

Rationale: This option was recommended by the Council's Habitat Committee in 1999 to avoid damage to fragile sand ridges that provide protection for juvenile finfish. Some of these sensitive areas occur outside the Habitat Area of Particular Concern (HAPC) and north of 41°30' North latitude. During the 1998 experimental fishery, the average catch of scallops during the experimental fishery within the boundaries of this option was 26 lbs. of scallop meats per 10-minute tow, with an average meat count of 18 scallop meats per pound. The average catch of yellowtail flounder was 23 pounds. For every 10 pounds of scallops, there were 8.8 pounds of yellowtail flounder caught during the experimental fishery within the boundaries of this option.

The present season and boundaries appear to be working well, but the PDT notes that the present method of removing 20 percent of the Closed Area II stock biomass from only the southern portion is an unsustainable policy. Besides the unsustainability of the present policy for setting the TAC while allowing access to only a portion (about half of the total biomass) of the resource area, the PDT also noted that a 20 percent exploitation rate is not risk-averse since this is the threshold mortality rate associated with MSY and there is considerable uncertainty in the F_{MSY} value and the biomass estimates.

Although the Scallop PDT recommended a season for Closed Area II from June 15 to December 31, complicated enforcement and monitoring requirements prevent this area from opening at the same time as Closed Area I and the Nantucket Lightship Area. Concerns over monitoring the yellowtail flounder TAC in Closed Area I and the Nantucket Lightship Area prompted the Council's Groundfish Oversight Committee to recommend that no two areas be open to scallop fishing at the same time. Multiple demands could overwhelm the system if it tended to concentrate the trips in time and spread them out geographically.

Due to these concerns, the Council shortened the season (compared to the access program in 1999) to mid-summer. The Council chose this season to avoid concentrating fishing effort in an offshore area when weather tends to be less favorable and there is a greater risk to safety. Another factor was the increased bycatch rates of yellowtail flounder during late September and October. The data in 1999 showed that yellowtail flounder bycatch was generally low throughout the summer months and increased either due to seasonality or due to changes in fishing patterns as the fishery neared the yellowtail flounder TAC.

Even though significant scallop biomass would not be accessible in 2000, the Council chose to limit scallop fishing to areas south of 41°30' N latitude. Subsequent evaluation by the Habitat Technical Team indicated that there were fewer concerns about the effect on sand ripples and waves, but the main concentration of scallops located southeast of the HAPC (Figure 13) are in areas where hard bottom is found. Many scallops in the HAPC are also found in association with hard bottom. Some of these scallops are near hard bottom, but may be in sandy areas where dredging might be conducted without damage to sensitive areas. Collection and analysis of habitat and scallop concentration in more detail might allow future access in small, well-defined areas. Due to this association with hard bottom and insufficient data, the Council chose to not allow scallop fishing in the northern half of Closed Area II at this time.

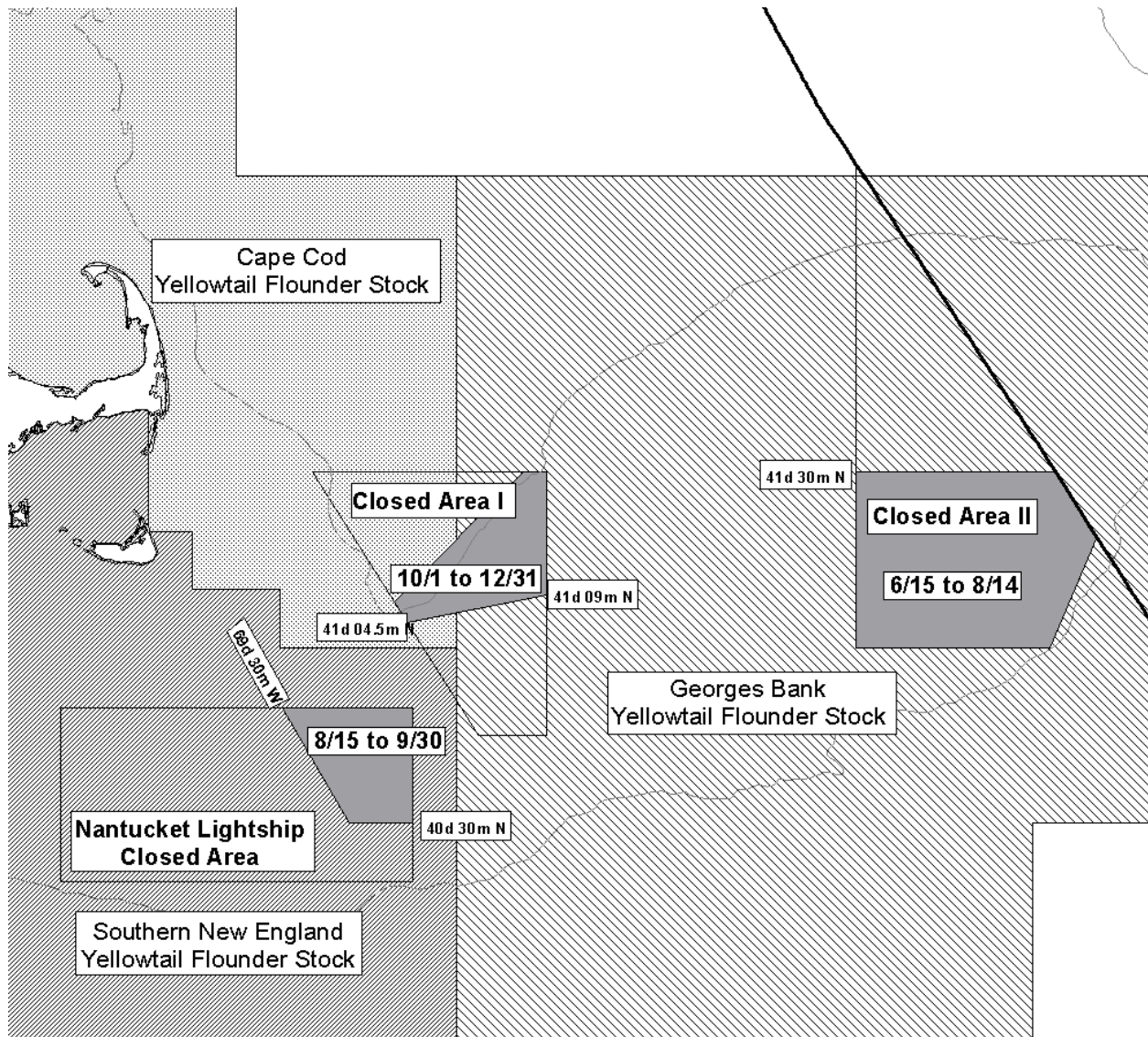


Figure 21. Proposed scallop access boundaries and seasons for the Nantucket Lightship Area, Closed Area I, and Closed Area II. Dark shading represents areas where scallop fishing would be permitted during each season. Larger areas with hatched patterns represent different stock areas for yellowtail flounder.

5.1.1.2 Nantucket Lightship Area: August 15, 2000 to September 30, 2000 with Alternative 1 boundaries

Scallop vessels eligible to access the closed area(s) would be able to fish in the Nantucket Lightship Area within the boundaries described in Table 6. The shaded area in the northeast corner of the Nantucket Lightship Area in Figure 21 represents the portion where scalloping would be permitted. Vessels with limited access scallop permits (Section 5.1.7.1) would be eligible to fish for one trip (Section 5.1.6.1) in the Nantucket Lightship Area from August 15 to September 30, 2001; or whenever the catch

exceeds either the scallop or yellowtail flounder TAC, whichever comes first. Vessels with general category permits are eligible (see Section 5.1.7.3) to fish for scallops in the Nantucket Lightship Area while it is open to limited access scallop vessels and as long as the scallop landings do not exceed the five-percent TAC set-aside (Section 5.1.3.2.3).

If the scallop and yellowtail flounder catch is less than the scallop and yellowtail flounder TAC for the Nantucket Lightship Area, the Regional Administrator may allocate additional trips for eligible vessels to fish in the Nantucket Lightship Area from January 1 to January 31, 2001. Unlike the Closed Area II access program in 1999, vessels do not have to fish in the Nantucket Lightship Area from August 15 to September 30, 2000 to be eligible for additional trips.

Table 6. Proposed northeastern area of the Nantucket Lightship Area to re-open for scallop fishing from August 15 to September 30.

Point label ^f	Latitude	Longitude
G10	40°50'N	69°00'W
SC7	40°30'N	69°00'W
SC8	40°30'N	69°14.5'W
SC9	40°50'N	69°29'W
G10	40°50'N	69°00'W

Rationale: The PDT agreed that the best area option was the one considered for Framework Adjustment 11, since the gear conflict and habitat issues had been addressed when this boundary was developed. The boundary is shown in the figure above and in the table below. Considering the potential bycatch impacts, especially for Southern New England yellowtail flounder, and the effects on the scallop fishery, the PDT recommended allowing access for scallop fishing during August 1 to February 28. This season appeared to have the potential for some interaction with cod, but the PDT felt that this was preferable to greater bycatch impacts on yellowtail flounder while still minimizing the overlap (potentially causing market interruptions) with seasons in Closed Areas I and II.

The proposed area overlaps the one surveyed by the CMAST photographic survey in 1999 (Figure 26) and avoids areas with barndoor skates (Appendix II). About 80 percent of the scallop biomass within the surveyed portions of Nantucket Lightship Area during 1999 was within the proposed area (Table 21). Thus access to the proposed area is expected to produce the highest yield to the nation, while minimizing the area impacted by dredging. This area appears to have little interaction with important fish habitat locations (Section 6.2.6.2) and areas where there would be gear conflict with the lobster fishery (Figure 17).

The Council chose a shorter season to avoid overlapping seasons for access to Closed Area I and Closed Area II, for the reasons given in Section 5.1.1.1. Taking into account the concerns in the Nantucket Lightship Area and the relatively poor condition and low TAC for the Southern New England yellowtail flounder stock, the Council decided to concentrate the fishing effort in Nantucket Lightship Area to a season when there were few yellowtail flounder caught in 1999 experimental fishery. If the conditions in the experimental fishery persist into 2000, the short season could allow the scallop fishery to harvest the maximum amount of scallops prior the fishery reaching the low 50 mt yellowtail flounder

⁵ Only points SC7 to SC9 are new. Other points are labeled to correspond to points of reference in existing regulations describing the boundaries of the Nantucket Lightship Area.

TAC. Although there is considerable uncertainty, the analysis based on the 1999 experimental fishery indicates that the fishery would have a bycatch of 12 mt of yellowtail flounder with the one-trip initial allocation.

5.1.1.3 Closed Area I: October 1, 2000 to December 31, 2000

Scallop vessels eligible to access the closed area would be able to fish in Closed Area I within the boundaries described in Table 7. The shaded area in the center of Closed Area I in Figure 21 represents the portion where scalloping would be permitted. Vessels with limited access scallop permits (Section 5.1.7.1) would be eligible to fish for two trips (Section 5.1.6.1) in Closed Area I from October 1 to December 31, 2001; or until the catch exceeds either the scallop or yellowtail flounder TAC (Section 5.1.4), whichever comes first. Vessels with general category permits are eligible (see Section 5.1.7.3) to fish for scallops in the Closed Area I while it is open to limited access scallop vessels and as long as the scallop landings do not exceed the five-percent TAC set-aside (Section 5.1.3.2.3).

If the scallop and yellowtail flounder catch is less than the scallop and yellowtail flounder TAC⁶ for Closed Area I, the Regional Administrator may allocate additional trips for eligible vessels to fish in the Closed Area I. The Regional Administrator will also have the discretion to extend the open season for Closed Area I through January 31, 2001 to allow vessels to take the additional trips. Unlike the Closed Area II access program in 1999, vessels do not have to fish in Closed Area I from October 1 and December 31, 2000 to be eligible for additional trips.

Table 7. Proposed boundary of the portion of Closed Area I for scallop fishing.

Point label ⁷	North latitude	West longitude
SC3	41°04.5'	Western boundary of CA1
SC4	41°09'	Eastern boundary of CA1
CI4	41°30'	68°30'
SC5	41°30'	68°35'
SC6	41°08'	Western boundary of CA1
SC3	41°04.5'	Western boundary of CA1

Rationale: The Council retained the northern boundary, recommended by the Scallop PDT, due to uncertainty about the scallop biomass and in the potential for groundfish and monkfish bycatch in the northwestern part of Closed Area I. Except for the shallow areas on the western edge of Closed Area I, the excluded portion of Closed Area I was not surveyed by the experimental fishery and few annual research survey samples are conducted there.

The Council modified the southern boundary of non-preferred alternative 2 to define the southern boundary of the access area in Closed Area I. Alternative 1 (Section 5.2.1.2.1), having a more southerly

⁶ As explained in Section 6.2.6.1.9, the yellowtail flounder TAC for Closed Area I is combined with the TAC for Closed Area II, since much of the area falls within the boundary of the Georges Bank yellowtail flounder stock area (Figure 21). This TAC also includes a target TAC for Cape Cod yellowtail flounder that are caught within a portion of Closed Area I. When deciding whether to allocate additional trips for Closed Area I, the Regional Administrator should include the bycatch of yellowtail flounder in Closed Area II during June 15 to August 14 in determining whether the additional trips would exceed the yellowtail flounder TAC.

⁷ Only points SC3 to SC6 are new. Other points are labeled to correspond to points of reference in existing regulations describing the boundaries of Closed Area I.

boundary would allow scallop fishing to overlap some areas that the USGS side-scan survey identified as hard bottom and complex habitat. Although there are significant amounts of scallop biomass between 41°N and the southern boundary in the proposed action, the Council preferred the more northerly option (Alternative 2 vs. Alternative 1) because it would protect more sensitive habitat while still allowing the scallop vessels to fish on abundant concentrations of scallops.

Although law enforcement and monitoring would be simplified by a southern boundary along a line of latitude, the proposed action approximates a boundary described by the 13660 loran line. Familiar to fishermen, the boundary for the proposed action should improve compliance. The sensitive habitat, moreover, extends further to the north on the east side of Closed Area I than on the western side. The revised southern boundary therefore is expected to increase compliance while protecting more habitat.

The Council chose a shorter season to avoid overlapping seasons for access to the Nantucket Lightship Area and Closed Area II, for the reasons given in Section 5.1.1.1. Taking into account the concerns about enforcing the scallop trip limit and monitoring the yellowtail flounder TAC, the Council chose a non-overlapping season, following the open periods for Closed Area II and the Nantucket Lightship Area, respectively.

This order also allows for a continuous extension of the season in Closed Area I through January 31, 2001 if the catch does not exceed the scallop TAC for Closed Area I or the Georges Bank yellowtail flounder TAC. The latter TAC applies to both Closed Area I and Closed Area II. Since additional allocation of trips is unlikely in Closed Area II⁸ and this is a second year of fishing the resource there, a continuation of the scallop fishery in Closed Area I is more likely and would produce a higher benefit provided the bycatch is less than Georges Bank yellowtail flounder TAC that applies to both areas.

5.1.2 No buffer zones or internal no-fish areas: Alternative 3 (Frameworks 13 and 34)

There will be no external buffer zones where the closed area scallop fishing rules apply and no separation zones where vessels cannot fish for scallops. The rule for scallop fishing in the closed areas will apply to any area that is open to scallop fishing and the general scallop fishing regulations will apply to all remaining open areas.

Rationale: Although the Scallop PDT identified some biological benefits for the buffer zone around Closed Area II, it thought that an external buffer zone around Nantucket Lightship Area and Closed Area I would be too costly. Law Enforcement reported that the buffer zone amounted to an additional line to enforce and saw little benefit of the barrier to prevent unauthorized transfers at sea. They also saw little benefit of a very narrow internal no-fish area to separate scallop vessels that had no trip limit from ones that did because they were fishing in a closed area.

Instead, the proposed action would increase the VMS polling frequency to boost the ability to enforce the possession limit. The more frequent polling would increase the likelihood of catching an unauthorized VMS-enabled vessel in the closed area and catch an authorized vessel that temporarily exited the closed area to transfer scallops.

⁸ A three trip allocation for vessels fishing in Closed Area II is expected to catch 83 percent of the TAC if only the vessels that fished there in 1999 fished their allocation. The Council assumed that all eligible vessels would fish in the Nantucket Lightship Area and Closed Area I, because there is no a priori knowledge of how many vessels are likely to fish in these newly re-opened areas.

5.1.3 Total Allowable Catch and Set-asides (Framework Adjustment 13)

5.1.3.1 Total Allowable Catch of Sea Scallops

A TAC for sea scallops was calculated as 20 percent of the estimated biomass of sea scallops in each closed area during the 2000 fishing year. Using data from the CMAST photographic survey, the two experimental fisheries in 1999, the Closed Area II fishery observations, and the 1998 research survey, the total TAC would be 2,495 mt (5.5 million lbs.), 3,175 mt (7.0 million lbs.), and 2,994 mt (6.6 million lbs.) for the Nantucket Lightship Area, Closed Area I, and Closed Area II, respectively (Table 8).

Rationale: The TACs would allow landings of sea scallops that are consistent with the fishing mortality target ($F = 0.20$) in the overfishing definition and with the expected change in biomass in the closed areas if there were no fishing in the closed areas during the 2000 fishing year. At the TAC, the average biomass in the three closed areas is expected to increase by 7.8 percent between the end of 1999 and the end of 2000. Projections that approximate the proposed TACs are given in Section 6.2.6.1.6 and the TAC estimates are presented in Section 6.2.6.1.6 and in Table 24.

5.1.3.2 Set-asides

5.1.3.2.1 One-percent set-aside for research

One percent of the scallop TAC for each of the groundfish closed areas would be set-aside for harvest under a special program described in Section 5.1.13. NMFS will monitor the landings from limited access scallop vessels that fish in the closed area and close the fishery when the landings exceed or are projected to exceed the overall scallop TAC, reduced by this and other set-asides. Accounting for all three set-asides, the TAC that will apply to landings from limited access scallop vessels would be 93 percent of the total (Table 8). The research set aside would total 191,000 lbs. (87 mt).

In addition to this amount, one-percent of the yellowtail flounder TAC that applies to each area would also be set aside to enable 'compensation' trips⁹ before or after the groundfish closed areas are no longer accessible to commercial scallop fishing and to allow scallop research at any time in the closed areas that might have a high yellowtail flounder bycatch. The total yellowtail flounder TAC set-aside is 1,102 lbs. (0.5 mt) for the Nantucket Lightship Area and 15,984 lbs. (7.25 mt) for Closed Area I and Closed Area II, combined (Table 8).

Rationale: A set aside is necessary to fund and enable important scallop research in the closed areas. This information about the scallop resource, ways to reduce bycatch, habitat, and other information will be crucial as the Council debates area based management.

⁹ A 'compensation' trip is one in which scallops are harvested to fund scallop research.