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- FW21 Impacts on social environment Page 18

These will be integrated with Final FW21 EA before submission.

1.1 IMPACTS ON PROTECTED RESOURCES

1.1.1 Background

The Framework Adjustment 21 alternatives are evaluated below for their impacts on protected resources with a focus on threatened and endangered sea turtles, as noted in the Affected Environment Section. As with the analyses provided in the last scallop management action, the species considered here are loggerhead, leatherback, Kemp's ridley and green sea turtles.

Both scallop dredge and scallop trawl gear will be addressed in this section, generally collectively, given they are the most commonly used gears by general category and limited access vessels in this fishery. To evaluate impacts it may be helpful to note that the majority of fishing effort is attributed to the dredge fishery. Most of the approximately 340 active limited access vessels use dredge gear. There are about 400 general category vessels that are expected to be allowed to land 10 percent of the total projected scallop landings during the transition period to IFQs and 5 percent of the total once the transition measures are phased out, likely before March 1, 2010.

To briefly summarize the sea scallop fishery management program, it employs a limited access permit system and controls DAS use in scallop open areas. Limited numbers of trips with trip limits also are allowed in designated rotational access areas. Major harvest areas include Georges Bank with less activity in the Gulf of Maine. Both are regions in which turtles are far less likely to be found relative to Mid-Atlantic waters, where effort and scallop catch levels have increased in recent years. In addition, directed general category scallop fishing effort has increased overall since 1994, including new effort in the Mid-Atlantic, but this trend is being addressed by measures implemented in Amendment 11 to the Atlantic Sea Scallop Fishery Management Plan.

Although scallop fishing is a year-round activity, takes of sea turtles potentially may occur from May through November given the overlap of the sea turtle distribution (Shoop and Kenney 1992; Braun-McNeill and Epperly 2002) and fishery effort (NEFMC 2003, 2005).

With respect to sea turtle interactions with the fishery overall, it is noteworthy that there were very low levels of observer coverage throughout the fishery up to 2001 (though observer coverage during 2001 and 2002 was concentrated mainly in the Hudson Canyon Access Area). Since that time, bycatch rates, with a focus on the Mid-Atlantic, have been analyzed in a number of publications that are discussed in the Affected Environment section.

Beginning in September 2006, federally permitted scallop dredge gear must be modified by adding an arrangement of horizontal and vertical chains, referred to as "chain mats", between the sweep and the cutting bar when fishing in an area that extends south of 41° 9.0 N from the shoreline to the outer boundary of the EEZ during the period May 1

through November 30 each year (71 FR 50361). The requirement is expected to reduce the severity of some turtle interactions with scallop dredge gear. (Also mention ETAA seasonal closure to protect turtles?)

With respect to Framework Adjustment 21, several rotational fishing areas are considered: Nantucket Lightship Closed Area (NLCA), the Elephant Trunk Area (ETA), the Delmarva Area (DMV), and a potentially new access area in the Great South Channel off Cape Cod. Measures primarily serve to set 2010 access levels to these areas and change levels of fishing effort in the areas outside of these rotational areas. Additional measures address adjustments to the observer program and specific measures to comply with the recent biological opinion of this fishery related to impacts on sea turtles.

Discussions regarding sea turtle interactions with the fishery are largely qualitative and based on factors such as projected DAS use-by-area and projected bottom area swept. It is important to recognize that neither factor directly relates to the frequency of turtle bycatch in the fishery, but provide some measure of how much effort is projected to occur and which areas might be subject to more or less activity based on catch rates. Although it is not repeated in each alternative, the general assumption is made that turtle interactions occur when and where scallop fishing effort overlaps with the presence of sea turtles. Risks may be greater during turtle high use periods, but interactions could still occur in the margins of that period given that both turtle distribution and fishing activities are highly variable.

1.1.2 No Action

Impacts of No Action on protected resources could be higher than scenarios under consideration because fishing levels would be higher in ETA, 3 trips compared to 2 trips. If these additional trips occur in the season that turtles are present there is a higher chance of interaction with scallop gear compared to all 4 scenarios under consideration. All four scenarios include only two trips in ETA. However, No Action does not include a trip into Delmarva, so the cumulative impacts may not be that different. Open area DAS allocations under No Action are within the range being considered for this action, higher than some scenarios and lower than others.

Status quo for this action is considered to be the scenario that has an overall fishing mortality of 0.20 and does not include a new closure in the Channel (NCLF20). This scenario is considered the status quo because in recent actions the Council has set F at 0.20 to prevent overfishing and account for uncertainty in projections and management measures in the fishery. Therefore, this scenario would be consistent with how the Council has been setting specifications for this fishery in the last few years with a handful of access area trips and then DAS set to meet an overall F. No new closed area would be implemented under status quo. Because NCLF20 does not close the channel it has potentially greater impacts on protected resources if some of the additional open area effort moves from the Channel area to the Mid-Atlantic during the time of year turtles are present. Overall DAS allocations are similar to recent years so the potential increase is limited. In addition, this scenario has the lowest projected DAS used than all other FW21

scenarios (about 22,000 compared to 25-32,000 for the other scenarios) (Table 40 in FW21).

1.1.3 Overall comparison of the scenarios

Four different scenarios for open area and DAS allocations are under consideration: 2 that propose closing a new area in the South Channel for area rotation and 2 without. Two options are considered for each at different overall F values. Overall the closure has two immediate effects: it reduces F and forces fishing effort elsewhere. The first effect causes there to be more open area days at a given fishing mortality with a closure than without. Even when F is reduced down to $F = 0.18$, there are still more open area days than at $F=0.24$ without a closure, and they are concentrated in a smaller area. That is why LPUE is lower and area swept is higher for the two options that close the channel at first. For these few years, (2010-2012) fishing effort could be higher in open areas in the Mid-Atlantic if effort from the channel shifts to that area. And if the effort is higher in June-October when turtles are present, impacts on protected resources may be greater compared to alternatives with lower open area DAS allocations. The two options that propose closing the Channel have higher DAS used values for open areas in the Mid-Atlantic including waters around Long Island, the New York bight and off Virginia Beach (Table 40 and Figure 41 in FW21).

However, after the Channel opens in 2013 LPUE is higher and area swept is lower for the two scenarios that close the Channel, so impacts on protected resources would be reduced during the years the Channel area reopens (Figure 37 in FW21).

1.1.4 Measures for Limited access vessels

This framework includes the specific access area schedule and DAS allocations for all limited access scallop vessels. The expected impacts on protected resources from the various scenarios are described above. In terms of the set-asides for observers and research there are indirect beneficial impacts on protected resources if that set-aside is used to learn more about the interactions of the scallop fishery and protected resources. Numerous turtle related research projects have been funded through the Scallop RSA program to date, and that topic is a high priority for future research proposals. In addition, much of the information known about when and where interactions have happened are from data collected through the observer set-aside program. So both these programs are expected to have continued indirect benefits on protected resources.

Georges Bank Access Areas

If the YT flounder bycatch TAC is reached in Nantucket Lightship, limited access vessels are permitted to use access area trips at a compensation rate in open areas. Analyses suggest that the compensation for Nantucket Lightship in 2010 would be 5.4 DAS. If the area closes early those DAS could be used in open areas in the Mid-Atlantic, especially if southern vessels do not get a chance to use their trip in NL. Those additional DAS could have impacts on protected resources if fished during the time of year when turtles are present, but the amount of additional effort is limited.

Mid-Atlantic Access Areas

The seasonal closure in ETA that will rollover under this framework (September 1-October 31) is expected to have positive impacts on the protected resources. Preliminary analyses suggest that effort in ETA from the September and October closure has shifted into adjacent months. Specifically, access area trips not taken in September and October were taken mostly in August, November and December. Vessels have not increased open area effort during Sept and Oct as a result of the seasonal closure. It is difficult to say whether increased fishing in August has different impacts on turtles compared to Sept and Oct since turtles can be present during all three months. But any effort shifted after October is expected to have beneficial impacts because turtles have not been present in that area after October.

Other Measures

If the LAGC IFQ program is not fully implemented before March 1, 2010 the LAGC fishery is allocated 10% of the total projected scallop catch during the transition period to ITQs, compared to 5%. Overall, there are no expected differences of impacts on the protected resources if the limited access fishery lands these scallops or the general category fishery. General category vessels are found in the north and the south, and some vessels move depending on resource availability.

1.1.5 Measures for General category vessels

1.1.5.1 Measures if IFQ program is delayed

1.1.5.1.1 Quarterly hard-TAC for transition period to limited entry (FY2008)

If the IFQ program is delayed and is not implemented before March 1, 2010 the general category fishery will continue to be managed under a quarterly hard TAC for 2010. Similar to 2008 and 2009, it is expected that most general category fishing would take place several weeks after each opening. The quarterly TACs are not equally divided across the fishing year but represent percentages that generally reflect seasonal effort as it has historically been fished by the general category fleet: 35 percent during the March – May period, 40 percent from June-August, 15 percent from September-November and 10 percent for December-February. Because this alternative does not represent a redirection of effort during the four periods, the quarterly hard-TAC is not likely to have measurable impacts on protected resources except that it could potentially mitigate the possibility of concentrated effort over protracted periods of time.

If the LAGC IFQ program is fully implemented before March 1, 2010 then general category qualifiers will receive an individual fishing quota based on their contribution to historical landings. IFQs will not be area-specific; a vessel can choose to participate in an access area program and landings will be removed from their individual allocation. Vessels will be permitted to catch that quota in any area available (open areas or access areas) until the fleetwide allocation is harvested. These measures are not expected to change overall fishing effort, nor are they likely to influence the distribution of that fishing effort. As such, they are expected to have a neutral impact on sea turtles inhabiting the sea scallop management unit.

The measures for NGOM and incidental catch TACs are not expected to have impacts on protected resources.

1.1.6 Consideration of new rotational area in the great south channel

Additional rotational areas could reduce the potential negative impacts of scallop gear interactions with threatened and endangered sea turtles if they allow for decreased effort and bottom contact time relative to No Action in areas and at times when fishery encounters are most likely to occur. In this case, however, DAS used and bottom area swept is greater under both closure options compared to non-closure options (Table 40 and 41 in FW21). Because of these increases, correspondingly greater risks to turtles may result if effort overlaps with the presence of sea turtles. Further, closing the Great South Channel area is not likely to confer benefits to turtles because of their general scarcity in the area and because effort could potentially shift to the Mid-Atlantic where sea turtles have a higher risk of entanglement. Leaving the Channel area open under any of the scenarios is less risky relative to sea turtles.

It should be noted that this action is also considering specific measures to limit effort in the Mid-Atlantic to comply with a recent biological opinion of this fishery and its impacts on sea turtles. Therefore, if certain measures are selected under that section the combined potential impact on turtles of closing the Channel may be reduced if other actions are taken to limit scallop effort in the Mid-Atlantic during the time of year turtles are present.

1.1.7 Compliance with reasonable and prudent measure in recent biological opinion

1.1.7.1 Alternatives to comply with RPM

Sea turtles are present seasonally in the Mid-Atlantic, moving up the coast from southern wintering areas as water temperatures warm in the spring and returning in the fall (NMFS 2008). Fisheries observers have recorded sea turtle interactions with scallop gear during June – October (Figure 1). While turtle interactions could occur in any month throughout the Mid-Atlantic during this time period, higher probabilities have generally been associated with warm sea water temperatures (>19C) and depths between 50 and 70m (see Murray 2004a, 2004b, 2005, 2007 for more information on estimated bycatch rates and observer coverage levels).

In mid-2006, NMFS finalized a rule (71 FR 50361, August 23, 2006) that required scallop fishermen operating south of 41 9.0' N from May 1 through November 30 each year to equip dredges with chain mats. The intent of the dredge gear modification is to reduce the severity of some turtle interactions that might occur by preventing turtles from entering the dredge bag. Chain mats do not decrease the number of turtles in contact with the gear; rather they decrease the likelihood that turtles will suffer serious injuries. Because chain mats are designed to keep turtles out of the dredge bag, enumerating observed interactions in and around scallop dredge gear became difficult after 2006.

The impacts on sea turtles of FW21 alternatives designed to meet the requirements of the Biological Opinion can be assessed qualitatively, by comparing shifts in fishing effort to historic patterns in sea turtle bycatch rates, particularly those before 2006 when chain mats were not required. (Note that if sea turtle abundance in the Mid-Atlantic increases in 2010 and beyond, the effect of effort shifts become less predictable).

RPM Alternatives #1 and #2 will likely result in a reduction in turtle bycatch in the Mid-Atlantic, because effort will either be reduced in the region, or move into other seasons and areas where there have been very few turtle interactions. (Only 1 turtle bycatch was observed north of the RPM line b/w 2001-2008, and none were observed during Nov-May) (Figure 1). FW21 has analyzed the potential impacts of shifting 10% of expected catch in the Mid-Atlantic during the turtle season to other areas or seasons. If 10% of total effort in that area and time are shifted to other seasons or areas as a result of either RPM Alternative #1 or #2, overall impacts on turtles are expected to be positive since less effort will be permitted in the area and time of year turtle interactions are most likely.

In terms of the season options for these alternatives, if the restriction is extended into late October that may be more beneficial for turtles since turtles may still be in the general area. Limiting effort during the last two weeks of October may provide a buffer of protection around the time that turtles have been observed in case their migration pattern happens to be later in 2010. In terms of the area alternatives, there is sea surface temperature data that supports that limiting effort in the areas south of Long Island and east of New Jersey (statistical areas 612 – 616, and 533, 534, and 541-543) may not be necessary during the month of June because the mean sea surface temperature in that area is below the minimum temperature at which loggerhead sea turtle interactions have been observed in scallop gear (Figure 2 and Figure 3). However, limiting effort in this area in June as well is more precautionary in case temperature trends change or turtle migration patterns are different than data suggest.

Figure 1 - Observed turtle bycatch in scallop dredge and trawl gear 2001-2008 shown in relation to RPM line

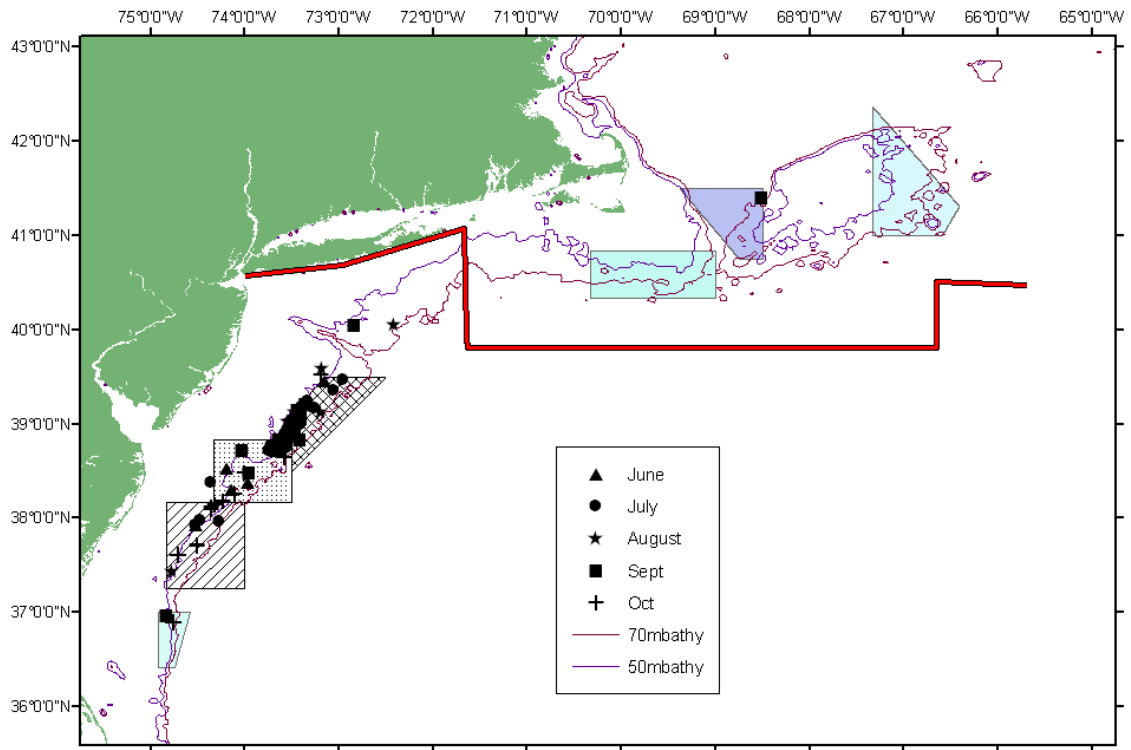


Figure 2 – Alternative RPM boundary for the month of June for RPM alternatives 1 and 2 based on sea surface temperature data

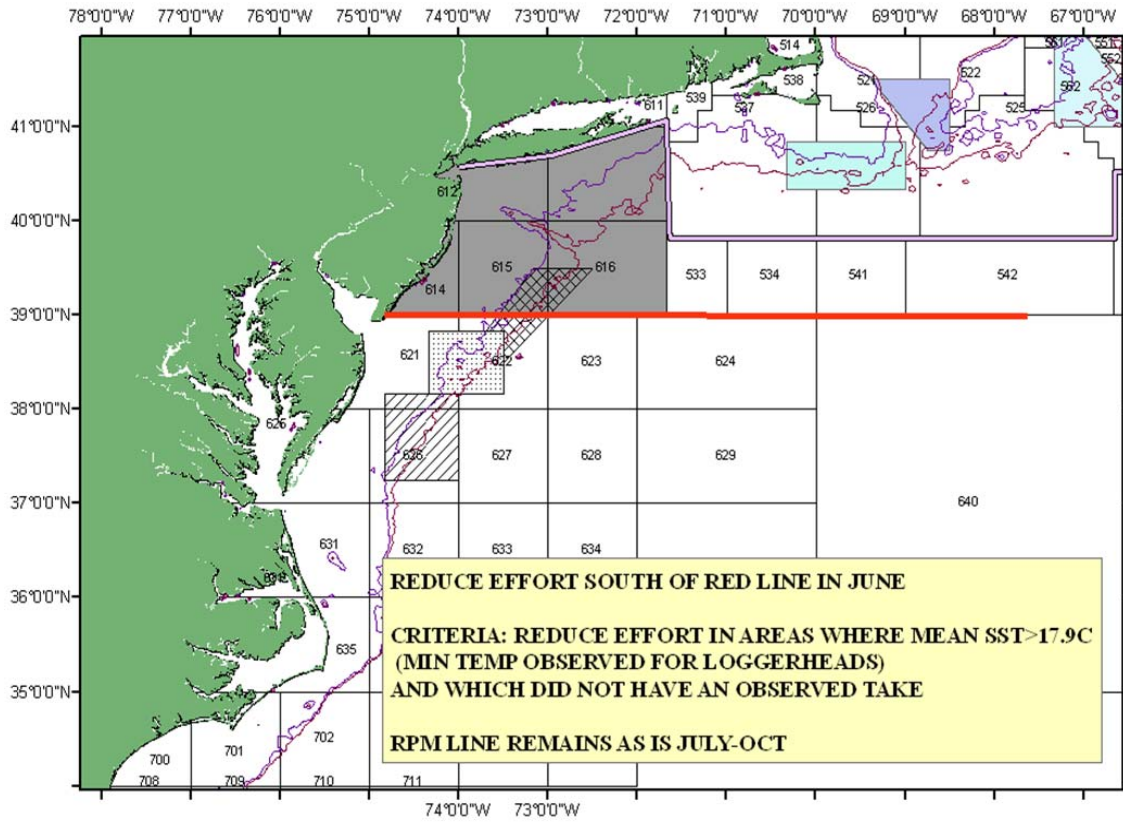
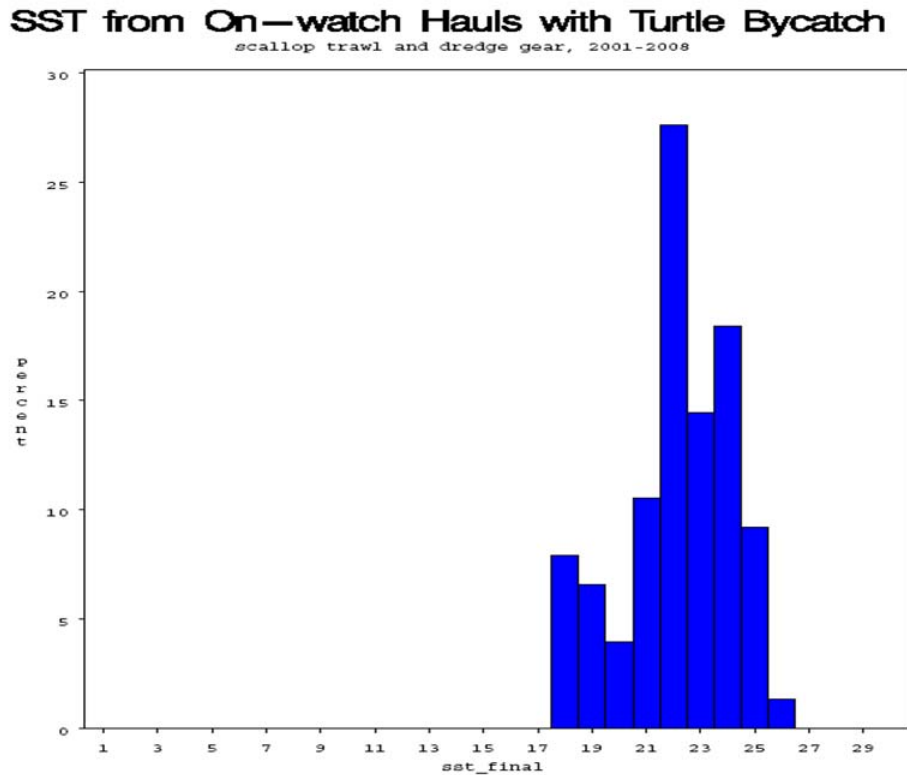
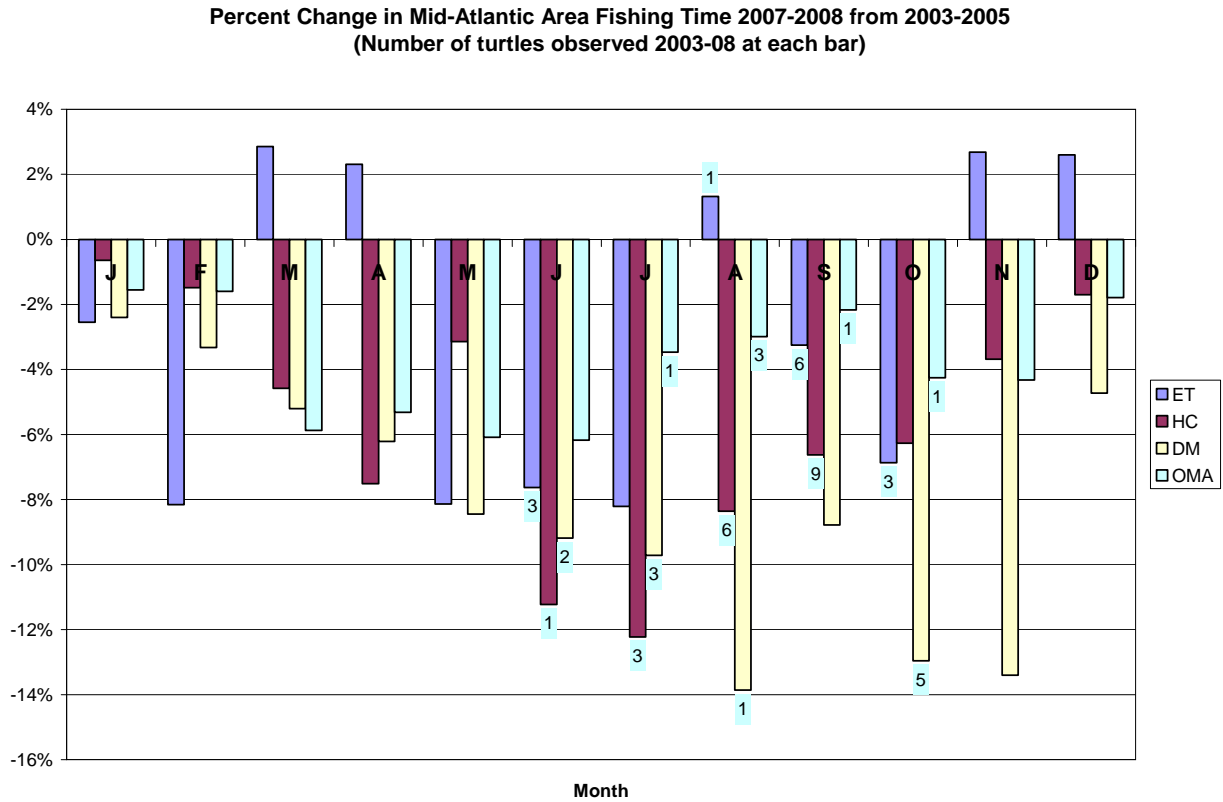


Figure 3 – Sea surface temperature from on-watch hauls from observed scallop trawl and dredge trips from 2001-2008



The affect of RPM Alternative #3, to close the Delmarva area during September and October, will depend on where and when fishing effort is displaced. If effort redistributes to surrounding time periods, as it did when the Elephant Trunk area was closed to fishing in 2007 and 2008 during September and October to minimize impacts on sea turtles, then the number of turtle interactions would likely decrease because effort is shifting into cooler-water months when sea turtles are not likely to be in the area (Figure 4). The increase in effort in ETA in March and April seen in 2007 and 2008 compared to 2003-2005 is not due to the seasonal closure. That increase in effort during those two months is likely from high levels of general category effort, increased interest to get in that area at the start of the fishing year after it was closed for several years, and more trips were allocated in 2007 and 2008 so vessels had to spread effort out more than they will in 2010 with only two allocated trips.

Figure 4 – Percent change in Mid-Atlantic area fishing time by month in recent years compared to 2003-2005



The affect of RPM Alternative #4 is likely to be positive because this alternative does not allow effort to be shifted to other seasons or areas, it simply reduces it for the entire area and year. Specifically, it reduces the possession limit if a vessel takes an access area trip in the Mid-Atlantic during the turtle season, and those pounds cannot be recaptured on a future trip outside the turtle season. For example, under NCLF20 for the June15-Oct31 alternative, 289 of the total 1020 MA AA trips are expected to be taken during that time period (Table 59 in FW21). Those trips are expected to fish 2,541 DAS with an 18,000 pounds possession limit. This measure would restrict the possession limit to something lower so that 1,652 DAS would be used instead to equate to a 10% shift of total effort from that area and time. That restriction would have the equivalent reduction of 890 DAS (35% reduction), therefore, beneficial impacts on protected resources are expected.

1.1.8 Improvements to the observer set-aside program

1.1.8.1 Prohibit vessels from not paying for observers

This alternative would prohibit a vessel from fishing until all outstanding bills were paid by not issuing a permit to fish in a fishing year after an outstanding bill is due. This alternative would not have direct impacts on protected resources. If this ultimately improves the overall coverage of the scallop fishery there may be indirect benefits on

protected resources from improved information about how the fishery interacts with turtles.

1.1.8.2 Limit the amount of observer compensation general category vessels can get per observed trip in access areas

This alternative would create a ceiling to discourage overages by limiting the amount of compensation to two fishing days, whatever the daily compensation rate is for an access area. This alternative would not have direct impacts on protected resources. If this ultimately improves the overall coverage of the scallop fishery there may be indirect benefits on protected resources from improved information about how the fishery interacts with turtles.

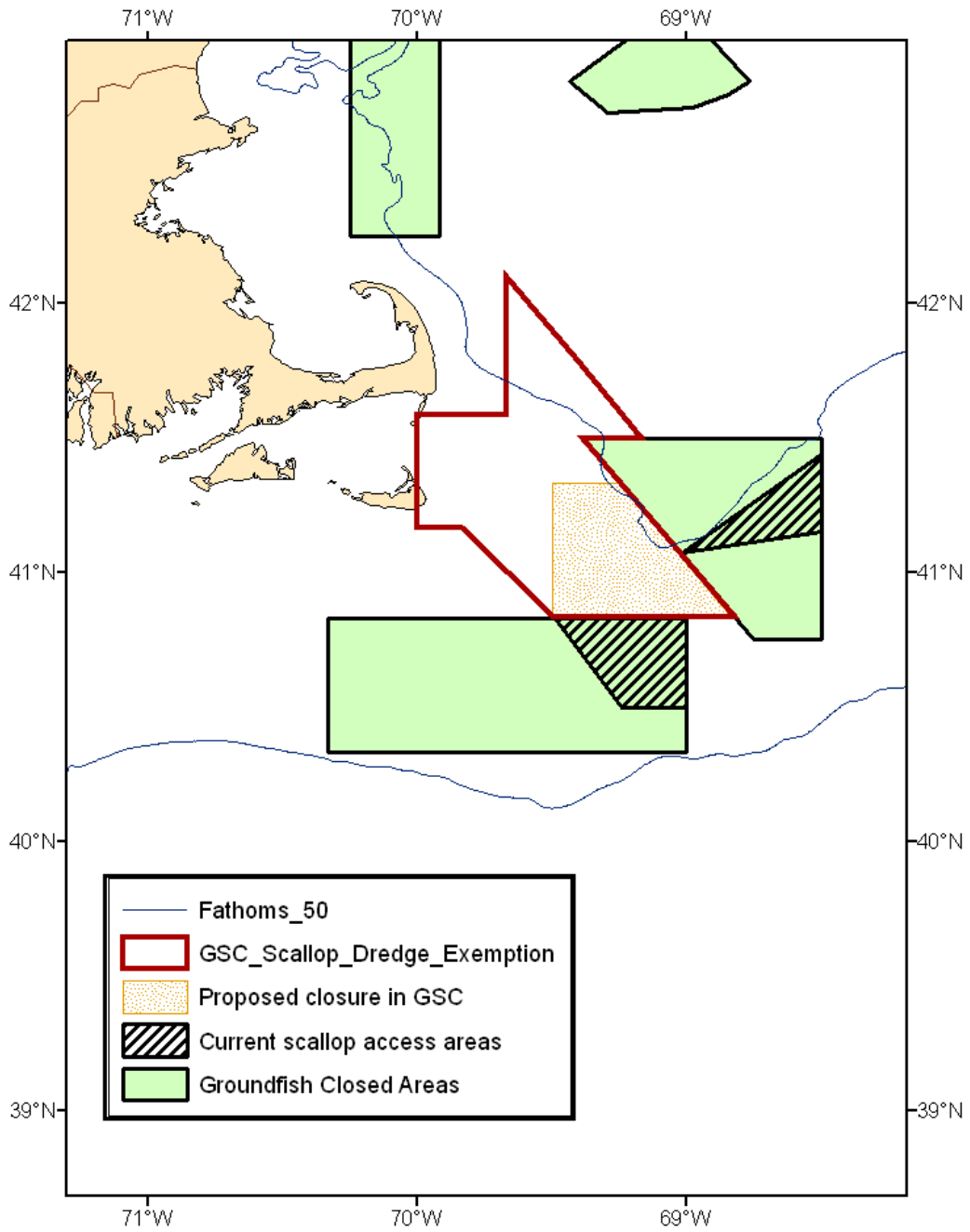
1.2 IMPACTS ON NON-DIRECTED FISHERIES

The scallop fishery operates throughout the range of the scallop resource from Maine to North Carolina and results in the incidental catch of several other species. While some species are retained, other species are discarded due to restrictions in other fisheries or if the catch is not of value. Measures to minimize bycatch to the extent practicable in the scallop fishery pertain to all scallop vessels. The primary measures are the 10-inch minimum twine top restriction, and the bycatch TAC for yellowtail flounder in access areas. The 4-inch minimum ring size may also reduce finfish bycatch and reduces the bycatch of small scallops. The Northeast (NE) Multispecies and Monkfish FMPs also include measures to limit bycatch of species under the management of the specific FMP. The following measures in the FMPs apply:

The Northeast Multispecies FMP prohibits fishing in the Gulf of Maine/Georges Bank (GOM/GB) and Southern New England Exemption Areas unless a vessel is using exempted gear, is fishing under NE multispecies or scallop DAS, or is fishing under an exempted fishery. The prohibition prevents fisheries from occurring that might result in bycatch that could jeopardize the goals of the NE Multispecies FMP. Exempted fishery procedures in the NE Multispecies FMP allow a proven “clean” fishery to be implemented and allowed under the NE Multispecies FMP. Currently, the general category fishery can operate in two areas of the GOM/GB Exemption Area and in a portion of the SNE Exemption Area. In all three areas, vessels are restricted to 10 ½ ft dredges and may not possess any species other than scallops.

In addition, in the Great South Channel Sea Scallop Exemption Area within the GOM/GB Exemption Area, general category scallop vessels may not fish for scallops from April through June for one sub-area (the month of June for the other sub-area) (Figure 5). This period has been identified as the peak spawning for yellowtail flounder and protects high concentrations of yellowtail flounder from a portion of the scallop fleet. Note this area fully encompasses the new rotational area closure under consideration in this action.

Figure 5 – Great South Channel Sea scallop exemption area (outlined in red)



The Monkfish FMP allows vessels fishing for other species to harvest monkfish depending on the monkfish permit category, the declared fishing activity (i.e., multispecies DAS, scallop DAS, and/or monkfish DAS), the area fished, and the gear used. Unless otherwise restricted under another FMP, a vessel fishing outside of monkfish DAS, and while fishing for scallops under general category rules, is permitted to catch and retain up to 50 lb of monkfish tails per day, up to 150 lb total for the trip. This limitation prevents a scallop vessel using dredge gear from targeting monkfish and limits bycatch during scallop trips.

Other FMPs include overall quotas, state-by-state quotas, possession limits, and gear restrictions that may also reduce bycatch. The Skate and Summer Flounder/Scup/Black Sea Bass FMPs offer examples. The Skate FMP restricts possession of some species of skates and requires a permit to catch and land skate. Vessels fishing for scallops under general category rules would be restricted to the Skate FMP possession limits, limiting the impacts on skates as bycatch. Management measures for the summer flounder fishery include a state-by-state quota. When the quota is closed in a particular state, vessels can no longer land summer flounder in that state. When the quota is closed, scallop vessels from that state, fishing under general category rules, may have less incentive to fish in areas where summer flounder catch might be high since it could not be landed in the closed state.

These measures under other FMPs would continue to limit the impacts on bycatch species that are caught in the general category scallop fishery under all of the alternatives considered in Framework 21.

This action is not considering any measures that would trigger a skate baseline review based on the process approved in the Skate FMP. For more information see [Section ???](#).

A detailed summary of the Standardized Bycatch Reporting Methodology Amendment that is proposed is included in [Section ???](#).

1.2.1 Summary of Framework 21 impacts on non-target species

None of the measures included in the proposed action are expected to have significant impacts on non-target species. This action has considered the potential impacts of the proposed action on non-target species (small scallops as well as finfish and other bycatch species) and in general, all the measures under consideration have positive or neutral impacts on non-target species. Many of the measures considered in this action concentrate fishing effort in areas with high scallop catch per-unit-of-effort, which reduces fishing time having positive impacts on bycatch rates.

Revising the area rotation schedule on Georges Bank is expected to keep high scallop biomass levels in the access areas in the foreseeable future, thus the areas will continue as a source to achieve optimum yield while minimizing effects on bycatch. This action maintains the YT bycatch TAC in access areas in GB and SNE. Overall, this action provides more flexibility to the fleet allowing the industry to better adapt to changing resource conditions. When the fleet is able to fish more efficiently, there may be a

reduction in the amount of fishing time, with the potential to reduce bycatch. Limiting open area DAS keeps scallop biomass at target levels and maintains relatively high scallop LPUE. This keeps vessels from fishing long durations in marginal areas, where bycatch can be higher than normal.

See Section 5.1.2.5 for a description of the projected bottom contact time for the various scenarios considered. The two options that do not close the channel have lower area swept, and DAS allocated for Year 1 (2010) (Table 41). If the Channel is closed, area swept is expected to increase for MA open areas (LI, NYB, and VB). This could have increased impacts on non-target species in these regions, but many if not all of the non-target species in these areas have possession limits or fishery wide quotas, so total impacts will be limited.

Furthermore, specific to southern New England yellowtail flounder, the Council is considering a fleetwide allocation of SNE TY to the scallop fishery as a sub-component of the overall fishery ACL. The Groundfish Committee is recommending that the scallop fishery be allocated 90% of the projected amount of SNE YT needed for 2010. If the Council adopts this in Framework 44 to the Groundfish FMP at the November 2009 Council meeting it is likely that amount will be allocated to the scallop fishery, thus less would be available to harvest for Groundfish vessels. This allocation is intended to control overall mortality on SNE YT. So even under FW21 scenarios that project more scallop effort in SNE, more SNE YT may be allocated to the scallop fishery to compensate for this shift of scallop effort and limit total mortality on SNE YT.

Bottom area for the open portion of the Channel will also be higher in the short term for the two options that close the channel. Once the Channel opens in 2013, the two options that close the Channel now have lower total bottom area swept compared to the two scenarios that leave it open in this action. In summary, over the next seven years LPUE is projected to be slightly higher and area swept is slightly lower for the two options that close the channel, but that is not the case at all in 2010-2012 while the channel is closed because DAS allocations are substantially higher for these scenarios to compensate for the closure.

The only other measures under consideration in FW21 that may have direct impacts on non-target species are the measures related to compliance with the turtle biological opinion. RPM Alternatives #1 and #2 will likely result in a reduction in scallop effort in the Mid-Atlantic during the summer and fall. This could have positive or negative impacts on non-target species depending on whether bycatch rates are substantially different in the Mid-Atlantic by season. Observer data for the scallop fishery is not available in the form necessary to evaluate seasonal differences in bycatch rates for the specific seasons and areas under consideration. For example, it would be difficult to conclude that a two-month closure of Delmarva in September and October would have an overall affect on bycatch rates of non-target species in that area if effort was fished different months of the year. Furthermore, it is not clear when effort will shift (what months of the year) so even if monthly bycatch rates were known, actual impacts on bycatch are uncertain because fishing behavior responses from these RPMs are uncertain.

However, because there are possession limits and fishery quotas for most if not all of the non-target species in this region, total impacts on non-target species are expected to be limited as a result of any of the RMP measures.

1.3 IMPACTS ON SOCIAL ENVIRONMENT

1.3.1 Summary of FW21 allocation scenarios and consideration of new rotational area in the great south channel compared to status quo

The short-term social impacts from area closures include less flexibility for businesses stemming from possible short-term decreases in revenue, which would affect more those businesses with smaller cash flows, or less access to economic and social resources. Closing the Great South Channel would in particular negatively impact those fishermen who fish predominantly on Georges Bank, since there are already a variety of restrictions on fishing in the area, and it would more negatively impact fishermen from surrounding areas, such as Cape Cod and the Islands. This would be offset by slighter higher revenues in the long-term, since rotational area closures are designed to increase resource biomass and sustainability.

The expected future increases in biomass from rotating closed areas would have more positive impacts on those more mobile fishermen who can switch areas more easily, and who have access to economic and social resources that enable them to more easily withstand fishing ups and downs. However, as discussed in Amendment 10, the general impacts from area management are likely to be more negative on fishermen on smaller vessels or on fishermen who have particular knowledge of particular locales, both of whom are less likely to practice mobile fishing strategies. Closing areas, if they are traditional fishing grounds, would create fewer options and less flexible fishing conditions for those fishermen.

1.3.2 TAC set-asides for observers (1%) and research (2%) and 2.4.1.3 Research priorities for 2010 and recent RSA announcement

Measures to allow for research and observers have, to the extent that they enhance understanding of the resource status and how it is used, can be expected to have positive social impacts in the long-term.

1.3.3 DAS adjustments if the LAGC IFQ program is not implemented by March 1, 2010

The continued allocation of 10% of projected scallop catch to the LAGC fishery instead of 5%, though obviously of positive benefit for the LAGC fishery, may have some geographic redistributions of the landings stream of scallops from ports that are predominantly limited access based to those that are predominantly LAGC, in the short-term.

1.3.4 Measures if IFQ program is delayed (Quarterly hard-TAC)

This measure continues the status quo of using a quarterly hard-TAC if implementation of Amendment 11 is delayed. In general, though a hard TAC can bring about derby fishing with its attendant negative impacts, the use of a quarterly hard TAC is designed to lessen that tendency and as such may lessen the negative impacts in the interim.

1.3.5 Northern Gulf of Maine (NGOM) Hard-TAC

This measure was previously analyzed in Amendment 11. In 2009, a total of 117 “LAGC-NGOM” permits were issued. A 70,000 lb TAC would provide a marginal source of revenue for these vessels until the resource status can be better determined.

1.3.6 Estimate of catch from LA incidental catch permits:

This measure was previously analyzed in Amendment 11. In general, given that only low mortality from incidental catch is expected, the impacts to the scallop fleet should be low. The impacts of the incidental catch permit alternative will have positive impacts on vessels that do not qualify for a limited access general category permit because it will allow them to still earn some income from scallops under the incidental catch permit. Furthermore, this alternative may provide more flexibility for vessels that do qualify for the limited access general category permit but opt for this permit instead, if fishing for more trips under 40 pounds is more advantageous than fishing for scallops under the 400 pound permit.

1.3.7 Measure to comply with turtle biological opinion

1.3.7.1 Restrict the number of open area DAS an individual vessel can use in the Mid-Atlantic during a certain window of time

In general, the types of social impacts from this measure are similar to the impacts that can be expected from closing areas in general: those negatively impacted are fishermen who have traditionally fished in a given area, who have smaller vessels or who are homeported nearby and are less mobile. Given analyses elsewhere in the document (see [5.3.1](#)), these impacts may be said to fall primarily on such smaller or less mobile vessels found in New Jersey and Virginia. Additionally, shifting effort out of summer months could have safety-at-sea implications.

1.3.7.2 Restrict the number of access area trips in the Mid-Atlantic that can be used during a certain window of time

Given the potential in loss of access trips to the Mid-Atlantic, the social impacts from loss of revenue could be substantial and would impact the Mid-Atlantic and Southern fleet disproportionately if these access trips were favored. Loss of revenue can not only impact fishermen and fishing households, but communities and the infrastructures that landing activity helps to sustain. Additionally, shifting effort out of summer months could have safety-at-sea implications.

1.3.7.3 Consider a seasonal closure for Delmarva

Given the economic assessments that a shift to seasons in which meat yields are higher would increase economic revenue to fishermen, this measure could have indirectly positive impacts. However, fishermen who combine scallop fishing with other fisheries could be negatively impacted to the extent that such seasonal shifts affect participation in other fisheries. Additionally, shifting effort out of fall months when weather is relatively calm compared to other times of the year could have safety-at-sea implications.

1.3.7.4 Reduce possession limits in ETA and/or Delmarva to reduce fishing time per trip

As described elsewhere in this document (see 5.3.1), this measure could have a significantly negative impact on the scallop fleet if the loss of possession limit was not compensated elsewhere. Loss of revenue of a large scale can not only impact fishermen and fishing households, but communities and the infrastructures that landing activity helps to sustain.

1.3.8 Prohibit vessels from not paying for observers

If this measure helps by making the observer program run more effectively it should have indirect benefits on the scallop fishery in general, and the observer service companies that provide this service. If a vessel fails to pay for an observer, that observer service provider can refuse future service, but that vessel can then go to a different vendor and potentially cause the same problem. And if a vessel is refused an observer because of non-payment it may put the agency (NMFS) in the position of assigning a waiver when that vessel should have otherwise been assigned an observer. This measure was designed to help ensure that the observer set-aside, which belongs to the public, is used fairly and vessels are not taking advantage of this system by not paying for observers and being granted waivers.

1.3.9 Limit the amount of observer compensation general category vessels can get per observed trip in access areas

This measure, by closing a loophole in LAGC observer compensation, would have positive impacts in that it would ensure a perception of fairer use of compensation funds overall, and would help better meet the objectives of Amendment 11 that the LAGC fishery was intended to preserve the traditional day-boat character of the fishery.