Community Profiles

for

Northeast U.S. Marine Fisheries

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EXECUTIVE SUMMARY

This document profiles 177 fishing communities in Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Delaware, Maryland, and Virginia[1]. Each profile provides a historic, demographic, cultural, and economic context for understanding a community's involvement in fishing. The profiles can be used for many purposes—including sections of Environmental Impact Statements (EISs) required under the National Environmental Policy Act (NEPA)—where they serve as baseline information for the assessment of social, economic and community impacts resulting from changes in fishery management regulations and policies. Each profile contains sections on *People and Places*, *Infrastructure*, *Involvement in Northeast Fisheries*, and *The Future*. *People and Places* presents information on regional orientation, historical background, demographics, issues and processes, and cultural attributes. *Infrastructure* discusses current economy, government, institutions, and physical layout. *Involvement in Northeast Fisheries* covers commercial, recreational, and subsistence fishing. The section on *The Future* includes information on perceptions of ongoing and future community involvement in fishing.

Wherever possible, communities were defined as Census Designated Places (CDPs), but always as a geographic location. An array of criteria and indicators were used to identify communities with the greatest involvement in fishing and to reduce the number of communities profiled to a manageable size. Community indicators included: relevance to Northeast Fishery Management Plans (FMPs); total commercial fisheries landings, in value and pounds; number of residents possessing a Northeast federal fisheries permit; number of Northeast federally permitted vessels; number of federal dealers; and processing plant and recreational fishing activities. The list of fishing communities was adjusted as necessary and appropriate by recommendations from local authorities and academic experts.

The community selection process assessed involvement in commercial fisheries using data from two years: 2002 and 2005.

ACKNOWLEDGEMENTS

This project could not have been completed without the generous assistance of numerous people and institutions. We thank the community members who provided valuable information during the formation of the profiles and those who provided feedback during the profile review process. We also thank the NOAA port agents who participated in the profile review process. In addition, we acknowledge the support of Susan Abbott-Jamieson in facilitating these and other community profiles in all NMFS Regions and the funding provided by the NMFS Office of Science and Technology. Without these individuals and institutions, this project would not have been possible.

[1] Additionally, a select number of North Carolina communities are included because of their affiliation with Northeast-managed species.

ABBREVIATIONS AND ACRONYMS

AHE	Affected Human Environment
ARDA	Association of Religion Data Archives
CDP	Census Designated Place
CFR	Code of Federal Regulations
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
FCMA	Fishery Conservation and Management Act
Fed. Reg.	Federal Register
FIS	Fisheries Impact Statement
FMP	Fishery Management Plan
GRT	Gross Registered Tons
MAFMC	Mid-Atlantic Fishery Management Council
MSA	Magnuson-Stevens Fishery Conservation and Management Act
NEFMC	New England Fishery Management Council
NEFSC	Northeast Fisheries Science Center
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NS8	National Standard 8
RDD	Random Digit Dial
SAFMC	South Atlantic Fishery Management Council
SIA	Social Impact Assessment

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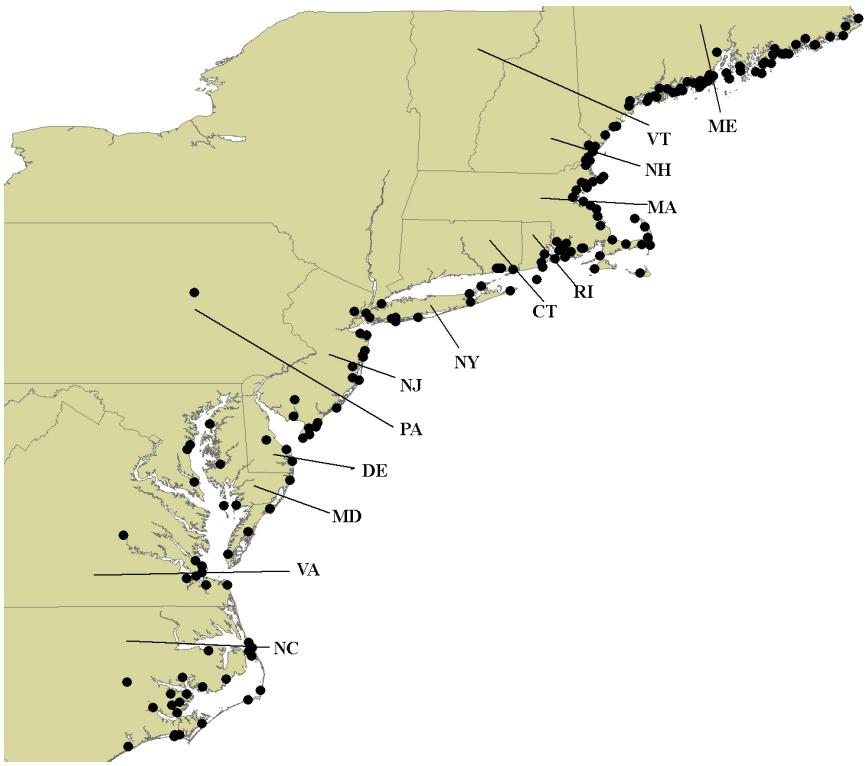
1. INTRODUCTION

This document profiles 177 communities involved in commercial, recreational and subsistence fishing in the Northeast Region[2] of the United States – Maine through Virginia (Map 1). Additionally, some North Carolina communities are included because of their affiliation with Northeast-managed species[3]. All profiles in this report may be accessed at: http://www.nefsc.noaa.gov/read/socialsci/community_profiles/.

Map 1. Northeast Region[4]



[2] The National Marine Fisheries Service (which manages U.S. marine fisheries) has six Regions: Northeast, Southeast, Southwest, Northwest, Alaska, and Pacific Islands.

[3] For the full set of North Carolina profiles, see the following:
http://sero.nmfs.noaa.gov/sf/socialsci/socialsci.htm (accessed March 5, 2008); scroll down to multiple volumes on *Identifying Fishing Communities*…;
http://www.safmc.net/Portals/6/SocioEcon/FishingCommunityReport.pdf (accessed April 8, 2008);
http://sero.nmfs.noaa.gov/sf/socialsci/pdfs/NOAAFinalReport101506Blount.pdf (accessed April 22, 2008); and Impact Assessment (2007b) which should be available soon at http://www.sefsc.noaa.gov/ (in the interim, contact Juan.Agar@noaa.gov).
For profiles in other Regions, see:
Alaska Region http://www.afsc.noaa.gov/REFM/Socioeconomics/Projects/CPU.php (accessed March 5, 2008); Northwest and Southwest Regions
http://www.nwfsc.noaa.gov/publications/displayinclude.cfm?incfile=technicalmemorandum2007.inc (March 5, 2008)– scroll to Norman et al. 2007; and Guam in the Pacific Islands Region at http://www.pifsc.noaa.gov/pubs/fmsdpub.php.

[4] See appendix A for maps of individual community locations with names.

1.1 Uses for Community Profiles

Community profiles provide information on communities, firms, and individuals engaged in fishing. The profiles provide historic, demographic, cultural, and economic context for understanding community involvement in fishing. The profiles can be used for many purposes. For example, they have important uses in EISs[5], which are used in the fishery management process to describe: (1) regulatory changes (e.g., the implementation of an FMP, or an amendment or framework measure to an FMP) and the reasons for their being proposed; (2) the oceanographic, biological, economic, and social settings within which regulations will take effect; and (3) the anticipated effects/impacts resulting from the proposed regulatory changes. In an EIS, the "port profile" contains an overview of the historic, demographic, cultural, and economic conditions of a community and its involvement in fishing. The profile provides basic descriptive information for the Affected Human Environment section (AHE) of the EIS, and also furnishes a baseline from which to measure future change.

Social and cultural impacts of regulatory changes are evaluated in a Social Impact Assessment (SIA). An SIA discusses the social and cultural impacts of proposed regulations, compares where a community is today to where it will likely be under the proposed management regime, and what would likely occur if no new regulations were implemented. An SIA typically requires more detail on topics related to proposed management actions than is available in a basic profile. Nonetheless, the basic profile serves the vital function of providing contextual and baseline data to which regulation-specific data can be added. Without the basic profile, researchers would have to start from scratch with each new SIA.

Community profiles are also needed in preparing the section of an EIS covering National Standard 8[6] (NS8) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA)[7]. NS8 mandates specific actions with regard to communities that meet the MSA definition of a "fishing community." Not all communities profiled here will necessarily be granted MSA fishing community status, although some will. While it is unlikely that a community seeking MSA fishing community status would not have been profiled in this exercise, any communities that are added to our archive will be profiled according to the established template and process.

The existing profiles contain data that can be used as part of a trend analysis. Updates to the profiles are planned at three to five year intervals. As the periodic updates occur,

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[5] The EIS encompasses the Fishery Impact Statement or FIS required in the Magnuson-Stevens Fishery Conservation and Management Act (MSA).

[6] The full text is: "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(a)(8)).

[7] The MSA (16 U.S.C. ß 1801 et seq.) was originally enacted as the Fishery Conservation and Management Act (FCMA) of 1976 (P.L. 94-265). It is current practice to use Magnuson-Stevens Act (MSA) to refer to the Act after 1996, including all subsequent re-authorizations.

more detailed and complex analyses of the community data should be possible, including the addition of new indices of gentrification, resilience and vulnerability being created by the NMFS Northeast Fisheries Science Center in conjunction with the NMFS Southeast Region (re. Clay and Olson 2008; Pinto da Silva and Hall-Arber 2008; Tuler et al. 2008; GSAFF 2010; Jacob et al. 2010). The profiles will also facilitate evaluations of community vulnerability, resilience, and well-being as part of the Performance Measures Plan (Clay et al. 2010) being implemented by the National Marine Fisheries Service (NMFS) Northeast Fisheries Science Center's (NEFSC) Social Sciences Branch (SSB). They complement related projects on oral histories (Abbott-Jamieson 2007, 2010; Abbott-Jamieson and Isé 2003), improving the methodology of SIAs[8,9] (Pollnac et al. 2006[2008]; Colburn and Clay 2009; re: Colburn, Abbott-Jamieson and Clay 2006), improving NMFS' capacity for ecosystem management (Abbott-Jamieson and Clay 2005) and utilizing GIS tools to understand the human dimensions of fisheries (Pinto da Silva and Fulcher 2006, 2007; Olson 2010).

1.2 Northeast Region

Marine fisheries in the Extended Economic Zone (EEZ: 3-200 n. mi) off the northeast coast of the United States are managed by two different regional fishery management councils: the New England Fishery Management Council (NEFMC) and the Mid-Atlantic Fishery Management Council (MAFMC) (Tables 1 and 2). The NEFMC encompasses the coastal states from Maine through Connecticut, while the MAFMC includes coastal states from New York to Virginia. As noted previously, some North Carolina communities have also been included in the Northeast community profile database because some fisheries overlap between the MAFMC and the South Atlantic Fishery Management Council (SAFMC) (also see Table 2). Further, some species (e.g., monkfish) managed solely by the NEFMC and the MAFMC are landed and/or processed in North Carolina, and these communities are impacted by regulatory changes to those species.

Table 1. States included in the two Northeast Region Fishery Management Councils

NMFS Northeast Region	
NEFMC	**MAFMC**
1. Maine 2. New Hampshire 3. Massachusetts 4. Rhode Island 5. Connecticut	6. New York 7. New Jersey 8. Pennsylvania 9. Delaware 10. Maryland 11. Virginia

[8] Colburn, Lisa L. and Patricia M. Clay. In prep. Triangulation and multiple methods in social impact assessment research: More than the sum of its parts. Under journal review.

[9] Smith, Sarah L., Richard B. Pollnac, Lisa L. Colburn and Julia Olson In prep. Classification of coastal communities reporting commercial fish landings in the Northeast Region: Developing and testing a methodology.

Table 2. Regional Governance by Fisheries

Regional Governance of Fishery Management Plans		
NEFMC	**MAFMC**	**Joint**
• Northeast Multispecies (groundfish[10]) • Small-mesh Multispecies[11] • Atlantic Sea Scallops • Atlantic Herring • Red Crab • Skates • Atlantic Salmon	• Atlantic Mackerel, Squid (long and short finned) and Butterfish • Bluefish* • Surfclams and Ocean Quahogs • Summer Flounder, Scup and Black Sea Bass • Tilefish	• Monkfish • Spiny Dogfish

* Bluefish is co-managed with the SAMFC.

Fishing grounds used by residents of the communities profiled here include State and Federal waters off the coasts of Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Delaware, Maryland, Virginia, and North Carolina. These residents participate in fisheries in the Gulf of Maine, on Stellwagen Bank, Jeffreys Ledge, and on Georges Bank (including Cultivator Shoals), in the South Channel, Nantucket Lightship, Nantucket Shoals, the Highlands, Pollock Rip, Great Round Shoal, Platt's Bank, Franklin Swell, Stout Swell, Elephant Trunk, Hudson Canyon, Cox's Ledge, the Fishtail, the Fingers, the Mudhole, the Cape May Rocks, the Gully, the Hotel Slew, and in various other nearshore and offshore areas.

1.3 Defining "community"

The word "community" can mean different things to different people. Various definitions exist including dictionary definitions, ecological definitions, social science definitions and, for 'fishing communities', legal definitions.

1.3.1. Generic definitions

A community can be defined using multiple considerations. The most generic (in that it applies beyond humans) is "an interacting population of various individuals (as species)

[10] Atlantic cod, Atlantic halibut, winter flounder, yellowtail flounder, American plaice, witch flounder, windowpane flounder, haddock, white hake, redfish, ocean pout, pollock and Atlantic wolffish
[11] Red hake,whiting (silver hake), and offshore hake.

in a common location" (Merriam-Webster 2010). A more human-specific definition is "a body of persons or nations having a common history or common social, economic and political interests" (Merriam-Webster 2010). The former definition stresses co-interaction within a common place, while the latter definition makes place less obvious or critical, as common interests and history can be connected across different spatial scales, as well as in a specific geographic site.

1.3.2. Social science definitions

Within the social sciences, debate exists as to the precise meaning of "community" (Clay & Olson 2007). The most common core definition emphasizes social interactions, usually in a shared environment. Social science definitions of "fishing community" include themes such as:

> (1) a certain level of visible connection to the industry (boats, gear, fishing-related businesses) and other infrastructure elements; (2) connections among on-land and at-sea networks; (3) the frequent role of kinship in the labor process; (4) multiple household and family-level ties to fishing (with many fishermen, different generations, and gendered fishing-related tasks); and (5) the frequent persistence of a sense of a cultural connection to fishing through changes from small-boat to large-boat, family to industrial, commercial to recreational fishing and even to fishing-related tourism that involves little actual fishing activity (Clay and Olson 2007:36).

1.3.3. Legal definitions

Under the MSA, specific requirements exist for communities to be designated as "fishing communities". In the re-authorized MSA in 1996, specific language was included (for the first time) on the term "fishing community", defined as "a community which is substantially dependent on or substantially engaged in the harvest 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." However, no details were provided in the re-authorized Act on the meaning of the phrases "substantially dependent" and "substantially engaged."

National Standard 8 (NS8) of the MSA (also added in 1996) requires that conservation and management measures "shall take into account the importance of fishery resources to fishing communities by utilizing economic and social data … to (A) provide for the sustained participation of such communities, and (B) to the extent practicable, minimize adverse economic impacts on such communities." On 1 May 1998, NMFS published a final rule revising guidelines for national standards 1, 2, 4, 5 and 7, and adding new guidelines for national standards 8, 9 and 10 (see Table 3 below for the National Standards). The new guidelines for NS8 further defined a fishing community as "a social or economic group whose members reside in a specific location and share a common dependency on commercial, recreational, or subsistence fishing or on directly related fisheries-dependent services and industries (for example, boatyards, ice suppliers, tackle shops)" (Fed. Reg. Vol. 63, No. 84, p. 24235).

The phrase "a specific location" references Congressional intent. In the original legislative debate over fishing communities, both the House version emphasizing "local coastal communities" and the Senate version referencing "any place where vessel owners, operators, and crew or U.S. fish processors are based" were clearly place-based (NOAA Office of General Counsel 1997: sec. 102). Hence, while descriptions of impacts can and should be evaluated and summarized by gear group, vessel size, target fishery, and any other relevant subset[12], when discussing impacts on MSA fishing communities, only geographic locations such as towns can qualify (see also the discussion in Olson 2005).

Table 3. National Standards of the MSA*

Conservation and management measures shall:

1. Prevent overfishing while achieving optimum yield.
2. Be based upon the best scientific information available.
3. Manage individual stocks as a unit throughout their range, to the extent practicable (interrelated stocks shall be managed as a unit or in close coordination).
4. Not discriminate between residents of different states; any allocation of privileges must be fair and equitable.
5. Where practicable, promote efficiency, except that no such measure shall have economic allocation as its sole purpose.
6. Take into account and allow for variations among and contingencies in fisheries, fishery resources, and catches.
7. Minimize costs and avoid duplications, where practicable.
8. **Take into account the importance of fishery resources to fishing communities to provide for the sustained participation of, and minimize adverse impacts to, such communities (consistent with conservation requirements).**
9. Minimize bycatch or mortality from bycatch.
10. Promote safety of human life at sea.

***(**http://www.nmfs.noaa.gov/fishwatch/management.htm**)**

The National Standard 8 Guidelines state (a) "FMPs must examine the social and economic importance of fisheries to communities potentially affected by management measures"; (b) "an appropriate vehicle for [these] analyses is the fishery impact statement required by section 303(a)(9) of the Magnuson-Stevens Act"; and (c) "To address the sustained participation of fishing communities that will be affected by management measures, the analysis should first identify affected fishing communities and then assess their differing levels of dependence on and engagement in the fishery being regulated. The analysis should also specify how that assessment was made. The best available data on the history, extent, and type of participation of these fishing communities in the fishery should be incorporated into the social and economic information presented in the FMP. The analysis need not contain an exhaustive listing of all communities that

[12] For instance, MSA Section 303(b)(6) on limited entry requires examination of current and historical involvement in fishing, economic, social and cultural factors, and "the capability of fishing vessels used in the fishery to engage in other fisheries (16 U.S.C. § 1853(b)(6)." Section 303(a)(9) on preparation of Fishery Impact Statements requires description of impacts of any regulation to both "(A) participants in the fisheries and fishing communities affected by the plan or amendment; and (B) participants in the fisheries conducted in adjacent areas . . . (16 U.S.C. § 1851(a)(9))."

might fit the definition; a judgment can be made as to which are primarily affected" (Fed. Reg. Vol. 63, No. 84, p. 24235)[13].

1.3.4. Communities as defined in this publication

Although no US communities have yet been officially designated as MSA fishing communities except in the Pacific Islands Region, many of the communities profiled in this report are likely to receive this designation. In this document, a place-based definition was thus used in identifying communities, relying on the US Census for "Place" information wherever possible.

2. METHODS

2.1 Relationship to earlier work

There have been many efforts to profiles fishing communities in the Northeast U.S. Some descriptions of Northeast ports and fishermen are provided in Goode and Collin's classic *The Fishermen of the United States* (1887). These accounts, written by natural scientists and others with no social science background, are unsystematic and sometimes reflect cultural biases[14].

The first systematic social science descriptions of individual fishing communities in the Northeast were published in 1980-1981: *The Fishing Ports of Maine and New Hampshire, 1978* (Acheson et al. 1980) and *Small Fishing Ports in Southern New England* (Poggie & Pollnac 1981). Subsequently, other profiles have been published including:[15] *An Appraisal of the Social and Cultural Aspects of the Multispecies Groundfish Fishery in the New England and the Mid-Atlantic Regions* (Griffith & Dyer 1996); *Fishing Ports of the Mid-Atlantic* (McCay & Cieri 2000); *New England's Fishing Communities* (Hall-Arber et al. 2001), and *The Rutgers Fisheries Project, 2003-2005*[16] (covering selected Mid-Atlantic ports). Many of these profiles furnish 30-60 pages of information per community, and collection of the data required months or years of fieldwork. We have used all of these profiles in preparing the current short profiles, integrating their ethnographic work in the historical background section and elsewhere. However, we summarized and abbreviated the data from the longer profiles to make the information more accessible.

The current set of short profiles is part of a nationwide effort by NOAA Fisheries to create profiles for the maximum number of communities containing comparable data,

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[13] By its 2006 re-authorization the MSA had acquired 17 separate references to fishing communities.

[14] For example (Section IV, p.6): "The majority of our fishermen are native-born citizens of the United States, although in certain localities there are extensive communities of foreigners, clinging to the traditions of their fatherlands, and conspicuous in the regions where they dwell by reason of their peculiar customs and physiognomies."

[15] Most of these documents can be downloaded from http://www.st.nmfs.noaa.gov/st1/econ/cia/impact_studies.html.

[16] Contact Patricia.Pinto.da.Silva@noaa.gov or Patricia.M.Clay@noaa.gov for information.

within and across regions, acquired using cost effective methods such as library research and the Internet. These "short form profiles" are generally 8-12 pages long and are based almost exclusively on archival data and other secondary sources (e.g., books, newspapers, government web pages[17]) which occasionally were supplemented by phone calls to clarify information.

2.2 Community selection process

Approximately 2,000 communities in the Northeast have some type of involvement in fishing. Data on these communities were compiled into a NMFS/ NEFSC Social Science Database (SSD). Those communities with the greatest fishing involvement were identified using an array of criteria and indicators that included: relevance to Northeast FMPs; total commercial fisheries landings, in value and pounds; number of residents possessing a Northeast federal fisheries permit; number of Northeast federally permitted vessels; number of federal dealers; and processing plant and recreational fishing activities. The list of fishing communities was adjusted as necessary and appropriate by recommendations from local authorities and academic experts. Data on subsistence fishing were not generally available, but where such data exist for individual communities they are included in the profiles.

Base indicators/criteria for selecting Northeast U.S. communities to be profiled:

1. **Commercial Fishery Landings**: $1,000,000 or more ex-vessel value of fishery products at landing port or associated homeport. (Initially, this criterion was $2.5 million dollars and was based on 2002 data. But the list of qualifying communities was later expanded using the $1.0 million dollar criterion and 2005 data[18]. No community selected under the initial criterion was eliminated).
2. **Dependency on Commercial Fishing**: 2.5% or more "dependency" at the landing port or homeport level (i.e., the quotient of landed value in a community [obtained from the NMFS Dealer Landings Database] divided by aggregate community household income [obtained from Census data] equals or exceeds 2.5%). This evaluation was based on 2000 landings data to match the available Census data; initially, the dependency level was 5% but was subsequently lowered to 2.5% to include more communities.)
3. **Commercial Fishery**: Any community listed as important in any NEFMC or MAFMC FMP.
4. **Commercial Fishery**: Any community possessing at least 0.5% of all Northeast commercial fishery vessel permits, fisheries permits, or dealer permits, by homeport, permit holder's home city, or dealer address. (This evaluation was

[17] We were careful to use only information from the internet that could be confirmed elsewhere or was from an already fact-checked source such as a newspaper or encyclopedia or government site.

[18] Though the data for selection were from 2005, ultimately the landings and permit data presented within the profiles were updated to 2006. Landings and permit data for all years are as of August 8, 2007. Since even past year files are occasionally updated with late arriving information, the totals may not be identical to information downloaded before or after that date.

based on 2005 data; initially, the qualifying criterion was 1% but was subsequently lowered to 0.5% to include more communities.)

5. **Recreational Fishery**: Community accounted for at least 10% of total number of anglers, or accounted for 10% of the total number of trips by party/charter boats, in 2005 or in the combined years 2001-2005, based on federal logbooks.
6. **Recreational Fishery**: Additional communities in North Carolina where recreational fishing is important, identified by NOAA Fisheries staff in the Southeast Region.
7. **Processing Plant Activity**: Any community where the total seasonally-adjusted employment at processing plants in that community or the total dollar value of fish processed by processing plants in that community in 2003 (latest year available to us in 2005) was at least 5% of the total seasonally-adjusted employment (or dollar value of fish processed) of all communities with processing plants; or if the percentage of the total dollar value of fish processed in a community in 2003 was 10% or more of that community's aggregate household income (obtained from the 2000 Census data).

As profiles were completed and review comments received from community residents, some communities were added and others eliminated. Sometimes two profiles were merged because separate landing sites were found to exist within a single community. A large portion of Maryland commercial landings, and to a lesser extent Virginia landings, are reported by water body codes (e.g., landings for all ports along a given river are aggregated and reported under the name of the river). This resulted in landings that could not be attributed to individual communities. In these cases, we communicated with local experts from area academic institutions to determine which communities were 'missing'. Although the types and importance of fishing to these communities can be discussed, it is not possible to provide the actual landings data from such communities. In total, profiles were developed for 177 communities.

2.3 Data sources and caveats

NOAA Fisheries databases and other governmental (e.g., the U.S. Census) and non-governmental (e.g., the Association of Religion Data Archives) sources were used to create the community profiles.

2.3.1 Standard NOAA Fisheries databases

As noted earlier, information from various NOAA databases was retrieved and merged to create a NEFSC SSD. Data from 1997 to 2006 were accessed from Oracle™ databases using SAS™ and then outputted to an Excel™ file.

2.3.1.1 Weighout and Logbooks

Trip-level landings and ex-vessel revenues are recorded in NMFS weighout (dealer) reports and in vessel logbooks. Logbooks for charter/party vessels[19] also provide the

[19] For recreational fisheries, the only data used were those in the permit and weighout files for charter/party vessels landing federally regulated species. NMFS does conduct an annual marine recreational fishing

number of anglers on each trip. In these records, port of landing is indicated by a numerical code, which is linked to a place name via a port lookup table. Landings in the weighout files are available from the early 1970s onwards and logbook landings exist from 1994 onwards. However, in weighout reports prior to 1994, landings from all small vessels (under 5 gross registered tons) in a port were generally recorded as a single group entry, differentiated at most by landing site. Further, landings from small ports were often reported by county or state with no attribution possible at the port level. Thus, pre-1994 data were not used in our analyses as smaller ports would be inadequately represented. Because the logbook system was introduced in 1994 and was still relatively new 1995-1996, logbook records in these years contain a very large numbers of place name and related errors (however, these have no effect on the corresponding weighouts because port is identified on the weighout records as a numerical code). For constructing the community profiles, we therefore used data beginning in 1997.

Because landings and value are proprietary firm financial information, confidentiality guidelines require that no such data can be published that might reveal individual vessels or dealers. Accordingly, numerical data cannot be published for any locality having three or fewer vessels, or three or fewer dealers. Even when there are more than three dealers, landings and value data cannot be published if one of the dealers dominates the transactions of a particular species. Locations falling under these prohibitions vary by fishing year, and must be continually checked and updated.

Of the 177 communities profiled, 74 are completely confidential with regard to landings and value, and 13 others had a confidentiality issue in at least one year.

2.3.1.2 Permits

Dealer permits provide the primary business address of a dealer. Information on the homeport of a vessel and a vessel owner's city of residence is available in the vessel permit database. Before the 1980s, vessel permits were issued in perpetuity, leading to "ghost permits" (i.e., permits not in use but still in the database). Prior to 1984, no entries exist in the homeport field on the permits. Only since 1990 has the homeport field been fairly well populated. Further, in all years there are numerous typographical variations and errors in the fields for owner's city of residence and homeport.

The SAS™ program that created the SSD strives to reconcile and correct these and other permit database inconsistencies.

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survey – formerly the Marine Recreational Fisheries Statistics Survey (MRFSS) and now the Marine Recreational Information Program (MRIP). The surveys have two main components: an intercept survey and a random-digit-dial (RDD) telephone survey. The intercept survey is designed to provide a random sample of all marine recreational fishing trips. Data from the intercept survey are used to estimate mean catch-per-trip by species; the intercept sites are not coded with respect to particular communities. In fact, some sites are not located within the boundaries of any given community. These data can be aggregated to intercept site or county - but not community. The RDD telephone survey is designed to provide a random sample of marine recreational fishing participants in coastal counties and provides data to estimate effort and participation. These data are available only at the county, not the community, level.

2.3.1.3 Processor Survey

The NOAA Fisheries processor survey collects annual information on seafood and industrial fishery processing. Federally permitted dealers in the NMFS Northeast Region are required under 50 CFR 648.7 to complete and submit all sections of the survey. However, public disclosure of this information is subject to the same confidentiality issues as previously mentioned with the weighout files, limiting what data can be revealed at what level of aggregation.

2.3.1.4 Census

Census data included in the SSD were obtained from the 2000 Census. Data available from annual updates (2001-2009) to this Census were not used, as updated information was not available for all communities – and was completely lacking for small communities. Further, some of the profiled communities do not appear as Census Places, i.e., by community name. In these cases, ZIP codes or groups of Census Blocks were utilized - or the data were used at the County Subdivision rather than the Place level. Where ports that are villages group together to form towns (as often occurs in Maine), town level data were provided. Where several villages within a single town have separate landings, profiles were sometimes created for each village, using its individual landings data, but using the same town Census data for each village profile. This ensured no double-counting of permitted vessels or landings, but meant occasional overlapping in census populations.

In cases such as Point Judith in Rhode Island, the commercial landings port is not an actual community but an agglomeration of docks, restaurants, a ferry and some beach homes. Fishermen associated with Point Judith actually live elsewhere. In ports of this type, the smallest reasonable Census Place that encompassed the port was selected.

In all instances, community selections were also supplemented by judgments using the combined expertise of NEFSC staff anthropologists, NOAA Fisheries port agents, local community members, and knowledgeable area academics.

2.3.1.5 Association of Religion Data Archives

The Association of Religion Data Archives (ARDA 2000) began as the American Religion Data Archive in 1997 and has been online at http://www.thearda.com/ since 1998. Data included in the ARDA are submitted by religion scholars and research centers around the world. The archives are currently housed in the Social Science Research Institute, the College of Liberal Arts, and the Department of Sociology at the Pennsylvania State University. The ARDA is funded by the Lilly Endowment, the John Templeton Foundation, and the Pennsylvania State University.

3. PROFILED COMMUNITIES

The following is a list of the 177 communities profiled, organized by State (ME: 50; NH: 5; MA: 29; RI: 9; CT: 4; NY: 11; NJ: 17; PA: 1; DE: 5; MD: 8; VA: 16, and NC: 22) and by county.

Table 4. Profiled Communities by State and County

MAINE	*CUMBERLAND*	BAILEY ISLAND
		CUNDYS HARBOR
		FALMOUTH
		HARPSWELL
		PORTLAND
	HANCOCK	BAR HARBOR
		COREA
		DEER ISLE
		FRENCHBORO
		FRIENDSHIP
		ISLESFORD – CRANBERRY ISLES
		PROSPECT HARBOR (GOULDSBORO)
		SORRENTO
		SOUTHWEST HARBOR
		STONINGTON
		SWANS ISLAND
		TREMONT
		WINTER HARBOR
	KNOX	CUSHING
		NORTH HAVEN
		OWLS HEAD
		PORT CLYDE
		ROCKLAND
		SOUTH THOMASTON
		SPRUCE HEAD
		TENANTS HARBOR
		VINALHAVEN
	LINCOLN	BOOTHBAY HARBOR
		BREMEN
		NEW HARBOR
		PEMAQUID
		SOUTH BRISTOL
		WESTPORT (ISLAND)

		WISCASSET
	SAGAHADOC	BATH
		SEBASCO/PHIPPSBURG
	WALDO	BELFAST
	WASHINGTON	ADDISON
		BEALS
		BUCKS HARBOR
		CUTLER
		EASTPORT
		JONESPORT
		MILBRIDGE
		STEUBEN
		WHITING
	YORK	CAPE PORPOISE
		KENNEBUNKPORT
		KITTERY
		OGUNQUIT
NEW HAMPSHIRE	*ROCKINGHAM*	HAMPTON
		NEWINGTON
		PORTSMOUTH
		RYE
		SEABROOK
MASSACHUSETTS	*BARNSTABLE*	BARNSTABLE
		CHATHAM
		HARWICH PORT
		ORLEANS
		PROVINCETOWN
		SANDWICH
		WELLFLEET
		WOODS HOLE
	BRISTOL	FAIRHAVEN
		FALL RIVER
		NEW BEDFORD
		WESTPORT
	DUKES	CHILMARK
	ESSEX	BEVERLY
		DANVERS
		GLOUCESTER
		MANCHESTER
		MARBLEHEAD
		NEWBURYPORT

		ROCKPORT
		SALISBURY
		SAUGUS
	NANTUCKET	NANTUCKET
	NORFOLK	COHASSET
	PLYMOUTH	HULL
		MARSHFIELD
		PLYMOUTH
		SCITUATE
	SUFFOLK	BOSTON
RHODE ISLAND	*BRISTOL*	WARREN
	NEWPORT	LITTLE COMPTON
		NEWPORT
		PORTSMOUTH
		TIVERTON
	WASHINGTON	BLOCK ISLAND
		NORTH KINGSTOWN
		POINT JUDITH/ NARRAGANSETT
		WAKEFIELD
CONNECTICUT	*NEW LONDON*	GROTON
		NEW LONDON
		STONINGTON
		WATERFORD
NEW YORK	*BRONX*	CITY ISLAND
	KINGS	BROOKLYN
	NASSAU	FREEPORT
		OCEANSIDE
		POINT LOOKOUT
	NEW YORK	NEW YORK
	SUFFOLK	CAPTREE ISLAND
		GREENPORT
		HAMPTON BAYS/SHINNECOCK
		MATTITUCK
		MONTAUK
NEW JERSEY	*ATLANTIC*	ATLANTIC CITY
	CAPE MAY	AVALON
		CAPE MAY
		CAPE MAY COURT HOUSE
		SEA ISLE CITY
		WILDWOOD
	CUMBERLAND	PORT NORRIS

		VINELAND
	ESSEX	NEWARK
	MONMOUTH	BELFORD / MIDDLETOWN
		BELMAR
		BRIELLE
		HIGHLANDS
	OCEAN	BARNEGAT LIGHT/LONG BEACH
		POINT PLEASANT and POINT PLEASANT BEACH
		TOMS RIVER
		WARETOWN
PENNSYLVANIA	*COLUMBIA*	BLOOMSBURG
DELAWARE	*KENT*	BOWERS BEACH
		PORT MAHON
	SUSSEX	INDIAN RIVER
		LEWES
		MILFORD
MARYLAND	*ANNE ARUNDEL*	DEALE
		SHADY SIDE
	CALVERT	SOLOMONS
	DORCHESTER	CAMBRIDGE
	KENT	ROCK HALL
	SOMERSET	CRISFIELD
		SMITH ISLAND
	WORCESTER	OCEAN CITY
VIRGINIA	*ACCOMACK*	CHINCOTEAGUE
		WACHAPREAGUE
	CITY OF HAMPTON	HAMPTON
	CITY OF NEWPORT NEWS	NEWPORT NEWS
	CITY OF NORFOLK	NORFOLK
	CITY OF VIRGINIA BEACH	VIRGINIA BEACH
	GLOUCESTER	SARAH'S CREEK/GLOUCESTER POINT
	ISLE OF WIGHT	CARROLLTON
	MATHEWS	GWYNNS ISLAND
	MIDDLESEX	DELTAVILLE
	NORTHAMPTON	CHERITON
		PORT CHARLES
	NORTHUMBERLAND	REEDVILLE
	POQUOSON (CITY)	POQUOSON
	YORK	SEAFORD
		WORMLEY CREEK

NORTH CAROLINA	*BEAUFORT*	AURORA
		BELHAVEN
	CARTERET	ATLANTIC
		ATLANTIC BEACH
		BEAUFORT
		MOREHEAD CITY
	CRAVEN	NEW BERN
	DARE	AVON
		HATTERAS
		KILL DEVIL HILLS
		MANTEO
		NAGS HEAD
		WANCHESE
	HYDE	ENGELHARD
		SWAN QUARTER
	ONSLOW	SNEADS FERRY
	PAMLICO	BAYBORO
		LOWLAND
		ORIENTAL
		VANDEMERE
	PITT	AYDEN
	TYRRELL	COLUMBIA

4. REVIEW PROCESS

Profiles were sent to reviewers in each community and were also reviewed by NOAA Fisheries personnel.

4.1 Community Review Process

The final phase of profile development was fact and data checking, achieved through community and intra-agency profile reviews. Profiles were sent to the NMFS Port Agents in whose districts each community was located. Two or more reviewers in each community were also contacted; reviews were received from 52% of those requested, representing 79% (140) of the communities profiled. The community review protocol was based on Dillman's *total design method* (Bernard 2006, pp. 280-285). The per community response rate was much better than expected due to this multiple re-contact approach.

Within each community, we attempted to have one reviewer from the local government and, at least one reviewer knowledgeable about fisheries (e.g., a fishermen's association leader or a harbor master). In some cases, reviewers were individuals who had furnished or confirmed information by telephone during the profile creation process. In other

cases, reviewers were people whose names had been acquired during our secondary source research.

As profiles were completed, potential reviewers were contacted to secure their agreement to review the profiles. Both telephone and email were used to contact people and those who agreed to be reviewers subsequently received (by email or regular mail, based on their preference) a profile, along with a review form and a letter outlining the review process. Those receiving their review by regular mail also received a stamped, self-addressed envelope in which to return their review.

Community reviewers were requested to complete their reviews within two weeks. If a review had not been received in that time, a reminder email/letter was sent to the reviewer. If the review had not been submitted after another week, a telephone call was made to the reviewer. If the review was subsequently not provided, the reviewer was considered a non-respondent.

4.2 Groundtruthing the profiles

Because the profiles were developed using secondary information, we felt it necessary to "groundtruth" a small number of the profiles. Groundtruthing provides insight into what the profiles actually captured—and what was missed—in terms of community involvement with fishing. In the groundtruthing process, site visits were made to individual communities and interviews conducted with local officials and residents. Ethnographic work, surveys and oral histories were also conducted. A check-list of community attributes used in developing the profiles was administered to community residents to cross check the information in the profiles.

To date, a total of 15 communities in five states (New Hampshire, Massachusetts, Rhode Island, New York, and New Jersey) have been groundtruthed.

5. ORGANIZATION OF PROFILES

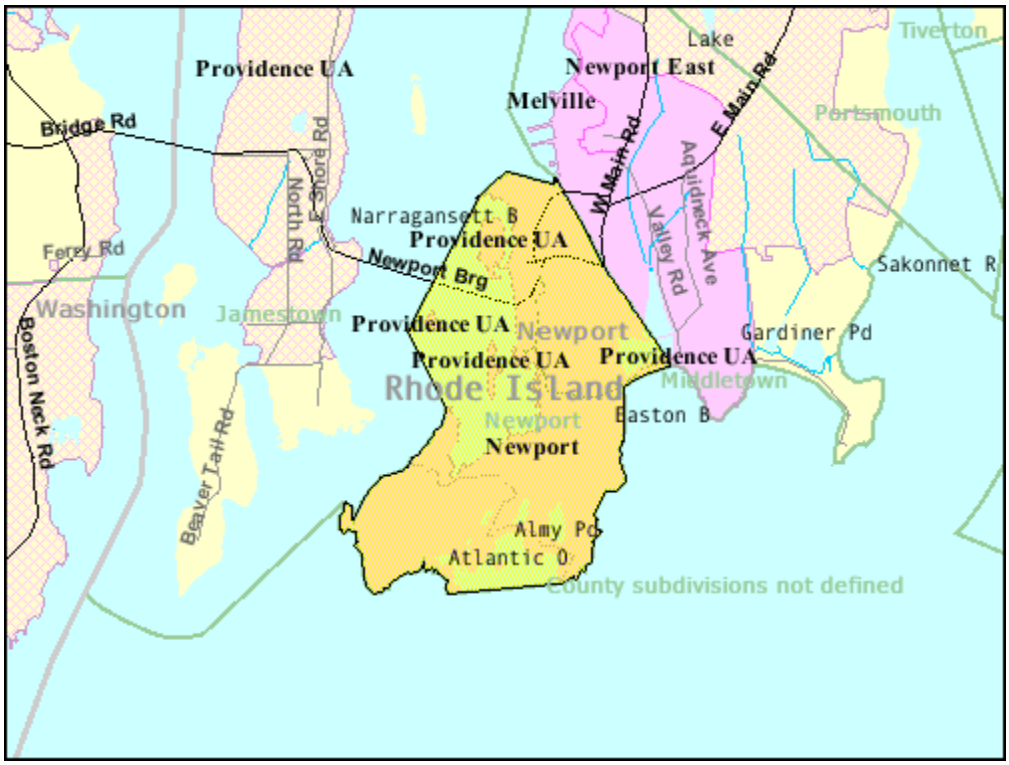
Each profile was organized within a standard format comprising four sections: People and Places, Infrastructure, Involvement in Northeast Fisheries, and the Future. This allows comparisons to be easily made across communities.

5.1 People and Places

This section includes: Regional Orientation, Historical/Background, Demographics, Issues/Processes, and Cultural Attributes.

The *Regional Orientation* subsection provides a Census reference map (e.g., Map 2), the latitude and longitude and county for the community, and a discussion of the choice of Census group relative to the port of landing. The *Historical/Background* subsection contains a brief (2-3 paragraphs) history of the community, especially with respect to fishing. For example, Gloucester, MA has been associated with fishing since the 1600s. Point Pleasant/Point Pleasant Beach, NJ has a larger recreational fleet than commercial fleet.

Map 2. Location of profiled community-Newport, RI



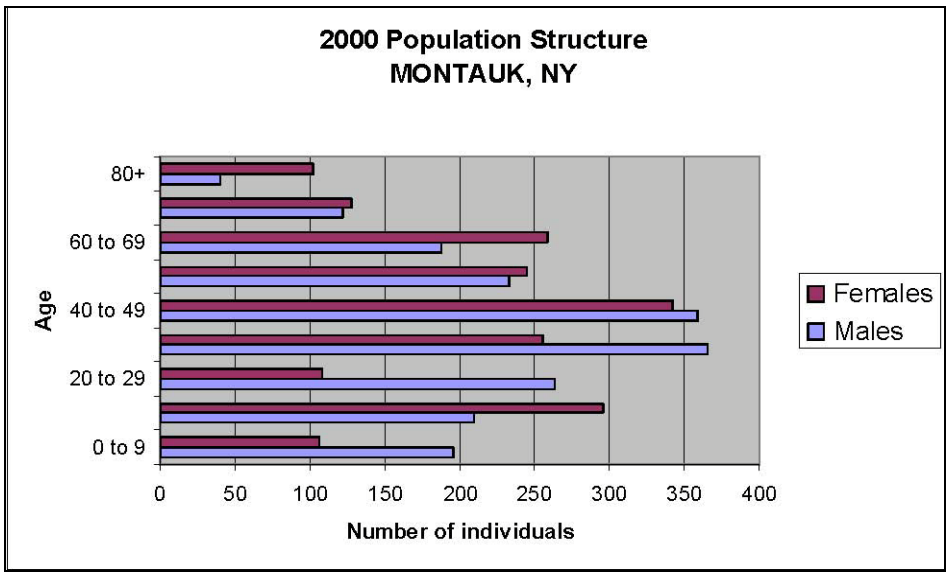
The *Demographics* subsection of each profile provides a common community set of Census variables:

1. Total population
2. % male and female
3. Median age
4. % 21 or older
5. % 62 or older
6. Population structure by sex
7. % white, % black or African American, % Asian, % Native American, % Pacific Islander or Hawaiian, % Other
8. % Hispanic,% non-Hispanic
9. % various ancestries claimed
10. % born in the state where the community is located, % born in another state, % born outside the U.S., 5 US citizens
11. % 5 or older where only English is spoken in the home
12. % who speak English "very well"
13. % 25 or older who are high school graduates or higher, have a bachelor's degree or higher,
14. % 25 or older who did not reach 9th grade, attended some high school but did not graduate, completed high school, had some college with no degree, received an

associate degree, earned their bachelor's degree, received a graduate or professional degree

Some of this information will simply be listed in the text, while some will also have accompanying figures (e.g., Figure 1 below). These statistics vary widely across communities. For example, some have populations of just a few thousands (Chatham MA) while others are large urban metropolises (Portland, ME). Some are very racially diverse (Atlantic City, NJ) while others are not (Tiverton, RI). Many of the smaller communities have few young people in their age structures, likely indicating them leaving for college or work elsewhere. If they do not return, this has implications for the continuity of fishing in these communities.

Figure 1. Population structure by sex in 2000 (US Census Bureau 2000)



The *Issues/Processes* subsection discusses any notable points of particular conflict or coordination between fisheries and other community activities. For instance, more than half of the NC Outer Banks' 30,000 residents have full-time jobs directly related to tourism, making development an important issue for Hatteras, NC. Meanwhile, the Massachusetts Senate recently passed a bill that will preserve funding for the Fisherman's Partnership Health Insurance Plan. In addition, Maine instituted a Waterfront Tax that supports local commercial fishing infrastructure.

The *Cultural Attributes* subsection describes festivals, museums, tournaments and other cultural institutions or activities related to fishing that occur within the community, such as the annual Working Waterfront Festival in New Bedford, MA, the Lobster Boat Races in Jonesport, ME and the sportfish tournaments in Freeport,NY and Newport News, VA .

5.2 Infrastructure

This section covers Current Economy, Governmental, Institutional, and Physical. The *Current Economy* subsection provides an overview of major businesses (including fishing and related enterprises) in the community and presents any available information on local

employment. An overview of these factors is also discussed in NMFS (2009) [20]. For example, in addition to commercial fishing Point Judith, RI has a thriving tourism industry, recreational fishing, a ferry, and numerous fishing processing companies. Ocean City, MD is also a popular tourist destination. In Boston 27% of jobs are in education, health and social service.

A set of 18 Census variables related to the local economy is then provided:

1. % of those 16 and over who are employed, unemployed, in the Armed Forces, not in the labor force
2. % and # of jobs in the census grouping which includes agriculture, forestry, fishing and hunting, and mining
3. % and # of self-employed workers
4. % accounted for by each of the top primary industries
5. Median household income (as compared to 1990)
6. Median per capita income
7. For full-time year round workers, % more per year that males made than females
8. Average family size
9. % of families in poverty (as compared to 1990)
10. Number of housing units
11. % of housing units which are occupied
12. % occupied units that are rental housing
13. % of vacant units that are used for seasonal, recreational, or occasional use
14. % of housing units which are detached one unit homes
15. % detached homes with 2-9 rooms
16. % housing units built before 1940
17. % housing units accounted for by mobile homes, boats, RVs, vans
18. Median price of a home

The *Governmental* subsection presents information on the form of community government, as well as details on fishing-related local, state or federal governmental institutions or academic entities located in (or near) the community. As examples, these might include an Environmental Protection Agency (EPA) lab, a Sea Grant university, or a town Harbor Commission. Montauk, NY is an unincorporated village governed by a Town Board, while Beals, ME is governed by a chairperson and 3 selectmen. New London, CT has a City Council, a mayor and a City Manager.

The *Institutional* subsection provides information on fishing associations, processor associations, fishing assistance centers, and non-profit organizations related to fishing, such as the Long Island Commercial Fishing Association, that promotes commercial fishing in Montauk, NY and throughout Long Island or the Southeastern Connecticut Fisherman's Loan and Technical Assistance Program that offers loans to fishermen.

[20] The communities discussed in NMFS (2009) for New England and the Mid-Atlantic do not completely coincide with those profiled here because different criteria were used for selecting communities. That document chose the top ten fishing communities by state, resulting in the choice of some communities (especially in small states) that did not meet our criteria here.

The *Physical* subsection covers proximity to urban centers, airports, and to fishing-related facilities such as marinas and commercial fishing docks. For example, Chincoteague, VA is accessible from the mainland via Rt. 175, which extends over a bridge and is the only road to the mainland, and Cushing, ME is about 73 miles from Portland.

5.3 Involvement in Northeast Fisheries

This section covers Commercial Fisheries (including landings by year by species, and homeport of vessels or vessel owners in residence by year) and Recreational Fisheries, (and Subsistence Fisheries where data are available), with species grouped by Northeast FMPs or else summarized as "Other." For example, the commercial port of Reedville, VA lands almost exclusively menhaden, which is also processed there. Toms River, NJ has about a half dozen vessels that homeport there, but often twice that number whose owners live in the town. The Town Park in Bloomburg, PA is "located on the banks of the Susquehanna River, and offers a lagoon for recreational fishing in the summer months."

5.4 Future

This section presents information on future plans for fisheries infrastructure, and also various community views on the future of the fisheries. Information in this section might include plans for new docks, a closure of a local processing plant, proposed legislation giving tax breaks to working waterfront businesses, or descriptions of increasing gentrification along the coastline. For example, due to the closing of a co-op, the future of commercial fishing in Portsmouth, NH is unclear. Meanwhile the Port Clyde, ME Co-op received a grant to expand the wharf and use by groundfish vessels. Cambridge, MD has been considering a new lighthouse/visitors center; this has raised "general concern over the proper course to take in expanding the marina to suit greater boat traffic and tourists."

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7. APPENDICES

7.1 Appendix A: Maps

Map 3. Maine Port Communities

Map 4. New Hampshire, Massachusetts, and Rhode Island Port Communities

Map 5. Connecticut, New York, and Northern New Jersey Port Communities

Map 6. New Jersey Port Communities

Map 7. Delaware, Maryland, and Virginia Port Communities

Map 8. North Carolina Port Communities

7.2 Appendix B: List of authors

7.2.1 Patricia M. Clay

Patricia M. Clay is an anthropologist with the Northeast Fisheries Science Center in Woods Hole, Massachusetts. and also assists in the NMFS Office of Science and Technology in Silver Spring, MD. She received her Ph.D. in sociocultural anthropology from Indiana University, Bloomington.

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7.2.3 Patricia Pinto da Silva

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