## *8.8 Social Impact Assessment (J. Olsen)*

### 8.8.1 Introduction

The mandate to consider the social impacts from proposed federal fishery regulations stems from the National Environmental Policy Act (NEPA) and the Sustainable Fisheries Act (SFA). NEPA requires that any regulation that will have impacts on the environment must also consider the economic and social impacts of such actions. National Standard 8 of the SFA requires that "Conservation and management measures shall, consistent with the conservation requirements of this Act (including the prevention of overfishing and rebuilding of overfished stocks), take into account the importance of fishery resources to fishing communities in order to (A) provide for the sustained participation of such communities, and (B) to the extent practicable, minimize adverse economic impacts on such communities" (16 U.S.C.§ 1851(2)(8)). The act further defines a fishing community as one that is "substantially dependent or substantially engaged in the harvesting or processing of fishery resources to meet social and economic needs, and includes fishing vessel owners, operators, and crew and United States fish processors that are based in such community" (16 U.S.C.§ 1802 (16)). The following analyses (as well as the section addressing National Standard 8) attempt to gauge the possible social impacts from the proposed measures, and their implications for fishermen, fishing families, businesses, and fishing communities.

Impacts of some alternatives are difficult to assess or occur through the application of other management measures. Alternatives of this type include the choice of overfishing definition (Section 3.4), data collection alternatives (Section 5.3.7), alternatives to promote scallop-related research (Section 5.3.8), and methods to adjust management measures (Section 5.3.9). Discussion of the social implications of these alternatives is therefore not discussed separately below.

### 8.8.2 Alternatives For Improving Yield (Section 5.3.2)

The various alternatives for area management and rotational closures (Sections 5.1.3.1 to 5.3.2.7) promise improved yields that could contribute to the sustainability of fishermen and fishing families, fishing operations, and fishing communities. The question for the social impact analysis is to what extent the costs and benefits associated with the regulations may be borne disproportionately, and what precisely those social costs and benefits may be. The impacts from the proposed area regulations, however, will depend on which areas are closed, because scalloping takes place in different places by different fishermen, for a variety of reasons other than simply the area's biological productivity (Section 7.1.1.4).

The use of spatially based measures has been noted in the anthropological literature as a means of effort control that is widespread in many communities around the world, and often the most acceptable form of management to fishermen (McGoodwin 1990, Acheson and Wilson 1996). However, the acceptability of closed areas depends not only on how effective they are in achieving biological goals, but also in terms of the allocation effects of closures: such as whether those who bear the costs of management are the same as those who reap the benefits. In terms of the alternatives in Sections 5.1.3.1 to 5.3.2.7, the benefits from any expected increase in productivity would accrue mainly to fishermen who practice a mobile fishing strategy. The costs, however, may be borne more heavily by smaller vessels or others who cannot switch areas as easily, and general category vessels (often the small vessels) who may be closed out of areas but not allowed back in, depending on the allocation schemes. And whether or not vessels are capable of intensifying or switching to mobile fishing, the issue is that institutionally favoring such practices can have significant social costs: including disruptions to family and community life with related social problems, as well as increased risk to safety at sea. The following tables (Table 350 to Table 352) show how fishing activity in the rotational areas with fixed boundaries (Sections 5.3.2.2 to

5.3.2.4) varies by port of landing, homeport, and vessel size over the five-year period 1997-2001. This should be considered the minimum activity in these areas, since only logbook data with valid locations were included. Coupled with the biological short-term projections for biomass, growth, and closure likelihood (Table 353)—and the more basic sociocultural premise that the scallop fleet is not homogeneous—closures from the rotational areas may affect particular ports and segments of the fleet more than they affect others. For example, MA4 has a 97% chance of closure in the first year of rotational management (Table 353). Such a closure would affect over 10% of the landings from Wildwood, Cape May, Chincoteague, Seaford, Hampton, Newport News and Wanchese as landing ports (Table 350); for most of these ports, scallops constituted a significant proportion of their total landed value in 2000 and/or 2001 (see Section 7.1.1). A closure of MA4 would also affect over 10% of the landings from Wildwood, Richmond, Poquoson, Newport News, Norfolk, Swanquarter, Lowland, Aurora, Bayboro, New Bern, Oriental, and Atlantic as homeports (Table 351); for most of these ports, scallops constituted a significant proportion of their total landed value in 2000 and/or 2001 (see Section 7.1.1). Additionally, there are a number of areas—some occurring in state waters—of importance to small-scale fishermen, primarily around Downeast Maine and Cape Cod Bay (**Figure 150**), which are not covered by the research vessel survey and thus not included in the rotational areas that depend on the survey instrument (Sections 5.3.2.2 to 5.3.2.4). Indeed as Table 352 shows, only 13 percent of the fishing activity of small scallop vessel is included in the rotational areas. In a management system in which some but not all fishing areas are subject to closure and regulated fishing, the open areas could be subject to over exploitation from new effort, with negative consequences for the fishermen who customarily fish there.

Table 350. **Fishing activity in the draft rotational areas by port of landing for calendar years 1997-2001.**

| Port Landed | Five yr port total, all areas | No. vessels, all areas | MA1 % | MA2 % | MA3 % | MA4 % | MA5 % | MA6 % | MA7 % | MA8 % | MA9 % | GB1 % | GB2 % | GB3 % | GB4 % | GB5 % | GB6 % | GB7 % | GB8 % | Other % | Total % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Provincetown MA | 709,793 | 58 | 0 | 0 | 0 | * | 0 | 0 | 0 | 0 | 0 | 17 | 3 | * | * | 0 | * | 2 | 0 | 76 | 100 |
| Barnstable MA | 768,836 | 21 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | * | 5 | 21 | 0 | 0 | 0 | 0 | * | 0 | 73 | 100 |
| New Bedford MA | 59,451,593 | 327 | 0 | * | 0 | 0 | 1 | 1 | 6 | 6 | 2 | 1 | 6 | 4 | 5 | 4 | 1 | 3 | 2 | 59 | 100 |
| Fairhaven MA | 1,588,212 | 21 | 0 | 0 | 0 | 0 | * | 5 | 9 | 11 | 6 | 0 | 1 | 0 | 4 | 7 | * | * | * | 53 | 100 |
| Newport RI | 426,537 | 33 | 0 | 0 | * | * | * | * | 6 | 24 | 1 | 0 | 0 | 0 | 0 | 3 | * | * | 0 | 60 | 100 |
| Point Judith RI | 372,185 | 35 | 0 | 0 | 0 | 0 | * | 0 | 10 | 14 | 10 | 0 | 0 | 0 | * | 0 | 0 | 0 | 0 | 58 | 100 |
| Stonington CT | 3,272,870 | 23 | * | 0 | 0 | * | 2 | 3 | 12 | 28 | 10 | 0 | 0 | 0 | 1 | 2 | * | * | * | 37 | 100 |
| New London CT | 490,379 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | * | ** | ** | 0 | 0 | 0 | 0 | * | 0 | 0 | 0 | 66 | 100 |
| Shinnecock NY | 205,218 | 30 | 0 | 0 | 0 | 0 | 0 | 0 | * | 12 | 50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 38 | 100 |
| Point Pleasant NJ | 2,602,749 | 66 | 0 | 0 | 0 | 1 | 5 | 9 | 34 | 11 | 1 | 0 | 0 | 0 | 0 | * | 0 | 0 | 0 | 39 | 100 |
| Barnegat NJ | 497,783 | 19 | 0 | 0 | 0 | 0 | 0 | 12 | 19 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 67 | 100 |
| Long Beach NJ | 3,859,842 | 25 | 0 | * | * | * | 3 | 16 | 20 | 12 | 2 | 0 | 0 | 0 | * | 0 | * | 0 | 0 | 45 | 100 |
| Wildwood NJ | 214,499 | 4 | 0 | 0 | 0 | ** | 30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 55 | 100 |
| Cape May NJ | 12,044,832 | 161 | 0 | 0 | 1 | 12 | 17 | 11 | 6 | 3 | 0 | 0 | 0 | 0 | * | 0 | 0 | 0 | 0 | 48 | 100 |
| Chincoteague VA | 286,525 | 17 | 0 | * | 3 | 16 | *** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 41 | 100 |
| Seaford VA | 7,852,843 | 21 | 1 | 3 | 10 | 14 | 7 | 3 | 5 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 53 | 100 |
| Hampton VA | 6,881,010 | 55 | 2 | 6 | 9 | 11 | 4 | 4 | 6 | 2 | 0 | 0 | 0 | 0 | * | * | * | * | 0 | 55 | 100 |
| Newport News VA | 18,878,029 | 78 | 4 | 7 | 13 | 17 | 11 | 4 | 3 | 1 | 0 | 0 | 0 | 0 | * | * | 0 | 0 | 0 | 40 | 100 |
| Wanchese NC | 452,363 | 24 | * | * | 3 | 17 | 28 | 10 | 0 | 0 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 36 | 100 |

Note: only includes those with at least 200,000 lbs scallops landed in the five year period, and with greater than 20% of these landings coming from the total set of rotational areas. Cannot report full information when less than 3 entities involved: * refers to less than or equal to 10% of landings; ** refers to less than or equal to 20%; and *** refers to less than or equal to 40%. Source: logbooks.

Table 351. **Fishing activity in the draft rotational areas by homeport for calendar years 1997-2001.**

| Home Port | Five yr port total, all areas | No. vessels, all areas | MA1 % | MA2 % | MA3 % | MA4 % | MA5 % | MA6 % | MA7 % | MA8 % | MA9 % | GB1 % | GB2 % | GB3 % | GB4 % | GB5 % | GB6 % | GB7 % | GB8 % | Other % | Total % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Rockland ME | 205,338 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | * | 0 | **** | ** | *** | 0 | 0 | * | * | 5 | 100 |
| Owls Head ME | 234,787 | 6 | 0 | 0 | 0 | * | * | 0 | * | 0 | 0 | * | ** | 0 | 0 | 0 | 0 | 0 | 0 | 80 | 100 |
| Bedford MA | ^^ | cr | 0 | 0 | 0 | 0 | 0 | 0 | * | 0 | 0 | * | ** | ** | * | 0 | 0 | * | 0 | 51 | 100 |
| Boston MA | 456,651 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | * | * | 0 | 9 | 0 | 0 | * | 0 | 0 | * | 68 | 100 |

| Home Port | Five yr port total, all areas | No. vessels, all areas | MA1 % | MA2 % | MA3 % | MA4 % | MA5 % | MA6 % | MA7 % | MA8 % | MA9 % | GB1 % | GB2 % | GB3 % | GB4 % | GB5 % | GB6 % | GB7 % | GB8 % | Other % | Total % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Truro/N.Truro MA | ^ | cr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | * | * | * | * | 0 | 0 | * | 0 | 73 | 100 |
| Wellfleet MA | 565,128 | 5 | 0 | 0 | * | 0 | * | 0 | 0 | 0 | 0 | 3 | ** | 0 | 0 | 0 | 0 | 0 | 0 | 73 | 100 |
| Hyannis MA | 507,603 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | * | 0 | * | 2 | 18 | 0 | 0 | 0 | 0 | * | 0 | 77 | 100 |
| Mattapoisett MA | ^ | cr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | *** | *** | * | 0 | ** | * | 14 | 100 |
| Fairhaven MA | 6,425,944 | 31 | * | 0 | * | * | * | 1 | 3 | 4 | 1 | 1 | 3 | 1 | 4 | 4 | 1 | 3 | 2 | 71 | 100 |
| New Bedford MA | 44,923,223 | 175 | * | * | 0 | 1 | 1 | 1 | 7 | 6 | 3 | 1 | 6 | 4 | 5 | 4 | 1 | 3 | 2 | 56 | 100 |
| N. Dartmouth MA | ^ | cr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | * | * | 0 | ** | * | 75 | 100 |
| Davisville RI | 868,991 | 3 | 0 | 0 | 0 | 0 | * | 0 | 8 | * | 6 | 0 | * | * | * | * | 0 | * | 21 | 51 | 100 |
| Point Judith RI | 677,330 | 27 | 0 | 0 | 0 | 0 | * | * | 10 | 19 | 7 | 0 | * | 0 | 3 | * | 0 | 0 | * | 48 | 100 |
| Stonington CT | 3,123,080 | 13 | * | 0 | * | * | 2 | 2 | 13 | 28 | 10 | 0 | 0 | 0 | 1 | 2 | * | * | 2 | 37 | 100 |
| New London CT | ^^ | cr | 0 | 0 | 0 | 0 | 0 | 0 | * | ** | * | 0 | 0 | 0 | 0 | * | 0 | 0 | * | 67 | 100 |
| Point Pleasant NJ[n] | 1,896,436 | 10 | 0 | 0 | 0 | * | 6 | 9 | 36 | 11 | * | 0 | 0 | 0 | 0 | 0 | 0 | * | * | 35 | 100 |
| Barnegat Light NJ | 4,541,013 | 22 | 0 | * | * | 0 | 3 | 16 | 19 | 11 | 2 | 0 | 0 | 0 | * | 0 | * | 0 | 0 | 48 | 100 |
| Wildwood NJ | 537,105 | 6 | 0 | 0 | 0 | 26 | 17 | * | * | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | * | 52 | 100 |
| Cape May NJ | 12,750,373 | 49 | 1 | 1 | 3 | 7 | 13 | 10 | 7 | 4 | 1 | * | * | * | 0 | 1 | * | * | 1 | 51 | 100 |
| Richmond VA | ^ | cr | 0 | * | *** | *** | * | * | * | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 34 | 100 |
| Poquoson VA | ^ | cr | 0 | * | *** | ** | ** | 0 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 37 | 100 |
| Hampton VA | 4,001,512 | 11 | 1 | 4 | 2 | 7 | 1 | 5 | 10 | 6 | 1 | 0 | 4 | 0 | 1 | 1 | 1 | 0 | 0 | 57 | 100 |
| Newport News VA | 8,879,183 | 23 | 2 | 5 | 7 | 15 | 8 | 4 | 5 | 1 | 1 | * | * | 0 | * | * | * | 0 | 0 | 52 | 100 |
| Carrollton VA | ^^ | cr | * | * | ** | * | ** | * | 0 | 0 | 0 | 0 | 0 | 0 | * | * | 0 | 0 | 0 | 47 | 100 |
| Virginia Beach VA | ^ | cr | 0 | 0 | **** | * | * | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 45 | 100 |
| Norfolk VA | 14,618,134 | 49 | 2 | 4 | 11 | 14 | 7 | 4 | 5 | 4 | 1 | * | 1 | * | * | 0 | * | 0 | * | 48 | 100 |
| Wanchese NC | 1,131,942 | 12 | * | 0 | * | * | * | * | * | 0 | 0 | 0 | 0 | * | * | 0 | 0 | * | * | 80 | 100 |
| Swanquarter NC | 655,045 | 4 | 0 | * | 8 | ** | *** | * | 0 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 42 | 100 |
| Lowland NC | 1,034,899 | 6 | * | * | 13 | 20 | 12 | 2 | * | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 44 | 100 |
| Aurora NC | 641,395 | 3 | * | * | * | *** | * | ** | ** | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 28 | 100 |
| Bayboro NC | 364,161 | 7 | 0 | * | * | 47 | ** | * | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 32 | 100 |
| New Bern NC | 2,148,310 | 8 | 2 | 5 | 7 | 21 | 11 | 8 | 2 | 2 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 42 | 100 |
| Oriental NC | 1,223,060 | 6 | * | 3 | 14 | 18 | 13 | 9 | 8 | * | 0 | 0 | 0 | 0 | 0 | * | * | 0 | 0 | 32 | 100 |
| Atlantic NC | 1,442,373 | 4 | * | 4 | 8 | 20 | 21 | 2 | * | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 40 | 100 |
| Jacksonville FL | ^ | cr | 0 | * | * | * | *** | * | * | * | 0 | 0 | 0 | 0 | 0 | * | 0 | 0 | 0 | 55 | 100 |
| Cape Canaveral FL | ^^ | cr | * | * | * | * | * | * | * | * | 0 | * | * | 0 | * | 0 | 0 | 0 | 0 | 72 | 100 |
| Miami FL | ^ | cr | ** | * | **** | * | ** | * | * | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 100 |

Note: only includes those with at least 200,000 lbs scallops landed in the five year period, and with greater than 20% of these landings from the total set of rotational areas. Point Pleasant NJ includes Point Pleasant Beach. Cannot report full information when less than 3 entities involved: * refers to less than or equal to 10% of landings; ** refers to less than or equal to 20%; and *** refers to less than or equal to 40%; **** refers to less than or equal to 65%. ^ = less than or equal to 500,000 lbs; ^^ refers to less than or equal to 1,100,000 lbs. Source: logbooks.

Table 352. **Fishing activity in the draft rotational areas by vessel size class for calendar years 1997-2001.**

| Vessel Size | Five yr total, all areas | No. vessels, all areas | MA1 % | MA2 % | MA3 % | MA4 % | MA5 % | MA6 % | MA7 % | MA8 % | MA9 % | GB1 % | GB2 % | GB3 % | GB4 % | GB5 % | GB6 % | GB7 % | GB8 % | Other % | Total % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Large | 111,987,799 | 348 | 1 | 2 | 3 | 6 | 5 | 3 | 6 | 5 | 2 | 0 | 3 | 2 | 3 | 2 | 1 | 2 | 1 | 53 | 100 |
| Medium | 11,159,329 | 204 | 0 | 2 | 3 | 5 | 4 | 6 | 8 | 5 | 1 | 1 | 3 | 1 | * | 0 | 0 | 1 | 0 | 58 | 100 |
| Small | 3,235,645 | 291 | 0 | * | 0 | * | * | 1 | 1 | 1 | 2 | 3 | 6 | 0 | * | 0 | 0 | 0 | 0 | 87 | 100 |

Note: Large are vessels greater than 70 ft in length, medium are between 50 and 70 ft, and small are less than 50 ft. Source: logbooks.

Table 353. **Predicted Catch Distribution and Closures for Draft Rotational Areas, 2002-2007.**

| Region | Annual average, 1997-2001* Catch MT | % | 7/2001-6/2002 CatchMT Mean | % | 7/2002-6/2003 CatchMT Mean | % | 7/2003-6/2004 CatchMT Mean | % | PctCl Mean | 7/2004-6/2005 CatchMT Mean | % | PctCl Mean | 7/2005-6/2006 CatchMT Mean | % | PctCl Mean | 7/2006-6/2007 CatchMT Mean | % | PctCl Mean |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MA1 | 155.9 | 1.7 | 40.4 | 0.2 | 57.4 | 0.3 | 19.2 | 0.2 | 85.0 | 15.6 | 0.1 | 85.0 | 18.8 | 0.2 | 87.0 | 326.2 | 2.0 | 14.0 |
| MA2 | 312.6 | 3.4 | 259.8 | 1.3 | 289.9 | 1.3 | 0.6 | 0.0 | 99.0 | 0.8 | 0.0 | 99.0 | 0.8 | 0.0 | 99.0 | 564.1 | 3.4 | 1.0 |
| MA3 | 654.7 | 7.1 | 1807.7 | 8.8 | 1669.9 | 7.5 | 182.6 | 1.6 | 80.0 | 147.0 | 1.2 | 80.0 | 130.4 | 1.1 | 80.0 | 1136.4 | 6.9 | 17.0 |
| MA4 | 1118.3 | 12.2 | 1392.3 | 6.8 | 1432.7 | 6.5 | 13.2 | 0.1 | 97.0 | 15.3 | 0.1 | 97.0 | 24.7 | 0.2 | 97.0 | 1352.2 | 8.2 | 3.0 |
| MA5 | 989.3 | 10.8 | 3406.5 | 16.6 | 4209.8 | 19.0 | 5150.0 | 44.0 | 0.0 | 5347.5 | 42.5 | 0.0 | 4830.7 | 39.0 | 0.0 | 2489.3 | 15.0 | 3.0 |
| MA6 | 708.9 | 7.7 | 1374.8 | 6.7 | 1699.5 | 7.7 | 2141.9 | 18.3 | 0.0 | 2363.3 | 18.8 | 0.0 | 2287.9 | 18.4 | 0.0 | 551.8 | 3.3 | 53.0 |

| | Annual average, 1997-2001* | | 7/2001-6/2002 | | 7/2002-6/2003 | | 7/2003-6/2004 | | | 7/2004-6/2005 | | | 7/2005-6/2006 | | | 7/2006-6/2007 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Region | Catch MT | % | CatchMT Mean | % | CatchMT Mean | % | CatchMT Mean | % | PctCl Mean | CatchMT Mean | % | PctCl Mean | CatchMT Mean | % | PctCl Mean | CatchMT Mean | % | PctCl Mean |
| MA7 | 1277.9 | 13.9 | 2154.7 | 10.5 | 2242.5 | 10.1 | 440.5 | 3.8 | 60.0 | 521.0 | 4.1 | 60.0 | 554.7 | 4.5 | 60.0 | 2071.0 | 12.5 | 21.0 |
| MA8 | 1033.3 | 11.3 | 2226.4 | 10.8 | 2534.8 | 11.4 | 441.4 | 3.8 | 35.0 | 652.7 | 5.2 | 35.0 | 798.1 | 6.4 | 35.0 | 1885.8 | 11.4 | 12.0 |
| MA9 | 349.4 | 3.8 | 172.4 | 0.8 | 203.8 | 0.9 | 21.6 | 0.2 | 66.0 | 31.2 | 0.2 | 66.0 | 42.4 | 0.3 | 66.0 | 504.2 | 3.0 | 18.0 |
| GB1 | 84.9 | 0.9 | 18.4 | 0.1 | 21.8 | 0.1 | 2.5 | 0.0 | 49.0 | 4.2 | 0.0 | 51.0 | 7.6 | 0.1 | 53.0 | 125.1 | 0.8 | 19.0 |
| GB2 | 642.5 | 7.0 | 4692.9 | 22.9 | 4126.2 | 18.6 | 1280.6 | 10.9 | 33.0 | 1380.3 | 11.0 | 33.0 | 1666.8 | 13.4 | 33.0 | 2361.8 | 14.2 | 54.0 |
| GB3 | 362.0 | 3.9 | 1316.2 | 6.4 | 1219.4 | 5.5 | 215.2 | 1.8 | 34.0 | 231.1 | 1.8 | 34.0 | 233.6 | 1.9 | 34.0 | 414.5 | 2.5 | 17.0 |
| GB4 | 456.8 | 5.0 | 464.7 | 2.3 | 632.1 | 2.8 | 475.3 | 4.1 | 16.0 | 425.4 | 3.4 | 16.0 | 366.5 | 3.0 | 16.0 | 399.2 | 2.4 | 0.0 |
| GB5 | 385.6 | 4.2 | 545.2 | 2.7 | 795.2 | 3.6 | 595.9 | 5.1 | 0.0 | 660.8 | 5.3 | 0.0 | 632.6 | 5.1 | 0.0 | 505.6 | 3.0 | 0.0 |
| GB6 | 91.9 | 1.0 | 430.9 | 2.1 | 527.3 | 2.4 | 431.3 | 3.7 | 18.0 | 434.1 | 3.5 | 18.0 | 426.4 | 3.4 | 18.0 | 502.7 | 3.0 | 10.0 |
| GB7 | 314.5 | 3.4 | 185.8 | 0.9 | 472.1 | 2.1 | 283.1 | 2.4 | 57.0 | 331.8 | 2.6 | 57.0 | 359.3 | 2.9 | 57.0 | 1296.1 | 7.8 | 13.0 |
| GB8 | 238.3 | 2.6 | 44.5 | 0.2 | 60.0 | 0.3 | 17.7 | 0.2 | 43.0 | 20.2 | 0.2 | 43.0 | 20.7 | 0.2 | 43.0 | 100.1 | 0.6 | 4.0 |
| Total | 9177 | 100.0 | 20534 | 100.0 | 22194 | 100.0 | 11713 | 100.0 | | 12582 | 100.0 | | 12402 | 100.0 | | 16586 | 100.0 | |

* NB: The average annual for 1997-2001 is based on logbook records; it was estimated by averaging the total recorded pounds in the logbook over the five-year period 1997-2001 in these areas with trips giving valid geo-positions, and multiplying by 1.7 to account for the discrepancy between the logbook total for scallops and the scallop total using only valid geo-positions. All other figures come from estimates provided by biological modeling (work by Dvora Hart). % refers to the distribution of fishing activity across the regions in terms of the percentage of the total pounds landed. CatchMT Mean refers to the expected total fleet catch in metric tons estimated from the biological models; and PctCl Mean refers to the expected percentage of area in that region that would be closed in a rotational management scenario.

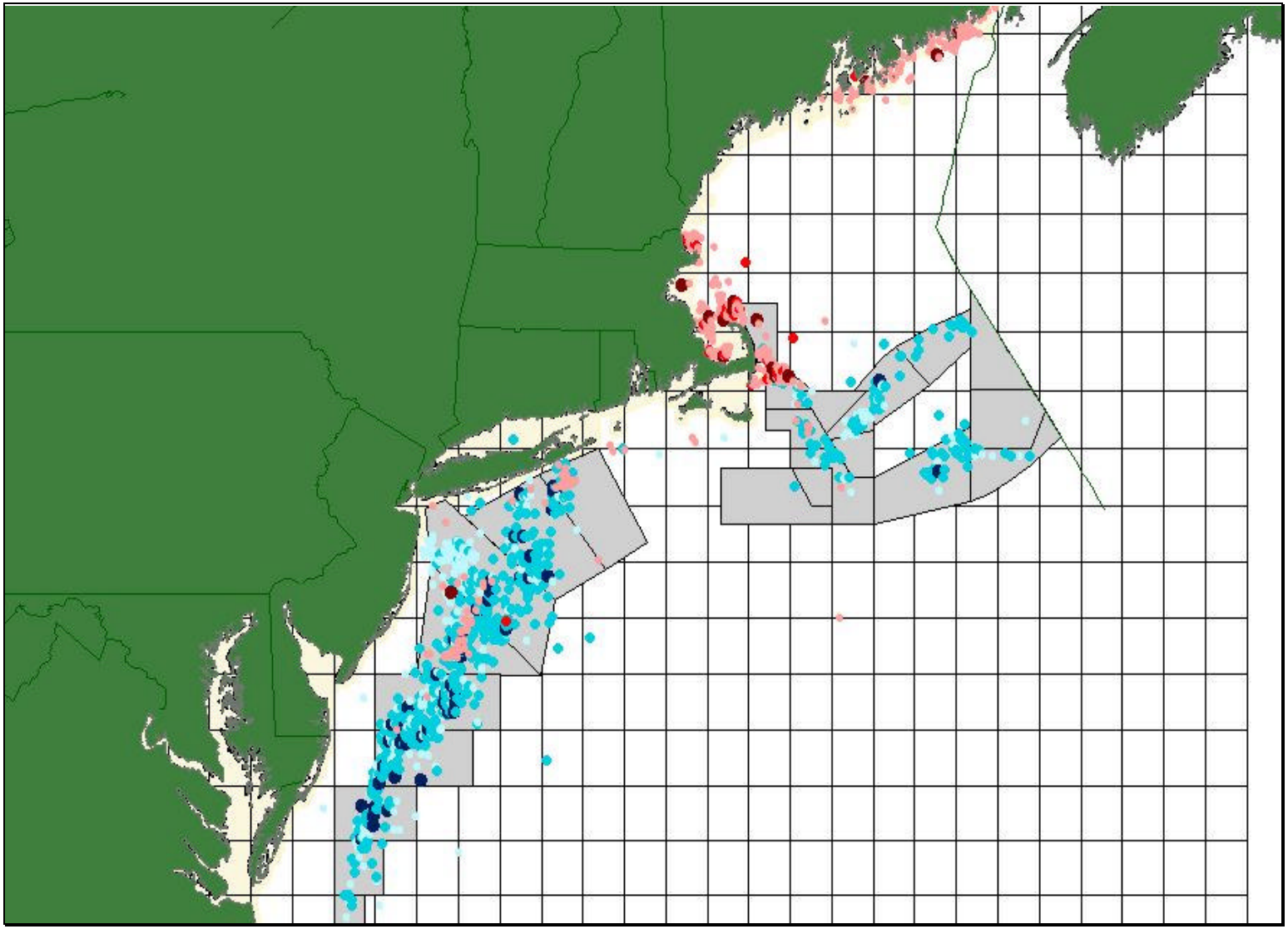

**Figure 150.** Fishing activity (days per location) by small and large vessels. The red color scheme represents small vessels and the blue represents large vessels, with darker colors implying increased effort. Source: 2001 logbooks.

It is important to note that the biological models used in predicting catch levels assume that high biomass presence determines fishing location choice, modified to some degree by cost of travel (e.g. petrol) and broad regional variations in fishing effort. Such models may capture the practices of the highliners, and the majority of the fishing impact on the biomass. However, they do not necessarily correspond to the practices of fishermen who, for example, are less mobile (those with small vessels or those with fishing knowledge of particular areas). Thus in terms of *social impacts*, although 75% of the scallop *biomass* will remain open in measures Sections 5.1.3.2 and 5.3.2.7, this accessibility would not necessarily ease the situation for less mobile fishermen. Depending on which areas are closed, such area regulations (Sections 5.1.3.2 and 5.3.2.7, and 5.3.2.2) could have differential affects on communities, if for example the closed areas were in "traditional" fishing areas or if the only open areas would entail long-distance travel. Such differential impacts might be borne more by smaller vessels and communities where smaller vessels predominate, especially if closed areas are close to shore (for example, Fig. 16 in the Affected Human Environment Section). Since it appears that most of the smaller vessels have not been fishing in the proposed rotational areas, this impact from closures may be mitigated somewhat. However, those fishermen and communities that do not practice a mobile fishing strategy may also see an influx of effort by other fishermen into their traditional areas if the biological projections and changes in fleet catch effort and distribution capture the activity of the highliners. For example, the area GB2 would change from accounting for 7.0% of the scallop catch (according to logbook records for the period 1997-2001), doubling to 14.2% in 2007 (Table 353), which could for example affect the landings of some of the smaller Maine and Cape Cod ports (Table 350 to Table 351). In general, if fishermen were unable to fish during their usual areas or seasons because of closures, such regulations could have a profound impact on personal and family incomes and reduce the flexibility of fishing operations, both impacts that may be more difficult for smaller vessels and operations to absorb. The closures could affect the safety of fishing operations if fishermen begin to fish further from shore and on longer trips; and they could have significant impacts on families, communities, and patterns of interaction if fishermen do stay away from shore for significantly longer periods, including the disruptions from longer periods at home as well. Such closures could also have an impact on processors and other on-land businesses if landing patterns changed in response to closures. Finally, the areas subject to rotational closures exhibit a higher degree of estimated variability when the harvesting policy is constant, compared to a ramped policy or to non-rotational management measures (i.e. status quo or no action alternatives) with further impacts on social and economic stability (Table 354).

Table 354. **Catch Variability: a comparison of 1D to the status quo.**

| | | No Rotation* | | Adaptive Rotation * | | | No Rotation* | | Adaptive Rotation * | | | No Rotation* | | Adaptive Rotation * | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | Region | CatchMT | | CatchMT | | Region | CatchMT | | CatchMT | | Region | CatchMT | | CatchMT | |
| | | mean | std | mean | std | | mean | std | mean | std | | mean | std | mean | std |
| 2003 | MA1 | 57 | 26 | 57 | 26 | MA8 | 2535 | 367 | 2535 | 367 | GB5 | 795 | 199 | 795 | 199 |
| 2004 | | 136 | 112 | 19 | 49 | | 650 | 202 | 441 | 369 | | 604 | 331 | 596 | 347 |
| 2005 | | 156 | 119 | 16 | 39 | | 841 | 276 | 653 | 540 | | 577 | 292 | 661 | 322 |
| 2006 | | 187 | 143 | 19 | 59 | | 1033 | 356 | 798 | 662 | | 550 | 261 | 633 | 282 |
| 2007 | | 191 | 132 | 326 | 234 | | 1087 | 313 | 1886 | 1417 | | 479 | 235 | 506 | 272 |
| 2003 | MA2 | 290 | 67 | 290 | 67 | MA9 | 204 | 76 | 204 | 76 | GB6 | 527 | 231 | 527 | 231 |
| 2004 | | 149 | 101 | 1 | 6 | | 51 | 35 | 22 | 38 | | 474 | 336 | 431 | 371 |
| 2005 | | 243 | 161 | 1 | 8 | | 80 | 65 | 31 | 58 | | 424 | 230 | 434 | 322 |
| 2006 | | 305 | 180 | 1 | 8 | | 124 | 111 | 42 | 80 | | 429 | 213 | 426 | 294 |
| 2007 | | 330 | 203 | 564 | 266 | | 155 | 129 | 504 | 419 | | 404 | 201 | 503 | 405 |
| 2003 | MA3 | 1670 | 219 | 1670 | 219 | MA All | 14344 | 1788 | 14344 | 1788 | GB7 | 472 | 213 | 472 | 213 |
| 2004 | | 927 | 221 | 183 | 376 | | 10810 | 1956 | 8412 | 1592 | | 525 | 377 | 283 | 405 |
| 2005 | | 668 | 188 | 147 | 300 | | 11386 | 2230 | 9096 | 1685 | | 639 | 468 | 332 | 461 |
| 2006 | | 621 | 214 | 130 | 272 | | 11247 | 2315 | 8690 | 1681 | | 747 | 566 | 359 | 506 |
| 2007 | | 580 | 199 | 1136 | 610 | | 7501 | 1770 | 10884 | 2269 | | 769 | 654 | 1296 | 1127 |
| 2003 | MA4 | 1433 | 231 | 1433 | 231 | GB1 | 22 | 10 | 22 | 10 | GB8 | 60 | 24 | 60 | 24 |
| 2004 | | 694 | 229 | 13 | 76 | | 12 | 46 | 3 | 4 | | 33 | 37 | 18 | 28 |
| 2005 | | 638 | 205 | 15 | 89 | | 39 | 123 | 4 | 8 | | 38 | 44 | 20 | 32 |

| | | No Rotation* | | Adaptive Rotation * | | | No Rotation* | | Adaptive Rotation * | | | No Rotation* | | Adaptive Rotation * | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | Region | CatchMT | | CatchMT | | Region | CatchMT | | CatchMT | | Region | CatchMT | | CatchMT | |
| | | mean | std | mean | std | | mean | std | mean | std | | mean | std | mean | std |
| 2006 | | 654 | 234 | 25 | 150 | | 55 | 145 | 8 | 15 | | 41 | 40 | 21 | 28 |
| 2007 | | 636 | 261 | 1352 | 415 | | 70 | 190 | 125 | 239 | | 40 | 33 | 100 | 107 |
| 2003 | MA5 | 4210 | 1363 | 4210 | 1363 | GB2 | 4126 | 1156 | 4126 | 1156 | GB All | 7858 | 1309 | 7858 | 1309 |
| 2004 | | 5150 | 1514 | 5150 | 1514 | | 2193 | 965 | 1281 | 1088 | | 4659 | 946 | 3304 | 687 |
| 2005 | | 5347 | 1468 | 5347 | 1468 | | 2259 | 1111 | 1380 | 1201 | | 4668 | 1044 | 3490 | 774 |
| 2006 | | 4831 | 1293 | 4831 | 1293 | | 2755 | 1756 | 1667 | 1705 | | 5233 | 1563 | 3716 | 1219 |
| 2007 | | 2386 | 893 | 2489 | 892 | | 2762 | 1816 | 2362 | 3186 | | 5121 | 1844 | 5708 | 2389 |
| 2003 | MA6 | 1699 | 576 | 1699 | 576 | GB3 | 1219 | 411 | 1219 | 411 | | | | | |
| 2004 | | 2142 | 666 | 2142 | 666 | | 299 | 175 | 215 | 197 | | | | | |
| 2005 | | 2363 | 669 | 2363 | 669 | | 291 | 130 | 231 | 197 | | | | | |
| 2006 | | 2288 | 596 | 2288 | 596 | | 303 | 114 | 234 | 199 | | | | | |
| 2007 | | 913 | 367 | 552 | 661 | | 294 | 107 | 415 | 340 | | | | | |
| 2003 | MA7 | 2243 | 630 | 2243 | 630 | GB4 | 632 | 301 | 632 | 301 | All | 22202 | 2273 | 22202 | 2273 |
| 2004 | | 908 | 409 | 440 | 587 | | 516 | 383 | 475 | 379 | | 15469 | 2022 | 11717 | 1597 |
| 2005 | | 1045 | 419 | 521 | 689 | | 396 | 203 | 425 | 275 | | 16054 | 2261 | 12586 | 1731 |
| 2006 | | 1200 | 465 | 555 | 753 | | 350 | 138 | 367 | 210 | | 16481 | 2568 | 12406 | 1977 |
| 2007 | | 1219 | 405 | 2071 | 1424 | | 299 | 99 | 399 | 223 | | 12623 | 1949 | 16593 | 3351 |

* "No rotation" here manages for F=0.2, using 3.5" rings. "Adaptive Rotation" here manages for 25% growth rates, 3 year closures, no more than 25% closed, and 3.5" rings. All figures taken from the estimates provided by biological modeling (work by Dvora Hart).

In general, an adaptive system of openings and closures (1B and 1C) places additional burdens on fishermen and businesses to keep abreast of changing regulations. However, if participatory, the research and decision-making could contribute to stakeholders regaining a stake in the resource and management, with positive benefits for compliance and the incorporation local knowledge and needs. Likewise, while mechanical closures (Section 5.3.2.2) might increase the ability to plan in the long term, it may come at the possible expense of increases in yield; at the same time, the large areas proposed may not represent the social space of fishermen. The participatory incorporation of all scallop fishermen into such decisions regarding demarcation would be essential. Similarly, while the lack of closures in measure 1E might increase industry support (given a fear of indefinite closures), a finely tuned area management strategy needs the participatory incorporation of all scallop fishermen into decision-making, i.e. a change in the institutional design of management more in line with co-management thinking (see also section on National Standard 8). Given the projected benefits are rather low overall, the status of Section 5.1.3.2 is particularly important for fully evaluating the social costs and benefits of area management alternatives, since a significant proportion of the scallop biomass is contained in the groundfish closed areas (see Biological section). The gear changes (Section 5.3.2.9) may have a negative short-term financial impact on the majority of scallop fishermen who currently use 3.5" rings (Table 355), an impact presumably on the boat (rather than crew) share. Ports with a significant proportion of their scallop landings coming from vessels in conformance or by other gear groups would less affected by Section 5.3.2.9 (Table 356). However these mainly Mid-Atlantic ports, such as Cape May and Hampton VA, would be more affected by the gear-specific DAS of Section 5.3.2.10(Table 357). As a positive impact, these measures could increase compliance or satisfaction with regulations if fishermen feel that others are not having a greater negative impact per se, whether from trawl gear or small-ringed dredge gear. 1I (no action) could have dramatically negative affects on the scallop limited access fleet if DAS reductions continue at the original schedule. The status quo would continue the closures of Georges Bank groundfish areas and thus a significant proportion of the scallop biomass, with negative financial implications in the short-term for scallop limited-access fishing operations.

Table 355. **Use of 4" ring size by trip, calendar year 2000.**

| Size of Mesh | Number of Trips | Scallops landed (in lbs) | Number of Vessels |
|---|---|---|---|
| Bigger | 81 | 657,733 | 37 |
| Smaller | 3,988 | 26,881,452 | 296 |
| Unknown | 151 | 1,341,369 | 49 |

* shows only those trips landing at least 40 pounds of scallops in year 2000. Source: logbooks.

Table 356. **Use of 4" ring size by port, calendar year 2000.**

| Port Landed | Number of Vessels | Scallops landed (in lbs) by vessels using dredge with smaller than 4" rings | % of vessels using smaller than 4" rings, out of all vessels using dredge in port | % of scallops out of all scallops landed in port |
|---|---|---|---|---|
| Southwest Harbor ME | 12 | 271,048 | 92.3 | 99.0 |
| Rockland ME | 5 | 81,815 | 100.0 | 100.0 |
| Newington NH | 1 | cr | cr | cr |
| Gloucester MA | 9 | 167,011 | 81.8 | 97.7 |
| Provincetown MA | 9 | 113,204 | 81.8 | 98.6 |
| Wellfleet MA | 1 | cr | cr | cr |
| Barnstable MA | 6 | 158,044 | 75.0 | 98.8 |
| Sandwich MA | 11 | 182,025 | 78.6 | 93.3 |
| Fairhaven MA | 5 | 221,293 | 83.3 | 76.5 |
| New Bedford MA | 156 | 14,226,995 | 84.8 | 92.9 |
| Newport RI | 8 | 156,367 | 100.0 | 93.5 |
| Point Judith RI | 4 | 114,147 | 80.0 | 91.4 |
| Stonington CT | 5 | 589,536 | 71.4 | 94.3 |
| New London CT | 1 | cr | cr | cr |
| Point Pleasant NJ | 21 | 520,304 | 70.0 | 68.8 |
| Barnegat NJ | 8 | 67,622 | 100.0 | 100.0 |
| Long Beach NJ | 11 | 969,362 | 73.3 | 88.4 |
| Cape May NJ | 51 | 2,000,940 | 85.0 | 70.3 |
| Chincoteague VA | 1 | cr | cr | cr |
| Seaford VA | 18 | 1,987,986 | 66.7 | 91.8 |
| Hampton VA | 9 | 755,852 | 69.2 | 43.2 |
| Newport News VA | 38 | 3,755,218 | 76.0 | 74.0 |

* shows only those ports that had at least 50,000 pounds of scallops landed in year 2000, and includes only those trips landing at least 40 pounds of scallops. Source: logbooks.

Table 357. **Trawl vessel scallop catch by port**

| | % of port value from trawl (limited access) | | | % of port value from dredge (limited access) or general category | | | Total value of scallops landed in port | | | Number of trawl (limited access) vessels | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Port Landed | 1999 | 2000 | 2001 | 1999 | 2000 | 2001 | 1999 | 2000 | 2001 | 1999 | 2000 | 2001 |
| New Bedford MA | 0.2 | 0.3 | 0.3 | 99.8 | 99.6 | 99.7 | 70,553,861 | 88,490,629 | 76,114,639 | 3 | 3 | 4 |
| Newport RI | nr | ** | nr | 100.0 | 88.8 | *** | 446,693 | 700,021 | cr | nr | 1 | nr |
| Point Pleasant NJ | * | 3.7 | * | 99.4 | 96.3 | 99.1 | 1,854,369 | 3,784,457 | 2,835,499 | 2 | 5 | 1 |
| Cape May NJ | 37.6 | 24.4 | 19.4 | 61.9 | 74.8 | 80.6 | 9,765,197 | 14,158,301 | 18,626,149 | 18 | 20 | 25 |
| Ocean City MD | * | 21.9 | ** | 24.4 | 53.1 | 40.3 | 24,921 | 118,037 | 65,017 | 1 | 3 | 2 |
| Chincoteague VA | * | 23.7 | * | 93.2 | 76.3 | 100.0 | 6,955 | 209,641 | 803,171 | 2 | 6 | 1 |
| Hampton VA | 43.2 | 41.7 | 34.9 | 56.8 | 58.3 | 65.1 | 5,083,750 | 8,288,677 | 9,264,501 | 11 | 14 | 9 |
| Newport News VA | 20.3 | 16.6 | 14.9 | 79.4 | 82.8 | 85.1 | 15,207,152 | 23,092,409 | 25,448,670 | 12 | 17 | 14 |
| Wanchese NC | *** | * | 24.4 | 12.1 | 4.1 | 54.4 | 31,077 | 64,384 | 1,350,475 | 1 | 2 | 11 |

* only shows those ports in AHE table 2. Cannot report (cr) less than 3 entities: * le 10%, ** le 25% , *** 100%. Source: logbooks

## 8.8.3 Alternatives For Allocating Effort (Section 5.3.3)

Section 5.3.3.2 is similar to the area-access program that was used in Framework 14 to allow access into the groundfish closed areas, coupling a trip possession limit with a DAS trade offs mechanism. Trips into the closed areas under this program were reportedly seen by some vessels and fishermen as a welcome fishing trip due to the high density of large scallops, and the regulated access moderated any tendency towards derby-style fishing. At the same time, the high biomass outside the closed areas resulted in the closed areas not being fully utilized, in part because of the DAS tradeoffs which effectively penalized the more efficient operations (RFA analysis, Framework 14). Section 5.3.3.1 would distribute DAS among the rotational areas, which could only be used as long as a given area remained open to fishing. Without any otherwise regulated access, the opening of areas with large scallops might induce derby-style fishing and a more intense work environment for crew, and possibly a crew tending to be younger and more numerous (R. Smolowitz, pers. comm.).

Section 5.3.3.4 (status quo) would have no controls on access and could have an even stronger tendency towards derby-fishing, given the predicted conditions in a reopened area. Moreover, such a derby-style environment would favor the larger or more mobile vessels, and with implications for the safety of all participating fishermen. As well, the even distribution of area-specific DAS allocations among vessels in Section 5.3.3.3 does not take into account the overall tendency for most vessels to fish in particular areas (see discussion of area alternatives above and Affected Human Environment section), and would effectively advantage again those vessels that are larger or which favor a mobile fishing strategy. Section 5.3.3.3 would potentially enable this area-specificity to continue, by allowing exchange of DAS or trips and thus operational flexibility. However, if vessels are not in an equal trading position, those more dependent on particular areas or less mobile may still be relatively disadvantaged.

## 8.8.4 Alternatives For Reducing Habitat Impacts (Section 5.3)

The EFH measures using area closures (Sections 5.3.4.1 to 5.3.4.9) vary in the extent to which they would affect scallop fishermen. Section 5.3.4.9 would continue to close off a significant proportion of the total scallop biomass and its Section 5.3.4.3, affect the most vessels overall, primarily large and medium-sized vessels (Table 358). These two measures also have the most impact at the homeport (Table 359) and landing port (Table 360) level, mostly southern New England ports such as New Bedford/Fairhaven but also some Mid-Atlantic ports. Like the potential closures from the rotational management measures, many of the potentially affected ports depend on scallops for a significant portion of their total catch value (Section 7.1.1). Such closures reduce the operational flexibility of fishing businesses, particularly for smaller or less mobile vessels. Fishermen either forego income and fishing possibilities from former fishing grounds, or redirect their activity elsewhere, and if doing so results in longer trips or trips further from home, the impacts can disrupt family and community life and affect safety at sea.

The gear change measure for dredges (Section 5.3.4.10) would affect less than half of all scallop vessels and trips but would affect the vessels landing the majority of the scallop catch (Table 361). The impacts from Sections 5.3.4.10 and 5.3.4.11—from the financial cost of gear replacement to changes in catch composition and changes in choice of fishing grounds—would affect the larger ports that depend on dredge landings, such as New Bedford/Fairhaven, Stonington CT, Point Pleasant, Seaford, and Newport News (Table 362). Section 5.3.4.1 (status quo) would have no known short-term impacts on scallop fishermen since closures are unspecified, but the long-term impacts on scallop fishermen, fishing families, and fishing communities could be considerable if the lack of habitat protection affects the long-term health of the scallop biomass and overall ecosystem.

Table 358. Fishing activity in the draft EFH areas (Sections 5.3.4.3 to 5.3.4.9) by vessel size class for calendar years 1997-2001.

| | 5.3.4.1 | | | 5.3.4.6 | | | 5.3.4.8.1 | | | 0 | | | 5.3.4.3 | | | 5.4.7 | | | 5.4.7 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Vessel Size | 5-yr total | No. vessels | % | 5-yr total | No. vessels | % | 5-yr total | No. vessels | % | 5-yr total | No. vessels | % | 5-yr total | No. vessels | % | 5-yr total | No. vessels | % | 5-yr total | No. vessels | % |
| Small | 54 | 15 | 1.7 | 20 | 12 | 0.6 | 0 | 0 | 0.0 | 0 | 0 | 0.0 | 55 | 21 | 1.7 | cr | 1 | lt1% | cr | 2 | lt1% |
| Medium | 854 | 22 | 7.7 | 50 | 9 | 0.4 | cr | 1 | lt1% | 131 | 5 | 1.2 | 431 | 17 | 3.9 | 138 | 12 | 1.2 | 44 | 10 | 0.4 |
| Large | 7,001 | 165 | 6.3 | 272 | 35 | 0.2 | 72 | 6 | 0.1 | 1,723 | 57 | 1.5 | 7,417 | 133 | 6.6 | 2,340 | 121 | 2.1 | 517 | 61 | 0.5 |

**Note: Landings are in thousands of pounds. Source: logbooks.**

Table 359. Fishing activity in the draft EFH areas (4A-D) by homeport for calendar years 1997-2001.

| | 5.3.4.1 | | | 5.3.4.6 | | | 5.3.4.8.1 | 0 | | | 5.3.4.3 | | | 5.4.7 | | | 5.4.7 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Homeport | 5-yr total | No. vessels | % | 5-yr total | No. vessels | % | 5-yr total | 5-yr total | No. vessels | % | 5-yr total | No. vessels | % | 5-yr total | No. vessels | % | 5-yr total | No. vessels | % |
| Bedford MA | | | | | | | 0 lb s | | | | cr | 1 | lt50% | | | | | | |
| Mattapoisett MA | | | | | | | | | | | cr | 1 | lt80% | | | | | | |

| | 5.3.4.1 | | | 5.3.4.6 | | | 5.3.4.8.1 0 | | | 5.3.4.3 | | | 5.4.7 | | | 5.4.7 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Homeport | 5-yr total | No. vessels | % | 5-yr total | No. vessels | % | 5-yr total | 5-yr total | No. vessels | % | 5-yr total | No. vessels | % | 5-yr total | No. vessels | % | 5-yr total | No. vessels | % |
| Fairhaven MA | 484 | 12 | 7.5 | | | | | 162 | 5 | 2.5 | 586 | 11 | 9.1 | | | | | | |
| New Bedford MA | 3,528 | 80 | 7.9 | 157 | 26 | 0.3 | | 1,400 | 42 | 3.1 | 5,621 | 87 | 12.5 | 1,166 | 40 | 2.6 | 154 | 14 | 0.3 |
| Davisville RI | 156 | 3 | 18.0 | | | | | | | | | | | | | | | | |
| Point Judith RI | 131 | 3 | 19.3 | | | | | | | | | | | | | | | | |
| Stonington CT | 325 | 5 | 10.4 | | | | | | | | 135 | 5 | 4.3 | 264 | 6 | 8.5 | | | |
| Barnegat Light NJ | 422 | 9 | 9.3 | | | | | | | | 117 | 5 | 2.6 | | | | | | |
| Cape May NJ | 977 | 23 | 7.7 | | | | | | | | 238 | 13 | 1.9 | 119 | 16 | 0.9 | | | |
| Hampton VA | 206 | 5 | 5.1 | | | | | | | | | | | | | | | | |
| Newport News VA | 312 | 10 | 3.5 | | | | | | | | | | | 164 | 14 | 1.8 | | | |
| Carrollton VA | cr | 2 | lt25% | | | | | | | | | | | | | | | | |
| Norfolk VA | 227 | 10 | 1.6 | | | | | | | | | | | 281 | 18 | 1.9 | 121 | 12 | 0.8 |
| Atlantic NC | 132 | 3 | 9.2 | | | | | | | | | | | | | | | | |

Note: Landings are in thousands of pounds. Source: logbooks.

Table 360. Fishing activity in the draft EFH areas (4A-D) by port of landing for calendar years 1997-2001.

| | 5.3.4.1 | | | 5.3.4.6 | | | 5.3.4.8.1 | | | 0 | | | 5.3.4.3 | | | 5.4.7 | | | 5.4.7 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Port landed | 5-yr total | No. vessels | % total | 5-yr total | No. vessels | % total | 5-yr total | No. vessels | % total | 5-yr total | No. vessels | % total | 5-yr total | No. vessels | % total | 5-yr total | No. vessels | % total | 5-yr total | No. vessels | % total |
| Fairhaven MA | 195 | 6 | 12.3 | | | | | | | | | | 126 | 7 | 8.0 | | | | | | |
| New Bedford MA | 6,100 | 157 | 10.3 | 261 | 33 | 0.4 | 106 | 6 | 0.2 | 1,796 | 56 | 3.0 | 7,126 | 125 | 12.0 | 1,337 | 54 | 2.2 | 215 | 22 | 0.4 |
| Stonington CT | 337 | 6 | 10.3 | | | | | | | | | | 133 | 7 | 4.1 | 297 | 7 | 9.1 | | | |
| Long Beach NJ | 335 | 8 | 8.7 | | | | | | | | | | | | | | | | | | |
| Cape May NJ | 128 | 12 | 1.1 | | | | | | | | | | | | | 241 | 29 | 2.0 | 107 | 21 | 0.9 |
| Hampton VA | | | | | | | | | | | | | | | | 166 | 13 | 2.4 | | | |
| Newport News VA | 220 | 12 | 1.2 | | | | | | | | | | | | | 244 | 24 | 1.3 | | | |

Note: Landings are in thousands of pounds. Source: logbooks.

Table 361. Dredge size use by trip, fishing year 2000.

| Size of dredge (total) | Number of Distinct Vessels | Number of Distinct Trips | Percent of trips | Scallops (in pounds) | Percent of scallop catch |
|---|---|---|---|---|---|
| Greater than 26 feet, total dredge width | 201 | 1,952 | 41.9 | 20,741,502 | 69.3 |
| Less than or equal to 26 feet, total dredge width | 221 | 2,706 | 58.0 | 9,152,382 | 30.6 |
| Unknown | 4 | 4 | 0.1 | 45,298 | 0.2 |

Source: logbooks.

Table 362. Dredge size use by port of landing, fishing year 2000.

| Port of Landing | Total scallops landed in port (pounds) | % of scallops caught by large dredge, out of all scallops landed in port | Number of vessels using large dredge and landing in port |
|---|---|---|---|
| Newington NH | ** | ^^ | less than 3 |
| Gloucester MA | 181,983 | ^^ | less than 3 |
| Provincetown MA | 120,928 | 14.9 | 3 |
| Sandwich MA | 221,273 | 1.9 | 3 |
| Fairhaven MA | 324,717 | 63.4 | 5 |
| New Bedford MA | 16,059,176 | 69.7 | 125 |
| Newport RI | 146,782 | 41.8 | 4 |
| Point Judith RI | 137,395 | ^^ | less than 3 |
| Stonington CT | 635,446 | 92.8 | 6 |
| New London CT | ** | ^^^ | less than 3 |
| Shinnecock NY | * | ^ | less than 3 |
| Point Pleasant NJ | 781,613 | 53.6 | 12 |
| Barnegat NJ | 125,051 | 29.4 | 4 |
| Long Beach NJ | 1,037,773 | 43.9 | 8 |
| Cape May NJ | 2,876,998 | 45.4 | 37 |
| Chincoteague VA | * | ^^^ | less than 3 |
| Seaford VA | 2,189,881 | 80.7 | 16 |

| Port of Landing | Total scallops landed in port (pounds) | % of scallops caught by large dredge, out of all scallops landed in port | Number of vessels using large dredge and landing in port |
|---|---|---|---|
| Hampton VA | 1,685,177 | 47.6 | 9 |
| Newport News VA | 5,101,019 | 67.4 | 33 |

**Note:** Only includes ports with at least 50,000 lbs of scallops landed. Cannot report if less than 3 entities: ^ = 0-25%; ^^ = 25-50%; ^^^ = 50-100%; * = 50,000-100,000; ** = 100,000-200,000. Source: logbooks.

### 8.8.4.1 Community Impacts of proposed habitat closure alternatives

Community impacts of the proposed habitat closures have a bearing on their practicality and on achieving equity. Habitat alternatives that have unequal costs across various ports and communities, with benefits accruing elsewhere, may not be as practicable as other alternatives whose costs are spread out more evenly.

An estimate of the direct potential loss of scallop landings as a proportion of the total scallop landings at each port is a first-order analysis of community impacts. One measure of this is the total expected loss of landings had the habitat closures been in place during 1995-2001, when VTR data useful for this analysis had been collected. This potential, retrospective loss in landings and the percent of scallop landings affected by the closures for each port is shown in Table 364 to Table 366, for four of the most different habitat closure alternatives. Since most of the proposed closures occur in New England, the greatest impacts occur at MA ports, such as New Bedford, Fairhaven, Chatham, and Gloucester. Fewer impacts are estimated for Mid-Atlantic ports and for ports in ME. Scallop vessels from ME ports tend to target scallops along the coastline north of Portland or on Fippinees Ledge where no habitat closures are proposed.

Another measure of the equitability of the proposed habitat closure alternatives is the variation in the proportion of landings impacted. This variation can be measured and standardized with respect to the average level of impact, by calculating a coefficient of variation (CV). High CVs (see ) indicate a greater amount of variation of impacts among ports/communities. In fact, some of the habitat closure alternatives with the lowest overall impacts (e.g. Alternative 8b) have the highest variation of impacts, primarily occurring in few ports.

Second-order analyses of the overall impact of the proposed closures is not available at this time. Such an analysis would include the multipliers for each port that capture the total economic activity that include suppliers, wholesalers, and markets. Also, to really understand the effect on the community, the total economic impact with the multipliers would be compared with the total economic activity of the community or port. Information on the multipliers for the commercial scallop industry are only available for a few ports, making such an analysis difficult to complete.

Table 363. Summary of the disparity of impacts by port, estimated by the coefficient of variation of the percent of 1995-2001 landings impacted by the proposed closure alternatives. Alternatives are ranked from most even impact (low CV) to most uneven impact (high CV). The most uneven impact, for example, may have the lowest total impact on historic landings but the impacts are concentrated in few ports.

| | Coefficient of Variation | Rank |
|---|---|---|
| Habitat Alternative 1 | 3.18 | 5 |
| GF Mortality Alternative 1 | 2.19 | 2 |
| Habitat Alternative 3a | 3.43 | 6 |
| Habitat Alternative 3b | 3.44 | 7 |
| Habitat Alternative 4 | 3.53 | 8 |
| Habitat Alternative 5a | 3.89 | 10 |
| Habitat Alternative 5b | 2.79 | 3 |
| Habitat Alternative 5c | 3.55 | 9 |
| Habitat Alternative 5d | 4.20 | 11 |
| Habitat Alternative 6 | 4.61 | 12 |
| Habitat Alternative 7 | 1.03 | 1 |
| Habitat Alternative 8a | 10.55 | 14 |
| Habitat Alternative 8b | 5.25 | 13 |
| Habitat Alternative 9 | 3.17 | 4 |

Table 364. Summary of the retrospective impact on total scallop landings by port of landing in 1995-2001, assuming that habitat alternative 3a would have been implemented. Data are from vessel trip reports with valid latitude and longitude positions, raised to total landings by port group, gear, and month of landing.

| | | 1995 | | 1996 | | 1997 | | 1998 | | 1999 | | 2000 | | 2001 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Port State | Port | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent |
| CT | GROTON | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | NEW LONDON | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | STONINGTON | | 0.0% | 3,519 | 0.1% | 21,669 | 0.6% | 12,400 | 0.3% | | 0.0% | 83,327 | 2.3% | 11,910 | 0.3% |
| **CT Total** | | | **0.0%** | **3,519** | **0.1%** | **21,669** | **0.6%** | **12,400** | **0.3%** | | **0.0%** | **83,327** | **2.2%** | **11,910** | **0.3%** |
| MA | BEVERLY | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | BEVERLY/SALEM | | | | | | | | | | | | | | |
| | BOSTON | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | CHATHAM | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | 2,163 | 1.6% |
| | DENNIS | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | FAIRHAVEN | | 0.0% | 45,505 | 3.5% | 12,104 | 0.9% | | 0.0% | | 0.0% | 68,496 | 5.3% | 89,475 | 7.0% |
| | FALL RIVER | 73,146 | 8.5% | 44,851 | 5.2% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | FALMOUTH | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | GLOUCESTER | 13,136 | 1.7% | 390 | 0.0% | 8,289 | 1.0% | | 0.0% | | 0.0% | 53,313 | 6.7% | 106,863 | 13.5% |
| | HARWICHPORT | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | 374 | 0.3% |
| | MARSHFIELD | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | MATTAPOISETT | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | NANTUCKET | 2,260 | 1.0% | 32,321 | 14.1% | 8,665 | 3.8% | 5,025 | 2.2% | 120,874 | 52.7% | | 0.0% | | 0.0% |
| | NAUSET | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | NEW BEDFORD | 1,234,074 | 1.6% | 1,715,101 | 2.2% | 1,905,542 | 2.4% | 2,003,643 | 2.6% | 2,309,769 | 3.0% | 4,306,372 | 5.5% | 3,155,006 | 4.0% |
| | NEWBURYPORT | 397 | 0.2% | 13,700 | 7.3% | | 0.0% | 11,424 | 6.1% | 30 | 0.0% | 16,000 | 8.5% | | 0.0% |
| | ORLEANS | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | OTHER BARNSTABLE | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | OTHER MASS | 31,237 | 28.4% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | PLYMOUTH | | 0.0% | | 0.0% | 1,657 | 1.3% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | PROVINCETOWN | 1,032 | 0.1% | 10,003 | 1.2% | 12,667 | 1.5% | 11,446 | 1.3% | 6,300 | 0.7% | 8,046 | 0.9% | 1,368 | 0.2% |
| | ROCKPORT | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | SALISBURY | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | SANDWICH | | 0.0% | 8,780 | 1.2% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | 6,900 | 1.0% |
| | TISBURY | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | TOWN OF BARNSTABLE | | 0.0% | 18,284 | 3.9% | 3,121 | 0.7% | 3,137 | 0.7% | | 0.0% | 3,099 | 0.7% | | 0.0% |
| | WELLFLEET | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | WOODS HOLE | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | 400 | 15.0% |

| | | 1995 | | 1996 | | 1997 | | 1998 | | 1999 | | 2000 | | 2001 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Port State | Port | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent |
| **MA Total** | | **1,355,282** | **1.6%** | **1,888,935** | **2.2%** | **1,952,045** | **2.3%** | **2,034,675** | **2.4%** | **2,436,973** | **2.9%** | **4,455,326** | **5.3%** | **3,362,549** | **4.0%** |
| MD | OCEAN CITY | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| **MD Total** | | | **0.0%** | | **0.0%** | | **0.0%** | | **0.0%** | | **0.0%** | | **0.0%** | | **0.0%** |
| ME | ADDISON | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | BAR HARBOR | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | BEALS ISLAND | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | BLUE HILL | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | BOOTHBAY HARBOR | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | BREMEN | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | BROOKLIN | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | BUCKS HARBOR | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | CAPE ROSIER | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | CUNDYS HARBOR | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | CUTLER | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | DYERS BAY | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | EASTPORT | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | HARPSWELL | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | JONESPORT | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | KITTERY | | 0.0% | | 0.0% | 535 | 12.7% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | LONG ISLAND | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | LUBEC | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | MACHIAS | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | MILBRIDGE | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | MONHEGAN | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | NEW HARBOR | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | NORTHEAST HARBOR | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | NORTHWEST HARBOR | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | OTHER CUMBERLAND | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | OTHER HANCOCK | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | OTHER KNOX | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | OTHER MAINE | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | OWLS HEAD | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | PEMAQUID | | | | | | | | | | | | | | |
| | PIGEON HILL | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |

| | | 1995 | | 1996 | | 1997 | | 1998 | | 1999 | | 2000 | | 2001 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Port State | Port | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent |
| | PORT CLYDE | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | PORTLAND | | 0.0% | 151 | 0.2% | 3,907 | 5.2% | 626 | 0.8% | | 0.0% | 2,035 | 2.7% | | 0.0% |
| | ROCKLAND | | 0.0% | 2,694 | 2.5% | | 0.0% | | 0.0% | | 0.0% | 11,120 | 10.3% | | 0.0% |
| | ROGUE BLUFFS | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | SEAL HARBOR | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | SOUTH BRISTOL | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | SOUTHWEST HARBOR | | 0.0% | 1,068 | 0.1% | 10,016 | 1.0% | 1,740 | 0.2% | | 0.0% | 47,826 | 5.0% | 17,000 | 1.8% |
| | SPRUCEHEAD | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | STONINGTON | | 0.0% | 415 | 0.4% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | STUEBEN | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | SUNSHINE/DEER ISLE | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | SWANS ISLAND | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | TENANTS HARBOR | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | VINALHAVEN | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | WEST GOULDSBORO | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | WINTER HARBOR | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| **ME Total** | | | **0.0%** | **4,328** | **0.2%** | **14,458** | **0.8%** | **2,366** | **0.1%** | | **0.0%** | **60,981** | **3.2%** | **17,000** | **0.9%** |
| NC | BAYBORO | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | BEAUFORT | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | ENGELHARD | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | LOWLAND | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | ORIENTAL | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | OTHER BEAUFORT | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | OTHER CARTERET | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | OTHER PAMLICO | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | VANDEMERE | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | WANCHESE | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| **NC Total** | | | **0.0%** | | **0.0%** | | **0.0%** | | **0.0%** | | **0.0%** | | **0.0%** | | **0.0%** |
| NH | HAMPTON | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | HAMPTON/SEABROOK | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | NEWINGTON | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | 750 | 2.1% | | 0.0% |
| | PORTSMOUTH | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | RYE | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | SEABROOK | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| **NH Total** | | | **0.0%** | | **0.0%** | | **0.0%** | | **0.0%** | | **0.0%** | **750** | **0.4%** | | **0.0%** |

| | | 1995 | | 1996 | | 1997 | | 1998 | | 1999 | | 2000 | | 2001 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Port State | Port | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent |
| NJ | ATLANTIC CITY | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | BARNEGAT | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | 9,694 | 3.9% | | 0.0% |
| | BELFORD | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | CAPE MAY | | 0.0% | | 0.0% | | 0.0% | | 0.0% | 10,218 | 0.1% | 119,088 | 0.8% | | 0.0% |
| | ELIZABETH | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | HIGHLANDS | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | LONG BEACH/BARNEGAT LIGHT | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | 156,419 | 3.0% | 53,711 | 1.0% |
| | OTHER NJ | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | PT. PLEASANT | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | WILDWOOD | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| **NJ Total** | | | **0.0%** | | **0.0%** | | **0.0%** | | **0.0%** | **10,218** | **0.0%** | **285,201** | **1.2%** | **53,711** | **0.2%** |
| NY | BROOKLYN | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | FREEPORT | | | | | | | | | | | | | | |
| | GREENPORT | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | HAMPTON BAY | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | MATTITUCK | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | MONTAUK | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | NEW YORK CITY | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | OTHER NASSAU | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | OTHER RICHMOND | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | SHINNECOCK | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| **NY Total** | | | **0.0%** | | **0.0%** | | **0.0%** | | **0.0%** | | **0.0%** | | **0.0%** | | **0.0%** |
| RI | NEW SHOREHAM | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | NEWPORT | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | 546 | 0.1% | | 0.0% |
| | NORTH KINGSTOWN | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | OTHER R.I. | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | POINT JUDITH | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | 25,280 | 7.0% | | 0.0% |
| | PROVIDENCE | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | 9,586 | 6.6% | | 0.0% |
| **RI Total** | | | **0.0%** | | **0.0%** | | **0.0%** | | **0.0%** | | **0.0%** | **35,412** | **3.5%** | | **0.0%** |
| VA | CAPE CHARLES | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | CHINCOTEAGUE | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | CITY OF SEAFORD | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | HAMPTON | | 0.0% | | 0.0% | 3,453 | 0.0% | 29,604 | 0.3% | | 0.0% | | 0.0% | | 0.0% |
| | NEWPORT NEWS | | 0.0% | | 0.0% | 5,148 | 0.0% | | 0.0% | | 0.0% | 94,314 | 0.4% | | 0.0% |

| | | 1995 | | 1996 | | 1997 | | 1998 | | 1999 | | 2000 | | 2001 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Port State | Port | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent |
| | NORFOLK | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | OYSTER | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | SANFORD | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | VIRGINIA BEACH/LYNNHAVEN | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| **VA Total** | | | **0.0%** | | **0.0%** | **8,601** | **0.0%** | **29,604** | **0.1%** | | **0.0%** | **94,314** | **0.2%** | | **0.0%** |
| **Grand Total** | | **1,355,282** | **0.8%** | **1,896,782** | **1.2%** | **1,996,773** | **1.2%** | **2,079,045** | **1.3%** | **2,447,191** | **1.5%** | **5,015,311** | **3.0%** | **3,445,170** | **2.1%** |

Table 365. Summary of the retrospective impact on total scallop landings by port of landing in 1995-2001, assuming that habitat alternative 5a would have been implemented. Data are from vessel trip reports with valid latitude and longitude positions, raised to total landings by port group, gear, and month of landing.

| | | 1995 | | 1996 | | 1997 | | 1998 | | 1999 | | 2000 | | 2001 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Port State | Port | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent |
| CT | GROTON | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | NEW LONDON | | 0.0% | | 0.0% | | 0.0% | | 0.0% | 800 | 0.4% | | 0.0% | 3,340 | 1.5% |
| | STONINGTON | | 0.0% | | 0.0% | 392 | 0.0% | | 0.0% | | 0.0% | 400 | 0.0% | | 0.0% |
| **CT Total** | | | **0.0%** | | **0.0%** | **392** | **0.0%** | | **0.0%** | **800** | **0.0%** | **400** | **0.0%** | **3,340** | **0.1%** |
| MA | BEVERLY | | 0.0% | | 0.0% | 1,387 | 100.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | BEVERLY/SALEM | | | | | | | | | | | | | | |
| | BOSTON | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | CHATHAM | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | 39,752 | 29.3% |
| | DENNIS | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | FAIRHAVEN | | 0.0% | 4,431 | 0.3% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | 1,121 | 0.1% |
| | FALL RIVER | 250 | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | FALMOUTH | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | GLOUCESTER | 31,966 | 4.0% | 7,765 | 1.0% | 18,233 | 2.3% | 72 | 0.0% | | 0.0% | 1,861 | 0.2% | 1,806 | 0.2% |
| | HARWICHPORT | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | 42,341 | 29.1% |
| | MARSHFIELD | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | MATTAPOISETT | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | NANTUCKET | | 0.0% | 43 | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | NAUSET | | 0.0% | 200 | 100.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | NEW BEDFORD | 97,210 | 0.1% | 301,284 | 0.4% | 267,277 | 0.3% | 105,893 | 0.1% | 104,550 | 0.1% | 1,468 | 0.0% | 269,148 | 0.3% |
| | NEWBURYPORT | | 0.0% | 517 | 0.3% | | 0.0% | 7,800 | 4.2% | | 0.0% | | 0.0% | 27,000 | 14.4% |
| | ORLEANS | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | OTHER BARNSTABLE | 15,413 | 23.6% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | OTHER MASS | 968 | 0.9% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | PLYMOUTH | 1,473 | 1.1% | | 0.0% | 2,287 | 1.7% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | PROVINCETOWN | 7,440 | 0.9% | 15,643 | 1.8% | 10,312 | 1.2% | 11,171 | 1.3% | 4,275 | 0.5% | 3,119 | 0.4% | | 0.0% |
| | ROCKPORT | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | SALISBURY | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | SANDWICH | 3,185 | 0.4% | | 0.0% | | 0.0% | 406 | 0.1% | 674 | 0.1% | | 0.0% | 1,190 | 0.2% |
| | TISBURY | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | TOWN OF BARNSTABLE | | 0.0% | 9,647 | 2.1% | 14,051 | 3.0% | 6,381 | 1.4% | 2,842 | 0.6% | | 0.0% | 27,800 | 5.9% |

| | | 1995 | | 1996 | | 1997 | | 1998 | | 1999 | | 2000 | | 2001 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Port State | Port | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent |
| | WELLFLEET | | 0.0% | 1,428 | 1.1% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | WOODS HOLE | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| **MA Total** | | **157,905** | **0.2%** | **340,958** | **0.4%** | **313,547** | **0.4%** | **131,723** | **0.2%** | **112,341** | **0.1%** | **6,448** | **0.0%** | **410,158** | **0.5%** |
| MD | OCEAN CITY | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| **MD Total** | | | **0.0%** | | **0.0%** | | **0.0%** | | **0.0%** | | **0.0%** | | **0.0%** | | **0.0%** |
| ME | ADDISON | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | BAR HARBOR | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | BEALS ISLAND | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | BLUE HILL | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | BOOTHBAY HARBOR | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | BREMEN | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | BROOKLIN | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | BUCKS HARBOR | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | CAPE ROSIER | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | CUNDYS HARBOR | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | CUTLER | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | DYERS BAY | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | EASTPORT | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | HARPSWELL | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | JONESPORT | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | KITTERY | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | LONG ISLAND | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | LUBEC | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | MACHIAS | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | MILBRIDGE | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | MONHEGAN | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | NEW HARBOR | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | NORTHEAST HARBOR | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | NORTHWEST HARBOR | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | OTHER CUMBERLAND | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | OTHER HANCOCK | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | OTHER KNOX | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | OTHER MAINE | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | OWLS HEAD | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |

| | | 1995 | | 1996 | | 1997 | | 1998 | | 1999 | | 2000 | | 2001 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Port State | Port | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent |
| | PEMAQUID | | | | | | | | | | | | | | |
| | PIGEON HILL | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | PORT CLYDE | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | PORTLAND | 1,620 | 2.1% | | 0.0% | 2,354 | 3.1% | 2,496 | 3.3% | | 0.0% | | 0.0% | | 0.0% |
| | ROCKLAND | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | ROGUE BLUFFS | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | SEAL HARBOR | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | SOUTH BRISTOL | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | SOUTHWEST HARBOR | 4,533 | 0.5% | 7,274 | 0.8% | 13,089 | 1.4% | | 0.0% | | 0.0% | | 0.0% | 104,000 | 10.9% |
| | SPRUCEHEAD | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | STONINGTON | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | STUEBEN | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | SUNSHINE/DEER ISLE | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | SWANS ISLAND | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | TENANTS HARBOR | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | VINALHAVEN | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | WEST GOULDSBORO | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | WINTER HARBOR | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| **ME Total** | | **6,153** | **0.3%** | **7,274** | **0.4%** | **15,443** | **0.8%** | **2,496** | **0.1%** | | **0.0%** | | **0.0%** | **104,000** | **5.5%** |
| NC | BAYBORO | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | BEAUFORT | | 0.0% | | 0.0% | | 0.0% | 2,541 | 1.5% | | 0.0% | | 0.0% | | 0.0% |
| | ENGELHARD | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | LOWLAND | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | ORIENTAL | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | OTHER BEAUFORT | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | OTHER CARTERET | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | OTHER PAMLICO | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | VANDEMERE | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | WANCHESE | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| **NC Total** | | | **0.0%** | | **0.0%** | | **0.0%** | **2,541** | **0.3%** | | **0.0%** | | **0.0%** | | **0.0%** |
| NH | HAMPTON | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | HAMPTON/SEABROOK | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | NEWINGTON | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | PORTSMOUTH | 985 | 26.2% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |

| | | 1995 | | 1996 | | 1997 | | 1998 | | 1999 | | 2000 | | 2001 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Port State | Port | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent |
| | RYE | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | SEABROOK | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| **NH Total** | | **985** | **0.5%** | | **0.0%** | | **0.0%** | | **0.0%** | | **0.0%** | | **0.0%** | | **0.0%** |
| NJ | ATLANTIC CITY | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | BARNEGAT | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | 365 | 0.1% | | 0.0% |
| | BELFORD | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | CAPE MAY | | 0.0% | | 0.0% | 899 | 0.0% | 6,812 | 0.0% | 4,582 | 0.0% | | 0.0% | 26,825 | 0.2% |
| | ELIZABETH | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | HIGHLANDS | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | LONG BEACH/BARNEGAT LIGHT | 17,092 | 0.3% | | 0.0% | | 0.0% | 15,645 | 0.3% | 4,828 | 0.1% | 100 | 0.0% | | 0.0% |
| | OTHER NJ | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | PT. PLEASANT | 5,429 | 0.2% | 7,429 | 0.2% | 21,709 | 0.7% | 21,262 | 0.7% | 36,343 | 1.2% | 28,583 | 0.9% | 10,482 | 0.3% |
| | WILDWOOD | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| **NJ Total** | | **22,521** | **0.1%** | **7,429** | **0.0%** | **22,608** | **0.1%** | **43,719** | **0.2%** | **45,753** | **0.2%** | **29,048** | **0.1%** | **37,307** | **0.2%** |
| NY | BROOKLYN | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | FREEPORT | | | | | | | | | | | | | | |
| | GREENPORT | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | HAMPTON BAY | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | MATTITUCK | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | MONTAUK | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | NEW YORK CITY | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | 5,269 | 21.7% | | 0.0% |
| | OTHER NASSAU | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | OTHER RICHMOND | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | SHINNECOCK | | 0.0% | | 0.0% | | 0.0% | | 0.0% | 20 | 0.1% | | 0.0% | | 0.0% |
| **NY Total** | | | **0.0%** | | **0.0%** | | **0.0%** | | **0.0%** | **20** | **0.0%** | **5,269** | **4.0%** | | **0.0%** |
| RI | NEW SHOREHAM | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | NEWPORT | 4,619 | 0.9% | 1,351 | 0.3% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | NORTH KINGSTOWN | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | OTHER R.I. | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | POINT JUDITH | | 0.0% | | 0.0% | | 0.0% | 395 | 0.1% | | 0.0% | 397 | 0.1% | | 0.0% |
| | PROVIDENCE | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| **RI Total** | | **4,619** | **0.5%** | **1,351** | **0.1%** | | **0.0%** | **395** | **0.0%** | | **0.0%** | **397** | **0.0%** | | **0.0%** |
| VA | CAPE CHARLES | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |

| | | 1995 | | 1996 | | 1997 | | 1998 | | 1999 | | 2000 | | 2001 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Port State | Port | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent |
| | CHINCOTEAGUE | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | CITY OF SEAFORD | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | 37,176 | 0.3% |
| | HAMPTON | | 0.0% | 11,057 | 0.1% | | 0.0% | 5,617 | 0.1% | 10,671 | 0.1% | | 0.0% | | 0.0% |
| | NEWPORT NEWS | | 0.0% | 5,199 | 0.0% | 2,750 | 0.0% | 16,711 | 0.1% | | 0.0% | | 0.0% | | 0.0% |
| | NORFOLK | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | OYSTER | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | SANFORD | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | VIRGINIA BEACH/LYNNHAVEN | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| **VA Total** | | | **0.0%** | **16,256** | **0.0%** | **2,750** | **0.0%** | **22,328** | **0.0%** | **10,671** | **0.0%** | | **0.0%** | **37,176** | **0.1%** |
| **Grand Total** | | **192,183** | **0.1%** | **373,268** | **0.2%** | **354,740** | **0.2%** | **203,202** | **0.1%** | **169,585** | **0.1%** | **41,562** | **0.0%** | **591,981** | **0.4%** |

Table 366. Summary of the retrospective impact on total scallop landings by port of landing in 1995-2001, assuming that groundfish mortality alternative 1 would have been implemented. Data are from vessel trip reports with valid latitude and longitude positions, raised to total landings by port group, gear, and month of landing.

| | | 1995 | | 1996 | | 1997 | | 1998 | | 1999 | | 2000 | | 2001 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Port State | Port | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent |
| CT | GROTON | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | NEW LONDON | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | STONINGTON | | 0.0% | | 0.0% | 6,780 | 0.2% | 13,000 | 0.4% | 34,148 | 0.9% | 146,905 | 4.0% | 59,437 | 1.6% |
| **CT Total** | | | **0.0%** | | **0.0%** | **6,780** | **0.2%** | **13,000** | **0.3%** | **34,148** | **0.9%** | **146,905** | **3.8%** | **59,437** | **1.5%** |
| MA | BEVERLY | | 0.0% | | 0.0% | 1,387 | 100.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | BEVERLY/SALEM | | | | | | | | | | | | | | |
| | BOSTON | | 0.0% | | 0.0% | 1,026 | 10.4% | 249 | 2.5% | | 0.0% | | 0.0% | | 0.0% |
| | CHATHAM | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | 2,562 | 1.9% |
| | DENNIS | | 0.0% | 1,060 | 24.4% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | FAIRHAVEN | | 0.0% | 10,630 | 0.8% | 6,406 | 0.5% | | 0.0% | 29,133 | 2.3% | 101,328 | 7.9% | 36,909 | 2.9% |
| | FALL RIVER | 45,714 | 5.3% | 35,611 | 4.1% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | FALMOUTH | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | GLOUCESTER | 32,350 | 4.1% | 23,397 | 2.9% | 187,916 | 23.7% | 18,933 | 2.4% | 20,718 | 2.6% | 124,726 | 15.7% | 240,709 | 30.3% |
| | HARWICHPORT | | 0.0% | 4,177 | 2.9% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | 4,718 | 3.2% |
| | MARSHFIELD | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | MATTAPOISETT | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | NANTUCKET | 2,260 | 1.0% | 52,716 | 23.0% | 21,664 | 9.4% | 5,025 | 2.2% | 118,557 | 51.7% | | 0.0% | | 0.0% |
| | NAUSET | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | NEW BEDFORD | 1,538,154 | 2.0% | 2,179,649 | 2.8% | 2,546,074 | 3.3% | 1,837,046 | 2.4% | 4,607,708 | 5.9% | 5,025,754 | 6.4% | 2,449,044 | 3.1% |
| | NEWBURYPORT | 397 | 0.2% | 1,882 | 1.0% | 20,828 | 11.1% | 11,833 | 6.3% | 4,978 | 2.7% | 18,497 | 9.9% | 11,849 | 6.3% |
| | ORLEANS | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | OTHER BARNSTABLE | 18,269 | 28.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | OTHER MASS | 35,642 | 32.4% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | PLYMOUTH | 1,473 | 1.1% | 196 | 0.1% | 4,109 | 3.1% | 543 | 0.4% | 155 | 0.1% | 14,419 | 11.0% | 24,551 | 18.7% |
| | PROVINCETOWN | 10,717 | 1.2% | 31,081 | 3.6% | 41,672 | 4.9% | 59,750 | 7.0% | 16,280 | 1.9% | 22,172 | 2.6% | 490,339 | 57.1% |
| | ROCKPORT | | 0.0% | | 0.0% | 15,244 | 99.1% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | SALISBURY | | 0.0% | | 0.0% | 1,306 | 48.1% | | 0.0% | 385 | 14.2% | | 0.0% | 1,025 | 37.7% |

| | | 1995 | | 1996 | | 1997 | | 1998 | | 1999 | | 2000 | | 2001 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Port State | Port | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent |
| | SANDWICH | 6,738 | 0.9% | 21,990 | 3.1% | 12,805 | 1.8% | | 0.0% | 13,543 | 1.9% | 13,442 | 1.9% | 76,250 | 10.6% |
| | TISBURY | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | TOWN OF BARNSTABLE | | 0.0% | 63,404 | 13.5% | 39,714 | 8.5% | 11,845 | 2.5% | 39,381 | 8.4% | 3,099 | 0.7% | 24,429 | 5.2% |
| | WELLFLEET | | 0.0% | 1,747 | 1.3% | 519 | 0.4% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | WOODS HOLE | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | 400 | 15.0% |
| **MA Total** | | **1,691,714** | **2.0%** | **2,427,540** | **2.9%** | **2,900,670** | **3.4%** | **1,945,224** | **2.3%** | **4,850,838** | **5.8%** | **5,323,437** | **6.3%** | **3,362,785** | **4.0%** |
| MD | OCEAN CITY | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| **MD Total** | | | **0.0%** | | **0.0%** | | **0.0%** | | **0.0%** | | **0.0%** | | **0.0%** | | **0.0%** |
| ME | ADDISON | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | BAR HARBOR | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | BEALS ISLAND | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | BLUE HILL | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | BOOTHBAY HARBOR | | 0.0% | 261 | 0.7% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | BREMEN | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | BROOKLIN | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | BUCKS HARBOR | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | CAPE ROSIER | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | CUNDYS HARBOR | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | CUTLER | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | DYERS BAY | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | EASTPORT | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | HARPSWELL | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | JONESPORT | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | KITTERY | | 0.0% | | 0.0% | 535 | 12.7% | | 0.0% | 182 | 4.3% | | 0.0% | | 0.0% |
| | LONG ISLAND | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | LUBEC | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | MACHIAS | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | MILBRIDGE | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | MONHEGAN | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | NEW HARBOR | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | NORTHEAST HARBOR | | 0.0% | 39,150 | 36.9% | 1,140 | 1.1% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | NORTHWEST HARBOR | | 0.0% | 5,323 | 81.4% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | OTHER CUMBERLAND | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | OTHER HANCOCK | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |

| | | 1995 | | 1996 | | 1997 | | 1998 | | 1999 | | 2000 | | 2001 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Port State | Port | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent |
| | OTHER KNOX | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | OTHER MAINE | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | OWLS HEAD | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | PEMAQUID | | | | | | | | | | | | | | |
| | PIGEON HILL | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | PORT CLYDE | | 0.0% | 1,647 | 4.0% | 768 | 1.9% | 434 | 1.0% | 78 | 0.2% | | 0.0% | | 0.0% |
| | PORTLAND | 1,620 | 2.1% | 5,559 | 7.3% | 10,853 | 14.3% | 4,517 | 6.0% | 5,153 | 6.8% | 2,035 | 2.7% | | 0.0% |
| | ROCKLAND | | 0.0% | 6,547 | 6.1% | | 0.0% | | 0.0% | | 0.0% | 23,120 | 21.4% | 10,000 | 9.3% |
| | ROGUE BLUFFS | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | SEAL HARBOR | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | SOUTH BRISTOL | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | SOUTHWEST HARBOR | 6,292 | 0.7% | 20,430 | 2.1% | 15,674 | 1.6% | 3,073 | 0.3% | 104,921 | 11.0% | 128,721 | 13.5% | 67,800 | 7.1% |
| | SPRUCEHEAD | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | STONINGTON | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | STUEBEN | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | SUNSHINE/DEER ISLE | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | SWANS ISLAND | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | TENANTS HARBOR | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | VINALHAVEN | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | WEST GOULDSBORO | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | WINTER HARBOR | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| **ME Total** | | **7,912** | **0.4%** | **78,917** | **4.2%** | **28,970** | **1.5%** | **8,024** | **0.4%** | **110,334** | **5.8%** | **153,876** | **8.1%** | **77,800** | **4.1%** |
| NC | BAYBORO | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | BEAUFORT | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | ENGELHARD | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | LOWLAND | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | ORIENTAL | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | OTHER BEAUFORT | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | OTHER CARTERET | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | OTHER PAMLICO | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | VANDEMERE | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | WANCHESE | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| **NC Total** | | | **0.0%** | | **0.0%** | | **0.0%** | | **0.0%** | | **0.0%** | | **0.0%** | | **0.0%** |
| NH | HAMPTON | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | 150 | 0.1% |

| | | 1995 | | 1996 | | 1997 | | 1998 | | 1999 | | 2000 | | 2001 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Port State | Port | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent |
| | HAMPTON/SEABROOK | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | NEWINGTON | | 0.0% | | 0.0% | | 0.0% | | 0.0% | 22,200 | 62.6% | 750 | 2.1% | | 0.0% |
| | PORTSMOUTH | 985 | 26.2% | | 0.0% | 270 | 7.2% | | 0.0% | 1,905 | 50.7% | | 0.0% | | 0.0% |
| | RYE | | 0.0% | | 0.0% | 277 | 6.7% | 3,805 | 92.5% | | 0.0% | | 0.0% | | 0.0% |
| | SEABROOK | | 0.0% | | 0.0% | | 0.0% | 135 | 6.0% | 1,439 | 63.5% | 486 | 21.4% | 206 | 9.1% |
| **NH Total** | | **985** | **0.5%** | | **0.0%** | **547** | **0.3%** | **3,940** | **2.0%** | **25,544** | **12.8%** | **1,236** | **0.6%** | **356** | **0.2%** |
| NJ | ATLANTIC CITY | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | BARNEGAT | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | 9,694 | 3.9% | | 0.0% |
| | BELFORD | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | CAPE MAY | | 0.0% | | 0.0% | | 0.0% | | 0.0% | 44,666 | 0.3% | 134,488 | 0.9% | | 0.0% |
| | ELIZABETH | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | HIGHLANDS | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | LONG BEACH/BARNEGAT LIGHT | | 0.0% | | 0.0% | | 0.0% | | 0.0% | 167,831 | 3.2% | 243,054 | 4.6% | 58,660 | 1.1% |
| | OTHER NJ | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | PT. PLEASANT | | 0.0% | | 0.0% | | 0.0% | | 0.0% | 52,169 | 1.7% | | 0.0% | | 0.0% |
| | WILDWOOD | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| **NJ Total** | | | **0.0%** | | **0.0%** | | **0.0%** | | **0.0%** | **264,666** | **1.1%** | **387,236** | **1.6%** | **58,660** | **0.2%** |
| NY | BROOKLYN | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | FREEPORT | | | | | | | | | | | | | | |
| | GREENPORT | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | HAMPTON BAY | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | MATTITUCK | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | MONTAUK | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | NEW YORK CITY | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | OTHER NASSAU | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | OTHER RICHMOND | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | SHINNECOCK | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| **NY Total** | | | **0.0%** | | **0.0%** | | **0.0%** | | **0.0%** | | **0.0%** | | **0.0%** | | **0.0%** |
| RI | NEW SHOREHAM | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | NEWPORT | | 0.0% | | 0.0% | | 0.0% | | 0.0% | 22,439 | 4.6% | 53,593 | 11.0% | | 0.0% |
| | NORTH KINGSTOWN | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | OTHER R.I. | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | POINT JUDITH | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | 32,932 | 9.1% | | 0.0% |

| | | 1995 | | 1996 | | 1997 | | 1998 | | 1999 | | 2000 | | 2001 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Port State | Port | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent | Prorated scallop landings (lbs.) | Percent |
| | PROVIDENCE | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | 9,586 | 6.6% | | 0.0% |
| **RI Total** | | | **0.0%** | | **0.0%** | | **0.0%** | | **0.0%** | **22,439** | **2.2%** | **96,111** | **9.6%** | | **0.0%** |
| VA | CAPE CHARLES | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | CHINCOTEAGUE | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | CITY OF SEAFORD | | 0.0% | | 0.0% | | 0.0% | | 0.0% | 28,043 | 0.3% | | 0.0% | | 0.0% |
| | HAMPTON | | 0.0% | | 0.0% | 4,108 | 0.0% | 29,604 | 0.3% | 11,879 | 0.1% | | 0.0% | 648 | 0.0% |
| | NEWPORT NEWS | 19,265 | 0.1% | | 0.0% | | 0.0% | | 0.0% | 167,544 | 0.6% | 123,352 | 0.5% | | 0.0% |
| | NORFOLK | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | OYSTER | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | SANFORD | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | VIRGINIA BEACH/LYNNHAVEN | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| **VA Total** | | **19,265** | **0.0%** | | **0.0%** | **4,108** | **0.0%** | **29,604** | **0.1%** | **207,466** | **0.4%** | **123,352** | **0.3%** | **648** | **0.0%** |
| **Grand Total** | | **1,719,876** | **1.0%** | **2,506,457** | **1.5%** | ####### | **1.8%** | ####### | **1.2%** | ####### | **3.3%** | ####### | **3.8%** | ####### | **2.2%** |

## 8.8.5 Alternatives For Reducing Bycatch (Section 5.3.5)

Possession limits for bycatch (Section 5.3.5.5) would affect the income of those vessels using a generalist strategy, landing scallops and a variety of other species on a trip-by-trip basis (see Section 7.1.1.1.2). This is primarily the general category vessels and some smaller limited access vessels. To what extent this would have differential community impacts will depend on the specifics of the measure. Section 5.3.5.6 might allow bycatch to continue as part of a generalist strategy, but at the same time possibly encourage derby-style fishing (if the scallop fishery is thought be threatened with closure), thus disadvantaging certain classes of vessels, such as the smaller ones, and possibly affecting safety-at-sea.

The impacts from the seasonal measures (Sections 5.3.5.7 and 5.1.7) will ultimately depend upon which seasons and areas are chosen for further regulation. In general, however, there are seasonal differences in the scallop fishing of the different segments of the fleet—for example between limited access and general category vessels and how their landings are apportioned between seasons (Figure 151)—so seasonal closures may have differential impacts on the fleet. Such seasonal differences in scallop harvesting also extend to ports (Figure 152), with implications for differential community impacts. So too, the precise impacts from the area closure measure (Section 5.3.5.8) will depend on which areas are closed, given the differential use of fishing grounds (as detailed in Section 7.1.1.1). With the proposed long-term nature of the closures, it is likely such a measure would negatively impact the operational flexibility of fishing businesses, particularly for smaller or less mobile vessels. Fishermen either forego income and fishing possibilities from former fishing grounds, or redirect their activity elsewhere, and if doing so results in longer trips or trips further from home, the impacts can disrupt family and community life and affect safety at sea.

The impacts from gear modifications (Sections 5.3.5.2 to 5.3.5.4) would stem from the financial costs of changing to the new gear specifications, as well as any lost revenue generated by the former bycatch. Status quo (Section 5.3.5.10) would have no additional short-term impacts on scallop fishermen except for the continued lack of access to biomass in the groundfish closed areas, but the long-term impacts on fishermen, fishing families, and fishing communities in general could be considerable if not reducing bycatch affects the long-term health of fisheries and the overall ecosystem.

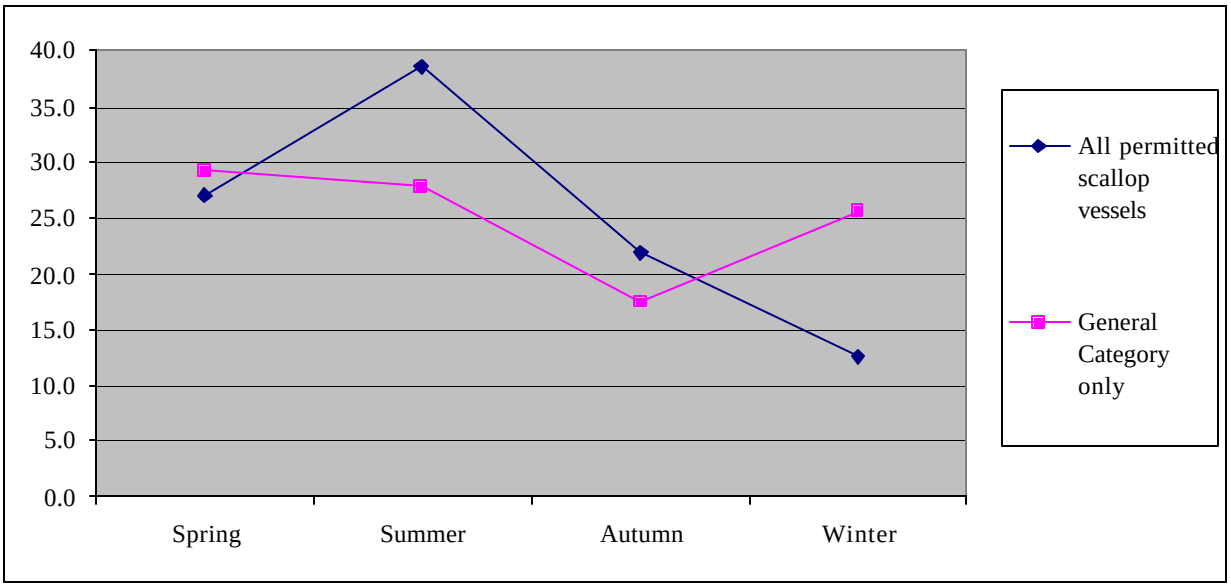


**Figure 151.** Proportion of scallop landings by season by plan type, 1997-2001. Source: logbooks.

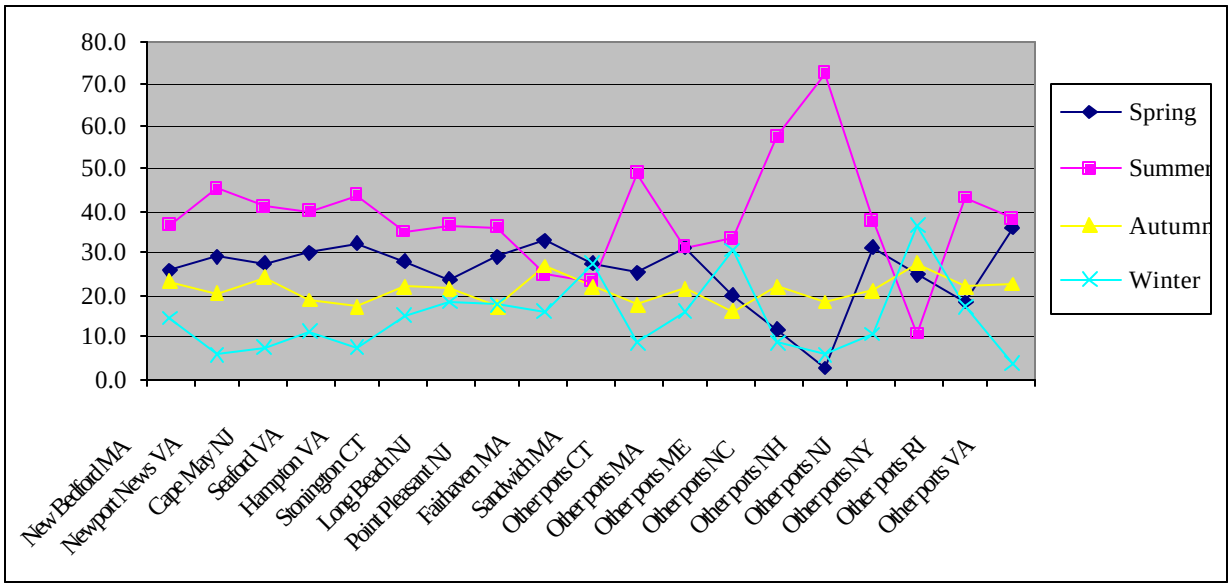


Figure 152. Proportion of scallop landings by season by port or state of landing, 1997-2001. Source: logbooks.

## 8.8.6 Alternatives For Managing General Category Permits (Section 5.3.6)

All three measures proposed would continue to keep part of the scallop fishery an open-access fishery, in that any vessel could obtain a general category permit. This can be seen as both positive and negative, positive in that continues a customary use and access to New England fisheries, but negative if the proposed higher limits (Sections 5.3.6.1.1 and 5.3.6.2.1) and the increase in scallop biomass will attract additional effort in to the fishery. Although to-date the percentage of general category landings has declined relative to limited access landings, the number of vessels in the fishery has increased (see Section 7.1.1.1.1) and might further increase with a higher trip limit. An increase in effort could have the ultimate effect of disenfranchising or reducing access to the scallop fishery for those fishermen who can make a demonstrable historical connection to small-scale scallop fishing, such as in Maine or Cape Cod Bay.

Additional impacts from Sections 5.3.6.1.1 and 5.3.6.2.1 include the financial costs of installing and maintaining a VMS system, and the derby-style fishing that could result from the proposed hard TAC. The positive impacts from Sections 5.3.6.1.1 and 5.3.6.2.1 compared to status quo include access to any reopened areas from area management measures, thus mitigating the effects from being closed out from customary fishing grounds (as detailed earlier), and the proposed higher trip limits would be a financial benefit to general category fishermen (though with the risk of increased effort into the fishery).

## 8.8.7 Social Impact Assessment Conclusions

Many of the measures approved for the final amendment were analyzed individually in the DSEIS. The following attempts to summarize the social impact analyses for the Amendment taken as a whole. Of central importance to Amendment 10 is the management of the scallop resource through an area rotation program. The initial rotation scheme is a continuation of some regulations already in place, for example, the Hudson Canyon Controlled Access Area. But the flexible rotational plan itself represents a change in the institutional structure of scallop management to regularly incorporate area-

specific biomass and growth rates, namely for the purpose of protecting small scallops until they reach larger sizes. As explained in the accompanying SIA analyses, area management may offer the benefits of an increase in productivity, but such benefits may not necessarily be equally distributed. While fishermen who practice a mobile fishing strategy would be more able to take advantage of area management, its costs may be borne more heavily by smaller vessels (and consequently the communities to which they belong) or others who cannot switch areas as easily. Similarly, vessels and especially small vessels dependent on inshore waters may be affected by offshore closures if they cause an influx of larger vessels into the inshore areas. And whether or not vessels are capable of intensifying or switching to mobile fishing, institutionally favoring such practices can have such social costs as disruptions to family and community life with related social problems, as well as increased risk to safety at sea.

In terms of the initial proposed close area in the Mid-Atlantic, such a closure would more negatively impact in the short-term those Mid-Atlantic ports close by and in particular those less mobile vessels; however, the concentration of small scallops that the closure is designed to protect would imply positive benefits in the future to those who will harvest the matured scallops in the area when the area reopens. Its closure would presumably also be mitigated by the nearby Hudson Canyon Controlled Access Area. As the DSEIS argues, an increase in the minimum biomass threshold for the overfishing definition will in the short-term decrease DAS but should, by increasing the resource biomass, lead to higher or more stable DAS in the future. But the retention of the status quo definition itself coupled with rotational area management could have the effect of actually increasing DAS (see the biological impact assessment) if the expected access to groundfish closed areas (actions dependent on other management plans and frameworks) is not obtained. That is to say, DAS would increase because fishing days would be less efficient in terms of catch quantities, thereby actually increasing costs to the industry in terms of petrol for example, though perhaps stabilizing employment. Thus contingent on other actions, the impacts on industry DAS use could be significant.

The amendment includes several measures which strive to include the knowledge base of industry members in setting management decisions, such as the inclusion of cooperative industry surveys, whose positive impacts would include not only incorporating industry's ecological knowledge into the management process (which, as many scholars have argued, can be rich in local interactions and historical depth), but would also hopefully have positive impacts on industry-government relations. Area-specific DAS to control access to newly reopened areas has the potential to insure industry flexibility, especially coupled with the trading of area-specific days. But these access controls in themselves may only control the impact on the biomass while inducing derby-style fishing with the consequent impacts on safety at sea and revenue impacts. Moreover, less mobile vessels may find that their bargaining position for trading area-specific days is less favorable, not in the terms of trade (since days are supposed to trade one to one), but terms of limited trading options. Further, both the unpredictability of rotational closures and the retention of the sometimes-cumbersome framework mechanism as the method for altering rotational area closures could negatively impact the way fishermen plan their long-term fishing strategies. The provision for trip and DAS adjustments in the case of emergencies will positively impact industry.

The increase in ring size to 4" would have negative short-term impacts on the majority of scallop dredge vessels from the initial cost of gear replacement, based on logbook records (see the SIA in the DSEIS). This would similarly impact those ports whose scallops are primarily landed with dredge, with somewhat less impact on ports where net boats predominate (e.g. Mid-Atlantic ports like Hampton VA). But compensating the financial outlay will be a gear that is supposed to catch scallops more efficiently in the context of a robust biomass. The long-term impacts of the ring size increase are predicted to be positive for the industry as a whole, given the predicted increase in biomass expected from reducing the take of small scallops.

General category measures continue the status quo. As argued in the social impacts analysis above, this can be seen as both positive and negative: positive in that continues a customary use of and access to New England fisheries and provides a stable fishery for fishermen practicing annual rounds, but negative if high catches from the scallop biomass attract unsustainable additional effort into the fishery. The inclusion of general category vessels into newly reopened areas will positively impact these fishermen in that it obviates the potential problem of closing out small vessels from traditional areas, though, as stated above, small vessels (generally synonymous with general category vessels) may be more vulnerable to the specificities of rotational area management. The prohibition on limited access vessels use of general category permits when not using DAS will probably have a negligible effect on the biomass and industry (see Table below) but will help close the perception of an unfair loophole in regulations.

**Table 367.** Proportion of reported landings by various scallop permit categories, 1997-2003 fishing years. Source: 1997-2003 logbooks.

| | 1997 | | 1998 | | 1999 | | 2000 | | 2001 | | 2002 | | 2003 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | % of Total lbs. | No. of Vessels | % of Total lbs. | No. of Vessels | % of Total lbs. | No. of Vessels | % of Total lbs. | No. of Vessels | % of Total lbs. | No. of Vessels | % of Total lbs. | No. of Vessels | % of Total lbs. | No. of Vessels |
| Limited access vessels that land scallops on non-DAS trips | 0.0 | 0 | 0.2 | 1 | 0.2 | 1 | 0.6 | 2 | 0.1 | 1 | 0.0 | 0 | 0.0 | 0 |
| Limited Access Only | 95.6 | 226 | 95.2 | 232 | 97.9 | 242 | 97.7 | 255 | 96.4 | 282 | 96.7 | 290 | 95.9 | 143 |
| General Category Only | 4.4 | 166 | 4.5 | 153 | 1.9 | 152 | 1.6 | 170 | 3.5 | 236 | 3.3 | 240 | 4.1 | 82 |
| Total | 100 | 392 | 100 | 386 | 100 | 395 | 100 | 427 | 100 | 519 | 100 | 530 | 100 | 225 |

Finally, the amendment contains no EFH-specific measures but rather relies on other measures to mitigate impacts on Essential Fish Habitat. Such an approach to EFH may have impacts in terms of its cumulative effects and impacts on other fisheries, however, for whatever the impacts to habitats may or may not be, it most certainly contributes to inter-fishery perceptions of unfairness and hurts industry-government relations in other fisheries.

## *8.9 Enforceability Assessment (T. DuBois)*

An enforceability assessment was prepared by the Enforcement Committee, working closely with Council staff. Management alternatives that required active enforcement related to proposed measures are assessed in the discussion below. This discussion does not include alternatives for defining overfishing (Section 3.4) and for adjusting management measures (Section 5.3.9), because by themselves they have no enforcement implications. Habitat alternatives (Section 5.3.4) are not discussed separately and individually because they mainly rely on the application of closed areas, a subject that is assessed in Section 8.9.1 below. Management measures using closed areas, as described for area rotation, are easier to enforce and have better compliance when they are large, use straight boundaries, run along lines of latitude and longitude, and apply to a broad class of easily observed vessels. VMS helps enforcement of area closures.