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MEMORANDUM

DATE: **October 20, 2026**

TO: Scientific and Statistical Committee

FROM: Small-Mesh Multispecies Plan Development Team (PDT)

SUBJECT: **Small-Mesh Multispecies specifications for fishing years (FY) 2027-2031**

This memorandum forwards information to support recommendations by the Scientific and Statistical Committee for setting the overfishing limit (OFL) and acceptable biological catch (ABC) for the small-mesh multispecies stocks for FY 2027-2031. The PDT met on September 3, 2026, and by follow-up correspondence to develop this memorandum.

Key PDT Recommendations:

- Northern Silver Hake & Southern Whiting OFL: Recommend OFL specifications of 48,540 mt for northern silver hake and 96,260 mt for southern whiting. In accordance with Council procedure, the PDT did not debate whether the OFL should apply across all five years (FY 2027–2031), given the lack of projections and the precedent of maintaining constant OFL specifications over multi-year periods.
- Northern Silver Hake & Southern Whiting ABC: Recommend ABC specifications of 26,260 mt for northern silver hake and 53,660 mt for southern whiting. These recommendations reflect the updated assessment data and application of the ABC control rule, which accounts for scientific uncertainty in survey biomass and biological reference points using P* = 25%.
- Northern Red Hake & Southern Red Hake ABC & OFL: Recommend ABC specifications of 5,790 mt for northern red hake and 2,120 mt for southern red hake. Due to changes in the assessment methodology, OFL is not estimated. As with silver hake, the PDT followed Council procedure regarding the 2027–2031 specification window. The PDT did not re-evaluate or discuss alternatives to the baseline exploitation periods approved by the SSC for the 2024–2026 specifications.

1. ASSESSMENT OVERVIEW

Small-mesh multispecies empirical assessments and data updates were conducted following established methods. MSY-proxy reference periods remain identical to those approved by the SSC for the 2024–2026 specifications (*Reference Document #TBD*).

- **Silver Hake Stocks:** An empirical assessment was performed by the PDT using the assessment data update, FMP-defined MSY-proxy reference period (1973–1982) for biomass (kg/tow) and relative exploitation (catch/survey biomass index). Exploitation trends were calculated and catch limits were derived by applying reference-period exploitation to the current 3-year average relative survey biomass (kg/tow). Scientific uncertainty in survey biomass and proxy reference points was incorporated into risk profiles to calculate catch limits associated with $P^* = 25\%$.

- **Red Hake Stocks:** An empirical assessment incorporating chain-sweep efficiency adjustments (Miller et al. 2023) was conducted using updated survey and catch data. SSC-approved base reference periods (1981–1994 for northern red hake; 2001–2019 for southern red hake) were applied in lieu of using $P^* = 40\%$ from an estimable OFL. This method estimates total biomass, exploitation rate, and overfishing risk profiles across a range of catch levels.
- **Red hake Albatross to Bigelow vessel calibration:** During this cycle, the PDT identified an opportunity to refine the calibration of Albatross survey data to the Bigelow series for red hake. Previous assessments applied a constant average calibration factor to the pre-Bigelow survey years. For this update, the approach was revised to incorporate length-based differences in calibration, accounting for length composition of red hake catches between the two vessels. A bridge estimate demonstrating the impact on the 2023 assessment using this corrected approach is provided in the meeting materials.

2. BRIEF MANAGEMENT BACKGROUND

The small mesh multispecies fishery is managed by a collection of exemptions to the Northeast Multispecies Fishery Management Plan (FMP). These exemptions allow a fishery to be exempt from the minimum mesh size provided that bycatch of groundfish species is less than 5% of total catch. There are currently five exemption areas in the northern management area that are open seasonally with possession limits dependent upon the species and mesh size. In the southern management area, small-mesh multispecies fishing is open year-round with certain requirements in the Southern New England and Georges Bank regulated mesh areas.

The Small-Mesh Multispecies FMP specifies the management measures for the northern and southern stocks of silver hake (*Merluccius bilinearis*), the northern and southern stocks of red hake (*Urophycis chuss*), and a single stock of offshore hake (*Merluccius albidus*) that primarily co-occurs with the southern stock of silver hake. Catches of silver hake and offshore hake are generally not differentiated in the market and are therefore collectively referred to as "whiting" with the fishery that harvests these species referred to as the "whiting" fishery. Silver hake and red hake are both managed as two distinct stocks, a northern and a southern, based on geographic delineations.

3. 2025 STOCK ASSESSMENT/ DATA UPDATE/REFERENCE POINTS/PROJECTIONS/REBUILDING PLAN

The Northeast Fisheries Science Center (NEFSC) provided assessment data updates through 2025, including catch and survey trends (*Meeting Materials*).

- Silver Hake / Southern Whiting Status: OFLs were calculated from the 1973–1982 MSY-proxy baseline. Neither northern silver hake nor southern whiting is overfished, and overfishing is not occurring. FY 2025 utilization rates relative to ABC and TAL remained low for northern silver hake (4.3% ABC; 4.7% TAL) and low/moderate for southern whiting (27.7% ABC; 25.7% TAL). Historical trends are detailed in the *Fishery Performance Report (Document #TBD)*.
- Red Hake Status & Rebuilding: Following the rejection of the AIM model during the 2020 Research Track Assessment, total biomass was estimated using chain-sweep efficiency adjusted total swept area biomass from survey data, combining the spring and fall bottom trawl surveys.

4. POTENTIAL OFLS AND ABCS

- Silver Hake: The OFL was derived from applying the average relative exploitation rate for 1972-1983 to the 3-year average survey biomass for 2023-2025. ABCs were estimated using the policy-mandated $P^* = 25\%$ control rule. The Southern whiting ABC includes a 4% expansion factor to account for the average annual contribution of offshore hake, based on the 2010

benchmark assessment (https://repository.library.noaa.gov/view/noaa/3766).

- Red Hake: Overfishing for red hake is defined by FMP reference points, though these reference points are not currently used for status determination. ABC recommendations apply baseline exploitation rates (1981–1994 north; 2001–2019 south) in lieu of using $P^* = 40\%$. No alternative reference periods were evaluated during this update. Catch levels in 2025 were well below ACLs (7.0% for northern red hake; 48.8% for southern red hake), indicating overfishing was not occurring. Northern red hake biomass is at a time-series high (not overfished). Southern red hake biomass remains below the Amendment 19 threshold and is currently in Year 7 of a 10-year rebuilding plan under Framework Adjustment 62. Rebuilding measures require a 25% ABC reduction and restricted possession limits; this 25% ABC reduction is built into the PDT's recommendation.

5. FY 2027 – 2031 SPECIFICATIONS

Although the charge of the SSC is to recommend an OFL and ABC (highlighted in blue in the table below), provided here for context are the resultant fishery limits that stem from the potential ABCs. One consideration is whether the OFL and ABC levels become binding on the fishery when the annual catch limit (ACL) and total allowable landings (TAL) are determined.

Following then existing policy and National Standard 1 guidelines, the Small-Mesh Multispecies FMP sets specifications to account for scientific uncertainty and management uncertainty, with a set aside to account for expected discards and state landings (see diagram below).

The FMP applies a P* approach to set the OFL and account for scientific uncertainty. While it focuses on scientific uncertainty, the Council chose a much more conservative value of P*=25% for northern silver hake and southern whiting stocks for several management-related reasons. Silver hake and whiting were considered to play a central role in the finfish ecosystem, as both adult predators and juvenile prey. They are also very important for a segment of the commercial fleet and as tuna bait. The Council thought that if the stocks became overfished, recovery and rebuilding would be costly to the industry. In contrast, the Council chose a value P*=40% for red hake stocks for much the opposite reasons, a less central role in the ecosystem as a predator, lower fishery value, and less impact on the fishery if it later became overfished (i.e. the current status of southern red hake). This policy regarding how the FMP applies may be a consideration for determining how the proposed ABCs line up with the Council's new risk policy. A 5% buffer was adopted to account for management uncertainty, then thought to come primarily about uncertainty in reported landings and estimated discards.

After the ACL has been determined based on the SSC's choices of OFL and ABC limits, the FMP accounts for expected discards derived from the average of the discard rate in the last 3 years. Landings from state waters by vessels without Federal permits are taken into account the same way. Before CAMS was developed, real-time monitoring of catch was difficult and the Council adopted in-season AMs that reduce possession limits when the TAL trigger is hit. The intent was to reduce the likelihood of catch exceeding the ACL. This occurred in several cases for red hake stocks, the last in 2022 (see Fishery Performance Report, Document #TBD).

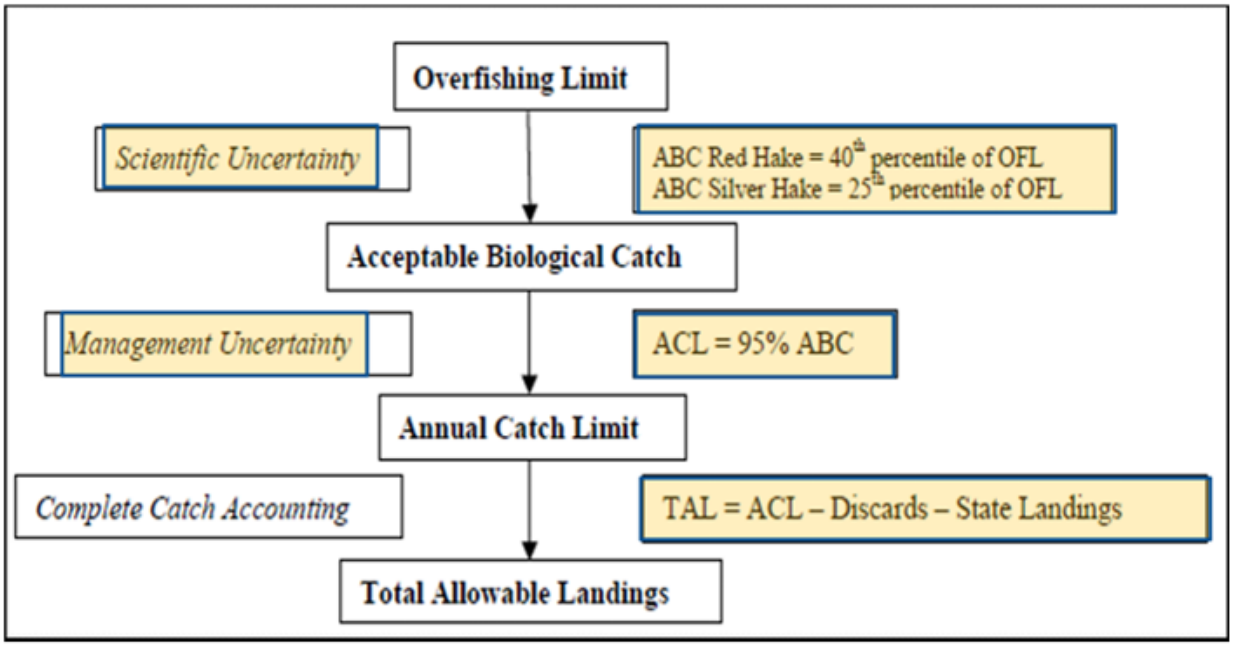

Figure 1. Small-mesh multispecies specifications framework.

The table below provides details about the full set of specifications that would be applied if the SSC approves of the PDT's recommendations for OFL and ABC. The OFL and ABC increase substantially for southern whiting due to changes in the relative survey biomass, while changes in red hake OFLs are an increase of 55 to 85%. On the other hand, the northern silver hake OFL would be a 36% reduction compared to the value in the 2024-2026 specifications document. Changes in the ACLs are the same relative to the OFL because the FMP applies a constant 5% buffer for management uncertainty. Note that changes in TAL do not track ACL changes proportionally in all stocks due to shifts in recent 3-year average state landings and discard estimates.

The table below also shows the values for 2027-2031 specifications relative to the published 2024-2026 specifications document. Despite the ABC increases in northern red hake, southern red hake, and southern whiting, the TAL changes are relatively less because discards and/or state landings increased. The changes in the northern silver hake OFL and ABC are nearly the same as expected changes in TAL.

Table 1. Proposed 2027-2031 OFL and ABC specifications showing the ACL and TAL that would be set after accounting for expected discards and state landings, all compared to the 2024-2026 specifications. Red hake OFLs are not estimated by the current assessment methods for the stocks. Specifications to be set by the SSC are highlighted in the blue box.

2027-2031 advice								
Stock	OFL	ABC	ACL	Discard SA	State landings	TAL	TAL trigger %	TAL trigger
Northern red hake		5,790	5,501	87.7%	0.05%	676	0.9	609
Northern silver hake	48,540	26,260	24,947	18.6%	0.79%	20,121	0.9	18,109
Southern red hake		2,120	2,014	86.5%	1.03%	251	0.41	103
Southern whiting	96,260	53,660	50,977	32.0%	2.36%	33,466	0.9	30,120
SRH rebuilding	-	1,590	1,511			188		77
2024-2026 advice								
Northern red hake		3,129	2,973	91.1%	0.23%	1,274	0.9	1,147
Northern silver hake	79,476	40,868	38,825	19.1%	0.82%	31,347	0.9	28,212
Southern red hake		1,370	1,301	85.2%	0.72%	236	0.41	97
Southern whiting	35,419	20,149	19,142	41.2%	0.75%	13,881	0.9	12,493
Change in advice								
Northern red hake		85.0%	85.0%	-3.8%	-78.8%	-46.9%	0.0%	-46.9%
Northern silver hake	-38.9%	-35.7%	-35.7%	-3.0%	-4.0%	-35.8%	0.0%	-35.8%
Southern red hake		54.8%	54.8%	1.5%	43.0%	6.7%	0.0%	6.5%
Southern whiting	171.8%	166.3%	166.3%	-22.4%	216.2%	141.1%	0.0%	141.1%

The table below compares the proposed specifications if the SSC approves the PDT recommendations. In all cases, the 2025 catch was less than the proposed ACL, in some cases much less due to low utilization (see Fishery Performance Report). The same is true for the proposed TALs and landings, except for southern red hake. In that case, the 283 mt of landings exceed the 188 mt TAL. However, the TAL trigger is only 41% of the TAL (see table above), which provides for a large buffer to account for previous ACL overages. In the past few years, while the landings have exceeded the TAL trigger and even the TAL, the catch has not exceeded the ACL because of this large TAL buffer. The Council is evaluating potential adjustments to the 41% trigger in the upcoming specifications action.

Table 2. Comparison of proposed 2027-2031 specifications and 2023-2025 catch and landings. Catch and landings less than the proposed specifications are highlighted. Differences are the ratio between the 2027-2031 ACL and 2025 catch, or the 2027-2031 TAL and 2025 landings. Only the 2025 southern red hake landings exceeded the potential 2027-2031 TAL and in 2025 the catch did not exceed the ACL and the trigger was not enforced.

Stock	ACL	2025 catch	Difference	TAL	2025 landings	Difference2
Northern red hake	5,501	419	13.14	676	103	6.54
Northern silver hake	24,947	3,372	7.40	20,121	2,965	6.79
Southern red hake	1,511	1,217	1.24	188	283	0.66
Southern whiting	50,977	10,211	4.99	33,466	6,764	4.95

6. RESPONSES TO SSC RECOMMENDATIONS MADE IN 2023

The SSC made several recommendations for improving the small-mesh multispecies assessments and specifications. The PDT responds here to the SSC comments.

Northern silver hake

1. The SSC recommends revisiting the reference period for defining the F_{MSY} proxy (i.e., average exploitation rate) for this stock and work to develop criteria for the definition of these types of reference periods in a dynamic environment. This recommendation is aligned with past peer review comments and those of the Assessment Oversight Panel. This applied to southern whiting as well.

   PDT response: Agreed. However, planned assessment updates were delayed; this issue requires a dedicated research track or Level 3 management track assessment.

2. The SSC notes that the ABC recommendation represents a large swing in catch advice, albeit in a positive direction. The approach used to assess northern silver hake appears to be prone to large swings in advice, and while currently the catch advice is well above the current catch levels, it may be useful to explore an alternative approach for setting catch advice in the future for this stock. This applies to southern whiting as well.

   PDT response: Fluctuation is driven primarily by survey relative biomass variability, which is partially smoothed by using 3-year average biomass indices. Resource constraints precluded evaluating alternative smoothing/control rule approaches for this update.

3. The SSC recommends investigating the development of an analytical assessment for silver hake stocks (sic), focusing on assessment techniques that can integrate the two stock areas for this species (e.g., WHAM or Stock Synthesis).

   PDT response: Spatial evaluation using WHAM is queued for testing during the next full stock assessment.

4. The SSC recommends investigating a consistent approach to the treatment of missing survey information for index-based assessments, or at least a consistent approach to determining if the missing survey data is an important factor when determining catch advice. This applies to southern whiting as well.

   PDT response: Since the 2023 SSC review, this problem has been encountered and managed for many stock assessments and there are now consistent methods for accommodating missing survey data in stock assessments.

Southern whiting

In addition to items 1-4 above:

1. The SSC recommends updating the assumption for offshore hake as there appear to be differences in the current mix in the southern whiting fishery.

PDT response: Agreed. Modern observer data will enable model-based estimation to replace the 2010 assumptions, though execution requires additional analytical capacity.

Northern red hake

1. Further characterization of red hake discards in the lobster fishery is needed to ensure that the catch time series is accurate. Analyzing sea sampling data from the Maine Department of Natural Resources may help in this endeavor. Further research on discard mortality rates would also be useful as the stock has most of its catch discarded and not landed.

   PDT response: Discards in the lobster fishery have declined, but this may be due to sampling variability more than from other factors. We agree that more data from state sampling and research focusing on discard mortality would be informative. This being said, red hake are not known to survive very well from capture by trawls or hook and line (personal experience with both), so assuming that discard mortality is 100% is a reasonable assumption.

2. It is unclear what has driven the increase in abundance in the northern stock. Analyses focused on identifying the influence of ecosystem and climate drivers on aspects of stock dynamics may provide insight regarding what is driving this change. Given the discussions regarding red hake survey availability, it may be worthwhile to investigate the utility of state and other federal surveys and whether they provide relevant information on population trends. A similar comment was made for southern red hake.

   PDT response: Incorporating state/federal survey availability and climate drivers is best suited for a future WHAM-based assessment TORs. Revisiting baseline exploitation periods requires Council prioritization.

3. An analytical stock assessment for northern red hake would be ideal for guiding catch advice; however, the SSC also recommends other analyses be pursued (e.g., spawning potential ratio) to derive proxy reference points. The SSC further recommends revisiting the exploitation rate reference period, as the rationale assumes stationarity in dynamics such that the stock will respond to exploitation in the same way as during 1981- 1994 period.

   PDT response: We agree and when the Council approves a management priority to revise the small-mesh multispecies overfishing definitions, this analytical work should be pursued. There were insufficient time and resources available to address this issue at this juncture.

Southern red hake

In addition to item 2 above:

1. The SSC recommends further analysis of the age composition data from the surveys to better understand recruitment dynamics and changes in age composition over time.

   PDT response: Age-structure evaluation exceeds the scope of a data update and should be addressed in a future Management Track Assessment.

7. *Additional Fishery Information and Risk Factor Scoring*

The PDT updated the Fishery Performance Report (see document TBD) and the risk policy matrices (see document TBD) which provide useful information for context and estimation of risk. The PDT furthermore used relevant data to conduct risk factor scoring, compute Z-scores that incorporate the Council weighting, and assign risk to tiers following the Council's new risk policy.

All four small-mesh multispecies stocks are ranked in the intermediate risk tier category. The fishery has no sub-ACLs that could bind fishing for other species or a sub-ACL for recreational catch. Thus, the recreational fishery characterization component was dropped and the remaining Council-weights were normalized to sum to one. The effect of voting rules on this adjustment or any sort of simulation of weighting factors were not conducted.

Table 3. Council-weighted risk tolerance scoring for small-mesh multispecies stocks based on fishery and survey data through FY 2025.

STOCK	Z-SCORE	RISK TOLERANCE TIER
Northern silver hake	+0.25	Intermediate
Southern Whiting	+0.31	Intermediate
Northern red hake	+0.50	Intermediate
Southern red hake	-0.26	Intermediate

8. *Reference*

Miller, T. J., Richardson, D. E., Politis, P. J., Roebuck, C. D., Manderson, J. P., Martin, M. H., & Jones, A. W. (2023). Estimation of survey efficiency and biomass for commercially important species from industry-based paired gear experiments. Fisheries Research, 259, 106565.