%
2014	10,637,954	721,159	6.8%	841,909	7.9%
2015	12,581,839	274,525	2.2%	401,062	3.2%
2016	10,967,864	1,552,112	14.2%	1,581,712	14.4%
2017	12,179,796	3,254,557	26.7%	3,500,309	28.7%
2018	10,052,794	1,014,362	10.1%	1,014,407	10.1%
2019	9,378,724	848,590	9.0%	850,610	9.1%
2020	7,968,818	475,589	6.0%	476,350	6.0%
WINGS					
2010	21,943,788	1,813,957	8.3%	2,445,710	11.1%
2011	29,239,509	2,645,992	9.0%	3,665,544	12.5%
2012	21,240,912	1,814,584	8.5%	2,438,134	11.5%
2013	18,841,029	1,257,949	6.7%	1,921,087	10.2%
2014	24,006,734	777,105	3.2%	1,200,373	5.0%
2015	20,644,013	946,758	4.6%	1,365,969	6.6%
2016	19,191,506	942,064	4.9%	1,021,994	5.3%
2017	19,232,892	533,588	2.8%	990,174	5.1%
2018	20,907,805	407,773	2.0%	801,316	3.8%
2019	19,417,498	355,688	1.8%	778,934	4.0%
2020	20,652,854	114,899	0.6%	444,941	2.2%

Source: CFDERS_ALL_YEARS, Permit tables, and VTR as of 11/23/2021.
Note: Columns are labeled to match those of Table 8.

From FY 2010-2015, most landings by vessels that did not have a federal skate permit on the day of landing but had a federal fishing permit at some point in the past (Permit #>0) were by vessels landing wing (59-93%; Table 11). From FY 2016-2020, most of these landings were bait (wing landings were 22-48%).

Table 11. Skate landings (live weight) by disposition without a federal skate permit on the day of landing and where permit #>0, FY 2010-2020.

Fishing Year	No federal skate permit on the day of landing (Permit #>0)				
	Total Landings (lb)	Bait Landings (lb)		Wing Landings (lb)	
2010	3,998,694	1,552,984	39%	2,445,710	61%
2011	5,217,724	1,551,265	30%	3,665,544	70%
2012	2,625,513	187,379	7%	2,438,134	93%
2013	2,714,112	793,025	29%	1,921,087	71%
2014	2,042,282	841,909	41%	1,200,373	59%
2015	1,767,031	401,062	23%	1,365,969	77%
2016	2,603,706	1,581,712	61%	1,021,994	39%
2017	4,490,483	3,500,309	78%	990,174	22%
2018	1,815,723	1,014,407	56%	801,316	44%
2019	1,629,544	850,610	52%	778,934	48%
2020	921,291	476,350	52%	444,941	48%

Source: CFDERS_ALL_YEARS, Permit tables, and VTR as of 11/23/2021.
Note: Percentage represents the proportion of skate landings by disposition code for a given fishing year.

The landings by vessels that add and drop the federal skate permit are small relative to overall landings, and at least in FY 2020 are more often bait landings (Table 12). In FY 2020, most skate landings with a permit #>0 (97%), both bait and wings, are made by vessels with a federal skate permit on the day of landing (27.9M of 28.8M, Table 12). Just 2% of skate landings with a permit #>0 were made be vessels that did not have a federal skate permit on the day of landing but did at some other point that year (583K lb by 15 vessels), and 1% never had a federal skate permit that year (338K lb by 37 vessels). For vessels that did not have a federal skate permit on the day of landing but did at some other point in the year, most of the landings (64%) were of bait. Conversely, for vessels that never had a federal skate permit that year, most of the landings (69%) were wing. For the bait fishery, the landings without a federal skate permit on the day of landing but at some point that year is more than three times the landings by vessels that never had a federal skate permit that year. In the wing fishery, landings by these two groups are almost equal.

Table 12. Skate landings by disposition (live weight) where permit #>0, FY 2017-2020.

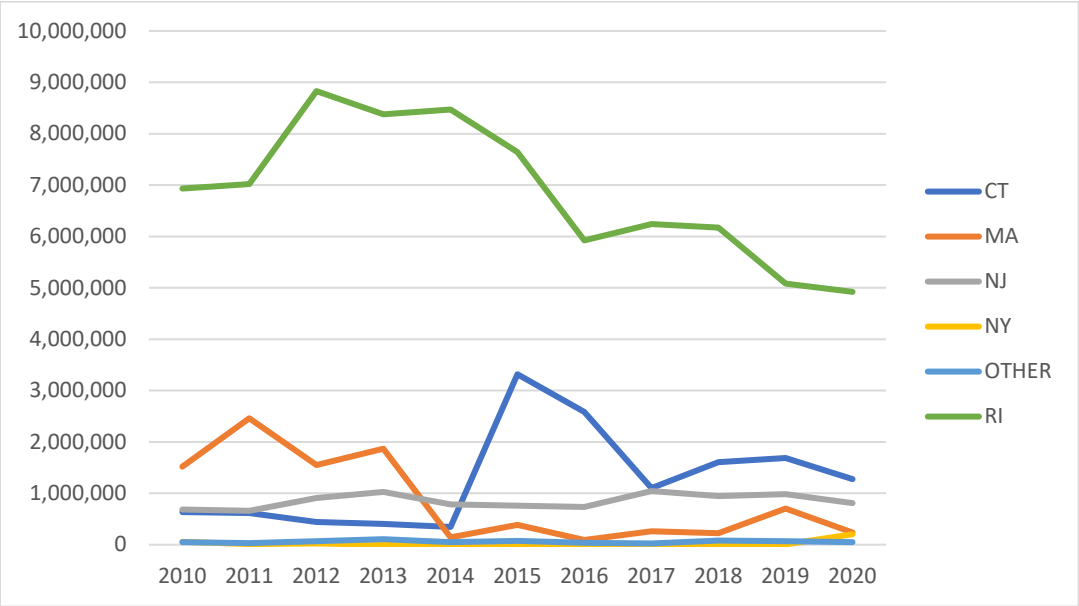
	Had federal skate permit at any time during the fishing year?			Total landings where permit #>0
	Yes		No	
	Had federal skate permit on day of landing?			
	Yes	No		
FY 2017				
Bait	8,679,487	2,012,889	1,487,420	12,179,796
Wings	18,249,670	466,248	523,926	19,239,844
Total	26,929,157	[a] 2,479,137	[b] 2,011,346	31,419,640
FY 2019				
Bait	8,528,114	539,790	310,820	9,378,724
Wings	19,022,217	419,688	359,246	19,801,151
Total	27,550,331	[c] 959,478	[d] 670,066	29,179,875
FY 2020				
Bait	7,492,468	370,800	105,550	7,968,818
Wings	20,358,514	212,022	232,919	20,803,455
Total	27,850,982	[e] 582,822	[f] 338,469	28,772,273

Source: CFDERS_ALL_YEARS and VTR as of 11/23/2021.
[a] 20 vessels [b] 64 vessels [c] 13 vessels [d] 60 vessels [e] 15 vessels [f] 37 vessels

6.1.1.4.3 Disposition by State of Landing

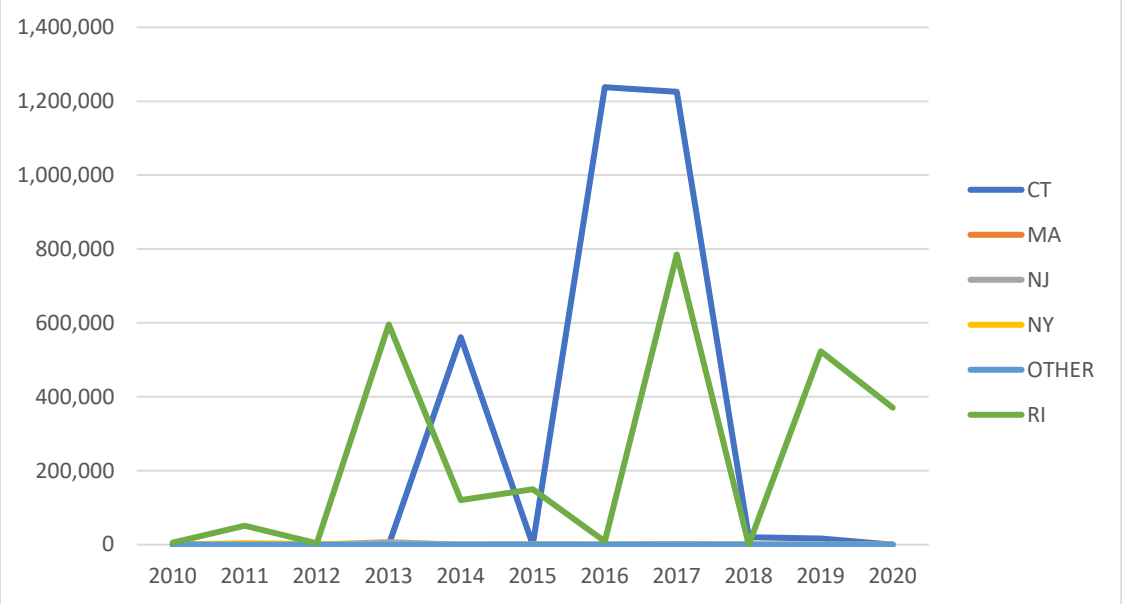
Bait fishery. For vessels landing bait with federal skate permit (Figure 3), most of those landings were in Rhode Island ports between FY 2010-2020. Rhode Island was the top bait state for federal landings of skate in this time series, followed by Connecticut, Massachusetts, and New Jersey. However, Rhode Island landings have been declining since 2014. Landings in Connecticut ports were anomalously high in FY 2015-2016. For vessels landing bait in FY 2010-2021 without a federal skate permit (Figure 4) but had this permit at some other point in the year, landings were to ports in Rhode Island and Connecticut. Landings of this nature were particularly high in Connecticut in FY 2016 and 2017, about 1.2M lb.

Figure 3. Skate BAIT landings (live lb) by state for vessels with a federal skate permit on the day of landing, FY 2010-2020.



Source: Table 8, Column D.

Figure 4. Skate BAIT landings (live pounds) by state for vessels without a federal skate permit on the day of landing but with a skate permit at some other time that year, FY 2010-2020.

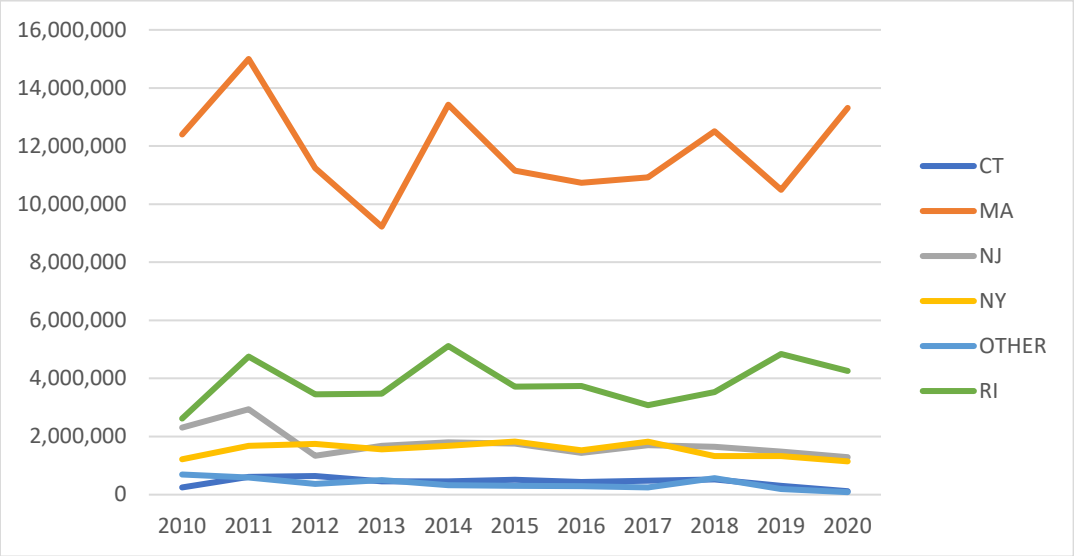


Source: Table 8, Column E (subset).

Wing fishery. For vessels landing wing with a federal skate permit (Figure 5), most of those landings were in Massachusetts ports between FY 2010-2020. Massachusetts is consistently the top state in the federal skate wing fishery, landing 9-15M lb per year. Rhode Island hovers around 4M lb per year of

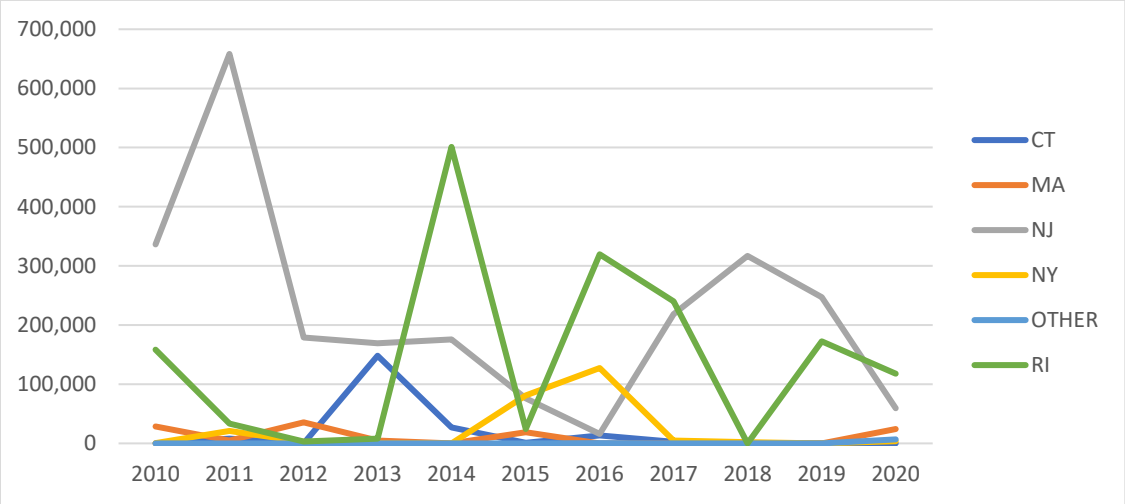
skate wings, and NJ and NY have much lower landings, < 2 million lb/year. For vessels landing wing without a federal skate permit (Figure 6) but had this permit at some other point in the year, landings were primarily to ports in Rhode Island, like bait, and New Jersey but are at generally lower levels than bait.

Figure 5. Skate WING landings (live pounds) by state for vessels with a federal skate permit on the day of landing, FY 2010-2020.



Source: Table 8, Column D.

Figure 6. Skate WING landings (live pounds) by state for vessels without a federal skate permit on the day of landing but with a skate permit at some other time that year, FY 2010-2020.



Source: Table 8, Column E (subset).

For vessels that do not have a 6-digit federal permit number (never had a federal fishing permit), Connecticut is the top state for wings (an average of 306,000 lb from 2010-2019) followed by New York (151,000 lb average). The bait fishery is smaller, and the top state is again Connecticut with 186,000 lb average landings for 2010-2019.

6.1.2 Skate Fishing Communities

Consideration of the socioeconomic impacts on fishing communities from proposed fishery regulations is required by the Magnuson-Stevens Fishery Conservation and Management Act, particularly, National Standard 8 (MSA 2007) which defines a "fishing community" as "a community which is substantially dependent on or substantially engaged in the harvesting or processing of fishery resources to meet social and economic needs, and includes fishing vessel owners, operators, and crew and United States fish processors that are based in such community" (16 U.S.C. § 1802(17)). Here, "fishing communities" include communities with a substantial, direct involvement in or dependence on the skate fishery. For example, skates are widely used as lobster bait, but it is impractical to identify every community with substantial involvement in the lobster fishery (and consequently some dependence on the skate fishery) for assessment in this document.

6.1.2.1 Skate Fishing Communities Identified

There are over 400 communities that have been a homeport or landing port to one or more active Northeast skate vessels since 2010 (more homeports than landing ports). These ports occur throughout the coastal Northeast and mid-Atlantic, primarily from Maine to New Jersey. The level of activity in the skate fishery has varied across time. This section identifies the communities for which skates are particularly important. While the involvement of communities in the skate fishery is described, individual vessel participation may vary. Communities dependent on the skate resource are categorized into primary and secondary port groups. Metrics were calculated using the annual average over a recent nine-year period for which landings data are available, here (FY 2010-2018). Because geographical shifts in the distribution of Northeast skate fishing activity have occurred, the characterization of some ports as "primary" or "secondary" may not reflect their historical participation in and dependence on the skate fishery. The NOAA Fisheries Fishing Engagement and Reliance Indicators reveal that there are over 480 communities that have a skate fishery engagement and reliance index in the range of low to high, using 2014-2018 data. Reported in Table 13 are the 28 communities that have a ranking of at least medium-high for either engagement or reliance.

Primary Port Criteria. The skate fishery primary ports are those that are substantially engaged in the fishery, and which are likely to be the most impacted by the alternatives under consideration. The primary ports meet at least one of the following criteria:

1. At least $1M average annual revenue of skates during 2010-2018 (Table 14), or
2. A ranking of high for engagement in and reliance on the skate fishery on average in 2014-2018 according to the NOAA Fisheries Community Social Vulnerability Indicators (Table 14).

Secondary Port Criteria. The skate fishery secondary ports are those that may not be as dependent or engaged in the fishery as the primary ports but are involved to a lesser extent. Because of the size and diversity of the skate fishery, it is unpractical to examine each secondary port individually. However, they are listed here to provide a broader scope of potential communities impacted by skate management measures. The secondary ports meet at least one of the following criteria:

1. At least $100,000 average annual revenue of skates, 2010-2018, or
2. A ranking of at least medium-high for engagement in or reliance on the skate fishery on average in 2014-2018 according to the NOAA Fisheries Community Social Vulnerability Indicators.

Changes to these criteria since there use in Framework 8 are the inclusion of the fishery engagement and reliance indicators.

Skate Primary and Secondary Ports. Based on these criteria, there are eight primary ports in the Northeast skate fishery (Table 15). Of these, the highest revenue ports are Chatham and New Bedford, Massachusetts and Point Judith, Rhode Island. There are 21 secondary ports from Massachusetts to North Carolina. The primary and secondary ports comprised 72% and 24% of total fishery revenue, respectively, during 2010-2018. There are 87 other ports that have had more minor participation (4%) in the fishery recently.

Of the primary ports, Chatham had the highest average revenue between 2010 and 2018, $1.7M, or 15% of total revenue in Chatham for all fisheries (Table 13). There were 59 active skate vessels during that time. Point Judith and New Bedford each had an average over $1.2M. The percent of total revenue was lower, just 0.3% and 2.8%, respectively. However, a much larger number of skate vessels landed in these ports, 167 and 178, respectively. Thus, although these three ports are important for the skate fishery, other fisheries dominate their overall fishing activity. For most of the secondary ports, the percent revenue from skates is also very low, from 0.3-12%, except for Sea Isle City, New Jersey (18%). Montauk, New York and Gloucester, Massachusetts had 106 and 152 active skate vessels during 2010-2018, higher than the other secondary ports, 5-96. More community information is available from the NEFSC Social Sciences Branch website and in Clay et al. (2007).

Table 13. Fishing revenue (unadjusted for inflation) and vessels in top skate ports by revenue, calendar years 2010-2018.

Port	Average revenue, 2010-2018			Total active skate vessels, 2010-2018
	All fisheries	Skates only	% Skates	
Chatham, MA	$11,724,737	$1,704,647	15%	59
Point Judith, RI	$45,995,459	$1,294,973	2.8%	167
New Bedford, MA	$359,807,372	$1,229,694	0.3%	178
Newport, RI	$8,310,603	$411,274	4.9%	25
Little Compton, RI	$2,345,325	$280,600	12%	30
Long Beach, NJ	$26,247,037	$247,347	0.9%	59
Montauk, NY	$17,262,945	$230,299	1.3%	106
New London, CT	$5,030,350	$226,059	4.5%	30
Pt. Pleasant, NJ	$26,975,369	$175,347	0.7%	96
Sea Isle City, NJ	$879,404	$161,499	18%	5
Gloucester, MA	$47,936,941	$155,971	0.3%	152
Stonington, CT	$7,241,146	$136,587	1.9%	33
Hampton Bay, NY	$5,777,526	$133,139	2.3%	59
Westport, MA	$1,427,621	$101,323	7.1%	10
Other (n=103)	$290,196,969	$582,207	0.2%	
Total	**$857,158,805**	**$7,070,932**	**0.8%**	
Source: NMFS Commercial Fisheries Database, accessed September 2019.				

Table 14. Skate fishing community engagement and reliance indicators, 2014-2018 average.

State	Community	Community Index	
		Engagement 2014-2018	Reliance 2014-2018
ME	Monhegan	Low	High
	Portland	Medium-High	Low
MA	Gloucester	High	Medium
	Boston	Medium-High	Low
	Scituate	Medium-High	Low
	Chatham	High	High
	Harwichport	Medium-High	Medium-High
	Woods Hole	Medium	Medium-High
	New Bedford	High	Medium
	Westport	High	Medium
	Chilmark	Medium	High
RI	Little Compton	High	High
	Newport	High	Medium
	Narragansett/Pt. Judith	High	High
CT	Stonington/Mystic/Pawcatuck	High	Medium
	New London	High	Medium
NY	Montauk	High	High
	Amagansett	Medium	High
	Wainscott	Low	Medium-High
	Hampton Bays/Shinnecock	High	Medium-High
	Oak Beach-Captree	Low	High
NJ	Belford	High	High
	Point Pleasant	High	Medium
	Barnegat Light/Long Beach	High	High
	Cape May	High	High
MD	Ocean City	Medium-High	Medium
VA	Newport News	Medium-High	Low
NC	Wanchese	Medium-High	Medium-High

Notes: This list includes those communities that have a ranking of at least medium-high for engagement or reliance.
Source: http://www.st.nmfs.noaa.gov/humandimensions/social-indicators/index.

Table 15. Primary and secondary ports in the Northeast skate fishery.

State	Port	Average revenue, 2010-2018		Skate Engagement or Reliance Indicator		Primary/ Secondary
		>$100K	>$1M	Med-High	High	
ME	Monhegan			√		Secondary
	Portland			√		Secondary
MA	Gloucester	√		√		Secondary
	Boston			√		Secondary
	Scituate			√		Secondary
	Chatham	√	√		√	Primary
	Harwichport			√		Secondary
	Woods Hole			√		Secondary
	New Bedford	√	√		√	Primary
	Westport	√		√		Secondary
	Chilmark			√		Secondary
RI	Little Compton	√			√	Primary
	Newport	√		√		Secondary
	Narragansett/Point Judith	√	√		√	Primary
CT	Stonington/Mystic/Pawcatuck	√		√		Secondary
	New London	√		√		Secondary
NY	Montauk	√			√	Primary
	Amagansett			√		Secondary
	Wainscott			√		Secondary
	Hampton Bays/ Shinnecock	√		√		Secondary
	Oak Beach - Captree			√		Secondary
NJ	Belford				√	Primary
	Point Pleasant	√		√		Secondary
	Barnegat Light/Long Beach	√			√	Primary
	Sea Isle City	√				Secondary
	Cape May				√	Primary
MD	Ocean City			√		Secondary
VA	Newport News			√		Secondary
NC	Wanchese			√		Secondary

The Engagement Index can be used to determine trends in a fishery over time. Those ports with high skate engagement in 2014-2018, generally had high engagement in 2004-2008 and 2019-2013, except for Westport, MA; Stonington and New London, CT; and Belford NJ (Table 16). There are 11 ports that have had high engagement during all three periods, indicating a stable presence in those communities.

Table 16. Changes in engagement over time for all primary and secondary skate ports, plus any port with medium-high or high skate engagement over the time series, 2004-2018.

State	Community	Engagement Index			
		2004-2008	2009-2013	2014-2018	2018 only
ME	Monhegan	Low	Low	Low	Low
	Portland	Med.-High	Med.-High	Med.-High	Medium-
NH	Portsmouth	Med.-High	Med.-High	Low	Low
MA	Gloucester	High	High	High	High
	Boston	High	High	Med.-High	Med.-High
	Scituate	High	High	Med.-High	Med.-High
	Marshfield	Med.-High	Medium	Medium	Medium
	Plymouth	Med.-High	Medium	Medium	Medium
	Provincetown	High	Med.-High	Medium	Medium
	Chatham	High	High	High	High
	Harwichport	Medium	Medium	Med.-High	Medium
	Woods Hole	Medium	Medium	Medium	Medium
	Fall River	Medium	High	Low	Low
	New Bedford	High	High	High	High
	Westport	Med.-High	Med.-High	High	Med.-High
	Chilmark	Low	Medium	Medium	Medium
RI	Tiverton	High	Medium	Medium	Medium
	Little Compton	High	High	High	High
	Newport	High	High	High	High
	Narragansett/Pt. Judith	High	High	High	High
CT	Stonington/Mystic/Pawcatuck	Med.-High	Medium	High	High
	New London	Medium	High	High	High
NY	Mattituck	Med.-High	Med.-High	Medium	Medium
	Montauk	High	High	High	High
	Amagansett	Medium	Medium	Medium	Medium
	Wainscott	Medium	Low	Low	Low
	Hampton Bays/Shinnecock	High	High	High	High
	Oak Beach-Captree	Low	Low	Low	Low
NJ	Belford	Med.-High	Med.-High	High	High
	Point Pleasant	High	High	High	High
	Barnegat Light/Long Beach	High	High	High	High
	Cape May	High	High	High	High
MD	Ocean City	Med.-High	Med.-High	Med.-High	Med.-High
VA	Newport News	Medium	Medium	Med.-High	Med.-High
NC	Wanchese	Medium	Med.-High	Med.-High	Medium
Source: http://www.st.nmfs.noaa.gov/humandimensions/social-indicators/index.					

Social and Gentrification Pressure Vulnerabilities. The NOAA Fisheries Community Social Indicators (see also Jepson & Colburn 2013) are quantitative measures that describe different facets of social and economic well-being that can shape either an individual's or community's ability to adapt to change. The

indicators represent different facets of the concepts of social and gentrification pressure vulnerability to provide context for understanding the vulnerabilities of coastal communities engaged in and/or reliant on commercial fishing activities. Provided here are these indicators for the primary and secondary skate ports. At least some data are missing for Wainscott and Oak Beach/Captree, NY because these communities are not included in the American Community Survey five-year estimates upon which the social and gentrification pressure vulnerability indicators are based. Therefore, their status in these categories could not be analyzed.

The Social Vulnerability Indicators. There are five social vulnerability indicators: Labor force structure, Housing characteristics, Personal disruption, Poverty, and Population composition. The variables used to construct each of these indices have been identified in the literature as representing different factors that may contribute to a community's vulnerability. The **Labor force structure** index characterizes the strength/weakness and stability/instability of the labor force. The **Housing characteristics** index is a measure of infrastructure vulnerability and includes factors that indicate housing that may be vulnerable to coastal hazards. The **Personal disruption** index represents factors that disrupt a community member's ability to respond to change because of personal circumstances affecting family life such as unemployment or educational level. The **Poverty** index is a commonly used indicator of vulnerable populations. The **Population composition** index shows the presence of populations who are traditionally considered more vulnerable due to circumstances often associated with low incomes and fewer resources. A high rank in any of these indicates a more vulnerable population.

Overall, both primary and secondary skate port communities exhibited medium to high vulnerability in at least one of the five social vulnerability indicators. For primary ports, only New Bedford, MA shows vulnerabilities in more than one of the five indicators. In fact, it has vulnerabilities in four out of the five indicators. For secondary ports, New London, CT and Newport News, VA scored medium to high for four out of the five indicators. For both primary and secondary ports, the most common indicator of vulnerability is Labor force structure.

Gentrification Pressure Indicators. Gentrification pressure indicators (Table 18) characterize factors that, over time, may indicate a threat to the viability of a commercial or recreational working waterfront, including the displacement of fishing and fishing-related infrastructure. The **Housing Disruption** index represents factors that indicate a fluctuating housing market where some fishing infrastructure displacement may occur due to rising home values and rents. The **Retiree migration** index characterizes areas with a higher concentration of retirees and elderly people in the population. The **Urban sprawl** index describes areas with increasing population and higher costs of living. A high rank in any of these indicates a population more vulnerable to gentrification.

All primary skate ports scored medium to high on at least two of the three gentrification pressure indicators. Similar results are found for secondary ports, with 16 out of 21 scoring medium or higher on at least two of the three indicators. This suggests that shoreside fishing infrastructure and fishing family homes may face rising property values (and taxes) from an influx of second homes and businesses catering to those new residents, which may displace the working waterfront.

Combined Social and Gentrification Pressure Vulnerabilities. Overall, five of the eight primary port communities have medium to high levels of vulnerability for four or more of the eight indicators (combined social and gentrification pressure). New Bedford, MA has six indicators at the medium to high level. For secondary ports, 10 of the 21 communities have medium to high levels of vulnerability for four or more of the eight indicators. Boston, MA has five. This indicates high social and gentrification pressure vulnerability overall for both the primary and secondary communities, though some individual communities exhibit low levels for one or more indicators.

Table 17. Social vulnerability in primary and secondary skate ports, 2018.

	State	Community	Labor Force Structure	Housing Characteristics	Environmental Justice Indicators		
					Personal Disruption	Poverty	Population Composition
Primary Skate Ports	MA	Chatham	High	Low	Low	Low	Low
		New Bedford	Low	Medium	MedHigh	High	MedHigh
	RI	Little Compton	Medium	Low	Low	Low	Low
		Narragansett/ Pt. Judith	Medium	Low	Low	Low	Low
	NY	Montauk	Medium	Low	Low	Low	Low
	NJ	Barnegat Light	High	Low	Low	Low	Low
		Belford	Low	Low	Low	Low	Low
		Cape May	MedHigh	Low	Low	Low	Low
Secondary Skate Ports	ME	Monhegan	Low	MedHigh	Low	MedHigh	Low
		Portland	Low	Medium	Low	Medium	Low
	MA	Boston	Low	Low	Medium	MedHigh	MedHigh
		Chilmark	MedHigh	Low	Low	Low	Low
		Gloucester	Low	Low	Low	Low	Low
		Harwich Port	High	Low	Low	Low	Low
		Scituate	Low	Low	Low	Low	Low
		Westport	Low	Low	Low	Low	Low
		Woods Hole	Medium	Low	Low	Low	Low
	RI	Newport	Low	Low	Low	Medium	Low
	CT	Stonington	Low	Low	Low	Low	Low
		New London	Low	Medium	High	High	MedHigh
	NY	Amagansett	MedHigh	Low	Low	Low	Low
		Hampton Bays/ Shinnecock	Low	Low	Low	Low	Medium
		Oak Beach-Captree	High	N/A*	Low	N/A*	Low
		Wainscott	N/A*	N/A*	N/A*	N/A*	N/A*
	NJ	Pt. Pleasant Beach	Medium	Low	Low	Low	Low
		Sea Isle City	High	Low	Low	Low	Low
	MD	Ocean City	Medium	MedHigh	Low	Low	Low
	VA	Newport News	Low	Medium	Medium	Medium	MedHigh
	NC	Wanchese	Low	MedHigh	Low	Low	Medium

*N/A indicates ranking is not available due to incomplete data.
Source: NOAA Fisheries Community Social Vulnerability Indices.

Table 18. Gentrification pressure in primary and secondary skate ports, 2018.

	State	Community	Housing Disruption	Retiree Migration	Urban Sprawl
Primary Skate Ports	MA	Chatham	High	High	Medium
		New Bedford	Medium	Low	MedHigh
	RI	Little Compton	MedHigh	MedHigh	Low
		Narragansett/Pt. Judith	MedHigh	Medium	Low
	NY	Montauk	High	MedHigh	MedHigh
	NJ	Barnegat Light	High	High	MedHigh
		Belford	High	Low	Medium
		Cape May	High	High	Medium
Secondary Skate Ports	ME	Monhegan	High	Low	Low
		Portland	MedHigh	Low	Medium
	MA	Boston	High	Low	High
		Chilmark	Low	High	High
		Gloucester	Medium	Low	Medium
		Harwich Port	Medium	High	Medium
		Scituate	MedHigh	Low	MedHigh
		Westport	Medium	Medium	Medium
		Woods Hole	Low	MedHigh	MedHigh
	RI	Newport	High	Low	Medium
	CT	Stonington	Low	Medium	Low
		New London	Low	Low	Low
	NY	Ocean City	High	MedHigh	High
		Amagansett	High	Medium	MedHigh
		Hampton Bays/Shinnecock	N/A*	High	N/A*
		Oak Beach-Captree	N/A*	N/A*	N/A*
	NJ	Wainscott	High	Medium	MedHigh
		Pt. Pleasant Beach	MedHigh	High	Medium
	MD	Sea Isle City	MedHigh	MedHigh	Low
	VA	Newport News	Low	Low	Low
	NC	Wanchese	Medium	Low	Low

*N/A indicates ranking is not available due to incomplete data.

6.1.2.2 Ports by Disposition (Wing and Bait)

Wing fishery: During 2010-2018, skate wings (food) were landed in over 115 ports. Skate wing revenue was highest in Chatham and New Bedford, MA; and Point Judith and Little Compton, RI during that time (Table 19). In 2018, the top wing ports were Chatham and New Bedford, MA; Point Judith, RI, and Point Pleasant, NJ. The total skate wing revenue for 2018 ($5.6M) was slightly lower than the average for 2010-2018 ($5.8M). The top port for skate wing revenue has been Chatham, averaging $1.7M for 2010-2018, accounting for 29% of wing revenue. The second highest port for skate wings is now Point Judith, but the revenue in 2018 ($539K) was down 27% from the nine-year average ($741K). New Bedford skate wing revenues were $467K in 2018, much less than half its 2010-2018 average of $1.2 million.

Trawl and gillnet vessels land skate wings. Some trawlers target skate; others catching skate incidentally. Most of the gillnet vessels targeting skate are based largely in Chatham but also in New Bedford. There is a very small skate wing fleet in Virginia, though it has dramatically declined in recent years. Most of these are monkfish gillnets though some draggers caught skate incidentally at the height of the fishery.

Bait fishery: During 2010-2018, skate bait was landed in over 35 ports with bait revenue highest in Point Judith and Newport, RI during that time (Table 19). In 2018, the top bait ports were Point Judith, RI, and New London, CT. The total skate bait revenue for 2018 ($1.4M) was slightly higher than the average for 2010-2018 ($1.3M). The top port for skate bait revenue has been Point Judith, RI, averaging $554K for 2010-2018, accounting for 43% of bait revenue. The second highest port for skate wings is now New London, CT, with revenue in 2018 ($280K) up 204% from the nine-year average ($137K). These revenues are those reported by Federal dealers. Ports such as Montauk, NY have individual vessels which sell skate directly to lobster and other pot fishermen for bait.

Table 19. Skate revenue by disposition and port, for calendar years 2010-2018.

Port	Avg. 2010-2018	2018 only
Wing (food)	**$5,779,373**	**$5,617,183**
Chatham, MA	$1,689,116	$2,793,625
New Bedford, MA	$1,194,233	$467,668
Point Judith, RI	$740,775	$538,917
Little Compton, RI	$280,600	$173,131
Barnegat Light, NJ	$241,332	$202,637
Montauk, NY	$230,277	$246,397
Newport, RI	$181,871	$126,719
Point Pleasant, NJ	$174,092	$275,422
Gloucester, MA	$133,104	$82,331
Hampton Bay, NY	$154,923	$119,707
Stonington, CT	$124,995	$126,753
Westport, RI	$100,355	$55,057
Other Ports (n=104)	*$533,701*	*$408,819*
Bait	**$1,291,559**	**$1,403,155**
Point Judith, RI	$554,199	$714,467
Newport, RI	$229,402	$144,862
Sea Isle City, NJ	$148,630	$0
New London, CT	$137,160	$280,434
Other Ports (n=32)	*$222,168*	*$263,392*
Grand Total	**$7,070,932**	**$7,020,338**

6.1.2.3 Skate Fishery by States

During 2010-2018, skates were landed in ten states, mostly in Massachusetts and Rhode Island (Table 20). The bait fishery is primarily located in Rhode Island, and the wing fishery in Massachusetts. The skate fishery is a small contribution (0.0-2.8%) to overall fishing revenue to these ten states.

Table 20. Skate landings and revenue by fishery and state, calendar year 2010-2018.

	Average revenue 2010-2018				
	Skates			All fisheries	% skates
	Bait	Food	Total		
ME	$72	$1,245	$1,316	$305,515,928	0.0%
NH	$5,737	$12,477	$18,214	$25,595,733	0.1%
MA	$139,232	$3,304,615	$3,443,847	$502,369,095	0.7%
RI	$785,590	$1,221,570	$2,007,160	$71,733,848	2.8%
CT	$155,177	$229,162	$384,338	$14,564,035	2.6%
NY	$156	$416,687	$416,843	$27,840,035	1.5%
NJ	$204,560	$494,964	$699,524	$159,086,127	0.4%
MD	$601	$21,258	$21,859	$7,065,590	0.3%
VA	$435	$71,943	$72,378	$60,801,601	0.1%
NC	$0	$5,345	$5,345	$18,558,375	0.0%

7.0 FISHERY IMPACTS OF ALTERNATIVES

7.1 NO ACTION

Under No Action, anyone with a valid vessel operator permit can obtain and subsequently drop a federal skate permit at any point in the fishing year. As with other open-access permits, the federal skate permit may be added and dropped as often as desired throughout the fishing year. This has occurred across all months of the fishing year (Figure 1, Figure 2). No Action would continue this flexibility and not impose any additional restrictions. A vessel must retain the federal skate permit for a minimum period of seven days, and there is processing time within the GARFO permit office which limits flexibility somewhat. If a new vessel fishes for skate in state waters, then applies for a federal skate permit mid-year, the earlier state landings cannot be tied to that vessel in the federal data systems (i.e., landings where permit = 00000 are not linked to specific vessels).

A vessel could drop their federal skate permit to fish in a state skate fishery and be bound to state regulations. The Rhode Island possession limits mirror the federal limits, but on a weekly basis (Section 6.1.1.2.2). When a federal skate incidental limit is imposed, Rhode Island does not reduce its weekly possession limit to match the lower federal limit. Massachusetts, Connecticut, New York, and New Jersey do not have any state possession limits for skates, meaning vessels could land unlimited quantities of skate per trip if they do not have a federal skate permit. Since FY 2016, there have been just 7-11 vessels each year that had skate landings after dropping the federal skate permit (Table 3), so this practice is not widespread. If the vessel has other federal fishing permits that are year-round (e.g., limited access groundfish and monkfish) it could not drop those permits. In that case, all landings must be sold to a federal dealer and the skate landings would contribute to the in-season monitoring against the Federal TAL.

A small number of vessels have been using this flexibility in recent years. Of the ~350 vessels with active federal skate permits each year since FY 2016 (Table 4), about 25 or fewer have been using this

flexibility, i.e., also had skate landings without the federal skate permit (Table 1, Table 3). In FY 2017, 20 vessels landed 2.5M lb without a federal skate permit but had one at another point in the year (Table 12). This was 5% of the vessels with active federal skate permits that year (Table 4) and 8% of total skate landings (Table 8).

In-season quota monitoring. Skate landings are monitored in-season against the Federal TAL if there is any federal fishing permit (skate or other) on the vessel on the day of landing, not just a federal skate permit (Section 6.1.1.3.1). If a vessel has any year-round federal permits (e.g., groundfish, monkfish), all skate landings are monitored against the TAL. From FY 2010-2018, 84-94% of the skate landings per year were monitored against the TAL, were by vessels that had some federal fishing permit on the day of landing (Table 8, Column B).

7.2 ALTERNATIVE 2

Under Alternative 2, an application for a federal skate permit must be submitted 30 days prior to the start of each fishing year and must be retained with the vessel for the entire year. This would require vessels to commit to holding a federal skate permit year-round. Vessels with the federal skate permit could fish in state waters but would be subject to federal regulations unless state regulations are more restrictive. As described below, the number of vessels that would be impacted by Alternative 2 would be small relative to the overall fishery but removing this flexibility could be a substantial impact to these vessels, particularly to those that fish without a federal skate permit for part of the year.

Potential impacts of a March 31 permit application deadline. The vessels that would likely be most impacted by requiring an April 1 permit application deadline are those that currently submit their permit application at later points in the fishing year. They would need to adjust their business practices to be sure that their permit application was submitted prior to the deadline. From FY 2016-2021, more than half of the ~2,000 unique vessels with a federal skate permit (64%) had the permit issued before April 1 of the prior fishing year (i.e., more than 30 days prior to the start of the fishing year; Table 1). The remainder, 507-816 vessels each year (36%), were issued their permit on or after April 1 of the prior fishing year, with many (270-340) issued in April (Figure 1). It is likely that many of the permits issued in April, especially early in the month, had permit applications submitted prior to April 1 given there is administrative processing time between when the application is received and issued, so would comply with Alternative 2.[3] To note, after June, federal skate permits continue to be issued throughout the remainder of the fishing year at a consistently low level (about 32 on average/month).

Currently, if a new vessel fishes for skate in state waters (permit # = 000000), then applies for a federal skate permit mid-year (6-digit permit number), the earlier state landings cannot be tied to that vessel in the federal data system. Under Alternative 2, if the new vessel opts for a federal permit, all landings could be tied to it.

Potential impacts of retaining the permit year-round. The vessels that would likely be most impacted by requiring the federal skate permit be retained year-round are those that have been issued or cancelled their permit mid-year in the past. Each year since FY 2016, there have been 18-23 vessels that had skate landings prior to being issued a federal skate permit (Table 1). There were 48-118 unique vessels that cancelled their federal skate permit during the fishing year using a code identified in Table 2 (3-6% of total unique vessels with a federal skate permit; Table 4). These cancellations occurred across all months (Figure 2) and were potentially for the purpose of entering a state fishery, though this is difficult to determine from the codes alone and is likely an upper bound. Looking at landings, just 9-18 had skate landings with the federal skate permit prior to cancellation (Table 3). A similar number, 7-11 vessels per

[3] The analysis is based on permit issue date while the alternatives are based on application submission date, which is not in the federal database available to the PDT.

year (about 0.5% of all vessels with a federal skate permit), had subsequent landings without a federal skate permit after cancellation, likely in state fisheries. Vessels could no longer cancel their permit and would be bound to the federal possession limit.

Under Alternative 2, vessels would need to make an annual decision, to either have a federal skate permit year-round or never obtain this permit. To determine the impact of losing the flexibility to pick up the federal skate permit mid-year, FY 2017, 2019 and 2020 were examined to identify the landings and number of vessels that had skate landings both with and without a federal skate permit that year (Table 12). In FY 2017, there were 20 vessels landing 2.5M lb of skate (8% of all skate landings where permit #>0) without a federal skate permit on the day of landing but at some other point in the year. Of these landings, 81% were bait. In FY 2019 and 2020, a smaller number of this type of vessel (13 and 15, respectively) landed a smaller poundage of skate (959K lb and 583K lb, respectively, or 2-3% of all skate landings where permit #>0). A lower percentage, but still a majority was landings for bait (56-60%). This range in the number of vessels that did not have a federal skate permit on the day of landing but did at some point in the year (13-20) is about 3-5% of all vessels landing skate with a federal skate permit at some point in the year (323-381, Table 4). The range of years in Table 12 demonstrate that impacts could vary across years. Impacts would be greater in years like FY 2017.

Potential impacts to in-season quota monitoring. There is no guarantee that Alternative 2 would increase the proportion of total landings that are monitored in-season against the Federal TAL relative to No Action (84-94% of all skate landings, FY 2010-2018, Table 8). If vessels that currently add or drop the federal skate permit choose to have a year-round federal skate permit and meet the application deadline, this may increase the proportion of total landings that are monitored against the TAL, if those vessels previously did not have any federal fishing permits on the day of landing. Conversely, if vessels choose to fish year-round in a state fishery or miss the federal skate permit application deadline and have no other federal fishing permits, the proportion of landings monitored in-season against the TAL may be reduced. It is very hard to predict these business decisions.

Potential impacts to year-end ACL accounting. There would likely be negligible impacts to year-end ACL accounting relative to No Action. Currently, all skate landings that are sold to federal dealers, and many that are otherwise reported to the federal database, are included in ACL accounting.[4] This includes landings sold to state dealers that are reported to the Atlantic Coastal Cooperative Statistics Program, which then provides data to GARFO. Alternative 2 would not change the accounting methods, and total catch relative to the ACL would be the same as under No Action. Within the ACL accounting, the "state landings" bin are the landings with permit number = 000000. These are vessels that have never had a federal fishing permit. Under Alternative 2, the first time one of these vessels chooses to have a federal skate permit, all its skate landings that fishing year would be included in the "commercial landings" bin, because it would get a 6-digit permit number when it was issued the federal permit at the beginning of the fishing year. Under No Action, the landings of this vessel could be within both the "state landings" and "commercial landings" bins if the federal skate permit is received mid-year and there are state skate landings prior to that point. Thus, the amount of total catch would not change, but there may be small changes to how it is distributed within the total. Accountability measures are based on total catch relative to the ACL.

Potential impacts to participation. Under Alternative 2, the skate landings monitored in-season against the TALs may increase if vessels currently landing skate without any federal fishing permit opt to fish in the federal fishery year-round versus remain in state fisheries (and their federal effort increases). There is about 1.8-5.4M lb of skate landed annually without a federal fishing permit on the day of landing, or 3-16% of all skate landings since FY 2010 (Table 8). Of these landings, 11-61% annually has been by vessels that never had a federal fishing permit (permit number is 0) and it is less likely that these vessels

[4] A few sources of skate landings are not in ACL accounting, like vessel-to-vessel transfers. See Table 7 for details.

would switch into a federal fishery year-round. It is somewhat more likely that vessels that had a federal fishing permit at some point in the past (so permit #>0) but no federal fishing permit on the day of landing (1.2-4.2M lb annually, Column C of Table 8) could switch to year-round-federal fishing. This would be a highly individualistic business decision where the costs and benefits would be weighed and depend on the timing and value of federal and state fishing and the other fisheries that the vessel participates in.

For the small number of vessels that have had landings both with and without a federal fishing permit during the year (about 11-20, Table 12), Alternative 2 could cause a decrease in participation if it is disruptive enough to force businesses to center entirely on the federal fishery or state fisheries. Vessels could pursue other fishing opportunities besides skates. Future participation may be inhibited if there are new restraints on what is currently a fully open access fishery.

Potential impacts to discards. Skate discards may increase under Alternative 2 relative to No Action if vessels that currently have a federal skate permit for part of the year opt to not obtain a year-round federal skate permit. When these vessels then fish in the EEZ for other federal fisheries, all skates caught would need to be discarded. If these same vessels rather opt to obtain a year-round federal skate permit, they would be subject to the federal possession limits when fishing in state waters, so any catch above those limits would be discarded rather than landed. Discards are already quite high, 19-27% of all skate catch in recent years (Table 7).

Potential impacts to states. Vessels that landed skate bait without a federal skate permit on the day of landing but at some other point in the year since FY 2010 were primarily landing in Rhode Island and Connecticut (Figure 4), states with the second and fifth highest skate revenue in FY 2010-2018 (Table 20). Landings of this nature were particularly high in Connecticut in FY 2016 and 2017, about 1.2M lb. Other states have had minimal to no skate landings by vessels without a federal skate permit on the day of landing but at some other point in the year.

Vessels that landed skate wings without a federal skate permit on the day of landing but at some other point in the year since FY 2010 were primarily landing in Rhode Island and New Jersey (Figure 6), through there were small landings in Massachusetts, Connecticut, and New York (generally under 100K lb/year). New Jersey is third highest in skate revenue in FY 2010-2018 (Table 20).

Potential administrative impacts. Creating a federal skate permit application deadline of 30 days prior to May 1 would likely result in an increase in applications submitted to the GARFO Permit Office prior to the deadline. This may slow processing times. However, requiring this office to check and confirm that the intent of a request for a permit cancellation is appropriate would probably have more administrative impact. Additionally, there would likely need to be substantial outreach to industry to educate and ensure compliance.

7.3 ALTERNATIVE 3

Under Alternative 3, the federal skate permit may be obtained at any point in the fishing year and must be retained for the remainder of the fishing year. One result of this alternative is that vessels would no longer be able to drop the federal skate permit to participate in a state fishery later in the year.

Potential impacts to participation. The impacts of Alternative 3 would be like Alternative 2, but Alternative 3 is more flexible to allow skate fishing in a state fishery prior to obtaining the federal skate permit. Impacts would be reduced by the degree to which vessels are currently active in a state fishery before they obtain a federal skate permit (18-23 vessels recently, Table 1), a practice that could continue under Alternative 3. Since FY 2016, there have been 95-122 vessels that, once issued the federal skate

permit after April 1 of the prior fishing year, were active that year. These vessels could continue to be active under Alternative 3 as opposed to under Alternative 2.[5]

Like Alternative 2, vessels would not be able to cancel their federal skate permit (with exceptions). Vessels most likely to be impacted are those that have cancelled their permit mid-year in the past. Each year since FY 2016, there were 48-118 unique vessels that cancelled their federal skate permit during the fishing year using a code identified in Table 2 (3-6% of total unique vessels with a federal skate permit; Table 4). Of these vessels, just 7-11 vessels per year (about 0.5% of all vessels with a federal skate permit), had subsequent landings without a federal skate permit after cancellation, likely in state fisheries. These landings would not be permitted under Alternative 3, as with Alternative 2.

At least in the federal fishery, impacts on participation would be to a lesser extent than Alternative 2. Without the ability to leave the federal fishery, the small number of vessels that currently do so may opt to not enter the federal fishery at all vs be forced to remain in it all year. Future participation may be inhibited if there are new restraints on what is currently a fully open access fishery.

Like No Action, if a new vessel fishes for skate in state waters, then applies for a federal skate permit mid-year, the earlier state landings cannot be tied to that vessel in the federal data systems (i.e., landings where permit = 00000 are not linked to specific vessels).

Potential impacts to in-season quota monitoring. Like Alternative 2, there is no guarantee that Alternative 3 would increase the proportion of total landings that are monitored in-season against the Federal TAL relative to No Action (84-94% of all skate landings, FY 2010-2018, Table 8). If vessels that currently drop the federal skate permit to be active in a state skate fishery (7-11 vessels per year recently, Table 4) continue to choose to have a federal skate permit, this may increase the proportion of total landings that are monitored against the TAL, if those vessels otherwise would have no federal fishing permit on the day of landing. Conversely, if these vessels choose to never obtain a federal skate permit and have no other federal fishing permits, the proportion of landings monitored in-season against the TAL may be reduced. It is very hard to predict these business decisions.

The stated intent of Alternative 3 (Section 5.3) is to "prevent skate fishing without a federal skate permit once the federal permit is obtained during the year, and thereby ensure the landings are accounted for against the Federal TAL." Again, this would only be ensured if there would otherwise be no other federal fishing permits on the vessel.

Potential impacts to year-end ACL accounting. Alternative 3 would likely have no impact on year-end ACL accounting relative to No Action. Alternative 3 would also not change the accounting methods (see above), and total catch relative to the ACL would be the same as under No Action and Alternative 2. Unlike Alternative 2, there would be no change to how catch is distributed within the ACL accounting bins relative to No Action. Under Alternative 3, a vessel could start a fishing year with a permit # = 000000 (never had a federal fishing permit) and land skate in state waters. If this vessel receives a federal skate permit mid-year, all its subsequent skate landings would be included in the "commercial landings" bin, because it would get a 6-digit permit number at that point. Like No Action, the landings of this vessel could be within both the "state landings" and "commercial landings" bins if the federal skate permit is received mid-year and there are state skate landings prior to that point. Thus, neither the amount of total catch nor how catch is distributed within the total would change.

Potential impacts to discards. As with Alternative 2, skate discards may increase relative to No Action. If vessels that currently have a federal skate permit for part of the year opt to obtain this permit for fishing in the EEZ, skates caught up to the possession limit could be landed. Once the federal skate permit is obtained, and a vessel fishes in state waters, it must continue to fish under the federal possession limits, so

[5] This range is an upper bound, based on when permits were issued, not when permits were applied for.

there could be increased discards at that point. If these same vessels rater opt to never obtain a federal skate permit, if they fish in the EEZ for other fisheries, all skate would be discarded.

Potential impacts to states. Like Alternative 2, the vessels more likely to be impacted by Alternative 3 have been landing primarily in Rhode Island ports, and to a lesser degree in Connecticut and New Jersey (Figure 4, Figure 6). These landings in other states have been minor.

Potential administrative impacts. Alternative 3 would have less administrative impacts than Alternative 2, as there would not necessarily be additional permit applications submitted prior to each fishing year. However, requiring the GARFO Permit Office to check and confirm that the intent of a request for a permit cancellation is appropriate would probably have an administrative impact. There would likely need to be substantial outreach to industry to educate and ensure compliance.

7.4 POTENTIAL TO ACHIEVE THE GOALS OF FRAMEWORK ADJUSTMENT 9

Goal 1: Improve skate data, leading to more effective in-season monitoring, improved assessments (e.g., no longer be considered data-poor), and more precise and accurate understanding of the landings and discards in different segments of the fishery.

Alternatives 2 and 3 do not necessarily change the proportion of total landings that are monitored in-season against the Federal TAL relative to No Action. In-season monitoring against the Federal TAL is based on whether there are landings with any federal fishing permit, not just a federal skate permit. Requiring a federal skate permit year-round would only increase the proportion of landings monitored in season if: vessels opted to have a federal skate permit year-round that would otherwise have no federal fishing permit. At the end of the year, there would be no change in total catch accounted for against the ACL. With Alternative 2, there may be a small portion of landings that would shift between the "state landings" and "commercial landings" bins.

Alternatives 2 and 3 may catch accounting a bit simpler, indirectly leading to improved skate data. Requiring the federal skate permit to be year-round (Alternative 2) would make vessels participating in the fishery more distinct from state vessels and simplify the tracking of federal and non-federal landings. For example, this requirement (Alternative 2), would result in new vessels with a federal skate permit have all landings that year tracked to the vessel. However, fishery reporting systems and processes would not change. Skate regulations already state that a federal skate permit is required to catch and land skates from the Exclusive Economic Zone (50 CFR, Chapter VI, Part 648).

Developing this action has led to a more precise and accurate understanding of the landings in different segments of the fishery (Section 6.1.1). Discard estimation methods would not change, currently calculated at a species and gear level, then extrapolated (NEFMC 2021).

Goal 2: Better understand the true potential for vessels to enter the fishery.

Under Alternative 2, the number of potential vessels with a federal skate permit would be known at the beginning of the fishing year and would serve as an upper bound on potential active vessels with a federal skate fishery. However, "the fishery" is monitored in-season and at year's end with more broad definitions, landings if there is any federal fishing permit (for any fishery) and landings where permit #>0. The fishery could also be defined even more broadly, any skate landings, regardless of permit type. By itself, Alternative 2 does not restrict the level of activity, other than needing to adhere to federal skate possession limits while fishing under a federal skate permit.

Under Alternative 3, the number of potential vessels with a federal skate permit would not be known at the beginning of the fishing year, as there would be no restriction on when vessels could apply for this permit.

Goal 3: Minimize the impact on any other fisheries that have interactions with skates and to avoid restricting the ability to transfer permits, upgrade vessels, and place limited access permits in Confirmation of Permit History (CPH).

There is some potential that the alternatives could lead to increased discards in other fisheries if a vessel does not have a federal skate permit (particularly likely under Alternative 2). Alternatives 2 and 3 are designed to prevent cancelling a federal skate permit with the intent of fishing in a state fishery and allow for permit cancellations for other purposes such as permit transfers, vessel upgrades and placing permits in CPH. These activities could continue.

Goal 4: Update the FMP objectives to reflect current stock status and rebuilding progress and to reflect how the Council identifies research priorities.

This action would accomplish this goal by updating the FMP objectives as described.

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