



DRAFT AMENDMENT 19 TO THE NORTHEAST MULTISPECIES FMP

WRITTEN COMMENTS DUE BY APRIL 16, 2012!

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COUNCIL TO SET ANNUAL CATCH LIMITS WITH IN-SEASON AND POST-SEASON ACCOUNTABILITY MEASURES

Amendment 19 will allow the Council to formally adopt the 2012-2014 ACL specifications (catch and landing limits) that were approved by NMFS (in consultation with the Council) in the Secretarial Amendment for the small-mesh multispecies fishery. It will also allow implementation of accountability measures (AMs), as well as a mechanism for adjusting specifications.

In addition to describing a specification process, accountability measures are proposed to reduce the risk that catches will exceed the annual catch limits and account for overages, should they occur. These measures taken together should reduce the risk of overfishing caused by scientific and management uncertainty.

As non-preferred alternatives, Amendment 19 also considers setting landings targets with red hake incidental possession limits for the small-mesh exemption areas and setting year round red hake possession limits, measures that are not included in the Secretarial Amendment.

Further, the action is needed to implement management measures that have been evaluated through the Council process in order to complement the ACL framework established by the Secretarial Amendment, which NMFS expects to implement on May 1, 2012 for the 2012 fishing year.

A benchmark assessment was completed in January 2011. No stock was overfished and overfishing was not occurring (Section 3.8 of the Amendment).

ANNUAL CATCH LIMITS AND ACCOUNTABILITY MEASURES

This amendment includes ABCs for northern and southern stocks of red and silver hake. Due to insufficient data and science, there is no ABC for offshore hake. An adjustment has been made in the silver hake ABC for the southern stock to account for customary catches of offshore hake in this mixed species trawl fishery. ACLs for each stock account for management uncertainty by reducing the ABC by 5% and after accounting for state landings and expected discards. The amendment would specify total allowable landings for each stock and species. More details and specifications are given in Sections 4.1, 5.3, and 5.5 of the Amendment.

The ACL framework, including the overfishing limits and ABCs is illustrated on page 8 of this document.

Continued on page 9

APRIL 2012

SUN	MON	TUE	WED	THU	FRI	SAT
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28

AMENDMENT 19 SCHEDULE

- **Lakewood NJ public hearing— April 9 @ 5-7 pm**
Hilton Garden Inn Lakewood—1885 Route 70
- **Riverhead NY public hearing—April 10 @ 5-7 pm**
Hotel Indigo East End—1830 West Main St, Route 25
- **Plymouth MA public hearing— April 11 @ 5-7 pm**
Radisson Plymouth, 180 Water St.
- **Portsmouth, NH public hearing— April 12 @ 5-7 pm**
Sheraton Harborside—250 Market St.
- **Providence RI public hearing— April 16 @ 5-7 pm**
Hotel Providence– 139 Matthewson St.
- **Deadline for written comments—Noon April 16**
- **Whiting Oversight Committee—April 17 @ 10 am**
Hotel Providence, 139 Matthewson St., Providence RI
Review comments and recommend final alternative
- **Council meeting—April 24-26 Hilton Mystic, Mystic CT**
Approve final Amendment 19 alternatives

SUBMITTING WRITTEN COMMENTS BY APRIL 16

Written comments by mail:

Paul J. Howard, Executive Director
 New England Fishery Management Council
 50 Water St. Mill 2, Newburyport, MA 01950
 Subject line: “Comments on Small Mesh Multispecies Amendment 19”

Written comments by FAX:

New England Fishery Management Council
 (978) 465-3118
 Subject line: “Comments on Small-Mesh Multispecies Amendment 19”

Written comments by email:

Send to comment@nefmc.org
 Subject line: “Comments on Small-Mesh Multispecies Amendment 19”

WHERE TO FIND THINGS IN DRAFT AMENDMENT 19

Subject	Section	Page
Executive summary	1.0	1-3
Purpose and need	3.1	3-22
Management background	3.3	3-23
MSY, OY, and overfishing definitions	3.6	3-28
Allowable Biological Catch and Annual Catch Limit Specifications	4.0	4-31
Description of measures and alternatives	5.0	5-36
Stock Assessment and Fishery Evaluation (SAFE Report) report and affected environment	7.0	7-66
Biological impacts	8.1	8-137
Economic impacts	8.5	8-175
Cumulative effects analysis	8.8	8-178

ACRONYMS USED IN THIS DOCUMENT

See Section 10 on page 212 of the draft amendment for a glossary of terms

MSY	Maximum Sustainable Yield: The largest average catch that can be taken continuously (sustained) from a stock under average environmental conditions. This is often used as a management goal.
OFL	Overfishing Limit: catch exceeding MSY and estimated to cause overfishing
ABC	Acceptable Biological Catch: set to account for scientific uncertainty
ACL	Annual Catch Limit: set to account for management uncertainty
TAL	Total allowable landings: ACL minus estimated discards
AM	Accountability measure: a measure that is triggered in-season to avoid or post-season to correct for overfishing
MT	A metric ton is equal to 2204.6 pounds.

MSFCMA	Magnuson-Stevens Fishery Conservation and Management Act
NEFMC	New England Fishery Management Council
NEFSC	Northeast Fisheries Science Center, Woods Hole, MA
NMFS	National Marine Fisheries Service
PDT	Whiting Plan Development Team
SAW	Stock Assessment Workshop: a procedural framework to peer-review assessments
VMS	Vessel Monitoring System: an electronic tracking system required aboard many vessels with Federal fishing permits
VTR	Vessel Trip Reports: reports made by fishermen summarizing catch by species, area fished, and gear for each trip.

Northern and southern stock areas

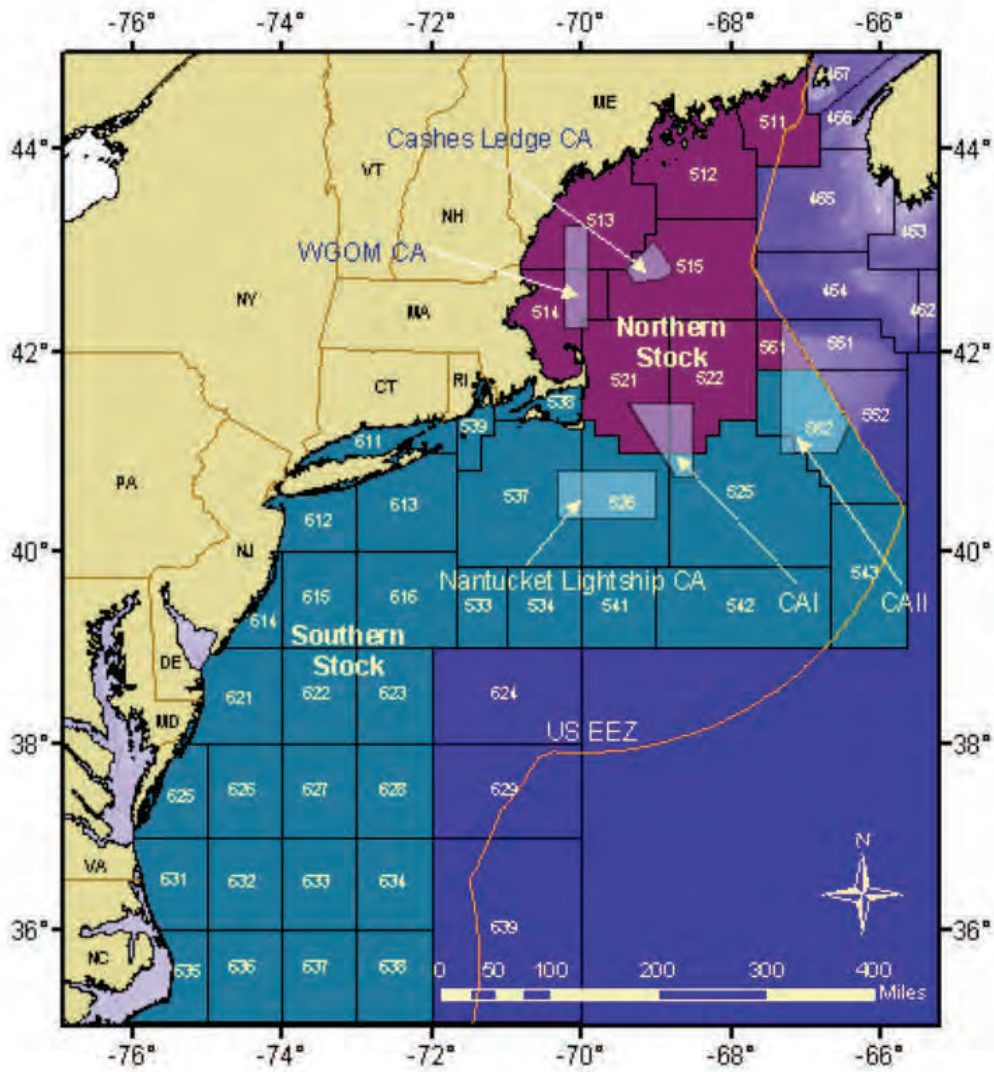


Photo used with permission and courtesy of the NEFSC Photo Archives

What is a Preferred Alternative?

Based on the analysis in the Impact Analyses and recommendations from the Council's Advisory Panel and Plan Development Team, alternatives which are most likely to meet the goals and objectives are designated as preferred. Although preferred alternatives are more likely to be chosen for the final action, the Council may substitute these for one or more non-preferred alternatives following the public comment period. It is therefore im-

portant for the public to be aware of and comment on all alternatives. The amendment also includes considered and rejected alternatives which based on current analysis are unlikely to achieve the objectives and will not be chosen for final action. Some alternatives were designated as considered and rejected because they were controversial and would take a long time to develop. The Council may consider some of these in a future action.

Management Objectives

The Council's objective is to manage fisheries catching red, silver, and offshore hakes to build to and maintain stock size at levels that are capable of sustaining MSY on a continuing basis. In addition to existing restrictions on fishing through small-mesh regulations and exemption programs as well as silver hake possession limits specified according to

the mesh size used by the vessel, this amendment will establish and specify catch and landings limits which are deemed to be sustainable. The amendment includes accountability measures which either reduce the risk that catches will exceed the ACL or to account for those overages in later seasons if they do occur.

No Action and Status Quo

Because of the overlapping nature of Amendment 19 and the Secretarial Amendment, the discussion of a "no action" or "status quo" alternative is complicated. The Secretarial Amendment proposes an ACL framework mechanism, including ABCs, ACLs, stock-area TALs, and a specifications setting process. In addition, the Secretarial Amendment proposes an in-season accountability measure that would implement an incidental possession limit (400 lb for red hake; 1,000 lb for silver hake/whiting) when 90 percent of a TAL is projected to be harvested. A pound-for-pound payback of any ACL overage is proposed by the Secretarial Amendment for a post-season accountability measure. These measures, when they are alternatives below, are considered the "no action/status quo"

alternative, even though those measures are currently only "proposed." Amendment 19 proposes to address a number of other management measures that were not addressed in the Secretarial Amendment. In those instances, the regulations that have been in effect for several years are the "no action/status quo" alternatives.

Stocks and Managed Species

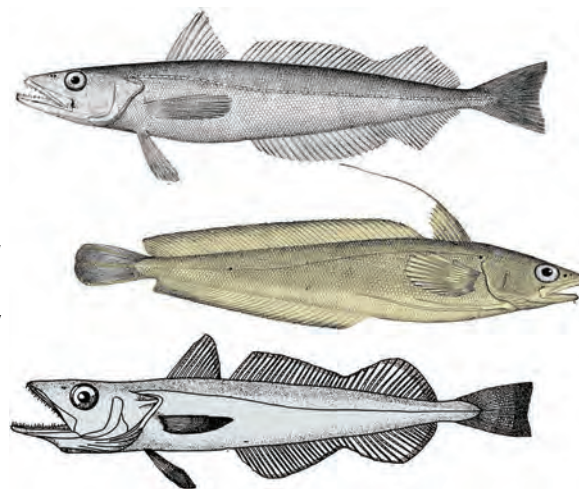
Three species are managed as “small-mesh multi-species” in the Multispecies FMP. These species are usually targeted by vessels using small-mesh (2-3 inch) trawls in specific exempted areas.

Silver hake, *Merluccius bilinearis*, also known as whiting, range from the Grand Banks of Southern Newfoundland to South Carolina. In U.S. waters, two subpopulations of silver hake are assumed to exist within the EEZ based on numerous methods, primarily morphometric differences and otolith micro-constituent differences. The northern silver hake stock inhabits the Gulf of Maine to Northern Georges Bank waters, while the southern silver hake stock inhabits Southern Georges Bank to the Mid Atlantic Bight waters.

Most silver hake are found in the Gulf of Maine and on Georges Bank in the fall and along the shelf edge in the spring. Silver hake migrate in response to seasonal changes in water temperatures, moving toward shallow, warmer waters in the spring. Silver hake spawn in shallow waters during late spring and early summer and then return to deeper waters in the autumn. The older, larger silver hake especially prefer deeper waters. During the summer, portions of both stocks can be found on Georges Bank. In winter, fish in the northern stock move to deep basins in the Gulf of Maine, while fish in the southern stock move to outer continental shelf and slope waters.

Red hake, *Urophycis chuss*, is a demersal gadoid species distributed from the Gulf of St. Lawrence to North Carolina, and are most abundant from the western Gulf of Maine through Southern New England waters. Red hake migrate seasonally, preferring temperatures between 5 and 12° C (41-54° F). During the spring and summer months, red hake move into shallower waters to spawn, then move offshore to deep waters in the Gulf of Maine and the edge of the continental shelf along Southern New England and Georges Bank in the winter. The northern stock is defined as the Gulf of Maine to Northern Georges Bank region, while the southern stock is defined as the Southern Georges Bank to Mid-Atlantic Bight region.

Red and silver hake are found on the continental shelf from coastal areas out to the shelf edge on Georges Bank, and off Southern New England and Mid-Atlantic regions. They are also widely distributed in the Gulf of Maine. They are frequently caught and sometimes discarded by vessels using large-mesh trawls or other gears targeting groundfish and other species.



Silver hake (top), red hake (middle), and offshore hake (bottom)

Line art graphics from the NEFSC Photo Archives

Offshore hake, *Merluccius albidus*, is a data-poor stock and very little is known about its biology and life history. They are commonly distributed from southern Georges Bank through the Mid-Atlantic Bight, at depths of 160-550 meters and temperatures between 11-13°C. They are known to co-occur with silver hake along the shelf edge and are easily confused with silver hake because of their similar appearance. There appears to be seasonal differences in distribution, shifting south of Georges Bank in the winter months and extending further south in the spring.

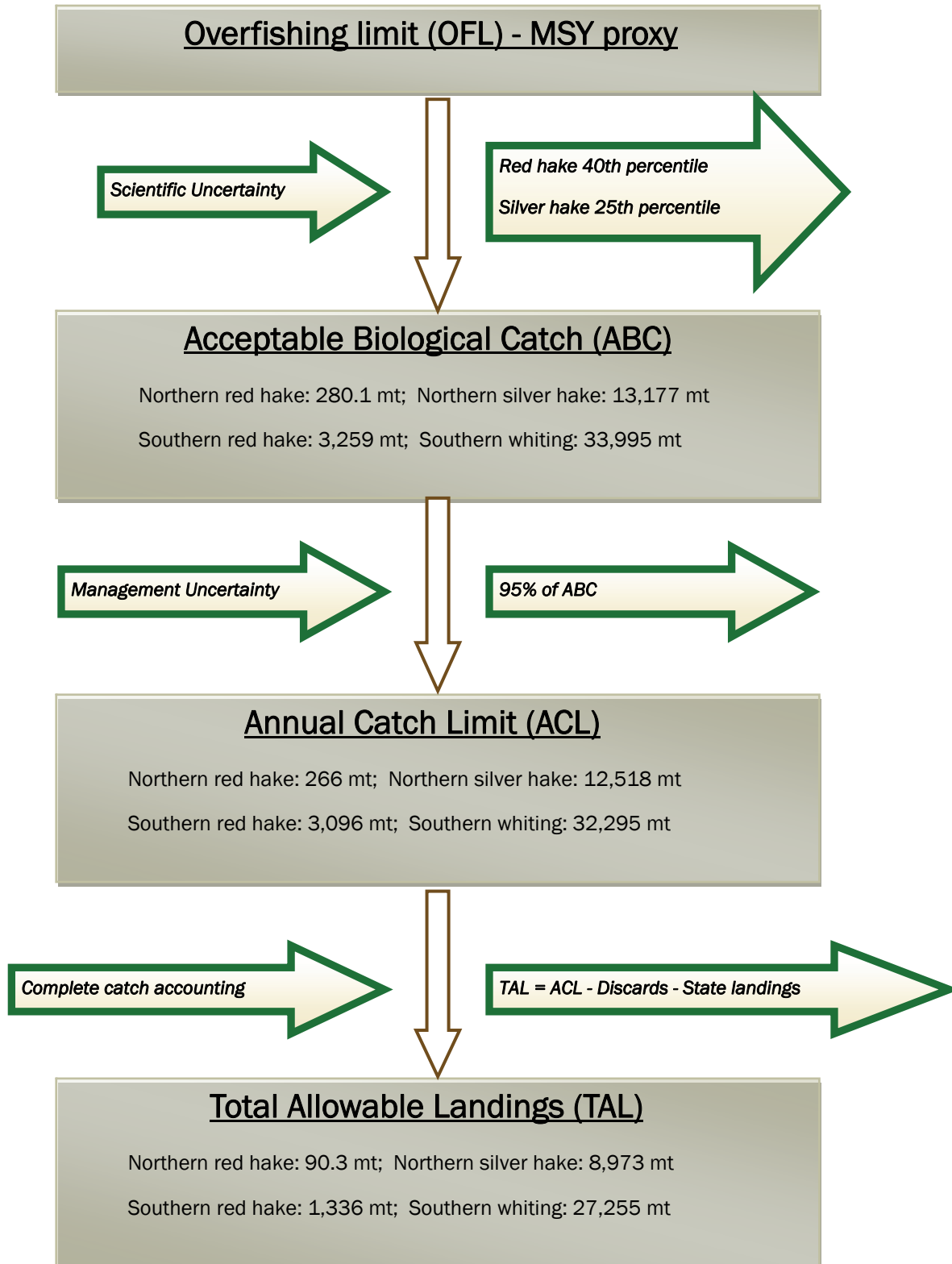
Offshore hake are located primarily on the edge of and beyond the continental shelf. Based on survey catches, they tend to be concentrated in the southern Georges Bank region in the fall, whereas in the spring, they are found further south in the Mid-Atlantic Bight. However, offshore hake appear to be caught more frequently during the winter months.

Data for offshore hake were not sufficiently reliable to provide management advice. Together with the southern stock of silver hake, they will be managed under a single ACL for ‘southern whiting’.

Small-mesh Multispecies Specification Outline

With Initial Allocations for FY 2012-2014

Same as Secretarial Amendment



ANNUAL CATCH LIMITS (ACLs) AND ACCOUNTABILITY MEASURES (AMS)

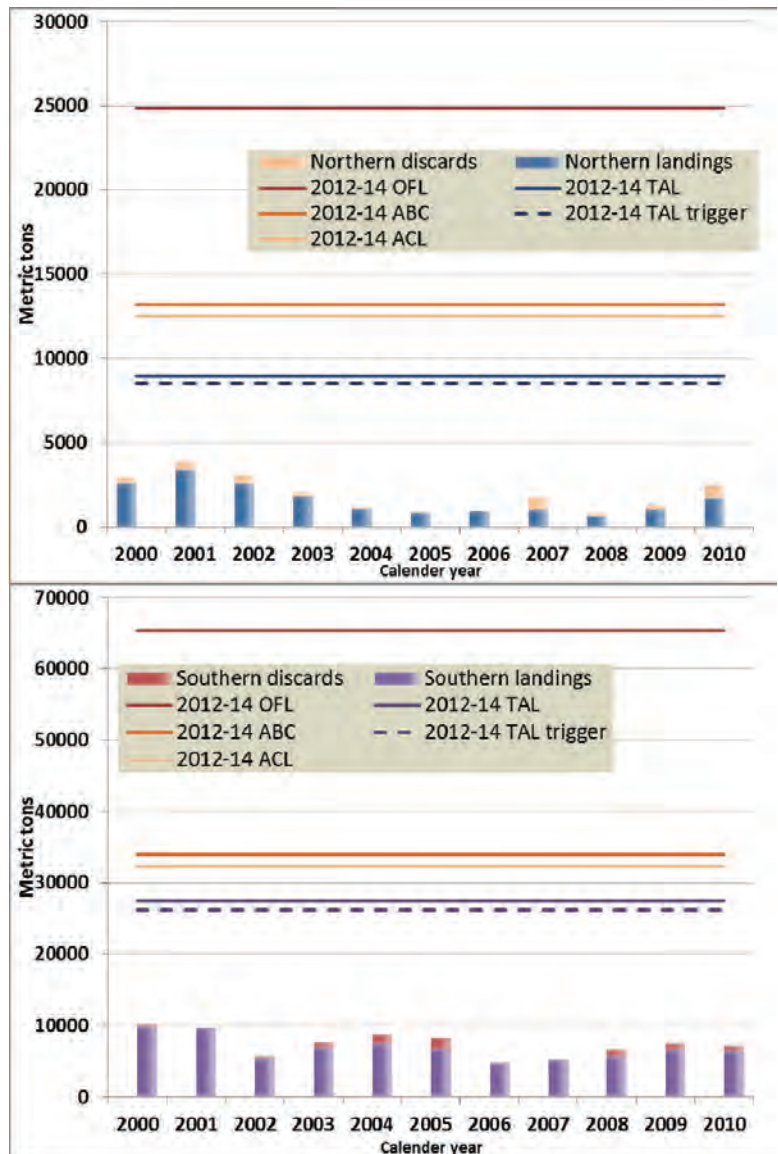
The specifications on the facing page were derived from the NEFSC benchmark assessment which estimated appropriate biomass and fishing mortality that would be consistent with producing maximum sustainable yield (MSY). These values are used to determine whether red and silver hakes are overfished or overfishing is occurring.

The Council also used these values to set specifications for the 2012-2014 fishing years, after establishing a buffer for scientific uncertainty to set ABC, a buffer for management uncertainty to set ACL, and discards and state water landings to set TAL.

These limits are the same as the specifications in the Secretarial Amendment, which is expected to take effect on May 1, 2012.

It is important to realize that the benchmark assessment estimated MSY proxy values based on resource conditions and catch during the assessment time series. During the benchmark assessment, scientist felt that specific periods of biomass levels and catch were consistent with MSY and chose these periods for the basis of determining overfishing. For silver hake, the Stock Assessment Workshop recommended using 1973 to 1982 as an appropriate baseline for the overfishing definition, while 1980 to 2010 was recommended for red hake. Except for

ACL specifications compared to 2000-2010 silver hake landings and discards

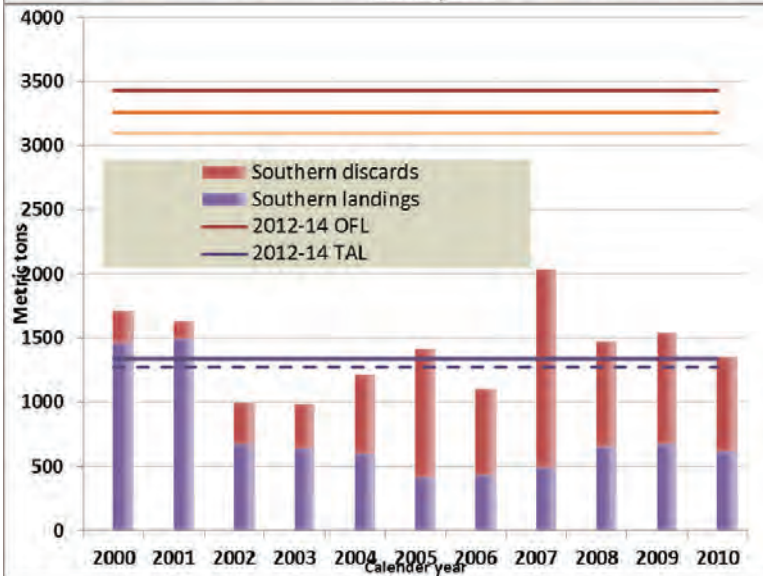
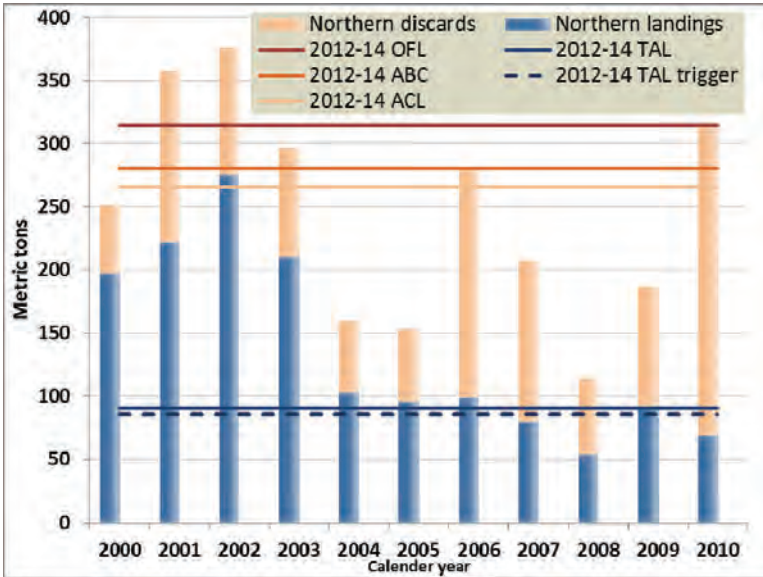


ANNUAL CATCH LIMITS (ACLS) AND ACCOUNTABILITY MEASURES (AMS)

northern red hake, the ACLs are several times greater than recent catches and the TALs are likewise several times greater than recent landings. This situation could change, however, if new science becomes available that changes the perception of the overfishing level or provides more direct estimates of MSY. The situation could also change if landings suddenly increase due to among other things, increasing demand for small-mesh multispecies or changes in regulations to restrict fishing in other fisheries. Existing small-mesh multispecies regulations that restrict fishing with small-mesh trawls to specific areas and seasons, coupled with existing silver hake possession limits reduce the potential for rapid escalation of the fishery. The proposed accountability measures and TAL monitoring alternatives are unlikely to have a substantial effect on fishing in the near term.

Recent northern red hake catch and landings however are near or have exceeded the 2012-2014 specifications. As a result, accountability measures may be triggered, either as incidental possession limits during the fishing year or post-season in response to prior overages. These accountability measures are described on the following pages and in more detail in Section 5.0 of the Amendment. Unless there is a modest decline in red hake landings and catch, the effects will vary depending on whether the Council chooses small-mesh area landings targets with TAL triggers or a stock-wide annual TAL.

ACL specifications compared to 2000-2010 red hake dealer reported landings and estimated discards



Northern Stock Area TAL and AM Management Alternatives

Preferred alternative

Non-preferred Alternative

Secretarial Amendment

Northern Stock Area TAL
(Section 5.3)
Red hake: 90.3 mt
Silver hake: 8973 mt

Stock-wide annual TAL—No Action
and preferred alternative (Section
5.3.1)

Small-mesh exemption area landings
targets (Table 7)
Cultivator Shoals Area
Red hake 18.0% (16.3 mt)
(Section 5.3.2)
Silver hake 50.9% (4567 mt)
(Section 5.3.3)
Inshore small-mesh exemption areas
Red hake 56.7% (51.2 mt)
(Section 5.3.2)
Silver hake 34.6% (3105 mt)
(Section 5.3.3)

Red hake incidental possession lim-
its when landings \geq 90% of TAL
200, 300, or 400 lbs.
400 lbs. preferred alternative

Silver hake incidental possession lim-
its when landings \geq 90% of TAL
500, 1000, or 2000 lbs.
1000 lbs. Secretarial Amendment
2000 lbs. preferred alternative

Red hake incidental pos-
session limits when land-
ings \geq 90% of target
200 to 400 lbs.
(Section 5.4.3.1)

Cultivator Shoals Area
rollover of unused TAL to
inshore exemption areas
(Section 5.3.4.1)

Red hake year round possession limits
1,000 to 3,000 lbs. for 2.5 to 5"
square or diamond mesh
300 to 1,200 lbs. all other gears
Section 5.7.1

No small-mesh area
incidental limits
(Section 5.4.3.2)

No rollover provision—No
action (Section 5.3.4.2)

Red hake year round possession limits
No limit
No action and preferred alternative

SUMMARY OF ALTERNATIVES

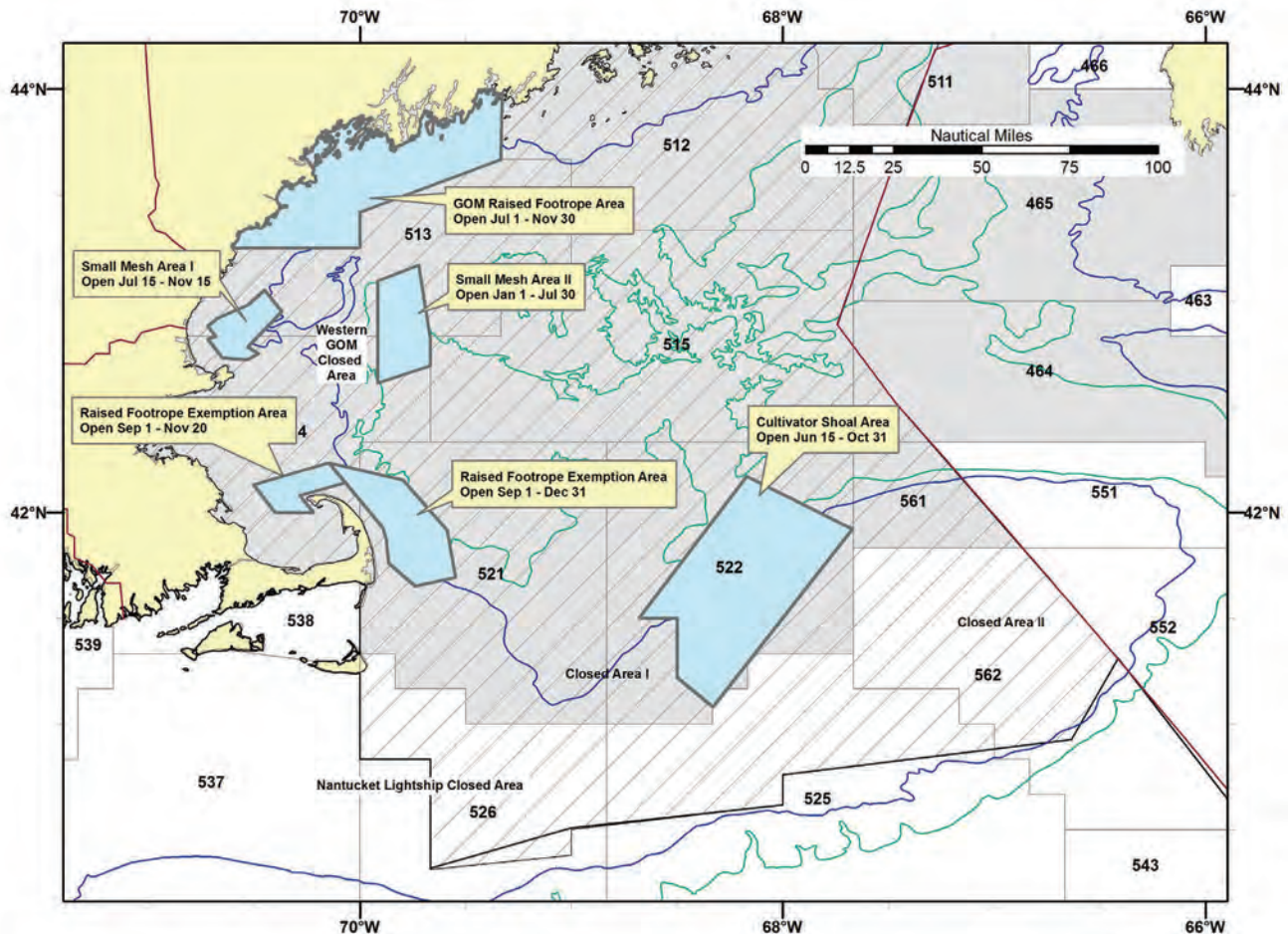
NORTHERN STOCK AREA

The diagram at left outlines the alternatives for the northern stock area that are described and analyzed in the draft amendment. TAL alternatives are described in Section 5.3 and in-season accountability measure alternatives are described in Section 5.4 of Draft Amendment 19.

Landings and discards from statistical areas 464, 465, 511-515, and 521-522 on the map at right would count against the northern stock area ACL. Proposed management measures such as possession limits would apply to the hatched Gulf of Maine/Georges Bank exemption area (see map below). Trips that fish in this area and areas further south would be regulated by the more restrictive limit for either area.

Preferred alternatives are shaded red (at left) and include a stock-wide annual TAL for red and silver hake, with a 400 lbs. red hake and 2000 lbs. silver hake

Small-mesh exemption areas in the northern stock area.



SUMMARY OF ALTERNATIVES

NORTHERN STOCK AREA

incidental possession limit. These alternatives are the same as those in the Secretarial Amendment (thick blue outlines on page 12), except the Secretarial Amendment will implement a 1,000 lbs. silver hake incidental possession limit when landings reach 90% of the northern stock TAL.

The Council may set a stock-wide annual TAL with in-season accountability measures, red and silver hake incidental possession limit taking effect when landings reach 90% of the TAL. Analysis in Section 8.1.1.5 of the Amendment indicates that red hake incidental possession limits below 400 lbs. and silver hake incidental possession limits below 2000 lbs. would increase discards without significantly lowering landings. The table below summarizes the estimated effects on landings and discards for small-mesh trawl trips in the Cultivator Shoals Area. Similar effects were estimated in other areas, the analysis given in Section 8.1.1.5 of the Amendment.

**Estimated effectiveness of red hake incidental possession limits
for Cultivator Shoals Area trips**

Fishing year	2007		
Incidental possession limit	200	300	400
Predicted landings reduction	-81.1%	-71.1%	-62.2%
Predicted red hake revenue reduction	-81.1%	-71.1%	-62.2%
Predicted catch reduction	-57.3%	-46.7%	-38.4%
Discard to kept ratio	126.1%	88.2%	63.0%
Proportion of trips affected	100.0%	100.0%	100.0%
Trips affected	6	6	6
Fishing year	2010		
Incidental possession limit	200	300	400
Predicted landings reduction	-60.7%	-48.2%	-41.8%
Predicted red hake revenue reduction	-60.6%	-48.2%	-41.7%
Predicted catch reduction	-35.4%	-28.6%	-24.6%
Discard to kept ratio	64.5%	37.9%	29.5%
Proportion of trips affected	59.6%	32.7%	21.2%
Trips affected	31	17	11

In Section 5.7, Amendment 19 also includes alternatives for a year round red hake possession limit, specified by mesh size and gear, similar to the existing regulations for silver hake. Limits ranging from 1000 to 3000 lbs. for 2.5 to 5" square or diamond mesh trawls and 300 to 1200 lbs. for all other gears will allow customary landings from 80 to 100% of reported trips since 2008. The intent of these alternatives is not to reduce landings, but prevent landings from rapidly increasing when a directed fishery closure is anticipated, particularly by

SUMMARY OF ALTERNATIVES

NORTHERN STOCK AREA

vessels using very small-mesh trawls (i.e. less than 2.5 inch mesh). This measure may encourage vessels that target red hake to use larger mesh, possibly improving size selection and yield per recruit (reducing mortality associated with a specific ACL). Results are summarized in the table below for vessels using 2.5 to 4.5 inch mesh trawls in the northern stock area. More analysis is given in Section 8.1.1.7 of the Amendment.

Estimated effectiveness of red hake year round possession limits for 2.5 to 4.5 inch mesh trawls in the northern stock area

Fishing year	2006-2010		
Incidental possession limit	1,000	2,000	3,000
Predicted landings reduction	-44.4%	-23.6%	-15.0%
Predicted red hake revenue reduction	-44.3%	-23.5%	-15.0%
Predicted catch reduction	-24.5%	-10.0%	-6.1%
Discard to kept ratio	35.8%	17.7%	10.5%
Proportion of trips affected	28.8%	12.1%	5.3%
Trips affected	128	53	23
Fishing year	2010		
Incidental possession limit	1,000	2,000	3,000
Predicted landings reduction	-24.6%	-4.7%	-1.2%
Predicted red hake revenue reduction	-24.9%	-4.7%	-1.2%
Predicted catch reduction	-7.9%	2.1%	0.9%
Discard to kept ratio	22.2%	7.1%	2.1%
Proportion of trips affected	18.6%	4.9%	1.1%
Trips affected	34	9	2

Through Amendment 19, the Council may also set landings targets for the small-mesh area programs, based on historic landings proportions since 2004. Since the red hake TAL may become limiting, there is alternative in Section 5.4.3 to restrict red hake landings from a small-mesh area when that species landings reach 90% of that area's landings target, reducing the impact on fishing in other areas or on trips targeting other species. No equivalent silver hake AM for the small-mesh exemption areas is proposed because this is the primary target species.

Analysis in Section 8.1.1.5 of the Amendment indicates that while industry advice was that red hake may be avoided at certain times, red hake incidental possession limits below 400 lbs. on these directed (primarily silver hake) trips would increase discards without significantly lowering landings. Limiting red hake landings in the small-mesh area programs when they reach the landings target may

SUMMARY OF ALTERNATIVES

NORTHERN STOCK AREA

reduce the potential effects on trips that fish elsewhere in the northern stock area, whether targeting silver hake with small-mesh trawls or other species with large-mesh trawls.

Silver hake catch is unlikely to become the limiting factor in the northern stock area, unless landings or discards increase substantially. Recent red hake catches have been near or slightly above the ACL and the TAL may become limiting. In this case, the analysis in Section 8.1 of the Amendment indicates that the 90% TAL trigger may be met as early as late Aug and could prevent the catch from exceeding the ACL if vessels fish where red hake are less abundant or reduce their red hake catch in other ways. It is possible that red hake catches may still exceed the ACL, triggering post-season accountability measures (see page 25).

Proposed landings targets for small-mesh area programs

		Red hake	Silver hake
Total northern stock area TAL (mt)		90.3	8973
Cultivator Shoals Exemption Area Program landings targets	Percent allocation	18.0%	50.9%
	2012-2014 Target (mt)	16.3	4567
Inshore Gulf of Maine Exemption Area Programs landings targets	Percent allocation	56.7%	34.6%
	2012-2014 Target (mt)	51.2	3105

SUMMARY OF ALTERNATIVES

NORTHERN STOCK AREA



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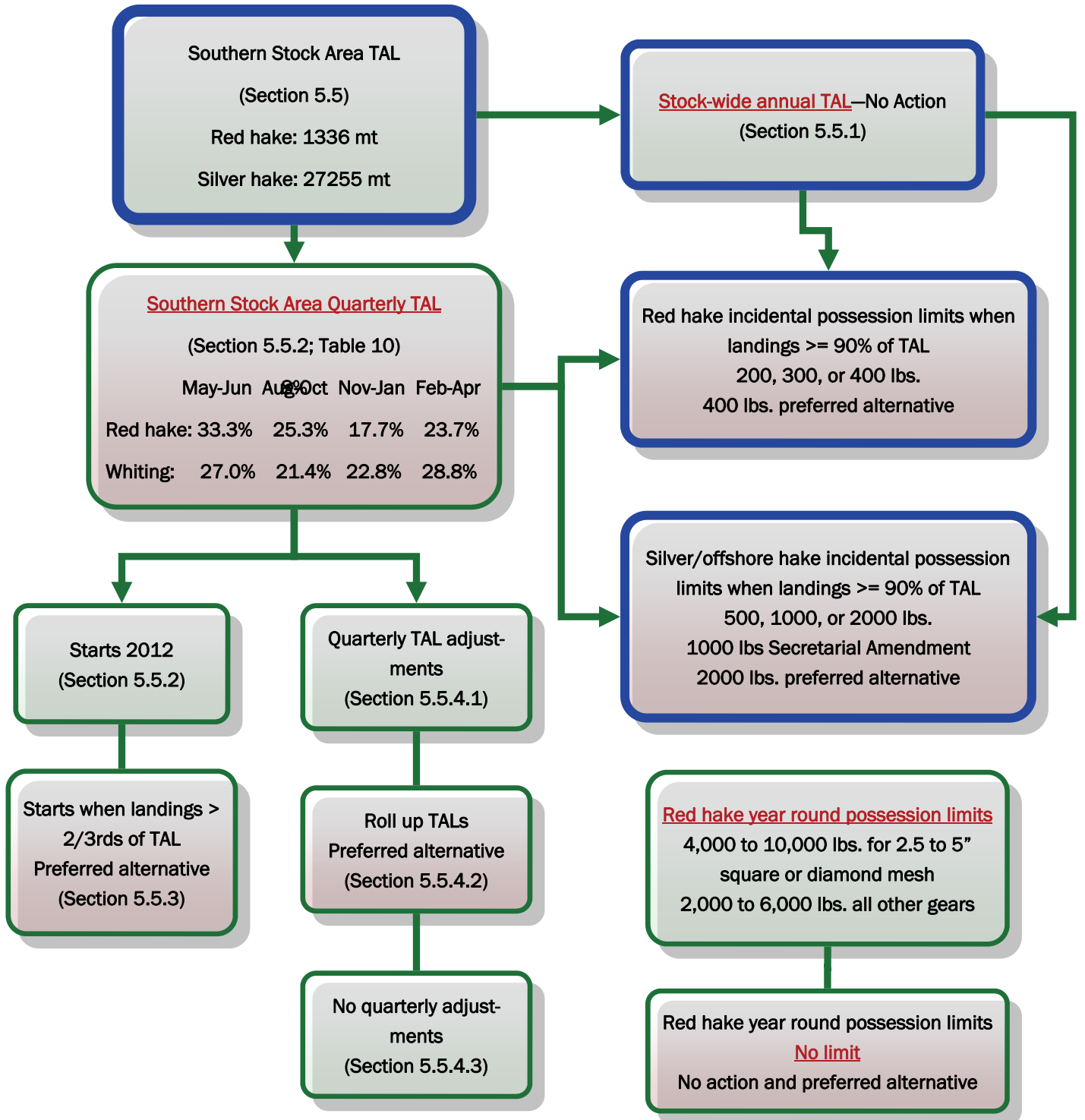
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Southern Stock Area TAL and AM Management Alternatives

Preferred alternative

Non-preferred Alternative

Secretarial Amendment



SUMMARY OF ALTERNATIVES

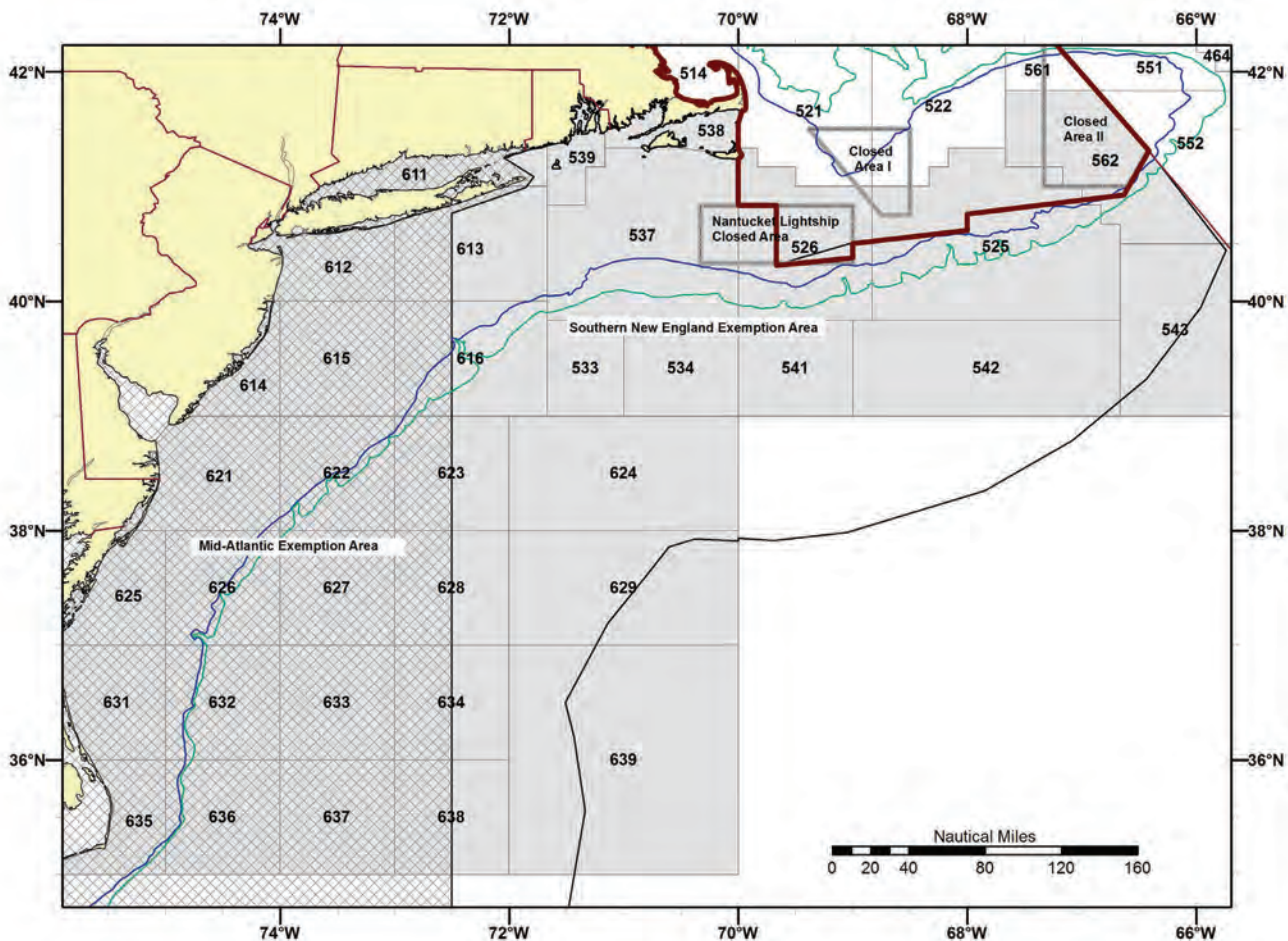
SOUTHERN STOCK AREA

The diagram at left outlines the alternatives for the southern stock area that are described and analyzed in the draft amendment. TAL alternatives are described in Section 5.5 and in-season accountability measure alternatives are described in Section 5.6 of Draft Amendment 19.

Landings and discards in the shaded three digit statistical areas (525, 526, 533-539, and 611-639) in the map below would count against the southern stock area ACL. Proposed management measures such as possession limits would apply to the Southern New England and Mid-Atlantic (hatched) exemption area. Trips that fish in these area and in the Gulf of Maine/Georges Bank exemption area to the north would be regulated by the more restrictive limit.

As a non-preferred alternative, the Amendment includes stock-wide annual TALs for

Southern stock area with
Southern New England and Mid-Atlantic Exemption areas



SUMMARY OF ALTERNATIVES

SOUTHERN STOCK AREA

southern red hake and southern whiting (including both silver and offshore hake). The southern whiting ABC was increased by 4% to account for customary catches of both species, compared to silver hake alone, since offshore hake are sometimes mixed in catches of offshore hake, or are misreported as silver hake.

Unlike the northern stock area which has season-specific small-mesh area programs, vessels may fish year round in the southern stock area. Therefore, the Council’s preferred alternative (shaded red) described in Section 5.5.3 includes a quarterly allocation that would become effective if a previous year’s landings exceed $\frac{2}{3}$ rd’s of the TAL.

The proposed allocation between quarters is based on proportional landings in 2008-2010 and is intended to prevent an extended directed fishery closure, similar to other quota-managed fisheries.

The quarterly limits would be monitored as a cumulative limit, the landings in May through Jul and Aug through Oct would be monitored against the cumulative quarterly TAL for quarters 1 and 2, for example. This

type of quarterly TAL allocation is expected to have positive biological and economic benefits, because without the quarterly allocation red hake may be more likely to be under an incidental possession limit during a season when vessels are targeting silver hake (or another small mesh species like squid), and vice versa.

The preferred alternative includes as an in-season accountability measure red hake and southern whiting incidental possession limits of 400 lbs. red hake and 2000 lbs. respectively. These alternatives are the same as those in the Secretarial Amendment (thick blue outlines on the outline of management alternatives), except the Secretarial Amendment establishes a 1,000 lbs. silver hake incidental possession limit. Under the Council’s preferred alternative, the incidental possession limits would become effective when the landings for the current and prior quarters reach 90% of the cumulative quarterly TAL and would end at the start of the next quarter. Analysis in Section 8.1.1.5 of the Amendment indicates that possession limits less than 400 lbs. of red

**Quarterly TAL allocations and initial specifications
for the southern stock area.**

		<i>May - Jul</i>	<i>Aug - Oct</i>	<i>Nov - Jan</i>	<i>Feb - Apr</i>
Southern red hake	Proportional allocations	33.30%	25.30%	17.70%	23.70%
	2012-2014 specifications (mt)	445	338	237	317
	Cumulative (mt)	445	783	1020	1336
Southern Whiting	Proportional allocations	27.00%	21.40%	22.80%	28.80%
	2012-2014 specifications (mt)	7359	5832	6214	7849
	Cumulative (mt)	7359	13191	19405	27254

SUMMARY OF ALTERNATIVES

SOUTHERN STOCK AREA

hake and 2000 lbs. of southern whiting would increase discards without appreciably reducing catch, while causing higher economic loss.

Non-preferred alternatives include a stock-wide annual allocation (Section 5.5.1), which is proposed by the Secretarial Amendment (thick blue outline), and a quarterly TAL monitoring alternative that would begin immediately in 2012. And instead of a roll-up or cumulative TAL monitoring approach, the Amendment also includes an alternative that would use a specific quarterly adjustment mechanism that allows vessels to take unused TAL only in quarter 4 (Section 5.5.4.1), or no quarterly adjustment mechanism at all (Section 5.5.4.3). A 90% trigger and the same incidental possession limits are proposed as alternatives if one of the non-preferred alternative TAL allocations is chosen.

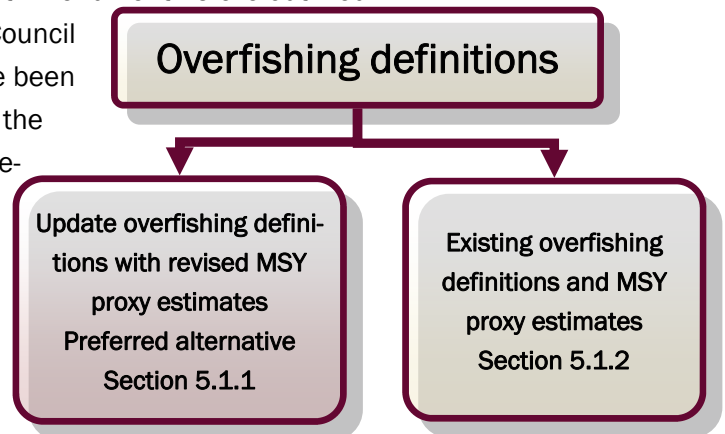
In Section 5.7, Amendment 19 also includes alternatives for a year round red hake possession limit, specified by mesh size and gear, similar to the existing regulations for silver hake. Limits ranging from 4000 to 10000 lbs. for 2.5 to 5” square or diamond mesh trawls and 2000 to 6000 lbs. for all other gears will allow customary landings from 80 to 100% of reported trips since 2008. The intent of these alternatives is not to reduce landings, but prevent landings from rapidly increasing when a directed fishery closure is anticipated, particularly by vessels using very small-mesh trawls (i.e. less than 2.5 inch mesh). This measure may encourage vessels that target red hake to use larger mesh, possibly improving size selection and yield per recruit (reducing mortality associated with a specific ACL).

**Estimated effectiveness of red hake year round possession limits
for 2.5 to 4.5 inch mesh trawls in the northern stock area**

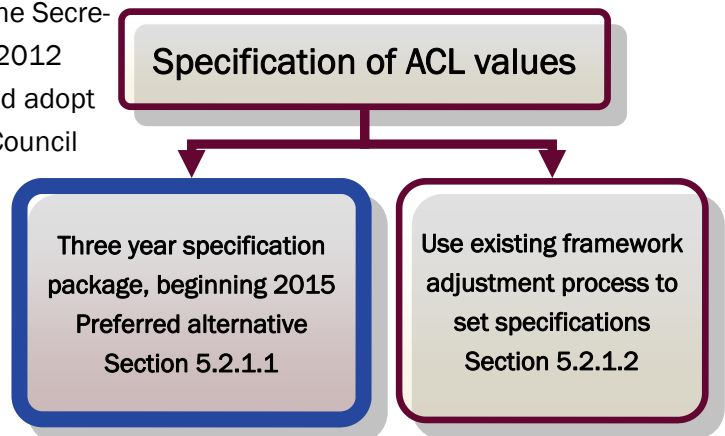
Fishing year	2006-2010		
Incidental possession limit	4,000	7,000	10,000
Predicted landings reduction	-17.3%	-12.4%	-10.0%
Predicted red hake revenue reduction	-18.0%	-13.0%	-10.8%
Predicted catch reduction	-9.5%	-7.4%	-6.0%
Discard to kept ratio	9.4%	6.7%	4.6%
Proportion of trips affected	1.6%	0.6%	0.3%
Trips affected	109	38	24
Fishing year	2010		
Incidental possession limit	4,000	7,000	10,000
Predicted landings reduction	-1.0%	0.0%	0.0%
Predicted red hake revenue reduction	-1.0%	0.0%	0.0%
Predicted catch reduction	0.5%	0.0%	0.0%
Discard to kept ratio	1.5%	0.0%	0.0%
Proportion of trips affected	0.4%	0.0%	0.0%
Trips affected	6	0	0

SUMMARY OF ALTERNATIVES SPECIFICATIONS AND TAL MONITORING FOR ALL AREAS

Five sets of management alternatives proposed by Draft Amendment 19 are outlined on this and the following pages. In Section 5.1.1, the Council proposes to adopt new overfishing definitions that have been developed in the benchmark assessment, approved by the Council’s Scientific and Statistical Committee, and therefore are based on the best available science. A stock would be overfished when biomass is below 1/2 of the proxy value for MSY, based on three year moving averages of red hake spring and silver hake fall survey indices. The MSY proxy is the average biomass level during 1980-2010 for red hake and 1973-1982 for silver hake. More information about these values are available in the January 2011 benchmark assessment report. Overfishing would occur when catches exceed the average mortality rate for these reference time periods.



ACL specifications (ABC, ACL, TAL) are based on these MSY proxy values, after accounting for scientific and management uncertainty. The Secretarial Amendment established these specifications for 2012 and in Section 4.0 of the Amendment, the Council would adopt them for the 2012-2014 fishing years. After that, the Council would begin a new specification process every three years based on a SAFE Report developed by the Whiting PDT with assistance from the NMFS, beginning with a specification document for the 2015-2017 fishing years.



More details are described in Section 5.2.1.1 of the Amendment. Although the Secretarial Amendment also adopts a similar process, the Amendment includes a non-preferred alternative with a more extensive framework adjustment process. A framework adjustment usually takes longer to develop than a specification package and includes additional meetings to seek public comment. Whereas the scope of the specification process is limited to ACL specifications and possession limits, more types of management alternatives may be considered in a framework adjustment process.

In Section 5.2.2, Draft Amendment 19 considers three types of annual reports, intended to provide advice to the Council and determine whether post-season account-

SUMMARY OF ALTERNATIVES SPECIFICATIONS AND TAL MONITORING FOR ALL AREAS

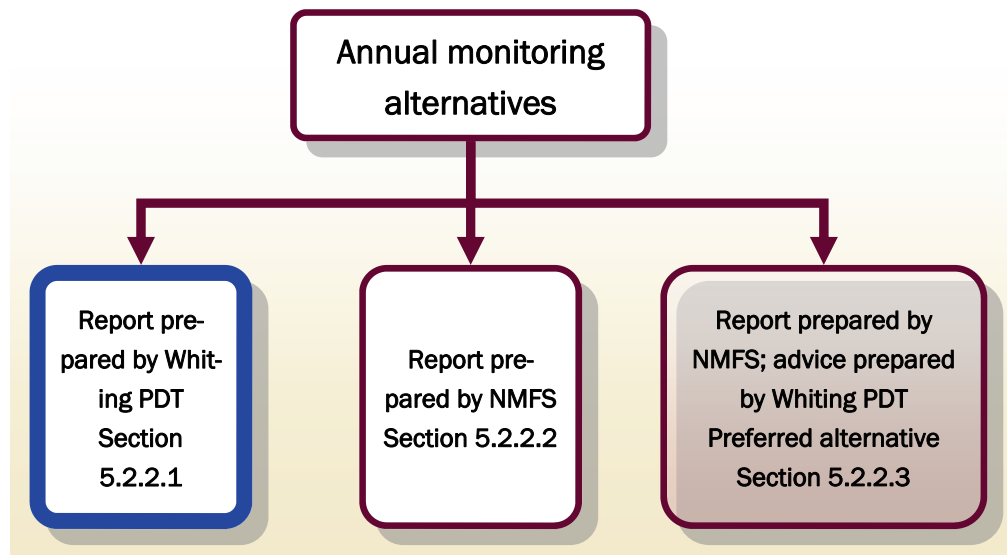
ability measures are triggered (see discussion below). One type of report described in Section 5.2.2.1 would be developed by the Whiting PDT and would be more extensive than if NMFS develops the report, but would take longer to develop and require greater effort. The Council may or may not have resources devoted to whiting management each year.

A second type of report described in Section 5.2.2.2 would include total landings summaries and discard estimates to determine whether accountability measures would be triggered. This standard report would be prepared by NMFS in time for the summer NEFMC meeting. A third alternative described in Section 5.2.2.3 is proposed by the Council as preferred. In this alternative,

NMFS would prepare the standard report for the Whiting PDT, which would review the report and prepare advice for Council consideration. At the summer meeting, the Council can initiate an action if there are concerns that must be addressed for the next fishing year, or take the issues up when the Council sets priorities.

Draft Amendment 19 alternatives include three potential methods to assign landings and catch to stock and/or small-mesh management program, depending on how the TALs are allocated. In its simplest form, annual landings and estimated annual discards must be apportioned to stock area to determine whether catch exceeds an ACL and whether it triggers post-season accountability measures, based on statistical areas reported on VTRs and discard rates on observed trips. Landings must be assigned to stock area on a timely basis to determine when in-season accountability measures should become effective.

More detailed information about either location fished or statistical area would be required if the Council sets small-mesh area landings targets that trigger incidental possession limits.



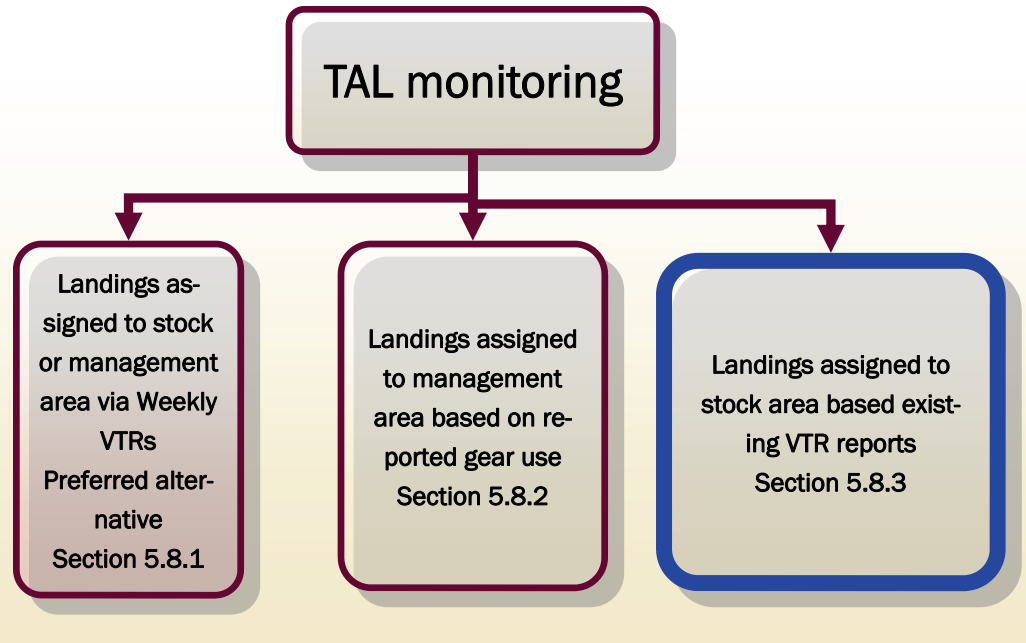
SUMMARY OF ALTERNATIVES SPECIFICATIONS AND TAL MONITORING FOR ALL AREAS

The most accurate method having reasonable cost is to require all vessels landing small-mesh multispecies to submit VTRs on a weekly basis. Since many vessels already participate in other fisheries that require weekly VTRs, this preferred alternative described in Section 5.8.2 of the Amendment would not have a high cost to industry or government, but would have a slightly higher burden on industry compared to other alternatives.

Another method described in Section 5.8.2 of the Amendment would

rely on existing VTRs and information to assign landings to stock or management area based on statistical area, gear use, and date of landing (since vessels using small-mesh trawls must fish in exemption areas that have specific seasons). This method will be less timely and the results may differ from the annual landings statistics maintained by the Northeast Fisheries Science Center, but would require no reporting changes. Finally, if the Council does not set small-mesh area landings targets, then catch could be assigned to stock area using existing procedures developed by the Fisheries Science Center as described in Section 5.8.3, particularly if there are only post-season accountability measures. These annual data typically are available for analysis in April after each calendar year, so it would not be useful for determining when in-season accountability measures should become effective.

Draft Amendment 19 includes two alternatives for post-season accountability measures, that would be triggered when catch for a stock area exceeds the ACL to correct for overages. Some form of accountability measures are required by the MSFMCA. Both alternatives in Amendment 19 are meant to reduce the risk and effects of persistent overfishing by adjusting the specifications in the second year after an overage. Immediate adjustments in the first year are not practical because



SUMMARY OF ALTERNATIVES

SPECIFICATIONS AND TAL MONITORING FOR ALL AREAS

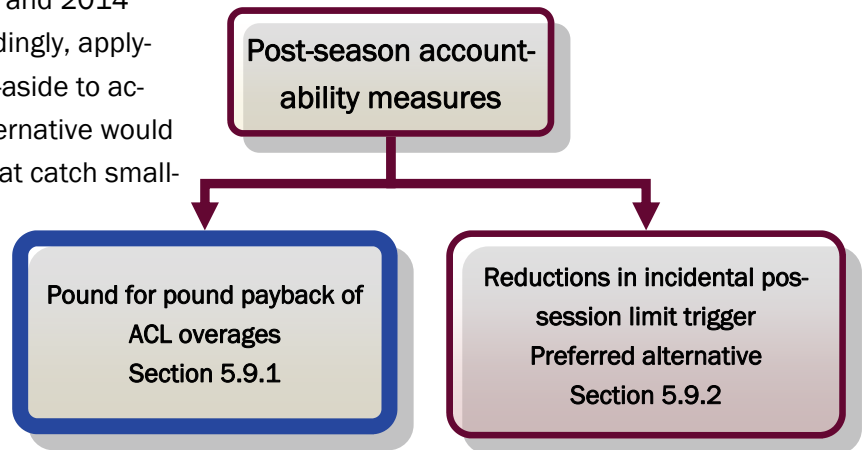
they would be implemented in the middle of a fishing year.

In the No Action alternative described in Section 5.9.1 of the Amendment, using a system that is part of the Secretarial Amendment, the ACL would be reduced pound for pound for a prior overage. This approach is used in some NE region fisheries and elsewhere in the US. The amount that catch exceeds a 2012 ACL, for example, would be deducted from the 2014 ACL and 2014 specifications would be adjusted accordingly, applying the expected discard rate and a set-aside to account for state-water landings. This alternative would affect target and non-target fisheries that catch small-mesh multispecies.

The Council's preferred alternative, described in Section 5.9.2 of the Amendment would lower the 90% TAL trigger by an equivalent percentage that the prior year's catch exceeds the ACL. For

example, if the northern red hake catch exceeds the ACL by 45 mt (i.e. by 17%), then the 2014 TAL trigger would be reduced to 73%. This approach would reduce the risk that future catches would exceed the ACL and cause overfishing, by decreasing the proportion of landings coming from the directed fishery. Vessels in the fishery would either stop fishing earlier or fish for other species, reducing both landings and associated discards.

Analysis indicates that this alternative would be more likely to prevent future overages than the non-preferred alternative. The table at right compares the effects on future specifications for an equivalent overage and more detailed analysis is given in Section 8.5.8 of the Amendment.



Specification	No Action Pound-for-pound payback Sections 5.9.1 and 8.5.8.1	Preferred alternative TAL trigger adjustment Sections 5.9.2 and 8.5.8.2
Original ACL	266 mt	266 mt
Overage	-45 mt	17 % (45 mt)
Adjusted ACL	221 mt	266 mt
Discards (65%)	143.65 mt	173 mt
Landings Limit (State + Fed)	67.35 mt	93 mt
State Landings Set-aside (3%)	2 mt	2.8 mt
Federal TAL	65.36 mt (144,094.1 lb)	90.3 mt (199,077.4 lb)
Trigger Point	90% (129,685 lb)	73% (145,326.5 lb)

SUMMARY OF EFFECTS ON FISHERMEN

The following discussion outlines how the proposed alternatives might affect various types of fishermen. It is meant to augment other parts of the document and help some fishermen to better understand the proposals. The following examples are however not comprehensive and each fisherman will experience different types of effects, depending on where they fish, what gear is used, how

many DAS are allocated to their vessel, what alternative target species are available, their fishing costs, and how much they rely on landings of small-mesh multispecies to generate revenue and profits.

The fishing modes that are discussed below were chosen based on information in the fisheries data and staff's understanding of the fishery.

CLAY THE INSHORE SMALL-MESH TRAWL FISHERMAN

Clay has a small dragger that he uses to fish inshore for a variety of species. During the spring and early summer he fishes for flats and a few cod inshore, using his groundfish allocation. During the winter, he fishes for northern shrimp when the season is open. A large portion of his fish landings and revenue come from fishing for small-mesh multispecies in the exemption areas during the fall, targeting both red and silver hake. He does not fish in the Cultivator Shoals Area.

Under the stock-wide annual TAL alternative, Clay would be able to fish for red or silver hake, as long as the landings from all fisheries in the stock area have not reached 90% of the TAL. This might happen, for example, if the red hake landings from the Cultivator Shoals Area increase beyond what they were recently, either because the vessels that fish there begin fishing in deeper water and their catch of red hake increases, or more boats from the southern ports begin fishing the Cultivator Shoals Area. If this were to occur, the red hake incidental limit could be in place before Clay gets to fish in the inshore small-mesh exemption program areas. If he can find areas to fish for silver hake and catch few red hake, he will fish there, but otherwise he would have to discard the excess red hake. Few of them survive being discarded.

The alternative to set small-mesh exemption area landings targets seems like a good idea to Clay. Under this option, nearly 57% of the red hake TAL would be 'set aside' for fishing in the inshore small-mesh areas. Red hake landings from the Cultivator Shoals Area would be capped at 18% of the northern stock area TAL by the incidental red hake possession limit that would be triggered when the Cultivator Shoals Area landings reach 14.7 mt (about 32,300 lbs, i.e. 90% of the 16.3 mt landings target). The red hake landings might reach 90% of the 51.2 mt (about 112,900 lbs) landings target inshore, too, but at least Clay has a chance to fish there for red

hake until that happens.

In either case if the catch exceeds the stock area ACL, it could trigger post-season accountability measures. Under the Secretarial Amendment, the following year's ACL would be reduced pound-for-pound for the overage. A working example of how the ACL would change is illustrated in the table on page 25 and analyzed in Section 8.5.8 of the Amendment 19 document. With an overage of 45 mt, the post-season adjustment would reduce the ACL from 266 mt to 221 mt. The TAL would also be lowered from 90.3 mt to 65.36 mt. Unless catch changes, this could lead to more overages and further ACL reductions.

As a preferred alternative, the Council is proposing changing the above system to one where overages are accounted for by reducing the 90% TAL trigger in the following year. In this case, the ACL would remain at 266 mt and the TAL would remain at 90.3 mt. Instead, the TAL trigger would decline from 90% to 73% and the incidental red hake possession limit would be triggered when landings of that species reach 65.9 mt (about 145,000 lbs). This compares favorably to the pound-for-pound reduction AM alternative where the trigger would when landings of that species reaches 58.8 mt (about 130,000 lbs). More importantly the adjustment would reduce the risk that future catches would exceed the ACL because the ACL would remain constant while the directed red hake fishery would close earlier than when the TAL trigger was 90%.

As a non-preferred alternative, the Council proposes setting a year round red hake possession limit. Clay isn't sure about that because there may not be much size selectivity in 3 inch trawls compared to smaller meshes. By the same token, he doesn't think that vessels using 2 inch mesh for herring, for example, would target red hake. But who knows what would happen if anticipating a directed fishery closure, red hake prices increase substantially.

SUMMARY OF EFFECTS ON FISHERMEN (CONTINUED)

JASON THE SMALL-MESH AND GROUND FISH TRAWL FISHERMAN

Jason owns a vessel with a NE Multispecies FMP permit to target groundfish with large mesh. He also obtains a small-mesh permit and uses a trawl with a 3" mesh cod end to fish in the small-mesh exemption program areas in the Gulf of Maine. When the weather is favorable, he makes a couple of trips to the Cultivator Shoals Area on Georges Bank to target silver hake between June 15 and October 31.

Since he fishes entirely in the Gulf of Maine Exemption Area, only the alternatives proposed for the northern stock area would affect his fishing activities.

If the Council sets a stock-wide annual TAL (the preferred alternative) for red and silver hake, his (and other fishermen's) landings would count against the TAL. The silver hake TAL is well above recent landings, so it is unlikely that incidental silver hake possession limits will take effect anytime soon.

On the other hand, red hake landings may reach the TAL trigger, affecting all fishing activity by trawlers. On trips targeting other species, catches of red hake rarely exceed 400 lbs, but any excessive catches will have to be discarded after the incidental limit becomes effective. Red hake landings from May 1 to June 15 by large mesh vessels would count against the TAL.

If the 90% TAL trigger is reached in late summer or early fall, it would have an effect on fishing in the small-mesh area programs. Moreover, red hake landings from the Cultivator Shoals Area may limit how much red hake could be landed in the inshore small-mesh areas, like the Raised Footrope Exemption Area, open from Sep 1 to Dec 31.

If the incidental red hake limit is in effect, it may hurt his fellow fishermen having smaller vessels that cannot fish in the Cultivator Shoals Area. Red hake catches from these inshore exemption areas might not be landed and would be unavailable for bait in the fall. Out in the Cultivator Shoals Area, it is sometimes possible to avoid fishing in deeper waters where red hake are more abundant, so the incidental possession limit may cause him to fish a little shallower when targeting silver hake. In the

inshore exemption areas, it is more difficult to avoid catching red hake when targeting silver hake, but silver hake are more valuable and the lower valued red hake will likely be discarded if they exceed the incidental possession limit. If possible, he tries to avoid catching red hake when fishing with small-mesh trawls when the incidental possession limit is effective.

If the Council sets landings targets for the exemption areas, then red hake catches from the Cultivator Shoals Area would not affect fishing in the inshore small-mesh exemption areas. And if the Council approves the roll-over provision, any landings that don't reach the target could be taken in these inshore areas. This program could reduce red hake discards for Jason and other fishermen that fish the inshore exemption areas, but more accurate reporting would be required through the VTR program. Industry advisors have suggested establishing a new gear code for small-mesh other trawls.

As a non-preferred alternative, the Council has also proposed a year round

red hake possession limit, similar to the existing possession limits for silver hake which are specified by mesh size. While thought to encourage fishing with 3 inch, rather than 2 inch mesh, it doesn't seem to make much difference in the size of red hake. On the other hand, if it seems that the incidental red hake possession limit could become effective soon, the high year round red hake possession limits could discourage fishermen from targeting large quantities of red hake, flooding the delicate market.



New Bedford dragger. Photo used with permission and courtesy of the FV Midnight Sun

JACOBY THE SQUID AND WHITING FISHERMAN

Jacoby fishes out of a port in Southern New England and much of his landings are trucked to the Fulton Market in NY. When fishing for whiting, most of his catch are either silver hake or offshore hake, but whichever fish he runs into are reported by the dealer as silver hake, since there is no price difference.

Most of the time, he fishes along the outer shelf edge from NJ to MA, or off on the southern edge of Georges Bank. All of these areas would be regulated by measures being proposed for the southern stock area. During the fall, he makes some trips to the Cultivator Shoals Area to target silver hake, sometimes stopping to fish the southern edge of Georges Bank on the way there or back.

If he fishes in both places on a trip, the more restrictive possession limit would apply to the entire trip. Landings of small-mesh multispecies from the southern edge of Georges Bank in statistical areas 525 or 526, or those areas further to the west would count against the southern stock area TALs. If he fishes in the Cultivator Shoals Area, separate VTR gear reports would be needed and the landings from the

Cultivator Shoals Area would count against the northern stock area TAL (or the Cultivator Shoals Area landings targets).

If the TAL is not much greater than recent landings, there would be quarterly allocations so that fishing could occur year round. If the Council only sets a stock-wide annual TAL (as is in the Secretarial Amendment), then trips in the early spring might not be able to land red hake or whiting, if landings reach 90% of the TAL during the previous fall or winter. Both outcomes are however unlikely in the short term, unless landings shoot up or the ACL specifications are reduced by substantial amounts.

As a non-preferred alternative, the Council has also proposed a year round red hake possession limit, similar to the existing possession limits for silver hake which are specified by mesh size. While thought to encourage fishing with 3 inch, rather than 2 inch mesh, it doesn't seem to make much difference in the size of red hake. On the other hand, the possession limit would be pre-cautionary, preventing some fishermen from deciding to target large quantities of red hake, possibly flooding the market.

KEVIN THE FLUKE TRAWLER

Kevin uses a large mesh trawl to target fluke and other flatfish. Kevin has a Multispecies FMP permit as well as a permit to target fluke. Particularly when fishing along the southern edge of Georges Bank, his vessel catches some red and silver hake, landings that augment the vessel's revenue.

Kevin was not required to submit weekly VTRs, but to continue to land small-mesh multispecies when targeting other species, he will have to make more frequent reports so that the small-mesh multispecies landings can be attributed

to the correct stock area. This is a minor inconvenience to him with a modest cost. His friend Fred doesn't want to submit weekly VTRs and decides not to land his incidental catch of these species.

Sometimes his catches exceed the incidental possession limits, 400 lbs. for red hake or 2000 lbs. for silver hake. He is not really targeting these species, so he is unlikely to fish elsewhere to avoid them. But most of these trips do not have catches this high anyway and therefore has no effect on his fishing activities or revenue derived from the trip.

“JD” THE GROUNDFISH TRAWL FISHERMAN

JD, like Kevin, does not use small-mesh trawls, instead focusing on large-mesh groundfish, monks, and skates on Georges Bank and the channel. Sometimes he catches and lands a few boxes of red and silver hake to augment the vessel’s revenue.

Since he already submits weekly VTRs, JD simply continues reporting his small-mesh multispecies catches, but catches from area 521 have to be reported sepa-

rately from those caught in area 525 or 526. Although the VTR instructions require a separate gear report for each statistical area, JD hasn’t been submitting just one gear report with his VTR. And despite coming from different stock areas, JD continues his previous reporting practices, so the landings of small-mesh multispecies are not assigned accurately to the proper stock area. Some of JDs trips focus on one area or the other, so he figures that this just balances things out over the year.

DAVID THE GILLNET FISHERMAN

David uses large-mesh gillnets to target groundfish, monkfish, and skates. He occasionally catches a few red or silver hake and if there is enough to sell, lands them at his fish dealer. Most of the red and silver hake pass through the gill net and catches never exceed the incidental possession limits, so most of the alternatives would not affect his fishing.

The landings however would be monitored and count toward the TAL and ACL. Since he submits weekly VTRs anyway, he just lists the catch on the form. Some other fishermen however do not need to submit weekly VTRs, so they might simply discard the few fish that they catch, or report the landings on the VTRs that they submit monthly.

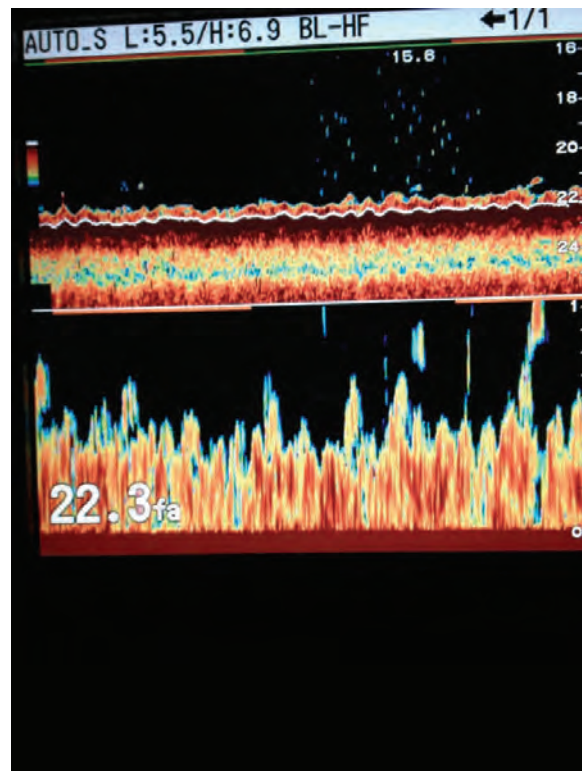


Photo used with permission and courtesy of the FV

1. Northern and southern stock area Annual Catch Limits (ACLs) will be set by the Secretarial Amendment, beginning on May 1, 2012. Should Amendment 19 also establish small-mesh area landings targets to determine when red hake incidental possession limits would begin?

Doing so might prevent excessive landings in the Cultivator Shoals Area from affecting fishing in the inshore small-mesh areas and landings from all small-mesh areas from affecting the amount of red hake that may be landed while targeting other species with large-mesh trawls and other gears. On the other hand, landings would have to be assigned to management areas, requiring more accurate (and possibly costly) monitoring procedures.

2. If Amendment 19 include small-mesh area landings targets, should unlanded portions of the landings target be made available (i.e. roll over) to be landed later in the inshore small-mesh areas?
3. Should Amendment 19 allocate the southern stock area red hake and whiting TALs by quarter, so that incidental possession limits become effective when the quarter's landings reach 90% of the quarterly allocation, instead of it occurring for a possibly longer period at the end of the year? Should this allocation begin immediately, or only when the landings are more than 2/3rds of the next year's TAL?
4. The Secretarial Amendment will establish a 400 lbs. red hake and a 1000 lbs. silver hake incidental possession limit, becoming effective when landings reach 90% of stock-wide annual TALs. Should Amendment 19 change these limits to one of the alternatives (200, 300, or 400 lbs. red hake; 500, 1000, or 2000 lbs. silver hake/whiting)? Analysis of these limits is given in Section 8.1.1.5 of the Amendment document.
5. Should Amendment 19 require vessels that land small-mesh multispecies to submit vessel trip reports (VTRs) on a weekly schedule, so that landings are accurately assigned to stock and/or management area on a more timely basis than other alternatives? Are there significant problems with this proposed requirement that are not recognized in the analysis?
6. Should Amendment 19 establish year round red hake possession limits by mesh size and gear, similar to existing regulations for silver hake? What should the possession limits be, in the range of alternatives in Section 5.7 of the Amendment (shown on pages 8 and 9 of this document)? Analysis based on reported landings by trip is given in Section 8.1.1.7 of the Amendment document.
7. The Secretarial Amendment will establish a post-season accountability measure (AM) to deduct overages from a future annual catch limit (ACL). Should Amendment 19 instead change the post-season AM such that corrections for overages are made by reducing the 90% TAL trigger, making future overages are less likely to occur?

