

NEW ENGLAND FISHERY MANAGEMENT Council

Skates

I. STATUS

1. Meetings: The Council held two PDT meetings and a Skate Oversight Committee during April and May. The PDT analyzed the effects of the proposed skate areas as time/area closures to vessels targeting skates and as gear restricted areas that would close seasonally to vessels using trawls, gillnets, dredges, and hook gear (gears capable of catching skates). The effects of these measures were taken into account when estimating wing and bait skate possession limits to achieve the Amendment 3 objectives. Both analyses used 2007 vessel trip report data which incorporate the effects of Multispecies Framework 42. The PDT also recommended two options to limit landings in each skate fishery. One option would achieve landings reductions to maintain the same proportion of wing and bait landings as occurred during 2005-2007, which reflects recent increases in the wing fishery. The other option would use 1995-2006 as the basis for achieving landings reductions, but the reductions would not be as great for the bait fishery which lands predominately little skate.

The Oversight Committee met jointly with the Advisory Panel on May 14, 2008 to review the PDT analysis and recommendations, approving management alternatives for Amendment 3. Three pairs of alternatives using skate possession limits with and without time/area closures are being recommended. Each pair includes an alternative using a hard TAC approach which monitors catch and triggers action as it approaches the catch limit and a target TAC approach which monitors landings and triggers action as it approaches the TAL. The Oversight Committee requested the PDT to do a possession limit analysis with separate day and trip boat skate wing possession limits, achieving equivalent mortality reduction in each fishery component.

In addition, the Oversight Committee is recommending an alternative which would regulate the skate bait fishery via a seasonal quota, instead of a possession limit. Skate area management that includes seasonal gear restrictions is being recommended as a considered and rejected measure, due to the anticipated effects on other fisheries and complications of area closures under consideration in Multispecies Amendment 16. The Oversight Committee is also recommending that the Multispecies Category B DAS skate possession limit apply to all vessels, greatly reducing skate mortality associated with the Multispecies B DAS program.

2. Amendment 3 status: In April, the Council approved interim catch limits, catch targets, and total allowable landings (TAL) targets to rebuild winter and thorny skate, as well as prevent skate overfishing. These decisions establish landings reduction targets which the Amendment 3 alternatives must meet. The Oversight Committee is recommending combinations of measures and specifications to achieve the TAL and prevent catch from exceeding the approved limit. The alternatives would be included in the Draft Amendment 3 document and analyzed in the DEIS, both slated for approval in October 2008 for public hearings.

II. COUNCIL ACTION

1. Approve final list of alternatives and measures for inclusion in Draft Amendment 3 and analysis in the DEIS.
2. Approve a measure to prohibit skate fishing by any vessel on a Multispecies Category B DAS, by reducing the skate possession limit in the Multispecies FMP to 500 lbs. live weight.

III. INFORMATION

1. Revised Amendment 3 decision document
2. Amendment 3 analysis conclusions and recommendations from Skate PDT
3. Additional Amendment 3 management measures – PDT comments on Multispecies Category B DAS and skate fishing
4. Draft description of Interim Catch Limits And Accountability Measures
5. Draft description of Skate Annual Review and Specifications Process
6. Joint Oversight Committee and Advisory Panel meeting summary – May 14, 2008

Draft Amendment 3 Decision Document

List of proposed measures and alternatives for Amendment 3

Table 1. Framework of alternatives for evaluation and inclusion in Amendment 3 to rebuild winter and thorny skates while preventing overfishing. All alternatives would augment existing DAS management and current skate regulations (status quo).

	(1) Hard TAC, possession limits, area management	(2) Target TAC, possession limits, area management	(3) Target TAC, possession limits, area management as AM	(4) Hard TAC and Possession limit only	(5) Target TAC and Possession limit only	(6) Wing possession limit, skate bait fishery quota, area management
Approved management measures						
1. <u>Interim catch limit (30,569 mt) and TALs for skate complex fisheries</u> Catch thresholds and targets defined by median catch and catch/biomass ratios	X	X	X	X	X	X
2. <u>Hard TACs (= interim catch limit) and AMs.</u> Overages would be deducted from the next year's TAC. A trigger, such as prohibited landings and GRAs may prevent catch from exceeding the interim catch limit and causing excessive overages.	X			X		
3. <u>A target TAC (= 75% of catch limit) with an accountability measure as an in-season trigger to change management measures (e.g. possession limit) as the monitored landings approaches the annual TAL. The trigger is invoked when 90% (?) of the sector TAL is reached. Discards are assumed to be accounted for in the discard/landings allocation and in the buffer between the catch target and limit.</u>		X	X		X	X

	(1) Hard TAC, possession limits, area management	(2) Target TAC, possession limits, area management	(3) Target TAC, possession limits, area management as AM	(4) Hard TAC and Possession limit only	(5) Target TAC and Possession limit only	(6) Wing possession limit, skate bait fishery quota, area management
4. <u>Reduce possession limit by x% for the wing fishery and establish whole skate (bait) fishery possession limit</u> to achieve mortality reductions and prevent landings from exceeding the TAL. The possession limit could be specified as a daily/trip limit or as a weekly maximum for each vessel, similar to the state summer flounder regulations or the federal scup fishery regulations (e.g. "aggregate landings program" enrollment). Mortality reductions for a wide range of wing and whole skate possession limits have been analyzed.	4,000-5,300 lb. wings 5,300 – 9,200 lb. whole	4,000-5,300 lb. wings 5,300 – 9,200 lb. whole	2,100-2,800 lb. wings 6,200 – 10,500 lb. whole	2,100-2,800 lb. wings 6,200 – 10,500 lb. whole	2,100-2,800 lb. wings 6,200 – 10,500 lb. whole	4,000-5,300 lb. wings No bait skate possession limit
5. <u>Seasonal quota</u> to restrict landings in the skate bait fishery. Vessels with Bait Letter of Authorizations would be able to land whole skate only when the season is open and landings do not exceed the quota.						X
6. <u>Time/area management to reduce mortality for fishing targeting skates</u> . Skate areas 1, 2, 3, 4, 5 (see map) Areas with the most effect for reducing winter and thorny skate mortality have been identified. Effects on catch and mortality have been analyzed with a two-bin model.	X	X	AM only			X
7. <u>Replace baseline review process with monitoring and skate management adjustment program</u> Details to be developed in draft amendment	X	X	X	X	X	X

Considered and rejected management measures

Gear restricted areas to reduce mortality from bycatch and incidentally landings. Skate areas 1, 2, 3, 4, 5 (see map and PDT analysis). Seasonal closures would prevent vessels from fishing with trawls, gillnets, dredges, and hook gear (gears capable of catching skate). This is the only measure that directly addresses skate bycatch.

Establish winter skate possession limit

Dockside identification difficulties noted. Requires additional analysis of sea sampling data.

Larger minimum mesh for skate fishery targeting large (winter) skate based on an analysis of selectivity from sea sampling data. Preliminary analysis shows little or no effect over range of meshes used by the fishery.

Maximum size restriction during peak egg laying cycles Possession of female skates whose total length is more than 31.5 inches (80 cm) would be prohibited from June 1 to August 31 while east of 71°W longitude. Possession of female skates whose total length is more than 18 inches (45.72 cm) would be prohibited from June 1 to August 31 and from November 1 to December 31 while west of 71°W longitude and north of 40°N latitude.

Requirement to land skates in whole form

Concerns about safety, hold capacity and ice costs, product quality, and at shore processing and disposal costs.

Explore and encourage bycatch reduction through gear modifications and other means, via a TAC set aside research initiative.

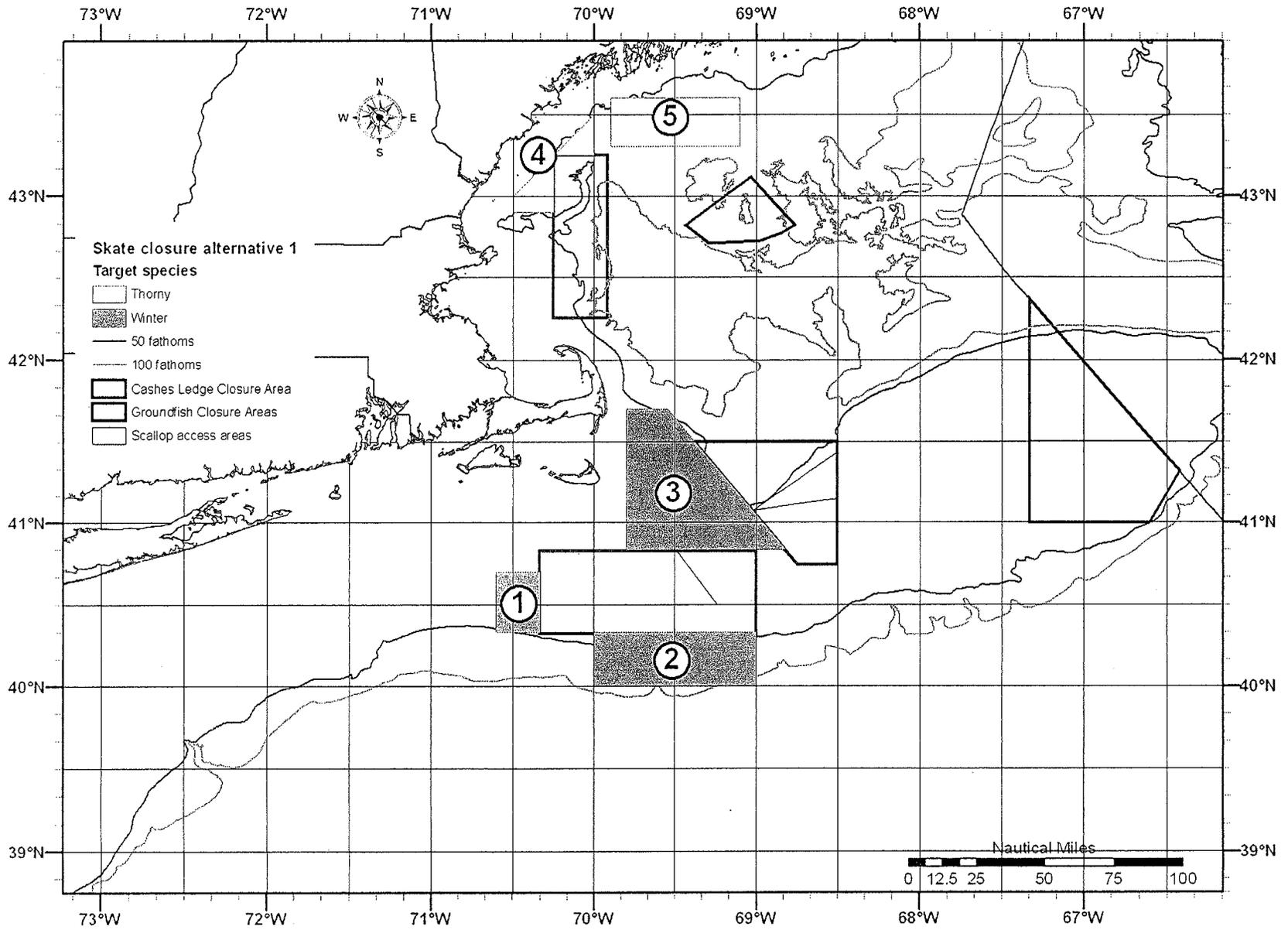
Annual catch limit specifications by individual species

Rejected due to insurmountable difficulties to ensure accurate identification and reporting by fishermen and processors.

Consolidate skate management into the Multispecies FMP

Deferred due to evolution of groundfish management

Map 1. Amendment 3 skate area management boundaries.



#2



New England Fishery Management Council

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 John Pappalardo, *Chairman* | Paul J. Howard, *Executive Director*

MEMORANDUM

DATE: May 12, 2008
TO: Skate Oversight Committee and Advisory Panel
FROM: Skate PDT
SUBJECT: Amendment 3 analysis conclusions and recommendations

The PDT met on April 28 and May 12, 2008 to evaluate and analyze management measures that would achieve the catch limits and targets that the Council approved at its April 2008 meeting. These analyses were updated to include 2007 data and the combined effects of time/area closures, gear restricted areas, and skate fishery possession limits as defined below were evaluated with respect to achieving two options for skate fishery landing targets. One set of landings targets was defined by the historic proportion of landings in the skate wing and bait fishery averaged over 2005-2007. The other targets were based on the historic proportion of landings during 1995-2006. Table 1 provides a summary of the proposed targets, the reduction from 2007 landings to achieve the targets, the estimated landed mortality reduction from time/area closures or gear restricted area management, and the amount of landed mortality reduction to be achieved via skate possession limits.

Summary of analyzed management measures:

Possession limit only

- No time/area closures or gear restricted areas

Time/area closures

- Time areas apply to vessels that target skates (analyzed as trips with skates comprising 50% or more of total landings).

Time/area closures with 500 lbs. incidental skate possession limit

- Vessels would declare into the skate fishery by VMS macro or LOA and would be able to land up to 5,300 lbs. of skate wings (2005-2007 allocation) or 4,000 lbs. of skate wings (1995-2006 allocation), but would be unable to fish in the time/area closures. Vessels with skate bait LOAs would be able to possess up to 5,300 lbs. (2005-2007) or 9,200 lbs. (1995-2006) of whole skate. All other vessels would be able to fish in any open areas as specified in other FMPs, but could possess no more than 500 lbs. live weight of skates.

Gear restricted areas (GRA)

- All five skate management areas seasonally closed to vessels using gears capable of catching skates (trawls, gillnets, dredges, hook gear).

Table 1. Estimated landings mortality reduction to meet Amendment 3 targets, with and without time/area closures. **DRAFT**

		Skate area management: Time/area closures 500 lb. incidental limit		Skate area management: Gear restricted areas	
		Wing fishery	Whole/bait fishery	Wing fishery	Whole/bait fishery
2007 reported landings (mt)		14,081	4,773	14,081	4,773
Target (mt)	2005-2007 proportional	8,947	3,311	8,947	3,311
Target change in landed mortality, no closures		-36.5%	-31.5%	-36.5%	-31.5%
Mortality reduction from time/area closures		-15.1%	+4.6%	-16.9%	-0.4%
Target change in landed mortality, with closures		-21.4%	-36.1%	-19.6%	-31.1%
Target (mt)	1995-2006 proportional	8,152	4,106	8,152	4,106
Target change in landed mortality, no closures		-42.1%	-14.0%	-42.1%	-14.0%
Mortality reduction from time/area closures		-15.1%	+4.6%	-16.9%	-0.4%
Target change in landed mortality, with closures		-27.0%	-18.6%	-25.2%	-14.4%

Skate landings by DAS program

The PDT also reviewed an analysis by the Fisheries Statistic Office that summarizes the trends in skate landings by DAS program. This evaluation was intended to identify trends in skate landings by DAS program, which may need special management attention. During the review, the PDT reached the following conclusions based on data shown in Figures 1-4.

- Bait landings on Ms A DAS have remained relatively stable and in 2007 were 15% below the 2000-2007 average and the 2006 level. Bait landings on a Ms B DAS were negligible.
- Wing landings on Ms A DAS have recently increased and in 2007 are 26% above the 2000-2007 average and 21% above 2006 landings.
- Wing landings on a Ms B DAS were below 1 million lbs. since 2004, but increased to 1.7 million lbs. in 2007 almost all by vessels using gillnets.

- Landings by vessels targeting skates on a Ms A DAS and using gillnets have remained stable since 2003. Landings in 2007 were 4% above 2006 landings.
- Landings by vessels targeting skates on a Ms A DAS and using trawls have increased by 55% in 2007, but were only 9% above the 2000-2007 mean.
- Skate wing landings on a Ms B DAS were a small fraction of the total, but increased in 2007 from negligible amounts to over 1.7 million lbs, nearly entirely by vessels using gillnets.
- The PDT does not recommend specific measures focused on Ms B DAS at this time, but management should closely monitor future landings.
- The PDT notes that skate revenue has increased rapidly in 2006 and 2007 from a combination of increasing landings in the wing fishery and increasing prices for skate wings. This may attract more effort to the skate fishery which should be closely monitored.

Figure 1. Total bait and wing landings by multispecies DAS vessels landing at least one pound of skates.

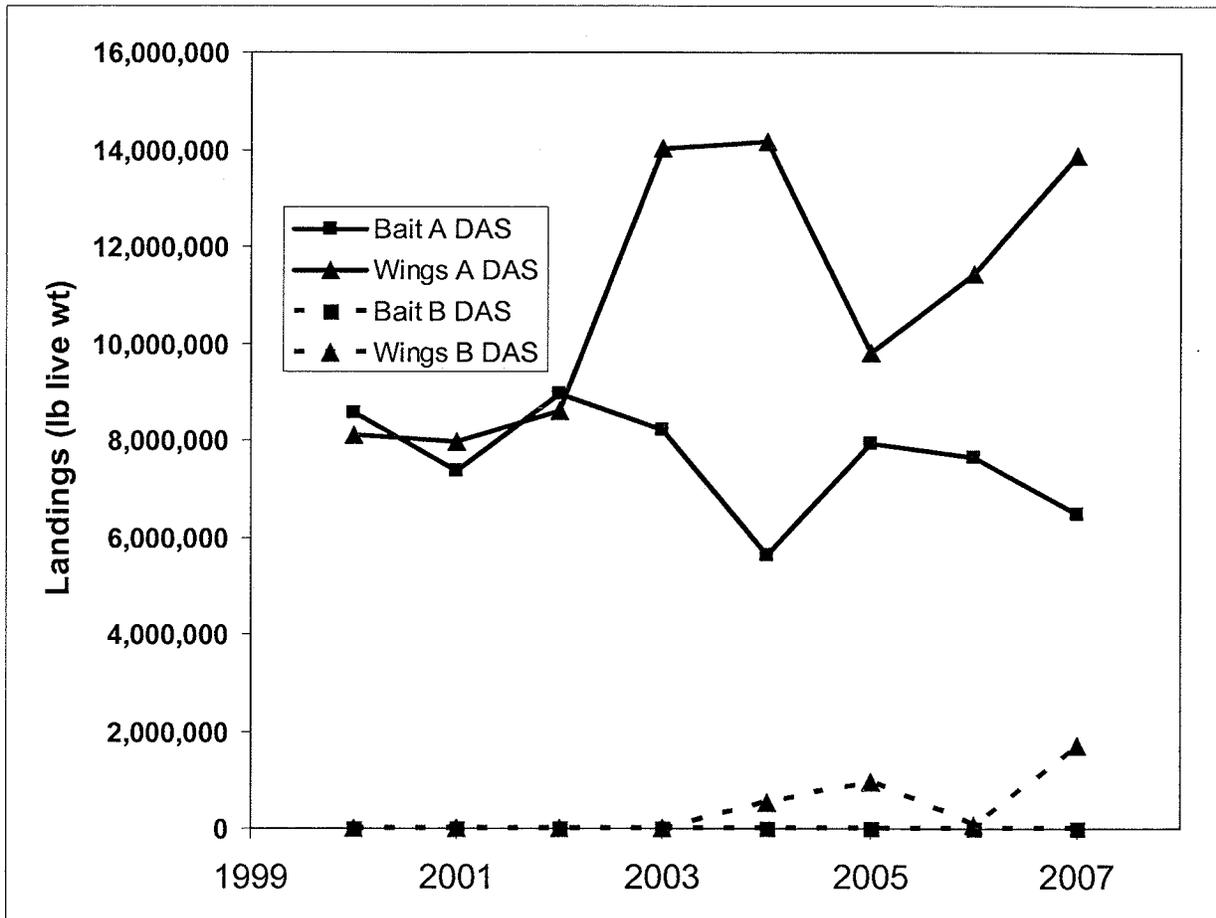


Figure 2. Total bait and wing landings by Multispecies DAS vessels targeting skates.

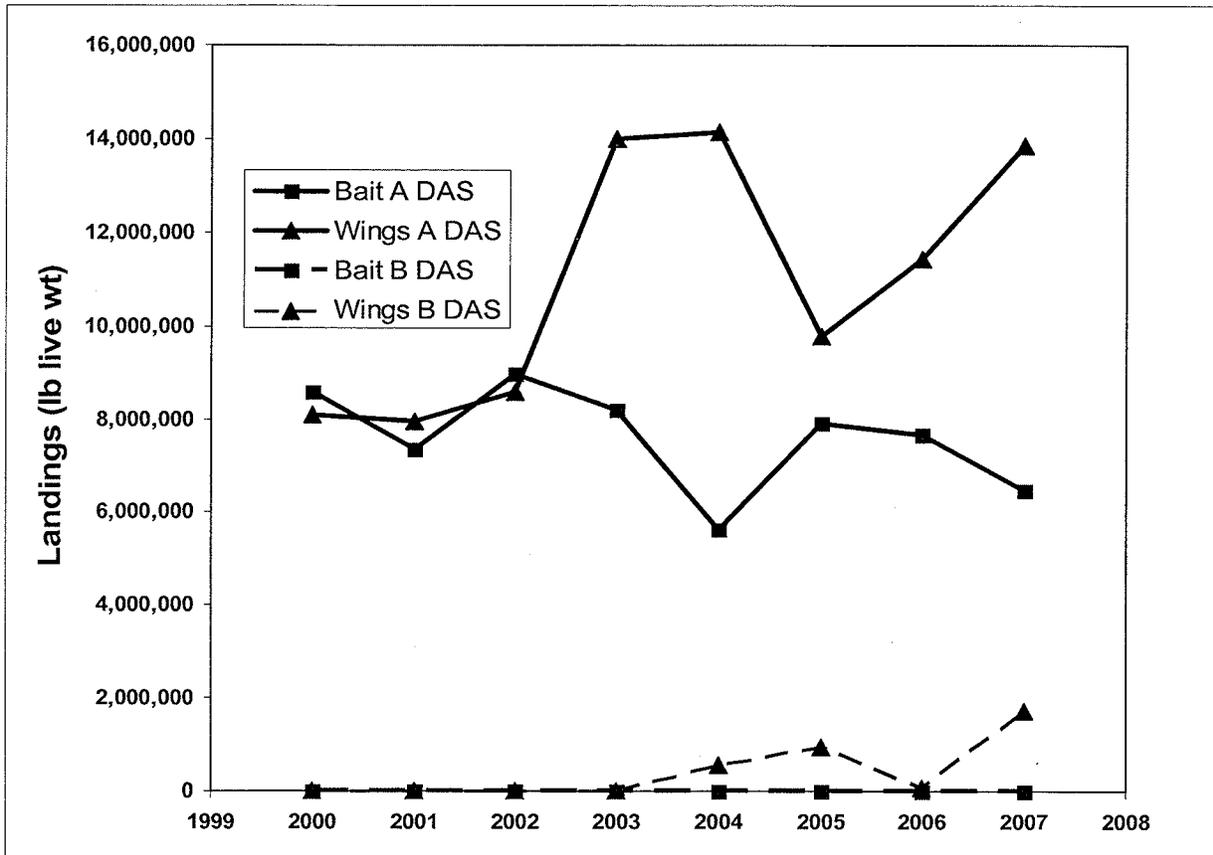


Figure 3. Skate wing landings by fishing gear used by vessels targeting skates while on a Multispecies A DAS trip.

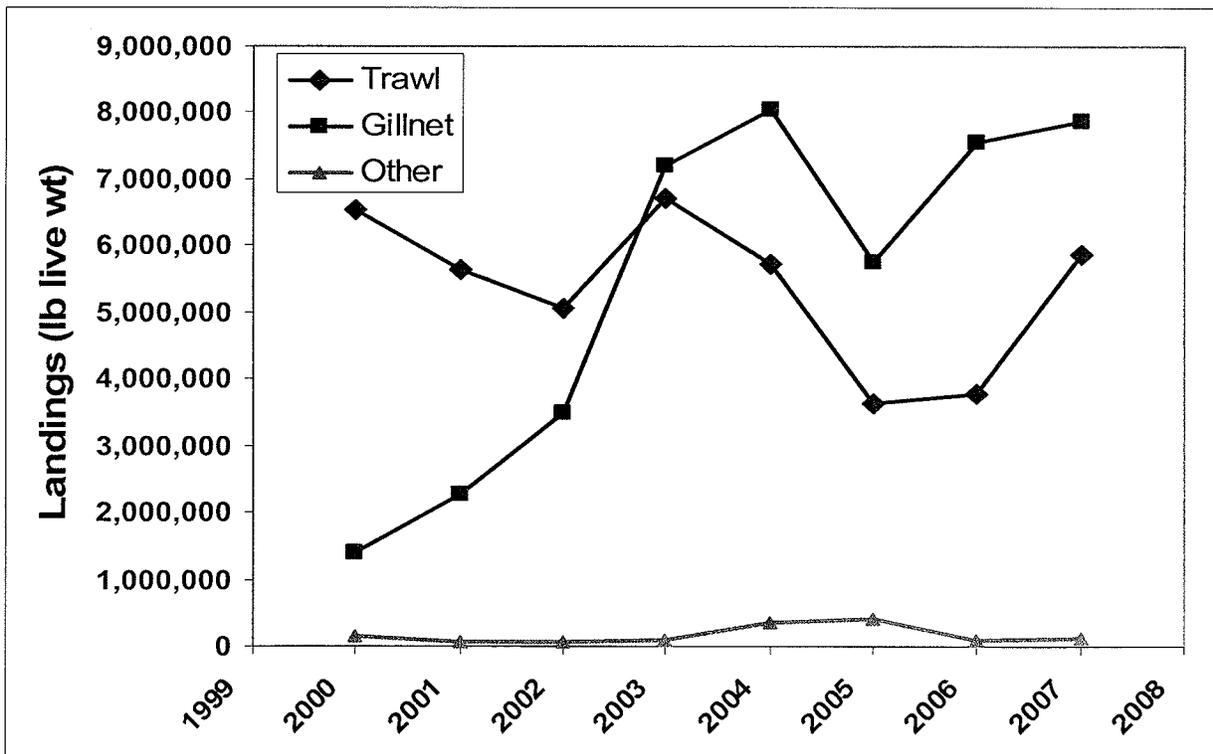
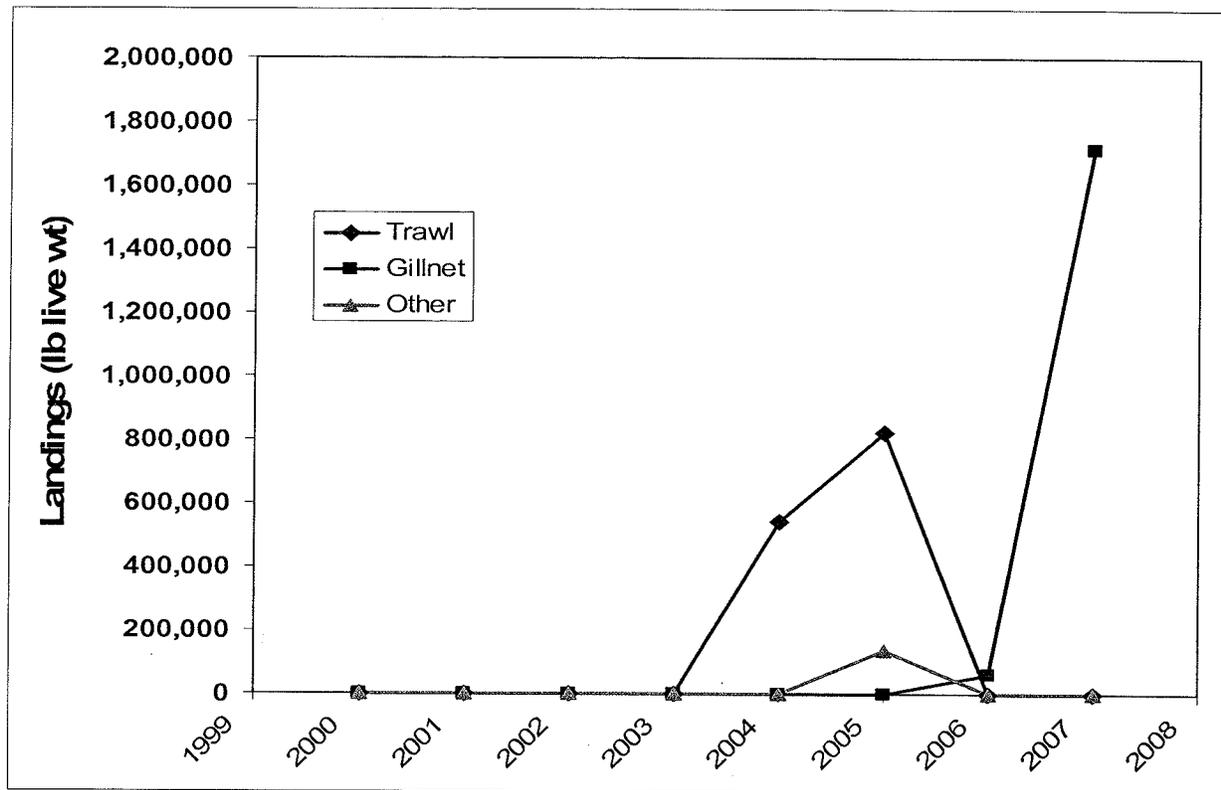


Figure 4. Skate wing landings by fishing gear used by vessels targeting skates while on a Multispecies B DAS trip.



Two bin model analysis of skate area management

The PDT updated the two-bin model analysis of the proposed skate management areas, proposed to be implemented as time/area closures for vessels targeting skates or as a gear restricted area for vessels using gears capable of catching skates (i.e. bottom trawls, gillnets, dredges, and hook gear). The analysis was updated to use 2007 VTR data. During the PDT meeting, the model was revised so that time/area closures would apply to vessels landing 500 or more lbs. of skates (live weight). Two bin model results for implementing all five skate management areas as seasonal closures applying to vessels using gears capable of catching skates (i.e. as a gear restricted area) are shown in Tables 2 and 3. Two bin model results implementing the five areas as time area closures applying to trips having 500 or more pounds of skate landings (live weight) are shown in Table 4.

The PDT reached the following conclusions based on its evaluation of the two-bin model results:

- Amendment 3 includes possession limits and area management to reduce skate mortality to acceptable interim catch limits. The two-bin analysis addresses one component of management measures to achieve a reduction in skate landings and discards. Based on the analysis of 2007 data, area management alone does not achieve the required reduction in landings or catch.
- The two-bin model analysis was updated to include data from CY 2007 vessel trip reports.
- There are several caveats and assumptions that should be taken into account when interpreting the results:
 - Effort displaced from closed areas may have different characteristics (such as effects of DAS restrictions, targeting other species, displacement of effort to areas not likely to be fished) than the 2007 averages that applied to areas classified as open.

- Only a portion of skate discards can be predicted when applying discard/kept sea sampling ratios to trips in the VTR data.
- The model may underestimate the effects on skate mortality due to the effect of regulatory and economic limits that apply to displaced trips. On the other hand, the model can overestimate the effects on skate mortality if displaced trips fish for skates in areas where LPUE is above the open area average.

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Time/area closures applying to trips targeting skates

- Using areas 1-5 as time area closures applying to trips where skates were more than 50% of total landings predicts a maximum benefit of an 11.8 percent reduction in skate wing landings, but also predicts an increase in whole skate landings of 0.6%, and an increase in skate discards of 1.2%.
- Although the model classifies trips where skates are more than 50% of total landings as directed trips, therefore the actual results may differ depending on how time/area closures apply to vessels targeting skates.
- One approach would be to require vessels to declare into a skate fishery via a VMS macro code if they intend to have more skate landings than an incidental limit (e.g. 500 or 1000 lbs.). Vessels declaring into the fishery would be excluded from fishing in the time/area closed areas. Vessels not declaring into the skate fishery could fish in the skate areas, but would not be able to land more than an incidental limit. This approach would require that vessels landing more than an incidental skate limit to have VMS.
- Another approach would be to establish a skate wing fishery LOA, similar to the skate bait fishery LOA. This LOA would allow vessels to possess and land more than an incidental skate limit and use VMS. Vessels with a skate LOA would be prohibited from fishing in skate time/area closures.
- If a 500 lbs. live weight incidental limit is applied, the two-bin model predicts that for trips over this limit, the time/area closures would cause skate wing landings to decrease by 15.1%, whole skate landings to increase by 4.6%, and skate discards to increase by 2.6% (Table 3).

Gear restricted areas applying to all trips using gears capable of catching skates (trawls, gillnets, dredges, hook gear)

- It is more difficult to predict the outcome of using the four potential gear restricted areas as an accountability measure, because the timing of such closures is uncertain and unpredictable. In general, however, the PDT anticipates that such closures could be less effective than a closure for the entire intended time period, because there is more opportunity to take trips at other times of the year.
- There is no benefit of gear restricted areas when area 3 is excluded. The two-bin model estimates that skate wing landings would increase by 1%, whole skate landings would increase by 0.4% and skate discards on trips landing skates would increase by 3.5%. This is because average open area LPUE including area 3 has higher LPUE than the average for areas 1, 2, 4, and 5.
- Therefore, the PDT recommends including area 3 for alternatives that treat skate areas as gear restricted areas. The two-bin model predicts that skate wing landings would decline by 16.9%, whole skate landings would decrease by 0.4%, and skate discards on trips landing skates would increase by 1.2% (Table 4)

Table 2. Predicted net change in landings and skate discards for vessels targeting skates during proposed closed seasons in skate areas 1, 2, 3, 4, and 5.

	Large mesh trawl	Small mesh trawl	Large mesh gillnet	Small mesh gillnet	Dredge	Hook	Net change for trips fishing for	Change from status quo
<i>Total days absent</i>	276	11	440				726	1.4%
<i>Total landings, lbs.</i>	1,582,731	17,336	-2,095,188				-495,121	-0.3%
<i>Whole skates, lb.s</i>	1,642,302	25,786	-1,544,460				123,629	0.6%
<i>Skate wings, lbs.</i>	-92,775	-10,709	-684,844				-788,328	-11.8%
<i>Skate discards, lbs.</i>	527,952	5,832	-284,511				249,274	1.3%
<i>Cod, lbs.</i>	-77,728	-6,200	-12,980				-96,908	-1.5%
<i>Haddock, lbs.</i>	-9,463	68	-59				-9,453	-2.5%
<i>Winter flounder, lbs.</i>	47,700	46	8,442				56,188	0.4%
<i>American plaice, lbs.</i>	3,993	-24	0				3,969	0.1%
<i>Witch flounder, lbs.</i>	6,542	12	-3				6,551	0.1%
<i>Windowpane flounder, lbs.</i>	2,187	4	0				2,191	0.1%
<i>Yellowtail flounder, lbs.</i>	31,837	1,668	58				33,563	1.5%
<i>Pollock, lbs.</i>	-1,342	0	-1,594				-2,936	-0.9%
<i>Redfish, lbs.</i>	289	0	0				289	0.0%
<i>White Hake, lbs.</i>	356	0	1,814				2,169	0.0%
<i>Small mesh groundfish species, lbs.</i>	92	752	-10				834	0.1%
<i>Monkfish, lbs.</i>	-32,360	815	209,485				177,941	10.0%
<i>Scallop meats, lbs.</i>	1,817	123	20				1,960	0.0%

Table 3. Predicted net change in landings and skate discards for vessels targeting species other than skates during proposed closed seasons in skate areas 1, 2,3, 4, and 5. The last column is the predicted cumulative change in catch from vessels targeting species other than skates (this table) and from vessels targeting skates (table above).

	Large mesh trawl	Small mesh trawl	Large mesh gillnet	Small mesh gillnet	Dredge	Hook	Net change, trips targeting other	Targetd and incental change
<i>Total days absent</i>	1,467	253	216		3,175	107	5,218	11.2%
<i>Total landings, lbs.</i>	-1,132,184	200,977	-268,366		1,552,084	-156,214	196,298	-0.2%
<i>Whole skates, lb.s</i>	-214,574	529	10,544		-3,569	102	-206,967	-0.4%
<i>Skate wings, lbs.</i>	-284,252	-14,774	-44,104		0	-790	-343,921	-16.9%
<i>Skate discards, lbs.</i>	-511,078	458,421	33,374		0	0	-19,283	1.2%
<i>Cod, lbs.</i>	-749,269	-26,238	-424,030		18	14,227	-1,185,292	-8.4%
<i>Haddock, lbs.</i>	-569,355	467	-909		-20	-303,947	-873,764	-13.2%
<i>Winter flounder, lbs.</i>	-659,241	-17,333	-8,052		772	90	-683,765	-13.7%
<i>American plaice, lbs.</i>	65,915	534	32		225	0	66,706	3.5%
<i>Witch flounder, lbs.</i>	121,514	274	-85		359	162	122,224	7.0%
<i>Windowpane flounder, lbs.</i>	28,895	57	3		124	0	29,079	7.6%
<i>Yellowtail flounder, lbs.</i>	207,329	-6,305	2,754		223	1	204,002	5.7%
<i>Pollock, lbs.</i>	149,627	1,829	-45,399		0	11	106,068	0.7%
<i>Redfish, lbs.</i>	11,545	439	2,954		0	-1,967	12,971	0.9%
<i>White Hake, lbs.</i>	24,551	1,314	271		0	-3,284	22,853	11.2%
<i>Small mesh groundfish species, lbs.</i>	22,156	210,970	-18,681		4	531	214,979	1.6%
<i>Monkfish, lbs.</i>	262,620	1,025	266,294		-58,088	-469	471,382	3.4%
<i>Scallop meats, lbs.</i>	32,359	-350	7		1,583,663	0	1,615,679	6.7%

Table 4. Predicted net change in landings and skate discards for vessels landing more than 499 lbs live weight of skates from the proposed closed seasons in skate areas 1, 2, 3, 4, and 5.

	Large mesh trawl	Small mesh trawl	Large mesh gillnet	Small mesh gillnet	Dredge	Hook	Net change for trips fishing for skates	Change from status quo
<i>Total days absent</i>	1,328	36	446		22		1,833	3.5%
<i>Total landings, lbs.</i>	2,326,334	38,150	-2,447,544		64,086		-18,974	0.0%
<i>Whole skates, lb.s</i>	2,844,292	46,728	-1,967,455		14,016		937,581	4.6%
<i>Skate wings, lbs.</i>	-101,854	-7,936	-905,049		0		-1,014,839	-15.1%
<i>Skate discards, lbs.</i>	803,784	13,777	-296,373		6,337		527,525	2.6%
<i>Cod, lbs.</i>	-580,973	-21,524	-17,364		102		-619,760	-9.7%
<i>Haddock, lbs.</i>	-186,044	4,051	-407		102		-182,297	-48.1%
<i>Winter flounder, lbs.</i>	-411,351	-5,198	9,430		14,785		-392,334	-2.9%
<i>American plaice, lbs.</i>	69,717	321	0		11,186		81,224	1.2%
<i>Witch flounder, lbs.</i>	121,445	740	-8		4,513		126,689	2.6%
<i>Windowpane flounder, lbs.</i>	34,928	7	0		6,392		41,327	2.1%
<i>Yellowtail flounder, lbs.</i>	308,448	-2,745	85		37,009		342,797	15.5%
<i>Pollock, lbs.</i>	-11,690	134	-2,290		0		-13,846	-4.0%
<i>Redfish, lbs.</i>	7,909	0	0		0		7,909	0.2%
<i>White Hake, lbs.</i>	7,681	22	1,097		0		8,801	0.1%
<i>Small mesh groundfish species, lbs.</i>	2,058	1,377	-13		0		3,422	0.2%
<i>Monkfish, lbs.</i>	194,705	5,503	486,045		13,523		699,776	39.2%
<i>Scallop meats, lbs.</i>	8,621	249	24		-25,900		-17,006	-0.1%

Possession limit analysis

After accounting for the effects of skate area management on catch, the possession limit analysis estimates a skate fishery possession limit that achieves a specified change in landed skate mortality (see background Document 8, using 2007 VTR data). The results are shown in the table below for the potential management alternatives: possession limit only, time/area closures applying to vessels targeting skates (>50% of landings were skates), time/area closures applying to vessels landing 500 or more pounds of skates (live weight), and seasonal closures applying to vessels using trawls, gillnets, dredges, or hook gear (i.e. a gear restricted area).

The PDT notes that applying time/area closures would require vessels to declare into a skate fishery. If a trip is declared as a skate fishery trip, either by a VMS macro or through a Skate Fishery Letter of Authorization, a vessel could have landings that exceed 500 lbs. incidental limit but not exceed the skate fishery possession limit. These trips would be prohibited from fishing in the time/area closures and have gear properly stowed when transiting. Other trips which are not declared as a skate fishery trip could fish in the area but could not possess or land more than 500 lbs. per trip, with no more than one landing in a 24 hour period.

The wing fishery possession limits would need to be as low as 2,800 lbs. with the 2005-2007 fishery allocation and 2,100 lbs. with the 1995-2006 fishery allocation. Higher skate possession limits could be allowed to achieve the target catches when the areas are applied as time/area closures (4,000 to 5,300 lbs. of skate wings), or as gear restricted areas (4,400 to 5,700 lbs. of skate wings). Since time/area closures and gear restricted areas have a small effect on the estimated skate catches when area management applies, the allowable possession limits to achieve the catch targets depend mainly on the basis for the TAL allocation (5,300 to 6,200 lbs. live weight when the 2005-2007 basis is applied; and 9,200 to 10,600 lbs. live weight when the 1995-2006 basis is applied).

Table 5. Estimated skate possession limits to achieve target catches by skate fishery.

Whole/wing allocation basis	Time/area closures	Wing fishery			Whole/bait fishery	
		Landed mortality reduction target	Possession limit (wings)	Live weight	Landed mortality reduction target	Possession limit
2005-2007 allocation	Possession limit only	36.5%	2,800	6,356	31.5%	6200
	Time area closures	24.2%	4,600	10,442	32.0%	6100
	Time area with 500 lbs. incidental	21.1%	5,300	12,031	36.2%	5300
	Gear restricted areas	19.3%	5,700	12,939	31.5%	6200
1995-2006 allocation	Possession limit only	41.9%	2,100	4,767	13.8%	10500
	Time area closures	30.4%	3,400	7,718	14.4%	10300
	Time area with 500 lbs. incidental	27.1%	4,000	9,080	18.4%	9200
	Gear restricted areas	25.1%	4,400	9,988	13.4%	10600



#3

New England Fishery Management Council

50 WATER STREET | NEWBURYPORT, MASSACHUSETTS 01950 | PHONE 978 465 0492 | FAX 978 465 3116
John Pappalardo, *Chairman* | Paul J. Howard, *Executive Director*

MEMORANDUM

DATE: March 2008
TO: Skate Oversight Committee
FROM: Skate PDT
SUBJECT: Additional Amendment 3 management measures

Two fishery management issues have been identified that have caused or could lead to substantial increases in skate landings and mortality. One issue is the apparent increase in effort by vessels targeting skates while operating under a Multispecies DAS. The second issue is the potential ability of sector-enrolled vessels to transfer their groundfish allocation to other sector vessels and use their Multispecies DAS allocations to fish for skates and other non-groundfish species.

Skate landings in 2007 increased by 5.9 million pounds or 17%. Ninety percent of this increase occurred in the wing fishery, which increased by 21% compared with 2006. The increase was split evenly between vessels using trawls and gillnets to land skate wings. Skate wing landings by vessels using gillnets increased by 28% to 12.9 million pounds and by vessels using trawls increased by 14% to 11.7 million pounds.

Vessels landing skate wings must do so on either a Multispecies A DAS, a Multispecies B DAS, a monkfish DAS, or a scallop DAS. Vessels landing skates for bait must also fish on a DAS, unless they are fishing in an exemption area or with exempted gear under a Bait Skate Letter of Authorization (LOA). Vessels participating in the LOA program may only land whole skates having a total length less than 23 inches and are exempt from possession limits. Most of the recent landings increase appears to be occurring from vessel fishing on either a Multispecies A or B-regular DAS.

The Multispecies B DAS program was extended by Multispecies Framework 42, which allocates a maximum of 3,500 DAS to Multispecies vessels to “provide opportunities to target healthy stocks without threatening stocks for which a mortality reduction is required.” Framework 42 defined Category B DAS as those which would be “used to target healthy groundfish stocks – that is, stocks that are not overfished and that are not subject to overfishing.” So far in fishing year 2007, only 510 Category B-regular DAS had been used to target skates and other species.

Furthermore, Framework 42 established significant gear restrictions on the use of Category B DAS. Vessels using trawls must use a haddock separator net, which probably catches few skates. This leaves gillnets as one of the few viable gear types to target skates while

using a Category B DAS. Reportedly, some groundfish gillnet vessels are also using Category B DAS to set multispecies gillnets, since they land no groundfish on that part of the trip. Other vessels also use Category B DAS to fish for specific groundfish.

Until now, this policy allowed multispecies vessels to use the B DAS to target skates with gillnets. But winter skate has recently become overfished and allowing non-trawl vessels to use B DAS to target winter skate (often targeted to land skate wings, but also caught in the skate bait fishery) may be inconsistent with the policy described in Framework 42.

To address the increasing skate landings and policy inconsistency, the PDT recommends that the Oversight Committee consider adding one or both of the following management measures to the Amendment 3 document. Doing so may require the skate amendment to also become a framework adjustment to the Multispecies FMP, but this action would create a low amount of added work.

- a) Set an incidental skate possession limit for vessels fishing on a Multispecies B DAS (e.g., 250, 500, or 1000 lbs. whole weight per trip).

Rationale: This measure would reduce skate and groundfish mortality on B DAS by vessels fishing for skates, which would then be required to use a Multispecies A DAS to fish. Other vessels could continue using a Monkfish or Scallop DAS to fish for skates. This would also make the B-regular DAS skate possession limit consistent with the policy for only using this program to target healthy fish stocks.

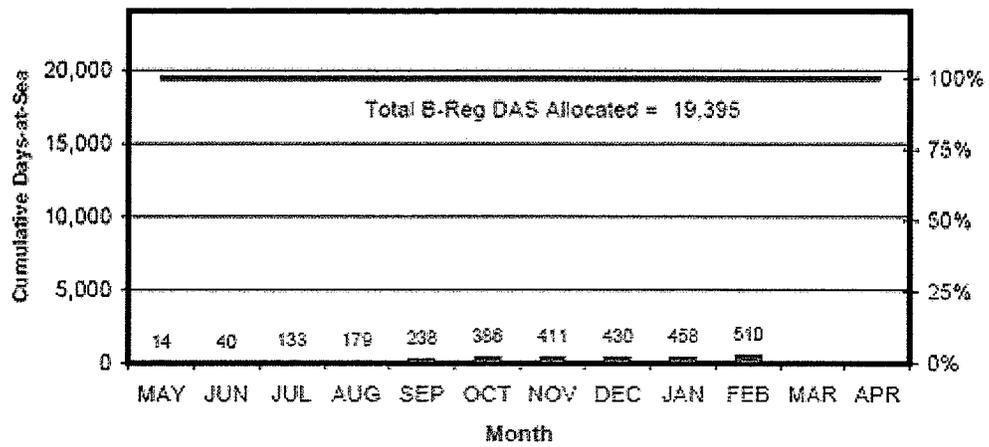
- b) Allow vessels to fish for skates on a B DAS subject to a skate possession limit established to achieve the Skate FMP objectives, including rebuilding winter and thorny skates.

Rationale: If the skate FMP includes a TAL which restricts skate fishing and limits mortality, it would not matter which type of DAS were used to target skates.

More than a dozen sector applications are being considered for approval in Multispecies Amendment 16. Most allow the baseline groundfish allocations to be fished by other sector-enrolled vessels under a sector quota. Some sectors may be exempt from DAS requirements, while others may be able to use their Multispecies DAS allocations to fish for skates and other species. If this is the case, groundfish sectors could create a significant effort shift to target skates. The effect is very similar to a permit consolidation where the donating vessel is later used to target species which are not managed by a limited access program.

To address this potential effort shift to target skates in groundfish sectors, the Skate PDT is requesting policy advice from the Oversight Committee on potential management measures to include in the Amendment 3 document, consistent with the Council's sector policies. Since effort controls in the open access skate fishery are largely tied to DAS, potential measures would have to account for skate fishing effort by vessels in sector programs with or without DAS allocations, as compared to non-sector vessels. The Skate PDT will need to identify potential approaches that will minimize incentives for groundfish sector vessels to target skates, and allow for sufficient monitoring of skate catch that may not be linked to a DAS. Again, this may require a joint skate/groundfish action, or it may require the measures to be included in the Multispecies Amendment 16 sector policy alternatives.

b. B - Regular DAS Used, May 2007 - April 2008



#4

DRAFT: Interim catch limits and accountability measures

The interim catch limit, or ICL, shall be equivalent to optimum yield, which for species where landings are allowed (winter, little, clearnose, and rosette) is the amount of catch that can be harvested legally under the provisions of this FMP and the yield that results from the management measures in other fisheries to the extent that these measures further impact (and likely reduce) the harvest of skates. Thus, using a bit of circular logic, the ICL is the amount of catch that achieves the objectives of the FMP, namely rebuilding overfished skates and preventing skates from becoming overfished. Since the objective is to rebuild overfished skates, prevent overfishing, and prevent skates from becoming overfished, optimum yield (and hence the ICL) is less than MSY.

An ICL and associated accountability measures would ensure that skate catches do not exceed biological limits, complying with the mandates of the Magnuson-Stevens Act. Both implementations of ICLs described below would apply to combined landings and (both live and dead) discards, requiring adequate sea sampling data or other programs to accurately estimate discards. The Council would select either hard TACs (equivalent to the ICL) or target TACs (equivalent to the TAL), but not both. Due to the difficulties identifying skate species from one another, the Council would set a single ICL for the skate complex, allocated by fishery (wing and bait).

Hard TACs with overage deductions in subsequent years

The ICL would be implemented as a hard TAC, or quota for the fishing year (May 1 to April 30). Landings and estimated discards would count against the hard TAC. The TAC would be monitored by a combination of reported landings and a moving average discard/kept ratio derived from at-sea observer data to estimate total discards. When the catch equals, or is anticipated to reach XX% the TAC, skate landings would be prohibited, and Skate GRAs would go into effect. Only incidental skate discards would be allowed for the remainder of the fishing year. These areas are described in the table below and shown in the accompanying map. Since discards would be difficult to assign to wing or bait fisheries, this approach would likely require monitoring the complex as a whole.

Accountability measures

The value of the hard TAC in subsequent fishing years would be the same as its value in preceding years (unless changed by Framework Adjustment or specification process), less an amount equivalent to the accumulated overages in prior years. Catches below the ICL would make up for prior overages, but would not increase the baseline ICL if there were no prior overages. The baseline ICL would remain constant until winter and thorny skates reach the biomass target and then increase to the average amount for the stable 1998-2004 period. The Council may adjust the baseline ICL through a new specification setting process, based on new information about the biology of skates and/or the prosecution of the skate fishery which would require an adjustment in allocations to various sub-components.

Rationale: ICLs and AMs are required provisions of FMPs by 2010 for stocks subject to overfishing, and by 2011 for all other stocks. Since the Council is not planning an amendment on the heels of Amendment 3, the Council is adopting an ICL in this amendment that is consistent with the rebuilding objectives. Hard TACs and adjustments for unpreventable overages will ensure that the catches do not exceed biological limits and overfishing will not occur.

Target TACs with in-season triggers to management measures

A target TAC (22,927 mt; 75% of the interim catch limit) for the fishing year (May 1 to April 30) will be set and used as a guideline to implement mandatory triggers by regulation. For purposes of monitoring and triggering action, the target TAC would be split into a TAL and a discarded component based on 2004-2006 estimated catch proportions derived from landings and observed trips. Estimated discards would be deducted from the TAC at the start of the fishing year, and all in-season triggers would be based upon reported landings. The TAL would be allocated to the wing fishery and bait fishery, resulting in a wing TAL and a bait TAL. Dealer and vessel reporting requirements will be modified so that landings are assigned to either the wing TAL or the bait TAL.

Accountability measures

When landings equal or are anticipated to reach 90% (?) of the wing or bait TAL, the possession limits for that sector would be reduced to an incidental level (e.g. 500 lb whole wt) for the remainder of the fishing year.

The wing TAL + bait TAL + discards are set at a level below the target TAC to allow a buffer for uncertainty in the discard estimate. For example, the target TAC for the complex would be set at 30,569 mt (median 2004-2006 catch/biomass ratio). Using 75% of the median 2004-2006 catch/biomass ratio for TALs equals a wing TAL of 8,227 mt and a bait TAL of 4,031 mt, resulting in a combined TAL of 12,258 mt. Adding estimated discards of 14,225 mt results in 26,483 mt of estimated total catch. This leaves a buffer of 4,086 mt between estimated total catch and the target TAC.

No adjustments to the baseline ICL are necessary since they are implemented as a target and have restrictive in-season accountability measures to greatly reduce the risk of exceeding the ICL. The Council may however adjust the baseline ICL through a new specification setting process, based on new information about the biology of skates and/or the prosecution of the skate fishery which would require an adjustment in allocations to the various sub-components.

Rationale: ICLs and AMs are required provisions of FMPs by 2010 for stocks subject to overfishing, and by 2011 for all other stocks. Since the Council is not planning an amendment on the heels of Amendment 3, the Council is adopting an ICL in this amendment that is consistent with the rebuilding objectives. Although the FMP would use a target TAC and some landings of incidental skate catch could continue, the in season accountability measures are sufficiently restrictive to make it very unlikely that the catch will exceed the ICL.

#5

DRAFT Amendment 3 Skate Annual Review and Specifications Process

Annual Review

The Skate PDT will meet at least annually, prior to the June Council meeting, to evaluate the most recent data available on skate stock status, fishing mortality, landings, discards, changes to other FMPs that catch skates, and other available information. The term of reference for the PDT will be to monitor the effectiveness of the management measures that affect skates, and to report to the Council on their findings. The annual review may highlight issues in the Skate or other FMPs that may impact skate conservation and rebuilding. As part of the review process, the PDT may recommend measures or mitigation to reduce those impacts. If the Council agrees, it may modify alternatives in actions under consideration, or it may initiate a Skate FMP framework adjustment.

Bi(Tri?)ennial SAFE Report and Specification of TACs and TALs

The Skate PDT shall prepare a Stock Assessment and Fishery Evaluation (SAFE) Report for skates every two years. The SAFE Report shall be the primary vehicle for the presentation of all updated biological and socio-economic information regarding the NE skate complex and its associated fisheries. The SAFE report shall provide source data for any adjustments to the management measures that may be needed to continue to meet the goals and objectives of the FMP (see 50 CFR 648.320(b)).

Based on the results of the biennial skate SAFE Report, the PDT will use the available information to recommend new ABCs, TACs and TALs for the skate fishery, which will be implemented for the subsequent two fishing years. For example, the SAFE Report completed in 2008, as part of Amendment 3, will be used to establish TACs and TALs for the skate fishery for FY 2009-2010 (May 1, 2009 through April 30, 2011). The next SAFE Report will be completed by June 2010, which will be used to establish TACs and TALs for FY 2011-2012, and so on. The annual review procedure described above, will be followed to implement these measures.

If a regulatory action is not implemented to establish new TACs for the skate fishery for a given year, either through the annual review procedure or the biennial TAC/TAL specification process, the TACs in effect during the previous year will remain in effect until new measures are implemented.

#6

New England Fishery Management Council
Skate Oversight Committee and Advisory Panel Meeting

DRAFT Meeting Summary
May 14, 2008

The Skate Committee met in Mansfield, MA to continue development of Amendment 3 to the Skate Fishery Management Plan. Committee members present were Mr. John Pappalardo, (Chair), Mr. Mike Leary (Vice-Chair), Mr. Terry Stockwell, and Mr. Doug Grout. Staff members supporting the meeting were Mr. Chris Kellogg, Mr. Andrew Applegate (NEFMC), Mr. Tobey Curtis, and Ms. Allison McHale (NMFS - NERO). This was also a joint meeting held with the Advisory Panel. Advisors in attendance included: Mr. Robert Cabral, Mrs. Andrea Incollingo, Mr. Louis Julliard, Mr. Matt Linnell, Mr. Dave Marciano, Mr. Danile Nordstrom, Mr. Ted Platz, Dr. James Sulikowski, and Mr. Robert Wescott.

The meeting focused on approving revised Amendment 3 alternatives with various combinations of skate possession limits, time/area closures, and gear restricted areas. The PDT identified specifications that would achieve the desired reduction in landed skate mortality to achieve the total allowable landings (TAL), which were approved by the Council at the April 2008 meeting. The PDT also presented two options to allocate the TAL and specify possession limits by fishery. Documents included a PDT summary of recommendations, as well as a technical document on the use of the two bin model to analyze time/area closures and gear restricted areas and a technical document describing an update of the skate possession limit model.

PDT analysis and recommendations

The PDT presented the conclusions of its analysis of skate area management and possession limits to achieve the mortality and landings targets approved by the Council in April. The PDT presented a document ("PDT recommendations on Skate Amendment 3 alternatives and specifications"; http://www.nefmc.org/skates/tech_docs/PDT_conclusions_and_recommendations_080512_final2.pdf) which summarized the final results and gave estimates of skate possession limits that would achieve the landings reductions relative to 2007.

The PDT also presented data on trends in skate landings by DAS program. There was a notable increase in vessels using gillnets to land skates on a Multispecies B DAS, but in 2007 it was still a small portion of total landings and there may be some evidence of vessels using B DAS rather than A DAS to target skates. There was also some increase in skate landings by vessels fishing with trawls and using a Multispecies A DAS. The PDT did not recommend any action, but noted that the situation bore watching.

Mr. Applegate explained that the PDT identified two options to allocate the TAL to the wing and bait skate fisheries, based on landings that occurred during 2005-2007 and during 1995-2006. He suggested that alternatives include both sets of options in the amendment to seek public comment. The 2005-2007 period reflected more recent conditions when the wing fishery expanded partly in response to higher skate prices, while the longer time series has reduced impacts on the bait skate fishery, which lands predominately little skate. He reminded the

committee that the objectives for Amendment 3 include preventing a stock from becoming overfished and little skate was approaching that point at the time of the 2006 survey. The first option gave a target reduction for the skate wing fishery of 36.5% to 8,947 mt and a target reduction for the bait fishery of 31.5% to 3,311 mt. In contrast, the second option gave a target reduction for the skate wing fishery of 42.1% to 8,152 mt and a target reduction for the bait fishery of 14.0% to 4,106 mt.

The PDT evaluated the proposed skate management areas for their potential to reduce skate wing landings, whole skate landings, and skate discards, as well as landings of other species on trips that landed skates. Mr. Applegate explained that the two-bin model is a displacement analysis that assumes that trips in the area closures will occur in the remaining open area and assume the average landings in the open area pool.

The PDT ran the two bin model on trips that landed more than 500 lbs. live weight of skates, as well as on trips where skate landings were more than 50% of the total landings. This analysis estimated the effects of the time/area closures, applying to vessels targeting skates. The PDT also analyzed the effect on all vessels using trawls, gillnets, dredges, and hook gear. Since the analysis included only trips that had one or more pounds of skate landings and skate discards were estimated by applying the average discard/kept ratio on observed trips, the analysis could not take into account changes in skate discards on trips that landed no skates. The model also could not estimate the biological and economic effects on fisheries or trips that landed no skates. Most of the effects were on skate landings in the wing fishery, ranging from an estimated landings reduction from 15.1 to 16.9 percent.

From this point, the PDT estimated skate possession limits that would achieve the remainder of the landed mortality reduction, accounting for increases in discards resulting from trips continuing to fish for other species when the skate landings exceed the skate possession limit. With no skate area management, the possession limit estimated that landings would decline by the required amount with a skate wing possession limit of 2,100 to 2,800 lbs. With time/area closures or gear restricted areas, the skate wing possession limit could be between 4,000 and 5,700 lbs., depending on the area management and fishery allocation option selected. The whole skate possession limit achieved the required landings reduction with a 6,200 lb. possession limit for the 2005-2007 landings allocation option, and with a 10,600 lb. possession limit for the 1995-2006 landings allocation option. More details were available in the PDT report titled, "Amendment 3 analysis conclusions and recommendations".

Discussion

The advisors discussed whether the larger reduction in landings was needed in the whole skate fishery since they target and landing mostly little skate. They said that the low possession limits would not be compatible with the bait business, since the vessels and dealers rely on large volumes of skate landings to supply the bait market. A weekly skate possession limit was suggested, but did not gain enough support.

Advisors pointed out that area closures and low possession limits could have a significant effect on other fisheries, since if it became uneconomic to fish for skates the DAS would be used to

fish for other species. If the bait fishery were not viable, the vessels would probably redirect effort to target skate wings and monkfish. The advisors were asked to discuss the issue further during a lunch break and return with some alternative approaches.

The committee and advisors saw the 2007 increase in skate landings on a Multispecies B DAS as being inconsistent with the Multispecies FMP policy which is to use B DAS to target healthy stocks. There is also an inconsistency in the 500 lb. skate possession limit that only applies to vessels using trawls. Due to the inconsistent policy and as a means to reduce mortality in the skate wing fishery that targets and lands winter skates, the Oversight Committee passed the following motion:

1. Mr. Leary/Mr. Stockwell moved ***To recommend that in Amendment 16, the Council change the B DAS skate possession limit for all gears be consistent with the trawl B DAS possession limit (currently 500 lbs live weight).*** The motion carried 3-0.

The committee and advisors discussed the benefits and effects of implementing the five skate management areas as closures to vessels using gears capable of catching skates. This would include some significant fisheries that use trawls, gillnets, dredges, and hook gear, particularly in the channel between Closed Area I and the Nantucket Lightship Area. Although the PDT's two bin analysis could not take into account the effects on trips that discarded, but did not land skates, the model calculated a marginal reduction in mortality compared to implementing skate area manage as a series of time/area closure for vessels targeting skates. The PDT analysis showed little or no benefit to closing excluding skate area 3 from the analysis. In fact, it suggested that mortality on skates landed for the wing market could increase. Furthermore, the substantial changes in groundfish management in Amendment 16 was expected to have a large impact on skate mortality. A 70% reduction in multispecies DAS allocations would not only reduce the availability of DAS to target skates, but a large reduction in groundfish fishing effort would also reduce skate discards.

Since there are significant amounts of overlap and interrelationships between the multispecies and skate fisheries, the Oversight Committee felt that the groundfish alternatives should be analyzed for their effects on skate mortality, before considering large area closures as a means to reduce the amount of skate discards.

Due to the calculated marginal benefits of gear restricted areas as a management measure, the expected costs that would be borne by other fisheries, and the expected effects of a 70% decline in DAS allocations in Multispecies Amendment 16, the Oversight Committee passed the following motion:

2. Mr. Stockwell/Mr. Leary moved ***To recommend that management measure 6 be reclassified as a considered and rejected measure.*** The motion carried 3-0.

After the lunch break, the advisors reported that the bait industry would faire better with a quota on landings and limited access. They suggested that Amendment 3 include another alternative that had a possession limit for the wing fishery, but no possession limit on the bait fishery which would be regulated with quota management. They did not believe that a derby style fishery

would develop, because there is a limited market for skates to be used for bait, and that the market could only absorb so much skates at any one time. The advisors, however, recommended that the Council establish a control date, so that a limited access program for the bait fishery could be considered. While some thought that a control date would be a good idea, there was some concern that establishing a control date when the Council was not ready to initiate action to consider limited access would be premature. Given the time it would take to develop a new amendment for limited access, the control date could become stale particularly with the new limited access program requirements that are now part of the Magnuson-Stevens Act. Furthermore, the past history of control date publication in the monkfish and scallop general category fisheries has led to an intensification of fishing effort by fishermen trying to build history in a bid to gain access.

The Oversight Committee decided to bring up the issue of limited access and a control date at the Council meeting, but stopped short of recommending that a control date was needed at this time. On the other hand, the Oversight Committee decided to add an alternative to Amendment 3 which would set seasonal quotas for the bait fishery and asked industry to work with Council staff to identify the best seasonal division of a quota.

It became obvious that a bait skate quota would need to be split between a state and federal allocation, because a significant amount of skate for bait fishing occurs in RI state waters by vessels without federal permits. According to NMFS data, about 15% of RI skate landings originate from fishing in state waters, but how much of the proportion of RI landings from federal waters in the wing fishery could not be determined.

Based on the Advisory Panel recommendation, the Oversight Committee passed the following motion:

3. Mr. Stockwell/Mr. Grout moved *To add an alternative in Amendment 3 that establishes a hard TAC for the bait fishery, divided proportionally based on seasonal catch rates and no bait possession limit would apply.* The motion carried 3-0.

The advisors also recommended a different approach for the skate wing fishery. Some boats land skate wings from multi-day trips, while other boats targeted and land skates on single day trips. They did not feel that a one size fits all approach in the PDT analysis would work. It would allow for an overly liberal possession limit for vessels fishing day trips and it would be too restrictive on vessels taking multi-day trips. It might even cause vessels to fish shorter trips to land more skate under a single possession limit.

It was not clear whether a daily possession limit should be $1/7^{\text{th}}$, $1/2$, or some other fraction of a possession limit. The Oversight Committee agreed to request from the PDT an analysis of day trips and multiday trips landing skates for the wing market. Mr. Applegate thought that this could be completed before the June Council meeting. Based on the need for this information and a potential to modify the alternatives recommended at the Council meeting, the Oversight Committee passed the following motion:

4. Mr. Stockwell/Mr. Grout moved *To ask the PDT to analyze possession limits to achieve equivalent mortality reduction goals for trip and day boat fishery components in the wing fishery.* The motion carried 2-1.

The PDT presented draft text on an annual review process, which would replace the baseline review process in the FMP, as well as draft text describing two approaches to implementing catch limits and accountability measures. The hard TAC option would require real-time monitoring of landings and discards, which when the catch approaches the limit would trigger no skate possession limit and possibly other measures to reduce discards. The target TAC/TAL option would monitor landings and trigger an incidental skate possession limit as the landings approached the TAL. Discards would be assumed to remain a constant fraction of the catch.

Some thought that the target TAC/TAL approach was the most palatable. Mr. Curtis said that NMFS thought that the target TAC/TAL approach would allow for a simpler, more tractable process. The committee had a brief discussion of how the annual review and bi-annual specification process with a SAFE Report requirement would fit into the Council workload, but it was agreed that the Council meeting would be a better place to discuss the issues. **The Oversight Committee agreed by consensus to forward the draft text to the Council for discussion and approval for Amendment 3.**

After discussing and revising the management measures, the Oversight Committee reviewed the PDT proposed outline of Amendment 3 alternatives. The alternatives that the Council approved for Amendment 3 last year were no longer useful, due to re-classification at the April Council meeting of proposed management measures as being considered and rejected.

The Oversight Committee kept two pair of alternatives that the PDT recommended, one set with time/area closures and one set without. One half of the pair would use the hard TAC approach to managing catch limits and accountability measures, and the other would use the target TAC/TAL approach. These alternatives became numbered alternatives 1, 2, 4, and 5 (see Council decision document). The Oversight Committee decided to retain an alternative that applies time/area management as a triggered accountability measure, associated with the target TAC/TAL approach. This became alternative 3. An alternative was also added (becoming alternative 6) that would manage the skate bait fishery with a seasonal quota. The committee did not specify whether alternative 6 would include time/area closures as a management measure.



#7

New England Fishery Management Council

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 John Pappalardo, *Chairman* | Paul J. Howard, *Executive Director*

MEMORANDUM

DATE: May 28, 2008
TO: Skate Oversight Committee
FROM: Skate PDT
SUBJECT: Analysis of wing and whole skate fishery possession limits to achieve Amendment 3 TALs

The Scallop Oversight Committee requested a supplemental PDT analysis of skate possession limits to achieve the Amendment 3 total allowable landings (TALs) for the wing and whole/bait fisheries. The supplemental request asked for separate skate possession limits to be calculated, achieving the same target mortality reductions as shown in Table 1 of the May 12, 2008 PDT report.

Model treatment of the 2007 VTR data was modified to subdivide trips landing skate wings into two components, trips whose duration (dateland – datesail) was less than 24 hours (presumed to be day boats), and trips whose duration was longer than 24 hours (presumed to be trip boats). Mortality reductions (after accounting for discard mortality on trips that would continue fishing for other species, despite a lower skate possession limit) were calculated over a range of skate possession limits that yielded mortality reductions between about 10 and 40 percent.

The results are shown in Figure 1, with an example showing the possession limits in each fishery that would achieve a 21.4 percent reduction in mortality. This objective (the same as an alternative with time/area closures and a landings allocation based on the proportion of landings in each fishery during 2005-2007) was met with a 4,200 lbs. (9,534 lbs. live weight) possession limit applying to day boat trips landing skate wings and a 6,400 lbs. (14,528 lbs. live weight) possession limit applying to trip boat trips landing skate wings. A possession limit of 8,500 lbs. of whole skates would achieve the same mortality reduction in the whole/bait skate fishery, but the Amendment 3 mortality reduction objectives for the whole/bait skate fishery are shown in Table 1.

Skate possession limits for Amendment 3 alternatives are shown in Table 1. Skate possession limits for the day boat vessels were calculated to achieve the same proportional

reduction in landings when they were approximately 67-72% of those for the trip boat vessels. If Amendment 3 includes separate possession limits for the day boat fishery, it could, depending on the possession limits and operational costs, induce vessels that customarily take longer trips to take shorter, more frequent trips under day boat rules.

Figure 1. Estimated skate mortality reduction by skate fishery and trip length calculated by applying the possession limits to 2007 VTR trips. Skate discard mortality was assumed to be 50% on trips that continue to fish for other species. Example trip limits are indicated that would achieve a 21.4% mortality reduction in each fishery component.

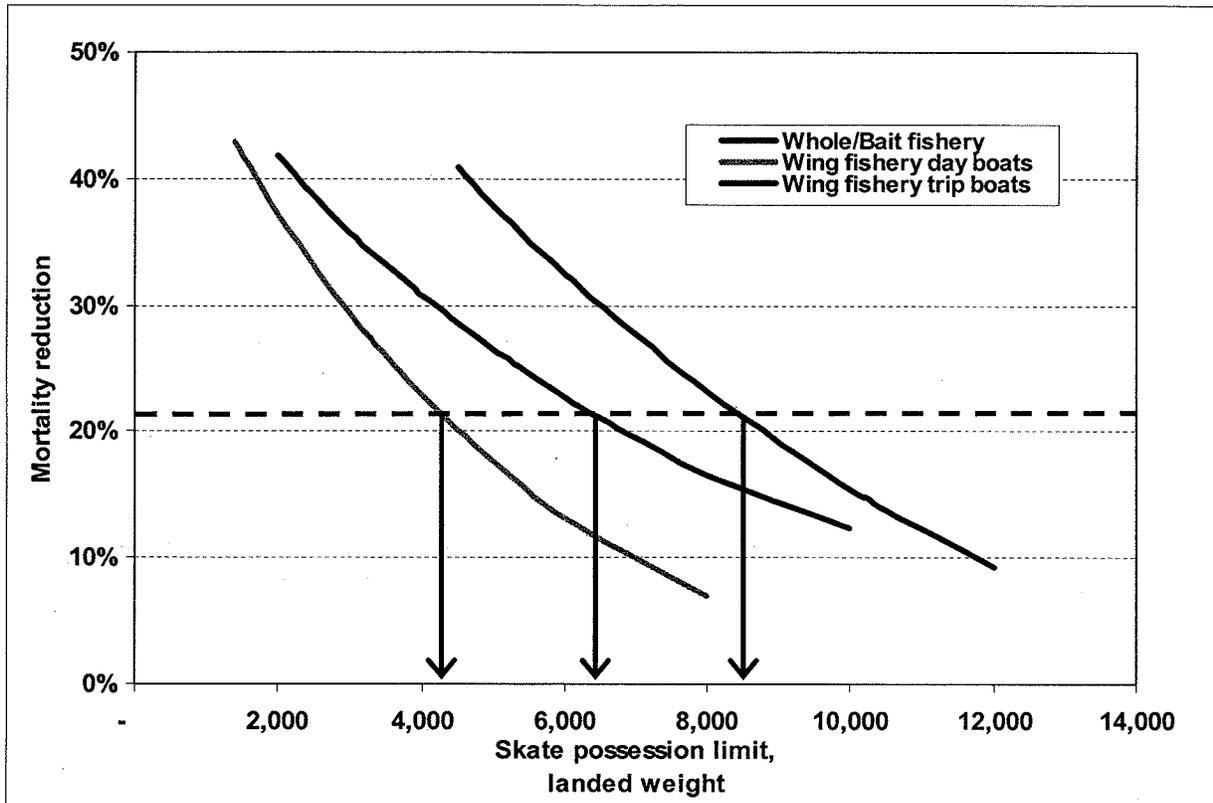


Table 1. Estimated skate possession limits to achieve target catches by skate fishery.

Whole/wing allocation basis	Time/area closures	Landed mortality reduction target	Wing fishery day boats		Wing fishery trip boats		Whole/bait fishery	
			Possession limit (wings)	Live weight	Possession limit (wings)	Live weight	Landed mortality reduction target	Possession limit
2005-2007 allocation	Possession limit only	36.5%	2,100	4,767	2,900	6,583	31.5%	6,200
	Time area with 500 lbs. incidental	21.1%	4,200	9,534	6,400	14,528	36.2%	5,300
	Gear restricted areas	19.3%	4,600	10,442	6,900	15,663	31.5%	6,200
1995-2006 allocation	Possession limit only	41.9%	1,400	3,178	2,000	4,540	13.8%	10,500
	Time area with 500 lbs. incidental	27.1%	3,300	7,491	4,800	10,896	18.4%	9,200
	Gear restricted areas	25.1%	3,600	8,172	5,300	12,031	13.4%	10,600

