



New England Fishery Management Council

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

**MEMORANDUM**

**DATE:** September 13, 2010  
**TO:** Council  
**FROM:** Paul Howard  
**SUBJECT:** Skate accountability measure triggered

As a component of Final Amendment 3 to the Skate FMP, the Council approved an in-season accountability measure (AM) to prevent vessels from targeting skates for the wing market (i.e. large, primarily winter skates) when skate wing landings reached 80% of the approved total allowable landings (TAL). The AM triggers a reduction in the skate wing possession limit from 5,000 lbs. of wings to 500 lbs. of wings (1,135 lbs. whole). At the end of August, the NMFS determined that this landings threshold had been reached and reduced the skate wing possession limit to 500 lbs. effective September 3, 2010 until May 1, 2011.

- During the debate on how the Council should respond to the early closure of the skate wing fishery, the Council should consider the following points:
- The Council approved Final Amendment 3 in November 2009 with a 6,269 mt skate wing TAL (52% less than CY 2009 wing landings) and a 1,900 lbs. skate wing possession limit. The document was submitted and NMFS published a proposed rule in January 2010 for implementation on May 1, 2010. NMFS delayed implementation of the amendment measures to allow for late changes in the ABC and a higher skate wing possession limit. The final rule became effective on July 16, 2010, with landings from the entire fishing year to apply to the increased 2010 ABC.
- Assessments, ACL specifications, and TAL monitoring are all calculated in whole weight, estimated to be 2.27 times higher than the landings of wings. No conversion is necessary for skate bait landings which are landed whole.

- The amendment includes a two-year specification process, chosen in part because such a schedule would allow for the analysis of a year's data under the previous cycle's management specifications to estimate the effects of recent management. As presently scheduled, by June 2011, the Skate PDT will prepare a SAFE Report using data through 2010, with specification recommendations for the 2012 and 2013 fishing years. If the deadline is moved up, it will be impossible to estimate discards or quantify the effects of sector management in 2010.
- The SSC approved the skate complex Acceptable Biological Catch (ABC) and a 75% buffer for scientific and management uncertainty in September 2009. The 30,463 mt ABC and associated TALs (Table 1) in the final amendment document submission were based on 2005-2007 survey values, 2005-2007 discards estimates, and a peer reviewed assessment from the Data Poor Assessment Workshop conducted in December 2008. Survey data for 2008 was available at the September 2009 SSC meeting when it approved the ABC, but the application of the 2008 survey data to the Skate ABC specification had not been peer-reviewed and was rejected by the SSC.
- Following the submission of the final amendment in November 2009, the SSC agenda allowed for an update review of the skate ABC calculations using the 2008 survey data collected on the RV Albatross. The data were examined and analyzed in considerable detail by the PDT, because the 2008 winter skate biomass index seemed anomalously high (increasing from 3.71 to 9.50 kg/tow). The PDT determined that most of the biomass increase had been derived from medium and large fish, potentially from a migratory event similar to one seen in the early 1980s. In February 2010, the SSC approved an increase in the skate ABC from 30,643 mt to 41,080 mt for the 2010-2011 specification (Table 2).
- Data from the 2009 survey collected aboard the RV Bigelow were available during the SSC review and ABC update, but new calibration coefficients had not yet been applied in an assessment context. When comparing the 2008 Albatross to the 2009 Bigelow winter skate catch at size<sup>1</sup>, it seemed apparent that the relative catchability of winter skate between the two surveys varied by size. Length based skate calibration coefficients were not as of then developed and have not been peer-reviewed in an assessment.
- At its June 2010 meeting, the Council approved the increase of the ABC and an increase in the skate wing TAL from 6,269 to 9,209 mt (29% less than CY 2009 landings of 13,021 mt), using an updated discard estimate for 2007-2009 (Table 2). Discards are estimated and assumed to apply to the 2010 and 2011 fishing years. Actual results may vary and would be addressed by the post-season accountability measures.
- Discard mortality is estimated to comprise 54% of the total catch and was estimated to be 22,526 mt, most of it from vessels using otter trawl (estimates are made by gear, not fishery). The Council assumed that the estimated discard rate for 2007-2009

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<sup>1</sup> This analysis was really conducted to evaluate the permanence of the unexpectedly high amounts of medium and large winter skates first observed in the 2008 survey data.

would apply to the 2010 and 2011 fishing years, and it represents a 29% reduction from the 22,526 mt discard estimate for 2009 (Table 3).

- The PDT had also re-estimated the effect of a wide range of potential possession limits using 2009 fishery data (updated from 2007 in the final amendment document). This analysis accounted for additional discards that would be expected from a skate wing possession limit and determined that a 3,100 lbs. limit would allow the fishery to continue through the entire fishing year. However, the objective of the skate wing possession limit was equivocal with respect to keeping catch below the ABC, so other limits could also meet that objective rather than simply keeping the landings below the TAL. The PDT therefore provided the relative pros and cons of various skate wing possession limits from 2,600 to 5,000 lbs., one of which was that the higher limits would promote an earlier fishery closure and higher amounts of skates being discarded. Industry, of course, advocated the adoption of the 5,000 lbs. skate wing possession limit, because lower amounts would make it more difficult to supply markets.
- The Council approved the increase in the skate wing and skate bait TALs for the 2010 and 2011 fishing years, with an increase in the skate wing possession limit from 1,900 to 5,000 lbs. of skate wings. NMFS made these adjustments in the final rule, relying on the updated survey indices from 2006-2008 and updated discard estimates for 2007-2009, coupled with the PDT's new analysis of the skate wing possession limit using 2009 fishery data.
- The Amendment 3 EIS qualitatively evaluated the potential cumulative effect of sector management of Amendment 16, which suggested that the disassociation of Multispecies DAS from groundfish allocations could liberate DAS to be used by sector vessels to target skates. More importantly, the annual monitoring report prepared by the Skate PDT in June 2010 elaborates this qualitative evaluation as written below. It is unlikely that much quantitative analysis can be done at this time until the sector data become available for analysis and the effects through at least the calendar year can be measured. These data typically become available in February or March.

**Quoted from the 2010 Skate Annual Monitoring report:**

*“Among other things, Amendment 16 decreases the allocation of Category A DAS by 50% and allows greater participation in groundfish sectors, a program where vessel associations may fish for groundfish while being exempt from specific multispecies regulations, most often DAS limits. About half of the vessels with limited access multispecies permits have enrolled in one of the sectors. This disassociation with DAS management and potential transfer of groundfish effort among sector vessels could increase the availability of Category A DAS to fish for skates. The table below shows that most of the skate landings were made by vessels operating on a Category A DAS, but it is unclear how much of those landings were from trips targeting skates as opposed to trips targeting groundfish. In any case, a greater fraction of those Category A DAS might be used by sector vessels to target*

*skates, rather than groundfish. This potential has so far failed to materialize through May 27, 2010.*

*This potential increase in skate (and also monkfish and whiting) fishing by sector enrolled vessels may be offset by three other actions (see Section 7.7.7 of Amendment 16 for more detail). First, it is thought that sector vessels targeting groundfish will do so more efficiently and therefore potentially have less skate bycatch. This outcome and how it affects the various species of skates will of course depend on where and when fishing occurs under the new sector rules. A second factor is that Amendment 16 includes a 50% reduction in Category A DAS allocations for vessels enrolled in the common pool, governed by DAS restrictions. There were 286 active multispecies vessels that in January 2010 were not sector-enrolled and would be subject to the DAS restrictions, compared with 453 active vessels (and 359 inactive) sector vessels. It is unknown how many of the 359 inactive sector vessels fished for skates in 2009. A third factor is that Skate FMP Amendment 3 prohibits the use of Multispecies Category B DAS to target skates, although for reasons that are not as valid as they once were. This measure could reduce skate landings, particularly compared to the spike in landings observed in 2007.”*

- Skate wing landings for sector and common pool vessels using trawls and gillnets increased year-over-year (fishing year) by 52 and 79 percent, respectively, before Amendment 3 implementation comparing 2010 to 2009 (Table 4). Regulated groundfish landings decreased by 16 percent for sector vessels and increased by 6% for common pool vessels during the same period before Amendment 3 implementation.
- After Amendment 3 implementation (until September 10) and under the 5,000 lb. skate wing possession limit, skate wing landings increased by 7% for sector vessels and decreased 7% for non-sector vessels (Table 5). Regulated groundfish landings decreased by 43 and 32 percent for sector and common pool vessels during the same period since Amendment 3 implementation.
- The skate wing landings of sector and common pool vessels increased considerably year over year before the implementation of Amendment 3. The increase seems to have more to do with derby style behavior and/or possible increases in commercial skate catch, rather than sector management. Note also that skate bait landings for common pool vessels nearly doubled in this period, too, while skate bait landings by sector vessels declined.
- The year over year skate landings after the Amendment 3 implementation date (July 3) did not decrease year over year, even with the lower 5,000 skate wing possession limit. This could be due to increases in the use of DAS to target skates (although monkfish landings which also require DAS use declined year-over-year) and/or increases in skate catches by the commercial fishery.
- Staff is currently working on hake analyses (for the assessment and the SAFE Report) and preparing to develop an amendment implementing ACLs and AMs in the spring of 2011. NMFS staff on the Skate PDT is also tasked to the hake assessment for the

next few months. Resources diverted to skate issues could detract from the planned hake amendment or other Council priorities.

- The annual value of hake landings was \$9.0 million in 2009. The value of the skate wing fishery landings in 2009 was \$7.0 million. Implementation of ACLs for all managed stocks is required by May 1, 2011.

**Table 1.** Revised (final rule) skate specifications for 2010 and 2011 fishing years.

ABC	41,080 mt	Wing fishery possession limit	5,000 lbs. skate wings (11,350 lbs. whole weight)
ACT (75% of ABC)	30,810 mt	Wing fishery TAL trigger	80% of wing fishery TAL
TAL (assuming 53.7% discard rate)	14,772 mt	Bait fishery possession limit with a Letter of Authorization	20,000 lbs. whole weight
State waters catch	924 mt	Bait fishery TAL trigger	90% of bait fishery TAL
Wing fishery TAL	9,209 mt	Bait fishery quotas	
Bait fishery TAL	4,639 mt	May 1 – Jul 31	1,429 mt
		Aug 1 – Oct 31	1,721 mt
		Nov 1 – Apr 30	1,489 mt + any remaining from periods 1 & 2

**Table 2.** Comparison of Amendment 3 specifications to 2009 landings and discards.

Allocation	Source	Amendment 3	Final rule	2009	Change from 2009
ABC	OFL	30,643	41,080	NA	
ACT	Uncertainty	22,982	30,810	NA	
Discards <sup>2</sup>	Mortality	12,866	16,038		
TAL	Limit	10,116	14,772	22,526	-29%
Landings	State waters	689	924	6,097 <sup>3</sup>	
Landings	Wing	6,269	9,209	9,647	-29% <sup>4</sup>
Landings	Bait	3,158	4,639	2,373	-9% <sup>4</sup>

**Table 3.** Discard estimates (mt) by gear type. Source data from 2010 Annual Monitoring Report for skates.

Year	Line trawl	Otter trawl	Scallop dredge	Shrimp trawl	Sink gillnet	Grand Total
2008	89	11,574	5,121	1	1,012	17,796
2009	247	20,143	1,533	1	603	22,526

<sup>2</sup> Estimated discard rate for 2007-2009 assumed to apply to 2010-2011 allocations.

<sup>3</sup> Includes Federal vessels fishing in state waters that would be counted against the Federal TAL. Wings: 3,374 mt; Bait 2,733 mt for all vessels in state waters.

<sup>4</sup> Includes state waters

**Table 4.** Landings by fleet and market category for vessels fishing with trawls and gillnets, comparing the period May 1, 2009 to July 15, 2009 to the period May 1, 2010 to July 15, 2010 (the day before Amendment 3 implementation).

Year	Market group	Data	Fleet assignment			Total
			Sector	Inactive	Common Pool	
2009	1. Skate Wings	Landings, whole lbs.	3,583,606	94,021	2,180,492	5,858,119
		Value.	\$468,758	\$15,564	\$280,812	\$765,134
	2. Skate Bait	Landings, whole lbs.	1,429,253	46,304	863,784	2,339,341
		Value.	\$119,827	\$3,709	\$90,907	\$214,443
	3. Monkfish	Landings, whole lbs.	1,844,441	47,341	2,863,015	4,754,797
		Value.	\$1,647,650	\$40,218	\$2,755,085	\$4,442,953
	4. Small mesh groundfish	Landings, whole lbs.	1,803,311	288,859	1,167,391	3,259,561
		Value.	\$717,687	\$110,989	\$478,710	\$1,307,386
	5. Other species	Landings, whole lbs.	5,426,022	685,574	25,714,033	31,825,629
		Value.	\$3,958,307	\$477,811	\$11,964,118	\$16,400,236
	6. Regulated groundfish	Landings, whole lbs.	11,284,055	720,679	897,305	12,902,039
		Value.	\$10,530,364	\$782,570	\$1,008,539	\$12,321,473
Total		Landings, whole lbs.	25,370,688	1,882,778	33,686,020	60,939,486
		Value.	\$17,442,593	\$1,430,861	\$16,578,171	\$35,451,625
2010	1. Skate Wings	Landings, whole lbs.	5,464,928	17,077	3,913,184	9,395,189
		Value.	\$746,083	\$2,679	\$562,407	\$1,311,169
	2. Skate Bait	Landings, whole lbs.	1,291,809	41,771	1,672,854	3,006,434
		Value.	\$163,561	\$5,462	\$194,060	\$363,083
	3. Monkfish	Landings, whole lbs.	1,398,682	5,754	2,157,166	3,561,602
		Value.	\$1,483,563	\$5,822	\$2,568,897	\$4,058,282
	4. Small mesh groundfish	Landings, whole lbs.	2,823,558	228,850	711,677	3,764,085
		Value.	\$1,610,855	\$118,275	\$370,496	\$2,099,626
	5. Other species	Landings, whole lbs.	4,752,355	413,311	25,787,341	30,953,007
		Value.	\$4,175,163	\$268,443	\$13,919,429	\$18,363,035
	6. Regulated groundfish	Landings, whole lbs.	9,515,436	112,372	954,198	10,582,006
		Value.	\$12,007,390	\$123,973	\$1,356,964	\$13,488,327
Total		Landings, whole lbs.	25,246,768	819,135	35,196,420	61,262,323
		Value.	\$20,186,615	\$524,654	\$18,972,253	\$39,683,522
YOY change	1. Skate Wings	Landings, whole lbs.	52%	-82%	79%	60%
		Value.	59%	-83%	100%	71%
	2. Skate Bait	Landings, whole lbs.	-10%	-10%	94%	29%
		Value.	36%	47%	113%	69%
	3. Monkfish	Landings, whole lbs.	-24%	-88%	-25%	-25%
		Value.	-10%	-86%	-7%	-9%
	4. Small mesh groundfish	Landings, whole lbs.	57%	-21%	-39%	15%
		Value.	124%	7%	-23%	61%
	5. Other species	Landings, whole lbs.	-12%	-40%	0%	-3%
		Value.	5%	-44%	16%	12%
	6. Regulated groundfish	Landings, whole lbs.	-16%	-84%	6%	-18%
		Value.	14%	-84%	35%	9%
Total		Landings, whole lbs.	0%	-56%	4%	1%
		Value.	16%	-63%	14%	12%

**Table 5.** Landings by fleet and market category for vessels fishing with trawls and gillnets, comparing the period July 16, 2009 to September 10, 2009 to the period July 16, 2010 (Amendment 3 implementation) to September 10, 2010.

Year	Market group	Data	Fleet assignment			Total
			Sector	Inactive	Common Pool	
2009	1. Skate Wings	Landings, whole lbs.	3,536,843	55,138	210,525	3,802,506
		Value.	\$561,846	\$10,746	\$29,873	\$602,465
	2. Skate Bait	Landings, whole lbs.	1,575,991		787,624	2,363,615
		Value.	\$132,704		\$85,955	\$218,659
	3. Monkfish	Landings, whole lbs.	784,718	17,415	277,027	1,079,160
		Value.	\$773,221	\$17,019	\$283,123	\$1,073,363
	4. Small mesh groundfish	Landings, whole lbs.	1,863,182	120,961	383,005	2,367,148
		Value.	\$639,381	\$47,930	\$170,325	\$857,636
	5. Other species	Landings, whole lbs.	7,572,010	1,453,906	27,737,272	36,763,188
		Value.	\$3,844,441	\$588,143	\$12,155,357	\$16,587,941
	6. Regulated groundfish	Landings, whole lbs.	9,360,178	605,466	545,771	10,511,415
		Value.	\$8,670,678	\$644,297	\$534,844	\$9,849,819
Total		Landings, whole lbs.	24,692,922	2,252,886	29,941,224	56,887,032
		Value.	\$14,622,271	\$1,308,135	\$13,259,477	\$29,189,883
2010	1. Skate Wings	Landings, whole lbs.	3,784,960	223	195,876	3,981,059
		Value.	\$699,895	\$60	\$30,540	\$730,495
	2. Skate Bait	Landings, whole lbs.	896,090		924,239	1,820,329
		Value.	\$93,712		\$107,084	\$200,796
	3. Monkfish	Landings, whole lbs.	761,839	2,677	145,910	910,426
		Value.	\$835,700	\$3,019	\$137,252	\$975,971
	4. Small mesh groundfish	Landings, whole lbs.	2,831,245	46,980	351,214	3,229,439
		Value.	\$1,600,134	\$26,011	\$182,005	\$1,808,150
	5. Other species	Landings, whole lbs.	3,910,875	1,107,519	20,752,249	25,770,643
		Value.	\$2,411,184	\$352,481	\$12,773,814	\$15,537,479
	6. Regulated groundfish	Landings, whole lbs.	5,288,572	97,914	369,011	5,755,497
		Value.	\$6,717,202	\$115,684	\$557,187	\$7,390,073
Total		Landings, whole lbs.	17,473,581	1,255,313	22,738,499	41,467,393
		Value.	\$12,357,827	\$497,255	\$13,787,882	\$26,642,964
YOY change	1. Skate Wings	Landings, whole lbs.	7%	-100%	-7%	5%
		Value.	25%	-99%	2%	21%
	2. Skate Bait	Landings, whole lbs.	-43%		17%	-23%
		Value.	-29%		25%	-8%
	3. Monkfish	Landings, whole lbs.	-3%	-85%	-47%	-16%
		Value.	8%	-82%	-52%	-9%
	4. Small mesh groundfish	Landings, whole lbs.	52%	-61%	-8%	36%
		Value.	150%	-46%	7%	111%
	5. Other species	Landings, whole lbs.	-48%	-24%	-25%	-30%
		Value.	-37%	-40%	5%	-6%
	6. Regulated groundfish	Landings, whole lbs.	-43%	-84%	-32%	-45%
		Value.	-23%	-82%	4%	-25%
Total		Landings, whole lbs.	-29%	-44%	-24%	-27%
		Value.	-15%	-62%	4%	-9%