

Fishery Management Report No. X
of the
Atlantic States Marine Fisheries Commission



**Draft Amendment 3 to the
Interstate Fishery Management Plan for Atlantic Herring**

For approval for public comment

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of the

ATLANTIC STATES MARINE FISHERIES COMMISSION

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Prepared by

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Atlantic Herring Plan Development Team
and Atlantic Herring Advisory Panel

In coordination with

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1.0 INTRODUCTION

1.0 Background Information

1.1.1 Statement of the Problem

Atlantic herring (*Clupea harengus*), also known as sea herring, is an oceanic schooling fish that is important to the ecosystem as a forage species and to industry as bait for lobster, blue crab, and tuna. This resource also serves as a food fish, typically canned, pickled, or smoked. The U.S. Atlantic herring fishery is currently managed as a single stock through complementary plans by the Atlantic States Marine Fisheries Commission (ASMFC) and New England Fishery Management Council (NEFMC). However, there is evidence suggesting several spawning aggregations. Generally, the resource has been divided into an inshore Gulf of Maine (GOM) and an offshore Georges Bank (GB) component. Individual spawning aggregations have been identified, but methods have not been developed to distinguish discrete units. Tagging studies have shown that herring from New Brunswick and the Scotian shelf of Canada may be intermixed with those in the United States waters. However, since the degree of mixing is unknown.

The Atlantic herring resource is currently not overfished and overfishing is not occurring (*Section 2.5*). The changing climate of oceanographic conditions to which herring migration patterns may be linked, concerns over the bycatch and incidental catch of river herring species, and needs of the herring fleet has generated interest in reviewing spawning protections, maintaining traditional use patterns in the fishery, and increasing the bait fishery.

Amendment 3 was developed in coordination with the New England Fishery Management Council as the Council developed Framework Adjustment 4 to the Federal Fishery Management Plan for Atlantic Herring.

Some of the specific issues covered by this amendment, include:

- Spawning Area Efficacy
- Fixed Gear Set Aside Provision
- Empty Fish Hold Provision

1.1.2 Benefits of Implementation

This Amendment, when fully implemented and in conjunction with the Council plan, is intended to enhance spawning protections for Atlantic herring in the Gulf of Maine and create an incentive for better managed fishing practices to reduce impacts to species which are ecologically associated with Atlantic herring while minimizing adverse effects on participants in the fishery.

1.1.2.1 Social and Economic Benefits

The goal of the herring management plan is to enhance spawning protections for Atlantic herring, incentivize sustainable fishing practices, and improve accounting of directed sea herring catch as well as bycatch and incidental catch of river herring species while providing access to

stakeholders who depend on herring. Adequate protections of the reproductive stock of sea herring ensures a stable fishery over time and in turn provides a measure of security to individuals and communities dependent on the resource. Presumably, the outcomes will be continued availability and accessibility to the fish, and better quality and prices. The empty fish hold provision incentivizes market-appropriate catches (better business planning) and will make conditions aboard the vessel safer.

1.1.2.2 Ecological Benefits

When implemented, Amendment 3 is designed to enhance protection of the inshore spawning stock by reducing disruption of spawning activity and catch of ripe fish. The empty fish hold provision creates an incentive for fishermen to harvest more sustainably to meet market demands, thereby reducing the removal of fish that will not be utilized (and dumped at sea). It also ensures better accounting of sea herring catch as well as bycatch monitoring of river herring species by preventing double-counting of trips.

1.2 Description of the Resource

Atlantic herring are distributed along the Atlantic coast from North Carolina to the Canadian Maritime provinces in inshore and offshore waters, including in every major estuary from the northern Gulf of Maine to the Chesapeake Bay, to the edge of the continental shelf. Management of the Atlantic herring resource centers on three major stocks of herring in the Gulf of Maine region that spawn in geographically discrete areas on Georges Bank (GB) and Nantucket Shoals (NS), in coastal waters of the Gulf of Maine (GOM) and off southwest Nova Scotia. Each of these major spawning areas is composed of a number of smaller spawning grounds. Observations of year to year changes in the abundance of adults on individual spawning grounds, in response to fishing pressure, tend to confirm the view that each of these areas supports a discrete spawning aggregation (or sub-stock) of herring (Stephenson, 1998).

Some degree of stock differentiation was achieved with early enzyme electrophoresis research (Ridgway et al., 1970, 1971), but more recent attempts to differentiate geographically isolated fall spawning stocks in eastern Canada and the northeast U.S. on the basis of genetic characteristics have been unsuccessful (Kornfield et al., 1982; Kornfield and Bogdanowicz, 1987; Safford and Brooke, 1992). Nevertheless, discrete spawning stocks occupy the three fairly distinct locations in the Gulf of Maine region. Evidence for separate stocks in the Gulf of Maine region is also derived from discrete larval distribution patterns (Iles and Sinclair, 1982), differences in spawning times and locations (Boyar et al., 1973; Haegele and Schweigert, 1985) and distinct biological characteristics, such as growth rates (Anthony and Waring, 1980), meristic and morphometric counts and measurements (Anthony, 1981; Safford, 1985) and the incidence of parasites (McGladdery and Burt, 1985). Despite the differences, herring that spawn on Georges Bank, Nantucket Shoals and in coastal waters of the Gulf of Maine are assessed in the U.S. as a single coastal stock complex at this time.

Each of these major spawning areas is composed of a number of smaller, discrete spawning sites. Herring that spawn on these individual sites have been observed to have distinct age compositions and their abundance from year to year changes in response to the amount of fishing

that occurs at each site. These observations tend to confirm the view that each of these areas supports a discrete spawning aggregation (or sub-stock) of herring (Stephenson, 1998; NEFMC). Some of these discrete spawning sites are located within 10-15 miles of each other (e.g. Trinity Ledge and Lurcher Shoals off the southwest coast of Nova Scotia).

The most compelling evidence supporting the existence of separate Gulf of Maine and Georges Bank-Nantucket Shoals stocks was the collapse of the large Georges Bank-Nantucket Shoals stock in the early 1970s after several years of heavy exploitation by foreign fishing fleets. This stock remained in a depressed state for about ten years, during which time the smaller Gulf of Maine stock continued to support a strong coastal fishery. Both of these stocks are transboundary stocks since adult herring occupy both sides of the U.S.-Canada boundary on Georges Bank and because juvenile and adult herring on the New Brunswick shore of the Bay of Fundy are believed to originate from spawning grounds in U.S. and Canadian waters (Stephenson et al., 1998, NEFMC, 2005).

It is recognized that conspecific herring populations often differ in productivity and may not support equal levels of exploitation. Thus, appropriate fishing levels may not be the same for the different populations within the stock complex. In recent years there has been increasing emphasis on preserving all aspects of biodiversity, including within species diversity. The biological rationale for preserving this diversity is that such variation allows adaptation to changing conditions. The economic rationale is that the decrease or elimination of population richness may lead to the loss of fisheries, such as occurred during the mid-1970s when the Georges Bank herring stock collapsed (Overholtz et al., 2004).

1.2.1 Species Life History

1.2.1.1 Herring as forage

Herring is an important species in the food web of the northwest Atlantic. Herring eggs are deposited on the bottom and incubate for about 10 days. They are subject to predation by a variety of demersal fish species, including winter flounder, cod, haddock and red hake. Juvenile herring, especially “brit” (age-1 juveniles) are preyed upon heavily due to their abundance and small size.

Atlantic herring is an important prey species for a large number of piscivorous fish, elasmobranchs (sharks and skates), marine mammals and seabirds in the northeastern U.S. Unlike other pelagic fishes such as Atlantic mackerel, herring are smaller and vulnerable to predation over most, if not all, of their life (Overholtz et al., 2000). Estimates of the percent composition of Atlantic herring (or of two broader taxonomic groups that include Atlantic herring, menhaden, shad, and river herring) in the diets of 15 species of elasmobranchs and finfish in the northeast shelf ecosystem are summarized in Table 1. Stomach content data compiled from fish collected after 1990 are more indicative of current conditions since the Atlantic herring stock was in a collapsed state during the 1980s and started to recover in the early 1990s. The trends in the percentage of herrings in the diet of Atlantic cod follow this change in the population sizes for Atlantic herring.

[Needs to be updated] *Atlantic herring stock assessments are performed using an annual natural mortality rate that is equivalent to an 18% biomass removal from the stock. We used the difference between the results of the recent Canadian and U.S. stock assessments for the most recent year (2001/2002) to define an intermediate “best” stock size estimate of 1.2 million mt, and the most recent biomass estimates from the two assessments (0.6 and 1.8 million mt) to define the upper and lower population sizes for the resource. Multiplying these numbers by 18% generates a “reserve” of 250,000 mt as a forage base for predators (with a range of 108,000 to 324,000 mt). These calculations suggest that even if the Atlantic herring resource was being fully utilized, a sufficient biomass is being reserved to feed species of finfish, elasmobranchs and marine mammals that rely on the resource for food. That was not the case during the early 1990s when predation rates were higher (Overholtz et al., 2000) and herring were less abundant. It would also not be true if the current estimates of herring population size were too high. However, because the Atlantic herring resource is currently under-utilized, a greater quantity of herring are available as food for predators than is provided by the natural mortality “reserve.” Because of the uncertainty associated with the recent stock size estimate, however, the amount of “surplus” herring biomass that is currently available as forage for predators is not known.*

1.2.1.2 Age and Growth

In U.S. waters, Atlantic herring reach a maximum length of about 39 cm (15.6 inches) and an age of about 15-18 years (Anthony, 1972; NEFMC, 2005). Male and female herring grow at about the same rate and become sexually mature beginning at age 3, with most maturing by age 4 (NEFMC, 2005). Growth rates vary greatly from year to year, and to some extent from stock to stock, and appear to be influenced by many factors, including temperature, food availability and population size. Juvenile growth is rapid during the first year of life, with a marked slowing at the onset of maturity. Juveniles in coastal Maine waters reach 90-125 mm by the end of their first year of life. There has been a marked reduction in size and weight-at-age of adult herring in U.S. waters of the northwest Atlantic beginning in the mid-1980s (Overholtz et al., 2004), a trend that appears to be related to increased population size and recovery of the Georges Bank spawning stock.

1.2.1.3 Spawning, Reproduction, and Early Life History

[PDT to update with new analysis of spawning and maturity] *Atlantic herring are believed to return to natal spawning grounds throughout their lifetime to spawn (Ridgway, 1975; Sinderman, 1979; NEFMC, 2005). This behavior is fundamental to the species’ ability to maintain discrete spawning aggregations and is the basis for hypotheses concerning stock structure in the northwest Atlantic. Evidence for this homing behavior is provided by a tagging study in Newfoundland which showed a 73% return rate of adult Atlantic herring to the same spawning grounds where they were tagged (Wheeler and Winters, 1984) and by observations of year-to-year changes in the abundance and age composition of spawning aggregations on discrete banks and shoals off southwest Nova Scotia (Stephenson et al., 1998).*

Spawning occurs in specific locations in the Gulf of Maine in depths of 20-50 meters (about 60-300 feet), on coastal banks such as Jeffreys Ledge and Stellwagen Bank located 8-40 km offshore, along the eastern Maine coast between the U.S.-Canada border and at various other

locations along the western Gulf of Maine. Herring also spawn on Nantucket Shoals and Georges Bank, but not further south. In Canada, spawning occurs south of Grand Manan Island (in the entrance of the Bay of Fundy) and on various banks and shoals south of Nova Scotia (Figure 2). Spawning occurs in the summer and fall, starting earlier along the eastern Maine coast and southwest Nova Scotia (August-September) than in the southwestern Gulf of Maine (early to mid-October in the Jeffreys Ledge area and as late as November-December on Georges Bank) (Reid et al., 1999; NEFMC, 2005). Herring in the Gulf of Maine region usually reproduce at relatively high temperatures (10-15° C) and at high salinities (NEFMC, 2005). Herring do not spawn in brackish water.

The eastern Maine-Grand Manan spawning ground is an important source of larvae, which are transported to the southwest along the Maine coast (Graham and Townsend, 1985; Townsend et al., 1986). The larvae overwinter in bays, estuaries and nearshore waters and become juveniles in the spring. Those juvenile that survive until the following spring and summer (age-2) are harvested as sardines in the coastal fishery. Larvae that hatch on Jeffreys Ledge, another important coastal spawning ground in the Gulf of Maine, are mostly transported shoreward (Cooper et al., 1975), although some overwinter in nearshore waters on the Maine coast (Lazzari and Stevenson, 1991).

Atlantic herring spawn on the bottom in discrete locations by depositing adhesive eggs that stick to any stable bottom substrate, including lobster pots and anchor lines. In some cases, the same spawning sites are used repeatedly, sometimes more than once a year (Stevenson, 1989; NEFMC, 2005). Jeffreys Ledge appears to be the most important spawning ground in the Gulf of Maine based on the number of spawning and near-spawning adults found there (Boyar et al., 1973).

Eggs are laid in layers and form mats or carpets. In the Gulf of Maine region, egg mats as thick as 4-5 cm have been observed in discrete egg beds that have varied in size from 0.3-1.4 km². One very large egg bed surveyed on Georges Bank in 1964 covered an area of about 65 km² (Noskov and Zinkevich, 1967). Herring eggs in the Gulf of Maine region are deposited on gravel and rocky substrate, but are also found on sand, shells and shell fragments and occasionally on macroalgae. Spawning sites are located in areas with strong bottom currents (1.5-3 knots), which prevents the accumulation of fine sediment and provides circulation to supply oxygen and remove metabolites (Reid et al., 1999; NEFMC, 2005). Hatching success remains relatively high down to 20-25% dissolved oxygen (Aneer, 1987; NEFMC, 2005).

Atlantic herring are synchronous spawners, producing eggs once a year once they reach maturity. Depending on their size and age, female herring can produce from 55,000 to 210,000 eggs (Kelly and Stevenson, 1983). Once they are laid on the bottom, herring eggs are preyed upon by a number of fish species, including cod, haddock, red hake, sand lance, winter flounder, smelt, tomcod, cunner, pollock, sculpins, skates, mackerel and even herring themselves (Munroe, 2002; NEFMC, 2005). Egg predation and adverse environmental conditions often result in high egg mortalities. Egg incubation periods are temperature dependent and range from 10-15 days in the Gulf of Maine (Munroe, 2002; NEFMC, 2005). Hatching success is also temperature dependent; in experimental studies, all eggs held at 15° C hatched and none hatched at 0-5° C or at 20° C.

Larvae are about 4-10 mm (0.25 in) in length at hatching, which occurs 10-15 days after the eggs are deposited on the bottom (Fahay, 1983). The pelagic larval phase is relatively long in Atlantic herring lasting 4-8 months in the Gulf of Maine, depending on the timing of spawning (Reid et al., 1999; NEFMC, 2005). Larvae are transported long distances from spawning grounds where they over-winter in coastal bays and estuaries. In the Gulf of Maine, the prevailing surface currents flow to the westward, transporting larvae that hatch in eastern Maine to the Sheepscot estuary in mid-coast Maine, a straight-line distance of about 150 km (Graham, 1982; Townsend, 1992). Boyar et al. (1973) reported that most of the recently hatched larvae from the southern end of Jeffreys Ledge are transported shoreward. Herring larvae from Nantucket Shoals and Georges Bank are widely dispersed and tend to drift to the southwest (Sindermann, 1979; Lough et al., 1980; Grimm, 1983; NEFMC, 2005). Metamorphosis occurs in the spring at a length of about 40 mm (1.5 in). Schooling behavior begins in the late larval and early juvenile, or “brit,” stages. Young-of-the-year herring undergo a general offshore movement in the summer and fall and they are believed to spend the winter in deep coastal waters.

The persistence of discrete aggregations of larvae for several months after hatching over tidally mixed continental shelf spawning grounds in the Gulf of Maine and elsewhere, despite the presence of fairly strong longshore currents, has provided the basis for a larval “retention hypothesis” (Iles and Sinclair, 1982). This hypothesis states that Atlantic herring stock structure in an area like the Gulf of Maine is determined by larval distribution and retention patterns and that the maximum stock size in that area is determined by the number, location and extent of geographically stable retention areas. Such retention areas have been described off southwest Nova Scotia, around Grand Manan Island and on Georges Bank (Iles and Sinclair, 1982). More recently, they have been described in eastern Maine waters adjacent to Grand Manan (Chenoweth et al., 1989).

Mortality of Atlantic herring in the larval stage is very high since the larvae remain vulnerable to very low temperatures and a limited food supply for a prolonged period during winter, especially in the shallow nearshore and estuarine waters (Townsend and Graham, 1981; Graham et al., 1991). Campbell and Graham (1991) developed an ecological model in order to examine which factors affected larval survival to the early juvenile stage. Some of the conclusions of that study were:

- *Larval herring recruitment in Maine coastal waters is the result of a complex interaction of many processes, no one of which is truly dominant;*
- *Two year-old recruitment to the Maine herring fishery is established in the larval stage in some years and not until the brit stage in others;*
- *Larval food supply in autumn and winter, along with the quantity and distribution of spawning, are primary factors controlling herring recruitment to the brit stage for those years when the larval stage is critical;*
- *When larval survival is above a threshold, density-dependent predation on brit can reduce year-class size (the assumption being that the brit become the food of choice for opportunistic pelagic and demersal predators when brit exceed an abundance threshold);*

- *Temperature and longshore transport are secondary factors determining survival that may be most important through their interaction with primary factors;*
- *In most years, more larvae survive the winter in the coastal areas than in the estuaries and embayments; and*
- *The distribution of larvae along the Maine coast in springtime is largely a function of the variable movement of larvae.*

1.2.1.4 Migration

Adult herring undertake extensive seasonal migrations between summer spawning grounds on Georges Bank and in the Gulf of Maine and overwintering areas in southern New England and the mid-Atlantic region. Stock mixing occurs during the winter and spring as fish migrate south. Thermal oceanic fronts between colder, less saline continental shelf water and warmer, more saline continental slope water provide an abundance of plankton and other food sources and greatly influence the migratory behavior of this species (Sindermann, 1979; Kelly and Moring, 1986; NEFMC, 2005).

There are distinct migratory patterns for each spawning stock off the northeast coast of the U.S.:

- The Nova Scotia stock spends the summer and fall months in southwest Nova Scotia and overwinters in Chedabucto Bay in northeastern Nova Scotia, but also mixes to some extent with the two southern stocks.
- The Georges Bank/Nantucket Shoals stock overwinters south of Cape Cod, can be found feeding in the Gulf of Maine in the spring and early summer and spawn southeast of Nantucket or on Georges Bank in the fall (Sindermann, 1979; Tupper et al., 1998; Munro, 2002; NEFMC, 2005;). After spawning, adults from Georges Bank move south again to overwinter with the oldest and largest fish migrating as far south as Chesapeake Bay.
- The migratory patterns of the coastal Gulf of Maine herring stock is not as well documented. It is believed that they may migrate southwest along the coast after spawning to overwinter south of Cape Cod, in Massachusetts Bay and other coastal areas of southern New England (Tupper et al., 1998; Reid et al., 1999; NEFMC, 2005). The waters off Cape Cod seem to constitute a mixing area for these stocks, where different groups pass at various times of the year (Sindermann, 1979; NEFMC, 2005).

Migration patterns of individual herring stocks are usually persistent year to year (Creaser and Libby, 1988; Reid et al., 1999; NEFMC, 2005). The spatial and temporal isolation of these different stocks occurs chiefly during spawning, with intermixing of these groups occurring during the non-spawning phases of migration (Sinclair and Iles, 1985; Reid et al., 1999; Munro, 2002; NEFMC, 2005). Adults from the two U.S. stocks mix during their winter migration to southern New England and mid-Atlantic waters and separate out onto their respective spawning grounds following a return northward migration in the spring. Adults that spawn off southwest Nova Scotia are not believed to mix to any significant degree with herring that spawn on Georges Bank or in the Gulf of Maine (Stephenson et al., 1998; NEFMC, 2005).

Juvenile herring in all stocks tend to remain in coastal areas throughout the year (Stewart and Arnold, 1994; NEFMC, 2005). Juveniles overwinter closer to the coast than adult herring,

moving into the deeper waters of bays or offshore in the winter where they stay close to the bottom (Reid et al., 1999; Overholtz, 2004; NEFMC, 2005). Smaller fish have greater temperature tolerances and juvenile Atlantic herring have been found to produce higher levels of antifreeze proteins than adults, adaptations that may allow them to withstand the colder coastal waters in the winter (NEFMC, 2005; Munro, 2002). Tagging studies have also indicated that juveniles migrate little during the summer (Waring, 1981; Stobo, 1983; Overholtz et al., 2004; NEFMC, 2005). Juveniles from several populations may mix in a given area (Stewart and Arnold, 1994) and aggregations of juvenile herring along the coast of Maine and New Brunswick are likely derived from a variety of spawning grounds (Overholtz et al., 2004; NEFMC, 2005).

1.2.1.5 Schooling

Despite the vast amount of literature available on the herring resource, there still exists a significant lack of knowledge about herring behavior and the impacts of fishing and various activities on fish behavior. There are several important characteristics about herring to acknowledge:

- Herring are obligate schoolers. They prefer to swim in large schools and cease to act as individual fish, but rather act as one unit in a large school.
- The sensory systems of herring are very well developed. The ability of herring to hear, see, and sense movement (through the lateral line) allows them to sense other fish in the area, school in the dark, and react to changes in water pressure. These factors also influence the way herring react to fishing gear.
- Herring have sensitivity to a wide frequency range and are most sensitive to sounds in the frequency region where fishing vessels (and research vessels) have the maximum sound energy output. Herring are very sensitive to noise and have been shown to make directed responses to approaching vessels. Results of some studies indicate that the fish can hear trawlers at distances up to 3 kilometers.
- The visual senses of herring allow the fish to see at very low light levels (10^{-5} lux). Herding responses are mainly visual, and visually elicited avoidance reactions have been observed.
- Herring exhibit distinct migratory patterns, both seasonally (large-scale) and diurnally (night/day, small-scale). Migration is also affected by food availability and other environmental conditions (temperature, salinity, predators).
- Herring have very good buoyancy control. They can gulp and release air to fill and void their swim bladders as needed. The fish can sink very quickly if necessary.

Pelagic fishes school for hydrodynamic reasons, for reproduction, migration and feeding and to aid in surviving predatory attack (Freon and Misund, 1999; NEFMC, 2005). Schooling is a natural state for pelagic fishes and given a stimulus, fish like herring will react and then return to this state. When confronted by danger such as a predator or mid-water trawl, pelagic fish will quickly decrease their interfish distance (packing density) and try to avoid the stimulus (Freon et al., 1992; NEFMC, 2005). This will result in contortion, compression and stretching of the school and may result in short-term distortion or dispersion of the fish (Freon et al., 1993; NEFMC, 2005). This avoidance behavior will cease, however, as soon as the fish are out the near field (proximity) of the trawl or predator (Freon and Misund, 1999; NEFMC, 2005). The

normal reaction of herring to a trawl or purse seine is to increase their swimming speed and dive downwards, thereby trying to avoid the gear. In a study of Finnish pair trawling, visual and acoustic observations suggest that herring displayed an avoidance reaction in 34% of 493 midwater trawl hauls where fish were near the trawl mouth (Suuronen et al., 1997; NEFMC, 2005). Fish were observed to swim rapidly downward when they were within 5 m of the trawl and then return to their previous depth as soon as the trawl had passed. Herring react to midwater trawl and purse seines in much the same manner that they react to predators by trying to avoid and then regroup.

A recent study of the spatial dynamics of the Gulf of Maine/Georges Bank herring complex showed that herring maintained their school structure and interschool integrity in spite of very large reduction in overall biomass during the 1970s (Overholtz, 2004; NEFMC, 2005). Landings records from purse seine and midwater trawl vessels indicate that there were herring present in the Jeffreys Ledge region during all the months from April to October of 2001. Observations during herring acoustic cruises conducted by NMFS during 1997-2000 indicate nothing more than short-term disturbance of herring during midwater trawling and acoustic surveying operations. Fishing operations by at least a dozen large midwater trawlers conducted over a several month period during 2001 on Georges Bank caused no apparent changes in the distribution of pre-spawning herring as evidenced by hydroacoustic surveys conducted during September and October 2001 (NEFMC, 2005). There appears to be no scientific evidence either local or worldwide that midwater trawling or purse seining causes any long-term dispersal of herring.

1.2.2 Stock Assessment Summary

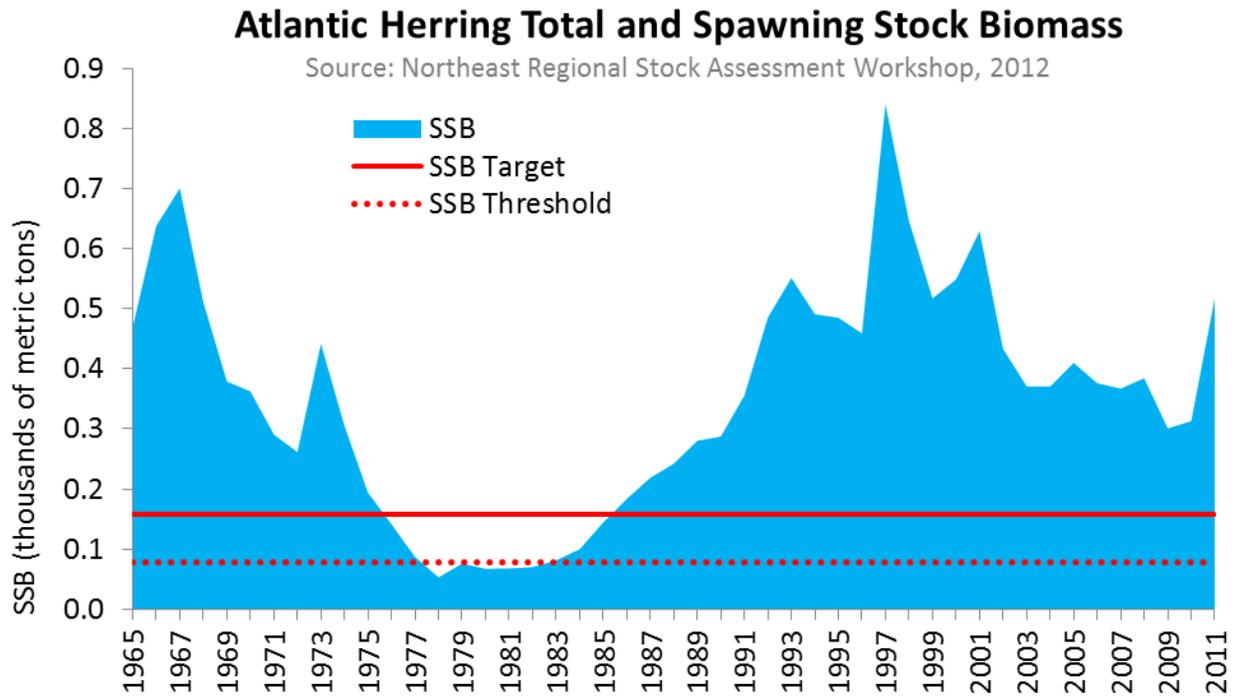
1.2.2.1. Abundance and Present Condition

The 2012 federal benchmark stock assessment (SAW/SARC 54), which considers data through 2011, determined that Atlantic herring in Georges Bank and Gulf of Maine is not overfished and not experiencing overfishing; in fact, it is rebuilt. Maximum sustainable yield (MSY) reference points were estimated to be $F_{MSY} = 0.27$, $SSB_{MSY} = 157,000$ mt ($\frac{1}{2} SSB_{MSY} = 78,500$), and $MSY = 53,000$ mt. Based on a comparison of the MSY reference points with the estimates of F and SSB for 2011, overfishing is not occurring and the stock is not overfished.

1.2.2.2. Spawning Stock and Total Biomass

Based on the ASAP model used in the 2012 stock assessment, the Atlantic herring spawning stock biomass (SSB) was estimated to be 517,930 mt (1.1 billion lbs) in 2011. Over the time series from 1965 - 2011, SSB ranged from a low of 53,349 mt (117.6 million lbs) in 1978 to a high of 839,710 mt (1.9 billion lbs) in 1997 (Figure 1). SSB generally declined during 1997-2010, but increased in 2011 to an estimated 1,322,446 mt (2.9 billion lbs). Total biomass was ranged from a minimum of 180,527 mt (406.7 million lbs) in 1982 to a maximum of 1,936,769 mt (4.3 billion lbs) in 2009. Total biomass and SSB showed similar trends over time, but with 1-2 year lag because the total biomass includes immature recruits, while SSB characterizes mature fish only. There was a strong cohort in 2009 that accounts for the greater biomass in recent years.

Figure 1. Total and spawning stock biomass and thresholds of Atlantic herring from 1965 to 2011. Total biomass is based on January 1 estimates.



1.2.2.3. Recruitment

With the exception of 2009, Age-1 recruitment since 2006 has been below the 1996-2011 average of 15.8 billion fish. The 2009 age-1 recruitment, however, was the largest in the time series at 59.4 billion fish. This large 2009 age-1 cohort consistently appeared in all sources of data that contain age composition.

1.2.2.4. Fishing Mortality

Atlantic herring's fishing mortality (F) peaked in 1971 at a rate of 0.79. Since then, the F rate remained high and began declining in the 1980s, following the trend of decreasing stock biomass, until it dropped to a historic low of 0.13 in 1994. Since then, F has remained below the F_{MSY} threshold of 0.27, with a slight increasing trend until overfishing occurred in 2009 ($F_{2009} = 0.32$). The F in 2010 and 2011 was relatively low because of the presence of a strong cohort that increased the stock biomass.

1.3 Description of the Fishery

1.3.1 Commercial Fishery

The Atlantic herring resource occurs in waters off Canada and the United States, and fisheries

exist in both countries. Based on the total catch (including discards) by the U.S. fixed gear and mobile gear and Canada's New Brunswick weir fisheries, a majority of the fish are caught by the U.S. commercial fleet (time series average of 87%).

In the U.S., the Atlantic herring fishery is predominantly commercial; recreational catch accounts for less than 1% of the overall catch. Over the time series from 1950 to 2013, annual commercial catch by the United States Atlantic herring fleet was generally flat with a slightly declining trend between 1950 through 1983, when it reached a historic low of 23,254 mt (51.3 million lbs) (Figure 3). Since then, catch has increased and peaked in 2009 with 101,859 mt (224.6 million lbs) and averaged about 69,981 mt (154.3 million lbs) (Figure 2). Annual catch averaged 82,407 mt (181.7 million lbs) from 1993, when FMP was implemented, through 2013. In 2013, catch totaled 106,375 mt (234.5 million lbs), an increase from 2012's 85,883 mt (189.3 million lbs).

Throughout the past decade, the commercial Atlantic herring industry has been consistent in terms of landing states and primary gears. Based on the 10-year average from 2004-2013, a combined 88% of total sea herring catch was landed in Maine and Massachusetts. From 2011-2013, Maine received about 50% of the total landings each year. Sea herring is primarily caught by trawl gears, which accounted for nearly 70% of total landings in the past decade, followed by purse seine for 20% of landings. Table 1 shows the primary gears (trawl and purse seine) by state from 2009-2013. A majority of the coastwide landings are caught during the months of June through October (Table 2, Figure 3).

The U.S. Atlantic herring fishery is managed as four management areas: inshore Gulf of Maine (Area 1A), offshore Gulf of Maine (Area 1B), Southern New England (Area 2), and Georges Bank (Area 3). In addition to the complementary measures in the federal plan, the Interstate Atlantic herring FMP implements specific measures for Area 1A's fishery, which supplies bait for lobster, tuna, blue crab, and striped bass fisheries. Management measures include "days out" effort control, spawning area closures, and seasonal quota allocation. Using the annual specifications process, fisheries managers adapt these measures each year to provide herring between June and December, when demand for lobster bait is highest and fishermen can sell their herring catch for premium value.

Figure 2. Atlantic herring catch from 1950 to 2013.

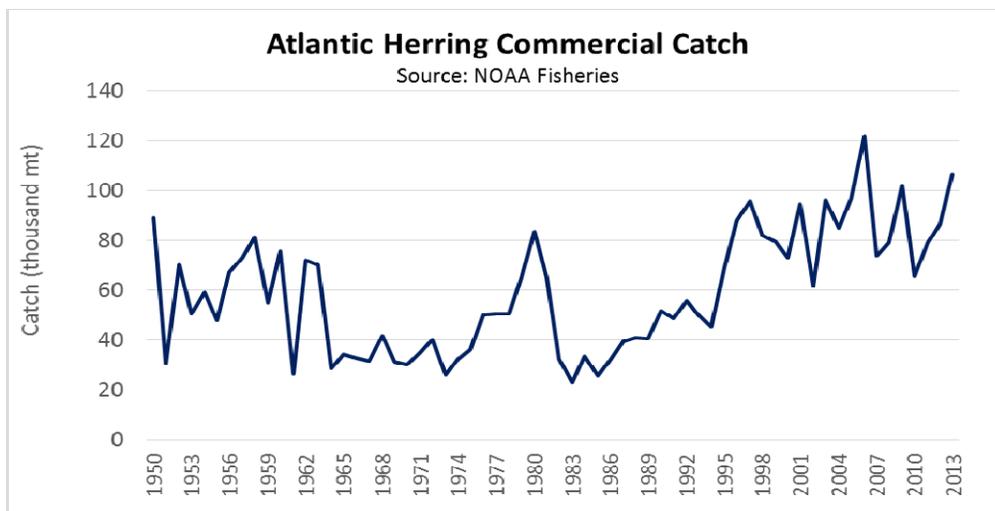


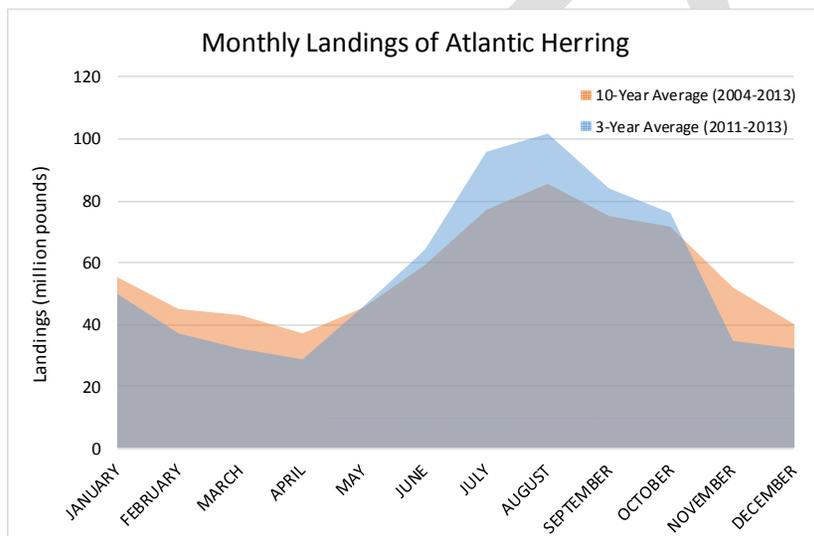
Table 1. Atlantic herring landings by primary gears and state in metric tons. Due to data confidentiality, landings by other gears are not provided.

| Year | State | Trawl | Purse Seine |
|-------------|--------------|--------------|--------------------|
| 2009 | MA | 54,544 | 1,214 |
| 2009 | ME | 8,639 | 19,139 |
| 2009 | Other NE | 1,035 | 369 |
| 2009 | Mid-Atl | 10,344 | 0 |
| 2010 | MA | 29,180 | 1,056 |
| 2010 | ME | 15,395 | 9,678 |
| 2010 | Other NE | 1,242 | 42 |
| 2010 | Mid-Atl | 5,504 | 0 |
| 2011 | MA | 24,919 | 492 |
| 2011 | ME | 23,536 | 18,513 |
| 2011 | Other NE | 461 | 225 |
| 2011 | Mid-Atl | 3,349 | 0 |
| 2012 | MA | 30,205 | 1,092 |
| 2012 | ME | 24,443 | 17,371 |
| 2012 | Other NE | 1,084 | 0 |
| 2012 | Mid-Atl | 5,725 | 0 |
| 2013 | MA | 29,677 | 568 |
| 2013 | ME | 22,243 | 22,248 |
| 2013 | Other NE | 708 | 0 |
| 2013 | Mid-Atl | 11,119 | 0 |

Table 2. Coastwide landings of Atlantic herring by month, in thousands of pounds (Source: ACCSP).

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sept | Oct | Nov | Dec |
|------|--------|--------|--------|--------|--------|--------|---------|---------|--------|--------|--------|--------|
| 2000 | 40,671 | 51,482 | 45,331 | 32,625 | 43,889 | 62,620 | 78,607 | 75,022 | 65,179 | 68,955 | 39,421 | 29,585 |
| 2001 | 58,125 | 40,151 | 36,070 | 42,059 | 50,119 | 63,552 | 69,903 | 80,710 | 72,752 | 68,588 | 56,383 | 44,132 |
| 2002 | 47,621 | 47,358 | 45,814 | 46,672 | 41,084 | 56,625 | 78,706 | 55,728 | 63,171 | 64,360 | 47,555 | 34,792 |
| 2003 | 42,445 | 39,541 | 52,227 | 31,829 | 44,123 | 64,001 | 75,200 | 78,420 | 76,041 | 77,485 | 62,545 | 49,863 |
| 2004 | 57,516 | 69,134 | 65,467 | 41,525 | 48,964 | 66,753 | 72,253 | 78,047 | 76,699 | 57,939 | 70,685 | 48,564 |
| 2005 | 52,715 | 50,790 | 49,849 | 47,545 | 48,262 | 62,007 | 67,205 | 84,628 | 80,583 | 67,424 | 72,332 | 43,545 |
| 2006 | 70,973 | 60,003 | 63,253 | 42,082 | 51,473 | 53,420 | 72,403 | 86,486 | 78,777 | 86,760 | 49,408 | 49,269 |
| 2007 | 42,715 | 31,625 | 50,098 | 45,837 | 51,136 | 49,192 | 58,829 | 67,361 | 56,285 | 68,922 | 36,973 | 52,249 |
| 2008 | 60,343 | 45,595 | 34,968 | 39,874 | 38,994 | 55,295 | 72,928 | 82,244 | 53,408 | 70,270 | 55,422 | 36,518 |
| 2009 | 68,838 | 43,874 | 37,569 | 30,440 | 34,976 | 56,442 | 71,182 | 73,274 | 90,658 | 73,064 | 73,451 | 31,229 |
| 2010 | 51,072 | 39,268 | 33,421 | 36,693 | 41,417 | 55,942 | 69,456 | 76,163 | 61,342 | 62,915 | 58,412 | 42,275 |
| 2011 | 40,112 | 29,478 | 29,895 | 26,810 | 43,214 | 62,879 | 84,906 | 98,439 | 87,698 | 79,036 | 34,161 | 27,879 |
| 2012 | 64,822 | 50,090 | 29,410 | 29,385 | 52,524 | 69,869 | 108,488 | 99,592 | 85,497 | 69,419 | 36,736 | 25,320 |
| 2013 | 45,220 | 31,954 | 37,515 | 30,090 | 41,783 | 60,514 | 93,838 | 106,475 | 78,106 | 79,915 | 32,612 | 43,073 |

Figure 3. Coastwide landings of Atlantic herring by month, in millions of pounds.



1.3.2 Recreational Fishery

The recreational Atlantic herring fishery accounts for less than 1% of total catch in the U.S. A small recreational fishery for Atlantic herring exists, providing late fall to early spring fishing opportunities for both shore and boat anglers. Most Atlantic herring catches are reported during March-April and November-December, with some catches reported from September-October. The Marine Recreational Fishery Statistics Survey (MRFSS) does not sample during January-February in the north or mid-Atlantic subregions and because herring may be taken during this period, total catch may be underestimated. The herring caught by hook and line anglers are taken as a secondary species in a mixed fishery with Atlantic mackerel (*Scomber scombrus*).

1.3.3 Subsistence Fishing

There is no known subsistence fishery for Atlantic herring along the east coast of the U.S.

1.3.4 Non-Consumptive Factors

Non-consumptive factors for herring are indirect. It is actually herring's role as forage for marine mammals and seabirds that is important. For example, the whale watch industry has expanded in the past few years and seabirds attract additional "non-consumptive" attention.

1.3.5 Interactions with Other Fisheries, Species, or Users

1.3.5.1 Bait

Atlantic herring serves as an important bait for many commercial and recreational fisheries, including lobster, tuna, and striped bass. Increased fishing effort in the lobster fishery has been observed over the past three decades and lobster landings have continued to markedly increase throughout the 1980s and early 1990s, both of which place increased pressure on the herring resource.

While bait herring for the tuna fishery can be purchased from dealers or other boats, some tuna vessels are known to catch herring for use as live bait in this fishery. The use of small pelagic gillnets to catch herring for this purpose is authorized under the Northeast Multispecies Plan. There are no statistics on the extent of this practice or the amount of herring that is taken for this purpose. Some industry participants have estimated that 50-90% of the vessels fishing for tuna in New England waters may be catching herring as bait.

1.3.5.2 Forage

Atlantic herring are an important forage species for many marine finfish, marine mammals and birds in the Northwest Atlantic ecosystem. While available information to quantify the importance of herring as a forage species is not available at this time, there is a substantial amount of literature (Volume II, *The Role of Atlantic Herring, Clupea harengus, in the Northwest Atlantic Ecosystem* by the NEFMC) that describes the role that herring plays in the ecosystem and estimates the amount of herring consumed by various fish, marine mammal and seabird species. The first step to account for the importance of herring as a forage species in the herring management program is to compile and consider available information on the subject;

the second step is to identify where information is lacking and prioritize research needs to fill the data gaps.

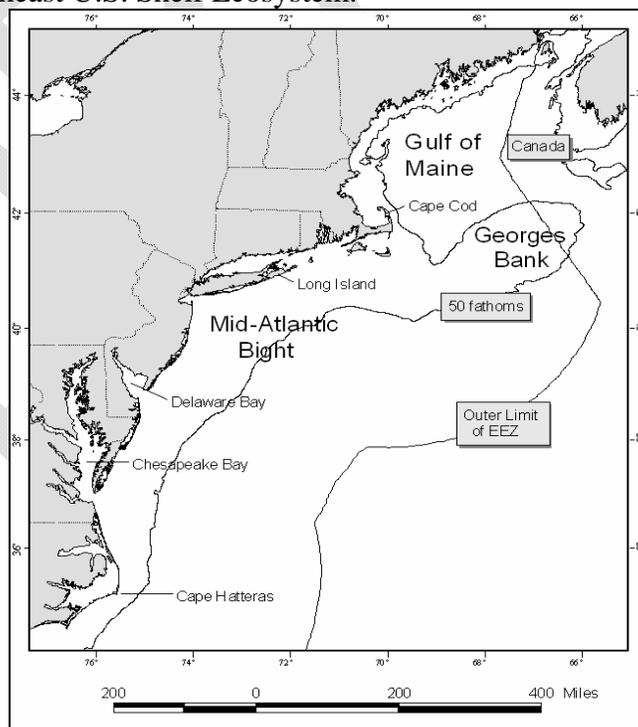
1.4 Habitat Considerations

The New England Fisheries Management Council has identified the Essential Fish Habitat (EFH) for herring and other species it manages, and is proposing updated designations through its Draft Omnibus Habitat Amendment 2. The applicable provisions of this document that relate to Atlantic herring are incorporated into this FMP by reference. This includes the description and identification of herring EFH, the threats to EFH from fishing and non-fishing activities, and the conservation and enhancement measures to protect EFH for Atlantic herring.

1.4.1 Habitat Important to the Stocks

The Northeast U.S. Shelf Ecosystem (Figure 4) has been described as including the area from the Gulf of Maine south to Cape Hatteras, extending from the coast seaward to the edge of the continental shelf, including the slope sea offshore to the Gulf Stream (Sherman et al., 1996; NEFMC, 2005). The continental slope includes the area east of the shelf, out to a depth of 2000 m. Four distinct subregions comprise the NOAA Fisheries Northeast Region: the Gulf of Maine, Georges Bank, the Mid-Atlantic Bight and the continental slope. Occasionally another subregion, southern New England, is described; however, discussions of any distinctive features of this area have been incorporated into the sections describing Georges Bank and the Mid-Atlantic Bight (NEFMC, 2005).

Figure 1. Map of Northeast U.S. Shelf Ecosystem.



The Gulf of Maine is an enclosed coastal sea, characterized by relatively cold waters and deep basins, with a patchwork of various sediment types. Georges Bank is a relatively shallow coastal plateau that slopes gently from north to south and has steep submarine canyons on its eastern and southeastern edge. It is characterized by highly productive, well-mixed waters and strong currents. The Mid-Atlantic Bight is comprised of the sandy, relatively flat, gently sloping continental shelf from southern New England to Cape Hatteras, North Carolina. The continental slope begins at the continental shelf break and continues eastward with increasing depth until it becomes the continental rise. Atlantic herring do not commonly occur over the continental slope (NEFMC, 2005). A more detailed description of habitat important to herring can be found in the Source Document for Amendment 1.

1.4.1.2 Identification and Distribution of Habitat and Habitat Areas of Particular Concern (Essential Fish Habitat)

The Atlantic States Marine Fisheries Commission does not have the authority to designate Essential Fish Habitat (EFH) as required by the Magnuson Stevens Fishery Conservation and Management Act (MSFCMA). The New England Fishery Management Council has identified EFH for a range of species, including Atlantic herring, in order to meet the requirements of MSFCMA as amended by the Sustainable Fisheries Act. The ISFMP Policy Board approved a recommendation in June 1998 to include Council EFH designation for FMPs or Amendments that are developed jointly or in association with a Council. Essential Fish Habitat (EFH) for Atlantic herring is described in NEFMC (1998a) as those areas of the coastal and offshore water (out to the offshore boundary of the EEZ) that are designated in Figure 5.

Eggs: Bottom habitats with a substrate of gravel, sand, cobble and shell fragments, but also on aquatic macrophytes, in the Gulf of Maine and Georges Bank as depicted in Figure 5. Eggs adhere to the bottom, forming extensive egg beds that may be many layers deep. Generally, the following conditions exist where Atlantic herring eggs are found: water temperature below 15° C, depths from 20-80 meters and a salinity ranges from 32-33‰. Herring eggs are most often found in areas of well-mixed water, with tidal currents between 1.5 and 3.0 knots. Herring eggs are most often observed during the months from July through November.

Larvae: Pelagic waters in the Gulf of Maine, Georges Bank and southern New England that comprise 90% of the observed range of Atlantic herring larvae as depicted in Figure 5. Generally, the following conditions exist where Atlantic herring larvae are found: sea surface temperatures below 16° C, water depths from 50-90 meters, and salinities around 32‰. Herring larvae are observed between August and April, with peaks from September through November.

Juveniles: Pelagic waters and bottom habitats in the Gulf of Maine, Georges Bank, southern New England and the middle Atlantic south to Cape Hatteras as depicted in Figure 5. Generally, the following conditions exist where Atlantic herring juveniles are found: water temperatures below 10° C, water depths from 15-135 meters and a salinity range from 26-32‰.

Adults: Pelagic waters and bottom habitats in the Gulf of Maine, Georges Bank, southern New England and the middle Atlantic south to Cape Hatteras as depicted in Figure 5. Generally, the

following conditions exist where Atlantic herring juveniles are found: water temperatures below 10° C, water depths from 20-130 meters and salinities above 28‰.

Spawning Adults: Bottom habitats with a substrate of gravel, sand, cobble and shell fragments, but also on aquatic macrophytes, in the Gulf of Maine, Georges Bank, southern New England and the middle Atlantic south to Delaware Bay as depicted in Figure 8. Generally, the following conditions exist where spawning Atlantic herring adults are found: water temperatures below 15° C, depths from 20-80 meters and a salinity range from 32-33‰. Herring eggs are spawned in areas of well-mixed water, with tidal currents between 1.5 and 3.0 knots. Herring are most often observed spawning during the months from July through November.

Figure 2. NEFMC EFH designation for Atlantic herring eggs (top left), larvae (top right), juveniles (bottom left), and adult (bottom right).



1.4.1.3 Present Condition of Habitats and Habitat Areas of Particular Concern

A detailed description of habitat quality and habitat areas of particular concern can be found in the Source Document for Amendment 1.

1.4.1.4. Ecosystem Considerations

Forage: Atlantic herring's role as forage, and its association with other forage species of concern (i.e. river herring and shad species) in the northwest Atlantic ecosystem has recently become a concern to many stakeholders.

Other Northeast Region Species: The area where the Atlantic herring fishery takes place has been identified as EFH for species managed under the following Federal Fishery Management Plans: Northeast Multispecies; Atlantic Sea Scallop; Atlantic Monkfish; Summer Flounder, Scup and Black Seabass; Squid, Atlantic Mackerel and Butterfish; Atlantic Surf Clam and Ocean Quahog; Atlantic Bluefish; Atlantic Billfish; and Atlantic Tuna, Swordfish and Shark. All EFH descriptions and maps can be viewed on the NMFS Northeast Regional Office website (NEFMC, 2005).

Anthropogenic Impacts on Atlantic Herring and their Habitat: Habitat alteration and disturbance can occur through natural processes and human activities. Natural disturbances to habitat can result from summer droughts, winter freezes, heavy precipitation, and strong winds, waves, currents and tides associated with major storms (i.e. hurricanes and northeasters) and global climatic events such as El Nino. Biotic factors, including bioturbation and predation, may also disturb habitat (Auster and Langton MS, 1998 and in press). These natural events may have detrimental effects on habitat, including disrupting and altering biological, chemical and physical processes, and may impact fish and invertebrate populations. Potential adverse effects to habitat from fishing and non-fishing activities may include direct (e.g. contamination or physical disruption), indirect (e.g. loss of prey or reduction of species diversity), site-specific or habitat wide impacts, including individual, cumulative or synergistic consequences of the actions. Non-fishing threats to habitat may include the intentional or accidental discharge of contaminants (i.e. heavy metals, oil, nutrients, pesticides, etc.) from non-point and point sources, and direct habitat degradation from human activities (i.e. channel dredging, marina/dock construction, etc.).

Riverine, inshore and offshore habitats are subject to numerous chemical, biological and physical threats. Riparian habitat is being degraded and altered by many human activities. Inshore regions are variable environments that are threatened by many sources of degradation. Deep-sea habitats are stable and contain less resilient communities than habitats found within inshore waters (Radosh et al., 1978) that are altered by unnatural stress. Pelagic environments in coastal and offshore areas are potentially essential habitat for many marine organisms throughout substantial stages of ontogenetic development. These areas can also be disrupted. Chemical, biological, and physical threats can potentially limit survivorship, growth and reproductive capacity of fish and shellfish species and populations

The major threats to marine and aquatic habitats are a result of increasing human population, which is contributing to an increase of human generated pollutant loadings. These pollutants are being discharged directly into riverine and inshore habitats by way of point and non-point

sources. The development of coastal regions to accommodate more people leads to an increase in unwanted runoff, such as toxicants, nutrients and pesticides. Humans attempt to control and alter natural processes of aquatic and marine environments for an array of reasons, including industrial uses, coastal development, port and harbor development, erosion control, water diversion, agriculture, and silviculture. Environmental conditions of fish and shellfish habitat are altered by human activities (see Wilk and Barr, 1994 for review) and threatened by non-point and point sources of pollution.

Environmental Contaminants: The effects of copper on eggs and larvae of Atlantic herring were reported by Blaxter (1977). Mortality of newly hatched larvae was high at copper concentrations of 1,000 micrograms per liter (mcrg/l). Eggs incubated in 30 mcrg/l had relatively high mortality and premature hatching; 70% of the larvae hatched were deformed. Larvae were more resistant to copper than eggs; survival of larvae was impaired only at concentrations \geq 1,000 mcrg/l. The vertical migration of larvae was impaired at copper concentrations of \geq 300 mcrg/l.

Tests on the effects of sulfuric pollutants such as iron sulfate and hydrogen sulfate, showed that a dilution of 1:8,000 significantly reduced egg fertilization and hatching success, decreased egg diameter, retarded embryonic growth, shortened the incubation period, and increased the rate of structural abnormalities in newly hatched larvae (Kinne and Rosenthal 1967). Larval prey-catching ability was impaired in 1:32,000 and 1:24,000 dilutions; locomotory performance was seriously affected at a 1:16,000 dilution. Permanent deformities and death occurred within a few days at a 1:8,000 dilution.

Studies of dinitrophenol effects on herring embryonic development indicated that low concentrations (0.01 to 0.05 micromole/l) increased embryo activity and altered heart rates significantly (Rosenthal and Stelzer 1970). Various embryonic malformations were also observed. A dinitrophenol concentration of 0.1 micromole/l caused up to a 400% increase in the normal embryonic respiration rate (Stelzer et al. 1971).

Blaxter and Hunter (1982) reported that eggs and larvae held under films of crude oil in concentrations of 1 to 20 ml/l, or in emulsions, experienced toxicities that varied with the origin of the oil. For oil from a particular source, the fractions with the lower boiling points seemed more harmful (Kuhnhold 1969; cited in Kelly and Moring, 1986). In tests on oil dispersants, larvae did not avoid horizontal gradients, but swam into surface dispersant layers and were narcotized (Wilson, 1974). The survival of herring eggs and larvae was highest in water with low biological oxygen demand and low nitrate levels (Baxter and Steele, 1973).

1.4.2 Description of Programs to Protect, Restore, Preserve and Enhance Atlantic Herring Habitat

Federal marine pollution research and monitoring activities are coordinated by NOAA's National Ocean Pollution Program Office. Short and long-term anthropogenic effects on the marine environment are also assessed. NOAA's Ocean Pollution Program Office coordinates interagency responsibilities while the Ocean Assessments Division (OAD) of the Office of Oceanography and Marine Assessments, National Ocean Service, manages assessments.

1.5 Impacts of the Fishery Management Program

1.5.1 Biological and Environmental Impacts

1.5.2 Social Impacts

1.5.2.1 Recreational Fishery

Herring management affects the recreational fishery indirectly by controlling the availability of herring for bait and for forage (drawing the target species closer to shore where they are then accessible to the recreational industry). As long as management measures work to ensure that herring is not overfished, the recreational fishery will benefit. Although biomass estimates and research indicates that herring as forage is plentiful, to the extent that the measures slow the rate of catch, spreading the TAC over the year, the perception of recreational fishermen is likely to be that herring would be available as forage for a longer period.

1.5.2.2 Commercial Fishery

Issue 1: Spawning Area Closure in Massachusetts-New Hampshire Area

An extension of the MA-NH spawning area closure from four to six weeks would have a negative impact on the herring industry. Fishermen and bait dealers expressed that the cost to business outweighs the unwarranted protections for a rebuilt stock. According to the 2012 stock assessment, the spawning stock biomass of Atlantic herring spawning stock biomass in 2011 was 517,930 mt, which is 230% above the SSB_{MSY} of 157,000 mt. As the stock is not overfished, there is no biological justification for additional precautionary measures. A six-week closure would significantly reduce the fishing opportunities. As a case study, the MA-NH spawning area was closed from September 21 through October 19 during the 2012 fishing year. Continued sampling of commercial catches detected ongoing spawning activity, and consequently, the spawning closure resumed for two more weeks (October 30 through November 13, 2012). With the directed fisheries closing effective November 5, 2012 in Area 1A (TAC closure), fishing opportunity in the MA-NH area was open for one week during 2012's Trimester 3.

Additionally, fishermen expressed the concern that effort by midwater trawlers would be displaced farther northeast, where smaller fish are located, if the spawning closure lasted for six weeks.

Issue 2: Fixed Gear Rollover

The federal and state FMPs, which are consistent, allow for a 500 MT fixed gear set aside. Currently, specifications are 295 MT, with set-aside expiring on October 31. Based on recent observations of herring after November 1, fixed gear fishermen have asked for the rollover provision to be removed so they can continue fishing through the remainder of the year, until the TAC has been reached. In other words, fixed gear fishermen can continue to utilize their set-aside throughout the year.

Removal of the fixed gear set-aside rollover provision would have a neutral impact to industry,

but would require costs to implement consistent adjustments to the state and federal management plans. The fixed gear set-aside is a small portion of the total allowable catch (from 2013-2015, fixed gear set-aside was specified at 295 mt of the base 31,200 mt Area 1A sub-quota). There is potential for a low number of fishermen to increase utilization of fixed gears. While some fishermen have provided anecdotal evidence of Atlantic herring occurring in the Gulf of Maine after November 1, most likely due to recent changes in oceanographic conditions, landings data for a ten-year period from 2004 to 2013 indicates that no sea herring have been caught by fixed gear in November and December (Table 3). In addition, a removal of the rollover provision brings forth questions on year-to-year rollover if not fully utilized, and may lead to a quota allocation for the fixed gear fishery.

Considering the resources needed to implement consistent regulations between the interstate and federal fishery management plans and the small portion of potential fishing opportunity created with the removal of the rollover provision, the benefit does not justify the cost of adjusting the fixed gear set-aside rollover provision at this time. Additional studies are needed to demonstrate that a true shift in sea herring migration patterns and fish are indeed occurring in the Gulf of Maine.

Table 3. Atlantic herring landings taken by the fixed gear fishery before and after rollover provision effective date on November 1.

| Year | TAC Closure Date | Sub-Quota (mt) | Cumulative Catch (mt) by Dec31 | Fixed Gear Landings (mt) Jan-Oct | Fixed Gear Landings (mt) Nov-Dec |
|-------------|-------------------------|-----------------------|---------------------------------------|---|---|
| 2004 | 11/19/2004 | 60,000 | 60,071 | 49 | 0 |
| 2005 | 12/2/2005 | 60,000 | 61,570 | 53 | 0 |
| 2006 | 10/21/2006 | 50,000 | 59,980 | 528 | 0 |
| 2007 | 10/25/2007 | 50,000 | 49,992 | 392 | 0 |
| 2008 | 11/14/2008 | 43,650 | 42,257 | 24 | 0 |
| 2009 | 11/26/2009 | 43,650 | 44,088 | 81 | 0 |
| 2010 | 11/17/2010 | 26,546 | 27,741 | 823 | 0 |
| 2011 | 10/27/2011 | 29,251 | 29,359 | 23 | 0 |
| 2012 | 11/5/2012 | 27,668 | 25,057 | 0 | 0 |
| 2013 | 10/15/2013 | 29,775 | 29,820 | 0* | 0* |

* = preliminary

Issue 3: Empty Fish Hold Provision

A requirement for fish holds to be empty of fish prior to a fishing trip departure would have a positive impact to industry. This option will be an incentive for fishermen to fish more efficiently to market demands by prohibiting vessels from returning to sea with unsold fish in the holds.

Waivers: There has been no documentation of the frequency and reasons for unmarketable fish. According to members of industry, instances that would require waivers occur infrequently, but

there is no data to inform the appropriate number of waivers at this time. A new waiver system can provide a record to inform managers and industry of the fishing and marketing practices. The empty fish hold provision applies to vessels departing on a fishing trip (i.e. declared into the fishery), but not for vessels transporting fish from port to port (i.e. not declared into the fishery). Therefore, waivers would not be required for vessels transporting fish from dock to dock. At this time, industry supports no limit on waivers issued for legitimate reasons to match the Council's approved option.

1.5.2.3 Subsistence Fishery

Insufficient data has been collected to comment in detail. It is uncertain to what extent herring may support subsistence fishing in the Mid-Atlantic or South and there does not appear to be subsistence fishing for herring in the Northeast. Because the amendment is attempting to control fishing on herring to smooth out the year's landings, it is anticipated that the measures here will help maintain access to herring for subsistence needs.

1.5.2.4 Non-consumptive Factors

Herring is considered a primary forage fish for tuna, whales and various other species targeted by recreational fishermen. Consequently, as the commercial herring industry has rebuilt in the last few years, considerable anxiety has developed in other sectors about whether or not too many herring are being caught. There is no reason to conclude that herring is overfished (according to the biomass estimates), but perception and anxiety can affect community dynamics and governance. This is an issue that will continue to be discussed and debated; therefore, the ASMFC will monitor the debate as it develops.

1.6 Location of Technical Documentation for FMP (*refers reader to citations only*)

1.6.1 Review of Resource Life History and Biological Relationships

1.6.2 Stock Assessment Document

1.6.3 Social Assessment Document (*if available*)

1.6.4 Economic Assessment Document (*if available*)

1.6.5 Law Enforcement Assessment Document (*if available*)

1.6.6 Habitat Background Document (*if available*)

2.0 GOALS AND OBJECTIVES

2.1 History and Purpose of the Plan

2.1.1 History of Prior Management Actions

FMP (November 1993)

Management of USA Northwest Atlantic herring stocks beyond territorial waters was commenced in 1972 through the International Commission for the Northwest Atlantic Fisheries (ICNAF). The international fishery was regulated by ICNAF until USA withdrawal from the organization in 1976 with Congressional passage of the Magnuson Fishery Conservation and Management Act (MFCMA). Under the aegis of the MFCMA, the New England Fishery Management Council (Council) developed a Fishery Management Plan (FMP) for herring, which was approved by the Secretary of Commerce and was implemented on December 28, 1978. Over the interim period (1976-1978), foreign fishing for herring in USA waters was regulated through a Preliminary Management Plan (PMP) prepared by the National Marine Fisheries Service (NMFS 1995). In 1982, this plan was withdrawn by NMFS and herring was placed on the prohibited species list, eliminating directed fisheries for herring by foreign nationals within the US EEZ and requiring that any herring bycatch by such vessels be discarded. In 1983, an Interstate Herring Management Plan was adopted by the states of Maine, Massachusetts, New Hampshire and Rhode Island, which implemented a series of spawning closures. The states from Maine to New Jersey, acting through the ASMFC, adopted a new FMP in 1994 to address the growth of the herring resource and interest in Internal Waters Processing (IWP) operations.

Amendment 1 (February 1999)

ASMFC's Amendment 1 to the Atlantic Herring Fishery Management Plan (FMP) was developed to complement the NEFMC's federal management plan; it was designed to minimize regulatory differences in fisheries conducted in state and federal waters. Amendment I established management goals and objectives for the U.S. Atlantic herring resource that can only be reached through the successful implementation of both the interstate and federal management plans. The management scheme relies on a total allowable catch (TAC) with effort control measures to avoid overfishing. TACs are developed for specific management areas to reflect the current state of knowledge concerning migratory behavior and mixing rates of the sub-components of Atlantic herring.

Amendment 1 defines overfishing and biological reference points based on an estimate of maximum sustainable yield (MSY) for the entire stock complex. In order to maintain consistency between Amendment 1 and NEFMC's FMP, ASMFC's Atlantic Herring Section adopted the same overfishing definition and biological reference points as in the federal plan, which were created under guidelines stipulated in the revised Magnuson-Stevens Fishery Conservation and Management Act (MSA) prior to the 2006 re-authorization. Both FMPs provide a process for setting annual specifications and contain institutional frameworks for developing and implementing future management action involving the ASMFC, the New England and Mid-Atlantic Councils, and (possibly) Canada. The plans also include state and federal spawning closures/restrictions and recommendations to prevent damage to herring spawning habitat and egg beds. State effort controls include specific "days out" of the week to slow the fishery's catch rates and extend the fishing season in Management Area 1A.

Addendum I to Amendment 1 (July 2000)

The Section approved Addendum I to re-address the protection of spawning areas and change the due date for annual state compliance reports to February 1. Because NOAA Fisheries disapproved the spawning closures for the federal waters of Management Area 1A (inshore Gulf

of Maine), ASMFC developed Addendum I to redefine the state waters spawning areas outlined in Amendment 1. Addendum I also includes measures designed to reduce the exploitation and disruption of herring spawning aggregations by imposing a landing restriction in state ports for herring caught in the spawning areas, except that some states allow a 20% tolerance for spawn herring (Maine and Massachusetts).

Technical Addendum #1A (October 2001) was approved to change the delineation of the Eastern Maine spawning boundary because the spawning aggregations were not adequately protected in 2000.

Addendum II to Amendment 1 (February 2002)

Addendum II was developed in conjunction with NEFMC's Framework Adjustment 1 to allocate the Management Area 1A's TAC on a seasonal basis. This addendum also specifies the procedures for allocating the annual Internal Waters Processing (IWP) quota.

Amendment 2 (March 2006)

The essential management components of ASMFC's Amendment 2 are consistent with the federal Amendment 1 (final rule published in March 2007). These provisions include identical management area boundaries, joint TAC specifications setting process between NEFMC and ASMFC, and closure of an area when 95% of TAC is harvested and reduction of the possession limit to a 5% bycatch allowance. Despite coordinated development between Amendment 2 and the federal Amendment 1, there remained some inconsistencies. The east of Cutler exemption in *Section 4.3.2.4* of Amendment 2 was not adopted in the federal plan, as it was found to be "inconsistent with National Standard 1 and 3 of the Magnuson-Stevens Act." Conversely, Amendment 1 contains a midwater trawl prohibition in Area 1A from June 1 – September 30, which is not included in the Amendment 2. It is unlikely that there are mid-water trawl vessels lacking federal permits.

Technical Addendum I to Amendment 2 (August 2006)

Upon implementation of Amendment 2, there was inconsistent interpretation of the Zero Tolerance provision. Therefore, a technical addendum was developed to clarify that prohibits any vessel from fishing for, taking, landing, or possessing "spawn" herring within a restricted spawning area except for incidental bycatch and transiting provisions.

Addendum I to Amendment 2 (February 2009)

Addendum I was intended to address effort in Area 1A. It includes a number of tools for the Section to use in order to maintain a steady supply of herring throughout the fishing season. Under Addendum I, states adjacent to Area 1A must set quotas, but can use bi-monthly, trimester, or seasonal quotas and can distribute quota from January – May to later on in the fishing season when the demand and price is greater—as best meets the need of the fishery. This addendum also includes measures to close the fishery when 95% of the quota allocation is harvested and the ability to roll quota into later periods in the event of an under harvest. States are also required to implement weekly reporting in order to manage quotas in a timely manner.

Addendum II (December 2010)

In March 2011, NOAA Fisheries approved Amendment 4 to the federal FMP, bringing it under compliance with the MSA's annual catch limit requirements. Addendum II was developed to mirror the federal Amendment 4. It revises the specifications process and definitions to be consistent with the federal management scheme, in which specifications can be set for up to three years based on best available science. Addendum II also establishes a threshold of 95% of an area's TAC for fishery closure and overage paybacks as accountability measures.

Addendum V (October 2012)

Intended to provide clarify and eliminate inconsistent spawning regulations among various interstate Atlantic herring FMP documents, Addendum V replaces all spawning regulations in previous management documents. It establishes provisions for determining spawning events and the implementation of area closures, and increases the sampling size from two sample of 50 fish to two samples of 100 fish or more. Addendum V includes new boundaries for the four management areas and identifies the locations of spawning areas subject to closures (Figure 1).

Addendum VI (August 2013)

Developed to complement the NEFMC's Framework Adjustment 2 (final rule published in October 2013), Addendum VI established new provisions and consistent management measures for the four Atlantic herring management areas. States were allowed to seasonally split sub-ACLs for each management area to benefit the fishery. Up to 10% of unused sub-ACL can be carried over to the following fishing year after data is available, provided that the stockwide ACL has not been caught. Addendum VI also set new triggers: a directed fishery will close when 92% of an area's sub-ACL is projected to be reached, and the stockwide fishery will close when 95% of the total ACL is projected to be reached. There is a 2,000 lb trip limit to allow for incidental bycatch of sea herring for the remainder of the fishing year. In addition, Addendum VI allows for these the directed fishery closure triggers to be set through the specification process.

2.1.2 Purpose and Need for Action

The Commission and New England Council have reviewed the status of the Atlantic herring resource and the condition of the industry that utilizes this resource. The Commission and the Council have determined that sufficient management problems exist to warrant the development and implementation of a complementary interstate and Federal program for conservation and management.

Some of the specific concerns covered by this amendment, include:

- Spawning Area Efficacy
- Fixed Gear Set Aside Provision
- Empty Fish Hold Provision

2.2 Goals

The goals of Amendment 3 to the Interstate Fishery Management Plan for Atlantic Herring are:

- To achieve, on a continuing basis, optimum yield (OY) for the United States fishing industry and to prevent overfishing of the Atlantic herring resource. Optimum yield is the amount of fish that will provide the greatest overall benefit to the Nation, particularly with respect to food production and recreational opportunities, taking into account the protection of marine ecosystems, including maintenance of a biomass that supports the ocean ecosystem, predator consumption of herring, and biologically sustainable human harvest. Optimum yield is based on the maximum sustainable yield (MSY) as reduced by any relevant economic, social, or ecological factor, and, in the case of an overfished fishery, provides for rebuilding to a level consistent with producing MSY.
- To provide for the orderly development of the offshore and inshore fisheries, taking into account the viability of current participants in the fishery.

2.3 Objectives

To meet the goals of Amendment 3, the following objectives shall guide the development of the interstate management program for Atlantic herring:

- To harvest the U.S. Northwest Atlantic herring resource consistent with the definition of overfishing contained in Amendment 3.
- To prevent the overfishing of discrete spawning units consistent with the national standards.
- To avoid patterns of fishing mortality by age which adversely affect age structure of the stock.
- To provide adequate protection for spawning herring and prevent damage to herring egg beds.
- To promote U.S. and Canadian cooperation in order to establish complementary and real-time management practices.
- To implement management measures in close coordination with other Federal and State FMPs.
- To promote research and improve the collection of information in order to better understand herring population dynamics, biology, and ecology, improve science in order to move to real-time management and to improve assessment procedures and cooperation with Canada.
- To achieve full utilization from the catch of herring, including minimizing waste from discards in the fishery.
- To maximize domestic use, such as lobster bait, sardines, and other products for human consumption, and encourage value-added product utilization.
- To promote the utilization of the resource in a manner, which maximizes social and economic benefits to the nation and taking into account the protection of marine ecosystems and its value as a forage species.

2.4 Specification of Management Unit

The management unit for this amendment is defined as the Atlantic herring (*Clupea harengus harengus*) resource throughout the range of the species within U.S. waters of the northwest Atlantic Ocean from the shoreline to the seaward boundary of the Exclusive Economic Zone (EEZ). Because the management unit is limited to U.S. waters, it does not include the entire range of the Atlantic herring stock complex. Various components of the stock complex migrate

through Canadian waters, beyond the Atlantic States Marine Fisheries Commission's range of management. The Atlantic herring stock complex is interstate, state-federal and transboundary in nature; therefore, effective assessment and management can be enhanced through cooperative efforts with state, federal, and Canadian scientists and fisheries managers.

The states of Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, and New Jersey, and the National Marine Fisheries Service have declared an interest in Atlantic herring.

2.4.1 Management Areas

Currently, Atlantic herring is managed under four management areas in the Gulf of Maine, Georges Bank, and Southern New England (Figure 6). The Gulf of Maine is split into an inshore area (Area 1A) and offshore (Area 1B). The three existing spawning areas are located within Area 1A (Figure 7).

Figure 6. Current Atlantic herring management areas.

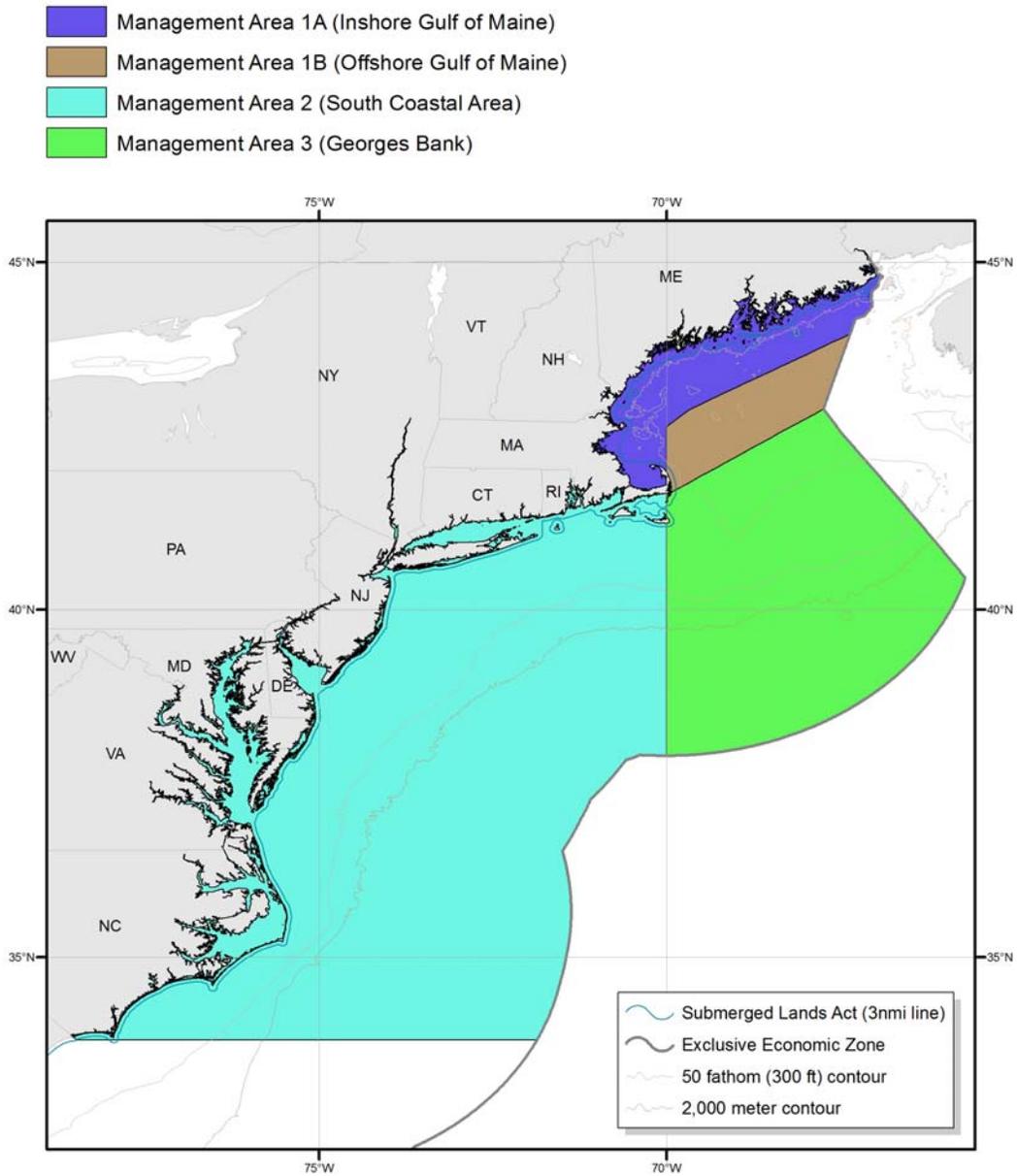
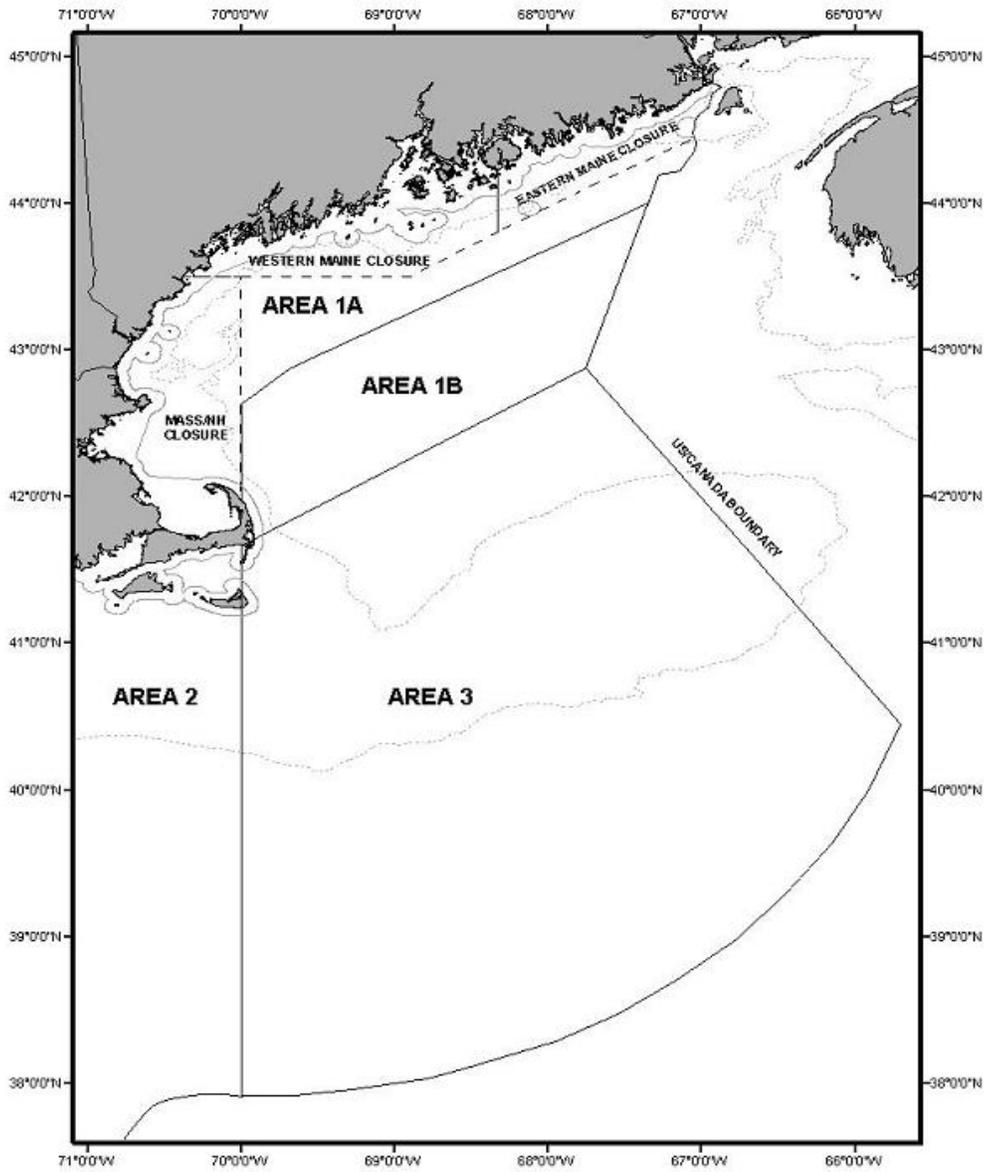


Figure 7. Spawning areas are located within inshore Gulf of Maine (Area 1A).



2.5 Definition of Overfishing

The 2012 stock assessment for Atlantic herring (54th SAW) employed a Beverton-Holt stock-recruitment curve, estimated internally to the ASAP base run, to produce maximum sustainable yield (MSY) reference points through 2011. The overfishing definition is $F_{MSY} = 0.27$. The stock is considered overfished if SSB is less than half of SSB_{MSY} . SSB_{MSY} was estimated at 157,000 metric tons (mt). The base ASAP run estimated fishing mortality at age 5 in 2011 to be 0.14 and SSB in 2011 was 517,930 mt. Therefore, the base ASAP run suggests that overfishing is not occurring and that the stock is not overfished.

2.6 Stock Rebuilding Program

A rebuilding program is not applicable for the Atlantic herring complex at the present time; however, if it is determined that the herring resource is experiencing overfishing or has become overfished, the Atlantic herring Section will initiate and develop a rebuilding schedule at that time.

2.7 Resource Community Aspects

Due to the unique and important role that Atlantic herring play in the ecosystem, management considerations should be broader than just traditional fisheries management. Atlantic herring support a valuable commercial fishery for human consumption and provide bait for other fisheries. Herring also serve as an important prey species for fish, birds and marine mammals. *Section 1.3.5* describes the importance of herring as a forage species.

2.8 Implementation Schedule

[TBD if approved]

3.0 MONITORING PROGRAM SPECIFICATIONS/ELEMENTS

The Atlantic Herring Technical Committee will meet at least once each year to review the stock assessment and all other relevant and current data pertaining to stock status. The Technical Committee will report on all required monitoring elements outlined in *Section 3* and forward any recommendations to the Atlantic Herring Section. The Technical Committee shall also report to the Management Board the results of any other monitoring efforts or assessment activities not included in *Section 3* that may be relevant to the stock status of Atlantic Herring or indicative of ecosystem health and interactions.

The Atlantic Herring Advisory Panel will meet at least once each year to review the stock assessment and all other relevant data pertaining to stock status. The Advisory Panel will forward its report and any recommendations to the Management Board.

The Atlantic Herring Plan Review Team will annually review implementation of the

management plan and any subsequent adjustments (addenda), and report to the Management Board on any compliance issues that may arise. The PRT will also prepare the annual Atlantic Herring FMP Review and coordinate the annual update and prioritization of research needs (see *Section 6.0*).

The Section encourages all state fishery management agencies to pursue full implementation of the Atlantic Coastal Cooperative Statistics Program (ACCSP), which will meet the monitoring and reporting requirements of this FMP. The Section recommends a transition or phased-in approach be adopted to allow for full implementation of the ACCSP. Until such time as the ACCSP is implemented, the Section encourages state fishery management agencies to initiate implementation of specific ACCSP modules, and/or pursue pilot and evaluation studies to assist in development of reporting programs to meet the ACCSP standards (please refer to the ACCSP Program Design document for specific reporting requirements and standards). The ACCSP partners are the 15 Atlantic coastal states (Maine - Florida), the District of Columbia, the Potomac River Fisheries Commission, the National Marine Fisheries Service, the U.S. Fish and Wildlife Service, the three Fishery Management Councils, and the Atlantic States Marine Fisheries Commission. Participation by program partners in the ACCSP does not relieve states from their responsibilities in collating and submitting harvest/monitoring reports to the Commission as may be required under this FMP [Amendment].

3.1 Assessment of Annual Recruitment

The Technical Committee and Stock Assessment Subcommittee will review annually the status of Atlantic herring recruitment to the coastal stock complex and “other specific groups of herring” as directed by the Section.

3.2 Assessment of Spawning Stock Biomass

The Technical Committee and Stock Assessment Subcommittee will review annually the spawning stock biomass of the Atlantic herring coastal stock complex and “other specific groups of herring” as directed by the Section.

3.3 Assessment of Fishing Mortality Target and Measurement

The Technical Committee and Stock Assessment Subcommittee will review annually the fishing mortality rate of the Atlantic herring coastal stock complex and “other specific groups of herring” as directed by the Section.

3.4. Catch and Landings Information

Prior to 1994, U.S. landings were collected by a combination of canning industry reports and reports by NMFS port agents. After 1994, harvesters using Vessel Trip Reports (VTR) directly reported U.S. landings data. With implementation of the FMP in 1999, harvesters have been required to use both VTR and Interactive Voice Reports (IVR). Federally licensed dealers are also required to submit monthly reports (NEFMC, 2005 1999).

Harvesters report VTR data on a monthly basis. Because harvesters give location data (coordinates or Loran) on a per trip basis, this reporting system allows for summarizing catch information from specific areas. VTR data are useful for stock assessment and effort evaluation, but because they are reported on a monthly basis, the data are not useful for quota monitoring (NEFMC, 2005 2001).

Using the IVR call-in system, harvesters report catches by management area on a weekly schedule. Although trip level information and location data are not reported, this system is useful for near real time quota monitoring. IVR data are not generally useful for stock assessments, or to address management questions that require information by area or gear.

Any marine fishery products landed in any state must be reported by a dealer or a marine resource harvester acting as a dealer in that state. Any marine resource harvester or aquaculturist who sells, consigns, transfers, or barter marine fishery products to anyone other than a dealer would themselves be acting as a dealer and would therefore be responsible for reporting as a dealer.

Dealer reports include detailed information on amounts landed, price paid and utilization of landings, usually on a per trip basis. The dealer reports do not contain information on area of catch.

Both IVR and VTR data include landings to foreign vessels by domestic harvesters. Dealer data only include landings made to domestic dealers. NMFS and state observers collect data on landings to foreign processing or fishing vessels. At the end of a fishing year, all reporting systems are analyzed to detect and reconcile discrepancies.

The ACCSP commercial data collection program will be a mandatory, trip-based system with all fishermen and dealers required to report a minimum set of standard data elements (refer to the ACCSP Program Design document for details). Submission of commercial fishermen and dealer reports will be required by the 10th of each month.

3.4.2 Biological Information

The ACCSP program design calls for the collection of baseline biological data on commercial, for-hire, and recreational fisheries. Biological data for commercial fisheries will be collected through port sampling programs and at-sea observers. Biological data for recreational fisheries will be collected in conjunction with the access-intercept survey. Biological data for for-hire fisheries will be collected through existing surveys and at-sea observer programs. A minimum set of standard data elements will be collected in all biological sampling programs (refer to the ACCSP Program Design document for details). Priorities and target sampling levels will be determined by the ACCSP Biological Review Panel, in coordination with the Discard/Release Prioritization Committee.

3.4.3 Social Information

No ongoing data collection or monitoring is planned; however, the herring industry has very active representation and participates on the advisory panel, so will certainly provide information about any serious social impacts of regulatory change. The ACCSP is currently developing a comprehensive coastwide data collection program that will include social data.

3.4.4 Economic Information

Federal Atlantic herring dealers will continue to submit trip-level landings reports on a monthly basis. These data include the vessel name, gear type, general catch area and amount purchased and can be used for future economic assessments. The ACCSP is currently developing a comprehensive coastwide data collection program that will include economic data.

3.4.5 Observer Programs

The NMFS at-sea observer program is a mandatory program. As a condition of state and/or federal permitting, vessels shall be required to carry at-sea observers when requested. Once states have fully implemented the ACCSP bycatch/observer module, they are then required to have mandatory observer coverage (~5%). A minimum set of standard data elements will be collected through the ACCSP at-sea observer program (refer to the ACCSP Program Design document for details). Specific fisheries priorities and sampling levels will be determined by the Discard/Release Prioritization Committee.

The NEFMC is currently developing an observer omnibus amendment.

3.5 Bycatch Reduction Program

Under this management measure, Amendment 2 recommends each state develop a bycatch monitoring program for state permitted vessels participating in the directed herring fishery that mirrors the federal requirements. As such, no action would be taken to implement more specific requirements for observer coverage in the Atlantic herring fishery in state waters. Vessels engaged in the herring fishery and which hold a federal permit would continue to take observers on their vessels as requested by the National Marine Fisheries Service (NMFS). Observer coverage would continue at the discretion of the NMFS. The information collected from independent fisheries observers helps to improve the collection of bycatch information and improve the monitoring of bycatch in the fishery. With better information, more effective management measures are able to be implemented to discourage bycatch and discards.

If the NEFMC implements bycatch caps, the ASMFC Atlantic Herring Section may initiate an addendum via adaptive management (*Section 4.7*) to modify the Interstate Management Program so that it is complementary to the Federal regulations.

3.6 Tagging Studies/Program

3.7 Habitat Program

Currently there is no habitat program designed specifically for Atlantic herring. The NEFMC is proposing updated designation of the Essential Fish Habitat (EFH) for herring and other species it manage through its Draft Omnibus Habitat Amendment 2.

4.0 MANAGEMENT PROGRAM IMPLEMENTATION

4.1 Recreational Fisheries Management Measures

At this time, Draft Amendment 3 does not propose management measures for the recreational fishery.

4.2 Commercial Fisheries Management Measures

4.2.1 Issue 1: Spawning Area Efficacy

Addendum V to Amendment 2 contains the comprehensive spawning regulations for Atlantic herring in Management Area 1A. Currently, there are three designated spawning areas within Management Area 1A (inshore Gulf of Maine): Eastern Maine, Western Maine, and Massachusetts/New Hampshire (Figure 1). Spawning herring are protected by closures to the fishery. To detect ripening of adult herring at the start of each spawning event, the FMP requires sampling of commercial catch no later than August 1 for the Eastern and Western Maine spawning areas, and September 1 for Massachusetts/New Hampshire.

Closure dates pertaining to spawning events are based on sufficient sampling from commercial fishing. The sufficient sample size is comprised of at least two 100-fish samples in the two length categories (i.e. greater than or equal to 28 cm and between 24 and 28 cm in length). The current regulatory language states closures in a given area will begin seven days after the determination that female herring from a specific area have reached 20% mean gonadosomatic index (GSI) for fish greater than or equal to 28 cm in length and 15% mean GSI for fish greater than or equal to 24 cm. Spawning closures last for four weeks. If catch sampling continues to detect spawning herring, then the closure will resume for another two weeks.

In the event sufficient samples are not available, then closures will begin on the following default dates and last for four weeks.

| | |
|-----------------------------|--------------|
| Eastern Maine | August 15 |
| Western Maine | September 1 |
| Massachusetts/New Hampshire | September 21 |

The Atlantic Herring Plan Development Team (PDT) reviewed spawning area boundaries and closure dates in the MA/NH spawning area and recommends extending the spawning closure by a minimum of two weeks. This adjustment of the closure period would better protect spawning sea herring.

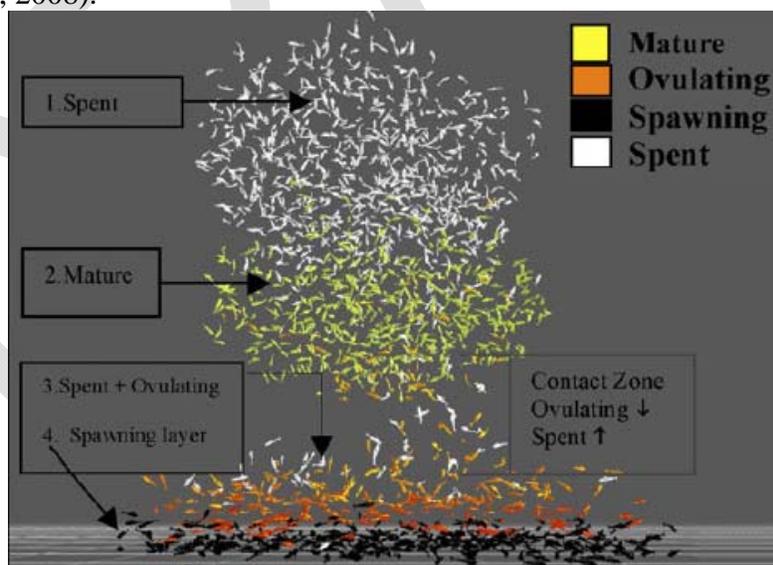
Anecdotal reports from industry suggested there may be variation in the spawning season within

the MA/NH area (i.e., spawning occurs earlier to the north). However, upon review of the GSI data from both the Massachusetts Division of Marine Fisheries and ME DMR sampling programs, this does not appear to be the case. In fact, both programs track each other well and the combined dataset appears well-suited to continue to inform the initiation of the MA/NH spawning closure (Figure 4). Therefore, the PDT has found the current spawning area boundaries are adequate and further sub-areas are not warranted.

Another issue remains regarding the duration of the closure period. The rules governing the spawning closure also include a mechanism to extend or re-close the area, should 25% of spawning herring be found in fishery-dependent sampling. However, there is reason to believe a substantial gear bias exists with respect to herring maturity stages; certain maturity stages may be unavailable to specific gear types, depending upon where in the water column they operate.

Atlantic herring are a pelagic species, yet become demersal during spawning. This causes a vertical stratification of maturity stages, with spawning fish residing closest to the seafloor, and developing, spent and juvenile fish above them in sequence (Figure 8). This means the composition of maturity stages in a sample of herring is largely dependent upon the gear type (i.e., bottom trawls are more likely to collect spawning fish than mid-water trawls or purse seines). This affects scientists' ability to describe the completion of the spawning season, and calls into question the usefulness of the 25%-spawning re-closure rule. However, given the presence of some amount of spawning fish after the closure, a longer closure period may be warranted.

Figure 8. Vertical stratification by maturity stage within a school of spawning Atlantic herring (Vabo and Skaret, 2008).



Management Options for Issue 1: Spawning Area Efficacy

Issue 1, Option 1: Status Quo: By default, spawning area closure will last four (4) weeks. Catch sampling of the fishery will resume at the end of the initial four-week closure period. If catch sampling indicates significant numbers of spawn herring are ~~still being harvested in the area~~, closures will resume for an additional two weeks. Significant

numbers of spawn herring is defined as 25% or more mature herring, by number in a catch sample, have yet to spawn. Mature or “spawn” herring are defined as Atlantic herring in ICNAF gonadal stages V and VI.

Issue 1, Option 2: Two-Week Extension to the Massachusetts-New Hampshire Spawning Area: The MA-NH spawning area closure will last six (6) weeks. The additional two weeks will serve as a default extended closure in lieu of continued sampling and reclosure.

4.2.2 Fixed Gear Set-Aside Provision Adjustment

Amendment 2 to the Atlantic Herring FMP established that 500 mt of the Area 1A TAC is set aside for fixed gear fisheries operating in Area 1A (weirs and stop seines) west of Cutler. This set-aside is available to fixed gear fishermen in Area 1A until November 1. If the set-aside has not been utilized by the fixed gear fisheries west of Cutler by November 1, it will then be made available to the remainder of the herring fleet fishing in Area 1A until the directed fishery in 1A closes. If 92% of the Area 1A TAC has already been reached by November 1 (and the directed herring fishery in 1A is therefore closed), the set-aside will be released as part of the 5% set-aside for incidental catch in 1A (at a 2,000-lb trip limit).

The 2013 – 2015 specifications package includes a fixed gear set-aside of 295 mt. Any unused portion of this set-aside after November 1 is rolled into the Area 1A sub-total to be used by other gears. The date for this rollover was set at November 1 because historically, Atlantic herring have moved off of Maine’s coast by the end of the year.

In recent years, Atlantic herring has been known to occur along the mid-coast of Maine through November. Fixed-gear fishermen have requested the unused fixed gear set-aside would not be rolled into the Area 1A sub-quota on November 1 in order to maintain access to a dedicated quota for the fixed gear fishery. Furthermore, fishermen expect a demand for bait in the lobster fishery through end of the year.

The PDT discussed the need for adjusting the fixed-gear set aside rollover provision. Historically, the fish have migrated away from the Gulf of Maine coast by November. In the past decade, fixed gear landings have not fully utilized the set aside of 295 mt (most recent 10-year average is 197.4 mt, or 67% of the set-aside) and landings after November 1 have been 0 mt (Table 4). The last year in which Atlantic herring were caught after Nov 1st occurred in 1993. Also, there have not been significant changes in the fishing behavior for sea herring or species depending upon it (ex. lobster).

Table 4: Fixed gear catches (stop seine, weir, pound net) in metric tons from Maine 2004 to 2013. Note: data cannot be parsed by month given confidentiality issues. 2013 catch data is preliminary.

| Year | Jan-Oct | Nov & Dec | Total |
|---------|---------|-----------|-------|
| 2004 | 49.0 | 0 | 49.0 |
| 2005 | 52.8 | 0 | 52.8 |
| 2006 | 528.4 | 0 | 528.4 |
| 2007 | 391.8 | 0 | 391.8 |
| 2008 | 24.3 | 0 | 24.3 |
| 2009 | 81.1 | 0 | 81.1 |
| 2010 | 823.4 | 0 | 823.4 |
| 2011 | 23.7 | 0 | 23.7 |
| 2012 | 0 | 0 | 0 |
| 2013* | 0 | 0 | 0 |
| Average | 197.4 | 0.0 | 197.4 |

The PDT noted, should fixed-gear fishermen exceed the 295 mt set-aside, it has access to the total Area 1A sub-quota. There is no biological basis for or against adjusting the rollover provision of the fixed-gear set aside, but there may be socioeconomic reasons.

Another concern with changing the rollover provision is, if implemented, there will be inconsistent set aside measures for state and federal rules.

Management Options for Issue 2: Fixed Gear Set-Aside Rollover Provision

Issue 2, Option 1: Status Quo: The fixed gear set-aside will be available to fixed gear fishermen in Area 1A until November 1. If the set-aside has not been utilized by the fixed gear fisheries west of Cutler by November 1, it will then be made available to the remainder of the herring fleet fishing in Area 1A until the directed fishery in 1A closes. *Fixed gear fishermen can continue fishing and landings will count towards the Area 1A sub-quota.* If 92% of the Area 1A TAC has already been reached by November 1 (and the directed herring fishery in 1A is therefore closed), the set-aside will be released as part of the 5% set-aside for incidental catch in 1A (at a 2,000 lb trip limit).

Issue 2, Option 2: Remove the fixed gear set-aside rollover provision: The fixed gear set-aside will be available to fixed gear fishermen west of Cutler through December 31. When 92% of the Area 1A TAC has been reached, all directed herring fisheries in Area 1A will closed. Unused portions of the fixed gear set-aside will not be rolled from one year to the next.

Issue 3: Empty Fish Hold Provision

Draft Amendment 3 to the Atlantic herring FMP proposes an option requiring vessel holds to be empty of fish prior to leaving the dock on a fishing trip. This measure is intended to be an incentive to harvest more efficiently to meet market demands, thereby discourage dumping of unsold herring that may result from lower sales than expected. In addition, the option is intended to improve documentation of catch by avoiding double-counting of fish landed from multiple trips, particularly bycatch and incidental catch of river herring. Mixing fish from multiple trips has the potential to compromise landings data used to inform harvest control measures and bycatch avoidance programs, and leaving fish in the vessel's hold could preclude a portside sampler from observing the entirety of a trip.

Currently, there is no management measure for emptying holds of fish prior to departing for a fishing trip in the interstate or federal Atlantic Herring management plans. There is concern that fish from multiple trips can be mixed if the holds are not completely emptied. This has the potential to compromise landings data used to inform harvest control measures and bycatch avoidance programs. Furthermore, leaving fish in the vessel's hold prevents portside samplers from observing the entirety of a trip, which hinders the operation of bycatch monitoring and avoidance programs.

In its Draft Framework Adjustment 4, the New England Fishery Management Council approved a requirement for vessel holds to be empty of fish prior to leaving a dock. The Council adopted Alternative 2.1.2, Alternative 2, Option C: a waiver may be issued for instances when there are fish in the holds after inspection by an appropriate law enforcement officer. This alternative would only apply to Category A and B boats. The intent is for waivers to be issued for refrigeration failure and non-marketable reported fish. Option 2, below, matches the preferred option.

When a vessel departs for a fishing trip, it is considered "declared" into the fishery. Upon tying to the dock, a vessel is considered to have declared out of the fishery and landed. The fish are accounted for by vessel monitoring reports (VMS), vessel trip reports (VTR) and by dealer records. These reports are trip-specific, and the data is used to inform harvest control measures and bycatch avoidance programs.

The PDT recognizes fishermen may have surplus catch that cannot be sold and is a challenge to dispose. The proposed requirement to empty vessel holds of fish may be an incentive to curb wasteful fishing practices and harvest more efficiently to meet market demands. In addition, this provision would eliminate the practice of keeping fish in a hold from one fishing trip and mixing with catch from another trip, which would result in inaccurate VMS, VTR, and dealer reports, as well as missing data for bycatch observations. The PDT noted there needs to be consideration for enforcement, unforeseen events that make it impossible to sell fish, and vessels that land at multiple ports.

Management Options for Issue 3: Empty Fish Hold Provision

Issue 3, Option 1: Status Quo: No empty fish hold provision. There is no requirement to empty vessel holds of fish prior to a fishing trip departure.

Issue 3, Option 2: Empty Fish Hold Provision: This option would require that fish holds on Category A/B Atlantic herring vessels are empty of fish before leaving the dock on any trip when declared into the Atlantic herring fishery. A waiver may be issued for instances when there are fish in the hold after inspection by an appropriate law enforcement officer (the intent is for waivers to be issued for refrigeration failure and non-marketable fish that have been reported by the vessel). Only vessels departing on a fishing trip (i.e. declared into the fishery) are required to have holds empty of fish. As such, waivers would not be required for vessels transporting fish from dock to dock.

A government official must verify the amount of fish in a hold, reason(s) for unmarketable fish, and vessels transporting fish to multiple ports.

4.3 For-Hire Fisheries Management Measures

At this time, Draft Amendment 3 does not propose management measures for the for-hire fishery.

4.5 Habitat Conservation and Restoration

4.5.1 Preservation of Existing Habitat

Protection of habitat essential for herring spawning is vital to ensure the continued recovery and health of this species. States should identify any locations where herring consistently return to spawn in order to provide some protective measures to egg beds when and if necessary. Monitoring of these locations may also provide an indication of relative spawning component size.

4.5.2 Habitat Restoration, Improvement, and Enhancement

1. State marine fisheries agencies should identify state permitting and planning agencies, which regulate those activities likely to adversely affect Essential Fish Habitat (EFH) and habitats, either by destruction of habitat or degradation of quality. The marine fisheries agency should work with the relevant permitting or planning agency in each state to develop permit conditions and planning considerations to avoid or mitigate adverse impacts on EFH. Standard permit conditions and model policies that contain mitigation techniques should be developed. The development of Memoranda of Understanding (MOU's) with other state agencies are recommended for joint review of projects and planning activities to ensure that habitat protections are adequately incorporated.

For example, dredging windows should be established to avoid impacts to Atlantic herring egg EFH and spawning activity. Dredging windows should be coordinated to ensure practical opportunities for permitted dredging to take place.

2. When it is expected that impacts will occur from an anthropogenic activity, but probably not above some *de minimis* level, prohibition of the activity may not be warranted, but the marine fisheries agency should request that the appropriate agency consider requiring application of Best Management Practices for the activity.
3. State marine fisheries agencies should coordinate with state water quality agencies and state coastal zone management agencies to ensure that Clean Water Act Section 319 non-point source control plans and Coastal Zone Act Reauthorization Amendment Section 6217 coastal non-point source control plans are developed and implemented so as to minimize adverse impacts of non-point source pollution on herring and herring EFH. In particular, marine fisheries agencies should consider whether areas such as EFH for eggs merit designation as critical coastal areas under state 6217 programs (non-point source pollution control under the Coastal Zone Management Act amendments of 1990) due to water quality impacts to fish habitat, and should provide input to the 6217 lead agencies (identified in the Source Document).
4. State marine fisheries agencies should coordinate with appropriate state agencies to strengthen compliance with National Pollutant Discharge Elimination System (NPDES) or State Pollutant Discharge Elimination System (SPDES) permits.
5. State marine fisheries agencies should work with state coastal zone management agencies to determine whether: 1) additional state policies for habitat protection should be adopted under the state coastal management program; 2) additional federal activities should be added to the state coastal management programs list of activities subject to state consistency review; and 3) the state is fully utilizing the Coastal Zone Management Act federal consistency process for protection of fish habitats.
6. When states have identified habitat restoration as a need, state marine fisheries agencies should coordinate with other agencies to ensure that habitat restoration plans are developed, and funding is actively sought for plan implementation and monitoring.
7. State marine fisheries agencies should coordinate with and provide input to the state water quality agency in development and updating of the Clean Water Act section 303(d) list (priority list of water not meeting state water quality standards). In addition, state marine fisheries agencies should review the adequacy of water quality standards to protect herring and should participate in the triennial review of the state water quality standards.
8. State marine fisheries agencies should review oil spill prevention and response plans for preventing accidental release and recommending prioritized response in EFH.
9. State marine fisheries agencies should work closely with the appropriate Coast Guard District Office in the development, amendment, and implementation of area wide oil spill contingency plans.

10. State marine fisheries agencies should work closely with water quality agencies in the development or revision of river basin plans to identify degraded or threatened resources and recommend preventative, remedial or mitigation measures.
11. State marine fisheries agencies should work with the appropriate agencies to develop contaminated sediment remediation plans or active sediment pollution prevention programs for areas with or susceptible to sediment contamination.
12. State marine fisheries agencies should coordinate with appropriate National Estuary Program (NEP) committees to ensure that NEP Comprehensive Coastal Management Plans (CCMPs) identify and implement habitat protection and restoration needs.

State marine fisheries agencies should assist industrial siting councils in siting new power plants so that impingement and entrainment of Atlantic herring are minimized.

State marine fisheries agencies should work with the appropriate agencies to establish and enforce "no discharge" zones, and promote education of recreational boaters to reduce contamination of nearshore waters from chronic fuel spills and waste disposal.

4.5.3 Avoidance of Incompatible Activities

Federal and state fishery management agencies should take steps to limit the introduction of compounds that are known or suspected to accumulate in Atlantic herring tissue and which pose a threat to human health or Atlantic herring health. Each state should establish windows of compatibility for activities known or suspected to adversely affect herring life stages and their habitats (such as navigational dredging, bridge construction, and dredged material disposal) and notify the appropriate construction or regulatory agencies in writing. Projects involving water withdrawal from spawning or nursery habitats (e.g. power plants, irrigation, water supply projects) should be scrutinized to ensure that adverse impacts resulting from larval/ juvenile impingement, entrainment, and/or modification of flow, temperature and salinity regimes due to water removal will not adversely impact Atlantic sturgeon spawning stocks, including early life stages. Each state which contains spawning and nursery areas within its jurisdiction should develop water use and flow regime guidelines which are protective of Atlantic sturgeon spawning and nursery areas and which will ensure to the extent possible the long-term health and sustainability of the stock. States should endeavor to ensure that proposed water diversions/withdrawals from rivers tributary to spawning and nursery habitats will not reduce or eliminate conditions favorable to Atlantic herring use of these habitats.

4.5.4 Fisheries Practices

The use of any fishing gear or practice which is documented by management agencies to have an unacceptable impact on Atlantic herring (e.g. habitat damage or bycatch mortality) should be prohibited within the effected essential habitats (e.g. trawling in spawning areas or primary nursery areas should be prohibited).

4.6 ALTERNATIVE STATE MANAGEMENT REGIMES

Once approved by the Atlantic Herring Management Board, states are required to obtain prior approval from the Board of any changes to their management program for which a compliance requirement is in effect. Other non-compliance measures must be reported to the Board but may be implemented without prior approval from the Section. A state can request permission to implement an alternative to any mandatory compliance measure only if that state can show to the Section's satisfaction that its alternative proposal will have the same conservation value as the measure contained in this amendment or any addenda prepared under Adaptive Management (*Section 4.6*). States submitting alternative proposals must demonstrate that the proposed action will not contribute to overfishing of the resource. All changes in state plans must be submitted in writing to the Section and to the Commission either as part of the annual FMP Review process or the Annual Compliance Reports.

4.6.1 General Procedures

A state may submit a proposal for a change to its regulatory program or any mandatory compliance measure under this amendment to the Commission, including a proposal for *de minimis* status. Such changes shall be submitted to the Chair of the Plan Review Team, who shall distribute the proposal to the Management Board, the Plan Review Team, the Technical Committee, the Stock Assessment Committee and the Advisory Panel.

The Plan Review Team is responsible for gathering the comments of the Technical Committee, the Stock Assessment Committee and the Advisory Panel, and presenting these comments as soon as possible to the Board for decision.

The Atlantic Herring Section will decide to approve the state proposal for an alternative management program if it is consistent with the applicable target fishing mortality rate and the goals and objectives of this amendment.

4.6.2 Management Program Equivalency

The Atlantic Herring Technical Committee, under the direction of the Plan Review Team, will review any alternative state proposals under this section and provide to the Atlantic Herring Management Board its evaluation of the adequacy of such proposals.

4.6.3 *De minimis* Fishery Guidelines

The ASMFC Interstate Fisheries Management Program Charter defines *de minimis* as “a situation in which, under the existing condition of the stock and scope of the fishery, conservation and enforcement actions taken by an individual state would be expected to contribute insignificantly to a coastwide conservation program required by a Fishery Management Plan or amendment” (ASMFC, 2000).

States may apply for *de minimis* status if, for the last *three* years, the combined average commercial landings (by weight) constitute less than one percent (1%) of the coastwide commercial landings for the same *three*-year period. States may petition the Atlantic Herring Section at any time for *de minimis* status, if their fishery falls below the threshold level. Once *de minimis* status is granted, designated states must submit annual reports to the Board justifying the continuance of *de minimis* status. States are encouraged to include *de minimis* requests as part of their annual compliance reports.

4.7 ADAPTIVE MANAGEMENT

The Atlantic Herring Section may vary the requirements specified in this amendment as a part of adaptive management in order to conserve the Atlantic herring resource. Specifically, the Board may change target fishing mortality rates and harvest specifications, other measures designed to prevent overfishing of the stock complex or any spawning component. Such changes will be instituted to be effective on the first fishing day of the following year, but may be put in place at an alternative time when deemed necessary by the Section. These changes should be discussed with the appropriate federal representatives and Councils prior to implementation in order to be complementary to the regulations for the EEZ.

4.7.1 General Procedures

The Plan Review Team will monitor the status of the fishery and the resource and report on that status to the Atlantic Herring Management Board annually, or when directed to do so by the Board. The Plan Review Team will consult with the Technical Committee, the Stock Assessment Committee and the Advisory Panel, if any, in making such review and report. The report will contain recommendations concerning proposed adaptive management revisions to the management program.

The Atlantic Herring Management Board will review the report of the Plan Review Team and may consult further with Technical Committee, the Stock Assessment Committee or the Advisory Panel. The Board may direct the PRT to prepare an addendum to make any changes it deems necessary. The addendum shall contain a schedule for the states to implement its provisions.

The Plan Review Team will prepare a draft addendum as directed by the Board and shall distribute it to all states for review and comment. A public hearing will be held in any state that requests one. The Plan Review Team will also request comment from federal agencies and the public at large. After a 30-day review period, the Plan Review Team will summarize the comments and prepare a final version of the addendum for the Management Board.

The Management Board shall review the final version of the addendum prepared by the Plan Review Team and shall also consider the public comments received and the recommendations of the Technical Committee, the Stock Assessment Committee and the Advisory Panel. The Board shall then decide whether to adopt, or revise and then adopt, the addendum.

Upon adoption of an addendum implementing adaptive management by the Board, states shall prepare plans to carry out the addendum, and submit them to the Section for approval according to the schedule contained in the addendum.

4.7.2 Measures Subject to Change

The following measures are subject to change under adaptive management upon approval by the Atlantic Herring Section:

- (1) MSY or MSY proxy;
- (2) Management area boundaries or additional management areas;
- (3) Size, timing, or location of a new or existing spawning area closure;
- (4) Closed area other than a spawning closure;
- (5) Restrictions in the amount of fishing time;
- (6) Days at sea system, including options transferability or leasing of DAS;
- (7) Adjustments to OY, TACs, DAP, DAH, JVP, IWP, or the Reserve;
- (8) Adjustments to the amount of Canadian catch deducted when determining specifications;
- (9) Distribution of the TAC to an area or time period;
- (10) Gear restrictions (such as *gear type*, mesh size, etc.) or requirements (such as bycatch reduction devices, etc.);
- (11) Measures to address bycatch and bycatch monitoring (such as seasonal, and temporal closures, bycatch caps, gear restriction, and closed fishing seasons);
- (12) Vessel size/horsepower restrictions; vessel size limits/upgrade restrictions
- (13) Closed seasons;
- (14) Minimum fish size;
- (15) Trip limits;
- (16) Seasonal or area quotas; seasonal allocation of area TACs
- (17) In-season adjustments;
- (18) Changes to the overfishing definition;
- (19) Vessel tracking system;
- (20) Restrictions for prohibitions on mealing or a roe fishery;
- (21) Quota monitoring tools, such as vessel operator or dealer reporting requirements;
- (22) Permit upgrading or splitting limitations, and vessel upgrading restrictions;
- (23) Measures to reduce gear conflicts, such as;
 - a) Mandatory monitoring of a radio channel by fishing vessels;
 - b) Gear location reporting by fixed gear fishermen and mandatory plotting by mobile gear fishermen;
 - c) Standards of operation when gear conflicts occur;
 - d) Fixed gear marking or setting practices;
 - e) Gear restrictions for certain areas and/or at certain times of the year;
 - f) Vessel monitoring systems;
 - g) Restrictions on the maximum number of fishing vessels;
 - h) Special permitting conditions;
- (24) Measures to address information from multispecies stock assessments;
- (25) Management of the roe fishery

- (26) Herring Processor Survey
- (27) Sector allocation/effort control
- (28) Any other management measures currently included in Amendment 2.

This list will be modified to include the same measures listed as the frameworkable measures listed in the NEFMC's Amendment 1 to the federal FMP for Atlantic Herring.

4.8 EMERGENCY PROCEDURES

Emergency procedures may be used by the Atlantic Herring Section to require any emergency action that is not covered by or is an exception or change to any provision in Amendment 2. Procedures for implementation are addressed in the ASMFC Interstate Fisheries Management Program Charter, Section Six (c)(10) (ASMFC, 2000).

4.9 MANAGEMENT INSTITUTIONS

The management institutions for Atlantic herring shall be subject to the provisions of the ISFMP Charter (ASMFC, 2000). The following is not intended to replace any or all of the provisions of the ISFMP Charter. All committee roles and responsibilities are included in detail in the ISFMP Charter and are only summarized here.

4.9.1 ASMFC and the ISFMP Policy Board

The ASMFC (Commission) and the ISFMP Policy Board are generally responsible for the oversight and management of the Commission's fisheries management activities. The Commission must approve all fishery management plans, and amendments, including this Amendment 2, and must also make all final determinations concerning state compliance or noncompliance. The ISFMP Policy Board reviews any non-compliance recommendations of the various Management Boards and Sections and, if it concurs, forwards them on to the Commission for action.

4.9.2 Atlantic Herring Section

The Atlantic Herring Section is established by Amendment 1 to the Compact creating the Commission (Public Law 539, as amended) and is generally responsible for carrying out all activities under this Amendment. It establishes and oversees the activities of the Plan Development or Plan Review Team, the Technical Committee and the Stock Assessment Subcommittee and requests the establishment of the Commission's Atlantic Herring Advisory Panel. Among other things, the Board makes changes to the management program under adaptive management and approves state programs implementing the amendment and alternative state programs under *Sections 4.6* and *4.7*. The Section reviews the status of state compliance with the FMP or amendment at least annually. If it determines that a state is out of compliance, the Board reports its determination to the ISFMP Policy Board under the terms of the ISFMP Charter.

4.9.3 Atlantic Herring Plan Development / Plan Review Team

The Atlantic Herring Plan Development Team (PDT) and the Atlantic Herring Plan Review Team (PRT) will be composed of a small group of scientists and/or managers whose responsibility is to provide all of the technical support necessary to carry out and document the decisions of the Atlantic Herring Management Board. The ASMFC FMP Coordinator chairs both. The Atlantic Herring PDT/PRT is directly responsible to the Board for providing information and documentation concerning the implementation, review, monitoring and enforcement of Amendment 2. The Atlantic Herring PDT/PRT shall be comprised of personnel from state and federal agencies who have scientific and management ability and knowledge of Atlantic herring. The PDT will be responsible for preparing all documentation necessary for the development of Amendment 2, using the best scientific information available and the most current stock assessment information. The PDT will either disband or assume inactive status upon completion of Amendment 2. Alternatively, the Board may elect to retain PDT members as members of the PRT or appoint new members. The PRT will provide annual advice concerning the implementation, review, monitoring, and enforcement of Amendment 2 once the Commission has adopted it.

4.9.4 Atlantic Herring Technical Committee

The Atlantic Herring Technical Committee will consist of representatives from state or federal agencies, Regional Fishery Management Councils, Commission, university or other specialized personnel with scientific and technical expertise and knowledge of the Atlantic herring fishery. The Board will appoint the members of the Technical Committee and may authorize additional seats as it sees fit. Its role is to act as a liaison to the individual state and federal agencies, provide information to the management process, and review and develop options concerning the management program. The Technical Committee will provide scientific and technical advice to the Management Board, PDT and PRT in the development and monitoring of a fishery management plan or amendment.

4.9.5 Atlantic Herring Stock Assessment Subcommittee

The Atlantic Herring Stock Assessment Subcommittee shall be appointed by the Technical Committee at the request of the Section and will consist of scientists with expertise in the assessment of the Atlantic herring population. Its role is to assess the Atlantic herring population and provide scientific advice concerning the implications of proposed or potential management alternatives, or to respond to other scientific questions from the Board, Technical Committee, PDT or PRT. The Stock Assessment Subcommittee will report to the Technical Committee.

4.9.6 Atlantic Herring Advisory Panel

The Atlantic Herring Advisory Panel was established according to the Commission's Advisory Committee Charter. Members of the Advisory Panel are citizens who represent a cross-section of commercial fishing interests and others who are concerned about Atlantic herring conservation and management. The Advisory Panel provides the Board with advice directly concerning the Commission's Atlantic herring management program.

4.9.7 Federal Agencies

4.9.7.1 Management in the Exclusive Economic Zone (EEZ)

Management of Atlantic herring in the EEZ is currently under the jurisdiction of the New England Fishery Management Council under the Magnuson-Stevens Act (16 U.S.C. 1801 et seq.). In the absence of a Council Fishery Management Plan, management is the responsibility of the NMFS as mandated by the Atlantic Coastal Fishery Conservation and Management Act (16 U.S.C. 5105 et seq.) and the Magnuson-Stevens Act (16 U.S.C. 1801 et seq.). The NEFMC is currently developing an amendment to the federal FMP for Atlantic herring, scheduled for implementation by the 2006 fishing year.

4.9.7.2 Federal Agency Participation in the Management Process

The Commission has accorded the United States Fish and Wildlife Service (USFWS) and the NMFS voting status on the ISFMP Policy Board in accordance with the Commission's ISFMP Charter. Due to the makeup of Sections under the ISFMP Charter, no federal agencies are accorded voting status on the Atlantic Herring Management Board; however, the NMFS participates on the Atlantic Herring Plan Development Team, Plan Review Team, Technical Committee and Stock Assessment Subcommittee.

4.9.7.3 Consultation with Fishery Management Councils

In carrying out the provisions of Amendment 2, the states, as members of the Atlantic Herring Section, shall closely coordinate with the New England Fishery Management Council in order to cooperatively manage the Atlantic herring population. In accordance with the Commission's ISFMP Charter, a representative of the New England Fishery Management Council may be invited to participate as a full member of the Atlantic Herring Section.

4.10 RECOMMENDATIONS TO THE SECRETARIES FOR COMPLEMENTARY ACTION IN FEDERAL WATERS

The Atlantic States Marine Fisheries Commission believes that the measures contained in Amendment 2 are necessary to prevent overfishing of the Atlantic herring resource and to allow growth in the fishery. The Atlantic States Marine Fisheries Commission recommends that the federal government promulgate all necessary regulations to implement complementary measures in federal waters that are contained in *Section 4.0*. In addition, Amendment 2 calls for the Atlantic Herring Section to make additional changes to Amendment 2 via adaptive management. As such changes are made, the Management Board will recommend additional measures to the Secretary. The Commission recognizes that such action may be taken under the Atlantic Coastal Fisheries Cooperative Management Act or the Magnuson-Stevens Fishery Conservation and Management Act. In addition, the Commission urges adoption and implementation of NEFMC's Amendment 1 to the Fishery Management Plan for Atlantic herring when complete.

4.11 COOPERATION WITH OTHER MANAGEMENT INSTITUTIONS

The Atlantic Herring Plan Review Team, Technical Committee and Management Board shall regularly communicate with fishery managers in Canadian agencies to help ensure the sustainability of the Atlantic herring resource. Canadian fishery managers and their officials shall be invited to ASMFC discussions on Atlantic herring conservation as needed, especially when discussing transshipment issues and cross-border trade.

5.0 COMPLIANCE

Full implementation of the provisions of this amendment is necessary for the management program to be equitable, efficient and effective. States are expected to implement these measures faithfully under state laws. The Atlantic States Marine Fisheries Commission will continually monitor the effectiveness of state implementation and determine whether states are in compliance with the provisions of this fishery management plan. This section sets forth the specific elements states must implement in order to be in compliance with this fishery management plan, and the procedures that will govern the evaluation of compliance. Additional details of the procedures are found in the ASMFC Interstate Fisheries Management Program Charter (ASMFC, 2000).

5.1 MANDATORY COMPLIANCE ELEMENTS FOR STATES

A state will be determined to be out of compliance with the provisions of this fishery management plan, according to the terms of Section Seven of the ISFMP Charter if:

- § its regulatory and management programs to implement *Section 4* have not been approved by the Atlantic Herring Section; or
- § it fails to meet any schedule required by *Section 5.1.2*, or any addendum prepared under adaptive management (*Section 4.7*); or
- § it has failed to implement a change to its program when determined necessary by the Atlantic Herring Section; or
- § it makes a change to its regulations required under *Section 4* or any addendum prepared under adaptive management (*Section 4.7*) without prior approval of the Atlantic Herring Section.

5.1.1 Mandatory Elements of State Programs

To be considered in compliance with this fishery management plan, all state programs must include harvest controls/a regime of restrictions for Atlantic herring fisheries consistent with the requirements of *Sections 4.1, 4.2 and 4.3*; except that a state may propose an alternative management program under *Section 4.6*, which, if approved by the Section, may be implemented as an alternative regulatory requirement for compliance.

In addition, the Atlantic Herring Section will monitor bycatch of Atlantic herring in other fisheries and report excessive bycatch problems to the management authority for the fishery causing the bycatch.

5.1.1.1 Regulatory Requirements

States may begin to implement Amendment 2 after final approval by the Commission. Each state must submit its required Atlantic herring regulatory program to the Commission through the ASMFC staff for approval by the Atlantic Herring Section. During the period from submission, until the Management Board makes a decision on a state's program, a state may not adopt a less protective management program than contained in this management plan or contained in current state law. The following lists the specific compliance criteria that a state/jurisdiction must implement in order to be in compliance with Amendment 2:

1. Each jurisdiction must enact spawning area restrictions that are at least as restrictive or more than those in (*Section 4.3*);
2. Each jurisdiction shall prohibit the landing of herring from a management area or sub-area when the TAC has been attained in that area or sub-area (*Section 4.3*);
3. Each jurisdiction shall prohibit directed fishing for herring in state waters when the TAC has been attained in that area or sub-area (*Section 4.3*);
4. Each jurisdiction shall prohibit the landing of herring to an Internal Waters Processing (IWP) operation that were harvested from an area or sub-area closed to directed herring fishing (*Section 4.3*);
5. Each jurisdiction shall require that (daily) herring landings from fixed gear fisheries be reported on a weekly basis in order to monitor progress toward attaining the TAC (*Section 4.3*); and
6. Each jurisdiction shall annually provide a report on any mealing activity of herring occurring in their state, specifically, the amount in weight of herring processed into meal or like product, biological sampling results and location of catch by NMFS statistical area or Management Area.

Once approved by the Atlantic Herring Management Board, states are required to obtain prior approval from the Board of any changes to their management program for which a compliance requirement is in effect. Other measures must be reported to the Board but may be implemented without prior Board approval. A state can request permission to implement an alternative to any mandatory compliance measure only if that state can show to the Board's satisfaction that its alternative proposal will have the same conservation value as the measure contained in this amendment or any addenda prepared under Adaptive Management (*Section 4.7*). States submitting alternative proposals must demonstrate that the proposed action will not contribute to overfishing of the resource. All changes in state plans must be submitted in writing to the Board and to the Commission either as part of the annual FMP Review process or the Annual Compliance Reports.

5.1.1.2 Monitoring Requirements

The PDT and Technical Committee will work to develop appropriate protocols for designing fishery-independent surveys for Atlantic herring. Such surveys may be implemented under *Section 4.7* (Adaptive Management) through the Commission's addendum process including the opportunity for public comment.

5.1.1.3 Research Requirements

The PDT and Technical Committee will prioritize the research needs for Atlantic herring. Appropriate programs for meeting these needs may be implemented under *Section 4.7* (Adaptive Management) through the Commission's addendum process including the opportunity for public comment.

5.1.1.4 Law Enforcement Requirements

All state programs must include law enforcement capabilities adequate for successfully implementing that state's Atlantic herring regulations. The adequacy of a state's enforcement activity will be monitored annually by reports of the ASMFC Law Enforcement Committee to the Atlantic Herring Plan Review Team. The first reporting period will cover the period from January 1 – December 31.

5.1.1.5 Habitat Requirements

There are no mandatory habitat requirements for Atlantic herring. See *Section 4.4* for Habitat Recommendations.

5.1.2 Compliance Schedule

Reports on compliance must be submitted to the Commission by each jurisdiction annually, no later than *February 1*.

Each state must submit an annual report concerning its Atlantic herring fisheries and management program for the previous calendar year. A standard compliance report format has been prepared and adopted by the ISFMP Policy Board. States should follow this format in completing the annual compliance report.

5.2 PROCEDURES FOR DETERMINING COMPLIANCE

Detailed procedures regarding compliance determinations are contained in the ISFMP Charter, Section Seven (ASMFC, 2000). The following summary is not meant in any way to replace the language found in the ISFMP Charter.

In brief, all states are responsible for the full and effective implementation and enforcement of fishery management plans in areas subject to their jurisdiction. Written compliance reports as specified in the Plan or Amendment must be submitted annually by each state with a declared interest. Compliance with Amendment 2 will be reviewed at least annually. The Atlantic Herring Management Board, ISFMP Policy Board or the Commission, may request the Atlantic Herring Plan Review Team to conduct a review of plan implementation and compliance at any time.

The Atlantic Herring Section will review the written findings of the PRT within 60 days of receipt of a State's compliance report. Should the Section recommend to the Policy Board that a state be determined out of compliance, a rationale for the recommended non-compliance finding will be included addressing specifically the required measures of Amendment 2 that the state has not implemented or enforced, a statement of how failure to implement or enforce the required measures jeopardizes Atlantic herring conservation, and the actions a state must take in order to comply with Amendment 2 requirements.

The ISFMP Policy Board shall, within thirty days of receiving a recommendation of non-compliance from the Atlantic Herring Section, review that recommendation of non-compliance. If it concurs in the recommendation, it shall recommend at that time to the Commission that a state be found out of compliance.

The Commission shall consider any Amendment 2 non-compliance recommendation from the Policy Board within 30 days. Any state, which is the subject of a recommendation for a non-compliance finding is given an opportunity to present written and/or oral testimony concerning whether it should be found out of compliance. If the Commission agrees with the recommendation of the Policy Board, it may determine that a state is not in compliance with Amendment 2 and specify the actions the state must take to come into compliance.

Any state that has been determined to be out of compliance may request that the Commission rescind its non-compliance findings, provided the state has revised its Atlantic herring conservation measures or shown to the Board and/or Commission's satisfaction that actions taken by the state provide for conservation equivalency.

5.3 ANALYSIS OF ENFORCEABILITY OF PROPOSED MEASURES

The ASMFC Law Enforcement Committee will, during the implementation of this amendment, analyze the enforceability of new conservation and management measures as they are proposed.

6.0 MANAGEMENT AND RESEARCH NEEDS

During the development of this amendment, the Council, in conjunction with ASMFC as well as the Herring PDT and Advisory Panel, identified the following data and research needs. Addressing current data deficiencies will improve the long-term management of the Atlantic herring fishery.

6.1 STOCK ASSESSMENT AND POPULATION DYNAMICS

- Continue commercial catch sampling of Atlantic herring fishery (risk of losing funding after the 2004-2005 season) according to ACCSP protocols
- Continue to utilize the inshore and offshore hydroacoustic and trawl surveys to provide an independent means of estimating stock sizes. Collaborative work between NMFS,

DFO, State agencies and the herring industry on acoustic surveys for herring should continue to be encouraged.

- Develop tagging and morphometric studies to explore uncertainties in stock structure and the impacts of harvest mortality on different components of the stock. Although tagging studies may be problematic for assessing survivorship for a species like herring, they may be helpful in identifying the stock components and the proportion of these components taken in the fishery on a seasonal basis.
- Examine the root causes of the discrepancy between Forward Projection and ADAPT assessments.
- Pursue the development of a dedicated pelagic survey technique utilizing hydroacoustic and trawling methods to provide another direct and independent means of estimating stock sizes. Collaborative work between NMFS, DFO, State agencies and the herring industry on acoustic surveys for herring should be encouraged.
- Potential changes in catchability within spring bottom trawl survey indices should be investigated.
- Organize annual U.S.-Canada workshops to coordinate stock assessment activities and optimize cooperation in management approaches between the two countries.

6.1.1 Biology/Community Ecology

- Reinvestigate the estimation of age-3 herring, the natural mortality rate assumed for all ages, the use of catch-per-unit-effort tuning indices and the use of NEFSC fall bottom trawl survey tuning indices in the analytical assessment of herring.
- Evaluate the concept of a minimum biologically-acceptable level biomass (MBAL) for the herring coastal stock complex. Determine the adequacy of present methods and data to determine MBAL if appropriate.
- Possible effects of density-dependence (e.g. reduced growth rates at high population size) on parameter estimates used in assessments should be examined.
- Synthesize predator/prey information and conduct investigations to address information gaps; investigate the role of herring in the Northwest Atlantic ecosystem and the importance of herring as a forage species for other commercial fish stocks; assess the importance of herring as forage relative to other forage species in the region.

6.2 RESEARCH AND DATA NEEDS

6.2.1 Biological

- Identify known herring spawning areas. Establish critical spawning habitat areas or special management zones to protect spawning aggregations of herring and/or demersal egg masses.
- Investigate bycatch and discards in the directed herring fishery.
- Develop a long-term strategy for assessing individual spawning stocks as a basis for more effective management of any heavily exploited portion(s) of the stock complex. Evaluate the merit of acoustic surveys and other techniques to achieve sub-stock complex monitoring.

- Develop new approaches to estimating recruitment (i.e. juvenile abundance) from fishery-independent data.
- Consider using NEFSC fall survey mean weights at age as the spawning stock mean weight at age in the estimation of biological reference points. Evaluate alternative catch weights at age.
- Investigate alternative methods of estimating mean weight at age used to determine the age composition of U.S. and Canadian landings from the coastal stock complex.
- Conduct a retrospective analysis of herring larval and assessment data to determine the role larval data plays in anticipating stock collapse and as a tuning index in the age-structured assessment.
- Continue resource monitoring activities, especially larval surveys to indicate the relative importance of individual spawning areas and stocks and the degree of spawning stock recovery on Georges Bank and Nantucket Shoals.
- Evaluate the concept of a fixed spawning stock size or spawning target for the herring coastal stock complex. Determine the adequacy of present methods and data to set a target if more appropriate.
- Investigate the effects of averaging maturity rates over blocks of years to help smooth some of the inter-annual variability in the calculation of spawning stock biomass.
- Consider potential discards if fishing mortality increases in the future.
- Investigate the validity extremely high recruitment in recent years.
- Investigate bycatch/discards in the directed herring fishery through both at-sea and portside sampling.
- Develop and test gear modifications to minimize interactions with non-target species in the herring fishery.

6.2.2 Social and Economic

- Develop economic analyses necessary to evaluate the costs and benefits associated with different segments of the industry.
- Develop socio-economic analyses appropriate to the determination of optimum yield.
- Organize annual US-Canada workshops to coordinate stock assessment activities and optimize cooperation in management approaches between the two countries.

7.0 PROTECTED SPECIES

In the fall of 1995, Commission member states, the National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (USFWS) began discussing ways to improve implementation and enforcement of the Marine Mammal Protection Act (MMPA) and the Endangered Species Act (ESA) in state waters. In November 1995, the Commission, through its Interstate Fisheries Management Program (ISFMP) Policy Board, approved an amendment of its ISFMP Charter (section 6(b)(2)) so that protected species and their interactions with ASMFC managed fisheries are addressed in the Commission's fisheries management planning process. Specifically, the Commission's fishery management plans (FMP) will describe impacts of state fisheries on certain marine mammals and endangered species (collectively termed “protected

species”), and recommend ways to minimize these impacts. The following section outlines: (1) the federal legislation that guides protection of marine mammals and sea turtles, (2) the protected species with potential fishery interactions; (3) the specific type(s) of fishery interaction; (4) population status of the affected protected species; and (5) potential impacts to Atlantic coastal state and interstate fisheries.

7.1 MARINE MAMMAL PROTECTION ACT (MMPA) REQUIREMENTS

The 1994 amendments to the MMPA established both short- and long-term goals for reducing mortality and serious injury, or bycatch, of marine mammals incidental to commercial fisheries. The amendments also established take reduction plans (TRPs) and stakeholder-based take reduction teams (TRTs) as the mechanisms for achieving these goals. The MMPA requires NMFS to convene TRTs to develop TRPs for each strategic stock that interacts with a Category I or II fishery, fisheries with “frequent” or “occasional” marine mammal bycatch, respectively. (Fisheries that have a remote likelihood of or no known bycatch of marine mammals are classified in Category III.) A strategic stock is defined as a stock: (1) for which the level of direct human-caused mortality exceeds the potential biological removal (PBR)¹ level; (2) which is declining and is likely to be listed under the ESA in the foreseeable future; or (3) which is listed as a threatened or endangered species under the ESA or as a depleted species under the MMPA. In the short-term (within six months of implementation), TRPs must reduce marine mammal bycatch to levels below a marine mammals stock’s potential biological removal level. In the long-term (within five years of implementation), TRPs must reduce marine mammal bycatch to insignificant levels approaching a zero mortality and serious injury rate taking into account the economics of the fishery, the availability of existing technology, and existing state or regional fishery management plans.

The 1994 amendments also required fishermen in Category I and II fisheries to register under the Marine Mammal Authorization Program (MMAP), the purpose of which is to provide an exception for commercial fishermen from the general taking prohibitions of the MMPA; to take on board an observer if requested to do so by the Secretary of Commerce; and to comply with any applicable TRP or emergency regulations. All commercial fishermen, regardless of the category of the fishery in which they participate, must report all marine mammal bycatch.

Section 101(a)(5)(E) of the MMPA requires the authorization of the incidental taking of individuals from marine mammal stocks listed as threatened or endangered under the ESA in the course of commercial fishing operations if it is determined that (1) incidental mortality and serious injury will have a negligible impact on the affected species or stock; (2) a recovery plan has been developed or is being developed for such species or stock under the ESA; and (3) where required under section 118 of the MMPA, a monitoring program has been established, vessels engaged in such fisheries are registered in accordance with section 118 of the MMPA, and a take reduction plan has been developed or is being developed for such species or stock.

¹ PBR is the number of human-caused deaths per year each stock can withstand and still reach an optimum population level. This is calculated by multiplying “the minimum population estimate” by “½ stock’s net productivity rate” by “a recovery factor ranging from 0.1 for endangered species to 1.0 for healthy stocks.”

Permits are not required for Category III fisheries; however, any serious injury or mortality of a marine mammal must be reported.

7.2 ENDANGERED SPECIES ACT REQUIREMENTS

The taking of endangered sea turtles and marine mammals is prohibited under section 9 of the ESA. NMFS may issue section 4(d) protective regulations necessary and advisable to provide for the conservation of threatened species. There are several mechanisms established in the ESA to avoid the takings prohibition in section 9. First, a 4(d) regulation may include less stringent requirements intended to reduce incidental take and thus allow for the exemption from the taking prohibition. Section 10(a)(1)(B) of the ESA authorizes NMFS to permit, under prescribed terms and conditions, any taking otherwise prohibited by section 9 of the ESA, if the taking is incidental to, and not the purpose of, carrying out an otherwise lawful activity. Finally, section 7(a) requires NMFS to consult with each federal agency to ensure that any action that is authorized, funded, or carried out by such agency is not likely to jeopardize the continued existence of any listed species. Section 7(b) authorizes incidental take of listed species after full consultation and identification of reasonable and prudent alternatives or measure to monitor and minimize such take.

7.3 PROTECTED SPECIES WITH POTENTIAL FISHERY INTERACTIONS

There are numerous species that inhabit the range of the Atlantic herring management unit covered under this FMP that are protected under the MMPA and ESA. Twelve species are classified as endangered or threatened under the ESA, while the remainder are protected by the provisions of the MMPA.

Cetaceans

| | |
|--|------------|
| Northern right whale (<i>Eubalaena glacialis</i>) | Endangered |
| Humpback whale (<i>Megaptera novaeangliae</i>) | Endangered |
| Fin whale (<i>Balaenoptera physalus</i>) | Endangered |
| Blue whale (<i>Balaenoptera musculus</i>) | Endangered |
| Sei whale (<i>Balaenoptera borealis</i>) | Endangered |
| Sperm whale (<i>Physeter macrocephalus</i>) | Endangered |
| Minke whale (<i>Balaenoptera acutorostrata</i>) | Protected |
| Harbor porpoise (<i>Phocoena phocoena</i>) | Protected |
| Risso's dolphin (<i>Grampus griseus</i>) | Protected |
| Pilot whale (<i>Globicephala</i> spp.) | Protected |
| White-sided dolphin (<i>Lagenorhynchus acutus</i>) | Protected |
| Common dolphin (<i>Delphinus delphis</i>) | Protected |
| Spotted and striped dolphins (<i>Stenella</i> spp.) | Protected |
| Bottlenose dolphin (<i>Tursiops truncatus</i>) | Protected |

Seals

| | |
|---------------------------------------|-----------|
| Harbor seal (<i>Phoca vitulina</i>) | Protected |
|---------------------------------------|-----------|

| | |
|---|-----------|
| Gray seal (<i>Halichoerus grypus</i>) | Protected |
| Harp seal (<i>Phoca groenlandica</i>) | Protected |

Sea Turtles

| | |
|---|------------|
| Leatherback turtle (<i>Dermochelys coriacea</i>) | Endangered |
| Kemp's ridley turtle (<i>Lepidochelys kempii</i>) | Endangered |
| Green turtle (<i>Chelonia mydas</i>) ² | Endangered |
| Hawksbill turtle (<i>Eretmochelys imbricata</i>) | Endangered |
| Loggerhead turtle (<i>Caretta caretta</i>) | Threatened |

Fish

| | |
|--|------------|
| Shortnose sturgeon (<i>Acipenser brevirostrum</i>) | Endangered |
| Atlantic salmon (<i>Salmo salar</i>) ³ | Endangered |

NOAA Fisheries has developed a list of species of concern that include: 1) species for which there are concerns regarding danger of extinction or risk of becoming endangered but for which insufficient information is available to indicate a need to list; 2) species for which an ESA biological status review has determined that listing is not warranted but for which significant concerns or uncertainties remain; 3) species that are undergoing formal status reviews. The objectives of the Species of Concern designation are to:

- Identify species potentially at risk;
- Increase public awareness about those species;
- Identify data deficiencies and uncertainties in species' status and threats;
- Stimulate cooperative research efforts to obtain the information necessary to evaluate species status and threats; and
- Foster voluntary efforts to conserve the species before listing becomes warranted.

Species of concern in New England include:

Dusky shark (*Carcharhinus obscurus*)
Sand tiger shark (*Odontaspis Taurus*)
Barndoor skate (*Raja laevis*)
Thorny skate (*Raja radiata*)
Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*)
Atlantic salmon (*Salmo salar*)
Rainbow smelt (*Osmerus mordax*)
Cusk (*Brosme brosme*)
Atlantic wolffish (*Anarhichas lupus*)
Atlantic halibut (*Higgoglossus hippoglossus*)
Atlantic white marlin (*Tetrapturus albidus*)

² The breeding populations of green turtles in Florida and on the Pacific coast of Mexico are listed as endangered, the remainder of the population is listed as threatened.

³ The Gulf of Maine distinct population segment (DPS) of Atlantic salmon is endangered, all other Atlantic salmon is considered a species of concern.

7.4 PROTECTED SPECIES INTERACTIONS WITH EXISTING FISHERIES

Although all of the protected species listed above may be found in the general geographical area covered by the Herring FMP not all are affected by the fishery. Some species may inhabit areas other than those in which the fishery is prosecuted, prefer a different depth or temperature zone, or may migrate through the area at times when the fishery is not in operation. In addition, certain protected species may not be vulnerable to capture or entanglement with the gear used in the fishery.

Atlantic herring occur in large schools, inhabiting coastal and continental shelf waters from Virginia to Labrador, Canada, and support a commercial fishery. Landings exceeded 150 million pounds throughout the late 1880s and early 1900s, and again in the late 1940s and 1950s. Today, landings are lower, ranging from 80 to 100 million pounds; the majority of which is taken from the Gulf of Maine. Otter trawls, both single and pair, and purse seines are used in the majority of catches in the Atlantic herring fishery.

7.4.1 Marine Mammals

Marine mammal interactions have been recorded in the primary fisheries (utilizing otter trawls and purse seines) that target Atlantic herring, including the Northeast mid-water trawl (including pair trawl) fishery and the Gulf of Maine Atlantic herring purse seine fishery. Marine mammal stocks of greatest concern that interact with this fishery are the western North Atlantic long-finned and short-finned pilot whales, western North Atlantic white-sided dolphin, and Gulf of Maine/Bay of Fundy harbor porpoise. The MMPA 2004 List of Fisheries (LOF) (69 FR 48408) classifies fisheries by the level of serious injury and mortality of marine mammals incidental to each fishery (Table 5).

Subsequent sections discuss documented interactions with the primary species of concern, e.g., pilot whales, white-sided dolphins, and harbor porpoises. These bycatch reports do not represent a complete list, but rather available records. It should be noted that without adequate observer programs for these fisheries; actual numbers of interactions are difficult to obtain. Until very recently, the level of observer coverage has been minimal despite the 1999 re-categorization of the herring mid-water trawl fishery to Category II on the Marine Mammal Protection Act's (MMPA's) List of Fisheries. This change was to have permitted observers to collect data to more accurately document interactions. Category II fisheries have an occasional likelihood of causing incidental mortality and/or serious injury to marine mammals. The recent 2004 ramping up of observer coverage could provide additional information on protected species interactions in herring mid-water gear, whether vessels are engaged in domestic or foreign fishing.

Table 5. Commercial Fisheries Taking Atlantic Herring in the Atlantic Ocean (source: LOF 2004).⁴

⁴ Excerpt for List of Fisheries for 2004, Federal Register 69 (153 August 2004): 48407-48423.

| Fishery Description | Marine Mammal Species Incidentally Killed/Injured |
|---|--|
| CATEGORY II | |
| Northeast mid-water trawl (including pair trawl) | Harbor seal, Long-finned pilot whale, Short-finned pilot whale, White-sided dolphin |
| CATEGORY III | |
| Gulf of Maine Atlantic herring purse seine | Harbor porpoise, Harbor seal, Gray seal |

7.4.1.1 Mid-Water Trawl

Pilot Whale

Interactions between both short-finned and long-finned pilot whales and the Northeast mid-water trawl (including pair trawl) fishery have been documented. These two species are difficult to distinguish at sea as separate species and, therefore, abundance estimates, PBR, and bycatch estimates are combined into one listing for pilot whales. There were no domestic mid-water trawl trips observed in 1997-1998, 3 trips observed in 1999 (1 single; 2 paired), 13 trips in 2000 (12 single; 1 paired), and no trips in 2001. There were no marine mammal takes observed from the domestic mid-water trawl fishing trips during 1997-2001. A USA joint venture (JV) mid-water (pelagic) trawl fishery was conducted on Georges Bank from August - December 2001. A Total Allowable Level of Foreign Fishing (TALFF) was also granted during the same time period. Ten vessels (3 foreign and 7 American), fishing both single and paired mid-water trawls, participated in the 2001 Atlantic herring JV fishery. Two out of the three foreign vessels also participated in the 2001 TALFF and fished with paired mid-water trawls. NMFS maintained 74% observer coverage (243 hauls) of the JV transfers and 100% observer coverage (114 hauls) of the foreign vessels granted a TALFF. Eight pilot whales were incidentally captured in a single mid-water trawl during JV fishing operations. Three pilot whales were incidentally captured in a single mid-water trawl during foreign fishing operations (TALFF). The total mortality attributed to the Atlantic herring mid-water trawl fishery in 2001 was 11 animals.

White-sided Dolphin

There were no domestic mid-water trawl trips observed in 1997-1998, 3 trips in 1999 (1 single; 2 paired), 13 trips in 2000 (12 single; 1 paired), and no trips in 2001. There were no marine mammal takes observed from the domestic mid-water trawl fishing trips during the period 1997-2001. A USA joint venture (JV) mid-water (pelagic) trawl fishery was conducted on Georges Bank from August -December 2001. A total allowable landings of foreign fishery (TALFF) was also granted during the same time period. Ten vessels (3 foreign and 7 American), fishing both single and paired mid-water trawls, participated in the 2001 Atlantic herring JV fishery. Two out of the three foreign vessels also participated in the 2001 TALFF and fished with paired mid-water trawls. The NMFS maintained 74% observer coverage (243 hauls) on the JV transfers and 100% observer coverage (114 hauls) on the foreign vessels granted a TALFF. No white-sided dolphins were incidentally captured in the mid-water trawl during JV fishing operations. Two white-sided dolphins were incidentally captured in a single mid-water trawl during foreign fishing operations (TALFF). The total mortality attributed to the Atlantic herring mid-water trawl fishery in 2001 was 2 animals.

7.4.1.2 Purse Seine

Harbor Porpoise

Harbor porpoises are listed on the MMPA 2004 List of Fisheries (LOF) as interacting with the Gulf of Maine Atlantic herring purse seine fishery. However, no interactions are documented in the most recent stock assessment report for the Gulf of Maine/Bay of Fundy harbor porpoise stock.

7.4.2 Sea Turtles

Interactions with sea turtles may occur when fishing effort overlaps with sea turtle distribution. Interactions could occur in the summer and fall, as turtles can be found in northeastern waters from June to November. Juvenile and immature Kemp's ridleys and loggerheads utilize nearshore and inshore waters north of Cape Hatteras during the warmer months and can be found as far north as the waters in and around Cape Cod Bay. Sea turtles are likely to be present off the Virginia, Maryland and New Jersey coasts by April or May, but do not arrive in great concentrations in New York and northwards until mid-June. Although uncommon north of Cape Hatteras, immature green sea turtles also use northern inshore waters during the summer and may be found as far north as Nantucket Sound. Leatherbacks migrate north in the spring to productive foraging grounds off Nova Scotia. With the decline of water temperatures in late fall, sea turtles migrate south to warmer waters. When water temperatures are greater than approximately 11°C, sea turtles may be present in some areas where the Atlantic herring fishery occurs.

There are not data available that can be used to estimate the number of threatened or endangered sea turtles that might be taken in herring gear. Nevertheless, based on observed takes from sea sampling data from other fisheries for gear types that may be used in the herring fishery, NMFS believes that it would be reasonable to expect, as a precaution, six loggerhead sea turtles to be taken by the proposed fishery (three of these takes would be lethal) and one green sea turtle, Kemp's ridley sea turtle and leatherback sea turtle to be taken by the proposed fishery. Based on the information available on the distribution and abundance of these sea turtle species in the actions area, NMFS does not believe the death, capture or injury of these small numbers of sea turtles would appreciably diminish the viability of sea turtle populations in the action area. Further, NMFS does not believe it would be reasonable to expect that the death, capture, harm or harassment of these numbers of sea turtles would appreciably reduce the likelihood of survival and recovery of these species in the wild (excerpted from NMFS, 1999).

Based on information collected in similar fisheries, the major gear types used in the herring fishery appear to have little or no interactions with sea turtles, although it must be acknowledged there has been an extremely low level of observer coverage in this fishery to date. In addition, there appears to be little spatial/temporal overlap in the distribution of Atlantic herring and sea turtles.

7.4.3 Seabirds

Like marine mammals and sea turtles, seabirds are vulnerable to entanglement in commercial fishing gear. Along with commercial fishing, human activities such as coastal development, habitat degradation and destruction, and the presence of organochlorine contaminants are considered to be major threats to some seabird populations.

The otter trawl and the purse seine are the primary commercial gears used in the Atlantic herring fishery, accounting for the vast majority of the landings. These gears do not appear to be a significant source of incidental seabird takes.

7.5 HERRING AS A FORAGE SPECIES

Atlantic herring is one of many important forage species in the Northeast Atlantic Ocean ecosystem. While available information to quantify the importance of herring as a forage species is not available at this time, there is a substantial amount of literature that describes the role that herring plays in the ecosystem and estimates the amount of herring consumed by various fish, marine mammal, and seabird species.

Observational and empirical evidence suggests that there are four major groups of predators (marine mammals, large pelagic fishes, seabirds, and medium demersal) that feed on Atlantic herring in the Gulf of Maine-Georges Bank region. Many marine mammal populations in the region have increased dramatically in the last 20 years (NMFS 2002). Observations on the larger marine mammals such as humpback and fin whales suggest that these large predators have changed their diets to incorporate a larger proportion of herring during the 1990s and 2000s, instead of a diet that was dominated by sand lance in the 1980s (Read and Brownstein 2003). Smaller marine mammals such as harbor porpoise and harbor seals are also relying on Atlantic herring, based on diet studies from captured or stranded animals (Gannon et al. 1998; Williams 1999). Seabirds such as Northern gannets, shearwaters, and herring gulls are also likely preying routinely on herring (Powers and Backus 1987).

Read and Brownstein (2003) used survey-based estimates of abundance for eight species of marine mammals between 1991 and 1997 to estimate the total annual consumption of Atlantic herring by these species (Table 6). Their estimates of marine mammal consumption ranged from about 94,000 to 190,000 mt of herring per year. Their results show that minke whales, harbor porpoises, and white-sided dolphins are major predators on Atlantic herring because of high proportions of herring (34-51%) in their diets, whereas fin and humpback whales consume large quantities of herring to sustain their large body mass. Despite a three-fold increase in the harbor seal population in the Gulf of Maine between 1981 and 1997, herring only make up 13% of their diet. Consequently, the mean consumption estimate for harbor seals is below 5,000 mt a year.

Read and Brownstein's (2003) mean (or "best") estimate of Atlantic herring consumed annually by marine mammals during 1991-1997 was about 140,000 mt, with a range of 93,000-200,000 mt. Adding these estimates to the most current (1997) estimate of 100,000 mt of Atlantic herring consumed by fish and elasmobranch predators reported by Overholtz et al. (2000) produces a total mean estimate of 240,000 mt, with a range of 193,000-300,000 mt. During the 1990s, the total amount of herring consumed by all predators could have been as high as 400-450,000 mt.

Table 6. Annual Consumption Estimates (Metric Tons) of Atlantic Herring by Marine Mammal Predators (source: Read and Brownstein, 2003)

| Marine Mammal Predators | |
|--------------------------------|--|
| Species | Estimated Annual Consumption, 1991-1997 |
| Fin Whale | 16,081-62,362 |
| Minke Whale | 11,648-22,108 |
| Humpback Whale | 31,046-35,507 |
| Pilot Whale | 149-512 |
| Harbor Porpoise | 20,863-27,655 |
| White-sided Dolphin | 7,852-35,591 |
| Harbor Seal | 4,853 |
| Gray Seal | 1,310 |

7.6 POPULATION STATUS REVIEW OF RELEVANT PROTECTED SPECIES

7.6.1 Marine Mammals

Five marine mammal species are known to become entangled in gear used by the Atlantic herring fishery, namely, harbor porpoise, pilot whale, white-sided dolphin, harbor seal and gray seal. Both short and long-finned pilot whales are classified as strategic stocks under the MMPA. The status of these and other marine mammal populations inhabiting the northwest Atlantic Ocean has been discussed in great detail in the annual U.S. Atlantic Marine Mammal Stock Assessment Report. The reports present information on stock definition, geographic range, population size, productivity rates, potential biological removal levels (PBR – the number of human-caused deaths the stock can withstand annually and still reach and maintain an optimum population level), and fishery-specific mortality estimates and also compares the PBR to estimated human-caused mortality for each stock. To access the stock assessment report, see the NMFS website at http://www.nmfs.noaa.gov/prot_res/PR2/Stock_Assessment_Program/sars.html.

7.6.1.1 Harbor Porpoise

The Gulf of Maine harbor porpoise was proposed to be listed as threatened under the ESA on January 7, 1993 (NMFS, 1993), but NMFS determined this listing was not warranted (NMFS, 1999). NMFS removed this stock from the ESA candidate species list in 2001. The PBR for the harbor porpoise is 747 animals (NMFS, 2002). The total fishery-related mortality and serious injury for this stock is not less than 10% of the calculated PBR level, which means the human-induced mortality is not approaching a zero mortality and serious injury rate. This is not a

strategic stock because average annual fishery-related mortality and serious injury has not exceeded the PBR level in recent years.

Harbor porpoises range from Labrador to North Carolina. The southern-most stock of harbor porpoise is referred to as the Gulf of Maine/Bay of Fundy stock and generally spends its winters in the Mid-Atlantic region. Harbor porpoises are generally found in coastal and inshore waters, but will also travel to deeper, offshore waters. The status of the harbor porpoise stock in U.S. waters relative to the optimum sustainable population is unknown. There are insufficient data to determine population trends for this species because harbor porpoises are widely dispersed in small groups, spend little time at the surface, and distribution varies unpredictably from year to year depending on environmental conditions (NMFS, 2002).

Shipboard line transect sighting surveys have been conducted to estimate population size of the harbor porpoise stock. The best estimate of abundance for the Gulf of Maine/Bay of Fundy harbor porpoise stock is 89,700. The minimum population estimate is 74,695 individuals (NMFS, 2002).

7.6.1.2 Pilot Whale

The two species of pilot whales in the Atlantic, long-finned and short-finned pilot whales, are difficult to distinguish to the species level at sea. The species tend to overlap from New Jersey to Cape Hatteras, North Carolina. Sightings north of this overlapping area are likely long-finned pilot whales, while sightings south of this area are more likely short-finned pilot whales.

Both long-finned and short-finned pilot whale abundance may have been affected by reduction in foreign fishing, curtailment of the Newfoundland drive fishery for pilot whales in 1971, and increased abundance of herring, mackerel, and squid stocks. The total number of long-finned and short-finned pilot whales off the eastern U.S. is unknown. Because long-finned and short-finned pilot whales are difficult to identify at sea, seasonal abundance estimates were reported for *Globicephala* species as a whole. The best abundance estimate for pilot whales (*Globicephala* sp.) is 14,524 and the minimum population estimate is 11,343 individuals.

Long-finned pilot whale

The status of long-finned pilot whales, *Globicephala melas*, relative to their optimum sustainable population is unknown, and there are insufficient data to determine a population trend for this species. Long-finned pilot whales are not listed under the ESA, but are considered a strategic stock because the 1996-2000 estimated average annual fishery-related mortality exceeds the PBR level (108) for this species.

Long-finned pilot whales range from North Carolina north to Iceland and Greenland and east to North Africa. Off the northeast U.S. coast, pilot whales are distributed principally along the continental shelf edge in the winter and early spring. In late spring, pilot whales move onto Georges Bank and into the Gulf of Maine and more northern waters until late autumn. Pilot whales generally prefer areas of high relief or submerged banks, and also areas associated with the Gulf Stream north wall and thermal fronts along the continental shelf edge. Stock structure of the long-finned pilot whale is uncertain, although it has been proposed that two populations exist

(a warm-water population and a cold-water population) related to sea surface temperature (Fullard et al., 2000).

Short-finned pilot whale

The status of short-finned pilot whales, *Globicephala macrorhynchus*, relative to their optimum sustainable population, is unknown, and there are insufficient data to determine a population trend for this species. Short-finned pilot whales are not listed under the ESA, but are considered a strategic stock because the 1996-2000 estimated average annual fishery-related mortality exceeds the PBR level (108) for this species.

Short-finned pilot whales range worldwide in tropical to warm temperate waters with North Carolina considered the northern extent of their range in U.S. waters. Sightings within U.S. waters are primarily within the Gulf Stream and along the continental shelf and continental slope in the northern Gulf of Mexico. No information is available on stock structure for this species.

7.6.2 Sea Turtles

All sea turtles that occur in U.S. waters are listed as either endangered or threatened under the ESA. The Kemp's ridley (*Lepidochelys kempii*), leatherback (*Dermochelys coriacea*), and hawksbill (*Eretmochelys imbricata*) are listed as endangered. The loggerhead (*Caretta caretta*) and green turtle (*Chelonia mydas*) are listed as threatened, except for breeding populations of green turtles in Florida and on the Pacific coast of Mexico, which are listed as endangered. All five of these species inhabit the waters of the U.S. Atlantic and Gulf of Mexico.

NOAA Fisheries recognizes five loggerhead subgroups within the western Atlantic including two primary subpopulations: 1) a northern nesting subpopulation that occurs from North Carolina to northeast Florida, about 29°N (approximately 7,500 nests in 1998); 2) a south Florida nesting subpopulation, occurring from 29°N on the east coast to Sarasota, Florida on the west coast (mean of 73,751 nests each year). The status of the northern population based on the number of loggerhead nests has been classified as stable or declining (TEWG, 2000). Data from all beaches within the south Florida subpopulation where nesting activity has been recorded indicate substantial increases when data are compared over the last 25 years. However, an analysis limited to nesting data from the statewide sea turtle Index Nesting Beach Survey program from 1989 to 2002, a period encompassing index surveys that are more consistent and more accurate than surveys in previous years, has shown no detectable trend (Blair Witherington, Florida Fish and Wildlife Conservation Commission (FFWCC, pers. comm., 2002).

The Kemp's ridley is one of the most endangered of the world's sea turtle species. The only major nesting site for Ridelys is a single stretch of beach near Rancho Nuevo, Tamaulipas, Mexico. Estimates of the adult female nesting population reached a low of 300 in 1985. Conservation efforts by Mexican and U.S. agencies have aided this species by eliminating egg harvest, protecting eggs and hatchlings, and reducing at-sea mortality through fishing regulations. From 1985 to 1999, the number of nests observed at Rancho Nuevo, and nearby beaches increased at a mean rate of 11.3% per year (TEWG, 1998). Current totals exceed 8,000 nests per year, allowing cautious optimism that the population is on its way to recovery.

Recent population estimates for green sea turtle in the western Atlantic area are not available. However, the pattern of green turtle nesting shows biennial peaks in abundance, with a generally positive trend during the ten years of regular monitoring since establishment of index beaches in 1989.

Leatherback populations in the eastern Atlantic (*i.e.*, off Africa) and Caribbean appear to be stable, but there is conflicting information for some sites (Spotila, pers. comm.) and it is certain that some nesting populations (*e.g.*, St. John and St. Thomas, U.S. Virgin Islands) have been extirpated (NMFS and USFWS, 1995). Data collected in southeast Florida clearly indicate increasing numbers of nests for the past twenty years (9.1-11.5% increase), although it is critical to note that there was also an increase in the survey area in Florida over time (NOAA Fisheries SEFSC, 2001).

7.7 EXISTING AND PROPOSED FEDERAL REGULATIONS/ACTIONS PERTAINING TO RELEVANT PROTECTED SPECIES

7.7.1 Marine Mammals

7.7.1.1 Harbor Porpoise

On December 1, 1998, NMFS published a final rule to implement the Harbor Porpoise Take Reduction Plan for the Gulf of Maine and the Mid-Atlantic coastal waters. The Northeast sink gillnet and Mid-Atlantic coastal gillnet fisheries are the two fisheries regulated by the HPTRP (63 FR 66464, December 2, 1998; also defines fishery boundaries). Among other measures, the HPTRP uses time/area closures in combination with acoustical devices (*e.g.*, pingers) in Northeast waters, and time/area closures along with gear modifications for both small mesh (greater than 5 inches (12.7 cm) to less than 7 inches (17.78 cm)) and large mesh (greater than or equal to 7 inches (17.78 cm) to 18 inches (45.72 cm)) gillnets in Mid-Atlantic waters. Although the HPTRP predominately impacts spiny dogfish and monkfish fisheries due to high rates of porpoise bycatch, other gillnet fisheries are also managed under the HPTRP.

Copies of the final rule are available from the Office of Protected Resources, National Marine Fisheries Service, 1315 East-West Highway, Silver Spring, MD 20910-3226. Additional information regarding the rule and its changes can also be accessed via the Internet at <http://www.nero.nmfs.gov/porptrp/>.

7.7.1.2 Pilot Whale

There are no take reduction measures currently in place for pilot whales in the Atlantic Ocean. However, NMFS plans to convene two new take reduction teams in 2005 and 2006 to address incidental takes of pilot whales in Atlantic pelagic longline and trawl fisheries. The Pelagic Longline TRT will convene in June of 2005 and the Trawl TRT will follow in 2006.

7.7.2 Sea Turtles

Under the ESA, and its implementing regulations, taking sea turtles – even incidentally – is prohibited, with exceptions identified in 50 CFR 223.206. The incidental take of endangered species may only legally be authorized by an incidental take statement or an incidental take permit issued pursuant to section 7 or 10 of the ESA.

Existing NMFS regulations specify procedures that NMFS may use to determine that unauthorized takings of sea turtles are occurring during fishing activities, and to impose additional restrictions to conserve sea turtles and to prevent unauthorized takings (50 CFR 223.206(d)(4)). Restrictions may be effective for a period of up to 30 days and may be renewed for additional periods of up to 30 days each.

7.7.3 Seabirds

Under the Migratory Bird Treaty Act it is unlawful “by any means or in any manner, to pursue, hunt, take, capture, [or] kill” any migratory birds except as permitted by regulation (16 U.S.C. 703). The regulations at 50 CFR 21.11 prohibit the take of migratory birds except under a valid permit or as permitted in the implementing regulations. The US Fish and Wildlife Service’s Policy on Waterbird Bycatch states “It is the policy of the U.S. Fish and Wildlife Service that the Migratory Bird Treaty Act of 1918, as amended, legally mandates the protection and conservation of migratory birds. Avian conservation is of significant concern to many in the United States. Substantial numbers of waterbirds (especially seabirds, but also waterfowl, shorebirds, and other related wading species) are killed annually in fisheries, making waterbird bycatch a serious conservation issue and a violation of the underlying tenets of the MBTA. The goal of the U.S. Fish and Wildlife Service is the elimination of waterbird bycatch in fisheries. The Service will actively expand partnerships with regional, national, and international organizations, States, tribes, industry, and environmental groups to meet this goal. The Service, in cooperation with interested parties, will aggressively promote public awareness of waterbird bycatch issues, and gather the scientific information to develop and provide guidelines for management, regulation, and compliance.”

7.8 POTENTIAL IMPACTS TO ATLANTIC COASTAL STATE AND INTERSTATE FISHERIES

Regulations developed under the future trawl take reduction plan for pilot whales have the potential to impact trawl fisheries that target Atlantic herring.

7.9 IDENTIFICATION OF CURRENT DATA GAPS AND RESEARCH NEEDS

7.9.1 Marine Mammal Research Needs

- Abundance estimates capable of distinguishing short-finned from long-finned pilot whales are needed to achieve more accurate status assessments for this species and to improve the ability to monitor them.

7.9.2 Sea Turtle Research Needs

- In order to better understand sea turtle populations and the impacts of incidental take in Atlantic herring fisheries, in-water abundance estimates of sea turtles are needed to achieve more accurate status assessments for these species and improve our ability to monitor them.

7.9.3 Sea Bird Research Needs

- An analysis of existing bird bycatch data for this fishery should be conducted and summarized for the plan.

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Atlantic States Marine Fisheries Commission

Winter Flounder Technical Committee

Report on the Southern New England/Mid-Atlantic Winter Flounder Stock and
Recommendations for 2015 Fishing Year
October 17, 2014

Participants

Steve Correia (MA DMF)

Paul Nitschke (NEFSC)

Tony Wood (NEFSC)

John Maniscalco (NYS DEC)

Penny Howell (CT DEEP)

Linda Barry (NJ DEP)

Katie Drew (ASMFC)

Melissa Yuen (ASMFC)

The Winter Flounder Technical Committee (TC) met via conference call to review recent trends and status of the Southern New England /Mid-Atlantic (SNE-MA) and Gulf of Maine (GOM) stocks and discuss specifications for the 2015 fishing season. The TC compiled data from fisheries-independent surveys (bottom trawl surveys) conducted by state and federal agencies to produce indices of abundance and biomass for SNE/MA winter flounder. Paul Nitschke (Northeast Fisheries Science Center) provided an overview of the operational stock assessment update completed in September 2014.

Review of Biomass and Abundance Indices for SNE/MA Winter Flounder

The TC concludes that the SNE-MA winter flounder biomass is near time-series low levels based on a variety of indices covering a broad geographic range (Figures 1-4). Preliminary data for 2014 that were not included in the indices below are generally lower than the previous year. Recruitment indices are also low. Rebuilding is likely to be slow (if at all) especially if recruitment remains poor. Advisory panel's observations of larger fish, but fewer small fish is consistent with recruitment indices.

Catches have been less than the commercial annual catch limit in recent years. Based on comments from Advisory Panel members, the reason for lower catches is due to fewer fish and less interest in this species in recent years. The New England Fisheries Management Council had selected a constant catch approach, so it is unclear whether states will have met fishing mortality objectives (constant catch against biomass).

The TC did not have latest catch information and did not have time to examine changes in length distribution or age structure. This is more appropriately done when updating the assessment (tentatively scheduled for Fall 2015).

2015 Fishing Year Recommendations

- **Gulf of Maine:** The Northeast Fisheries Science Center completed an operational stock assessment for the GOM stock in September 2014. At the time of the TC's meeting via conference call, the NEFMC Scientific and Statistical Committee had not set the ABCs for the GOM stock, but the TC expects a 50% reduction in the ABC and comparable reduction in the state-water sub-component.
- **Southern New England/Mid-Atlantic:** The TC recommends that the current management measures are not relaxed because there is no biological support for stock improvement. Based on personal communication with NOAA Fisheries staff, the ABC will be maintained at 1,676 mt, but the state waters sub-component will be reduced.

Figure 1. Trends in biomass indices for four bottom trawl surveys. Note that y-axis scales vary among panels. Solid red line is time series median. Dashed red lines are the 75th and 25th quantiles.

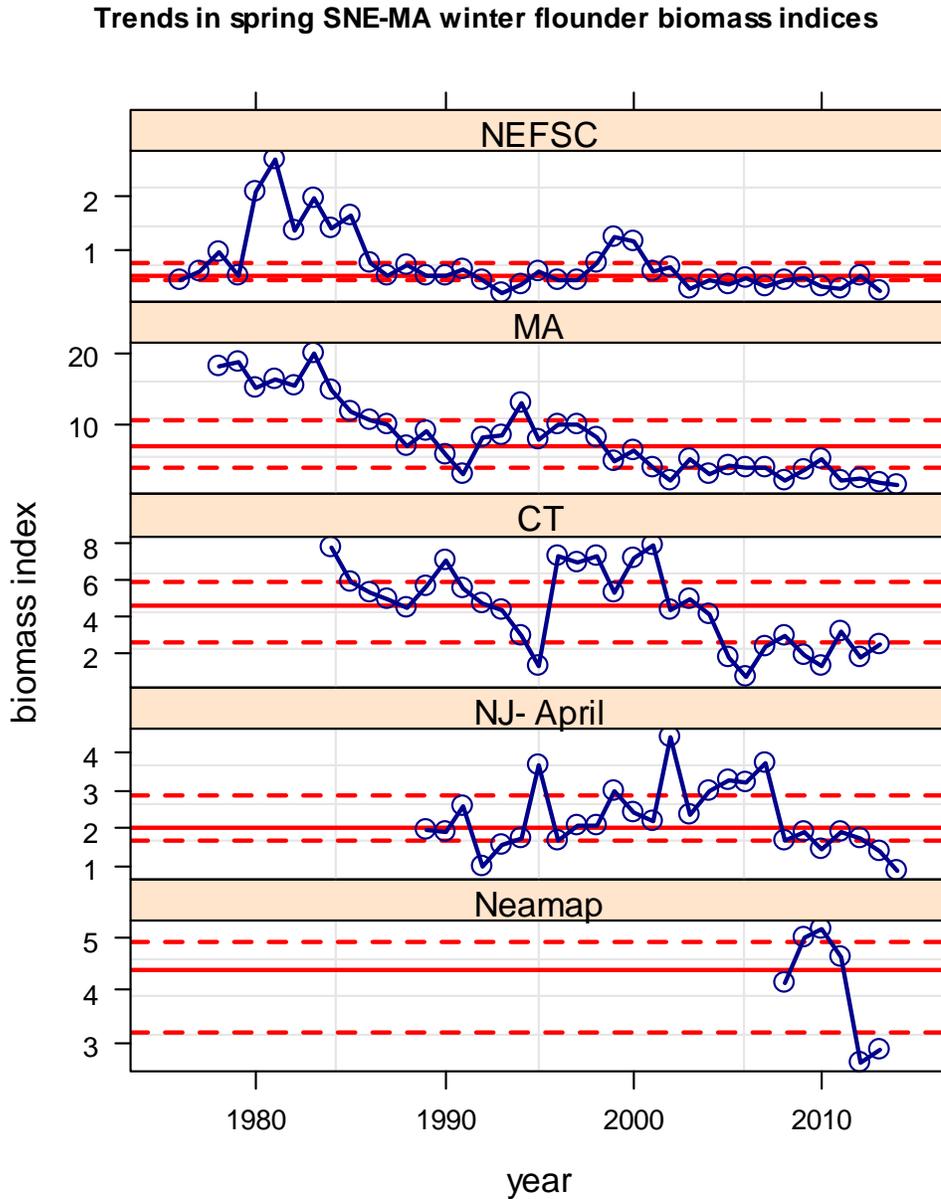


Figure 2. Trends in abundance indices for five bottom trawl spring surveys. Note that y-axis scales vary among panels. Solid red line is time series median. Dashed red lines are the 75th and 25th quantiles.

Trends in spring SNE-MA winter flounder abundance indices

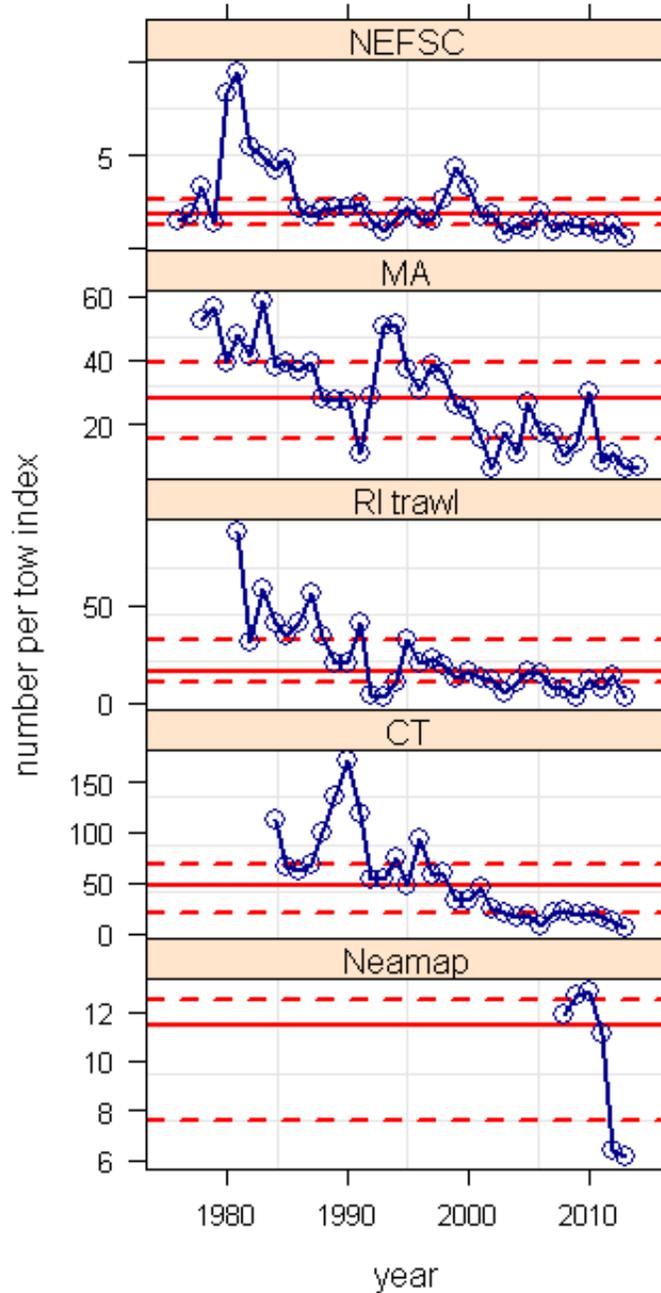


Figure 3. Trends in biomass indices for five bottom trawl fall surveys. Note that y-axis scales vary among panels. Solid red line is time series median. Dashed red lines are the 75th and 25th quantiles.

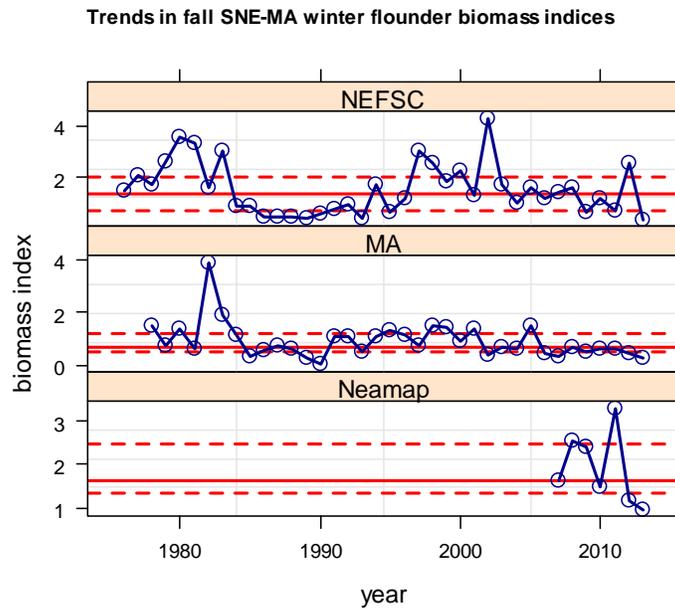
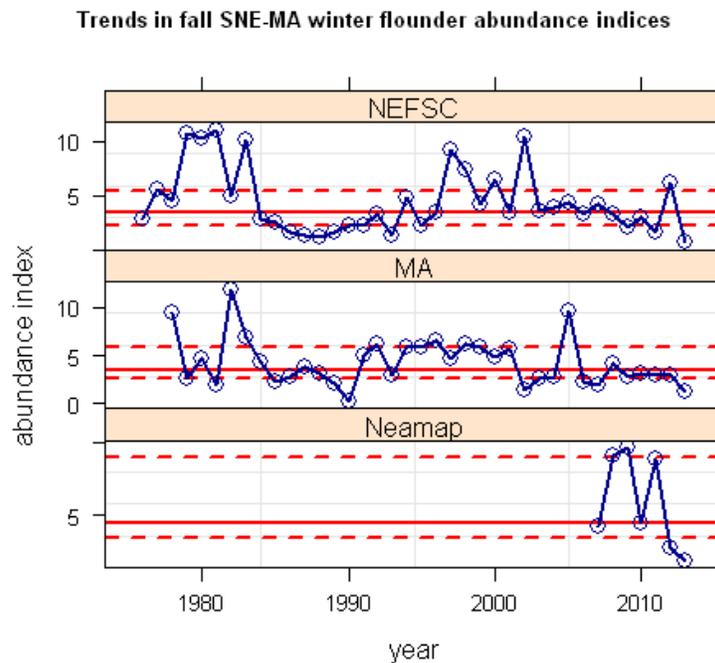


Figure 4. Trends in abundance indices for five bottom trawl fall surveys. Note that y-axis scales vary among panels. Solid red line is time series median. Dashed red lines are the 75th and 25th quantiles.



Atlantic States Marine Fisheries Commission

Winter Flounder Advisory Panel Report on the Winter Flounder Fisheries October 15, 2014

Participants

Harold Brown (AP Chair)
David Goethel (NH)
Tom Siciliano (NJ)
Charles Wittek (NY)

George Allen (RI)
Don Swanson (NH)
Ritchie White (Management Board Chair)
Melissa Yuen, ASMFC Staff

The Winter Flounder Advisory Panel (AP) met via conference call to share recent observations of the inshore winter flounder stocks and provide recommendations for the Board's consideration as it sets the 2015 fishing year specifications.

Updates by State

- **Maine:** As with the previous year, there is not much winter flounder.
- **New Hampshire:** Fishermen caught more winter flounder last year, but this year focused on mackerel. The winter flounder appear to be larger, and there is not as much smaller fish. The NH AP member is involved in a study led by Dr. Elizabeth Fairchild at University of New Hampshire. The study tested the assumption that these fish spawn in estuaries. Researchers placed acoustic tags on offshore flounder and followed their movement to shore using acoustic listening devices, including devices attached to estuaries entrances to detect fish entering and leaving those areas. They found that winter flounder are not spawning in estuaries, rather are reproducing in near shore areas over hard sand habitat. Only two fish went in one river for one day the rest moved to the near shore environment where they stayed for the duration of the study. In May, the fish appear to be feeding in estuaries. Perhaps the winter flounder season should be adjusted to avoid spawning fish.
- **Rhode Island:** There has been negligible change in the winter flounder stocks in Rhode Island waters since last year. Essentially, the spawning stock biomass remains in a near collapsed condition. That doesn't mean we shouldn't continue to move forward with management efforts to try and restore this fishery. The Division of Marine Fisheries is continuing to revalidate the historic spawning areas in Narragansett Bay. Once this study is done, we will have a discussion with stakeholders about establishing winter flounder spawning sanctuaries which would prohibit bottom tending gear in these areas. This program won't solve all the issues that affect spawners as well as juveniles, such as increased water temps, natural predation, low oxygen levels, etc., but it's a start. With regard to the disparity in catch levels between federal and state waters, there has been some recent discussions within the RI Marine Fisheries Council about recommending lower catch limits in federal waters. My comment from the audience was essentially that we must keep the state water catch limits status quo, and any effort to reduce catch limits in federal waters and transfer some of that catch to state waters would be a huge mistake.
- **New York:** Some fishermen still look forward to the winter flounder season, but most have abandoned the fishery. Party boats still go out, but in many areas, for much of the season,

fares often do not catch the two-fish per person limit. Last year, New York did not adjust the regulations to extend the season as the FMP allowed. Inbreeding is a big issue for winter flounder in New York waters. A Stony Brook University tagging study in Shinnecock Bay demonstrated that some fish never leave the bay and are identifiable; they stay in the bay year-round. There also appears to be two peak periods of larval deposition in Shinnecock Bay, spaced a few weeks apart, which suggests the existence of two spawning populations. Similar studies have not been conducted in other bays, so it's unknown whether multiple spawning populations might exist elsewhere.

- **New Jersey:** Few people fish for winter flounder in New Jersey, but party boat fishermen “love” being able to keep a few winter flounder with the one fish incidental limit. The fish appear to be good sized (3 - 4 lbs). In a Rutgers seine survey, a young flounder measuring two-to-three inches long was captured, which was unexpected. Dr. Ken Able from Rutgers published a study on winter flounder recruitment (Journal of Marine Science, June 2014).

AP Recommendations to the Board

- **Gulf of Maine:** An AP member shared that NOAA Fisheries will likely reduce the ABC by one-third of the amount from previous year’s ABC (1,078 mt). Therefore, AP members in the GOM states recommend reducing the bag limit (currently 8 fish creel limit) proportional to the federally specified ABC.
- **Southern New England/Mid-Atlantic:** AP members in the SNE/MA states repeat the recommendation from last year: a moratorium on fishing. The reasons for supporting no fishing is because of concerns with the population inbreeding and impacts from the increased commercial trip limits. AP members are concerned these impacts will drive the stock to extinction.



Atlantic States Marine Fisheries Commission

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MEMORANDUM

October 21, 2014

To: American Eel Management Board
From: Sheila Eyler, Technical Committee Chair
Re: Responses to Board Requests

The American Eel Technical Committee met on September 2, 2014 to review and discuss specific Board tasks assigned from the August Board meeting. Present on the call was: Alan Hazel (SC), Ande Ehlen (VA), Carol Hoffman (NY), Wilson Laney (USFWS), Garry Wright (NC), Heather Corbett (NJ), Jim Page (GA), Jordan Zimmerman (DE), Keith Whiteford (MD), Phil Edwards (RI), Sheila Eyler (USFWS), Tim Wildman (CT), Laura Lee (NC), Alex Haro (USGS), Mike Kaufmann (PA), Gail Wipplehauser (ME), Sean Doyle (DC), and Kate Taylor (ASMFC). Also listening in on the call were Steve Shepherd (USFWS) and Joe Cimino (VMRC).

These tasks reviewed by the TC included:

1. Quota Recommendation
2. Identification of American vs. other eels
3. Dr. Cadrin White Paper Review

Quota Recommendation

The SAS and TC have recommended that harvest be reduced in all life stages, but during the Board's discussion on potential management options there was confusion on what number the reduction should be applied against. Currently there are two baseline options being discussed in Draft Addendum IV: 1) the average landings from 1998-2010 or 2) landings from 2010 (terminal year of the assessment). The TC makes the following recommendations:

What years to use in the baseline for the yellow eel fishery?

The TC continues to support the use of the landing years of 1998 – 2010 as the baseline for determining the yellow eel quota. This is an average of several years included in the assessment, including high harvest years in the fishery. The TC recommends the use of an average given the uncertainty surrounding some landings data in some years. The TC recommends flexibility to adjust quota if additional information should come available to indicate increases in the eel population.

What should the reduction be from that level for the yellow eel fishery?

For yellow eels, annual harvest fluctuated significantly for each state during the proposed baseline years, with a CV of 12%. Therefore any reduction less than 12% from the baseline is likely not to provide a measurable harvest reduction. Since fishery targets were not established in the 2012 Benchmark Stock Assessment, the TC cannot provide guidance on what reduction level would ensure rebuilding of the American eel population. The TC notes that some states landings will be reduced as a result of Addendum III measures or have been reduced through changes in the fishery (e.g. bait availability).

What years to use in the baseline for the glass eel fishery?

For the glass eel fishery, the TC also recommends the use of the landing years of 1998 – 2010 as the baseline for determining the quota.

What should the reduction be from that level for the glass eel fishery?

When using the same analysis as yellow eels for glass eels, the CV is quite large (70%) due to the variable in landings. Based on this analysis, a reduction of 70% from the baseline would provide a measureable reduction in harvest. Since fishery targets were not established in the 2012 Benchmark Stock Assessment, the TC cannot provide guidance on what reduction level would ensure rebuilding of the American eel population.

If the yellow and glass eel recommendations are different, then why?

In recognition of the significant impact a 70% reduction would have to the glass eel fishery, and as well as taking into account uncertainty, the TC recommends that a 12% reduction from the baseline years in both fisheries (glass and yellow) is an acceptable precautionary approach for the initial implementation of a quota.

Table 1. Recommended baseline for a quota and with a 12% reduction (in pounds).

| | Recommended Baseline 1998-2010 Harvest | With 12 % Reduction |
|-----------------------|---|--------------------------------|
| Glass Eel Fishery | 5,293 | 4,658 |
| Yellow Eel Fishery | 907,671 | 798,751 |

Identification of American vs. other eels

Dr. Louis Daniel asked for clarification on the procedures used to distinguish glass eels of other eel species from American eel glass eels. This was of particular concern to the southern states where there is overlap with the speckled worm eel (*Myrophis punctatus*).

Speckled worm eel glass eels co-occur with American Eel glass eels in the northwest Atlantic both north and south of Cape Hatteras (although much more extensively to the south of Cape Hatteras) and is likely the only other species of glass eel which could be confused with American eel. Refer to Appendix A for more detailed information on the distribution and overlap.

However, there does not currently seem to be a problem with misidentification of speckled worm eels in current state run American eel surveys where this overlap exists. States are either not encountering them in enough quantity to make a difference or states are already aware of the presence of speckled worm eels and identify them in their survey. Therefore, the TC recommends:

1. That each state from North Carolina through Florida be aware of the potential for speckled worm eel to occur concurrently in glass eel sampling for American eel. All eels should be identified and any species other than American eel should be removed from the catch, prior to reporting annual survey data. Florida currently removes any species other than American eel from their catch. North Carolina is identifying all catch in their glass eel surveys. Additionally, per Addendum III, Georgia only conducts a yellow eel survey.

Lastly, South Carolina's current sampling occurs ~40km upstream, so catch of speckled worm eels is not likely to be an issue.

2. Given the likelihood that climatic warming will continue and abundance of speckled worm eel north of Cape Hatteras may increase, states from Virginia north to at least New Jersey should periodically examine their glass eel monitoring catches for the presence of that species, if their sample sites are located in areas inhabited by speckled worm eel life stages.
3. Training on identification should be reviewed at the next TC meeting.

White Paper Review

The TC was tasked to review a white paper that was presented to the Board just before the August Board meeting. The white paper was drafted by Dr. Steve Cardin, Associate Professor of Fisheries Oceanography at the School for Marine Science and Technology and the Director of the Massachusetts Marine Fisheries Institute's Education Program. The TC makes the following responses to the white papers major points:

1. *Population Structure: ASMFC Stock Assessment method of analyzing trends within six... regions is inconsistent with the perception of a single population... and may not represent the entire resource.*

TC Response: The assessment was transparent in language that explains the range of assessment and the need to bring in data from other regions. A full assessment over the range of this species has not been close to possible given jurisdictional issues and data limits and gaps. The next assessment will try to incorporate data and staff from Canada and other jurisdictions.

2. *Depletion-Based Stock Reduction Analysis: The review Panel identified several problems with the DBSRA, including assumptions about changes in natural mortality and age at recruitment and unrealistic estimates of depletion in the 1890s. .*

TC Response: The stock assessment was upfront about the assumptions used in the development of the DBSRA model. The TC supports the Peer Review process and the results of the Panel in rejecting the "Overfished" status and instead recommending the stock be declared "Depleted". The TC agrees with Dr. Cadrin that the "Depleted" status is a "more appropriate interpretation of the assessment results." The TC notes that despite Dr. Cadrin's thoughtful insight, his text focuses on negative aspects of the DBSRA to support the AESA view and does not acknowledge that the Peer Review Panel had substantial praise for the application and utility of the model for a benchmark assessment and future assessments.

3. *Positive Indicators: The Assessment includes many sources of information that suggest a more positive conclusion [than declared].*

TC Response: There are signs that eel abundance in the US may have hit bottom in the mid-to-late 1990s and is improving according to some indices. Such trends have been observed in several indices and fisheries. It is not uncommon to have slight improvements from historic population and fishery lows prompt optimism of better times. Dr. Cadrin is overly supportive of some of those "positive" signs, likely without great familiarity with the indices. A more balanced technical review would have a section on "Negative Indicators" as well and mention of

the occurrence and possible response of the spike in fishing mortality following the demand increase from the European food market in the 1970s and 1980s. Again, these points on positive indicators are a selective approach to support AESA's view. These recent upticks are brief signals that are more uncertain than positive in some cases and limited in their representation of the U.S. range. The stock may be improving, but if so, it is a slow upturn from the bottom with much uncertainty.

4. *USFWS Assessment: "From my view, I think that the Fish & Wildlife assessment is a more accurate evaluation of the available information."*

TC Response: The USFWS review served a totally different purpose from the ASMFC stock assessment. Further, that process had data through ~2005, while the stock assessment had data through 2010. The two processes can't be compared very well and the stock assessment contained a deeper and more thorough examination of recent data.

M-14-103

Appendix A

Identification of American and Speckled Worm Eels along the US Atlantic Coast

Technical Committee Response

This response was prepared by American Eel Technical Committee (TC) members Kimberly Bonvechio (FL), Allan Hazel (SC), Wilson Laney (USFWS-SE), Jim Page (GA) and Garry Wright (NC), in consultation with the entire TC. We were assisted by Dr. Dennis Allen, University of South Carolina, Belle W. Baruch Institute for Marine and Coastal Sciences, Baruch Marine Field Laboratory, Georgetown, South Carolina; Dr. Kenneth W. Able, Rutgers University, Institute of Marine and Coastal Sciences, Rutgers Marine Field Station, Tuckerton, New Jersey; Patrick Geer, Marine Fisheries, Georgia Department of Natural Resources; Dr. Todd Kellison National Marine Fisheries Service (NMFS), and Dr. Chris Taylor National Ocean Service, Beaufort Laboratory, Pivers Island, Beaufort, NC; Bill Post, Marine Resources Division, South Carolina Department of Natural Resources, Charleston, SC; and Cheree Steward, Florida Fish and Wildlife Research Institute, Florida Fish and Wildlife Conservation Commission, Eustis, FL.

Background

Dr. Daniel's question is based on the fact that there are other species of eels which have glass eel life stages, and some of these may geographically and temporally overlap with American eel glass eel stage ingress/recruitment and fishery windows. If that is occurring it necessitates the ASMFC fishery-independent glass eel survey protocol distinguish and separate any non-American glass eels from those of other species, and that fishery-dependent data from the two jurisdictions with active glass eel fisheries (ME and SC) receive the same adjustment, again if glass eels of other eel species are present in the catch at their monitoring stations.

The TC undertook to determine whether glass eels of other species recruit to East Coast estuaries or rivers at the same time as American eel glass eels, and if so, over what geographic range. Dr. Daniel specifically mentioned the speckled worm eel (*Myrophis punctatus*) as a species of interest. As a reminder, the glass eel stage of eels is the post-metamorphic stage occurring after the leptocephalus stage, in which individuals have attained adult body form but remain unpigmented (Leiby 1979a, 1979b). This is typically the stage at which individuals of some species recruit to east coast estuaries, although in many cases leptocephalus stages are captured as well (Able et al. 2011; K. Able, personal communication).

We reviewed relevant published literature, including ASMFC American Eel Compliance Reports, and interviewed federal agency and university researchers who have long time series of ingressing larval fish data from US East Coast inlets from NJ (K. Able), NC (T. Kellison and C. Taylor) and SC (D. Allen). We found that primarily the speckled worm eel, but also occasionally other eel species, have glass eel life stages which either routinely co-occur or could occasionally co-occur (*Ophichthiidae*; *Muraenidae*; *Ophidiidae*) with American eel glass eels (for example, see Ross et al. 2007; Able et al. 2011; Able and Fahey 2010; NMFS, Beaufort Laboratory, unpublished data, personal communication from T. Kellison; Baruch Marine Field Laboratory, unpublished data, personal communication from D. Allen). Co-occurrences of American eel and speckled worm eel glass eels, as well as glass eels of other eel species, are

more likely at sampling sites located closer to the Atlantic Ocean, where salinities are mesohaline or higher (D. Allen, Baruch Marine Field Laboratory, personal communication), and are much less likely if monitoring or capture sites are located further inland in oligohaline or predominately fresh waters. Glass eel stages of speckled worm eels also typically commence burrowing behavior soon after metamorphosis and are not thereafter susceptible to most sampling gears (Able et al. 2011).

The speckled worm eel occurs in the western Atlantic Ocean from as far north as Nova Scotia (as larvae; Able et al. 2011, page 238) through New Jersey, Bermuda and North Carolina to southeast Brazil, including the Gulf of Mexico, West Indies and coast of Central America (Able et al. 2011; Froese and Pauly 2010, as cited in Vaslet et al. 2011). Able et al. (2011) indicate that higher levels of abundance occur at inlets in SC (North Inlet) and NC (Beaufort Inlet) during the winter and early spring, with much lower abundances in NJ (Little Egg Inlet) in winter and spring and again in the summer. Metamorphic individuals and glass eels settle and burrow in estuarine sediments and thereafter become relatively unavailable to many sampling gears. Able et al. (2011) assembled a scheme for identifying the different morphological stages of speckled worm eel based on specimens and the literature (see their Table 2). In the glass eel stage, the body length continues to decrease (from 54 to 42 mm TL), pigmentation develops on the head and caudal fin, elver teeth begin to form, anterior and posterior nostrils are widely separated, head length is relatively larger, and greatest body depth is markedly smaller than in the leptocephalus stage (Able et al. 2011). The glass eels of speckled worm eels are therefore readily distinguishable from those of the American eel upon close examination.

The overlap of speckled worm eel glass eel stage with that of American eels in Florida was previously noted by ASMFC TC member Kim Bonvechio (Florida Fish and Wildlife Conservation Commission). Florida's American Eel Compliance Reports provided to ASMFC (e.g., see Bonvechio and Williams 2007, Bonvechio 2014) provided information on the size and length-weight relationship of glass eels of both species (see Figures 1-3). The issue was brought to the attention of the TC; however to our knowledge, no other state has examined their catches for the presence of speckled worm eel glass eels, nor have past survey catches been adjusted for that species. The NMFS Beaufort Bridge Net survey samples, which constitute the NC monitoring, are sorted to species, so the glass eels are not combined (T. Kellison, personal communication). Although many other species of eels occur in waters of the northwest Atlantic Ocean, many of them are marine species (see Ross et al. 2007) and glass eels of those species are not likely to be encountered inshore (K. Able, D. Allen, personal communications). Florida staff also have not found any other species of eel glass eels other than speckled worm eels in their samples (per K. Bonvechio, personal communication). Given that only one sample containing speckled worm eel glass eels was encountered in the NJ sampling (see Able et al. 2011, Table 3, page 252), and that collection of leptocephali in estuaries north of Cape Hatteras is "...likely much less frequent and larvae are much less abundant as indicated by the collections at Little Egg Inlet (New Jersey) over numerous years," (Able et al. 2011) it appears that the only other species of glass eel which requires consideration at this time is that of the speckled worm eel, in areas south of Cape Hatteras.

It is possible that states further north may see increasing numbers of speckled worm eel glass eels in the future as temperatures warm in response to climate change on the east coast (Able et al. 2011, page 255; Hare and Able 2007). The increasing frequency of milder winters may allow

species spawned in southern areas (Bahamas, Gulf of Mexico, Sargasso Sea) to be more frequently encountered and become more abundant in areas north of Cape Hatteras (Able and Fahay 2010). Significant positive relationships between water temperature and the arrival, peak and final dates of larval occurrences as well as between temperature and abundance in NJ also suggest potential for increased occurrence further north under a future warming regime (Able et al. 2011, pages 255-256).

Current South Atlantic Sampling Protocols

Florida has already undertaken to identify all the speckled worm eel glass eels in their fishery-independent survey, and has adjusted their glass eel monitoring catch accordingly since 2006 by removing all non-American glass eels from their samples (Bonvechio and Johnson 2007, Bonvechio 2014). As noted above, speckled worm eel glass eels are easily distinguished from American eel glass eels by virtue of their teeth, pigmentation and insertion of the dorsal fin. They are easier to distinguish as preserved specimens, and much more difficult to identify when alive; however they do have a different mode of swimming which is a further noticeable difference. Ms. Bonvechio advises that in some years, speckled worm eel glass eels may comprise as much as 25 percent of the glass eel catch in the Florida samples. In Florida at the Guana Dam monitoring station, the speckled worm eel glass eels recruit during the same temporal period, and encompass the same size range, as the American eel glass eels (Figure 1, Figure 2). The length weight relationships differ (Figure 3).

Georgia historically conducted glass eel monitoring at two sites within the Altamaha River watershed (J. Page, personal communication), a small tributary of Hudson Creek which drains to the Altamaha River delta (Doboy Sound) and a canal located further upriver. Salinity at the Hudson Creek site ranged from 3-10 ppt. The canal site was predominantly fresh water. Glass eel catches at both of these sites were small; therefore in 2013, Georgia elected to cease glass eel monitoring and instead transitioned to sampling yellow eels in the belief that sampling that life stage would provide better fishery-independent information (J. Page, personal communication). Georgia has not examined their glass eel survey samples specifically to determine whether speckled worm eel glass eels were present; however, they did identify glass eels of unknown species and those data are available upon request.

In South Carolina, where a 32-year bi-weekly time series of larval fish is available for North Inlet, other eel species are captured, including speckled worm eels (Able et al. 2011; D. Allen, Baruch Marine Field Laboratory, personal communication). North Inlet is a relatively high-salinity system, with no significant sources of freshwater input. American eel and speckled worm eel are the two larval eels captured, with fewer American eels encountered. The single station sampled by South Carolina Department of Natural Resources, Marine Resources Division (see Hazel 2014), is located at Upper Goose Creek Reservoir, a tributary to the Cooper River. Given the predominance of freshwater inflow at this site, and its location 40 river kilometers from the Atlantic Ocean, the presence of speckled worm eel glass eels concurrent with American eel glass eels appears unlikely; however, South Carolina has not examined its glass eel catches to ascertain whether other eel species glass eels were present (Bill Post, Marine Resources Division, SC Department of Natural Resources, personal communication to WL).

The North Carolina Division of Marine Fisheries (NCDMF) terminated their fishery-independent survey for American eel glass eels in 2009, indicating that budget reductions precluded the

continuance of that survey (NC DENR 2014). The NCDMF indicated that it would rely on the NMFS Beaufort Bridge Net Survey for data on glass eels. The time series for the Beaufort Bridge Net Survey is now complete through 2010 (T. Kellison, Beaufort Laboratory, NMFS, personal communication to WL) and additional sample processing is anticipated which should complete sample analysis through 2013, sometime next year. The time series documents that American eel and speckled worm eels do co-occur in the Beaufort samples, and have completely overlapping ingress periods (Beaufort Laboratory, NMFS, unpublished data; T. Kellison, October 2, 2014). The database has records of only a few other eel species/taxa (Beaufort Laboratory, NMFS, unpublished data; message from T. Kellison, October 2, 2014): *Ophichthus cruentifer* (Margined Snake Eel, n = 2); *Ophichthiidae* (Snake Eels, n = 19); *Muraenidae* (Moray Eels, n = 1); *Ophidiidae* (Cusk Eels, n = 15); and anguilliforms (n = 32). Given the low numbers, the presence of these other eel species is not likely to inflate estimates of American eel glass eels, especially since all fish larvae captured in the Beaufort Bridge Net Survey are identified to species.

Table 1. Total abundance per month for 1986-2010 for eel species. Counts include glass eel, leptocephali and elvers.

| Taxa | Total | January | February | March | April | May | October | November | December |
|---------------------------|--------|---------|----------|-------|-------|-----|---------|----------|----------|
| <i>Anguilla rostrata</i> | 1,550 | 236 | 340 | 563 | 257 | 9 | | 21 | 124 |
| <i>Myrophis punctatus</i> | 53,435 | 14,482 | 20,202 | 5,200 | 260 | 15 | 10 | 1,626 | 11,640 |
| Congridae | 359 | 1 | 9 | 262 | 85 | 1 | | 1 | |
| Anguilliformes | 31 | 2 | 3 | 5 | 3 | | | | 18 |
| Muraenidae | 1 | | | 1 | | | | | |

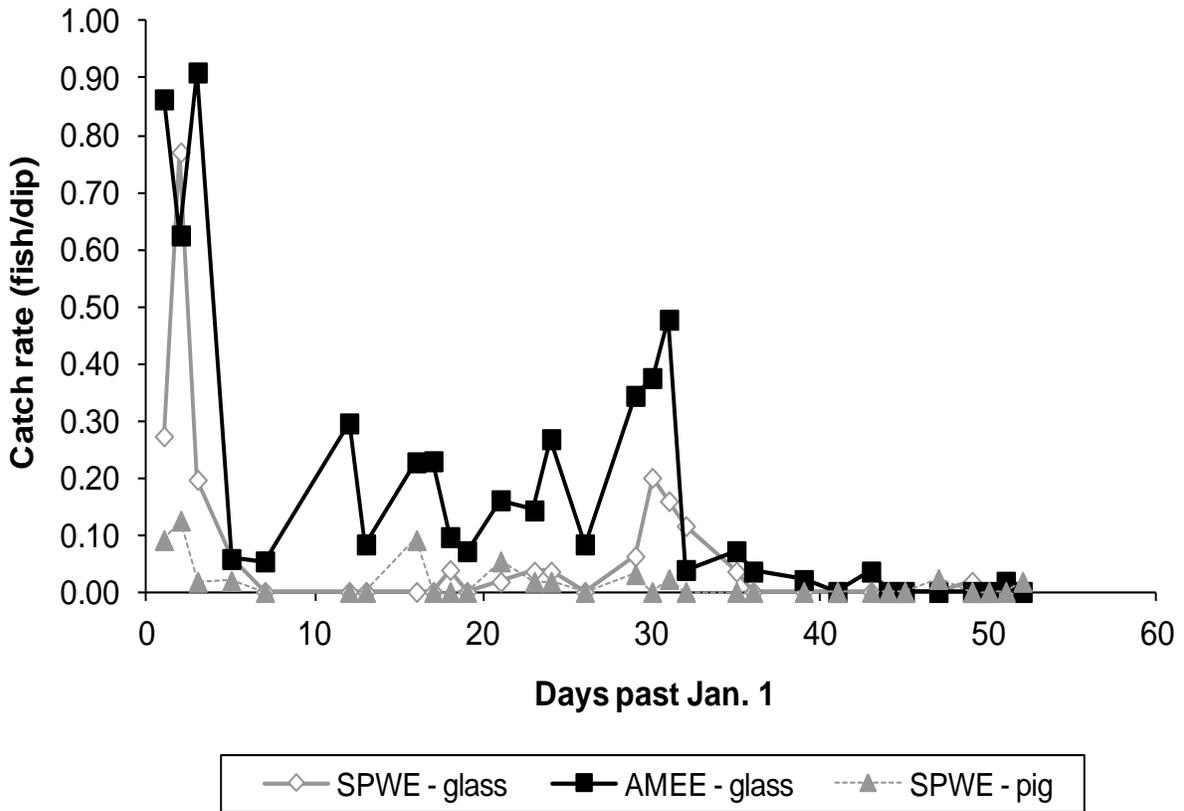


Figure 1. Catch rate of juvenile pigmented (pig) and glass American (AMEE) and speckled worm (SPWE) eels collected at Guana River Dam, Florida, in 2006 (after Figure 6 in Bonvechio and Johnson (2007)).

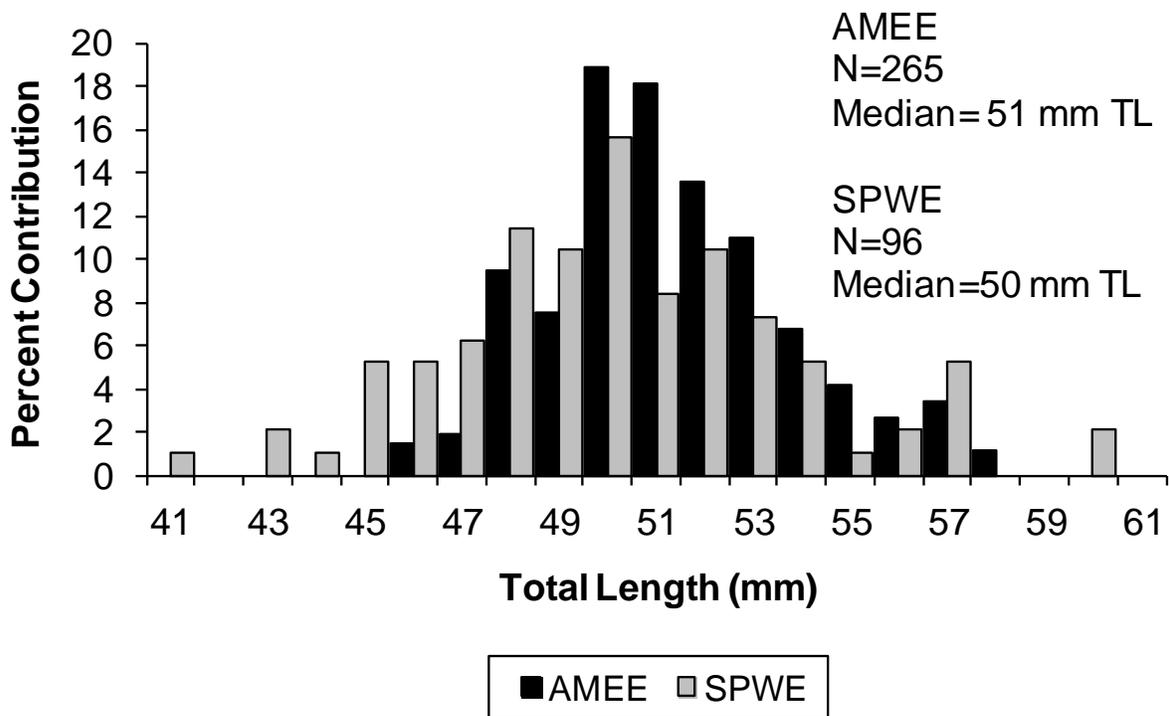


Figure 2. Length-frequency distribution of glass American (AMEE) and speckled worm (SPWE) eels collected at the Guana River Dam, Florida, in 2006 (after Figure 7, Bonvechio and Johnson (2007)).

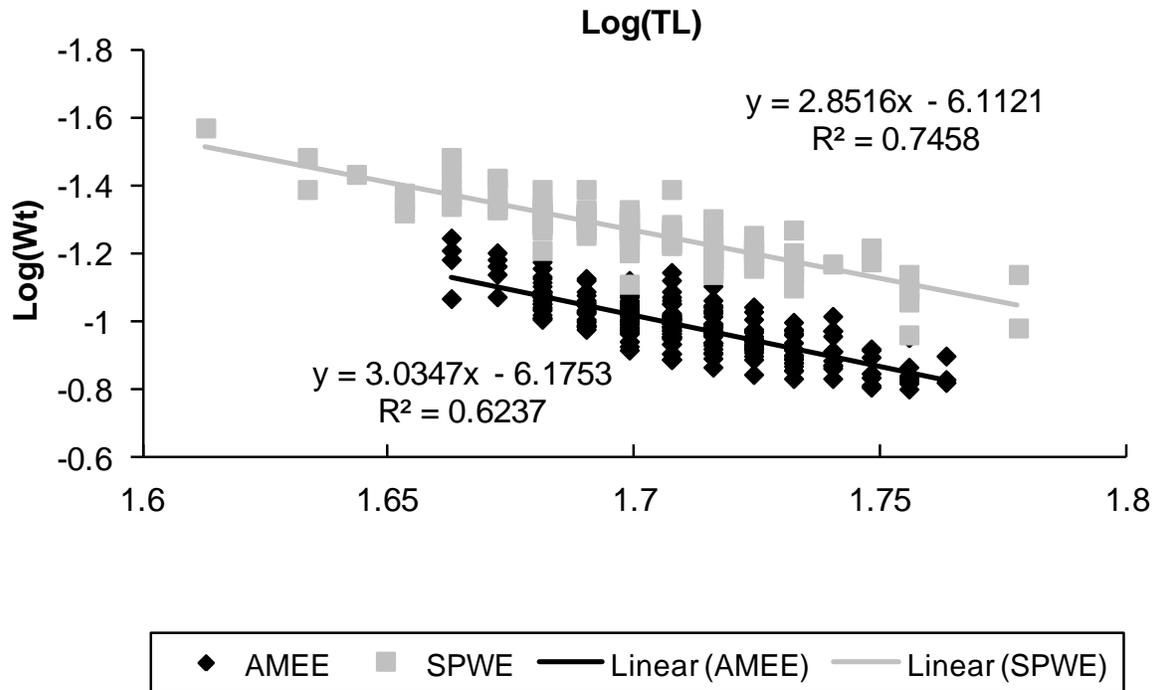


Figure 3. Length-weight regression for glass American (AMEE) and speckled worm (SPWE) eels collected at Guana River Dam, Florida, in 2006 (after Figure 8, Bonvechio and Johnson (2007)).

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Atlantic States Marine Fisheries Commission

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MEMORANDUM

October 21, 2014

To: American Lobster Management Board
From: Dan McKiernan, Board Chair
Re: Decision pathways for potential Cancer Crab management

In May of 2014, the ASMFC Policy Board approved a motion “to initiate a Cancer Crab FMP, with a focus on Jonah Crab, and task the American Lobster Board with the development of the FMP”. A Public Information Document (PID) was drafted and public comment was received at hearings and in writing. A review of the comments suggests there were some predominant themes that emerged and consensus views – on some issues - that could become components of a future management plan.

The upcoming Lobster Board meeting has a very ambitious agenda and a short two hour time slot. To facilitate the Board’s business, I want to distill the issues down and focus on the decisions that need to be made concerning the possible development of a Cancer Crab FMP. This will provide a pathway to facilitate the discussion and actions necessary for the board to make decisions on cancer crabs management.

The Board should execute a series of decisions (with motions) that will determine whether a management plan will be drafted, which committees (and their composition) will be established to support the management plan, and what issues should be included in draft management plan.

First, a motion should be made that based on the public feedback received in the PID hearings that the **Lobster Board shall continue (or alternatively to reject) the development of a Cancer Crab FMP.**

If affirmative to continue the development of a management plan, then decisions need to be made on the creation and/or composition of a Plan Development Team, (PDT), Technical Committee (TC) and Advisory Panel (AP):

- **A motion should be made to task the Plan Development Team (PDT) with the development of the FMP for cancer crab.** There are two options for the Board to consider:
 - Assign the development of the FMP to the current Lobster PDT or,
 - Create a separate Cancer Crab PDT, comprised of state and federal representatives with a knowledge of and a declared interest in the cancer crab fishery. PDT nominations require Board approval (can be accomplished via email).
- **A motion should be made to determine the make-up of a TC, which is responsible for providing scientific and technical advice in the process of developing and monitoring an FMP.** There are two options for Board to consider:

- Task the American Lobster Technical Committee (TC) to provide any necessary support to the PDT in the development of an FMP or,
- Task staff to begin organizing a separate Cancer Crab TC.
- **A motion should be made to task the American Lobster AP to provide any necessary support to the PDT in the development of an FMP or, alternatively the Board could task staff to begin organizing a separate Cancer Crab AP.** The current membership of the American Lobster AP is comprised of: four representatives from the states of Maine and Massachusetts; two representatives from the states of New Hampshire, Rhode Island, Connecticut, New York, and New Jersey; and some members of LCMTs. The American Lobster AP last met in 2009. A management board may at any time establish an AP to assist in carrying out the board's responsibilities. AP nominations require Board approval (can be accomplished via email or at the February meeting).
- **A motion should be made specifying which management plan concepts and/or specific management options** to include in the draft FMP based on input received during the PID public comment period and Board discussion (see below).

I have drafted a list of concepts and/or specifics for review and consideration for inclusion in the draft management plan:

1. Management should be coordinated through the Commission
2. Establish consistent coast-wide management through the ASMFC with recommended complementary rules in federal waters.
3. Management objectives should include conservation, sustainability and enhancement of economic return.
4. Minimum size in the range of 4” to 5” carapace width should be established for one or both species with protection of spawning and mature females a priority. To facilitate compliance and effective law enforcement, tolerance for incidental non-compliance should be considered.
5. Directed trap fishery to be limited to only those who hold a state and/or federal lobster permit and any traps set for the capture of cancer crabs shall bear an official lobster trap tag. Distinguish directed fishery from non-directed fishery, with possible trip limits on non-directed fishery.
6. Recreation license not needed, but subject to state by state preferences.
7. Require mandatory fishery-dependent data collection based on, at a minimum, the standards established for lobster management.
8. Require fishery independent data collection by states that have a declared interest in fishery. Encourage further life history investigations.
9. Consider regulations pertaining to possession of crab parts
10. Specify gear characteristics such as trap size, escape vents, and ghost panels.

Please contact me if you have questions or suggestions. Thank you for your thoughtful consideration of these issues.

M14-102

**2013 REVIEW OF THE
ATLANTIC STATES MARINE FISHERIES COMMISSION
FISHERY MANAGEMENT PLAN
FOR AMERICAN LOBSTER
(*Homarus americanus*)
2012 FISHING YEAR**



Prepared by the Plan Review Team

October 2014

**2013 REVIEW OF THE ASMFC FISHERY MANAGEMENT PLAN FOR AMERICAN
LOBSTER (*Homarus americanus*) 2012 FISHING YEAR**

1.0 Status of the Fishery Management Plan

| | |
|---|--|
| <u>Year of ASMFC Plan's Adoption:</u> | Amendment 3 (1997) |
| <u>Framework Adjustments:</u> | Addendum I (1999) Addendum II (2001) Addendum III (2002) Addendum IV (2003) Addendum V (2004) Addendum VI (2005) Addendum VII (2005) Addendum VIII (2006) Addendum IX (2006) Addendum X (2007) Addendum XI (2007) Addendum XII (2008) Addendum XIII (2008) Addendum XIV (2009) Addendum XV (2009) Addendum XVI (2010) Addendum XVII (2012) Addendum XVIII (2012) Addendum XIX (2013) Addendum XX (2013) Addendum XXI (2013) Addendum XXII (2013) Addendum XXIII (2014) |
| <u>Management Unit:</u> | Maine through North Carolina Lobster is managed in seven different Lobster Conservation Management Areas (LCMA, see appendix A) |
| <u>States with a Declared Interest:</u> | Maine through North Carolina (Excluding Pennsylvania and DC) |
| <u>Active Committees:</u> | American Lobster Management Board, Technical Committee, Lobster conservation Management Teams, Plan Development Team, Plan Review Team |

2.0 Status of the Fishery

2.1 Landings History

The lobster fishery has seen incredible expansion in effort and landings since the 1950-1975 when landings varied around 30 million pounds. From 1976 – 2008 the average coastwide landings tripled, increasing from 30 million pounds to peak of 96 million pounds in 2006 (Table 1). Since 2008, total coastwide landings have exponentially increased to just under 150 million pounds in 2012. However, landings have varied by LCMA (Table 2). Maine and Massachusetts account for 85% and 10%, respectively, of the 2012 commercial landings. Landings were also reported by (in descending order) New Hampshire, Rhode Island, New Jersey, New York, Connecticut, Maryland, Virginia, and Delaware. The ex-vessel value for all lobster landings in 2011 was 429 million dollars.

Lobster pots are the predominant commercial gear; other gear types include otter trawls, gill net, dredge and SCUBA. Lobster is also taken recreationally with pots and by hand while SCUBA diving. The magnitude of recreational landings is unknown because all states do not collect recreational harvest data.

2.2 Recent Management Actions

The 2009 assessment that indicated the resource presented a mixed picture of stock abundance throughout its U.S. range, with low abundance and poor recruitment in SNE T. In the spring of 2010, the American Lobster Technical Committee (TC) reviewed trends in abundance from 2008 and 2009 and considered a variety of biological and environmental factors that may be impacting Southern New England (SNE) lobster stocks. In May 2010, the TC submitted a report to the Board contending that it was their belief that the SNE stock was experiencing recruitment failure. Evidence suggested the reproductive potential and abundance of the SNE stock had continued to fall to lower levels than what was presented in the 2009 assessment. While larval production and settlement are inherently variable, sustained poor production can only lead to reduced recruitment and ultimately to reduced year class strength and lower future abundance levels. The TC contended that recruitment failure was caused by overwhelming environmental and biological changes coupled with continued fishing. At that time, the TC recommended a five year moratorium on harvest in the SNE stock area to provide the maximum likelihood of rebuilding the stock above the threshold and toward the target abundance in the foreseeable future.

Following the presentation of the TC reports to the Board concerning recruitment failure and stock projections, the Board moved to have the findings reviewed by the Center for Independent Experts (CIE). The TC and comments from the CIE reviewers concurred that environmental changes in concert with fishing mortality were the principal causes of the recent stock decline and resulting lower recruitment levels. Although it is not possible to predict how recruitment may change in the near future it has been noted that environmental conditions are unlikely to return to the previous favorable state observed in the early 1990's and that reducing exploitation is therefore necessary to prevent further avoidable erosion of the spawning stock, thereby increasing the chances of stock recovery should recruitment and natural mortality conditions improve. There was general agreement with the TC reports that a moratorium or severe reductions (~75%) in fishing mortality were needed immediately to maximize chances of rebuilding the stock.

To address the concerns of the declining resource the Management Board approved addendum XVII which reduced exploitation by 10% in the management areas within SNE in February 2012. The management areas have initiated either mandatory v-notch programs or season closures or a combination of the two meet the requirements of the addendum.

The Board also approved addendum XVIII as the first phase of management action to scale the SNE fishery to the size of the SNE resource, including an option for a minimum reduction in traps fished by 25% for LCMA 2 and 3. The remainder of the LCMAs in SNE will be implementing plans to also address this Board task.

In 2013 the Board approved Addenda XIX – XXII. Addendum XIX implemented conservation tax of 10 % for any transfer or full business sale of LCMA 3 traps. In response to action taken by the New England Fishery Management Council (NEFMC) that allowed limited groundfishing fishing in a previously closed area (Closed Area II), the American lobster offshore pot fleet fishing in this area developed an agreement with the groundfish sector to prevent gear conflicts and give equal access to the area by both fisheries. As a result, through Addendum XX, it is prohibitive to set or store lobster traps in Closed Area II from November 1 to June 15 annually and all lobster trap gear must be removed from the water by October 31st.

As the second phase of management action to scale the SNE fishery to the size of the SNE resource, the Board approved Addendum XXI, which modifies the previous trap transferability rules for LCMAs 2 and 3, as well as provides further guidance. Furthermore, modifications to the single and aggregate ownership caps for LCMA 3 were approved under Addendum XXII.

In August 2014, the Board approved Addendum XXIII, which updates the habitat section of Amendment 3.

3.0 Status of Assessment Advice

3.1 Most Recent Assessment (2009)

The 2009 peer-reviewed stock assessment report indicated the American lobster resource presents a mixed picture, with record high stock abundance and recruitment throughout most of the Gulf of Maine (GOM) and Georges Bank (GBK), continued low abundance and poor recruitment in Southern New England (SNE), and further declines in recruitment and abundance in NMFS Statistical Area 514 (Massachusetts Bay and Stellwagen Bank) since the last assessment. The Peer Review Panel noted particular concern regarding the status of the stock throughout the SNE assessment area and within Area 514 and recommended that further restrictions are warranted for both areas.

The assessment showed current abundance of the GBK stock is at a record high and recent exploitation rates are at a record low. Recruitment has remained high in GBK since 1998. Sex ratio of the population in recent years is largely skewed toward females (~80% from 2005 to 2007) for unknown reasons. The Technical Committee noted the stock could experience recruitment problems if the numbers of males in the population are low.

Table 1. Landings (in pounds) of American Lobster by the states of Maine through Virginia (Sources NMFS, ME DMR, NY DMR). *C= confidential data*

| Year | ME | NH | MA | RI | CT | NY | NJ | DE | MD | VA | Total |
|------|-------------|-----------|------------|-----------|-----------|-----------|-----------|---------|--------|--------|-------------|
| 1981 | 22,631,600 | 793,400 | 11,220,500 | 1,871,200 | 1,010,800 | 890,200 | 593,700 | 55,700 | 63,200 | 2,200 | 39,132,500 |
| 1982 | 22,730,100 | 807,400 | 13,150,900 | 3,173,700 | 1,094,100 | 1,121,600 | 846,300 | 90,700 | 64,800 | 4,700 | 43,084,300 |
| 1983 | 21,976,500 | 1,310,560 | 12,421,000 | 5,114,400 | 1,854,000 | 1,207,500 | 769,900 | 56,700 | 86,500 | 600 | 44,797,660 |
| 1984 | 19,545,600 | 1,570,724 | 14,701,800 | 5,259,900 | 2,011,600 | 1,308,100 | 927,700 | 103,800 | 98,900 | 17,400 | 45,545,524 |
| 1985 | 20,125,000 | 1,193,881 | 16,295,100 | 5,140,100 | 1,676,000 | 1,240,900 | 1,079,600 | 118,500 | 82,300 | 1,100 | 46,952,481 |
| 1986 | 19,704,400 | 941,100 | 15,057,600 | 5,667,900 | 1,656,100 | 1,407,100 | 1,123,000 | 109,000 | 57,700 | 1,000 | 45,724,900 |
| 1987 | 19,747,800 | 1,256,170 | 15,116,800 | 5,317,100 | 1,735,591 | 1,146,700 | 1,397,100 | 84,100 | 49,900 | 1,000 | 45,852,261 |
| 1988 | 21,738,800 | 1,118,900 | 15,866,312 | 4,759,100 | 2,053,800 | 1,779,890 | 1,557,300 | 66,200 | 23,000 | 300 | 48,963,602 |
| 1989 | 23,368,800 | 1,430,400 | 15,444,300 | 5,725,800 | 2,096,900 | 2,345,051 | 2,059,600 | 76,500 | 17,500 | | 52,564,851 |
| 1990 | 28,068,238 | 1,658,200 | 17,054,434 | 7,258,175 | 2,645,800 | 3,431,111 | 2,198,867 | 68,300 | | | 62,383,125 |
| 1991 | 30,788,646 | 1,802,035 | 16,528,168 | 7,445,172 | 2,674,000 | 3,128,246 | 1,673,031 | 54,700 | | | 64,093,998 |
| 1992 | 26,830,448 | 1,529,292 | 15,823,077 | 6,763,087 | 2,439,600 | 2,651,067 | 1,213,255 | 21,000 | | | 57,270,826 |
| 1993 | 29,926,464 | 1,693,347 | 14,336,032 | 6,228,470 | 2,177,022 | 2,667,107 | 906,498 | 24,000 | | | 57,958,940 |
| 1994 | 38,948,867 | 1,650,751 | 16,094,226 | 6,474,399 | 2,212,000 | 3,954,634 | 581,396 | 8,400 | | | 69,924,673 |
| 1995 | 37,208,324 | 1,834,794 | 15,755,840 | 5,362,084 | 2,536,177 | 6,653,780 | 606,011 | 500 | 2,855 | | 69,960,365 |
| 1996 | 36,083,443 | 1,632,829 | 15,323,277 | 5,295,797 | 2,888,683 | 9,408,519 | 640,198 | | 28,726 | 1,252 | 71,302,724 |
| 1997 | 47,023,271 | 1,414,133 | 15,087,096 | 5,798,529 | 3,468,051 | 8,878,395 | 858,426 | 648 | 34,208 | 2,240 | 82,564,997 |
| 1998 | 47,036,836 | 1,194,653 | 13,277,409 | 5,617,873 | 3,715,310 | 7,896,803 | 721,811 | | | 1,306 | 79,462,001 |
| 1999 | 53,494,418 | 1,380,360 | 15,533,654 | 8,155,947 | 2,595,764 | 6,452,472 | 931,064 | | | 6,916 | 88,550,595 |
| 2000 | 57,215,406 | 1,709,746 | 15,802,888 | 6,907,504 | 1,393,565 | 2,883,468 | 891,183 | | | 311 | 86,804,071 |
| 2001 | 48,617,693 | 2,027,725 | 12,132,807 | 4,452,358 | 1,329,707 | 2,052,741 | 579,753 | | | 19 | 71,192,803 |
| 2002 | 63,625,745 | 391 | 12,853,380 | 3,835,050 | 1,067,121 | 1,440,483 | 264,425 | 551 | | | 83,087,146 |
| 2003 | 54,970,948 | | 11,385,049 | 3,474,508 | 671,119 | 946,449 | 209,956 | 2,099 | 22,778 | | 71,682,906 |
| 2004 | 71,574,344 | 2,097,396 | 11,295,474 | 3,064,417 | 646,994 | 996,109 | 370,112 | 13,322 | 14,931 | 13 | 90,073,112 |
| 2005 | 68,729,861 | 2,556,232 | 9,879,983 | 4,343,736 | 713,901 | 1,154,470 | 369,264 | | 39,237 | 21,988 | 87,808,672 |
| 2006 | 72,662,294 | 2,666,344 | 10,966,322 | 3,749,432 | 792,894 | 1,242,601 | 470,877 | 3,706 | 26,349 | 28,160 | 92,608,979 |
| 2007 | 63,959,191 | 2,468,811 | 10,143,301 | 2,293,494 | 568,696 | 716,300 | 680,392 | 5,946 | 6,128 | | 80,842,259 |
| 2008 | 69,863,132 | 2,567,031 | 10,597,614 | 2,771,968 | 426,292 | 1,210,436 | 632,545 | 4,347 | 32,429 | | 88,105,794 |
| 2009 | 81,175,847 | 2,985,166 | 11,781,490 | 2,831,742 | 446,861 | 1,047,276 | 179,740 | 6,064 | 30,988 | 21,472 | 100,506,646 |
| 2010 | 95,506,383 | 3,658,894 | 12,768,448 | 2,922,823 | 396,391 | 307,194 | 641,556 | 108 | 30,005 | 16,347 | 116,248,149 |
| 2011 | 104,693,316 | 3,917,461 | 13,717,192 | 2,752,505 | 159,493 | 344,233 | 627,077 | 10 | 40,090 | 12,878 | 126,264,255 |
| 2012 | 125,759,424 | 4,236,740 | 14,917,238 | 2,932,388 | 236,846 | 272,961 | 919,260 | C | C | C | 149,363,970 |

Table 2. Estimated lobster landings (in pounds) by lobster conservation management area (LCMA)* (*Source, ASMFC Lobster Data Warehouse*). **This table can only be update in years when stock assessment reports are being conducted.**

| Year | LCMA 1 | LCMA 2 | LCMA 3 | LCMA 4 | LCMA 5 | LCMA 6 | LCMA OCC | Grand Total |
|-------------|---------------|------------|-------------|------------|-----------|-------------|------------|---------------|
| 1981 | 32,369,320 | 527,284 | 4,321,500 | 441,478 | 115,653 | 1,220,159 | 134,327 | 39,129,721 |
| 1982 | 32,123,750 | 1,656,479 | 4,961,680 | 622,674 | 99,093 | 1,359,058 | 163,105 | 40,985,839 |
| 1983 | 32,826,685 | 2,958,366 | 5,645,179 | 633,254 | 71,804 | 2,428,633 | 198,448 | 44,762,369 |
| 1984 | 29,862,411 | 2,978,985 | 6,409,741 | 795,180 | 135,652 | 2,704,070 | 208,832 | 43,094,871 |
| 1985 | 31,590,759 | 2,992,330 | 5,853,851 | 964,043 | 170,998 | 2,273,337 | 261,929 | 44,107,247 |
| 1986 | 30,080,507 | 3,081,903 | 5,829,275 | 1,084,282 | 125,969 | 2,362,128 | 298,747 | 42,862,811 |
| 1987 | 30,682,754 | 3,219,900 | 5,357,273 | 1,473,841 | 98,486 | 2,378,765 | 276,250 | 43,487,269 |
| 1988 | 32,362,492 | 3,259,336 | 5,132,943 | 1,666,439 | 85,142 | 3,195,208 | 295,985 | 45,997,545 |
| 1989 | 36,800,166 | 4,175,114 | 5,450,786 | 2,232,935 | 106,126 | 3,735,250 | 352,155 | 52,852,532 |
| 1990 | 41,720,481 | 4,374,062 | 8,783,629 | 2,431,198 | 237,410 | 4,250,654 | 581,447 | 62,378,881 |
| 1991 | 43,648,773 | 4,140,145 | 8,537,053 | 2,096,138 | 115,020 | 4,393,986 | 740,267 | 63,671,382 |
| 1992 | 39,055,380 | 3,795,367 | 7,124,248 | 1,448,866 | 77,854 | 4,362,551 | 738,026 | 56,602,292 |
| 1993 | 40,962,969 | 3,772,494 | 6,773,992 | 1,597,447 | 89,495 | 3,968,663 | 938,486 | 58,103,546 |
| 1994 | 51,597,880 | 5,602,507 | 5,684,252 | 554,367 | 26,013 | 5,738,398 | 848,181 | 70,051,598 |
| 1995 | 49,771,715 | 4,960,453 | 5,008,551 | 962,077 | 45,054 | 8,564,325 | 1,000,609 | 70,312,784 |
| 1996 | 47,992,628 | 4,880,328 | 4,896,782 | 978,376 | 52,758 | 11,705,439 | 852,532 | 71,358,843 |
| 1997 | 58,016,197 | 5,324,775 | 5,549,295 | 1,162,862 | 36,623 | 11,650,701 | 849,126 | 82,589,579 |
| 1998 | 56,187,841 | 5,273,463 | 5,043,939 | 1,534,067 | 41,963 | 10,575,143 | 797,019 | 79,453,435 |
| 1999 | 65,375,535 | 6,938,658 | 6,166,601 | 1,346,509 | 77,621 | 8,331,142 | 739,904 | 88,975,970 |
| 2000 | 69,265,611 | 5,651,160 | 5,436,618 | 1,123,486 | 53,364 | 3,802,880 | 765,801 | 86,098,920 |
| 2001 | 57,531,942 | 3,862,054 | 5,525,209 | 762,408 | 55,537 | 3,013,551 | 611,242 | 71,361,943 |
| 2002 | 73,607,600 | 3,445,004 | 5,483,983 | 442,425 | 14,838 | 2,230,869 | 786,137 | 86,010,856 |
| 2003 | 63,005,041 | 1,110,534 | 6,978,808 | 423,583 | 17,394 | 1,448,011 | 804,355 | 73,787,725 |
| 2004 | 80,448,651 | 1,184,942 | 6,722,671 | 480,203 | 93,270 | 1,534,130 | 993,689 | 91,457,556 |
| 2005 | 76,240,627 | 1,464,433 | 7,442,771 | 457,275 | 54,181 | 1,673,396 | 966,787 | 88,299,470 |
| 2006 | 80,846,400 | 1,853,505 | 7,588,539 | 516,130 | 59,928 | 1,840,308 | 1,048,051 | 93,752,862 |
| 2007 | 70,862,089 | 1,430,836 | 6,375,646 | 617,978 | 56,866 | 1,263,648 | 1,132,991 | 81,740,055 |
| Grand Total | 1,354,836,205 | 93,914,418 | 164,084,815 | 28,849,521 | 2,214,112 | 112,004,403 | 17,384,426 | 1,773,287,900 |

*Landings data are not collected by LCMA in all states. To separate landings by LCMA NMFS statistical areas are placed into a single LCMA. For a complete description of how estimates are completed send a request to the PRT Chair, ktaylor@asmfc.org.

The assessment showed current abundance of the SNE stock is the lowest observed since the 1980s and exploitation rates have declined since 2000. Recruitment has remained low in SNE since 1998. Given current low levels of spawning stock biomass and poor recruitment further restrictions are warranted.

The assessment recommended revisions to the reference points set in the FMP, which the Board approved in 2010. Stock status is determined by comparing threshold values to the average abundance and exploitation rate during recent years (2005-2007). Thus, “overfishing” would occur if the average recent exploitation rate were higher than the threshold. A stock would be “depleted” if average recent abundance fell below the threshold. The GOM and GBK stocks are not depleted and overfishing is not occurring, while the SNE is depleted but not experiencing overfishing. The Board set the SNE abundance reference points to a lower target level than the GOM and GBK stocks because it believes the SNE stock has limited ability to rebuild to higher historical levels.

The next assessment is scheduled for peer review in 2015.

4.0. Status of Research and Monitoring

4.1 Research Needs

4.1.1 University of Maine Model Development

The University of Maine lobster model used for this assessment should be revised and enhanced in the following ways in order to improve future assessments:

- Explore feasibility of estimating all or a portion of the growth transition matrix.
- Expand model to include any number of surveys by sex. This includes changing the structure of input data files, modifying corresponding sections of code to accommodate any number of surveys and fishery types by sex or both sexes combined, and estimation of survey selectivity by sex.
- Incorporate trends in natural mortality, maturity, and growth, where appropriate.
- Check estimation and form of non-linear CPUE relationship with abundance, explore standardization/treatment of commercial CPUE.
- Explore incorporation of ventless trap and settlement surveys.
- Create graphics viewer in R for examining MCMC and projection outputs; include MCMC chain convergence criteria / diagnostics.
- Reduce gap-filling of landings and biosamples to the extent possible and allow the model to handle data gaps statistically.
- Specify number of years across which to conduct the assessment (e.g. to ease performance of sensitivity and retrospective analyses).

4.1.2 Program Research

New research and expansion of existing monitoring programs in the following areas would provide information needed to improve future stock assessments as described in the assessment and peer review report:

1 - Fishery-Dependent Information

Accurate and comparable landings are the principal data needed to assess the impact of fishing

on lobster populations. The quality of landings data has not been consistent spatially or temporally. Aligning stock management areas with area designations for landings and management is necessary. Enhanced sea sampling and port sampling to create a more complete record of biological characteristics of the catch and harvest would also improve the usefulness of these data. This is especially needed in offshore waters. In addition, investigations are needed to determine where lobster are being caught and if and how this changes over time. A lot of progress has been made recently by improvements in landing reporting programs (SAFIS, 10% mandatory reporting, and mandatory vessel trip reports in some areas) and increased port and sea-sampling programs. However, many of these gains are about to be lost due to lack of funding. There was very little funding for the offshore port-sampling program and shrinking funds for sea-sampling programs will impact the spatial and temporal extent of sampling efforts in 2012. These types of programs are essential for accurate lobster assessments and must have dedicated funding.

2 - Growth

The apparent mismatch of biological reference points and current stock status from this and previous assessments, poor model fits to certain length data sources in the new assessment, and samples of large lobster from Georges Bank with clean shells (no fouling or shell disease), suggest that growth and maturity may not be characterized correctly. All of the information used to estimate molt frequency and much of the information used to estimate molt increments was collected from hatchery reared lobster. Hatchery growth may not be an accurate model of growth in the wild, particularly for large lobster. Research and tagging programs should be developed to generate better more accurate information on growth, particularly for large lobster.

3 - Fishery-Independent Information

There is a need to develop consistent techniques that monitor distribution and abundance of lobster independent of the fishery. Current methods (e.g. trawls) are limited in area (gear conflicts) and do not target primary lobster habitat (unable to access complex bottom). A coastwide ventless trap survey was initiated in 2006 to develop a time series of lobster relative abundance and recruitment while attempting to eliminate the biases identified in conventional surveys. The survey was conducted from 2006 to 2012 from the Gulf of Maine to Long Island Sound. Funding is necessary to continue the survey. These data will need to properly integrated as indices of abundance into future assessment models.

Little is known about the cause and implications of the sudden recent increase in proportion females in offshore GOM and GBK. Given the potential for sperm limitation and decreased stock productivity that could result, more research is needed on this phenomenon.

Current stock boundaries separate the US and Canadian lobster population into semi-discrete stocks, so it is necessary to understand how much adult and larval exchange occurs between stocks and if this exchange represents a significant recruitment subsidy to US stocks. How do differing management strategies in adjacent stocks fit if exchange rates are high? This is particularly important given the similarities in the increasing size and proportion of female in the offshore Gulf of Maine and Georges Bank stocks.

4 - Age

All assessments of lobster stock status have been based on analyses of length data. Age is assumed by applying per-molt growth increments and molt frequencies to the length data. Based on these analyses, the American lobster has been treated as an extremely long-lived animal, reaching a reproductive maximum at a relatively old age. These assumptions are based on no actual age data. Applying aging techniques developed in England and Australia for lobster and other crustaceans would greatly improve our understanding of how many year-classes support the current trap fishery, how length relates to age, and how variable the age structure is over stock area and time. Research has been initiated on ageing techniques in New England in ME and CT. This work should be continued and expanded.

5 - Ecosystem-based Management

NOAA's 2009-2014 Strategic Plan for Fisheries Research recommends the inclusion of ecosystem and environmental information in all stock assessments. Further examination of lobster mortality not related to the fishery would provide a better understanding of factors limiting productivity and longevity. Research has been conducted in Southern New England in response to the Long Island Sound lobster die off elucidating the affects of temperature, pesticides and shell disease. Initial modeling work has been developed relating North Atlantic Oscillation (NAO) and water temperature shifts to larval and adult survival. Additional topics should include: predator/prey interactions and community structure (e.g. gut content analyses), directed tagging studies to estimate natural mortality, climatic shifts in ocean currents and temperature in all stock areas, and toxic substances causing chronic stress or disease. Investigations of stock unit carrying capacity should be explored, specifically: How should lobster be managed in a stock whose carrying capacity has declined or may be declining? What metric should be used to measure carrying capacity for lobster? How would a climate- induced range contraction be defined, and how should a stock whose range has contracted be managed?

6 - Investigation of Trans-boundary Assessments

Investigate conducting joint US and Canadian assessments. The two most productive U.S. stocks, (Gulf of Maine and Georges Bank), are shared with Canada. The two stock areas should be assessed as a jointly, and linkages between US and Canadian fisheries and the dynamics of different management strategies on shared stocks should be examined.

7 - Investigation of Historical Levels of Stock Production

One limitation of current trend-based reference points is the period covered by the assessment. Investigations of past levels of stock size and size structure could provide additional insight into setting reference points that relate to the full range of stock productivity. Current status should be compared to some reasonably high stable period of stock production. Otherwise current stock status may be compared to a median value that is a continued diminishing return. In addition, extending backwards in time, to the extent practicable, all data sources in the stock assessment model should be explored. Internally generating estimates of the stock-recruitment relationship within the length-based model is recommended as well.

4.2 Monitoring

Table 3. 2012 sampling requirements and state implementation (✓ - sampling conducted but below FMP requirement or has been reduced, ✓ sampling conducted at level required by FMP, ✓+ sampling conducted beyond FMP requirement). There is no specific requirement for port and sea sampling (see text below).

| State | 100% Dealer reporting | 10% Harvester Reporting | Overall Fishery Dependent Biological Sampling | Sea Sampling | Port Sampling | Ventless Trap Survey | Settlement Survey | Trawl Survey |
|-------|-----------------------|-------------------------|---|--------------|---------------|----------------------|-------------------|--------------|
| ME | ✓ | ✓ | ✓- | ✓ | ✓ | ✓ | ✓ | ✓ |
| NH | ✓ | ✓+ 100% | ✓- | ✓ | ✓ | ✓ | ✓ | ✓ (ME) |
| MA | ✓ | ✓+ 100% | ✓- | ✓ | | ✓ | ✓ | ✓ |
| RI | ✓ | ✓+ 100% | ✓- | ✓- | ✓- | ✓ | ✓ | ✓ |
| CT | ✓ | ✓+ 100% | ✓- | ✓- | | | ✓ | ✓ |
| NY | ✓ | ✓ 100% | ✓- | ✓- | ✓- | | | ✓(CT) |
| NJ | ✓ | ✓ | ✓- | ✓ | | | | ✓ |

Addendum X requires that states conduct sufficient biological sampling to characterize the commercial catch. Specifically it requires that states weight sampling intensity by areas and season to match 3-year average of area's seasonal commercial catch. This volume of sampling well exceeds current state budgets for lobster biological sampling. Table 3 describes the level of sea and port sampling conducted by the states.

Maine has suspended its port sampling program following the 2012 sampling year. NY was unable to conduct multispecies port sampling during 2012 due to a delay in contract development and a reduction in IJ funds. Connecticut minimized their sea sampling in 2010 as a result of IJ reduction as well. Additionally federal funding for Rhode Island's sea sampling program was lost in May 2012; however, state funds were used to continue sampling from June through the end of the year. The PRT is concerned that funding for both fishery independent and dependent data collection is at risk. State resources are shrinking, making it more difficult to secure funding for these programs. These data collection programs need long-term funding in order for the stock assessment committee to use them for stock assessments.

Young of the Year Settlement

Several states conduct young-of-year (YOY) surveys to detect trends in abundance of newly-settled and juvenile lobster populations. These surveys attempt to provide an accurate picture of the spatial pattern of lobster settlement. States hope to track juvenile populations and generate predictive models of future landings.

Maine: In 2000, settlement surveys were expanded to cover all seven of Maine's lobster management zones (LMZ) in order to create a statewide index of settlement to further this goal. The settlement survey remains the one opportunity to index one year class of lobsters.

In 2012 settlement was below the time series mean for many of the seven management zones (Figure 1). In most areas, this was the second consecutive year of low settlement. There has been a general decline in settlement since the mid-2000s, and projections indicate a downturn in landings is likely.

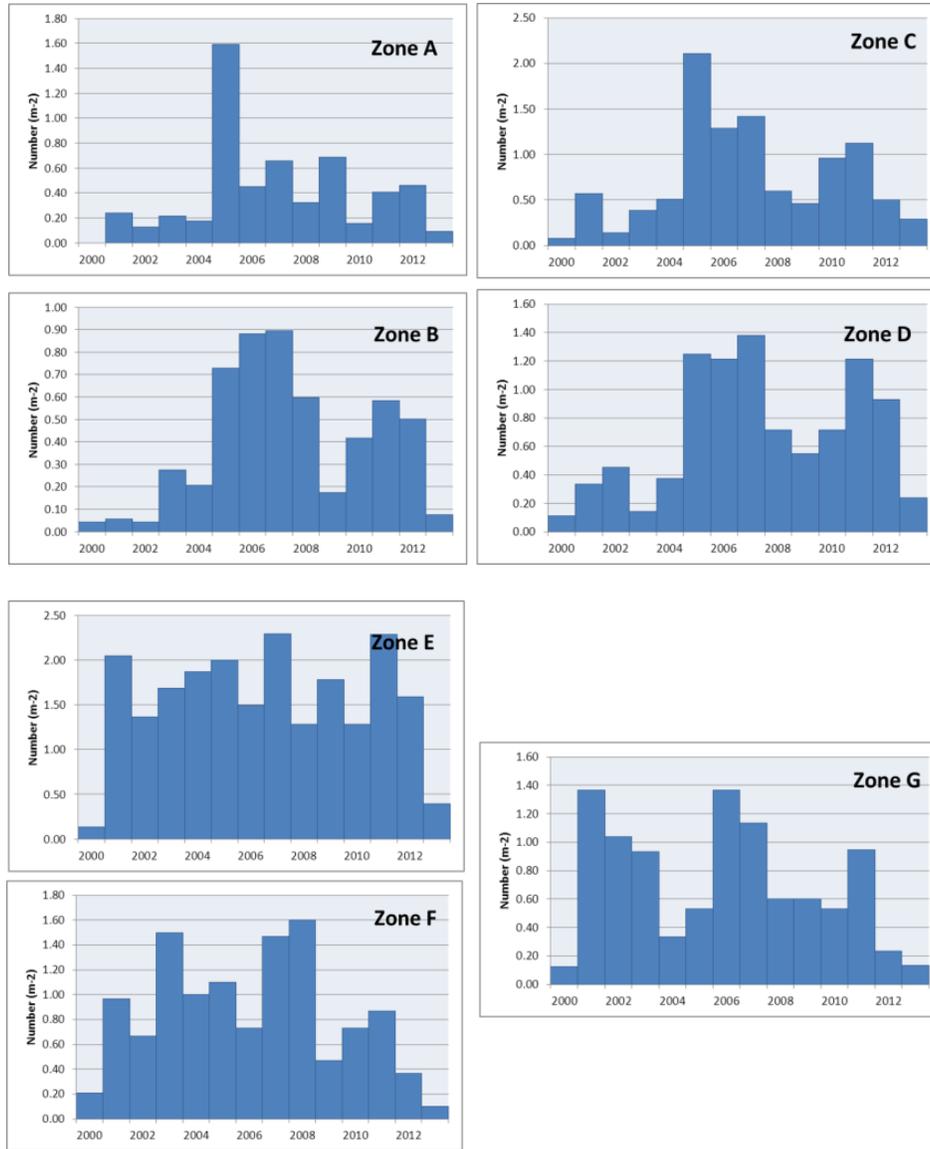


Figure 1. Lobster settlement in Maine’s seven lobster management zones from 2000-2013. Zones run from east (Zone A) to west (Zone G).

New Hampshire: New Hampshire Fish and Game (NHF&G) conducted a portion of the coastwide American Lobster Settlement Index (ALSI) in the past 5 years. In 2012, a total of 30 juvenile lobsters were sampled from three sites, three were YOY, two were one year olds (Y+), and 25 were older juveniles.

The CPUE ($\#/m^2$) index associated with YOY lobsters showed a general upward trend from 2008 through 2011, followed by a decrease in 2012 to the second lowest catch rate of the time series (Figure 2). The index for Y+ lobsters varied around 0.2 ($\#/m^2$) from 2008 through 2010, increased in to a time series high in 2011 and decreased in 2012 to a time series low.

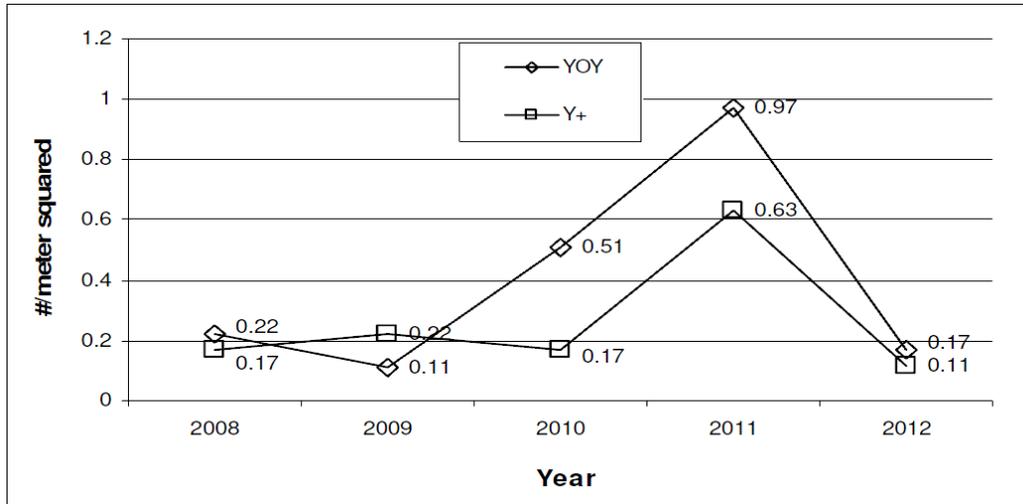


Figure 2. Catch per unit effort ($\#/meter^2$) of both YOY and one year old (Y+) lobsters captured during the American Lobster Settlement Index in New Hampshire state waters from 2008 through 2012.

Massachusetts: Annual sampling for early benthic phase/juvenile (EBP) lobsters was conducted using SCUBA and airlift suction sampling equipment from August to September in 2012. Density indices of newly settled post-larval lobsters were calculated (17-year time series) and coastal habitat important to the settlement of these juveniles continues to be defined. Sampling was completed at 21 sites spanning seven regions in Massachusetts coastal waters (six Buzzards Bay sites, two Vineyard Sound sites, three Cape Cod Bay sites, two South Shore sites, three Boston Harbor sites, three Salem Sound sites, and two Cape Ann sites). Data for all sites were used to generate density estimates of EBP lobster and other decapod crustaceans. Densities of EBP lobsters from 1995 to 2012 are presented in Figure 3. Cape Ann, Salem Sound, Boston, South Shore, and Cape Cod Bay are all within LCMA 1, while Buzzards Bay and Vineyard Sound are within LCMA 2.

In 2012 densities of YOY lobsters in LMCA 1 were well below median values in the three regions with long time series (Salem Sound, Boston Harbor, and Cape Cod Bay). The 2012 YOY lobster density in Buzzards Bay was zero, below the time series median for LCMA 2.

Young of the Year Lobster (0-12 GOM, 0-13 SNE)

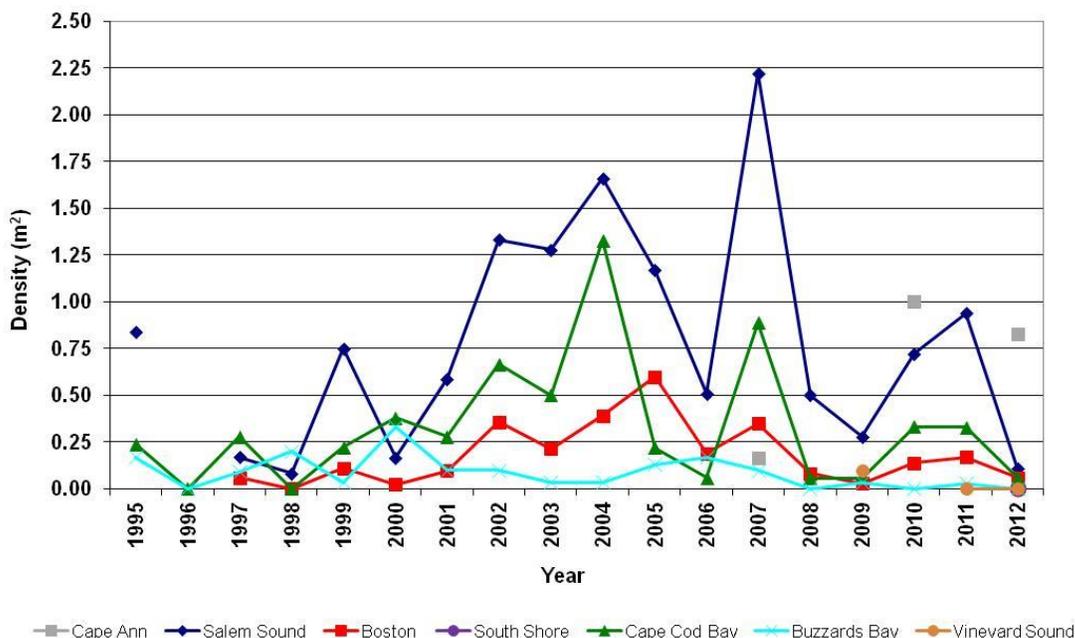


Figure 3. YOY lobster density in seven Massachusetts regions; *LCMA 1* – Cape Ann, Salem Sound, Boston, South Shore, Cape Cod Bay, *LCMA 2* - Buzzards Bay, Vineyard Sound.

Rhode Island: The YOY Settlement Survey (Suction Sampling) was conducted at six fixed stations with twelve randomly selected 0.5-meter quadrats sampled at each survey station, for a total of 72 samples. The survey stations are located outside of Narragansett Bay along the southern Rhode Island coast, from Sachuest Point (east) to Point Judith (west). The 2012 YOY Settlement Survey index was 0.09 YOY lobster/m² (Figure 4).

Connecticut: The Connecticut Department of Energy and Environmental Protection Larval Lobster Survey is conducted each summer to provide an index of zero-class recruitment in western Long Island Sound. Annual production in 2012 (15.2 larvae/1000 m³ water sampled) remained below the long-term median value (78.6) and ranked 28th in the 30-year time series (1983-2012). The median value has been exceeded only once, in 2007, since 2000 with the other 11 years' production below the median value. The lowest value in the time series was recorded in 2006 (9.1 larvae/1000 m³), followed by 2002 (15.0 larvae/1000 m³, Figure 5). The larval program will not be continued after 2012.

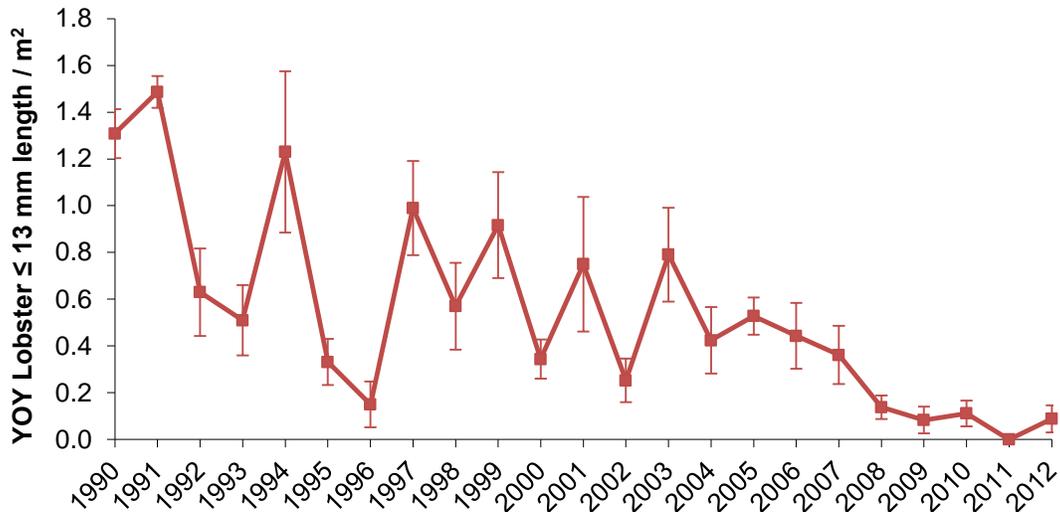


Figure 4. RI YOY settlement index (+/- SE) for 1990-2012.

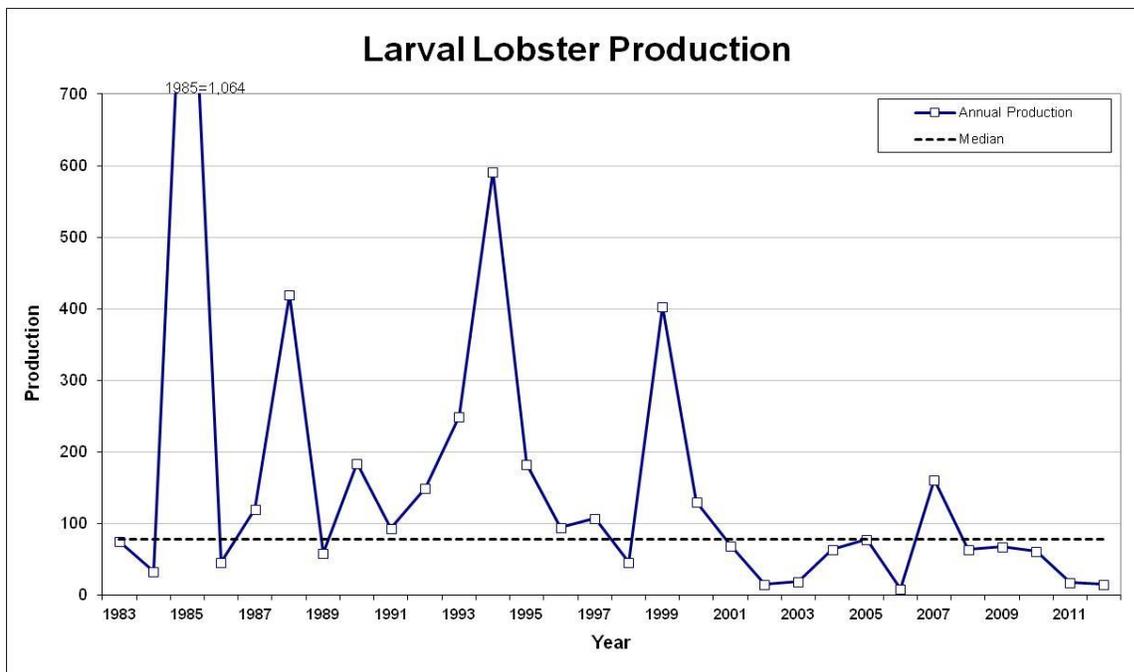


Figure 5. CT DEEP Larval Lobster Survey time series.

Ventless Trap Survey

To address a need for a reliable index of lobster recruitment, a cooperative random stratified ventless trap survey was designed to generate accurate estimates of the spatial distribution of lobster length frequency, lobster relative abundance while attempting to limit the biases identified in conventional fishery dependent surveys. In the past, fishery-dependent trap sampling data have not been included in generating relative abundance indices for the American lobster due to

associated bias with the data collection method. In order to collect unbiased data, a fishery-independent survey, wherein scientists and contracted fishermen cooperatively collect the data, will provide greater control over the sampling design and data quality and quantity necessary to maintain a stratified sampling approach.

A random-stratified sampling design was applied to nearshore statistical areas from Maine to New York. The survey was a cooperative effort between state fisheries agencies and commercial lobstermen, who were contracted to fish at pre-determined sampling locations along the New England coast from Maine to New York. Each statistical area was assigned three depth strata (1-20 m, 21- 40 m and 41-60 m).

Maine: Since 2007, Maine coastal waters have been sampled, dividing the three statistical areas (511, 512 and 513) into eight stations for each depth of three strata (Figure 6). 2012 marked the seventh year of this survey, with traps being set from June – August. The 2012 catch rates were at the time series high all three statistical areas (511 - Schoodic east, 512 - Muscongus Bay to Mount Desert Island, and 513 - MA to Pemaquid Point).

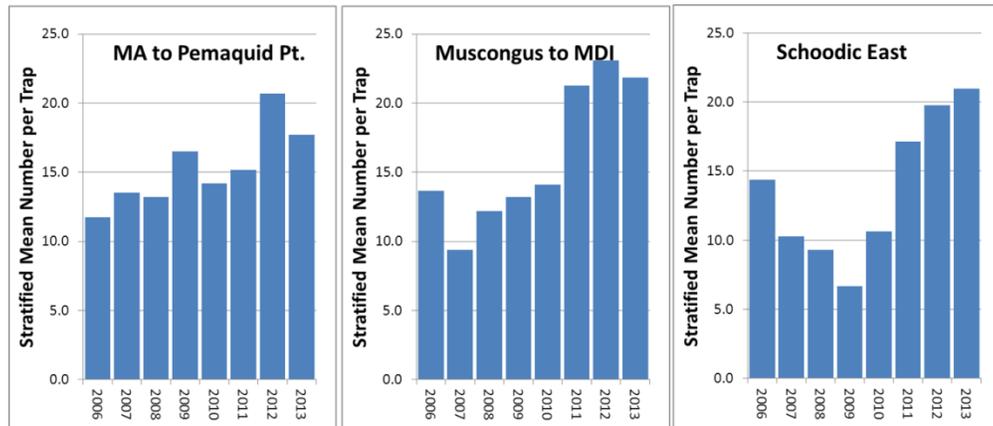


Figure 6. Maine’s stratified ventless trap catch rates by Statistical Area for 2006-2013 (all sizes).

New Hampshire: Since 2009, NHF&G has been conducting the coastwide Random Stratified Ventless Trap Survey in state waters (statistical area 513). New Hampshire follows the standardized coastwide procedures for this survey. A total of three sites were surveyed twice a month from June through September in 2012. Catch per unit effort (stratified mean catch per trap haul) from 2009 through 2012 is presented in Table 4. The relative abundance indices associated with this survey shows a general upward trend from 2009 through 2012.

| Year | Stratified mean catch per trap |
|------|--------------------------------|
| 2009 | 6.9 |
| 2010 | 9.2 |
| 2011 | 13.9 |
| 2012 | 13.8 |

Table 4. Stratified mean catch/trap haul, for all lobsters captured during the coastwide Random Stratified Ventless Trap Survey in New Hampshire state waters from 2009-2012.

Massachusetts: The coast-wide ventless trap survey was initiated in 2006 and expanded in 2007. Each station was sampled with a six pot trawl in which vented and ventless lobster traps were alternated (3 of each per trawl). The survey took place from June through September in statistical areas 514 and 538, and stations were sampled twice monthly. For 2011 and 2012 the Southern New England portion of the survey was expanded into Federal waters of Area 538, and into the northern-most section of Area 537.

Figure 7 shows the stratified mean CPUE for lobsters in S.A. 514 (part of LCMA 1). The average catch of sublegal lobsters is much higher than the catch of legal-sized lobsters, and has shown an increasing trend since 2007, particularly in the last two years. The catch of legal-sized lobsters was slightly higher in 2012 than any other year in the time series. For most of the time series the CPUE of legal-sized lobsters has varied around the time series mean of 0.52 lobsters per trap.

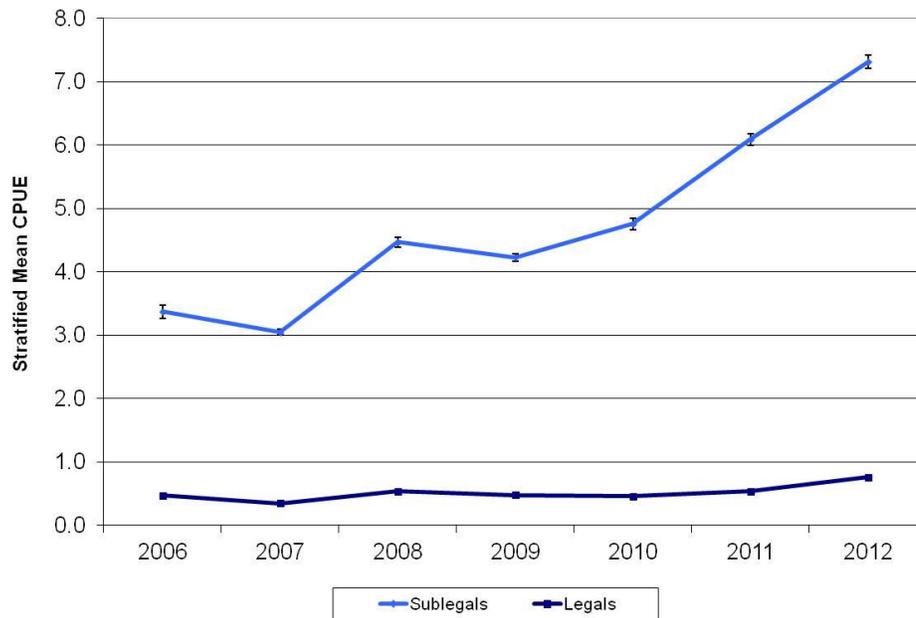


Figure 7. Stratified mean catch per trap haul (\pm S.E.) of sublegal (< 83 mm, light colored line) and legal (\geq 83 mm, dark line) lobsters in Area 514 in Massachusetts.

Figure 8 shows the stratified mean CPUE for lobsters in statistical area 538 (part of LCMA 2). The average catch of sublegal lobsters is again higher than the catch of legal-sized lobsters, and generally declined through 2010. In 2011 and 2012, sublegal CPUE increased, although this may in part be related to the expansion of the survey area to regions outside Buzzards Bay, where thermal conditions may be more tolerable. The legal-size CPUE has also slightly increased since 2010, but has remained below 0.5 all throughout the time series, with the lowest value observed in 2008 (0.11).

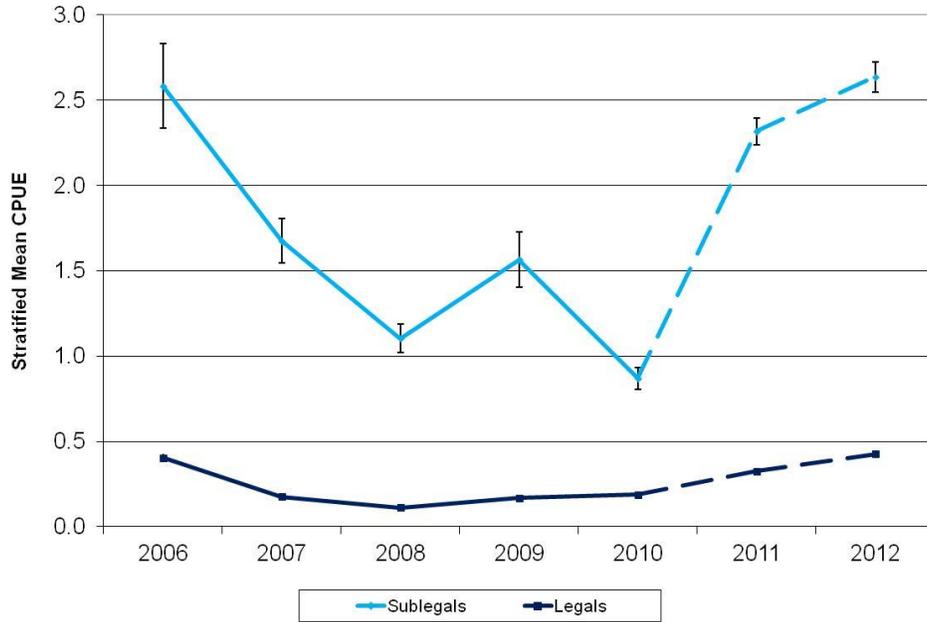


Figure 8. Stratified mean catch per trap haul (\pm S.E.) of sublegal (< 86 mm, light colored line) and legal (≥ 86 mm, dark line) lobsters in LCMA 538 in Massachusetts. Dashed lines represent the time period when the survey was expanded.

Rhode Island: The Ventless Trap Survey (VTS) was conducted June to August, completed a total of 18 survey sampling trips, and sampled a total of 3,616 lobsters from 834 trap-hauls (Figure 9). All sampling was conducted in LCMA 2 (Statistical Area 539).

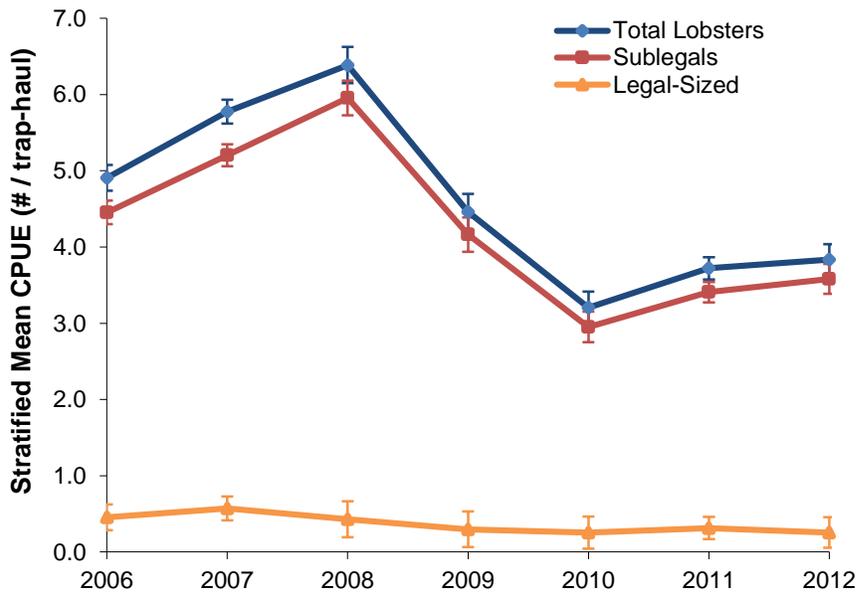


Figure 9. Stratified mean catch (#) per trap-haul (\pm SE) for sublegal (≤ 85 mm CL), legal-sized (> 86 mm CL), and all lobsters in Rhode Island's VTS.

V. Status of Management Measures and Issues

Amendment 3 established management measures that require coastwide and area specific measures applicable to commercial fishing. The coastwide requirements are summarized in Table 5.

Table 5. 2012 coastwide requirements and prohibited actions

- Prohibition on possession of berried or scrubbed lobsters
- Prohibition on possession of lobster meats, detached tails, claws, or other parts of lobsters by fishermen
- Prohibition on spearing lobsters
- Prohibition on possession of v-notched female lobsters
- Requirement for biodegradable “ghost” panel for traps
- Minimum gauge size of 3-1/4”
- Limits on landings by fishermen using gear or methods other than traps to 100 lobsters per day or 500 lobsters per trip for trips 5 days or longer
- Requirements for permits and licensing
- All lobster traps must contain at least one escape vent with a minimum size of 1-15/16” by 5-3/4”
- Maximum trap size of 22,950 cubic inches in all areas except area 3, where traps may not exceed a volume of 30,100 cubic inches.

Amendment 3 to the Interstate Fishery Management Plan for American Lobster (December 1997)

American lobster is managed under Amendment 3 to the Interstate FMP for American Lobster. I

Amendment 3 establishes seven lobster management areas. These areas include the: Inshore Gulf of Maine (Area 1), Inshore Southern New England (Area 2), Offshore Waters (Area 3), Inshore Northern Mid-Atlantic (Area 4), Inshore Southern Mid-Atlantic (Area 5), New York and Connecticut State Waters (Area 6), and Outer Cape Cod. Lobster Conservation Management Teams (LCMTs), composed of industry representatives, were formed for each management area. The LCMTs are charged with advising the Lobster Board and recommending changes to the management plan within their areas.

Amendment 3 also provides the flexibility to respond to current conditions of the resource and fishery by making changes to the management program through addenda.

The commercial fishery is primarily controlled through minimum/maximum size limits, trap limits, and v-notching of egg-bearing females.

Addendum I (August 1999)

Establishes trap limits in the seven lobster conservation management areas (LMCAs)

Addendum II (February 2001)

Establishes regulations for increasing egg production through a variety of LCMT proposed management measures including, but not limited to, increased minimum gauge sizes in Areas 2, 3, 4, 5, and the Outer Cape.

Addendum III (February 2002)

Revises management measures for all seven LCMAs in order to meet the revised egg-rebuilding schedule.

Technical Addendum 1 (August 2002)

Eradicates the vessel upgrade provision for Area 5.

Addendum IV (January 2004)

Changes vent size requirements; applies the most restrictive rule on an area trap cap basis without regard to the individual's allocation; establishes Area 3 sliding scale trap reduction plan and transferable trap program to increase active trap reductions by 10%; and establishes an effort control program and gauge increases for Area 2; and a desire to change the interpretation of the most restrictive rule.

Addendum V (March 2004)

Amends Addendum IV transferability program for LCMA 3. It establishes a trap cap of 2200 with a conservation tax of 50% when the purchaser owns 1800 to 2200 traps and 10% for all others.

Addendum VI (February 2005)

Replaces two effort control measures for Area 2 – permits an eligibility period

Addendum VII (November 2005)

Revises Area 2 effort control plan to include capping traps fished at recent levels and maintaining 3 3/8" minimum size limit

Addendum VIII (May 2006)

Establishes new biological reference points to determine the stock status of the American lobster resource (fishing mortality and abundance targets and thresholds for the three stock assessment areas) and enhances data collection requirements.

Addendum IX (October 2006)

Establishes a 10% conservation tax under the Area 2 trap transfer program

Addendum X (February 2007)

Establishes a coastwide reporting and data collection program that includes dealer and harvester reporting, at-sea sampling, port sampling, and fishery-independent data collection replacing the requirements in Addendum VIII.

Addendum XI (May 2007)

Establishes measures to rebuild SNE stock, including a 15-year rebuilding timeline (ending in 2022) with a provision to end overfishing immediately. The Addendum also establishes

measures to discourage delayed implementation of required management measures.

Amendment 4

In 2000, the Lobster Board considered and failed to approve Amendment 4 to the FMP. The Amendment proposed allowing conservation equivalency be applied to two provision of Amendment 3- limits on non-trap gear and a prohibition on the possession of v-notched lobsters. The v-notch proposal, in particular, arose out of an effort to resolve ongoing litigation brought by fishermen challenging the validity of the Commission's fishery management plan.

Addendum XII (February 2009)

This addendum addresses issues that arise when fishing privileges are transferred, either when whole businesses are transferred, when dual state/federal permits are split, or when individual trap allocations are transferred as part of a trap transferability program. In order to ensure that the various LCMA-specific effort control plans remain cohesive and viable this addendum does three things: First, it clarifies certain foundational principles present in the Commission's overall history-based trap allocation effort control plan. Second, it redefines the most restrictive rule. Third, it establishes management measures to ensure that history-based trap allocation effort control plans in the various LCMAs are implemented without undermining resource conservation efforts of neighboring jurisdictions or LCMAs.

Addendum XIII (May 2008)

Solidifies the transfer program for OCC and stops the current trap reductions.

Addendum XIV (May 2009)

This addendum alters 2 aspects of the LCMA 3 trap transfer program. It lowers the maximum trap cap to 2000 for an individual that transfers traps. It changes the conservation tax on full business sales to 10% and for partial trap transfers to 20%.

Addendum XV (November 2009)

This addendum establishes a limited entry program and criteria for Federal waters of lobster conservation management area 1.

Addendum XVI: Reference Points (May 2010)

This addendum establishes new biological reference points to determine the stock status of the American lobster resource (fishing mortality and abundance targets and thresholds for the three stock assessment areas). The addendum also modifies the procedures for adopting reference points to allow the Board to take action on advice follow a peer reviewed assessment.

Addendum XVII (February 2012)

This addendum establishes a 10% reduction in exploitation for LCMA within Southern New England (2, 3, 4, 5, and 6). Regulations are LCMA specific but include v notch programs, closed seasons, and size limit changes. While approved, the addendum is not final until the inclusion of LCMA 6 plan.

Addendum XVIII (August 2012)

This addendum reduced traps allocated by 50% for LCMA 2 and 25% for LCMA 3.

Table 6. 2012 LCMA specific management measures

| Mgmt Measure | Area 1 | Area 2 | Area 3 | Area 4 | Area 5 | Area 6 | OCC |
|---------------------------------|--------------------------|--|---|---|---|---|---|
| Min Gauge Size | 3 1/4" | 3 3/8" | 3 1/2" | 3 3/8" | 3 3/8" | 3 3/8" | 3 3/8" |
| Vent Rect. | 1 15/16 x 5 3/4" | 2 x 5 3/4" | 2 1/16 x 5 3/4" | 2 x 5 3/4" | 2 x 5 3/4" | 2 x 5 3/4" | 2 x 5 3/4" |
| Vent Cir. | 2 7/16" | 2 5/8" | 2 11/16" | 2 5/8" | 2 5/8" | 2 5/8" | 2 5/8" |
| V-notch requirement | Mandatory for all eggers | Mandatory for all legal size eggers June 1, 2012 | Mandatory for all eggers above 42°30' | Mandatory for all eggers July 1, 2012 | None | None | None |
| V-Notch Definition (possession) | Zero Tolerance | 1/8" with or w/out setal hairs ¹ | 1/8" with or w/out setal hairs ¹ | 1/8" with or w/out setal hairs ¹ | 1/8" with or w/out setal hairs ¹ | 1/8" with or w/out setal hairs ¹ | State Permitted fisherman in state waters 1/4" without setal hairs Federal Permit holders 1/8" with or w/out setal hairs ¹ |
| Max. Gauge (male & female) | 5" | 5 1/4" | 6 3/4" | 5 1/4" | 5 1/4" | 5 1/4" | State Waters none Federal Waters 6 3/4" |
| Measures to change in 2013 | | | | | | | |
| Min Gauge size | | | 3 17/32" Jan 1, 2013 | | | | |
| V-notch requirement | | | | | Mandatory for all eggers Jan 1, 2013 | | |
| Season Closure | | | | Feb 1- Mar 31, 2013 | Feb 1- Mar 31, 2013 | | |

VI. Current State-by-State Implementation per Compliance Requirements

All states are currently in compliance with all required measures under Amendment 3 and Addendum I-XVIII.

VII. De Minimis requests.

The states of Virginia, Maryland, and Delaware have requested de minimis status. Virginia and Delaware meet the de minimis requirement. The current two year average of lobster harvest for Maryland exceeds the *de minimis* threshold, but it is the first occurrence of this since the *de minimis* guidelines were established in Addendum I (1999). Maryland is currently taking action to address this issue.

The PRT recommends that the states implement all biological measures contained in the FMP. The PRT recommends the states conduct biological sampling of their lobster fishery to improve the stock assessment but not require sampling. *De minimus* states are required to collect harvest annual harvest data, but the PRT recommends harvest data is collected monthly for use in the stock assessment.

VIII. Recommendations and Issues

The following are issues the Plan Review Team would like to raise to the Board as well as general recommendations:

1. With the decline of resources for data collection program and the need for development of consistent techniques to monitor distribution and abundance of lobster, the PRT recommends that a regional data collection program be implemented. A regional initiative would streamline state and regional programs and provide consistent information for assessment use.
2. PRT recommends the ASMFC socioeconomic subcommittee evaluate the socioeconomic data being collected by states and determine what additional data should be collected in order to provide more robust evaluations of management changes. The development of the trap transfer programs will also have significant impacts on the lobster fishery. The PRT recommends the socioeconomic subcommittee recommend specific data that should be collected as transfers occur in-order to provide reports to the board on socioeconomic impacts of transfers once the program begins.
3. The PRT encourages the full implementation of data collection programs to lobster management. The PRT recommends that all states implement 100% harvester and dealer programs as outlined in Addendum X.
4. The PRT encourages state and federal jurisdictions to continue to work cooperatively to achieve the goals of the FMP.
5. The PRT recommends the TC explore oceanographic and climate change impacts on lobster stock, including lobster productivity.
6. The PRT recommend that states add to the annual compliance report the number of permits issued and number of those permits that are active by state and LCMA (and zone for ME).



Atlantic States Marine Fisheries Commission

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MEMORANDUM

October 22, 2014

To: Summer Flounder, Scup, and Black Sea Bass Management Board
From: Kirby Rootes-Murdy, FMP Coordinator
RE: Summer Flounder, Scup, and Black Sea Bass Recreational Harvest Update through Wave 4

NOAA's Marine Recreational Information Program (MRIP) released 2014 preliminary harvest estimates through Wave (W) 4 (January 1-August 30) for summer flounder, scup, and black sea bass. The data will be the basis for the discussion at the board meeting next week in Mystic, Connecticut.

Summer Flounder

Tables 1 and 2 provide updates of coastwide 2014 summer flounder preliminary harvest estimates relative to 2013 (W 1-4). Harvest in numbers of fish is down approximately 3.2% at 2,421,720 fish compared to 2,501,639 fish in 2013. The 2014 recreational harvest limit (RHL) is 7.01 million pounds or approximately 2,421,720 fish, approximately 89% of which has already been harvested.

Table 1. 2014 preliminary coastwide MRIP recreational harvest estimates (A+B1) for summer flounder (in numbers of fish).

| Year | Harvest through wave 4 | RHL | Percent of RHL |
|-----------------------|------------------------|-----------|----------------|
| 2013 | 2,188,967 | 2,501,639 | 87.50% |
| 2014 | 2,173,374 | 2,421,720 | 89.75% |
| Percent Change | -0.7 | -3.2 | 2.6 |

Table 2. 2014 preliminary coastwide MRIP recreational harvest estimates (A+B1) for summer flounder (in pounds).

| Year | Harvest through wave 4 | RHL (millions of lbs) | Percent of RHL |
|-----------------------|------------------------|-----------------------|----------------|
| 2013 | 6,385,063 | 7.63 | 83.68% |
| 2014 | 6,654,758 | 7.01 | 94.93% |
| Percent Change | 4.2 | -8.1 | 13.4 |

In February 2014, the Board approved the use of adaptive regional management measures for recreational summer flounder fishery (Table 3). In using this approach, regions crafted similar management measures, that when combined with other regions, would constrain the coastwide harvest to the RHL. Table 4 provides preliminary estimates of regional harvest through Wave 4, as well as the percentage harvested relative to the technical committee projected 2014 regional harvests presented in February 2014.

Table 3. 2014 Summer flounder recreational regional management measures

| State | Minimum Size (inches) | Possession Limit | Open Season |
|--|-----------------------|------------------|------------------------------------|
| Massachusetts | 16 | 5 fish | May 22-September 30 |
| Rhode Island | 18 | 8 fish | May 1-December 31 |
| Connecticut | 18 | 5 fish | May 17- September 21 |
| CT Shore Program (45 designed shore sites) | 16 | | |
| New York | 18 | 5 fish | May 17- September 21 |
| New Jersey | 18 | 5 fish | May 23- September 27 |
| NJ pilot shore program 1 site | 16 | 2 fish | Tentatively May 23-September 27 |
| Delaware | 16 | 4 fish | January 1- December 31 |
| Maryland | 16 | 4 fish | January 1- December 31 |
| PRFC | 16 | 4 fish | January 1- December 31 |
| Virginia | 16 | 4 fish | January 1- December 31 |
| North Carolina | 15 | 6 fish | January 1- December 31 |

Table 4. 2014 preliminary MRIP recreational harvest (A+B1) estimates through Wave 4 for summer flounder (in numbers of fish) by region.

| Regions | MASSACHUSETTS | RHODE ISLAND | CONNECTICUT-NEW JERSEY | DELAWARE-VIRGINIA | NORTH CAROLINA |
|---------------------------------------|---------------|--------------|------------------------|-------------------|----------------|
| Preliminary regional total (W 1-4) | 113,993 | 181,368 | 1,634,525 | 219,273 | 24,215 |
| Projected regional Total | 32,936 | 126,724 | 1,793,823 | 312,110 | 45,936 |
| Harvest as percent of projected total | 346.1 | 143.1 | 91.1 | 70.3 | 52.7 |

Scup

Table 5. 2014 preliminary MRIP recreational harvest (A+B1) estimates through Wave 4 for scup (in numbers of fish).

| Year | MASSACHUSETTS | RHODE ISLAND | CONNECTICUT | NEW YORK | NEW JERSEY | DELAWARE | VIRGINIA | NORTH CAROLINA | Grand Total |
|----------------|---------------|--------------|-------------|----------|------------|----------|----------|----------------|-------------|
| 2013 | 1,729,650 | 515,844 | 347,976 | 679,229 | 318* | 0 | 1,243 | 375* | 3,274,635 |
| 2014 | 1,126,207 | 682,149 | 244,579 | 800,055 | 0 | 145* | 0 | 419* | 2,853,554 |
| Percent Change | -34.9 | 32.2 | -29.7 | 17.8 | -100.0 | - | -100.0 | 11.7 | -12.9 |

*Proportional standard error (PSE) higher than 50, indicating a very imprecise estimate

Black Sea Bass

Tables 6 and 7 provide 2014 black sea bass preliminary harvest estimates by state relative to 2013 (W 1-4). Coastwide harvest in numbers of fish has increased approximately 42% at 1,198,238 fish compared to 846,892 fish in 2013. The 2014 RHL is 2.26 million pounds

or approximately 1,170,984 fish. Harvest estimates through wave 4 has exceeded the RHL by 2%. All states current recreational regulations allow for the continued harvest of black sea bass (season closures vary by state from September 21 to December 31, see Table 8). Table 9 provides a comparison of the harvest estimates by region.

Table 6. 2014 preliminary MRIP recreational harvest (A+B1) estimates through Wave 4 for black sea bass (in numbers of fish).

| Year | MASSACHUSETTS | RHODE ISLAND | CONNECTICUT | NEW YORK | NEW JERSEY | DELAWARE | MARYLAND | VIRGINIA | NORTH CAROLINA | Coastwide Harvest |
|-----------------------|---------------|--------------|-------------|----------|------------|----------|----------|----------|----------------|-------------------|
| 2013 | 177,312 | 45,285 | 96,490 | 247,725 | 228,257 | 22,277 | 8,197 | 12,310 | 9,039 | 846,892 |
| 2014 | 331,082 | 108,329 | 163,030 | 267,387 | 311,394 | 11,721 | 349 | 4,339 | 607 | 1,198,238 |
| Percent Change | 86.7 | 139.2 | 69.0 | 7.9 | 36.4 | -47.4 | -95.7 | -64.8 | -93.3 | 41.5 |

Table 7. 2014 preliminary MRIP recreational harvest (A+B1) estimates through Wave 4 for black sea bass (in pounds).

| Year | MASSACHUSETTS | RHODE ISLAND | CONNECTICUT | NEW YORK | NEW JERSEY | DELAWARE | MARYLAND | VIRGINIA | NORTH CAROLINA | Coastwide Harvest |
|-----------------------|---------------|--------------|-------------|----------|------------|----------|----------|----------|----------------|-------------------|
| 2013 | 411,201 | 96,147 | 232,709 | 535,503 | 332,348 | 26,710 | 10,834 | 19,544 | 17,443 | 1,682,439 |
| 2014 | 866,409 | 210,449 | 244,222 | 529,908 | 435,008 | 16,070 | 466 | 5,759 | 455 | 2,308,746 |
| Percent Change | 110.7 | 118.9 | 4.9 | -1.0 | 30.9 | -39.8 | -95.7 | -70.5 | -97.4 | 37.2 |

Table 8. 2014 Black sea bass state-by-state recreational management measures

| State | Minimum Size (inches) | Possession Limit | Open Season |
|--|-----------------------|------------------|--|
| New Hampshire | 13 | 10 fish | January 1-December 31 |
| Massachusetts | 14 | 8 fish | May 17-September 15 |
| MA For-Hire vessels with DMF Letter of Authorization | 14 | 8 fish | May 17-May 31 |
| | | 20 fish | September 1-September 30 |
| Rhode Island | 13 | 3 fish | June 29- August 31 |
| | | 7 fish | September 1-December 31 |
| Connecticut (Private & Shore) | 13 | 3 fish | June 21-August 31 |
| | | 8 fish | September 1-December 31 |
| CT Authorized Party/Charter Monitoring Program Vessels | 13 | 8 fish | June 21-December 31 |
| New York | 13 | 8 fish | July 15-December 31 |
| New Jersey | 12.5 | 3 fish | July 1-August 31 |
| | | 15 fish | May 19-June 30; September 1- 6; October 18-December 31 |
| Delaware | 12.5 | 15 fish | May 19-September 21; October 18-December 31 |
| Maryland | 12.5 | 15 fish | May 19-September 21; October 18-December 31 |
| Virginia | 12.5 | 15 fish | May 19-September 21; October 18-December 31 |
| North Carolina, North of Cape Hatteras (N of 35° 15'N) | 12.5 | 15 fish | May 19-September 21; October 18-December 31 |

Table 9. 2014 preliminary MRIP recreational harvest (A+B1) estimates through Wave 4 for black sea bass (in numbers of fish) by region.

| Year | Northern Region (MA-NJ) | Southern Region (DE-NC) | Coastwide Harvest |
|---------------------------|------------------------------------|------------------------------------|------------------------------|
| 2013 | 795,069 | 51,823 | 846,892 |
| 2014 | 1,181,222 | 17,016 | 1,198,238 |
| Percent Change | 48.6 | -67.2 | 41.5 |



Atlantic States Marine Fisheries Commission

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MEMORANDUM

October 20, 2014

To: Summer Flounder, Scup, and Black Sea Bass Management Board
From: Tina Berger, Director of Communications
RE: Advisory Panel Nominations

Please find attached several new nominations to the combined Advisory Panel for Summer Flounder, Scup, and Black Sea Bass. They are:

Rhode Island

Michael Plaia, recreational/commercial/for-hire, targeting all 3 species
Frank Blount, Jr., recreational/commercial/for-hire, targeting all 3 species
Michael Hall, a commercial offshore trawler, targeting all 3 species
Aaron Gewirtz, a commercial inshore gillnetter, targeting all 3 species
Travis Barao, a recreational angler targeting summer flounder and black sea bass

Connecticut

Kyle Douton, a tackle shop owner and for-hire operator

Delaware

P. Wes Townsend, a commercial pot fisherman, targeting black sea bass
Clark Evans, a recreational angler and bait and tackle owner, targeting summer flounder
Michael Hynson, a recreational angler, targeting all 3 species

Maryland

John Martin, a dealer/processor
Allen "Buddy" Seigel, a recreational angler, targeting summer flounder and black sea bass

Virginia

Steven Wray, a bait and tackle owner and for-hire operator, targeting summer flounder and black sea bass
Meade Amory, a commercial trawler, targeting all 3 species
Dr. Ken Neill, a recreational angler, targeting all 3 species

North Carolina

Michael "Jimbo" Ireland, a commercial offshore trawler, targeting all 3 species

In addition to the new nominees, several states/jurisdictions have confirmed the appointment of longstanding AP members. Those names are provided in the attached. All highlighted names await confirmation or replacement by the states/jurisdictions.

Regarding nontraditional stakeholders, staff recommends maintaining Michael Fedosh and Roman Jesien as AP representatives based on their continued interest and active participation in our AP process.

Please review these nominations for action at the next Board meeting. If you have any questions, please feel free to contact me at (703) 842-0749 or tberger@asmfc.org.

Enc.

cc: Kirby Rootes-Murdy

Summer Flounder, Scup, and Black Sea Bass Advisory Panel Representation (Updated as of 10.22.2014)

| <u>State</u> | <u>Atlantic States Marine Fisheries Comission AP</u> <u>Members</u> | <u>Mid Atlantic Fisheries Management Council AP</u> <u>Members</u> |
|--------------|--|---|
| MA | Rodney Avila-(comm./offshore; targets both scup/sf) | Willy Hatch - commercial |
| MA | Joseph Huckemeyer (party/charter; targets both scup/sf) | |
| MA | James Tietje -(charterboat; targets both scup and BSB) | |
| RI | Michael Plaia - (rec/comm/for-hire; targets all 3 species) | Rick Bellavance - For Hire |
| RI | Frank W. Blount, Jr. (rec/comm/for-hire; targets all 3 species) | A. Ross Pearsall - proce |
| RI | Michael Hall (comm trawl offshore; targets all 3 species) | |
| RI | Aaron Gewirtz (comm gillnet inshore; targets all 3 species) | |
| RI | Travis Barao (rec; targets SF and BSB) | |
| CT | John (Jack) Conway (rec; targets SF) | |
| CT | Kyle Douton (for-hire/tackle shop owner; targets all 3 species) | |
| NY | Bob Busby (party/charter; targets SF) | Joseph Sciabarra - processor/marketer |
| NY | Paul Forsberg (party/charter; targets scup) | Steven Witthuhn - for-hire |
| NY | Mark Hoffman (recreational; targets BSB) | |
| NY | John Davi (commercial trap & trawl; targets scup) | |
| NY | John Richy (recreational; targets scup) | |
| NY | John Goncharuk (commercial; targets SF and BSB) | |
| NY | Paul Risi (party/charter; targets SF) | |
| NJ | James R. Lovgren (comm; targets all 3 species) | |
| NJ | Greg DiDomenico (commercial offshore; targets all 3 | |
| NJ | Robert Meimbresse (for-hire; targets SF) | Carl Benson - commercial |
| NJ | Bill Shillingford (recreational) | Joan Berko - commercial |
| NJ | | James Cicchitti - recreational/for-hire |
| NJ | | Adam Nowalsky - for-hire |
| NJ | | Thomas Siciliano - recreational |
| DE | P. Wes Townsend (comm/pot; targets BSB) | |
| DE | Clark Evans (rec bait/tackle; targets SF) | |
| DE | Michael P. Hynson, III (rec; targets all 3 species) | |
| MD | Victor Bunting Jr. (for-hire; targets BSB) | Monty Hawkins - for-hire |
| MD | John R. Martin (dealer/processor) | |
| MD | Allen "Buddy" Seigel (rec; targets SF and BSB) | |
| VA | Mark Hodges (comm/pot; targets BSB) | Robert Allen - recreational |

| | | |
|--|---|---|
| VA | Steven Wray (for-hire/bait & tackle; targets SF & BSB) | Harry Doernte - commercial |
| VA | | C. Meade Amory (comm trawl; targets all 3 species) |
| VA | Dr. Ken Neill, III (rec; targets all 3 species) | Denny Dobbins - for-hire |
| VA | | Skip Feller - for-hire |
| NC | Michael "Jimbo" Ireland (comm trawl offshore; targets all 3 species) | James Fletcher - commercial org |
| PRFC | John Dean (comm; targets SF) | |
| PRFC | Dandridge C. Crabbe (charterboat; targets SF) | |
| ASMFC Nontraditional † Michael S. Fedosh (varied background; SF interest) | | |
| ASMFC Nontraditional † Michelle Doran McBean (habitat; SF interest) | | |
| ASMFC Nontraditional † Howard Rothweiler (sport diver; BSB interest) | | |
| ASMFC Nontraditional † Roman Jesien (habitat; BSB interest) | | |

| |
|---------------------------------|
| ASMFC AP Reps (Total Count)= 35 |
| MAFMC AP Reps (Total Count)= 18 |

| |
|---|
| Bolded names await Board review and approval |
| Highlighted names await confirmation or |
| Serves on Both MAFMC & ASMFC Advisory Panels |

Summer Flounder, Scup and Black Sea Bass Advisory Panel

Bolded names await Board review and approval

Highlighted names await confirmation or replacement by state delegations

10/20/2014

Maine

New Hampshire

Massachusetts

Rodney Avila (comm./offshore; targets both scup/sf)

369 Belair Street

New Bedford, MA 02745

Phone: (508) 998-1659

rodavila@comcast.net

Appt. Confirmed 5/9/07

- Never attended a meeting

Joseph Huckemeyer (party/charter; targets both scup/sf)

137 Pleasnat Street

Hyannis, MA 02601

Phone (day): (508)790-0660

Phone (eve): (508)428-4029

FAX: (508)790-1321

Email: Joseph@cape.com

Appt. Confirmed 5/9/07

- Good attendance

James Tietje (charterboat; targets both scup and BSB)

227 Clinton Avenue.

Falmouth, MA 02540

Phone (day): (508)548-2626

FAX: (508)548-1569

Email: patriottoo@aol.com

Appt. Confirmed 5/30/96

Appt. Reconfirmed 9/15/00

Appt. Reconfirmed: 3/20/07

- Good attendance; would like to remain on panel

Rhode Island

Michael C. Plaia (rec/comm/for-hire; targets all 3 species)

119 Currituck Road

Newtown, CT 06470

Phone: 203.512.4280

Makomike333@yahoo.com

Frank W. Blount, Jr. (rec/comm/for-hire; targets all 3 species)

390 Bridgetown Road

Saunderstown, RI 02874

Phone (day): 401.783.4988

Phone (eve): 401.789.2374

FAX: 401.782.8520

francesflt@aol.com

Michael Hall (comm trawl offshore; targets all 3 species)

30 Old Richmond Townhouse Road

Carolina, RI 02812

Phone: 401.742.1353

Mikecapt1@cox.net

Aaron Gewirtz (comm gillnet inshore; targets all 3 species)

360 Pine Hill Road

Wakefield, RI 02879

Phone: 401.218.5764

NBF05@verizon.net

Travis Barao (rec; targets SF and BSB)

15 Gibbs Street

Rumford, RI 02916

Phone (day): 401.301.7944

Phone (eve): 401.270.7161

travisbarao@gmail.com

Connecticut

John (Jack) Conway (rec; targets SF)

34 Edward Road

North Branford, CT 06471

Email: JConway@sikorsky.com

Appt. Reconfirmed 9/14

Appt. Reconfirmed 10/17/14

Kyle Douton (for-hire/tackle shop owner; targets all 3 species)

5 Rockwell Street

Niantic, CT 06357

Phone (day): (860)739-7419

Phone (eve): (860)739-8899

FAX: (860)739-9208

kyle@jbtackle.com

New York

Bob Busby (party/charter; targets SF)
375 Burtis Place
PO Box 129
Peconic, NY 11958
Phone: (631)765-1768
Email: Rbusby@optonline.net
Appt. Confirmed 5/9/07
Appt. Reconfirmed 10/17/14

Paul Forsberg (party/charter; targets scup)

1133 Marina Drive
Tarpon Springs FL 34689
Email: Orlareville@yahoo.com
Appt. Confirmed 5/9/07
- Lives in FL part-time; has active for-hire business in NY
- Good attendance

Mark K. Hoffman (recreational; targets BSB)

140-A Union Avenue
Lynbrook, NY 11563
Phone: (516)887-8202
Phone (cell): (516)244-2146
FAX: (516)887-8113
MKHoffman@optonline.net
Appt. Confirmed 5/9/07
- Good attendance; would like to remain on the panel

John Davi (commercial trap & trawl; targets scup)

118 Crystal Brook Hollow Road
Port Jefferson Station, NY 11776-2030
Phone (day): (631)300-8527
Phone (eve): (631)331-6551
Email: CaptJohn63@yahoo.com
Appt. Confirmed 5/9/07
- Never attended a meeting

John Richy (recreational; targets scup)

Home: 4 Bradshaw Lane
Northport NY 11768
Work: Terminal Tackle, Inc.
120 Main St
Kings Park, NY 11757
Email: hooks@terminaltackleco.com
Appt. Confirmed 5/9/07
- Never attended a meeting

John Goncharuk (commercial; targets SF and BSB)

39 Cranford Boulevard
Mastic, NY 11950
Phone: (516)281-8390
Appt. Confirmed 5/9/07
- Never attended a meeting

New Jersey

James R. Lovgren (comm; targets all 3 species)
17 Laurelhurst Drive
Bricktown, NJ 08724
Phone (day): (732)899-1872
Phone (eve): (732)840-9560
FAX: (732)840-4496
Appt. Reconfirmed 10/14

Greg DiDomenico (commercial offshore; targets all 3 species)

1636 Delaware Avenue
Cape May, NJ 08204
Phone: (609)675-0202
FAX: (609)898-6070
Email: gregdi@voicenet.com
Appt. Reconfirmed 10/14

Robert Meimbresse (for-hire; targets SF)

179 Mudjekeewis Trail
Medford Lakes, NJ 08055
Appt. Confirmed 5/9/07
Email: Captbob626@comcast.net
Appt. Reconfirmed 10/14

Bill Shillingford (recreational)

20 Pinewood Court
Swainton, NJ 08210
Phone: (609)287-4689
Appt. Confirmed 5/9/07
Email: BUCKTAIL8@aol.com
Appt. Reconfirmed 10/14

Delaware

P. Wes Townsend (comm/pot; targets BSB)

PO Box 207
Dagsboro, DE 19939
Phone: 302.542.1150
Pakafish1@yahoo.com

Clark Evans (rec bait/tackle; targets SF)
406 Salt pond Road
Bethany Beach, DE 19930
Phone (day): 302.381.3859
Phone (eve): 302.539.1224
FAX: 302.227.1490
clark@oldinlet.com

Michael P. Hynson, III (rec; targets all 3 species)
13 Wicklow Road
Bear, DE 19701
Phone: 302.893.3507
FAX: 302.221.5620
phynson@dbs4pos.com

Maryland

Victor Bunting Jr. (for-hire; targets BSB)
11123 Bell Road
Whaleyville, MD 21872
Phone: 443.614.6484
Victorbunting@rocketmail.com
Appt. Confirmed 5/9/07
Appt. Reconfirmed 10/17/14

John R. Martin (dealer/processor)
106 North Church Street
Snow Hill, MD 21863
Phone: 443.365.3113
FAX: 410.213.1442
johnr@martinfishco.com

Allen "Buddy" Seigel (rec; targets SF and BSB)
1091 Ocean Parkway
Berlin, MD 21811
Phone (day): 443.340.2833
Phone (eve): 410.208. 3887
buddyscrn@gmail.com

Virginia

Mark Hodges (comm/pot; targets BSB)
2456 Bullock Trail
Virginia Beach, VA 23454-5219
Phone: (757) 463-5475
Email: mhodes@cox.net
Appt. Confirmed 5/9/07
Appt. Reconfirmed 10/17/14

Steven Wray (for-hire/bait & tackle; targets SF & BSB)
2109 West Great Neck Road, Suite 100
Virginia Beach, VA 23451
Phone: 757.237.7517
FAX: 757.481.4925
captstve@yahoo.com

C. Meade Amory (comm trawl; targets all 3 species)
101 South King Street
Hampton, VA 23669
Phone (day): 757.722.1915
Phone (eve): 757.876.6466
FAX: 757.723.1184
meade@amoryseafood.com

Dr. Ken Neill, III (rec; targets all 3 species)
117 Kenneth Drive
Seaford, VA 23696
Phone (day): 757.898.6832
Phone (eve): 757.890.2711
FAX: 757.890.0200
jackcrevelle@msn.com

North Carolina

Michael "Jimbo" Ireland (comm trawl offshore; targets all 3 species)
799 Ruth Drive
P.O Box 518
Aurora, NC 27806
Phone: 252.671.3621
FAX: 252.322.5695
Scallop55@embarqmail.com

PRFC

John Dean (comm; targets SF)
49925 Hays Beach Road
Scotland, MD 20687
Phone: 301.904.8078
Appt. Confirmed: 11/25/96
Appt. Reconfirmed 7/26/00
Appt. Reconfirmed 2/07
Appt. Reconfirmed 10/17/14

Dandridge C. Crabbe (charterboat; targets SF)
51 Railway Drive
Heathsville, VA 22473
Phone: 804.453.3251
Email: dcrabbe@crosslink.net

Appt. Confirmed 12/11/01
Appt. Reconfirmed 2/07
Appt. Reconfirmed 10/17/14

Nontraditional Stakeholders

Michael S. Fedosh (varied background; SF interest)
3 Church Street
Middletown, NJ 07748
Phone (day): (732)739-6444
Phone (eve): (732)671-8810
Email: mfedosh@accutechenvironmental.com
Appt. Confirmed 1/31/07
- Good attendance

Michelle Doran McBean (habitat; SF interest)
Elizabeth River/Arthur Kill Watershed
Association
1045 East Jersey Street
Elizabeth, NJ 07201
Phone (day): 908/659-0689
Phone (cell): 908/230-9126
FAX: 908/353-1511
Email: erakwatershed@yahoo.com
Appt. Confirmed 1/31/07
- '08 last meeting attended

Howard Rothweiler (sport diver; BSB interest)
99 15th Street
Toms River, NJ 08753
Phone (day): (732)984-6004
Phone (eve): (732)255-2865
Howardr35@aol.com
Appt. Confirmed 1/31/07
- '07 last meeting attended

Roman Jesien (habitat; BSB interest)
MD Coastal Bays Program
9919 Stephen Decatur Highway, Suite 4
Ocean City, MD 21842
Phone (day): 410-213-2297
Phone (evening): 410-228-5193
science@mdcoastalbays.org
Appt. Confirmed 1/31/07
- Good attendance



ATLANTIC STATES MARINE FISHERIES COMMISSION

Advisory Panel Nomination Form

This form is designed to help nominate Advisors to the Commission's Species Advisory Panels. The information on the returned form will be provided to the Commission's relevant species management board or section. Please answer the questions in the categories (All Nominees, Commercial Fisherman, Charter/Headboat Captain, Recreational Fisherman, Dealer/Processor, or Other Interested Parties) that pertain to the nominee's experience. If the nominee fits into more than one category, answer the questions for all categories that fit the situation. **Also, please fill in the sections which pertain to All Nominees (pages 1 and 2). In addition, nominee signatures are required to verify the provided information (page 4), and Commissioner signatures are requested to verify Commissioner consensus (page 4). Please print and use a black pen.**

Form submitted by: Robert Ballou State: RI
(your name)

Name of Nominee: Michael C. Plaia

Address: 119 Currituck Road

City, State, Zip: Newtown, CT 06470

Please provide the appropriate numbers where the nominee can be reached:

Phone (day): 203-512-4280

Phone (evening): 203-512-4280

FAX: _____

Email: makomike3333@yahoo.com

FOR ALL NOMINEES:

1. Please list, in order of preference, the Advisory Panel for which you are nominating the above person.

1. Summer flounder, black sea bass and scup
2. _____
3. _____
4. _____

2. Has the nominee been found in violation of criminal or civil federal fishery law or regulation or convicted of any felony or crime over the last three years?

yes _____ no X

3. Is the nominee a member of any fishermen's organizations or clubs?

yes _____ no X

If "yes," please list them below by name.

4. What kinds (species) of fish and/or shellfish has the nominee fished for during the past year?
- | | |
|------------------------|----------------------------------|
| <u>Summer Flounder</u> | <u>striped bass</u> |
| <u>Black Sea bass</u> | <u>Tunas (all local species)</u> |
| <u>Scup</u> | <u>Mako Shark</u> |

5. What kinds (species) of fish and/or shellfish has the nominee fished for in the past?
- All Local Species
- _____

FOR COMMERCIAL FISHERMEN:

1. How many years has the nominee been the commercial fishing business? 15 5-5 years
2. Is the nominee employed only in commercial fishing? yes no
3. What is the predominant gear type used by the nominee? Hook & Line
4. What is the predominant geographic area fished by the nominee (i.e., inshore, offshore)? both

FOR CHARTER/HEADBOAT CAPTAINS:

1. How long has the nominee been employed in the charter/headboat business? 15 years
2. Is the nominee employed only in the charter/headboat industry? yes no
- If "no," please list other type(s) of business(es) and/occupation(s): Accountant
3. How many years has the nominee lived in the home port community? 15 years
- If less than five years, please indicate the nominee's previous home port community.
- _____

FOR RECREATIONAL FISHERMEN:

1. How long has the nominee engaged in recreational fishing? 20 years
2. Is the nominee working, or has the nominee ever worked in any area related to the fishing industry? yes no

If "yes," please explain.

Owner and operator of a charter fishing business and a commercial fishing (Hook & Line) business.

FOR SEAFOOD PROCESSORS & DEALERS:

1. How long has the nominee been employed in the business of seafood processing/dealing? N/A years
2. Is the nominee employed only in the business of seafood processing/dealing?
yes N/A no N/A If "no," please list other type(s) of business(es) and/or occupation(s):

3. How many years has the nominee lived in the home port community? 15 years
If less than five years, please indicate the nominee's previous home port community.

FOR OTHER INTERESTED PARTIES:

1. How long has the nominee been interested in fishing and/or fisheries management? 15 years
2. Is the nominee employed in the fishing business or the field of fisheries management?
yes no

If "no," please list other type(s) of business(es) and/or occupation(s):

FOR ALL NOMINEES:

In the space provided below, please provide the Commission with any additional information which you feel would assist us in making choosing new Advisors. You may use as many pages as needed.

CURRENT ADVISOR TO ASMFC ON THE SUMMER FLOUNDER, BLACK SEA BASS AND SCUP ADVISORY PANELS.

CURRENT ADVISOR TO NEFMC ON THE RECREATIONAL ADVISORY PANEL.

Nominee Signature: *Michael C. Plaia*

Date: October 10, 2014

Name: Michael C. Plaia
(please print)

COMMISSIONERS SIGN-OFF (not required for non-traditional stakeholders)

Robert Balloy
State Director

State Legislator

Governor's Appointee

14017828520



ATLANTIC STATES MARINE FISHERIES COMMISSION

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Form submitted by: Francis W. Blant Jr. (via Robert Baller) State: Rhode Island
 (your name)

Name of Nominee: Francis W. Blant Jr.

Address: 390 Bridgetown Rd.

City, State, Zip: Saunderstown RI 02874

Please provide the appropriate numbers where the nominee can be reached:

Phone (day): 401 783-4988

Phone (evening): 401 789-2374

FAX: 401 782-8520

Email: Francesflthead.com

.....
FOR ALL NOMINEES:

1. Please list, in order of preference, the Advisory Panel for which you are nominating the above person.

1. Fluke, Sap, Seabass
2. Sap
3. Seabass
4. _____

2. Has the nominee been found in violation of criminal or civil federal fishery law or regulation or convicted of any felony or crime over the last three years?

yes _____ no X

3. Is the nominee a member of any fishermen's organizations or clubs?

yes X no _____

If "yes," please list them below by name.

14017828520

R.T.P.C.B.A.

R.I.S.A.A.

4. What kinds (species) of fish and/or shellfish has the nominee fished for during the past year?

Cod

Tartog

Fluke

Striped Bass, Bluefish

Seabass

Tuna

5. What kinds (species) of fish and/or shellfish has the nominee fished for in the past?

Pollock

Haddock

FOR COMMERCIAL FISHERMEN:

1. How many years has the nominee been the commercial fishing business? 25 years

2. Is the nominee employed only in commercial fishing? yes no X

3. What is the predominant gear type used by the nominee? Hand gear, Rod + Reel

4. What is the predominant geographic area fished by the nominee (i.e., inshore, offshore)? Both inshore + offshore

FOR CHARTER/HEADBOAT CAPTAINS:

1. How long has the nominee been employed in the charter/headboat business? 42 years

2. Is the nominee employed only in the charter/headboat industry? yes no X

If "no," please list other type(s) of business(es) and/occupation(s): Seafood Restaurant + Tackle Store

3. How many years has the nominee lived in the home port community? 55 years

If less than five years, please indicate the nominee's previous home port community.

14017828520

FOR RECREATIONAL FISHERMEN:

- 1. How long has the nominee engaged in recreational fishing? 45 years
- 2. Is the nominee working, or has the nominee ever worked in any area related to the fishing industry? yes no

If "yes," please explain.

Owns Capt's Tackle

FOR SEAFOOD PROCESSORS & DEALERS:

- 1. How long has the nominee been employed in the business of seafood processing/dealing? 104 years Northeast Federal Dealer Permit, #3288
- 2. Is the nominee employed only in the business of seafood processing/dealing?

yes no If "no," please list other type(s) of business(es) and/or occupation(s):

Francis Fleet Inc. - Party/head boat business
Capt's Tackle - Tackle + gift shop

- 3. How many years has the nominee lived in the home port community? 55 years

If less than five years, please indicate the nominee's previous home port community.

FOR OTHER INTERESTED PARTIES:

- 1. How long has the nominee been interested in fishing and/or fisheries management? 30 years
- 2. Is the nominee employed in the fishing business or the field of fisheries management? yes no

If "no," please list other type(s) of business(es) and/or occupation(s):

FOR ALL NOMINEES:

14017828520

In the space provided below, please provide the Commission with any additional information which you feel would assist us in making choosing new Advisors. You may use as many pages as needed.

Fisheries management is a delicate balance between protecting the ever changing ecosystem and the needs of industry and coastal communities. One must use personal experience, input from others and sound science in decision making. Managers must make sure that competing interests don't under-mind the goal of sustainable fisheries and economical viability of our coastal communities, for this generation and for generations to come.

I have over 20 years experience with Fishery Councils and advisory Panels. I am open minded to new ideas and work well with others.

Nominee Signature: Francis W. Blount Jr.

Date: 10/9/14

Name: Francis W. Blount Jr.
(please print)

COMMISSIONERS SIGN-OFF (not required for non-traditional stakeholders)

Robert Ballou
State Director

State Legislator

Governor's Appointee



ATLANTIC STATES MARINE FISHERIES COMMISSION

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Form submitted by: Robert Ballou State: Rhode Island
(your name)

Name of Nominee: Michael Hall

Address: 30 Old Richmond Townhouse Road

City, State, Zip: Carolina, RI 02812

Please provide the appropriate numbers where the nominee can be reached:

Phone (day): 401-742-1353

Phone (evening): 401-742-1353

FAX: _____

Email: mikecaptn1@cox.net

FOR ALL NOMINEES:

1. Please list, in order of preference, the Advisory Panel for which you are nominating the above person.

1. Fluke, Scup, & BSB
2. _____
3. _____
4. _____

2. Has the nominee been found in violation of criminal or civil federal fishery law or regulation or convicted of any felony or crime over the last three years?

yes _____ no XXX

3. Is the nominee a member of any fishermen's organizations or clubs?

yes _____ no XXX

If "yes," please list them below by name.

4. What kinds (species) of fish and/or shellfish has the nominee fished for during the past year?
squid _____ black sea bass _____
fluke _____ groundfish _____
scup _____

5. What kinds (species) of fish and/or shellfish has the nominee fished for in the past?
see #4 _____

FOR COMMERCIAL FISHERMEN:

1. How many years has the nominee been the commercial fishing business? 43 years
2. Is the nominee employed only in commercial fishing? yes xxx no _____
3. What is the predominant gear type used by the nominee? trawl net
4. What is the predominant geographic area fished by the nominee (i.e., inshore, offshore)? offshore

FOR CHARTER/HEADBOAT CAPTAINS:

1. How long has the nominee been employed in the charter/headboat business? _____ years
2. Is the nominee employed only in the charter/headboat industry? yes _____ no _____
If "no," please list other type(s)of business(es) and/occupation(s): _____

3. How many years has the nominee lived in the home port community? _____ years
If less than five years, please indicate the nominee's previous home port community.

FOR RECREATIONAL FISHERMEN:

1. How long has the nominee engaged in recreational fishing? _____ years
2. Is the nominee working, or has the nominee ever worked in any area related to the fishing industry? yes _____ no _____

If "yes," please explain.

FOR SEAFOOD PROCESSORS & DEALERS:

1. How long has the nominee been employed in the business of seafood processing/dealing? _____ years
2. Is the nominee employed only in the business of seafood processing/dealing?
yes _____ no _____ If "no," please list other type(s) of business(es) and/or occupation(s):

3. How many years has the nominee lived in the home port community? _____ years
If less than five years, please indicate the nominee's previous home port community.

FOR OTHER INTERESTED PARTIES:

1. How long has the nominee been interested in fishing and/or fisheries management? _____ years
2. Is the nominee employed in the fishing business or the field of fisheries management?
yes _____ no _____
If "no," please list other type(s) of business(es) and/or occupation(s):

FOR ALL NOMINEES:

In the space provided below, please provide the Commission with any additional information which you feel would assist us in making choosing new Advisors. You may use as many pages as needed.

Nominee Signature: Michael W Hall

Date: Oct 14 2014

Name: MICHAEL HALL
(please print)

COMMISSIONERS SIGN-OFF (not required for non-traditional stakeholders)

Robert Ballou
State Director

State Legislator

Governor's Appointee



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Form submitted by Aaron Gewirtz (via Robert Ballou) State Rhode Island (your name)

Name of Nominee: Aaron Gewirtz

Address: 360 Pine Hill Road

City, State, Zip: Wakefield, RI 02879

Please provide the appropriate numbers where the nominee can be reached:

Phone (day): 401-218-5764 Phone (evening): same

FAX: Email: NBF05@verizon.net

FOR ALL NOMINEES:

1. Please list, in order of preference, the Advisory Panel for which you are nominating the above person

- 1. Fluke, scup, and sea bass
2.
3.
4.

2. Has the nominee been found in violation of criminal or civil federal fishery law or regulation or convicted of any felony or crime over the last three years?

yes no X

3. Is the nominee a member of any fishermen's organizations or clubs?

yes noX X

If "yes," please list them below by name

4. What kinds (species) of fish and/or shellfish has the nominee fished for during the past year?

| | |
|-----------------|---------------------------|
| <u>Fake</u> | <u>Bluefish</u> |
| <u>Scup</u> | <u>Monkfish</u> |
| <u>Sea bass</u> | <u>Skates and dogfish</u> |

5. What kinds (species) of fish and/or shellfish has the nominee fished for in the past?

| | |
|----------------|-----------------|
| <u>Lobster</u> | <u>Herring</u> |
| <u>Squid</u> | <u>Cod</u> |
| <u>Whiting</u> | <u>Flounder</u> |

FOR COMMERCIAL FISHERMEN:

1. How many years has the nominee been the commercial fishing business? 17 years
2. Is the nominee employed only in commercial fishing? yes X no _____
3. What is the predominant gear type used by the nominee? Gillnet Gillnet
4. What is the predominant geographic area fished by the nominee (i.e., inshore, offshore)? inshore Inshore

FOR CHARTER/HEADBOAT CAPTAINS:

1. How long has the nominee been employed in the charter/headboat business? _____ years
2. Is the nominee employed only in the charter/headboat industry? yes _____ no _____
If "no," please list other type(s) of business(es) and/occupation(s) _____

3. How many years has the nominee lived in the home port community? _____ years
If less than five years, please indicate the nominee's previous home port community _____

FOR RECREATIONAL FISHERMEN:

1. How long has the nominee engaged in recreational fishing? _____ years
2. Is the nominee working, or has the nominee ever worked in any area related to the fishing industry? yes _____ no _____

If "yes," please explain.

FOR SEAFOOD PROCESSORS & DEALERS:

1. How long has the nominee been employed in the business of seafood processing/dealing? _____ years

2. Is the nominee employed only in the business of seafood processing/dealing?

yes _____ no _____ If "no," please list other type(s) of business(es) and/or occupation(s).

3. How many years has the nominee lived in the home port community? _____ years

If less than five years, please indicate the nominee's previous home port community.

FOR OTHER INTERESTED PARTIES:

1. How long has the nominee been interested in fishing and/or fisheries management? _____ years

2. Is the nominee employed in the fishing business or the field of fisheries management?
yes _____ no _____

If "no," please list other type(s) of business(es) and/or occupation(s)

FOR ALL NOMINEES:

In the space provided below, please provide the Commission with any additional information which you feel would assist us in making choosing new Advisors. You may use as many pages as needed.

Member of State of Rhode Island Industry Advisory Committee
(regarding licensing)
Member of State of Rhode Island Fluke and Groundfish Ap

Nominee Signature:

Aaron Gewirtz

Date:

10/8/14

Name: Aaron Gewirtz

(please print)

COMMISSIONERS SIGN-OFF (not required for non-traditional stakeholders)

Robert Ballou
State

Legislator

Robert Ballou

State Legislator

Governor's Appointee



ATLANTIC STATES MARINE FISHERIES COMMISSION

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Form submitted by: Robert Ballou State: RI
(your name)

Name of Nominee: Travis Barao

Address: 15 Gibbs St

City, State, Zip: Rumford, RI, 02916

Please provide the appropriate numbers where the nominee can be reached:

Phone (day): (401) 301-7944 Phone (evening): (401) 270-7161

FAX: _____ Email: travisbarao@gmail.com

.....
FOR ALL NOMINEES:

1. Please list, in order of preference, the Advisory Panel for which you are nominating the above person.
 1. Fluke, Seabass and Scup
 2. _____
 3. _____
 4. _____

2. Has the nominee been found in violation of criminal or civil federal fishery law or regulation or convicted of any felony or crime over the last three years?
 yes _____ no X

3. Is the nominee a member of any fishermen's organizations or clubs?
 yes X no _____

If "yes," please list them below by name.

Rhode Island Saltwater Anglers Association

Electric Boat Athletic Club Fishing Derby

4. What kinds (species) of fish and/or shellfish has the nominee fished for during the past year?

Fluke

Quahogs

Seabass

Striped Bass

Tautog

Bluefish

5. What kinds (species) of fish and/or shellfish has the nominee fished for in the past?

Fluke

Striped Bass

Seabass

Bluefish

Bluefin tuna

Quahogs

FOR COMMERCIAL FISHERMEN:

1. How many years has the nominee been the commercial fishing business? _____ years

2. Is the nominee employed only in commercial fishing? yes _____ no _____

3. What is the predominant gear type used by the nominee? _____

4. What is the predominant geographic area fished by the nominee (i.e., inshore, offshore)? _____

FOR CHARTER/HEADBOAT CAPTAINS:

1. How long has the nominee been employed in the charter/headboat business? _____ years

2. Is the nominee employed only in the charter/headboat industry? yes _____ no _____

If "no," please list other type(s) of business(es) and/occupation(s): _____

3. How many years has the nominee lived in the home port community? _____ years

If less than five years, please indicate the nominee's previous home port community.

FOR RECREATIONAL FISHERMEN:

1. How long has the nominee engaged in recreational fishing? 15 years
2. Is the nominee working, or has the nominee ever worked in any area related to the fishing industry? yes X no _____

If "yes," please explain.

Travis worked for Integrated Statistics in Woods Hole, MA as a contractor for NOAA-NMFS. He worked with Dr. Mike Jech on reseach related to
imaging sonar for the purpose of estimating size and population counts of Atlantic herring. Research focussed around the use of dual frequency
identification sonar (DIDSON).

FOR SEAFOOD PROCESSORS & DEALERS:

1. How long has the nominee been employed in the business of seafood processing/dealing?
_____ years
2. Is the nominee employed only in the business of seafood processing/dealing?
yes _____ no _____ If "no," please list other type(s) of business(es) and/or occupation(s):

3. How many years has the nominee lived in the home port community? _____ years
If less than five years, please indicate the nominee's previous home port community.

FOR OTHER INTERESTED PARTIES:

1. How long has the nominee been interested in fishing and/or fisheries management? _____ years
2. Is the nominee employed in the fishing business or the field of fisheries management?
yes _____ no _____
If "no," please list other type(s) of business(es) and/or occupation(s):

FOR ALL NOMINEES:

In the space provided below, please provide the Commission with any additional information which you feel would assist us in making choosing new Advisors. You may use as many pages as needed.

Travis has spent his entire life in Rhode Island and has spent countless hours on the water enjoying fishing, clamming and other water sports. He has the utmost respect for Mother Nature and the ocean. Travis attended the University of Rhode Island and received a Bachelor's degree in ocean engineering with a minor in oceanography in 2010. He is now pursuing a Master's degree in ocean engineering, still at URI. Travis is currently working at Electric Boat in North Kingstown, RI after a one year contractor position at Woods Hole. He is a member of the Rhode Island Saltwater Anglers Association and has been on the board of directors since January, 2014.

Nominee Signature: Travis Barao

Date: 10/16/2014

Name: Travis Barao
(please print)

COMMISSIONERS SIGN-OFF (not required for non-traditional stakeholders)

Robert Ballou
State Director

State Legislator

Governor's Appointee



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Form submitted by: David Simpson State: CT
(your name)

Name of Nominee: Kyle Doughton

Address: 5 Rockwell Street

City, State, Zip: Niantic, CT 06357

Please provide the appropriate numbers where the nominee can be reached:

Phone (day): 860-739-7419

Phone (evening): 860-287-2349

FAX: 860-739-9208

Email: Kyle@yotackle.com

FOR ALL NOMINEES:

1. Please list, in order of preference, the Advisory Panel for which you are nominating the above person.

1. Fluke, Scup, Sea Bass Party/Charter
2. _____
3. _____
4. _____

2. Has the nominee been found in violation of criminal or civil federal fishery law or regulation or convicted of any felony or crime over the last three years?

yes _____ no X

3. Is the nominee a member of any fishermen's organizations or clubs?

yes X no _____

If "yes," please list them below by name.

CT Charter Party Boat Assoc
CT Marine Advisory Group

4. What kinds (species) of fish and/or shellfish has the nominee fished for during the past year?

Black Sea Bass
Tautog
Striped Bass

Fluke, Scup
Pelagic (Tuna, Marlin, + Mahi)
Bluefish

5. What kinds (species) of fish and/or shellfish has the nominee fished for in the past?

Same as above

FOR COMMERCIAL FISHERMEN:

1. How many years has the nominee been the commercial fishing business? _____ years
2. Is the nominee employed only in commercial fishing? yes _____ no _____
3. What is the predominant gear type used by the nominee? _____
4. What is the predominant geographic area fished by the nominee (i.e., inshore, offshore)? _____

FOR CHARTER/HEADBOAT CAPTAINS:

1. How long has the nominee been employed in the charter/headboat business? 14 years
2. Is the nominee employed only in the charter/headboat industry? yes ~~____~~ no X
If "no," please list other type(s) of business(es) and/occupation(s):
Retail Tackle Shop Owner
3. How many years has the nominee lived in the home port community? 34 years
If less than five years, please indicate the nominee's previous home port community.

FOR RECREATIONAL FISHERMEN:

1. How long has the nominee engaged in recreational fishing? _____ years
2. Is the nominee working, or has the nominee ever worked in any area related to the fishing industry? yes _____ no _____

If "yes," please explain.

FOR SEAFOOD PROCESSORS & DEALERS:

1. How long has the nominee been employed in the business of seafood processing/dealing? _____ years
2. Is the nominee employed only in the business of seafood processing/dealing?
yes _____ no _____ If "no," please list other type(s) of business(es) and/or occupation(s):

3. How many years has the nominee lived in the home port community? _____ years
If less than five years, please indicate the nominee's previous home port community.

FOR OTHER INTERESTED PARTIES:

1. How long has the nominee been interested in fishing and/or fisheries management? _____ years
2. Is the nominee employed in the fishing business or the field of fisheries management?
yes _____ no _____

If "no," please list other type(s) of business(es) and/or occupation(s):

FOR ALL NOMINEES:

In the space provided below, please provide the Commission with any additional information which you feel would assist us in making choosing new Advisors. You may use as many pages as needed.

Nominee Signature: Kyle Daulton

Date: 10/8/14

Name: Kyle Daulton
(please print)

COMMISSIONERS SIGN-OFF (not required for non-traditional stakeholders)


State Director

State Legislator

Governor's Appointee

Home Mail News Sports Finance Weather Games Groups Answers Screen Flickr Mobile More
Delaware SFSBSB APNomination Wes Townsend.pdf 1 of 4
Search Mail Search Web Home Paul

Compose
Inbox (1513)
Drafts (3)
Sent
Spam (248)
Trash
Folders
Recent
Sponsored

Verizon FiOS
Only Verizon F
SpeedMatch



ATLANTIC STATES MARINE FISHERIES COMMISSION
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Form submitted by: John Clark State: Delaware
(your name)

Name of Nominee: P. Wes Townsend

Address: PO Box 207

City, State, Zip: Dagsboro DE 19939

Please provide the appropriate numbers where the nominee can be reached:

Phone (day): (302)542-1150 Phone (evening): _____

FAX: _____ Email: pakafish1@yahoo.com

FOR ALL NOMINEES:

- Please list, in order of preference, the Advisory Panel for which you are nominating the above person.
 - Summer Flounder, Scup, and Black Sea Bass
 - _____
 - _____
 - _____
- Has the nominee been found in violation of criminal or civil federal fishery law or regulation or convicted of any felony or crime over the last three years?
yes _____ no
- Is the nominee a member of any fishermen's organizations or clubs?
yes _____ no
If "yes," please list them below by name.

Home Mail News Sports Finance Weather Health Insurance Autos Education Life Books Games | Status
Paul

Compose

- Inbox (10)
- Drafts (3)
- Sent
- Spam (248)
- Trash
- Folders
- Recent
- Sponsored

4. What kinds (species) of fish and/or shellfish has the nominee fished for during the past year?
- | | |
|----------------|---------|
| Black Sea Bass | Bunker |
| Tautog | Lobster |
| Rockfish | Oysters |
5. What kinds (species) of fish and/or shellfish has the nominee fished for in the past?
- | | |
|----------|---------|
| trout | Dogfish |
| Bluefish | |
| Croaker | |

Verizon FIOS
Only Verizon F
SpeedMatch

FOR COMMERCIAL FISHERMEN:

1. How many years has the nominee been the commercial fishing business? 30 years
2. Is the nominee employed only in commercial fishing? yes no
3. What is the predominant gear type used by the nominee? Pots
4. What is the predominant geographic area fished by the nominee (i.e., inshore, offshore)? outside 3 miles

FOR CHARTER/HEADBOAT CAPTAINS:

1. How long has the nominee been employed in the charter/headboat business? _____ years
2. Is the nominee employed only in the charter/headboat industry? yes _____ no _____
If "no," please list other type(s) of business(es) and/occupation(s): _____
3. How many years has the nominee lived in the home port community? _____ years
If less than five years, please indicate the nominee's previous home port community. _____

Compose | Drafts (3) | Sent | Spam (248) | Trash | Folders | Recent | Sponsored | Home | Paid

Compose

Info (151)

Drafts (3)

Sent

Spam (248)

Trash

Folders

Recent

Sponsored

FOR RECREATIONAL FISHERMEN:

1. How long has the nominee engaged in recreational fishing? _____ years

2. Is the nominee working, or has the nominee ever worked in any area related to the fishing industry? yes _____ no _____

If "yes," please explain.

Verizon FIOS
Only Verizon F
SpeedMatch.

FOR SEAFOOD PROCESSORS & DEALERS:

1. How long has the nominee been employed in the business of seafood processing/dealing? 10 years

2. Is the nominee employed only in the business of seafood processing/dealing?

yes _____ no If "no," please list other type(s) of business(es) and/or occupation(s):

I sell my own Lobsters & some sea bass

3. How many years has the nominee lived in the home port community? 49 years

If less than five years, please indicate the nominee's previous home port community.

FOR OTHER INTERESTED PARTIES:

1. How long has the nominee been interested in fishing and/or fisheries management? 30 years

2. Is the nominee employed in the fishing business or the field of fisheries management?

yes _____ no _____

If "no," please list other type(s) of business(es) and/or occupation(s):

FOR ALL NOMINEES:

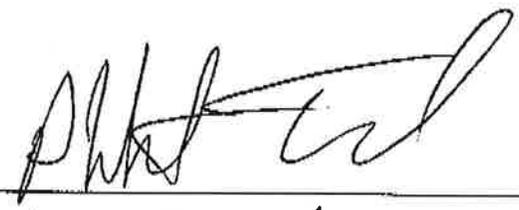
Home Paul

- Compose
- [Inbox \(1513\)](#)
- Drafts (3)
- Sent
- Spam (248)
- Trash
- Folders
- Recent
- Sponsored

In the space provided below, please provide the Commission with any additional information which you feel would assist us in making choosing new Advisors. You may use as many pages as needed.

I have caught black sea Buss for
40 years commercially, charter +
recreationally.

Verizon FiOS
Only Verizon F
SpeedMatch.

Nominee Signature: 

Name: Paul W. Townsend
(please print)

Date: 10-8-14

COMMISSIONERS SIGN-OFF (not required for non-traditional stakeholders)



State Director

State Legislator

Governor's Appointee



ATLANTIC STATES MARINE FISHERIES COMMISSION

Advisory Panel Nomination Form

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Form submitted by: John Clark State: Delaware
(your name)

Name of Nominee: Clark Evans

Address: 406 Salt Pond Road

City, State, Zip: Bethany Beach, DE 19930

Please provide the appropriate numbers where the nominee can be reached:

Phone (day): 302-381-3859

Phone (evening): 302-539-1224

FAX: 302-227-1490

Email: clark@oldinlet.com

.....
FOR ALL NOMINEES:

1. Please list, in order of preference, the Advisory Panel for which you are nominating the above person.

1. Summer Flounder, Scup, and Black Sea Bass

2. _____

3. _____

4. _____

2. Has the nominee been found in violation of criminal or civil federal fishery law or regulation or convicted of any felony or crime over the last three years?

yes _____ no XX

3. Is the nominee a member of any fishermen's organizations or clubs?

yes XX no _____

If "yes," please list them below by name.

Delaware Mobile Surffishermen

Delaware Fisherman's Alliance

4. What kinds (species) of fish and/or shellfish has the nominee fished for during the past year?

Flounder

Kingfish

Bluefish

Striped Bass

Croaker

5. What kinds (species) of fish and/or shellfish has the nominee fished for in the past?

Clams

Crabs

FOR COMMERCIAL FISHERMEN:

1. How many years has the nominee been the commercial fishing business? _____ years
2. Is the nominee employed only in commercial fishing? yes _____ no _____
3. What is the predominant gear type used by the nominee? _____
4. What is the predominant geographic area fished by the nominee (i.e., inshore, offshore)? _____

FOR CHARTER/HEADBOAT CAPTAINS:

1. How long has the nominee been employed in the charter/headboat business? _____ years
2. Is the nominee employed only in the charter/headboat industry? yes _____ no _____
If "no," please list other type(s) of business(es) and/occupation(s): _____

3. How many years has the nominee lived in the home port community? _____ years
If less than five years, please indicate the nominee's previous home port community.

FOR RECREATIONAL FISHERMEN:

1. How long has the nominee engaged in recreational fishing? 40 years
2. Is the nominee working, or has the nominee ever worked in any area related to the fishing industry? yes no

If "yes," please explain.

1995-2000: Georgia Department of Natural Resources, Coastal Resources Division, Marine Fisheries Section

2000-Present: Manager, Old Inlet Bait and Tackle

2012-Present : Consultant, University of Delaware, Sea Grant College Program, Working Waterfronts Initiative

FOR SEAFOOD PROCESSORS & DEALERS:

1. How long has the nominee been employed in the business of seafood processing/dealing? _____ years
2. Is the nominee employed only in the business of seafood processing/dealing?
yes _____ no _____ If "no," please list other type(s) of business(es) and/or occupation(s):

3. How many years has the nominee lived in the home port community? _____ years
If less than five years, please indicate the nominee's previous home port community.

FOR OTHER INTERESTED PARTIES:

1. How long has the nominee been interested in fishing and/or fisheries management? _____ years
2. Is the nominee employed in the fishing business or the field of fisheries management?
yes _____ no _____

If "no," please list other type(s) of business(es) and/or occupation(s):

FOR ALL NOMINEES:

In the space provided below, please provide the Commission with any additional information which you feel would assist us in making choosing new Advisors. You may use as many pages as needed.

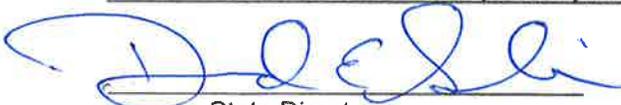
Having been a long time angler, fisheries manager, fishing tackle retailer and consultant, I believe I can bring a unique and different perspective to the management process.

Nominee Signature: 

Date: 10/1/2014

Name: Lore Clark Evans
(please print)

COMMISSIONERS SIGN-OFF (not required for non-traditional stakeholders)


State Director

State Legislator

Governor's Appointee



ATLANTIC STATES MARINE FISHERIES COMMISSION

Advisory Panel Nomination Form

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Form submitted by: Bernard L. Pankowski State: Delaware
(your name)

Name of Nominee: Michael P Hynson III

Address: 13 Wicklow Rd

City, State, Zip: Bear, De, 19701

Please provide the appropriate numbers where the nominee can be reached:

Phone (day): (302) 893-3507

Phone (evening): (302) 893-3507

FAX: (302) 221-5620

Email: phynson@db4pos.com

FOR ALL NOMINEES:

1. Please list, in order of preference, the Advisory Panel for which you are nominating the above person.

1. Summer Flounder

2. Scup

3. Black Sea bass

4. _____

2. Has the nominee been found in violation of criminal or civil federal fishery law or regulation or convicted of any felony or crime over the last three years?

yes _____ no X

3. Is the nominee a member of any fishermen's organizations or clubs?

yes X no _____

If "yes," please list them below by name.

Ocean City Marlin Club

4. What kinds (species) of fish and/or shellfish has the nominee fished for during the past year?

Clam, Mussel, Blue Crab

Black Drum, Summer Flounder, Scup, Black Sea Bass

Bonita, Bluefish, Striped Bass, Blue Marlin

Spot, Kingfish, Mako Shark, Shad, Tautog

Yellowfin Tuna, Bluefin Tuna, Mahi, White Marlin

Weakfish, Croaker, Wahoo, White Perch

5. What kinds (species) of fish and/or shellfish has the nominee fished for in the past?

Spotted Sea Trout, Red Drum, Spanish Mackerel

Yellowfin Tuna, Bluefin Tuna, Mahi, White Marlin,

King Mackerel, Clam, Mussel, Blue Crab, White Perch

Black Drum, Summer Flounder, Scup, Black Sea Bass

Bonita, Bluefish, Striped Bass, Blue Marlin, Weakfish

Spot, Kingfish, Mako, Shad, Tautog, Wahoo, Croaker

FOR COMMERCIAL FISHERMEN:

1. How many years has the nominee been the commercial fishing business? _____ years
2. Is the nominee employed only in commercial fishing? yes _____ no
3. What is the predominant gear type used by the nominee? _____
4. What is the predominant geographic area fished by the nominee (i.e., inshore, offshore)? _____

FOR CHARTER/HEADBOAT CAPTAINS:

1. How long has the nominee been employed in the charter/headboat business? _____ years
2. Is the nominee employed only in the charter/headboat industry? yes _____ no
If "no," please list other type(s) of business(es) and/occupation(s): _____

3. How many years has the nominee lived in the home port community? _____ years
If less than five years, please indicate the nominee's previous home port community.

FOR RECREATIONAL FISHERMEN:

1. How long has the nominee engaged in recreational fishing? _____ years
2. Is the nominee working, or has the nominee ever worked in any area related to the fishing industry? yes _____ no X _____

If "yes," please explain.

FOR SEAFOOD PROCESSORS & DEALERS:

1. How long has the nominee been employed in the business of seafood processing/dealing? _____ years
2. Is the nominee employed only in the business of seafood processing/dealing?
yes _____ no X _____ If "no," please list other type(s) of business(es) and/or occupation(s):

3. How many years has the nominee lived in the home port community? _____ years
If less than five years, please indicate the nominee's previous home port community.

FOR OTHER INTERESTED PARTIES:

1. How long has the nominee been interested in fishing and/or fisheries management? 19 years
2. Is the nominee employed in the fishing business or the field of fisheries management?
yes _____ no X _____

If "no," please list other type(s) of business(es) and/or occupation(s):

Hospitality Technical Installation Manager

FOR ALL NOMINEES:

In the space provided below, please provide the Commission with any additional information which you feel would assist us in making choosing new Advisors. You may use as many pages as needed.

I am currently 25 years old and have been an avid angler my entire life. I grew up on the woods and water of Delaware and have spent many days chasing and admiring the thrill of recreational fishing. For me, fishing is a way of life, fishing off the docks of Bowers Beach as a kid to chasing pelagics in the offshore canyons. I've always been fascinated with the waterways and coastal structure which lead me to peruse a degree in Geology from the University of Delaware. I believe my passion and young age will help give a fresh perspective on the fishing industry that has already taught me so much.

Nominee Signature: Michael P. Hyman III

Date: 10/9/14

Name: Michael P. Hyman III
(please print)

COMMISSIONERS SIGN-OFF (not required for non-traditional stakeholders)

[Signature]
State Director

[Signature]
State Legislator
PROXY FOR DELAWARE
SENATOR ROBERT L. VERBLES

Governor's Appointee



ATLANTIC STATES MARINE FISHERIES COMMISSION

Advisory Panel Nomination Form

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Form submitted by: Maryland Department of Natural Resources State: MD
(your name)

Name of Nominee: John R. Martin

Address: 106 North Church St

City, State, Zip: Snow Hill, MD 21863

Please provide the appropriate numbers where the nominee can be reached:

Phone (day): 443-365-3113

Phone (evening): 443-365-3113

FAX: 410-213-1442

Email: johnr@martinfishco.com

FOR ALL NOMINEES:

1. Please list, in order of preference, the Advisory Panel for which you are nominating the above person.

1. Summer Flounder, Black Sea Bass, Scup
2. _____
3. _____
4. _____

2. Has the nominee been found in violation of criminal or civil federal fishery law or regulation or convicted of any felony or crime over the last three years?

yes _____ no X

3. Is the nominee a member of any fishermen's organizations or clubs?

yes X no _____

If "yes," please list them below by name.

If "yes," please list them below by name.

__Md Tidal Fisheries Advisory Committe

4. What kinds (species) of fish and/or shellfish has the nominee fished for during the past year?

_____ Have not fished _____

5. What kinds (species) of fish and/or shellfish has the nominee fished for in the past?

_____ Summer Flounder _____

_____ Black Seabass _____

_____ Scup _____

_____ Scallops _____

_____ Squid _____

_____ Spiny Dogfish _____

FOR COMMERCIAL FISHERMEN:

1. How many years has the nominee been the commercial fishing business? 45
2. Is the nominee employed only in commercial fishing? yes no
3. What is the predominant gear type used by the nominee? _____

FOR CHARTER/HEADBOAT CAPTAINS:

1. How long has the nominee been employed in the charter/headboat business? _____
2. Is the nominee employed only in the charter/headboat industry? yes no
If "no," please list other type(s) of business(es) and/occupation(s): _____
3. How many years has the nominee lived in the home port community? _____ years
If less than five years, please indicate the nominee's previous home port community.

FOR RECREATIONAL FISHERMEN:

1. How long has the nominee engaged in recreational fishing? _____ years
2. Is the nominee working, or has the nominee ever worked in any area related to the fishing industry? yes no

If "yes," please explain.

FOR SEAFOOD PROCESSORS & DEALERS:

1. How long has the nominee been employed in the business of seafood processing/dealing? 25 years
2. Is the nominee employed only in the business of seafood processing/dealing?
yes no
If "no," please list other type(s) of business(es) and/or occupation(s):

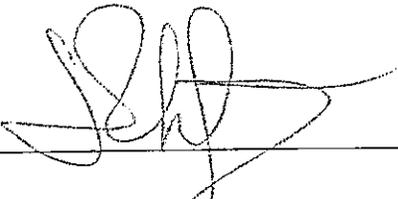
3. How many years has the nominee lived in the home port community? 49 years
If less than five years, please indicate the nominee's previous home port community.

FOR OTHER INTERESTED PARTIES:

1. How long has the nominee been interested in fishing and/or fisheries management? _____ years
2. Is the nominee employed in the fishing business or the field of fisheries management?
yes no
If "no," please list other type(s) of business(es) and/or occupation(s):

FOR ALL NOMINEES:

In the space provided below, please provide the Commission with any additional information which you feel would assist us in making choosing new Advisors. You may use as many pages as needed.

Nominee Signature:  _____

Date: 10-13-14

Name: John R. Martin
(please print)

COMMISSIONERS SIGN-OFF (not required for non-traditional stakeholders)



State Director

State Legislator

Governor's Appointee



ATLANTIC STATES MARINE FISHERIES COMMISSION

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Form submitted by: Maryland Department of Natural Resources State: MD
(your name)

Name of Nominee: Allen "Buddy" Seigel

Address: 1091 Ocean Parkway

City, State, Zip: Berlin, MD 21811

Please provide the appropriate numbers where the nominee can be reached:

Phone (day): 443-340-2833

Phone (evening): 410-208-3887

FAX: _____

Email: buddyscrn@gmail.com

FOR ALL NOMINEES:

1. Please list, in order of preference, the Advisory Panel for which you are nominating the above person.

- 1. Summer Flounder, Black Sea Bass, Scup
- 2. _____
- 3. _____
- 4. _____

2. Has the nominee been found in violation of criminal or civil federal fishery law or regulation or convicted of any felony or crime over the last three years?

yes _____ no X

3. Is the nominee a member of any fishermen's organizations or clubs?

yes X no _____

If "yes," please list them below by name.

MSSA - Atlantic Coast Chapter

Ocean Pines Anglers

4. What kinds (species) of fish and/or shellfish has the nominee fished for during the past year?

Summer Flounder, Black Sea Bass

Striped Bass

5. What kinds (species) of fish and/or shellfish has the nominee fished for in the past?

Summer Flounder, Black Sea Bass

Tuna(s)

Snook

Trout (Fresh Water)

Bonefish

Spotted Sea Trout, Weakfish

FOR COMMERCIAL FISHERMEN:

1. How many years has the nominee been the commercial fishing business? _____ years

2. Is the nominee employed only in commercial fishing? yes _____ no _____

3. What is the predominant gear type used by the nominee? _____

4. What is the predominant geographic area fished by the nominee (i.e., inshore, offshore)? _____

FOR CHARTER/HEADBOAT CAPTAINS:

1. How long has the nominee been employed in the charter/headboat business? _____ years

2. Is the nominee employed only in the charter/headboat industry? yes _____ no _____

If "no," please list other type(s) of business(es) and/occupation(s): _____

3. How many years has the nominee lived in the home port community? _____ years

If less than five years, please indicate the nominee's previous home port community.

FOR RECREATIONAL FISHERMEN:

1. How long has the nominee engaged in recreational fishing? 36+ years
2. Is the nominee working, or has the nominee ever worked in any area related to the fishing industry? yes no

If "yes," please explain.

I am employed in a bait and tack store part time in the summer (8 years).

FOR SEAFOOD PROCESSORS & DEALERS:

1. How long has the nominee been employed in the business of seafood processing/dealing? _____ years
2. Is the nominee employed only in the business of seafood processing/dealing?
yes _____ no _____ If "no," please list other type(s) of business(es) and/or occupation(s):

3. How many years has the nominee lived in the home port community? _____ years
If less than five years, please indicate the nominee's previous home port community.

FOR OTHER INTERESTED PARTIES:

1. How long has the nominee been interested in fishing and/or fisheries management? _____ years
2. Is the nominee employed in the fishing business or the field of fisheries management?
yes _____ no _____
If "no," please list other type(s) of business(es) and/or occupation(s):

FOR ALL NOMINEES:

In the space provided below, please provide the Commission with any additional information which you feel would assist us in making choosing new Advisors. You may use as many pages as needed.

*Serve as ACCSP advisor.
I participated in the MD DNR/MSR-ACC Herring Catch Survey.
Served as a statistical research analyst for MD DNR Fisheries with Dr. Linda Barker,
for Summer Hounder, Black Sea Bass, Striped Bass (Rockfish) and Tautog with data
received from NOAA. Some of the research showed definitively how the catch was
skewed so that quotas could be set.*

Nominee Signature: *Allen "Buddy" Seigel*

Date: 09/26/2014

Name: Allen "Buddy" Seigel
(please print)

COMMISSIONERS SIGN-OFF (not required for non-traditional stakeholders)

Michael Long
State Director

State Legislator

Governor's Appointee



ATLANTIC STATES MARINE FISHERIES COMMISSION
Advisory Panel Nomination Form

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Form submitted by: _____ State: _____
 (your name)

Name of Nominee: STEVEN WRAY

Address: 2109 WEST Groat NECK RD. Ste #100

City, State, Zip: Virginia Beach, Virginia 23451

Please provide the appropriate numbers where the nominee can be reached:

Phone (day): 757-237-7517

Phone (evening): 757-237-7517

FAX: 757-481-4925

Email: captstve@yahoo.com

FOR ALL NOMINEES:

1. Please list, in order of preference, the Advisory Panel for which you are nominating the above person.

- 1. _____
- 2. _____
- 3. _____
- 4. _____

2. Has the nominee been found in violation of criminal or civil federal fishery law or regulation or convicted of any felony or crime over the last three years?

yes _____ no

3. Is the nominee a member of any fishermen's organizations or clubs?

yes no _____

If "yes," please list them below by name.

Virginia Beach Anglers Club
Virginia Charter Boat Ass.
National Ass. of Charter Boat Operators

4. What kinds (species) of fish and/or shellfish has the nominee fished for during the past year?

Flounder - Grey & Spotted Trout TUNA, Dolphin, MARLIN, Wahoo
Black Sea Bass - Spot - Croaker Groupers, Tilefish, Wreckfish, Black Belly Rose
Striped Bass - Cobia Tautog, Sheepshead, Triggerfish, Spade fish

5. What kinds (species) of fish and/or shellfish has the nominee fished for in the past?

SHARK Red & Black Drum
King & Spanish Mackerel
Bluefish

FOR COMMERCIAL FISHERMEN:

- How many years has the nominee been the commercial fishing business? 30 years
- Is the nominee employed only in commercial fishing? yes _____ no
- What is the predominant gear type used by the nominee? Hook & Line
- What is the predominant geographic area fished by the nominee (i.e., inshore, offshore)? IN SHORE

FOR CHARTER/HEADBOAT CAPTAINS:

- How long has the nominee been employed in the charter/headboat business? 45 years
- Is the nominee employed only in the charter/headboat industry? yes _____ no
If "no," please list other type(s) of business(es) and/or occupation(s) (Retired VA. Beach Firefighter/EMT)
(Owner of Long Beach Pointe Bait & Tackle Shop in VA. Beach) (Ocean Pearl Charters)
- How many years has the nominee lived in the home port community? 53 years
If less than five years, please indicate the nominee's previous home port community.

FOR RECREATIONAL FISHERMEN:

- 1. How long has the nominee engaged in recreational fishing? 58 years
- 2. Is the nominee working, or has the nominee ever worked in any area related to the fishing industry? yes no

If "yes," please explain.

CHARTER BOAT MATE + CAPTAIN

TACKLE SHOP OWNER

MARINA FUEL DOCK OWNER

FOR SEAFOOD PROCESSORS & DEALERS:

- 1. How long has the nominee been employed in the business of seafood processing/dealing? 15 years
- 2. Is the nominee employed only in the business of seafood processing/dealing?
yes no If "no," please list other type(s) of business(es) and/or occupation(s):
SELLING BAIT LIVE + FROZEN TO RECREATIONAL + COMMERCIAL CUSTOMERS

- 3. How many years has the nominee lived in the home port community? 53 years
If less than five years, please indicate the nominee's previous home port community.

FOR OTHER INTERESTED PARTIES:

- 1. How long has the nominee been interested in fishing and/or fisheries management? _____ years
- 2. Is the nominee employed in the fishing business or the field of fisheries management?
yes no
If "no," please list other type(s) of business(es) and/or occupation(s):

FOR ALL NOMINEES:

In the space provided below, please provide the Commission with any additional information which you feel would assist us in making choosing new Advisors. You may use as many pages as needed.

HAVE SERVED ON MANY COMMITTEES DEALING WITH FISHERIES CONSERVATION, CHARTER BOAT REGULATIONS, ARTIFICIAL REEFS AND FISHERIES REGULATIONS IN STATE + FEDERAL WATERS. AGENT FOR VMRC IN VA. BOAT FOR SALES OF COMMERCIAL FISHING LICENSE & RECREATIONAL/CHARTER BOAT LIC FOR VA. DEPT OF GAME + INLAND FISHERIES.

Nominee Signature: Steven Wray

Date: 10/15/14

Name: STEVEN WRAY
(please print)

COMMISSIONERS SIGN-OFF (not required for non-traditional stakeholders)

[Signature]
State Director

State Legislator

Governor's Appointee



ATLANTIC STATES MARINE FISHERIES COMMISSION

Advisory Panel Nomination Form

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Form submitted by: _____ State: _____
(your name)

Name of Nominee: C. Meade Amory

Address: 101 South King St

City, State, Zip: Hampton, Virginia 23669

Please provide the appropriate numbers where the nominee can be reached:

Phone (day): 757-722-1915

Phone (evening): 757-876-6466

FAX: 757-723-1184

Email: meade@amoryseafood.com

.....

FOR ALL NOMINEES:

1. Please list, in order of preference, the Advisory Panel for which you are nominating the above person.
 1. Summer Flounder
 2. Black Sea Bass
 3. Scup
 4. _____

2. Has the nominee been found in violation of criminal or civil federal fishery law or regulation or convicted of any felony or crime over the last three years?

yes _____ no X

3. Is the nominee a member of any fishermen's organizations or clubs?

yes X no _____

If "yes," please list them below by name.

Virginia Seafood Council

4. What kinds (species) of fish and/or shellfish has the nominee fished for during the past year?

Summer Flounder

Monkfish

Black Sea Bass

Ilex & Loligo Squid

Scup

Croaker

5. What kinds (species) of fish and/or shellfish has the nominee fished for in the past?

Same As Above

FOR COMMERCIAL FISHERMEN:

1. How many years has the nominee been the commercial fishing business? 25 years
2. Is the nominee employed only in commercial fishing? yes _____ no X _____
3. What is the predominant gear type used by the nominee? Trawl
4. What is the predominant geographic area fished by the nominee (i.e., inshore, offshore)? Mid Atlantic

FOR CHARTER/HEADBOAT CAPTAINS:

1. How long has the nominee been employed in the charter/headboat business? _____ years
2. Is the nominee employed only in the charter/headboat industry? yes _____ no X _____
If "no," please list other type(s)of business(es) and/occupation(s): _____

3. How many years has the nominee lived in the home port community? _____ years
If less than five years, please indicate the nominee's previous home port community.

FOR RECREATIONAL FISHERMEN:

1. How long has the nominee engaged in recreational fishing? 25 years
2. Is the nominee working, or has the nominee ever worked in any area related to the fishing industry? yes _____ no _____

If "yes," please explain.

FOR SEAFOOD PROCESSORS & DEALERS:

1. How long has the nominee been employed in the business of seafood processing/dealing?
25 years

2. Is the nominee employed only in the business of seafood processing/dealing?

yes _____ no _____ If "no," please list other type(s) of business(es) and/or occupation(s):

3. How many years has the nominee lived in the home port community? 25 years

If less than five years, please indicate the nominee's previous home port community.

FOR OTHER INTERESTED PARTIES:

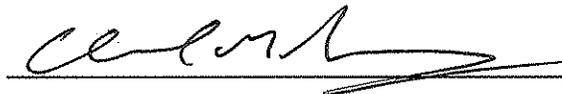
1. How long has the nominee been interested in fishing and/or fisheries management? 25 years

2. Is the nominee employed in the fishing business or the field of fisheries management?
yes _____ no _____

If "no," please list other type(s) of business(es) and/or occupation(s):

FOR ALL NOMINEES:

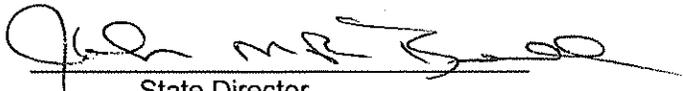
In the space provided below, please provide the Commission with any additional information which you feel would assist us in making choosing new Advisors. You may use as many pages as needed.

Nominee Signature: 

Date: 10-14-14

Name: C. Meade Arroyo
(please print)

COMMISSIONERS SIGN-OFF (not required for non-traditional stakeholders)


State Director

State Legislator

Governor's Appointee

PSWSFA

IGFA

4. What kinds (species) of fish and/or shellfish has the nominee fished for during the past year?

All Inshore and Offshore Fish

5. What kinds (species) of fish and/or shellfish has the nominee fished for in the past?

Inshore and Offshore Fish

FOR COMMERCIAL FISHERMEN:

1. How many years has the nominee been the commercial fishing business? _____ years

2. Is the nominee employed only in commercial fishing? yes _____ no _____

3. What is the predominant gear type used by the nominee? _____

4. What is the predominant geographic area fished by the nominee (i.e., inshore, offshore)? _____

FOR CHARTER/HEADBOAT CAPTAINS:

1. How long has the nominee been employed in the charter/headboat business? _____ years

2. Is the nominee employed only in the charter/headboat industry? yes _____ no _____

If "no," please list other type(s)of business(es) and/occupation(s): _____

3. How many years has the nominee lived in the home port community? _____ years

If less than five years, please indicate the nominee's previous home port community.

FOR RECREATIONAL FISHERMEN:

1. How long has the nominee engaged in recreational fishing? 50 years
2. Is the nominee working, or has the nominee ever worked in any area related to the fishing industry? yes _____ no _____

If "yes," please explain.

FOR SEAFOOD PROCESSORS & DEALERS:

1. How long has the nominee been employed in the business of seafood processing/dealing? _____ years
2. Is the nominee employed only in the business of seafood processing/dealing?
yes _____ no _____ If "no," please list other type(s) of business(es) and/or occupation(s):

3. How many years has the nominee lived in the home port community? _____ years
If less than five years, please indicate the nominee's previous home port community.

FOR OTHER INTERESTED PARTIES:

1. How long has the nominee been interested in fishing and/or fisheries management? _____ years
2. Is the nominee employed in the fishing business or the field of fisheries management?
yes _____ no _____

If "no," please list other type(s) of business(es) and/or occupation(s):

FOR ALL NOMINEES:

In the space provided below, please provide the Commission with any additional information which you feel would assist us in making choosing new Advisors. You may use as many pages as needed.

Nominee Signature: Robert J. O'Reilly for Dr. Kennedy E Neill, III Date: 10/15/14

Name: Dr. Kennedy E Neill, III
(please print)

COMMISSIONERS SIGN-OFF (not required for non-traditional stakeholders)

[Signature]
State Director

State Legislator

Governor's Appointee



ATLANTIC STATES MARINE FISHERIES COMMISSION

Advisory Panel Nomination Form

This form is designed to help nominate Advisors to the Commission's Species Advisory Panels. The information on the returned form will be provided to the Commission's relevant species management board or section. Please answer the questions in the categories (All Nominees, Commercial Fisherman, Charter/Headboat Captain, Recreational Fisherman, Dealer/Processor, or Other Interested Parties) that pertain to the nominee's experience. If the nominee fits into more than one category, answer the questions for all categories that fit the situation. Also, please fill in the sections which pertain to All Nominees (pages 1 and 2). In addition, nominee signatures are required to verify the provided information (page 4), and Commissioner signatures are requested to verify Commissioner consensus (page 4). Please print and use a black pen.

Form submitted by: Michael "Jimbo" Ireland State: N.C.
(your name)

Name of Nominee: Michael Jimbo Ireland

Address: 799 Ruth Drive P.O. Box 518

City, State, Zip: Aurora, N.C. 27806

Please provide the appropriate numbers where the nominee can be reached:

Phone (day): 252-671-3621

Phone (evening): _____

FAX: 252-322-5695

Email: Scalloper55@embargmail.com

FOR ALL NOMINEES:

1. Please list, in order of preference, the Advisory Panel for which you are nominating the above person.
 1. Flounder Fishery (Fluke)
 2. _____
 3. _____
 4. _____

2. Has the nominee been found in violation of criminal or civil federal fishery law or regulation or convicted of any felony or crime over the last three years?
 yes _____ no X

3. Is the nominee a member of any fishermen's organizations or clubs?
 yes X no _____

If "yes," please list them below by name.

North Carolina Fisheries Assoc. (Board Member)

4. What kinds (species) of fish and/or shellfish has the nominee fished for during the past year?

| | |
|----------|----------|
| Shrimp | Sea Bass |
| Scallops | Scup |
| Fluke | Croaker |

5. What kinds (species) of fish and/or shellfish has the nominee fished for in the past?

| | |
|----------|----------|
| Shrimp | Sea Bass |
| Scallops | Scup |
| Fluke | Croaker |

FOR COMMERCIAL FISHERMEN:

- How many years has the nominee been in the commercial fishing business? 40 years
- Is the nominee employed only in commercial fishing? yes no
- What is the predominant gear type used by the nominee? Trawl
- What is the predominant geographic area fished by the nominee (i.e., inshore, offshore)? Offshore 30-100 Fathom

FOR CHARTER/HEADBOAT CAPTAINS:

- How long has the nominee been employed in the charter/headboat business? _____ years
- Is the nominee employed only in the charter/headboat industry? yes _____ no _____
If "no," please list other type(s) of business(es) and/occupation(s): _____
- How many years has the nominee lived in the home port community? _____ years
If less than five years, please indicate the nominee's previous home port community.

FOR RECREATIONAL FISHERMEN:

1. How long has the nominee engaged in recreational fishing? _____ years
2. Is the nominee working, or has the nominee ever worked in any area related to the fishing industry? yes _____ no _____

If "yes," please explain.

FOR SEAFOOD PROCESSORS & DEALERS:

1. How long has the nominee been employed in the business of seafood processing/dealing? _____ years
2. Is the nominee employed only in the business of seafood processing/dealing?
yes _____ no _____ if "no," please list other type(s) of business(es) and/or occupation(s):

3. How many years has the nominee lived in the home port community? _____ years
If less than five years, please indicate the nominee's previous home port community.

FOR OTHER INTERESTED PARTIES:

1. How long has the nominee been interested in fishing and/or fisheries management? _____ years
2. Is the nominee employed in the fishing business or the field of fisheries management?
yes _____ no _____
If "no," please list other type(s) of business(es) and/or occupation(s):

FOR ALL NOMINEES:

In the space provided below, please provide the Commission with any additional information which you feel would assist us in making choosing new Advisors. You may use as many pages as needed.

Michael Ireland started fishing at the age of 17. He has fished for both finfish and scallops his whole life. In 1993 Mike took 2 of his boats to Alaska thru the Panama Canal. He assisted the state of Washington in setting up a season for sea scallops. He assisted them in setting up regulations and with gear restrictions. He also assisted Dennis Spitzberg in North Carolina. He took a position as advisor on the scallop advisory committee, for the state of N.C. Mike has been married to his wife Lorraine for 32 yrs.

Nominee Signature: Michael Ireland

Date: 10/15/14

Name: Michael Ireland
(please print)

COMMISSIONERS SIGN-OFF (not required for non-traditional stakeholders)

[Signature]
State Director

State Legislator

Governor's Appointee

Atlantic States Marine Fisheries Commission

2014 Action Plan Progress

Note: Detailed below is information on tasks that are not on schedule and the reason; as well as accomplishments achieved that were not planned for in the 2014 Action Plan.

| Task # | Description | Reason |
|---------------|---|--|
| 1.1.6 | Develop an addendum to adjust the fishery effort to the size of the resource in Lobster Conservation Management Areas 4, 5, and 6. | In August the Board tasked the LCMTs to provide recommendations to the Board on this issue |
| 1.1.11 | Complete the 2014 lobster benchmark stock assessment and consider management response to the assessment findings. | Assessment will be presented in 2015 due to data delay issues. |
| 1.1.30 | Complete the 2014 bluefish benchmark stock assessment and consider management response to the assessment findings. | Assessment was pushed to 2015 by the NRCC |
| 1.1.73 | Complete the 2014 scup assessment update | Scup had a data update (rumble strip analysis) instead of an assessment update |
| 1.1.27 | Continue development of the 2015 benchmark stock assessment, including discussions/analysis on genetics and bycatch | Assessment was pushed to 2017 |
| 2.1.13 | Develop a Commission policy regarding risk and uncertainty, and provide to the ISFMP Policy Board for consideration. | Committee focused on climate-fisheries allocation project in 2014; intend to work on a risk policy in 2015 |
| 2.5.1 | Conduct intermediate and advanced stock assessment methods training workshops. Conduct a stock assessment training workshop for Commissioners | Assessment Scientists working full time on stock assessments; no time available to work on assessment training |

| | | |
|--------------|---|---|
| 5.1.7 | East Coast Aquaria | Lack of time; will be addressed as action item at next meeting Atlantic Coast Fisheries Communications Group (ACFCG) in early 2015 |
| 5.1.10/2.3.2 | Fisheries Science 101 | Lack of time; other tasks took priority |
| 5.3.3 | Annual meeting of ACFCG | Members participated instead in SAFMC's Communicating Science with Graphics |
| 7.4.1 | Work with Executive Committee to determine the appropriate transition and orientation program for new Commissioners. | If time permits, the issue will be discussed by Executive Committee at the Annual Meeting under Other Business. |
| 7.5.2 | Work with Commission attorney to develop a potential information request policy for consideration by full Commission (FOIA equivalent). | Staff has continued to provide requested material in response to FOIA requests, with the exception of providing confidential data. Staff has been in ongoing discussion with Commission attorney. |

Accomplishments Achieved that were not included in 2014 Action Plan

EXECUTIVE DIRECTORATE

- Developed new Commission brochure and display for use at tradeshow

SCIENCE

- Initiated data gathering and analytical discussions for new black sea bass stock assessment
- Contributed to SEDAR Shrimp Data and Bycatch Workshop
- Contributed to MRIP Calibration Work Group/Workshop
- Contributed to GSMFC Fish Ageing Workshop

F&A

- Conducted thorough review of MMS Database; developed list of enhancements and began work on these enhancements.
- Developed detailed SOPPs for Finance & Accounting responsibilities.
- Improved efficiency of registration process for Annual Meeting.



Atlantic States Marine Fisheries Commission

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Dr. Louis B. Daniel, III, (NC), Chair

Douglas E. Grout (NH), Vice-Chair

Robert E. Beal, Executive Director

Vision: Sustainably Managing Atlantic Coastal Fisheries

MEMORANDUM

October 21, 2014

To: ASMFC Commissioners and Proxies
From: Robert Beal
Re: Federal Legislative Tracking Sheet: 113th Congress, 2nd Session

The following document contains an update on federal legislation impacting the Commission, as well as tables providing more general information on federal legislation affecting fisheries. Bills with legislative action (a committee hearing/markup, floor action, or signed into law) are highlighted in yellow to make them easier to identify.

This document will be updated quarterly or as key bills are introduced or acted on. The document is not intended to summarize all legislation that might affect oceans and coasts, nor does it list the complete contents of bills. To access the complete text of the bills as well as the Library of Congress summary, click on the links below the titles provided in the table. If there is a particular bill not included that you would like summarized or if you would like more information on bills listed, please contact Deke Tompkins (dtompkins@asmfc.org).

Federal Legislative Update

2015 Appropriations

Since the beginning of Fiscal Year 2015, which began on October 1, the federal government has been operating under a continuing appropriations resolution (CR) at 2014 levels. The current CR is in effect until December 11, 2014. Congress is expected to address further appropriations in the lame duck session after the fall mid-term elections. However, it is unlikely appropriations bills will be acted on individually. The most likely result is another short-term CR, an omnibus appropriations bill, or some combination of the two. Following is a brief overview of where the Commission's budget priorities stand for 2015.

The Fiscal Year 2015 Commerce, Justice, Science Appropriations (CJS) bill, which provides a majority of the Commission's federal funding, has been approved by the House of Representatives and the Senate Appropriations Committee. The Senate Appropriations Committee unanimously approved its CJS bill on June 6. Senate funding for Operations, Research, and Facilities for NOAA Fisheries is up \$23.6 million, or about 3 percent, to \$836.2 million from Fiscal Year 2014. The *Regional Councils and Fisheries Commissions* and *Interjurisdictional Fisheries Act Grants* budget lines both received slight increases.

The House of Representatives approved its 2015 CJS bill by a vote of 321-87 on May 30. Funding for Operations, Research, and Facilities for NOAA Fisheries is down \$22 million, or about 2.8 percent, to \$790.2 million from Fiscal Year 2014. However, the Commission's two priority budget lines, *Regional Councils and Fisheries Commissions* and *Interjurisdictional Fisheries Act Grants*, are level funded.

| | Regional Councils and Fishery Commissions | Interjurisdictional Fisheries Act | NMFS Operations, Research, and Facilities |
|----------------------|---|-----------------------------------|---|
| 2014 Enacted | \$32,000,000 | \$2,500,000 | \$812,560,000 |
| House Passed 2015 | \$32,000,000 | \$2,500,000 | \$790,200,000 |
| Senate Proposed 2015 | \$32,738,000 | \$2,502,000 | \$836,192,000 |

Magnuson-Stevens Act Update

On May 29, the House Natural Resources Committee approved its Magnuson-Stevens draft reauthorization bill on a roll call vote of 24 to 17 along partisan lines. The Senate Commerce Committee released a second discussion draft on July 18, but has not taken further action. It is increasingly likely that no further action will be taken to reauthorize the Magnuson-Stevens Act this year. In 2015, under a new Congress, the process will start again with the House and Senate introducing new draft bills.

Florida Fisheries Improvement Act

On September 16, Senator Mark Rubio (R-FL) introduced the Florida Fisheries Improvement Act. The bill is essentially a Magnuson-Stevens reauthorization focused on Gulf of Mexico and South Atlantic issues. The regionally focused bill contains a number of similarities between the House and Senate draft bills, such as increased rebuilding flexibility. Sen Rubio is the highest ranking Republican on the Senate Fisheries Subcommittee and would likely assume the Chairmanship should Senate Republicans win a majority of that chamber's seats in November.

| Bill Number | Highlights | Sponsor [Cosponsors]/Committee Status |
|-------------|------------|---------------------------------------|
|-------------|------------|---------------------------------------|

Priority I

| | | |
|---------|--|---|
| S. 267 | <p>Pirate Fishing Elimination Act http://hdl.loc.gov/loc.uscongress/legislation.113s267</p> <ul style="list-style-type: none"> Codifies the Port States Measures Agreement into U.S. law, an international treaty aimed at prohibiting vessels that have engaged in illegal fishing from entering ports around the world | <p>Rockefeller (D-WV) [11 cosponsors] Senate Committee on Commerce, Science, and Transportation 2/11/2013 Introduced 1/8/2014 Reported out of Senate Committee</p> |
| S. 269 | <p>International Fisheries Stewardship and Enforcement Act (IFSEA) http://hdl.loc.gov/loc.uscongress/legislation.113s269</p> <ul style="list-style-type: none"> Amends several existing laws to increase enforcement of fishing regulations by giving the Secretary of Commerce and the Coast Guard authority to enforce fishing-related policies. Creates an International Fisheries Enforcement Program within NOAA | <p>Rockefeller (D-WV) [12 cosponsors] Senate Committee on Commerce, Science, and Transportation 2/11/2013 Introduced 12/17/2013 Reported out of Senate Committee</p> |
| S. 839 | <p>Coral Reef Conservation Amendments Act of 2013 http://hdl.loc.gov/loc.uscongress/legislation.113s839</p> <ul style="list-style-type: none"> Comprehensive reauthorization of the Coral Reef Conservation Act of 2000 | <p>Nelson (D-FL) [3 cosponsors] Senate Committee on Commerce, Science, and Transportation 4/25/2013 Introduced 5/5/2014 Reported out of Senate Committee</p> |
| S. 2028 | <p>Sport Fish Restoration and Recreational Boating Safety Act of 2014 http://hdl.loc.gov/loc.uscongress/legislation.113s2028</p> <ul style="list-style-type: none"> Reauthorizes the Federal Aid in Fish Restoration Act through 2021 | <p>Sen Rockefeller (D-WV) [1 cosponsor] Senate Commerce Committee 2/12/2014 Introduced 7/7/2014 Reported out of Senate Committee</p> |

| | | |
|-----------------------|---|---|
| <p>H.R. 69</p> | <p>Illegal, Unreported, and Unregulated Fishing Enforcement Act of 2013 http://hdl.loc.gov/loc.uscongress/legislation.113hr69</p> <ul style="list-style-type: none"> • Amends several existing laws to increase enforcement of fishing regulations by giving the Secretary of Commerce and the Coast Guard authority to enforce fishing-related policies • Authorizes additional enforcement measures relating to search or inspection of facilities, records inspection, shipment detention, arrest, search and seizure, and service of civil or criminal process | <p>Bordallo (D-GU) [16 Cosponsors] House Natural Resources Subcommittee on Fisheries, Wildlife, Oceans, and Insular Affairs 1/3/2013 Introduced 1/31/2013 Referred to House Subcommittee 9/18/2014 Reported out of Subcommittee</p> |
| <p>S. 2094</p> | <p>Vessel Incidental Discharge Act http://hdl.loc.gov/loc.uscongress/legislation.113s2094</p> <ul style="list-style-type: none"> • Create national, uniform standards on ballast water discharges • Currently ballast water is regulated by both the Coast Guard and EPA | <p>Sen Begich (D-AK) [26 cosponsors] Senate Commerce Committee 3/6/2014 Introduced 3/6/2014 Referred to Senate Committee Text incorporated in Coast Guard Reauthorization bill</p> |
| <p>H.R. 5609</p> | <p>The Vessel Incidental Discharge Act http://hdl.loc.gov/loc.uscongress/legislation.113hr5609</p> <ul style="list-style-type: none"> • Companion bill to S.2094 | <p>Hunter (R-CA) [10 cosponsors] House Committee on Transportation and Infrastructure 9/19/2014 Introduced</p> |
| <p>S. 2824</p> | <p>Florida Fisheries Improvement Act http://hdl.loc.gov/loc.uscongress/legislation.113s2824</p> <ul style="list-style-type: none"> • Regionally focused Magnuson-Stevens Reauthorization | <p>Sen Rubio (R-FL) [none] Senate Commerce Committee 9/16/2014 Introduced 9/16/2014 Referred to Senate Committee</p> |
| <p>S.1757</p> | <p>Fluke Fairness Act of 2013 http://hdl.loc.gov/loc.uscongress/legislation.113s1757</p> <ul style="list-style-type: none"> • Requires MAFMC to submit a new summer flounder FMP within one year and prohibits allocation of summer flounder catch quotas on a state by state basis using historical landings data | <p>Schumer (D-NY) [1 Cosponsor] Senate Committee on Commerce, Science, and Transportation 11/21/2013 Introduced 11/21/2013 Referred to Senate Committee</p> |

| | | |
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| H.R. 71 | <p>Coral Reef Conservation Act Reauthorization and Enhancement Amendments of 2013 http://hdl.loc.gov/loc.uscongress/legislation.113hr71</p> <ul style="list-style-type: none"> • Comprehensive reauthorization of the Coral Reef Conservation Act of 2000 | <p>Bordallo (D-GU) [10 cosponsors] House Natural Resources Subcommittee on Fisheries, Wildlife, Oceans, and Insular Affairs 1/3/2013 Introduced 1/31/2013 Referred to House Subcommittee</p> |
| H.R. 996 | <p>Invasive Fish and Wildlife Prevention Act http://hdl.loc.gov/loc.uscongress/legislation.113hr996</p> <ul style="list-style-type: none"> • Strengthens the Fish and Wildlife Service's ability to designate animals as "injurious," meaning these animals could not be imported or shipped between states without a permit • Allows the USFWS to update screening procedures using rapid assessment technology and to designate temporary emergency "injurious" listings • Allows governors to petition for immediate listing actions • Allows listing of non-crustacean and non-mollusk invertebrates | <p>Slaughter (D-NY) [32 cosponsors] House Natural Resources Subcommittee on Fisheries, Wildlife, Oceans, and Insular Affairs House Subcommittee on Crime, Terrorism, Homeland Security, And Investigations 3/6/2013 Introduced 4/8/2013 Referred to House Subcommittee</p> |
| S. 1153 | <p>Invasive Fish and Wildlife Prevention Act http://hdl.loc.gov/loc.uscongress/legislation.113s1153</p> <ul style="list-style-type: none"> • Senate counterpart to H.R. 996 | <p>Gillibrand (D-NY) [3 cosponsors] Senate committee on Environment and Public Works 6/12/2013 Introduced 6/12/2013 Referred to Senate Committee</p> |
| S. 221 | <p>Saving Fishing Jobs Act of 2013 http://hdl.loc.gov/loc.uscongress/legislation.113s221</p> <ul style="list-style-type: none"> • Requires the Secretary of Commerce to terminate new and existing catch share programs that result in a 15 percent or more reduction in the total number of fishermen in the program, and develop a new management plan within one year | <p>Ayotte (R-NH) [none] Senate Committee on Commerce, Science, and Transportation 2/4/2013 Introduced 2/4/2013 Referred to Senate Committee</p> |

| | | |
|------------------|---|--|
| <p>H.R. 263</p> | <p>National Fish and Wildlife Foundation Reauthorization Act of 2013 http://hdl.loc.gov/loc.uscongress/legislation.113hr263</p> <ul style="list-style-type: none"> • Authorizes \$25 million for the National Fish and Wildlife Foundation for FY 2014 to 2019 • The bill would require a new 28-member board of directors including experts in freshwater, saltwater, coastal and land creatures, and would allow the foundation to accept gifts and bequests. The foundation could turn gifts over to federal agencies • The National Fish and Wildlife Foundation was created by Congress in 1984 to protect and restore fish and wildlife and their habitats. It directs public dollars to critical environmental needs and matches those investments with private contributions | <p>Grimm (R-NY) [1 cosponsor] House Natural Resources Subcommittee on Fisheries, Wildlife, Oceans, and Insular Affairs 1/15/2013 Introduced 1/31/2013 Referred to House Subcommittee</p> |
| <p>S. 520</p> | <p>Safety And Fraud Enforcement for Seafood (SAFE) Act http://hdl.loc.gov/loc.uscongress/legislation.113s520</p> <ul style="list-style-type: none"> • Requires that detailed information accompany seafood through the supply chain to the point of sale, including scientific name, geographic catch area, date of catch, and catch method • Improves the FDA list of standardized names for seafood • Authorizes refusal of suspected or known violators of seafood mislabeling | <p>Begich (R-AK) [5 cosponsors] Senate Committee on Commerce, Science, and Transportation 3/11/2013 Introduced 3/11/2013 Referred to Senate Committee</p> |
| <p>H.R. 1012</p> | <p>Safety And Fraud Enforcement for Seafood (SAFE) Act http://hdl.loc.gov/loc.uscongress/legislation.113hr1012</p> <ul style="list-style-type: none"> • House companion bill to S. 520, Safety And Fraud Enforcement for Seafood (SAFE) Act | <p>Markey (D-MA) [28 cosponsors] House Committees on Energy and Commerce; Agriculture; Natural Resources; Ways and Means 3/6/2013 Introduced 4/2/2013 Referred to House Subcommittees</p> |

| | | |
|-----------|---|--|
| S. 646 | <p>National Endowment for the Oceans Act http://hdl.loc.gov/loc.uscongress/legislation.113s646</p> <ul style="list-style-type: none"> Establishes a National Endowment for the Oceans to fund activities intended to protect, conserve, restore, and understand the Nation's oceans, coasts, and Great Lakes through a competitive grant process | <p>Whitehouse (R-RI) [6 cosponsors] Senate Committee on Commerce, Science, and Transportation 3/21/2013 Introduced 3/21/2013 Referred to Senate Committee</p> |
| H.R. 764 | <p>Coastal State Climate Change Planning Act http://hdl.loc.gov/loc.uscongress/legislation.113hr764</p> <ul style="list-style-type: none"> Directs the Secretary of Commerce to establish a coastal climate change adaptation planning and response program to provide assistance to coastal states to develop climate change adaptation plans and provide financial and technical assistance to implement such plans Requires the Secretary of Commerce to promote the use of National Estuarine Research Reserves as sites for pilot projects | <p>Capps (D-CA) [28 cosponsors] House Natural Resources Subcommittee on Fisheries, Wildlife, Oceans, and Insular Affairs 2/15/2013 Introduced 3/1/2013 Referred to House Subcommittee</p> |
| H.R. 3063 | <p>Healthy Fisheries through Better Science Act http://hdl.loc.gov/loc.uscongress/legislation.113hr3063</p> <ul style="list-style-type: none"> Would require the Department of Commerce to develop a plan to conduct stock assessments for all stocks of fish for which a fishery management plan is in effect under the Magnuson-Stevens Act | <p>Wittman (R-VA) [none] House Committee on Natural Resources 8/2/2013 Introduced 8/2/2013 Referred to House Committee</p> |
| S. 713 | <p>Rhode Island Fishermen's Fairness Act http://hdl.loc.gov/loc.uscongress/legislation.113s713</p> <ul style="list-style-type: none"> Would give Rhode Island a seat on the Mid-Atlantic Fishery Management Council (MAFMC) | <p>Reed (D-RI) [1 cosponsor] Committee on Commerce, Science, and Transportation 4/11/2013 Introduced 4/11/2013 Referred to Senate Committee</p> |
| H.R. 1504 | <p>Rhode Island Fishermen's Fairness Act http://hdl.loc.gov/loc.uscongress/legislation.113hr1504</p> <ul style="list-style-type: none"> House companion bill to S. 713, Rhode Island Fishermen's Fairness Act | <p>Rep Langevin (D-RI) [1 cosponsor] House Committee on Natural Resources 4/11/2013 Introduced 4/11/2013 Referred to House Committee</p> |

| | | |
|---------|--|--|
| S. 2030 | National Sea Grant College Program Amendments Act of 2014 http://hdl.loc.gov/loc.uscongress/legislation.113s2030 <ul style="list-style-type: none">Reauthorizes the National Sea Grant College Program Act through 2020 | Sen Schatz (D-HI) [1 cosponsor] Senate Commerce Committee 2/12/2014 Introduced 2/12/2014 Referred to Senate Committee |
|---------|--|--|

Fiscal Year 2015 Appropriations

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| H.R. 4660 | Commerce, Justice, Science, and Related Agencies Appropriations Act, 2015 http://hdl.loc.gov/loc.uscongress/legislation.113hr4660 | Rep Wolf (R-VA) [none] House Appropriations Committee 5/15/2014 Introduced 5/30/2014 Passed House |
| S. 2437 | Commerce, Justice, Science, and Related Agencies Appropriations Act, 2015 http://hdl.loc.gov/loc.uscongress/legislation.113s2437 | Sen Mikulski (D-MD) [none] Senate Appropriations Committee 6/5/2014 Introduced 6/5/2014 Reported out of Committee |
| H.J.Res 124 | Continuing Appropriations Resolution, 2015 http://hdl.loc.gov/loc.uscongress/legislation.113hjres124 | Rep Rodgers (R-KY) [none] 9/9/2014 Introduced 9/19/2014 Became Public Law |

Priority II

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| S. 1254 | Harmful Algal Bloom and Hypoxia Research and Control Amendments Act of 2014 http://hdl.loc.gov/loc.uscongress/legislation.113s1254 <ul style="list-style-type: none">Reauthorizes the <i>Harmful Algal Bloom and Hypoxia Research and Control Act of 1998</i>Establishes a national HAB and Hypoxia Program at NOAA | Sen Nelson (D-FL) [18 cosponsors] Senate Committee on Commerce, Science, and Transportation 6/27/2013 Introduced 6/30/2014 Became Public Law |
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| <p>H.R. 3464</p> | <p>Commercial Vessel Discharges Reform Act of 2013 http://hdl.loc.gov/loc.uscongress/legislation.113hr3464</p> <ul style="list-style-type: none"> • Extends permanently, a moratorium from EPA, state regulations and fines governing incidental discharges from commercial fishing vessels and all other commercial vessels less than 79 feet • H.R. 3464 was incorporated into H.R. 4005, the Coast Guard and Maritime Transportation Act of 2014. H.R. 4005 has passed the House and is awaiting action in the Senate | <p>LoBiondo (R-NJ) [10 cosponsors] House Committee on Transportation and Infrastructure 11/14/2013 Introduced 11/14/2013 Referred to House Subcommittee</p> |
| <p>H.R. 2413</p> | <p>Weather Forecasting Improvement Act http://hdl.loc.gov/loc.uscongress/legislation.113hr2413</p> <ul style="list-style-type: none"> • Directs NOAA's research and satellite offices and National Weather Service offices to develop a prioritized weather research plan with the aim of restoring U.S. world leadership in weather modeling, prediction, and forecasting • An earlier version of this bill limited NOAA's ability to study climate change | <p>Rep Bridenstine (R-OK) [20 cosponsors] House Committee on Science, Space, and Technology 6/18/2013 Introduced 4/1/2014 Approved by the House</p> |
| <p>S. 1996</p> | <p>Bipartisan Sportsmen's Act of 2014 http://hdl.loc.gov/loc.uscongress/legislation.113s1996</p> <ul style="list-style-type: none"> • Would expand the reach of shooting ranges on federal lands, exempt lead bullets and fishing tackle from federal regulations, expedite duck hunting permits, reauthorize conservation programs and require federal officials to consider how land management affects the activities of hunting, fishing and shooting • S. 1996 was cleared for a vote on the Senate floor in mid-July, but leadership could not agree on an amendment process | <p>Sen Hagen (D-NC) [27 cosponsors] No Committee 2/4/2014 Introduced 2/6/2014 Placed on Senate Legislative Calendar</p> |
| <p>H.R. 4315</p> | <p>21st Century Endangered Species Transparency Act http://hdl.loc.gov/loc.uscongress/legislation.113hr4315</p> <ul style="list-style-type: none"> • Requires data used by federal agencies for ESA listing decisions be made publicly available and accessible through the Internet | <p>Rep Hastings (R-WA) [28 cosponsors] House Natural Resources Committee 3/27/2014 Introduced 4/30/2014 Reported out of Committee 7/29/2014 Passed/agreed to in House</p> |

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| <p>H.R. 4316</p> | <p>Endangered Species Recovery Transparency Act http://hdl.loc.gov/loc.uscongress/legislation.113hr4316</p> <ul style="list-style-type: none"> Requires the Administration to track and make available online the amount of taxpayer dollars being spent on ESA-related litigation to give the American people clear information about the time and resources currently used to address ESA-related lawsuits | <p>Rep Lummis (R-WY) [26 cosponsors] House Natural Resources Committee 3/27/2014 Introduced 4/30/2014 Reported out of Committee 7/17/2014 Reported (Amended) by the Committee on Natural Resources</p> |
| <p>H.R. 4318</p> | <p>Endangered Species Litigation Reasonableness Act http://hdl.loc.gov/loc.uscongress/legislation.113hr4318</p> <ul style="list-style-type: none"> Reduces taxpayer-financed attorney fees to help ensure that resources for species protection are focused more on species than on lucrative legal fees. It puts in place the same reasonable hourly caps on attorney fees used in another federal law, the Equal Access to Justice Act | <p>Rep Huizenga (R-MI) [28 cosponsors] House Natural Resources Committee 3/27/2014 Introduced 4/30/2014 Reported out of Committee 7/17/2014 Reported by the Committee on Natural Resources</p> |
| <p>H.R. 4317</p> | <p>State, Tribal, and Local Species Transparency and Recovery Act http://hdl.loc.gov/loc.uscongress/legislation.113hr4317</p> <ul style="list-style-type: none"> Enhances state, local, and tribal involvement in ESA decisions | <p>Rep Neugebauer (R-TX) [29 cosponsors] House Natural Resources Committee 3/27/2014 Introduced 7/17/2014 Reported by the Committee on Natural Resources</p> |
| <p>S. 327</p> | <p>Good Neighbor Forestry Act http://hdl.loc.gov/loc.uscongress/legislation.113s327</p> <ul style="list-style-type: none"> Authorizes the Secretaries of Agriculture and Interior to enter into cooperative agreements and contracts with state foresters to provide forest, rangeland, and watershed restoration and protection services that include activities to treat insect infected trees, reduce hazardous fuels, and any other activities to restore or improve forest, rangeland, and watershed health, including fish and wildlife habitat | <p>Barasso (R-WY) [10 cosponsors] Senate Committee on Energy and Natural Resources 2/14/2013 Introduced 2/14/2013 Referred to Senate Committee 6/18/2013 Mark-up held, reported out of Committee 9/10/2013 Reported out of Senate Committee</p> |

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| <p>H.R. 2401</p> | <p>Good Neighbor Forestry Act http://hdl.loc.gov/loc.uscongress/legislation.113hr2401</p> <ul style="list-style-type: none"> • House companion bill to S. 327, Good Neighbor Forestry Act | <p>Cotton (R-AR) [1 cosponsor] House Committee on Natural Resources Subcommittee on Public Lands and Environmental Regulation; House Committee on Agriculture 6/17/2013 Introduced 8/13/2013 Referred to House Subcommittees</p> |
| <p>S. 982</p> | <p>Freedom to Fish Act http://hdl.loc.gov/loc.uscongress/legislation.113s982</p> <ul style="list-style-type: none"> • Prohibits the Army Corps of Engineers from taking any action to establish a restricted area prohibiting public access to waters downstream of a dam within the Cumberland River Basin | <p>Alexander (R-TN) [3 cosponsors] Senate Committee on Environment and Public Works 2/28/2013 Introduced 5/16/2013 Passed in Senate 5/21/2013 Passed in House 6/3/2013 Became Public Law</p> |
| <p>H.R. 638</p> | <p>National Wildlife Refuge Review Act of 2013 http://hdl.loc.gov/loc.uscongress/legislation.113hr638</p> <ul style="list-style-type: none"> • Blocks the Fish and Wildlife Service from declaring any new refuges unless Congress passed legislation specifically allowing it • The bill would not affect any existing refuges | <p>Fleming (R-LA) [13 cosponsors] House Natural Resources Subcommittee on Fisheries, Wildlife, Oceans, and Insular Affairs 2/13/2013 Introduced 2/21/2013 Referred to House Subcommittee 4/25/2013 Legislative hearing held 9/20/2013 Reported out of House Committee</p> |

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| <p>H.R. 910</p> | <p>Sikes Act Reauthorization Act of 2013 http://hdl.loc.gov/loc.uscongress/legislation.113hr910</p> <ul style="list-style-type: none"> • Reauthorizes the Sikes Act from 2015 through 2019 • The Sikes Act requires the Department of Defense to develop and implement Integrated Natural Resources Management Plans for military installations across the United States | <p>Fleming (R-LA) [none] House Natural Resources Subcommittee on Fisheries, Wildlife, Oceans, and Insular Affairs House Armed Services Subcommittee on Readiness 2/28/2013 Introduced 3/21/2013 House Natural Resources Subcommittee hearing held 6/24/2013 Reported out of House Committee</p> |
| <p>H.R. 1080</p> | <p>To amend the Sikes Act to promote the use of cooperative agreements under such Act for land management related to Department of Defense readiness activities and to facilitate interagency cooperation in conservation programs to reduce adverse impacts on military readiness activities. http://hdl.loc.gov/loc.uscongress/legislation.113hr1080</p> <ul style="list-style-type: none"> • Permits the Department of Defense to extend a program reducing restrictions on training by finding and restoring habitat off base | <p>Bordallo (D-GU) [none] House Natural Resources Subcommittee on Fisheries, Wildlife, Oceans, and Insular Affairs; House Armed Services Subcommittee on Readiness 3/12/2013 Introduced 3/21/2013 House Natural Resources Subcommittee hearing held 3/26/2013 Referred to the House Subcommittee on Readiness 5/15/2013 Natural Resources Committee mark-up held 6/17/2013 Reported favorably out of the Natural Resources Committee</p> |

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| <p>H.R. 1300</p> | <p>To amend the Fish and Wildlife Act of 1956 to reauthorize the volunteer programs and community partnerships for the benefit of national wildlife refuges, and for other purposes. http://hdl.loc.gov/loc.uscongress/legislation.113hr1300</p> <ul style="list-style-type: none"> • Reauthorizes the National Wildlife Refuge System Volunteer, Community Partnership, and Education Programs for 2014 through 2018 | <p>Runyon (R-NJ) [1 cosponsor] House Natural Resources Subcommittee on Fisheries, Wildlife, Oceans, and Insular Affairs. 3/20/2013 Introduced 3/28/2013 Referred to House Subcommittee 6/17/2013 Reported favorably out of the Natural Resources Committee 7/30/2013 Passed in House</p> |
| <p>H.R. 1425</p> | <p>Marine Debris Emergency Act of 2013 http://hdl.loc.gov/loc.uscongress/legislation.113hr1425</p> <ul style="list-style-type: none"> • Makes improvements to the Marine Debris Research, Prevention, and Reduction Act (2006) by establishing a program within NOAA that complements the Environmental Protection Agency’s marine debris program • Requires NOAA to give preference to projects that address severe marine debris events especially in the event of potential threat of marine invasive species • Requires speedier approval of applications and grant funding | <p>Bonamici (D-OR) [22 cosponsors] House 4/9/2013 Introduced 4/9/2013 Referred to the House Natural Resources Subcommittee on Fisheries, Wildlife, Oceans, and Insular Affairs; House Transportation and Infrastructure Subcommittee on Coast Guard and Maritime Transportation 6/13/2013 Subcommittee hearing held in the Fisheries, Wildlife, Oceans, and Insular Affairs Subcommittee 4/2/2014 Reported out of House Natural Resources Committee</p> |
| <p>H.R. 1825</p> | <p>Recreational Fishing and Hunting Heritage and Opportunities Act http://hdl.loc.gov/loc.uscongress/legislation.113hr1825</p> <ul style="list-style-type: none"> • Creates an “open until closed” policy for sportsmen’s use of federal land • Would direct U.S. Forest Service and Bureau of Land Management to facilitate use and access for hunting, fishing, and recreational shooting activities on federal lands | <p>Benishek (R-MI) [108 cosponsors] House Agriculture Committee, House Natural Resources Committee 6/12/2013 Reported out of the Natural Resources Committee by a vote of 28-15 1/31/2014 Discharged by the House Agriculture Committee</p> |

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| <p>H.R. 2219</p> | <p>To reauthorize the Integrated Coastal and Ocean Observation System (ICOOS) Act of 2009 http://hdl.loc.gov/loc.uscongress/legislation.113hr2219</p> <ul style="list-style-type: none"> • Reauthorizes the ICCOS Act of 2009, which expires in 2013 • The 2009 law established a national integrated system of ocean, coastal, and Great Lakes observing systems to promote better public awareness and scientific communication concerning ocean, coastal, and lake conservation | <p>Young (R-AK) [none] House Natural Resources Committee, House Science, Space, and Technology Committee 6/3/2013 introduced 6/4/2013 Referred to House Subcommittee 6/13/2013 Subcommittee hearing held</p> |
| <p>H.R. 3105</p> | <p>Aquaculture Risk Reduction Act http://hdl.loc.gov/loc.uscongress/legislation.113hr3105</p> <ul style="list-style-type: none"> • Provides exemption from the Lacey Act for animals unintentionally included in shipments of fish produced in commercial aquaculture | <p>Crawford (R-AR) [5 cosponsors] House Natural Resources Committee 9/20/2013 Referred to House Subcommittee 2/27/2014 Subcommittee Hearing held</p> |
| <p>H.R. 596</p> | <p>Public Lands Renewable Energy Development Act of 2013 http://hdl.loc.gov/loc.uscongress/legislation.113hr596</p> <ul style="list-style-type: none"> • Streamlines permitting for renewable energy projects on public lands and waters | <p>Gosar (R-AZ) [61 cosponsors] House Natural Resources Subcommittee on Fisheries, Wildlife, Oceans, and Insular Affairs House Agriculture Subcommittee on Conservation, Energy, and Forestry. 2/8/2013 Introduced 2/25/2013 Referred to Subcommittees 7/29/2014 House Natural Resources hearing held</p> |
| <p>S. 1202</p> | <p>SAFE Act http://hdl.loc.gov/loc.uscongress/legislation.113s1202</p> <ul style="list-style-type: none"> • Requires federal agencies that manage natural resources to adopt climate change adaptation plans | <p>Whitehouse (D-RI) [1 cosponsor] Environment and Public Works Committee 6/20/2013 Introduced 6/20/2013 Referred to Senate Committee 7/16/2014 Subcommittee hearing held</p> |

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| S.2485 | <p>Northwest Atlantic Fisheries Convention Amendments Act http://hdl.loc.gov/loc.uscongress/legislation.113s2485</p> <ul style="list-style-type: none"> • A bill to implement the Amendment to the Convention on Future Multilateral Cooperation in the Northwest Atlantic Fisheries, as adopted at Lisbon on September 28, 2007 | <p>Sen Markey (D-MA) [none] Committee on Commerce, Science, and Transportation 6/17/2014 Introduced 6/17/2014 Referred to Senate Committee 9/17/2014 Reported out of Committee</p> |
| H.R. 5026 | <p>Fish Hatchery Protection Act http://hdl.loc.gov/loc.uscongress/legislation.113hr5026</p> <ul style="list-style-type: none"> • Prohibits the Department of the Interior from closing any fish hatchery within the National Fish Hatchery System unless expressly authorized by an Act of Congress | <p>Rep Gosar (R-AZ) [13 cosponsors] House Natural Resources Committee 7/8/2014 Introduced 7/10/2014 Referred to House Subcommittee 7/23/2014 Committee Hearing held 7/30/2014 Passed by Committee</p> |
| S. 1419 | <p>Marine and Hydrokinetic Renewable Energy Act of 2013 http://hdl.loc.gov/loc.uscongress/legislation.113s1419</p> <ul style="list-style-type: none"> • Reauthorizes the Department of Energy's marine hydrokinetic (MHK) research, development and demonstration programs through 2017 • Encourages private investment in MHK power technologies by streamlining the regulatory process for pilot projects that generate energy from oceans, lakes and rivers | <p>Wyden (D-OR) [4 cosponsors] Senate Energy and Natural Resources Committees 8/1/2013 Introduced 2/27/2014 Subcommittee hearing held</p> |
| H.R. 4025 | <p>Fishing Safety Training and Research Act http://hdl.loc.gov/loc.uscongress/legislation.113hr4025</p> <ul style="list-style-type: none"> • Reauthorizes the Fishing Safety Training and Fishing Safety Research grant programs through 2015 | <p>Rep Keating (D-MA) [1 cosponsor] 2/10/2014 Introduced 2/11/2013 Referred to House Subcommittee</p> |
| H.R.4988 | <p>To amend the Act popularly known as the Antiquities Act of 1906 to provide for congressional approval of national monuments and restrictions on the use of national monuments, to establish requirements for declaration of marine national monuments, and for other purposes http://hdl.loc.gov/loc.uscongress/legislation.113hr4988</p> | <p>Rep Southerland (R-FL) [16 cosponsors] House Natural Resources Committee 6/26/2014 Introduced 7/7/2014 Referred to Subcommittee on Fisheries, Wildlife, Oceans, and Insular Affairs</p> |

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| H.Con.Res. 13 | Expressing the sense of the Congress that the Fish and Wildlife Service should incorporate consideration of global warming and sea-level rise into the comprehensive conservation plans for coastal national wildlife refuges http://hdl.loc.gov/loc.uscongress/legislation.113hconres13 | Christensen (D-VI) [none] House Natural Resources Subcommittee on Fisheries, Wildlife, Oceans, and Insular Affairs 2/13/2013 Introduced 2/13/2013 Referred to Senate Subcommittee |
| S.1505 | Hunting, Fishing, and Recreational Shooting Protection Act http://hdl.loc.gov/loc.uscongress/legislation.113s1505 <ul style="list-style-type: none"> Amends the Toxic Substances Control Act to exclude from the definition of chemical substance any sport fishing equipment, firearm, or cartridge subject to a federal excise tax | Thune (R-SD) [8 cosponsors] Senate Environment and Public Works Committee 9/17/2013 Introduced 9/17/2013 Referred to Senate Committee |
| H.R. 262 | Multinational Species Conservation Funds Semipostal Stamp Reauthorization Act http://hdl.loc.gov/loc.uscongress/legislation.113hr262 <ul style="list-style-type: none"> Extends the availability of the Save Vanishing Species stamp for four years The Postal Service gives the proceeds from stamp sales to the Fish and Wildlife Service to fund projects for endangered wildlife species including African and Asian elephants, rhinos, tigers, great apes, and marine sea turtles | Grimm (R-NY) [57 cosponsors] House Natural Resources Subcommittee on Fisheries, Wildlife, Oceans, and Insular Affairs 1/15/2013 Introduced 1/31/2013 Referred to House Subcommittee |
| S. 542 | Maritime Lien Reform Act of 2013 http://hdl.loc.gov/loc.uscongress/legislation.113s542 <ul style="list-style-type: none"> Prohibits maritime liens from being imposed on Alaskan limited entry commercial fishing permits | Murkowski (R-AK) [2 cosponsors] Senate Committee on Commerce, Science, and Transportation 3/13/2013 Introduced 3/13/2013 Referred to Senate Committee |
| S. 681 | Offshore Fairness Act http://hdl.loc.gov/loc.uscongress/legislation.113s681 <ul style="list-style-type: none"> Extends the offshore jurisdictions of Gulf of Mexico states to three marine leagues from their respective coastlines States would control the rights to energy resources and gain exclusive fishery management authority over reef fish within the new boundary | Vitter (R-LA) [none] Senate Committee on Energy and Natural Resources 4/9/2013 Introduced 4/9/2013 Referred to Senate Committee |

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| H.R. 1430 | <p>Offshore Fairness Act http://hdl.loc.gov/loc.uscongress/legislation.113hr1430</p> <ul style="list-style-type: none"> House companion bill to S. 681, the Offshore Fairness Act | <p>Cassidy (R-LA) [1 cosponsor] House Judiciary Subcommittee on Regulatory Reform, Commercial And Antitrust Law; House Natural Resources Subcommittee on Energy and Mineral Resources 4/30/2013 Referred to House Subcommittees</p> |
| S. 747 | <p>A bill to grant exclusive fishery management authority over the red snapper fish in the Gulf of Mexico to certain States. http://hdl.loc.gov/loc.uscongress/legislation.113s747</p> <ul style="list-style-type: none"> Grants Gulf states exclusive fishery management authority over red snapper fish in the Gulf of Mexico in the area located between the coast line of each such state and the point that is 200 miles seaward of the coast line | <p>Vitter (R-AL) [none] Committee on Commerce, Science, and Transportation. 4/17/2013 Introduced 4/17/2013 Referred to Senate Committee</p> |
| H.R. 753 | <p>Prohibiting commercial finfish aquaculture operations in the Exclusive Economic Zone. http://hdl.loc.gov/loc.uscongress/legislation.113hr753</p> <ul style="list-style-type: none"> Prohibits the Secretary of Interior and the Secretary of Commerce from authorizing commercial finfish aquaculture operations in the federal Exclusive Economic Zone (EEZ) unless specifically authorized by Congress Congress has never authorized open ocean aquaculture or provided a legislative framework for managing finfish farms in the EEZ | <p>Young (R-AK) [none] House Natural Resources Subcommittee on Fisheries, Wildlife, Oceans, and Insular Affairs 2/15/2013 Introduced 3/1/2013 Referred to House Subcommittee</p> |
| H.R. 1021 | <p>Land Acquisition to Cut National Debt Act http://hdl.loc.gov/loc.uscongress/legislation.113hr1021</p> <ul style="list-style-type: none"> Suspends net federal land acquisitions under the jurisdiction of the Bureau of Land Management, the National Park Service, the Fish and Wildlife Service, or the Forest Service unless the Federal budget is balanced for the year in which the land would be purchased | <p>Stivers (R-OH) [none] House Natural Resources Committee; House Agriculture Committee 3/6/2013 Introduced 3/12/2013 Referred to House Committees 4/2/2013 Referred to House Subcommittees</p> |

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| <p>S. 1022</p> | <p>A bill to amend title 46, United States Code, to extend the exemption from the fire-retardant materials construction requirement for vessels operating within the Boundary Line.</p> <p>http://hdl.loc.gov/loc.uscongress/legislation.113s1022</p> <ul style="list-style-type: none"> • Amends federal shipping law to extend through October 31, 2028, the exemption of certain vessels from the requirement that U.S. passenger vessels having berth or stateroom accommodations for at least 50 passengers be constructed of fire-retardant materials in order to be granted a certificate of inspection • Continues to apply this exemption only to vessels in operation before January 1, 1968, which operate only within the Boundary Line (the dividing point between inland waters and high seas) | <p>Brown (D-OH) [7 cosponsors] Senate Committee on Commerce, Science, and Transportation 5/22/2013 Introduced 5/22/2013 Referred to Senate Committee</p> |
| <p>S. 1079</p> | <p>Artificial Reef Promotion Act of 2013</p> <p>http://hdl.loc.gov/loc.uscongress/legislation.113s1079</p> <ul style="list-style-type: none"> • Expedites the application review to remove an offshore oil or gas platform in the Gulf of Mexico for use as an artificial reef by requiring that a decision be made within 150 days | <p>Vitter (R-LA) [2 cosponsors] Senate 5/23/2013 Introduced 5/23/2013 Referred to Senate Committee</p> |
| <p>S. 1161</p> | <p>Gulf of Mexico Red Snapper Conservation Act of 2013</p> <p>http://hdl.loc.gov/loc.uscongress/legislation.113s1161</p> <ul style="list-style-type: none"> • Transfers management responsibility of Gulf of Mexico red snapper to the Gulf states | <p>Landrieu (D-LA) [1 cosponsor] Senate Committee on Commerce, Science, and Transportation 6/13/2013 Introduced 6/13/2013 Referred to Senate Committee</p> |
| <p>H.R. 1219</p> | <p>Gulf Fisheries Fairness Act</p> <p>http://hdl.loc.gov/loc.uscongress/legislation.113hr1219</p> <ul style="list-style-type: none"> • Resets the state water boundaries for the purposes of reef fish management for all five Gulf states to an average depth of 20 fathoms (120 feet) or nine nautical miles, whichever is farthest • Currently, Alabama, Louisiana and Mississippi have three mile boundaries, while Florida and Texas are set at nine miles | <p>Bonner (R-AL) [12 cosponsors] House Committee on Natural Resources 3/15/2013 Introduced 3/15/2013 Referred to House Committee</p> |

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| H.R. 1313 | <p>To amend the Food, Conservation, and Energy Act to repeal a duplicative program relating to inspection and grading of catfish. http://hdl.loc.gov/loc.uscongress/legislation.113hr1313</p> <ul style="list-style-type: none"> • Terminates the USDA catfish inspection program • Currently the FDA and NFMS also have catfish inspection programs in place, and the Government Accountability Office singled out USDA's catfish inspection program as duplicative in a February 2013 report on government waste • Three other bills (H.R. 1999, S. 632, and the House Farm Bill) also end USDA's catfish inspection program | <p>Hartzler (R-MO) [64 cosponsors] House Agriculture Subcommittee on Livestock, Rural Development, and Credit 3/21/2013 Introduced 4/2/2013 Referred to Senate Subcommittee</p> |
| S. 1435 | <p>Clean Ports Act of 2013 http://hdl.loc.gov/loc.uscongress/legislation.113s1435</p> <ul style="list-style-type: none"> • Encourages ports to adopt and enforce requirements to reduce pollution, mitigate traffic congestion, improve highway safety, and enhance efficient utilization of port facilities | <p>Gillibrand (D-NY) [1 cosponsor] Senate Commerce, Science, and Transportation Committee 8/1/2013 Introduced 8/1/2013 Referred to Senate Committee</p> |
| H.R. 2261 | <p>National Mitigation Fisheries Coordination Act http://hdl.loc.gov/loc.uscongress/legislation.113hr2261</p> <ul style="list-style-type: none"> • Directs agencies with fishery mitigation activities on mandated federal water projects to reimburse the Fish and Wildlife Service for the cost of operating the hatcheries used in mitigation | <p>Crawford (R-AR) [6 cosponsors] Subcommittee on Water Resources and Environment 6/5/2013 Introduced 6/10/2013 Referred to House Subcommittees</p> |
| H.R. 3099 | <p>Gulf of Mexico Red Snapper Conservation Act of 2013 http://hdl.loc.gov/loc.uscongress/legislation.113hr3099</p> <ul style="list-style-type: none"> • Transfers management authority over the red snapper fishery to the Gulf States Marine Fisheries Commission • Contains a three year prohibition on any reduction in quotas | <p>Miller (R-FL) [20 cosponsors] House Natural Resources 9/12/2013 Introduced 9/12/2013 Referred to House Committee</p> |
| H.R. 4988 | <p>Marine Access and State Transparency (MAST) Act http://hdl.loc.gov/loc.uscongress/legislation.113hr4988</p> <ul style="list-style-type: none"> • Requires the President to obtain approval from affected state Governors before designating any area of the EEZ to be a national monument | <p>Rep Southerland (R-FL) [16 cosponsors] House Natural Resources Committee 6/26/2014 Introduced 7/7/2014 Referred to House Subcommittee</p> |

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| <p>H.R. 4737</p> | <p>State Fisheries Act of 2014 http://hdl.loc.gov/loc.uscongress/legislation.113hr4737</p> <ul style="list-style-type: none"> Amends the Magnuson-Stevens Fishery Conservation and Management Act to provide, for purposes of managing fisheries in the Gulf of Mexico, that the seaward boundary of a coastal state's jurisdiction in the Gulf of Mexico is a line nine nautical miles seaward from the baseline from which the territorial sea of the United States is measured. | <p>Rep Pallazzo (R-MS) [none] House Committee on Natural Resources 5/22/2014 Introduced 5/22/2014 Referred to House committee</p> |
| <p>H.R. 4722</p> | <p>EEZ Clarification Act http://hdl.loc.gov/loc.uscongress/legislation.113hr4722</p> <ul style="list-style-type: none"> Declares that the landward boundary of the exclusive economic zone (EEZ) between the area south of Montauk, New York, and the area south of Point Judith, Rhode Island, for purposes of all federal laws governing marine fisheries management, shall be considered to be a continuous line running: (1) from a point three miles south of the southernmost point of Montauk to a point three miles south of the southernmost point of Block Island, Rhode Island, and (2) from such point three miles south of the southernmost point of Block Island, Rhode Island, to a point three miles south of the southernmost point of Point Judith. | <p>Rep Bishop (D-NY) [none] House Committee on Natural Resources 5/22/2014 Introduced 5/30/2014 Referred to House Subcommittee</p> |
| <p>HR 4642</p> | <p>Boating Occupancy and Teaching Safety Act or the BOATS Act http://hdl.loc.gov/loc.uscongress/legislation.113hr4642</p> <ul style="list-style-type: none"> Directs the Commandant of the Coast Guard to: (1) establish maximum passenger capacity and maximum weight capacity standards for recreational vessels, and (2) require manufacturers and operators of passenger vessels to permanently display in a legible manner that is clearly visible, including on each flying bridge of the vessel, to vessel passengers such maximum capacity requirements and a notice of the need to balance vessel weight to avoid capsizing | <p>Rep Israel (D-NY) [none] House Committee on Natural Resources 5/9/2014 Introduced 5/20/2014 Referred to House Subcommittee</p> |

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| S. 518 | <p>H2O Visa for Seafood Processing Act http://hdl.loc.gov/loc.uscongress/legislation.113s518</p> <ul style="list-style-type: none"> Amends the Immigration and Nationality Act to establish a nonimmigrant visa category for an alien having a foreign country residence, which he or she has no intention of abandoning, who is coming temporarily to the United States to work in the seafood processing industry. | <p>Sen Begich (D-AK) [none] Senate Committee on the Judiciary 3/11/2013 Introduced 3/11/2014 Referred to Senate Committee</p> |
|--------|--|--|

Regional Projects/Legislation

| | | |
|----------|---|--|
| S. 1520 | <p>York River Wild and Scenic River Study Act of 2013 http://hdl.loc.gov/loc.uscongress/legislation.113s1520</p> <ul style="list-style-type: none"> Would amend the Wild and Scenic Rivers Act to designate segments of the York River and associated tributaries for study for potential inclusion in the National Wild and Scenic Rivers System | <p>Kind (I-ME) [none] Senate Energy and Natural Resources Committee 9/18/2013 Introduced 9/18/2013 Referred to Senate Committee 7/23/2014 Subcommittee Hearing held</p> |
| H.R. 175 | <p>To authorize a project for hurricane and storm damage reduction, West Onslow Beach and New River Inlet (Topsail Beach), North Carolina http://hdl.loc.gov/loc.uscongress/legislation.113hr157</p> | <p>Rep McIntyre, Mike (D-NC) [none] Subcommittee on Water Resources and Environment 1/4/2013 introduced 1/7/2013 Referred to House Subcommittee</p> |
| H.R. 644 | <p>Delaware River Basin Conservation Act of 2013 http://hdl.loc.gov/loc.uscongress/legislation.113hr644</p> <ul style="list-style-type: none"> Requires the Secretary of the Interior to establish the Delaware River Basin Restoration Program within the U.S. Fish and Wildlife Service Requires the Secretary to institute a new partnership to work in consultation with existing management structures to identify, prioritize, and implement restoration and protection activities in the entire basin and adopt a basin-wide investment strategy for implementation of the program | <p>Carney (D-DE) [21 cosponsors] House Natural Resources Subcommittee on Fisheries, Wildlife, Oceans, and Insular Affairs 2/13/2013 Introduced 2/22/2013 Referred to House Subcommittee</p> |

| | | |
|-----------|--|--|
| H.R. 2174 | <p>Long Island Sound Restoration and Stewardship Act http://hdl.loc.gov/loc.uscongress/legislation.113hr2174</p> <ul style="list-style-type: none"> • Streamlines the federal authorization process for the Long Island Sound Restoration Act (passed in 2000 & 2005) and the Long Island Sound Stewardship Act (passed in 2006) • Improves coordination among federal, state and local agencies and requires reporting on the use of the funds | <p>Israel (D-NY) [16 cosponsors] Subcommittee on Fisheries, Wildlife, Oceans, and Insular Affairs 5/23/2013 introduced 6/3/2013 Referred to Senate Subcommittee</p> |
| H.R. 3139 | <p>To amend the Chesapeake Bay Initiative Act of 1998 to provide for the reauthorization of the Chesapeake Bay Gateways and Watertrails Network http://hdl.loc.gov/loc.uscongress/legislation.113hr3139</p> | <p>Sarbanes (D-MD) [10 cosponsors] House Natural Resources Committee 9/19/2013 Introduced 9/27/2013 Referred to House Subcommittee</p> |

Atlantic States Marine Fisheries Commission

1444 Eye Street, NW, 6th Floor

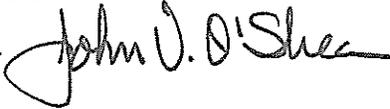
Washington, D.C. 20005

(202) 289-6400 phone

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MEMORANDUM

TO: ASMFC Administrative Commissioners

FROM: John V. O'Shea, Executive Director 

RE: State Delegation Participation in Management Board/Section Meetings

DATE: June 12, 2009

At the ASMFC Spring Meeting, the ISFMP Policy Board provided guidance for state delegation participation during board/section meetings. The Policy Board reaffirmed that each state may have no more than three commissioners or commissioner proxies engage in board discussions.

The Policy Board noted there have been instances when more than three commissioners or proxies have been seated at the table during board meetings.

Where a proxy for an administrative commissioner is serving as chair of a board, the Policy Board agreed that the administrative commissioner may sit with the state's delegation. The commissioner may advise/consult the delegation but shall not engage in the board discussion.

In the case where a commissioner is sitting at the table with their proxy, the Policy Board agreed such practice is acceptable; however the commissioner shall decide which one will participate in the board discussion.

cc: ASMFC Commissioners

M09-056

Take-away points

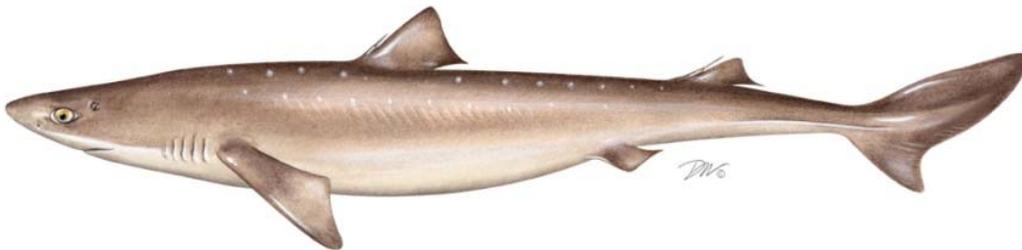
1. Non-Economics Social Science is a science
 - a. May be quantitative or qualitative or a mixture
 - b. Uses a variety of methodologies
 - i. Use of more than one methodology leads to more nuanced results that may be more reliable
 - c. **Do you know your local social scientist?**
2. Regulations affect individual's choices, communities' and society's (cultural, social & economic) patterns.
 - a. These can determine whether or not a community is able to adapt to change.
 - b. **Can anyone offer an example other than what has already been mentioned?**
3. Compliance (and enforcement) may be affected by:
 - a. The choice of regulations (including perceptions of equity)
 - b. The way regulations are designed
4. While ASMFC is not required to include social impact assessments, these could help Commissioners in their decision-making
 - a. Social science assessments represent fishermen and their communities
 - b. ACCSP relies on states to provide accurate and complete information.
 - i. For the data to be reliable, more states need to consistently provide this data.
 - ii. **Is your state able to do so?**
 - c. NOAA's social science data, including fishery performance measures and community vulnerability indicators could help Commissioners
5. Ecosystem and climate change are already affecting the condition of the fisheries at large.
 - a. Flexibility may be a key to effective regulations

**2014 DRAFT REVIEW OF THE
ATLANTIC STATES MARINE FISHERIES COMMISSION
FISHERY MANAGEMENT PLAN FOR**

SPINY DOGFISH
(Squalus acanthias)

Updated 10/21/14. Updates are highlighted throughout document

2013/2014 FISHING YEAR



Spiny Dogfish Plan Review Team

Dr. Gregory Skomal, Massachusetts Department of Marine Fisheries
Tina Moore, North Carolina Department of Environment and Natural Resources
Marin Hawk, Atlantic States Marine Fisheries Commission, Chair

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- V. Status of Management Measures and Issues
- VI. Implementation of FMP Compliance Requirements for 2009
- VII. Recommendations of the Plan Review Team
- VIII. References

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I. Status of the Fishery Management Plan

| | |
|---------------------------------------|--|
| <u>Date of FMP Approval:</u> | November 2002 |
| <u>Amendments</u> | None |
| <u>Addenda</u> | Addendum I (November 2005) Addendum II (October 2008) Addendum III (April 2011) Addendum IV (August 2012) |
| <u>Management Unit:</u> | Entire coastwide distribution of the resource from the estuaries eastward to the inshore boundary of the EEZ |
| <u>States with Declared Interest:</u> | Maine – North Carolina |
| <u>Active Boards/Committees:</u> | Spiny Dogfish Management Board, Advisory Panel, Technical Committee, and Plan Review Team |

a) Goals and Objectives

The Interstate Fishery Management Plan for Spiny Dogfish (FMP) established the following goals and objectives.

2.2. GOALS

The goal of the Interstate Fishery Management Plan for Spiny Dogfish is: “To promote stock rebuilding and management of the spiny dogfish fishery in a manner that is biologically, economically, socially, and ecologically sound.”

2.3 OBJECTIVES

In support of this goal, the following objectives are recommended for the Interstate FMP:

- 1. Reduce fishing mortality and rebuild the female portion of the spawning stock biomass to prevent recruitment failure and support a more sustainable fishery.*
- 2. Coordinate management activities between state, federal and Canadian waters to ensure complementary regulations throughout the species range.*
- 3. Minimize the regulatory discards and bycatch of spiny dogfish within state waters.*
- 4. Allocate the available resource in biologically sustainable manner that is equitable to all the fishers.*
- 5. Obtain biological and fishery related data from state waters to improve the spiny dogfish stock assessment that currently depends upon data from the federal bottom trawl survey.*

b) Fishery Management Plan Summary

In 1998, NMFS declared spiny dogfish overfished and initiated the development of a joint fishery management plan (FMP) between the Mid-Atlantic (MAFMC) and New England Fishery Management Councils (NEFMC) in 1999. NMFS partially approved the federal Fishery Management Plan in September 1999, but implementation did not begin until May 2000, the start of the 2000/2001 fishing year.

In August 2000, ASMFC took emergency action to close state waters to the commercial harvest, landing, and possession of spiny dogfish when the federal waters closed in response to the quota being fully harvested. With the emergency action in place, the Commission had time to develop an interstate FMP, which prevented the undermining of the federal FMP and prevented further overharvest of the coastwide spiny dogfish population. Needing additional time to complete the interstate FMP, the ASMFC extended the emergency action twice through January 2003. During that time, the majority of spiny dogfish landings were from state waters because states had either no possession limits or less conservative possession limits than those of the federal FMP. The Interstate FMP for Spiny Dogfish was approved by ASMFC in November 2002 and was implemented for the 2003-2004 fishing year. In general, the ASMFC and Council FMP's strive to promote stock rebuilding and management of the spiny dogfish fishery in a manner that is biologically, economically, socially, and ecologically sound.

Both the ASMFC and Council FMP's established an annual quota that gets allocated seasonally between two periods (57.9% from May 1 to October 31 and 42.1% from November 1 to April 30). The seasonal periods can have separate possession limits that are specified on an annual basis. Both the Council and ASMFC FMP's also include paybacks for quota overages, allow for a five percent quota rollover once the stock is rebuilt, and allow for up to 1,000 spiny dogfish to be harvested for biomedical supply.

In November 2005, the Spiny Dogfish and Coastal Sharks Management Board approved Addendum I to the Interstate FMP for Spiny Dogfish. Addendum I provides the Board with the authority, but not the requirement, to establish spiny dogfish specifications (quota and possession limits) for up to five years. The Mid-Atlantic and New England Fishery Management Councils took similar action under Framework 1, recommending the adoption of multi-year management measures without the requirement of annual review to NOAA Fisheries for final approval. Framework 1 to the federal Spiny Dogfish FMP, which will allow the specification of commercial quotas and other management measures for up to five years, became effective February 21, 2006.

Addendum II, approved October 2008, established regional quotas in place of the FMP's seasonal allocation. Under Addendum II, the annual quota is divided regionally with 58% allocated to the states of Maine to Connecticut, 26% allocated to the states of New York to Virginia, and the remaining 16% allocated to North Carolina. The Board allocated a specific percentage to North Carolina because spiny dogfish are not available to their fishermen until late into the fishing season when most of the quota has already been harvested. The North Carolina allocation will allow fishermen and processors to plan fishing operations based on a specific amount of dogfish. Regional overage paybacks were also included in Addendum II to maintain

the conservation goals of the plan. Any overage of a region and/or state quota is subtracted from that region/state the subsequent fishing year.

The Commission's Spiny Dogfish and Coastal Sharks Management Board (Board) approved Addendum III to the Interstate Fishery Management Plan for Spiny Dogfish (Addendum III) in March 2011. Addendum III did not apply to the 2009/2010 fishing season and was not effective until the 2011/2012 fishing season. The Addendum divided the southern region annual quota of 42% into state-specific shares. It also allowed for quota transfer between states, rollovers of up to five percent, state-specified possession limits, and includes a three-year reevaluation of the measures. The Addendum's provisions apply only to states in the southern region (New York through North Carolina) and do not modify the northern region allocation. The states of Maine to Connecticut continue to share 58% of the annual quota as specified in Addendum II.

Addendum IV to the Interstate Fishery Management Plan for Spiny Dogfish (Addendum IV) was approved in August 2012. This Addendum addressed the differences in the definitions of overfishing between the NEFMC, MAFMC and the ASMFC. The Board adopted the fishing mortality threshold to be consistent with the federal plan. Overfishing is defined as an F rate that exceeds the $F_{threshold}$. The $F_{threshold}$ is defined as F_{MSY} (or a reasonable proxy thereof) and based upon the best available science. The maximum fishing mortality threshold (F_{MSY}) or a reasonable proxy may be defined as a function of (but not limited to): total stock biomass, Spawning Stock Biomass (SSB), total pup production, and may include males, females, both, or combinations and ratios thereof which provide the best measure of productive capacity for spiny dogfish. This definition is consistent with the federal Spiny Dogfish FMP. Currently $F_{MSY} = 0.2439$.

Draft Addendum V is currently out for public comment. It considers a fins-naturally-attached policy for spiny dogfish to ensure consistency with the Shark Conservation Act of 2010, which prohibits the removal of all sharks (except smooth dogfish) at-sea. The Spiny Dogfish Board will consider Draft Addendum V for final approval at the October 2014 meeting in Mystic, Connecticut.

II. Status of the Stock and Assessment Advice

Please note: fishing mortality rates and projections regarding the stock size could not be determined for the 2013/2014 fishing season due to a lack of data. The Northeast Fishery Science Center bottom trawl survey was not able to sample strata in the mid-Atlantic region due to mechanical problems.

Overfishing definition: $F_{target} = 0.244$; allows for the production of 1.5 female pups per female that will recruit to the spawning stock biomass (SSB).

$F_{threshold} = 0.325$; allows for the production of one female pup per female that will recruit to the SSB.

Overfished Definition: $SSB_{target} = 159,288$ mt (351 million pounds); level of biomass that would maximize recruitment to the population (100% SSBmax).

$$SSB_{threshold} = 79,644 \text{ mt (175 million pounds); 50\% of SSBmax}$$

Spiny dogfish are not overfished and overfishing is not occurring:

Spiny dogfish was declared ‘rebuilt’ in 2008 when SSB exceeded the target for the first time since the ASMFC began managing spiny dogfish in 2002. Prior to the ‘rebuilt’ status, quotas were based on the short term target $F_{rebuild} = 0.11$. The FMP allows for quotas based on F_{target} (as opposed to the more conservative $F_{rebuild}$) “once the mature female portion of the spawning stock has reached the target”.

The most recent estimates of SSB are from the NEFSC Update on the Status of Spiny Dogfish in 2013 and Projected Harvests at the Fmsy Proxy and Pstar of 40% report. The 2013 NEFSC report estimates that SSB continued to exceed the target in 2013 (for the fifth year in a row) at 211,372 metric tons. The 2014 NEFSC spring bottom trawl survey did not collect adequate data to update the SSB estimates for the most recent year.

The NEFSC report also provides the most recent estimate of F. F was 0.15 in 2012 and has been consistently below the fishing mortality target in recent years. As such, spiny dogfish are not overfished and overfishing is not occurring. Unfortunately, record low pup production from 1997 to 2003 has left a recruitment deficit that will cause SSB to drop soon. The amplitude of this drop increases as fishing mortality increases and still occurs when fishing mortality is hypothetically zero.

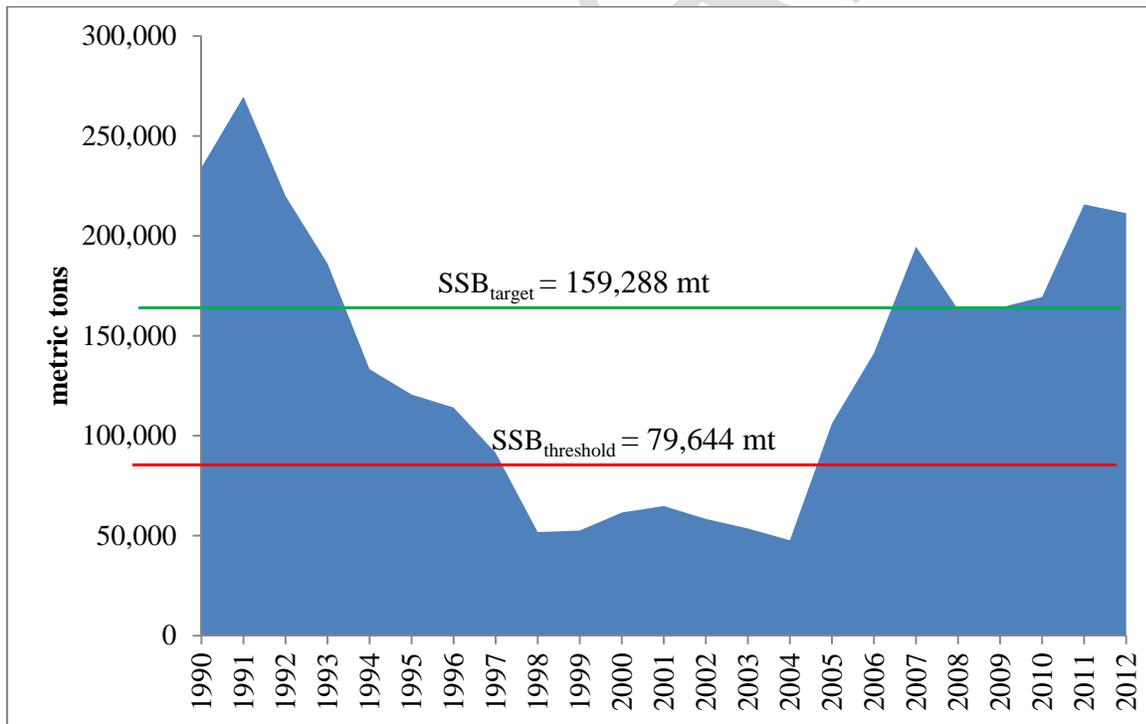


Figure 1: Spiny dogfish spawning stock biomass, 1990 – 2012. Source: NEFSC Update on the Status of Spiny Dogfish in 2013 and Projected Harvests at the Fmsy Proxy and Pstar of 40%.

Table 1: Spawning stock biomass and fishing mortality in the spiny dogfish fishery, 1990 – 2013. Source: NEFSC Update on the Status of Spiny Dogfish in 2013 and Projected Harvests at the Fmsy Proxy and Pstar of 40%.

| Year | Female SSB (mt) | F rate |
|------|-----------------|--------|
| 1991 | 234,229 | 0.082 |
| 1992 | 269,624 | 0.177 |
| 1993 | 220,002 | 0.327 |
| 1994 | 186,132 | 0.465 |
| 1995 | 133,264 | 0.418 |
| 1996 | 120,664 | 0.355 |
| 1997 | 114,091 | 0.234 |
| 1998 | 91,458 | 0.306 |
| 1999 | 51,821 | 0.289 |
| 2000 | 52,562 | 0.152 |
| 2001 | 61,552 | 0.109 |
| 2002 | 64,844 | 0.165 |
| 2003 | 58,376 | 0.168 |
| 2004 | 53,625 | 0.474 |
| 2005 | 47,719 | 0.128 |
| 2006 | 106,180 | 0.088 |
| 2007 | 141,351 | 0.09 |
| 2008 | 194,616 | 0.11 |
| 2009 | 163,256 | 0.113 |
| 2010 | 164,066 | 0.093 |
| 2011 | 169,415 | 0.114 |
| 2012 | 215,444 | 0.149 |
| 2013 | 211,372 | -- |

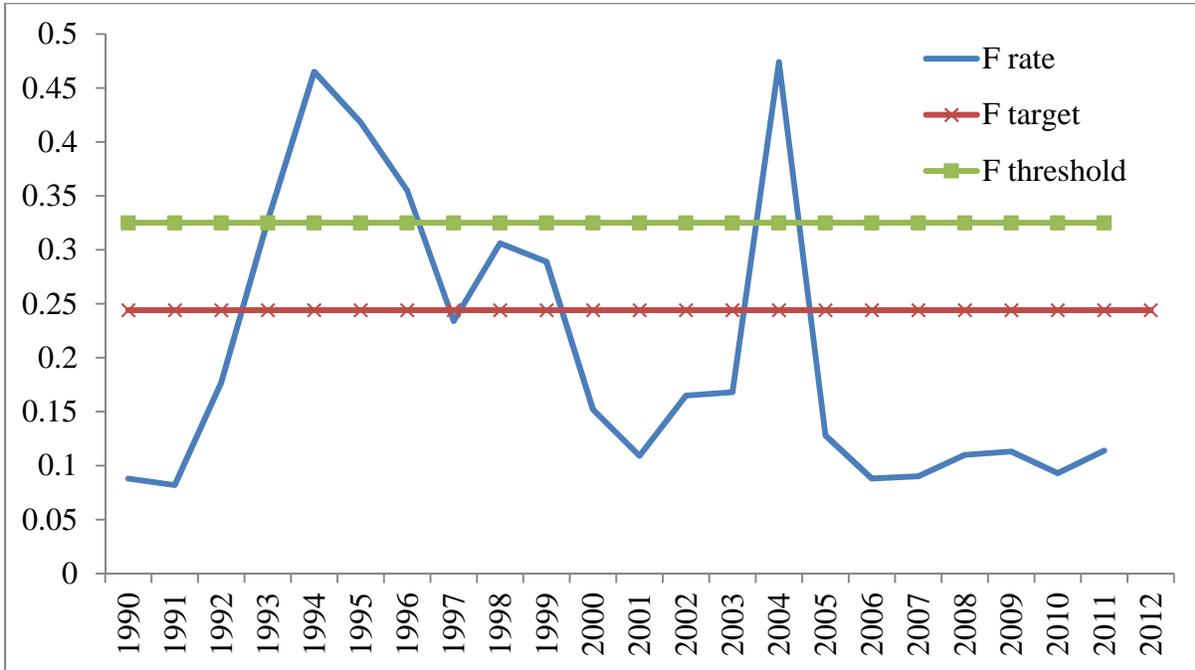


Figure 2: Fishing mortality rates in the spiny dogfish fishery, 1990 – 2012. Source: NEFSC Update on the Status of Spiny Dogfish in 2013 and Projected Harvests at the Fmsy Proxy and Pstar of 40%.

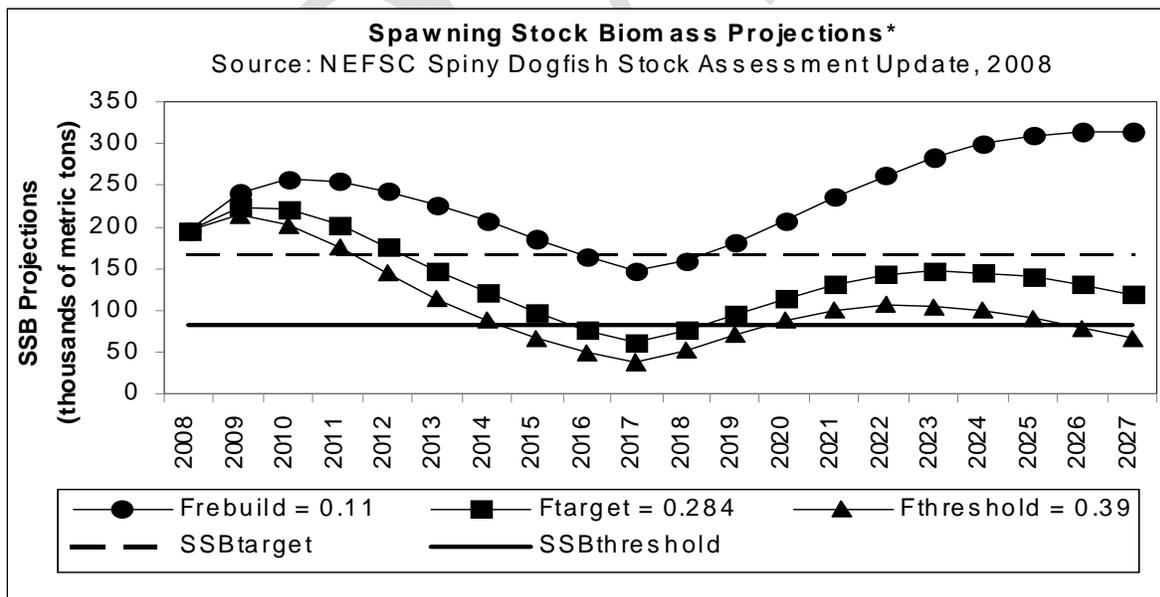


Figure 3: Spawning stock biomass (SSB) projections for the spiny dogfish fishery, 2008-2027. Source: NEFSC Update on the Status of Spiny Dogfish in 2010 and Initial Evaluation of Harvest Strategies.

III. Status of the Fishery

Specifications

The spiny dogfish commercial fishery runs from May 1 – April 30. The coastwide quota was set at 30 million pounds with a maximum of 4,000 pound possession limits for the 2013/2014 fishing season (May 1, 2013 – April 30, 2014).

Quotas

Prior to adjustments for overages and rollovers in the 2012/2013 fishing season, the 2013/2014 40.8 million pound coastwide quota was allocated with 23,688,360 pounds (58%) to states from Maine – Connecticut (Northern Region), 1,105,593 pounds (2.707%) to New York, 3,121,962 pounds (7.644%) to New Jersey, 365,944 pounds (0.896 %) to Delaware, 2,417,846 pounds (5.920%) to Maryland, 4,408,894 pounds (10.795%) to Virginia and the remaining 5,732,583 pounds (14.036%) to North Carolina. Addendum II specifies that when the quota allocated to a region or state is exceeded in a fishing season, the amount over the allocation will be deducted from the corresponding region or state in the subsequent fishing season. The overages for the 2012/2013 season (Northern region, New Jersey, and Virginia) are outlined in Table 2.

Table 2: Regional quotas for May 1, 2013 - April 30, 2014 fishing season.

| Region/State | 2013/2014 Quotas | 2012/2013 Overages (-) and Rollovers (+) | 2013/2014 Adjusted Quotas |
|-----------------------|-------------------------|---|----------------------------------|
| Northern | 23,688,360 | +1,035,126 | 23,912,773 |
| New York | 1,105,593 | +48,312 | 1,153,905 |
| New Jersey | 3,121,962 | +136,422 | 3,258,384 |
| Delaware | 365,944 | +15,991 | 381,935 |
| Maryland | 2,417,846 | +105,654 | 4,601,552 |
| Virginia | 4,408,894 | +192,658 | 1,153,905 |
| North Carolina | 5,732,583 | +250,500 | 3,258,384 |

Commercial landings totaled 11,853,700 pounds during the 2013/2014 fishing season (

Table 3). The underharvest reflects the market conditions for this year. Massachusetts (6,113,317 pounds), North Carolina (4,516,474 pounds), and Virginia (1,250,148 pounds) had the most significant commercial landings during the 2013/2014 fishing season.

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Table 3: Commercial landings of spiny dogfish on the Atlantic coast, 2013/2014 fishing year. Source: State compliance reports and ACCSP Data Warehouse.

| State Landed | Pounds |
|--------------|-------------------|
| ME | 106,559 |
| NH | 488,126 |
| MA | 6,113,317 |
| RI | 789,334 |
| CT | 21,990 |
| NY | 79,166 |
| NJ | 1,780,199 |
| DE | * |
| MD | 932,210 |
| VA | 1,250,148 |
| NC | 4,516,474 |
| Total | 16,077,523 |

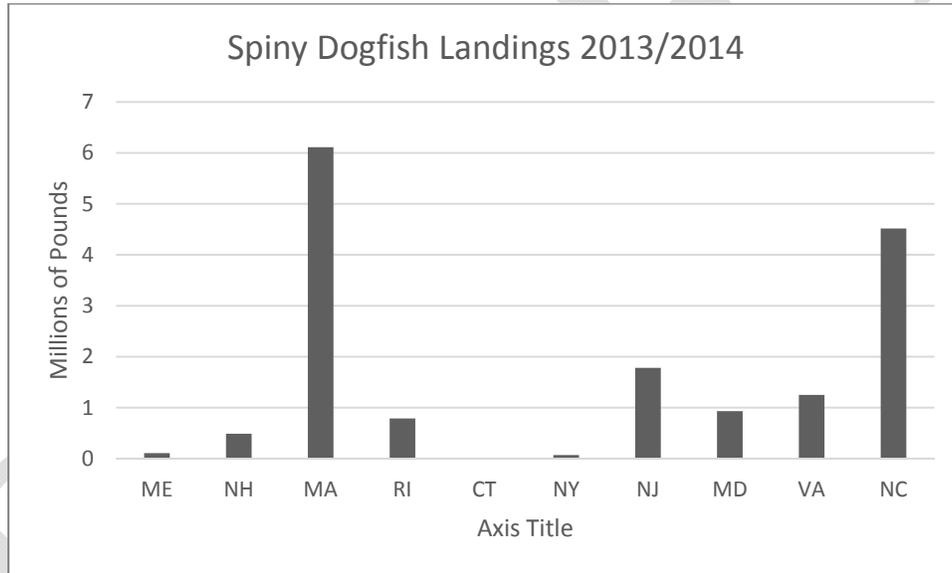


Figure 4: Commercial landings of spiny dogfish on the Atlantic coast, 2013/2014. Source: State compliance reports and ACCSP Data Warehouse.

Recreational landings of spiny dogfish on the Atlantic coast for the 2013/2014 fishing year remained insignificant at 81,570 pounds. This is less than 1% of total landings of spiny dogfish.

Canadian landings have averaged about 77 mt per year since 2009. Estimates of Canadian landings for 2013 are not yet available.

Table 4: Landings of spiny dogfish off the Atlantic coast by Canada and foreign fleets, 1991-2013.

| Year | Canada (mt) | Foreign Fleets (mt) | Total (mt) |
|-------------|------------------------|------------------------------------|-----------------------|
| 1991 | 307 | 234 | 541 |
| 1992 | 868 | 67 | 935 |
| 1993 | 1,435 | 27 | 1462 |
| 1994 | 1,820 | 2 | 1822 |
| 1995 | 956 | 14 | 970 |
| 1996 | 431 | 236 | 667 |
| 1997 | 446 | 214 | 660 |
| 1998 | 1,055 | 607 | 1662 |
| 1999 | 2,091 | 554 | 2645 |
| 2000 | 2,741 | 402 | 3143 |
| 2001 | 3,820 | 677 | 4497 |
| 2002 | 3,584 | 474 | 4058 |
| 2003 | 1,302 | 643 | 1945 |
| 2004 | 2,362 | 330 | 2692 |
| 2005 | 2,270 | 330 | 2600 |
| 2006 | 2,439 | 10 | 2449 |
| 2007 | 2,384 | 31 | 2415 |
| 2008 | 1,572 | 131 | 1703 |
| 2009 | 113 | 82 | 195 |
| 2010 | 6 | 127 | 133 |
| 2011 | 124 | 143 | 267 |
| 2012 | 65 | 137 | 202 |
| 2013 | NA | 61 | NA |

Total dead discards were 5,010 metric tons (11,045,046 pounds) in 2013. Total dead discards have been between 4,000 and 6,000 metric tons since 1996 (Table 5) despite significant management changes and large fluctuations in annual landings.

Table 5: Dead discards (metric tons) in the spiny dogfish commercial fishery on the Atlantic coast of the United States, 1981-2013. Source: NEFSC 2014 Status Report for Spiny Dogfish in 2013.

| Year | Otter trawl | Sink gill net | Scallop dredge | Line gear | Total dead discards |
|------|-------------|---------------|----------------|-----------|---------------------|
| 1981 | 18,180 | 1,608 | na | na | 19,847 |
| 1982 | 21,455 | 1,336 | na | na | 22,861 |
| 1983 | 21,094 | 1,213 | na | na | 22,415 |
| 1984 | 19,813 | 1,475 | na | na | 21,373 |
| 1985 | 16,677 | 1,362 | na | na | 18,232 |
| 1986 | 15,873 | 1,465 | na | na | 17,575 |
| 1987 | 14,525 | 1,459 | na | na | 16,195 |
| 1988 | 14,476 | 1,540 | na | na | 16,190 |
| 1989 | 14,143 | 1,608 | na | na | 16,020 |
| 1990 | 17,121 | 1,819 | na | na | 19,174 |
| 1991 | 9,661 | 3,309 | 24 | 10 | 13,274 |
| 1992 | 16,309 | 1,786 | 620 | 65 | 18,983 |
| 1993 | 8,642 | 2,944 | 157 | 4 | 11,969 |
| 1994 | 6,954 | 866 | 542 | na | 8,556 |
| 1995 | 8,499 | 2,019 | 284 | na | 10,932 |
| 1996 | 4,701 | 1,167 | 91 | na | 6,025 |
| 1997 | 3,352 | 698 | 149 | na | 4,366 |
| 1998 | 2,634 | 590 | 90 | na | 3,435 |
| 1999 | 3,843 | 602 | 31 | na | 4,581 |
| 2000 | 1,364 | 1,405 | 11 | na | 2,917 |
| 2001 | 2,460 | 2,161 | 23 | na | 5,063 |
| 2002 | 2,770 | 1,499 | 44 | 402 | 5,049 |
| 2003 | 1,927 | 1,624 | 77 | 0 | 4,225 |
| 2004 | 4,150 | 1,209 | 40 | 50 | 6,146 |
| 2005 | 3,758 | 1,001 | 11 | 118 | 5,589 |
| 2006 | 3,886 | 1,011 | 10 | 13 | 5,688 |
| 2007 | 4,058 | 1,540 | 45 | 7 | 6,510 |
| 2008 | 2,802 | 1,459 | 178 | 26 | 5,088 |
| 2009 | 3,505 | 1,462 | 273 | 84 | 5,897 |
| 2010 | 2,782 | 716 | 147 | 51 | 4,081 |
| 2011 | 3,270 | 849 | 170 | 36 | 4,787 |
| 2012 | 3,344 | 888 | 324 | 17 | 4,848 |
| 2013 | 3,448 | 932 | 95 | 4 | 5,010 |

Total commercial landings in 2013 are estimated to be greater than 95% female. Females composed an average of 92% of commercial catch since 2003 (NEFSC Update 2013).

IV. Status of Research and Monitoring

Under the Interstate Fishery Management for Spiny Dogfish, the states are not required to conduct any fishery dependent or independent studies. The Interstate FMP requires an annual review of recruitment, spawning stock biomass, and fishing mortality. The annual review relies heavily on the NEFSC's spring trawl survey data to determine the annual status of the stock. States are encouraged to submit any spiny dogfish information collected while surveying for other species. Research and monitoring information from state reports follows. States that are did not include research/monitoring information in their reports are not listed below. Please see individual reports for more information.

Maine

The spring portion of the 2013 Maine-New Hampshire Inshore Trawl Survey was conducted in the near shore waters of the Gulf of Maine. A total of 158 spiny dogfish were collected, 76 females and 82 males were caught. Males ranged from 28 to 79 cm and the females 26 to 83 cm. This was the highest number of dogfish for a spring survey since it began in 2001.

The fall portion of the 2013 Trawl survey saw 40 dogfish. There were 23 males at lengths ranging from 34 cm to 82 cm. A total of 17 females were sampled at lengths ranging between 26 and 73 cm, numbers were distributed fairly evenly within the ranges for both sexes. This was the lowest number for a fall survey since it began in 2000.

Connecticut

Spiny dogfish abundance has been monitored in the Long Island Sound Trawl Survey since 1984. Spring (April, May and June) and fall (September and October) surveys are conducted each year. Spiny dogfish are most consistently taken in the spring portion of the survey with between 0 and 123 fish caught per survey. Dogfish were more commonly taken in the early years of the survey (between 14 and 123 fish per survey from 1985 through 1991). Fewer than 10 fish per year were taken in 9 of the last 20 years. No spiny dogfish were taken during the spring survey in 1995, 1996 and 2000. The 2013 spring survey catch was 21 fish.

Delaware

Delaware has two fisheries independent surveys that have the potential for taking spiny dogfish. A 30-foot bottom trawl that is deployed monthly in Delaware Bay at nine fixed stations from March through December. This survey has been conducted annually since 1990, and before that from 1966-1971 and 1979-1984 using essentially the same gear type. A total of 55 spiny dogfish was taken in 2013 in 90 tows, with the majority taken in November (24) with the others being taken in April (15), May (3) and December (13). Spiny dogfish catches per tow and catch per nautical mile since 1966 are included in Table 1. Sex-based indices were generated at the request of the ASMFC and show variance without any definable trend (Tables 2 and 3). Note that sex-specific data are not available prior to 1990. The second fishery independent survey that has the potential for taking spiny dogfish is the 16-foot bottom trawl which is deployed monthly at 39 fixed stations in Delaware River and Delaware Bay and at 12 fixed stations in Delaware's Inland Bays. This survey is conducted from April through October. This gear includes a 0.5-

inch mesh liner in the cod end of the trawl and it targets primarily juvenile fishes. There were no spiny dogfish taken with this gear in 2013 from either the Delaware Bay or Delaware's Inland Bays in the 16 foot trawl.

Georgia

Each month, a 40-foot flat otter trawl with neither a turtle excluder device nor bycatch reduction device is deployed at 42 stations across six estuaries. At each station, a standard 15 minute tow is made. During this report period, 470 tows/observations were conducted, totaling 118.24 hours of tow time. A total of 50 spiny dogfish were captured during 23 tows. Catches occurred during January –May. Lengths ranged from a minimum of 509 mm TL to a maximum of 634 mm TL.

North Carolina

The NCDMF initiated a fisheries independent gill net survey in 2001 and expanded its coverage in 2008 to include the Cape Fear River and the near shore (0-3 miles) Atlantic Ocean from New River Inlet south to the South Carolina state line. The objective of this project is to provide annual, independent, relative abundance indices for key estuarine species in the near shore Atlantic Ocean, Pamlico Sound, Pamlico, Pungo, Neuse, and Cape Fear Rivers. These indices can also be incorporated into stock assessments and used to improve bycatch estimates, evaluate management measures, and evaluate habitat usage. Results from this project will be used by the NCDMF and other Atlantic coast fishery management agencies to evaluate the effectiveness of current management measures and to identify additional measures that may be necessary to conserve marine and estuarine stocks. Developing fishery independent indices of abundance for target species allows the NCDMF to assess the status of these stocks without relying solely on commercial and recreational fishery dependent data. The survey employs a stratified random sampling design and utilizes multiple mesh gill nets (3.0 inch to 6.5 inch stretched mesh, by ½ inch increments). A total of 33 spiny dogfish, 2 male and 31 female, were caught in the Pamlico Sound portion of the independent gill net study from May 2013 to mid-March 2014.

In the near shore Atlantic Ocean sampling, 873 individual spiny dogfish were captured from May 2013 to mid-March 2014, 290 in December, 25 in February and 558 in March. A total of 25 males, 843 females and 5 unknown spiny dogfish were sampled. It should be noted that the 2014 independent gill net data is preliminary from January through mid-march.

South Carolina

The SCDNR's on-going nearshore bottom longline survey program documents the annual presence of spiny dogfish in South Carolina's nearshore coastal waters, typically beginning in mid-November. Relative abundance and residence time of spiny dogfish along the coast in general may be related to winter water temperatures along the east coast, with colder winters resulting in larger spiny dogfish populations and longer residence times in South Carolina waters than in more moderate temperature years. Adult females, many being pregnant, seem to make up a majority of the fish taken by sampling gear in this program, suggesting that South Carolina waters may play a role as valuable over-wintering grounds for this species.

V. Implementation of FMP Compliance Requirements

The mandatory components of the Interstate Fishery Management Plan are:

- States must close the fishery when the commercial quota is projected to be harvested in their region. (4.1.2 *Semi-Annual Quota Allocation* of FMP)
- Possession limits cannot exceed the maximum specified by the Board during the annual specification setting process. (4.1.2.1 *Annual Process for Setting Fishery Specifications* of FMP)
- States may issue exempted fishing permits for the purpose of biomedical supply not to exceed 1,000 spiny dogfish per year. States must report the amount of dogfish harvested under special permits annually. (4.1.6 *Biomedical Supply* of FMP)
- Up to 1,000 spiny dogfish may be taken for biomedical harvest per year.
- Finning is prohibited. (4.1.7 *Prohibition of Finning* of FMP)
- State permitted dealers must report weight weekly. (4.1.4 *Data Collection and Reporting Requirements* of FMP)
- States must report weight weekly to NMFS. (4.1.4.2 *Quota Monitoring* of FMP)

Scientific/Educations Permits

Seventy-two scientific or educational collection permits were issued in North Carolina in 2013. Scientific or educational collection reports, due December 1st, cover the period of November 15th of the previous year to November 14th of the current reporting year. It should be noted, not all 2013 issued permits have submitted catch reports and 2014 reports are not due until December 1, 2014. Of these seventy-two permits only nine reported shark catches. Three permits, using trawl gear, reported catching a total of 80 spiny dogfish, 41 were released alive and 39 were kept for age and diet studies.

VII. PRT Recommendations

State Compliance

All states with a declared interest in the management of spiny dogfish have submitted reports, and have regulations in place that meet or exceed the requirements of the Interstate Fisheries Management Plan for Spiny Dogfish.

De Minimis

The ASMFC Interstate Fisheries Management Program Charter defines *de minimis* as “a situation in which, under the existing condition of the stock and scope of the fishery, conservation, and enforcement actions taken by an individual state would be expected to contribute insignificantly to a coastwide conservation program required by a Fishery Management Plan or amendment” (ASMFC 2000).

Under the Spiny Dogfish FMP, a state may be granted *de minimis* status if a state’s commercial landings of spiny dogfish are less than 1% of the coastwide commercial total. If a state meets this criterion, the state will be exempt from biological monitoring of the commercial spiny dogfish fishery. All states, including those granted *de minimis* status, will continue to report any spiny dogfish commercial or recreational landings within their jurisdiction.

When the spiny dogfish Interstate FMP was implemented in 2003, Maine, Delaware, South Carolina, Georgia, and Florida were granted *de minimis* status. To achieve *de minimis* status the FMP requires, “a state’s commercial landings of spiny dogfish to be less than 1% of the

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coastwide commercial total.” When given *de minimis* status, a state is exempted from biological monitoring of the commercial spiny dogfish fishery, but must continue to report both commercial and recreational spiny dogfish landings. In 2014, Georgia, South Carolina and Florida were removed from the Spiny Dogfish Board.

Delaware is requesting *de minimis* status for the 2014/2015 fishing season and meet the FMP requirements for achieving this status (**Error! Reference source not found.**). The PRT recommends granting *de minimis* status.

Table 8: State-by-state compliance with the Interstate Fishery Management Plan for Spiny Dogfish.

| | Report Submitted (Due July 1) | <i>De Minimis</i> Request | Biomedical Permit Harvest | Finning Prohibition | Possession limit |
|------------------------|--------------------------------------|----------------------------------|----------------------------------|----------------------------|--|
| Maine | Yes | No | No | Yes | 4,000 lb |
| New Hampshire | Yes | No | No | Yes | 4,000 lb |
| Massachusetts | Yes | No | No | Yes | 4,000 lb |
| Rhode Island | Yes | No | No | Yes | 4,000 lb |
| Connecticut | Yes | No | No | Yes | 4,000 lb |
| New York | Yes | No | No | Yes | 4,000 lb |
| New Jersey | Yes | No | No | Yes | 4,000 lb |
| Delaware | Yes | Yes, recommended | No | Yes | 4,000 lb |
| Maryland | Yes | No | No | Yes | 4,000 lb |
| Virginia | Yes | No | No | Yes | 4,000 lb |
| North Carolina | Yes | No | No | Yes | 8,000 lb or 10,000 lb (varied during season) |
| South Carolina* | Yes | NA | NA | NA | NA |
| Georgia* | Yes | NA | NA | NA | NA |
| Florida* | Yes | NA | NA | | |

*South Carolina, Georgia and Florida were removed from the Spiny Dogfish Board in 2014.

Research Priorities

- Determine area, season, and gear specific discard mortality estimates coast wide in the recreational, commercial, and non-directed (bycatch) fisheries. (SR 88)
- Monitor the level of effort and harvest in other fisheries as a result of no directed fishery for spiny dogfish. (SR 88)
- Characterize and quantify bycatch of spiny dogfish in other fisheries. (SR 88)
- Increase observer trips to document the level of incidental capture of spiny dogfish during the spawning stock rebuilding period. (SR 88)
- Conduct a coast wide tagging study to explore stock structure, migration, and mixing rates. (2010 TRAC, SR 88)
- Standardize age determination along the entire East Coast. Conduct an ageing workshop for spiny dogfish, encouraging participation by NEFSC, NCDMF, Canada DFO, other interested agencies, academia, and other international investigators with an interest in dogfish ageing (US and Canada Pacific Coast, ICES). (SR 88)

References

NEFSC. 2013. Update on the Status of Spiny Dogfish in 2013 and Projected Harvests at the Fmsy Proxy and Pstar of 40%. Report to MAFMC SSC September 17, 2013. 51 p.

NEFSC. 2014. Update of Landings and Discards of Spiny Dogfish in 2014. Report to MAFMC SSC September 17, 2014. 19 p.

Special Report No. 88 of the Atlantic States Marine Fisheries Commission. 2008. Prioritized research needs in support of interjurisdictional fisheries management.

< <http://www.safmc.net/Portals/0/FEP/AppendAFEPVolIVInterResNeeds08.pdf>>

TRAC (Transboundary Resource Assessment Committee) Spiny Dogfish Review Proceedings. 2010.

< <http://www.mar.dfo-mpo.gc.ca/science/TRAC/trac.html>>

State of Connecticut
Compliance Report for Spiny Dogfish
July 1, 2014

I. Introduction

The Atlantic States Marine Fisheries Commission (ASMFC) requires states to submit an annual report by July 1 of each year to show compliance with the Fishery Management Plan for spiny dogfish. This document fulfills that compliance requirement. This report includes commercial and recreational fishery statistics, monitoring activities and management measures for 2013.

a. Summary of the year highlighting any significant changes in monitoring, regulations or harvest.

There were no significant changes in spiny dogfish monitoring efforts during 2013.

In accordance with the ASMFC plan, commercial trip limits were put in place during 2003 and modified by interim rule making in November 2006 and made final by regulation in March 2007 and modified by interim rulemaking as needed since then. During 2013, the commercial fishery trip limit in Connecticut was 3,000 pounds.

Commercial fishing regulations pertaining to spiny dogfish are specified in section 26-159a-19 of the Regulations of Connecticut State Agencies (Appendix I). Connecticut has no recreational spiny dogfish regulations.

II. Request for *de minimus*, where applicable.

N/A

III. Previous calendar year's fishery and management program.

a. Activity and results of fishery dependent monitoring.

All commercial fishermen submitted either Commercial Fisheries Catch Logs or NMFS Fishing Vessel Trip Reports (VTR) on a monthly basis. Connecticut Department of Energy and Environmental Protection (CT DEEP) Marine Fisheries Division (MFD) staff entered fishermen reports into the Connecticut Marine Fisheries Information System (MFIS) and starting in 2009, into the Standard Atlantic Fisheries Information System (SAFIS) and VTR data is downloaded as needed. Seafood dealers with a federal permit submitted their reports electronically to the National Marine Fisheries Service (NMFS) via SAFIS. Dealers with only state permits submitted reports to the CT DEEP and MFD staff entered the reports into SAFIS. Harvest was monitored by combining fishermen and dealer reports.

Recreational catch and harvest is monitored through the Marine Recreational Fisheries Statistics Survey (MRFSS). CT DEEP staff conducts the fisherman interview (intercept) portion of MRFSS, while the NMFS contractor conducts the telephone survey.

b. Activity and results of fishery independent monitoring.

Spiny dogfish abundance has been monitored in the Long Island Sound Trawl Survey since 1984. Spring (April, May and June) and fall (September and October) surveys are conducted each year.

Spiny dogfish are most consistently taken in the spring portion of the survey with between 0 and 123 fish caught per survey. Dogfish were more commonly taken in the early years of the survey (between 14 and 123 fish per survey from 1985 through 1991). Fewer than 10 fish per year were taken in 9 of the last 20 years. No spiny dogfish were taken during the spring survey in 1995, 1996 and 2000. The 2013 spring survey catch was 21 fish.

c. Copy of regulations that were in effect.

See Appendix 1.

d. Harvest broken down by commercial (by gear type where applicable) and recreational, and non-harvest losses.

Preliminary 2013 landings calculated from the combined fisherman and dealer reports in SAFIS indicate that 21,990 pounds of spiny dogfish were landed commercially in Connecticut compared to the 2002 – 2012 average of 66,424 pounds (Table 1). The decrease in landings in 2013 was due to market conditions and lower availability in nearby coastal waters. In 2013, all spiny dogfish were taken by otter trawl. The fishery remained open throughout 2013.

Table 1. Commercial and recreational harvest and total recreational catch.

| Year | Commercial (pounds) | Recreational Harvest (A+B1) (numbers of fish) | Recreational Catch (A+B1+B2) (numbers of fish) |
|------|---------------------|---|--|
| 2002 | 5,698 | 175 | 393 |
| 2003 | 605 | 2,728 | 13,682 |
| 2004 | 50,373 | 25 | 3,459 |
| 2005 | 83,970 | 0 | 55,042 |
| 2006 | 81,451 | 2,448 | 42,352 |
| 2007 | 22,763 | 1,364 | 10,454 |
| 2008 | 9,095 | 2,385 | 11,236 |
| 2009 | 91,860 | 260 | 6,587 |
| 2010 | 102,279 | 0 | 1,431 |
| 2011 | 185,357 | 12 | 25 |
| 2012 | 97,212 | 0 | 0 |
| 2013 | 21,990 | 0 | 0 |

There are no estimates available for non-harvest losses in either fishery.

e. Review of progress in implementing habitat recommendations.

N/A

IV. Planned management programs for the current calendar year.

a. Summarize regulations that will be in effect (provide copy if different from IIIc).

The ASMFC Fishery Management Plan for Spiny Dogfish allocates the commercial quota between three regions. The northern region (Maine through Connecticut) is allocated 58% of the quota, the southern region (New York through Virginia) is allocated the 26% and North Carolina is allocated the remaining 16%. The trip limit is not to exceed 3,000 pounds for the 2012 fishing year (5/1/2012 – 4/30/2013) and 4,000 pounds for the 2013 fishing year (5/1/2013 – 4/30/2014) until the quota allocated for the region been harvested, at which time the trip limit is reduced to zero pounds. Connecticut implemented, by interim rule making, a 3,000 pound trip limit for January 1, 2013 then increased it to 4,000 pounds on April 1, 2013 (see Table 2 and Appendix 2). There are no recreational harvest limits.

Table 2. Interim rules implemented by Commissioner Declarations for 2013.

| Declaration | Effective Date | Description |
|-------------|----------------|---|
| 12-21 | 1/1/2013 | 3,000 pounds on 1/1/2013 |
| 13-02 | 4/29/2013 | 4,000 LB limit May 1 - Oct 31, Nov 1 - Apr 30 |
| 13-06 | 8/29/2013 | 4,000 LB limit May 1 - Oct 31, Nov 1 - Apr 30 |

b. Summarize monitoring programs that will be performed.

Commercial fishery spiny dogfish landings will continue to be monitored through the Connecticut MFIS and SAFIS. All fishermen submit either Commercial Fisheries Catch Logs or NMFS Fishing Vessel Trip Reports on a monthly basis. Seafood dealers submit monthly reports of purchases from fishermen on a variety of forms. Federally permitted dealers operating in Connecticut must report electronically to NMFS. Electronically reported data is available to the CT DEEP.

c. Highlight any changes from the previous year.

There were no changes in monitoring from the previous year.

V. Plan specific requirements None

Appendix 1. Connecticut fishing regulations for spiny dogfish

26-159a-19. Spiny Dogfish (*Squalus acanthius*)

- (a) No holder of a commercial fishing or landing license or registration permitted to take spiny dogfish from the waters of this state or to land spiny dogfish in this state, regardless of where such fish are taken, shall take, possess or land spiny dogfish in this state in excess of the following possession limits that are based on the coastwide spiny dogfish quota as specified in the Spiny Dogfish Fishery Management Plan of the Atlantic States Marine Fisheries Commission, herein referred to as the "Plan":
 - (1) between May 1 and October 31, 600 pounds;
 - (2) between November 1 and April 30, 600 pounds.
- (b) The possession limits specified in subsection (a) of this section shall apply to the aggregate of all persons on board the vessel per trip or per day which ever is the longer period of time. No person shall transfer spiny dogfish between vessels at sea.
- (c) When 100 percent of the quota specified in the plan is landed the possession limit shall be zero pounds.
- (d) The possession of spiny dogfish fins in the absence of the fish from which removed is prohibited.

Appendix 2. Connecticut fishing regulations for spiny dogfish for 2013, implemented by interim rule making. See Attached Commissioner Declarations 12-21, 13-02 & 13-06.

Declaration 12-21 – Effective 12/1/2013 through 4/30/2013

26-159a-19. Spiny dogfish (*Squalus acanthius*)

- (a) No holder of a commercial fishing or landing license or registration permitted to take spiny dogfish from the waters of this state or to land spiny dogfish in this state, regardless of where such fish are taken, shall take, possess or land spiny dogfish in this state in excess of the following possession limits that are based on the ~~[eastwide]~~ northern region spiny dogfish quota as specified in the Spiny Dogfish Fishery Management Plan of the Atlantic States Marine Fisheries Commission, herein referred to as the “Plan”:
- (2) between November 1 and April 30, ~~[600]~~ 3,000 pounds.

Declaration 13-02 - Effective 4/29/2013 through 8/28/2013

26-159a-19. Spiny dogfish (*Squalus acanthius*)

- (a) No ~~[holder of a commercial fishing or landing license or registration permitted to take]~~ person engaged in commercial fishing shall possess or land spiny dogfish ~~[from the waters of this state or to land spiny dogfish in this state, regardless of where such fish are taken, shall take, possess or land spiny dogfish in this state]~~ in excess of the following possession limits that are based on the ~~[eastwide]~~ northern region spiny dogfish quota as specified in the Spiny Dogfish Fishery Management Plan of the Atlantic States Marine Fisheries Commission, herein referred to as the “Plan”:
- (1) between May 1 and October 31, ~~[600]~~ 4,000 pounds;
- (2) between November 1 and April 30, ~~[600]~~ 4,000 pounds.

Declaration 13-06 - Effective 8/29/2013 through 12/31/2013

26-159a-19. Spiny dogfish (*Squalus acanthius*)

- (a) No ~~[holder of a commercial fishing or landing license or registration permitted to take]~~ person engaged in commercial fishing shall possess or land spiny dogfish ~~[from the waters of this state or to land spiny dogfish in this state, regardless of where such fish are taken, shall take, possess or land spiny dogfish in this state]~~ in excess of the following possession limits that are based on the ~~[eastwide]~~ northern region spiny dogfish quota as specified in the Spiny Dogfish Fishery Management Plan of the Atlantic States Marine Fisheries Commission, herein referred to as the “Plan”:
- (1) between May 1 and October 31, ~~[600]~~ 4,000 pounds;
- (2) between November 1 and April 30, ~~[600]~~ 4,000 pounds.

New York State Department of Environmental Conservation

Division of Fish, Wildlife & Marine Resources

Bureau of Marine Resources

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Joe Martens
Commissioner

New York's 2013 Annual Compliance Report to the Atlantic States Marine Fisheries Commission For Spiny Dogfish

I. Introduction

Spiny dogfish are a small though significant New York commercial fishery. They are considered a nuisance for recreational fishers. During the past 10 years, spiny dogfish commercial landings have ranged from 14,660 pounds to 461,019 pounds. The average landings for the period are 155,560 pounds. This period includes many years when the spiny dogfish allowable harvest was severely curtailed. With recent increases in allowable harvest, NY landings have significantly increased. Landings from 2009 through 2012 averaged 330,999 pounds but landings in 2013 dropped to 79,166 pounds.

II. Request for *de minimus* status

Not applicable

III. Previous year's fishery management and management program

a. Fishery dependent monitoring

New York implemented mandatory state-level Vessel Trip Reporting (VTR) during 2003 for all state-level harvesters of finfish. New York's commercial harvest of spiny dogfish is reported in Table 1.

b. Fishery independent monitoring

None to report.

c. Regulations in effect in 2013

New York's regulations are authorized under Section 13-0338 of the Environmental Conservation Law. This law provides for a prohibition on finning in New York's Marine and Coastal district; provides that no person shall possess shark fins, in the Marine and Coastal district of New York, unless proper proportion of species, number and size of shark carcasses is also possessed; and provides the department with the regulatory authority to fix by regulation measures for the management of sharks, including size limits, catch and possession limits, open and closed seasons, closed areas, restrictions on the manner of taking and landing, requirements for permits and eligibility therefor, record keeping requirements, requirements on the amount and type of fishing effort and gear, and requirements relating to transportation, possession, and sale

provided that such regulations are no less restrictive than requirements set forth in this chapter and provided further that such regulations are consistent with the compliance requirements of applicable fishery management plans adopted by the Atlantic States Marine Fishery Commission and with applicable provisions of fishery management plans adopted pursuant to the Federal Fishery Conservation and Management Act (16 U.S.C. Section 1800 et seq.). Pursuant to the adoption of the ASMFC Fishery Management Plan for Coastal Sharks, New York implemented regulations for 2009 to place it in full compliance with the Plan. Spiny dogfish are covered in part by these new regulations.

Older regulations (Part 40.1(v)) covering the spiny dogfish fishery were crafted to comply with the original fishery management plan for spiny dogfish and are, in part, obsolete. These regulations capture the intent of managing the fishery by period, which is still in place in federal waters but was replaced by regional management in 2008 (Addendum II), and for the fishing year beginning May 1, 2011 by state-specific quotas in the Southern Region (Addendum III). While obsolete, these regulations do not prevent the management of a state-based quota and therefore do not result in non-compliance with the FMP.

Actual text of NY regulations in place in 2013

6NYCRR, Part 40.1 (v) - Spiny Dogfish commercial fishing - special regulations.

(v) Spiny dogfish commercial fishing - special regulations.

(1) It is unlawful for any person to take spiny dogfish for commercial purposes without having in possession a valid New York State commercial food fish license.

(2) Harvest limits for spiny dogfish are based upon the Fishery Management Plan (FMP) for spiny dogfish as adopted and approved by the Regional Fishery Management Council pursuant to the Fishery Conservation and Management Act, 16 U.S.C. Section 1801, et seq. Quota, trip limits and directed fishery thresholds for the periods of May 1 through October 31, and November 1 to April 30 will be established by the National Marine Fisheries Service (NMFS). The department will establish trip limits and directed fishery thresholds within the periods consistent with those established by NMFS. Such trip limits and thresholds will be enforceable upon 72 hours written notice to license holders of the trip limit allowed per vessel for that time period. During periods of trip limits all spiny dogfish not being held alive must be held together in a separate container or containers readily available for inspection and may not be mixed with other species while on board any vessel.

(3) If the department determines that the maximum allowable harvest of spiny dogfish has been taken or will be taken by a date prior to the end of the applicable fishing period (either May 1 through October 31 or November 1 through April 30), then harvesting for commercial purposes and possession of spiny dogfish shall be prohibited as directed by the department upon 72 hours written notice to all commercial food fish license holders.

(4) If the department closes the period, but unanticipated events result in the quota not being landed by the projected date and at least one month remains in the time period, then the department may reopen the period for a specified time and a specified trip limit up to the

maximum allowed for that period upon 72 hours written notice to license holders. If less than a month remains in the time period, the remaining quota available from that period will be added to the next period in the same year.

(5) Fourteen days following the beginning of any period when commercial harvesting is prohibited it shall be unlawful to possess dogfish, or offer spiny dogfish for sale, trade, or barter except as permitted in subdivision 40.1 (e) of this Part.

6 NYCRR Part 40.1 (e) - Shipping, Labeling, Packing Requirements for Quota Managed Species

(e) Shipping, Labeling and Packing Requirements for Quota Managed Species.

(1) It shall be unlawful for a New York Commercial Food Fish license holder to possess, ship, or transport, or cause to be shipped or transported, any container holding summer flounder, scup, black sea bass, bluefish, or spiny dogfish which has not been properly labeled at the point of landing in New York State. Such labels shall be at least two inches wide by four inches long of substantial water proof material and display the following information:

(i) the license holder's name;

(ii) the license holder's New York commercial Foodfish License number or New York commercial Foodfish Landing License number; and

(iii) the date landed.

(2) No person, including dealers, shippers, wholesalers and retailers, shall receive, store, possess, sell, offer for sale, transport, ship, or reship, or cause to be received, stored, possessed, sold, offered for sale, transported, shipped or reshipped, any New York landed summer flounder, scup, black sea bass, bluefish, or spiny dogfish, in containers that have not been properly labeled, pursuant to paragraph (1) of this subdivision.

(3) No person, including dealers, shippers, wholesalers and retailers, shall receive, store, possess, sell, offer for sale, transport, ship, or reship, or cause to be received, stored, possessed, sold, offered for sale, transported, shipped or reshipped, any summer flounder, scup, black sea bass, bluefish, or spiny dogfish lawfully taken in another state unless there is a complete bill of lading that accompanies such product and each container is marked with a label at least two inches wide and four inches long of substantial, water resistant material. Such label must indicate clearly:

(i) the state of origin;

(ii) the harvester's name, and permit number;

(iii) the date landed; and

(iv) the shipper's name.

All bills of lading shall be available for inspection by the department for a period of one (1) year from the date that such product was handled.

(4) Any summer flounder, scup, black sea bass, bluefish or spiny dogfish lawfully taken and landed in other states and shipped into New York for trade, barter or sale shall:

(i) meet New York's minimum total length requirements for such species; and

(ii) be from a state which authorizes reciprocal privileges for such species taken in New York.

(5) Nothing in this section shall prohibit the lawful transportation through the State of summer flounder, scup, black sea bass, bluefish, or spiny dogfish lawfully taken from waters outside the state and destined for a state other than New York, provided that such fish remain in

their original unopened container or containers, and such container or containers are accompanied by written documentation, bill of lading, or manifest of their origin.

(6) Fourteen days following the beginning of any period when commercial harvesting is prohibited, no person, including dealers, shippers, wholesalers and retailers, shall hold or store summer flounder, scup, black sea bass, bluefish or spiny dogfish for sale or resale for the duration of the period, except that fish lawfully landed during an open period for the species pursuant to this section, or summer flounder or scup taken between May 1 and October 31 by the holder of a summer flounder fixed gear permit (pound net/trap net only), may be held or stored for sale or resale, provided that:

(i) the fish are in containers labeled pursuant to paragraphs 1 and 3 of this subdivision; and

(ii) the facility in which the fish are stored maintains complete and accurate records indicating the origin of such fish, the dealer's and shipper's name, the location landed, and the date landed; and

(iii) the quantity of fish held for sale or resale is registered with the department upon storage during an open period for the species pursuant to this section; and

(iv) such storage facility maintains all records of purchases and disbursements of such product for a period of one year following such purchases and disbursements.

(7) Packing and repacking. No person shall pack or repack any summer flounder, scup, black sea bass, bluefish or spiny dogfish, or portions thereof, in containers which have not been properly labeled as provided in this subdivision. Any such summer flounder, scup, black sea bass, bluefish, or spiny dogfish subdivided or repacked shall be clearly labeled with the packer's and/or repacker's name, permit number, and all information contained on the original label as specified in paragraphs 1 and 3 of this subdivision.

6NYCRR 40.7 Coastal Sharks - open seasons, size and catch limits.

(a) "Purpose of this section." It is the intent of this section to promote the prudent management of coastal sharks that are landed in the State of New York. The provisions of this section shall define which sharks may be taken for commercial and recreational purposes and which sharks are prohibited from harvest. Size limits, possession limits, manner of taking and landing, gear restrictions open and closed seasons will also be specified in this section. The provisions in this section are designed to promote healthy self-sustaining populations of coastal sharks and provide for the sustainable use of the shark resource for the benefit of the residents of the State of New York.

(b) "Definitions." For the purposes of this section, the following definitions apply:

(1) "Circle hook" means a fishing hook originally designed and manufactured so that the point is turned perpendicularly back to the shank to form a generally circular, or oval, shape.

(2) "Eviscerate" means to remove the alimentary organs of a shark without removing the head.

(3) "Finning" means the removal of a fin or fins, other than the caudal fin, and not retaining the remainder of the shark's carcass (as specified in Environmental Conservation Law (ECL) 13-0338(1)(b)).

(4) "Fork length" means that length measured in a straight line from the tip of the nose snout of the shark to the end of the middle caudal fin to the center of the fork of the tail of the shark.

(5) "Handline" means a main line to which not more than two gangions or hooks are attached. A handline is not retrieved by mechanical means and must be attached to, or in contact, with the vessel.

(6) "Land" or "landed" means the bringing of fish to shore or the transfer of the catch of fish taken from a vessel to any other vessel or in-water storage facility or to the land or to any pier, wharf, dock or other similar structure. When a vessel bearing fish has been tied, moored, or made fast to the land, to another vessel, to an in-water storage facility or to any pier, wharf, dock or similar structure, such fish shall be deemed as landed.

(7) "Large mesh gillnet" means a gillnet having a stretched mesh size equal to or greater than five inches.

(8) "Recreational angler" means any person engaged in fishing for sharks for personal use.

(9) "Shore angler" means any person engaged in any type of fishing that does not take place aboard a vessel.

(10) "Shortline" means a fishing line having 50 or fewer hooks and measuring less than 500 yards in total length.

(11) "Small mesh gillnet" means a gillnet having a stretched mesh size less than five inches.

(12) "Vessel" means every type of watercraft used or capable of being used as a means of transportation on water except non-displacement craft and seaplanes.

(13) "Vessel fishing" means any fishing conducted from a vessel.

(c) "Recreational fishing."

(1) It shall be unlawful for any recreational angler to take, or to possess on the waters of the marine and coastal district, as defined in ECL section 13-0103, or the shores thereof, or anywhere inland from such shores, any shark species other than the following: Atlantic sharpnose ("Rhizoprionodon terraenovae"); blacknose ("Carcharhinus acronotus"); blacktip ("Carcharhinus limbatus"); blue ("Prionace glauca"); bonnethead ("Sphyrna tiburo"); bull ("Carcharhinus leucas"); common thresher ("Alopias vulpinus"); finetooth ("Carcharhinus isodon"); great hammerhead ("Sphyrna mokarran"); scalloped hammerhead ("Sphyrna lewini"); smooth hammerhead ("Sphyrna zygaena"); lemon ("Negaprion brevirostris"); nurse ("Ginglymostoma cirratum"); oceanic whitetip ("Carcharhinus longimanus"); porbeagle ("Lamna nasus"); shortfin mako ("Isurus oxyrinchus"); smooth dogfish ("Mustelus canis"); spiny dogfish ("Squalus acanthias"); spinner ("Carcharhinus brevipinna"); and tiger ("Galeocerdo cuvier").

(2) The minimum size limit for the shark species listed in (c)(1) shall be 54 inches fork length, except that there shall be no minimum size limit for Atlantic sharpnose, finetooth, blacknose, bonnethead, smooth dogfish and spiny dogfish.

(3) It shall be unlawful for a recreational angler to take sharks using any means other than handlines retrieved by hand, not mechanical means, or by rod and reel.

(4) It shall be unlawful for a recreational angler to sell, trade or barter sharks or shark pieces.

(5) All sharks harvested by a recreational angler shall have heads, tails and fins attached naturally to the carcass through landing. Sharks may be eviscerated and bled by making a cut at the base of the tail fin as long as the tail fin is not removed.

(6) Catch limits.

(i) Shore anglers shall take or possess no more than one shark, regardless of species, from the list in (c)(1), except that

("a") one additional Atlantic sharpnose may be taken and possessed; and

("b") one additional bonnethead may be taken and possessed; and

("c") there shall be no limit to the number of spiny dogfish and smooth dogfish that can be taken or possessed.

(ii) Recreational anglers fishing from a vessel shall take or possess no more than one shark, regardless of species, from the list in (c)(1) per vessel, except that

("a") one additional Atlantic sharpnose may be taken and possessed per angler; and

("b") one additional bonnethead may be taken and possessed per angler; and

("c") there shall be no limit to the number of spiny dogfish and smooth dogfish that can be taken or possessed per angler.

(7) When aboard a vessel, a recreational angler is bound by the more restrictive vessel fishing limits described in (6)(ii) above, regardless of where the shark was caught.

(8) A shark that is transported aboard a vessel is considered as though caught by an angler on that vessel and is regulated under the more restrictive vessel fishing limits described in (6)(ii) above, regardless of where the shark was caught.

(d) "Commercial fishing."

(1) The commercial fishery for spiny dogfish is regulated under Part 40.1 of this Subchapter and is not regulated under this part.

(2) It is unlawful for any person to take, possess or land sharks listed in this section for commercial purposes without having in their possession a valid New York State commercial foodfish license.

(3) The commercial fishing year for sharks shall begin on January 1 and end on December 31. All annual specifications begin on January 1 of each fishing year.

(4) Shark groups. For the purposes of this section and consistency with federal rules and the fishery management plan for coastal sharks developed by the Atlantic States Marine Fisheries Commission, coastal sharks shall be classified as follows:

(i) Prohibited species: Atlantic angel ("Squatina dumeril"); basking shark ("Cetorhinus maximus"); bigeye sand tiger shark ("Odontaspis noronhai"); bigeye thresher shark ("Alopias superciliosus"); bignose shark ("Carcharhinus altimus"); Caribbean sharpnose shark

("Rhizoprionodon porosus"); dusky shark ("Carcharhinus obscurus"); Galapagos shark ("Carcharhinus galapagensis"); longfin mako shark ("Isurus paucus"); narrowtooth shark ("Carcharhinus brachyurus"); night shark ("Carcharhinus signatus"); reef shark ("Carcharhinus perezii"); sand tiger shark ("Carcharias taurus"); sharpnose sevengill shark ("Heptachias perlo") bigeye sixgill shark ("Hexanchus nakamurai"); bluntnose sixgill shark ("Hexanchus griseus") smalltail shark ("Carcharhinus porosus"); whale shark ("Rhincodon typus"); white shark ("Carcharodon carcharias");

(ii) Research species: sandbar ("Carcharhinus plumbeus");

(iii) Smooth dogfish: smooth dogfish ("Mustelus canis");

(iv) Small coastal species: Atlantic sharpnose shark ("Rhizoprionodon terraenovae"); blacknose shark ("Carcharhinus acronotus"); bonnethead shark ("Sphyrna tiburo"); finetooth shark ("Carcharhinus isodon");

(v) Pelagic species: blue shark ("Prionace glauca"); common thresher shark ("Alopias vulpinus"); oceanic whitetip shark ("Carcharhinus longimanus"); porbeagle shark ("Lamna nasus"); shortfin mako shark ("Isurus oxyrinchus"); and

(vi) Non-sandbar large coastal species: great hammerhead shark ("Sphyrna mokarran"); scalloped hammerhead shark ("Sphyrna lewini"); smooth hammerhead shark "Sphyrna zygaena"); lemon shark ("Negaprion brevirostris"); nurse shark ("Ginglymostoma cirratum"); silky shark ("Carcharhinus falciformis"); spinner shark ("Carcharhinus brevipinna"); tiger shark ("Galeocerdo cuvier").

(5) There is no closed season for the shark commercial fishery.

(6) No person shall take, possess or land any shark species listed in (4)(i) and (4)(ii) of this Part without first obtaining and possessing a valid special license in accordance with Part 175.

(7) There is no possession limit for sharks listed in (4)(iii), (4)(iv) and (4)(v) of this Part.

(8) No person shall take possess or land more than thirty-three sharks, regardless of species, listed in (4)(vi) of this Part, in any 24-hour period.

(9) Sharks harvested for commercial purposes shall be taken by the following methods and gears, only: rod and reel; handline, which shall be retrieved by hand, not mechanical means, and shall be attached to or in contact with a vessel; small mesh gillnet; large mesh gillnet; trawl; shortline; pound net; and weir. A maximum of two shortlines per vessel may be used. The use of any other gear to take sharks for commercial purposes is prohibited.

(10) Bycatch reduction measures. No person shall take, possess or land sharks using shortlines or large mesh gillnets without practicing the following bycatch reduction measures:

(i) All hooks attached to shortline gear must be corrodible circle hooks;

(ii) All persons participating in the commercial shark fishery shall practice the protocols and possess the federally required release equipment for pelagic and bottom longlines for the safe handling, release and disentanglement of sea turtles and other non-target species;

(iii) All captains and vessel owners must be certified in using handling and release equipment through workshops offered by National Oceanic and Atmospheric Administration's National Marine Fisheries Service;

(iv) Large mesh gillnets shall be no longer than 2.5 kilometers (1.55 miles).

(11) No person shall possess or land a shark listed in this section without the tails and fins naturally attached to the carcass. Fins may be cut as long as they remain attached to the carcass by natural means with at least a small portion of uncut skin. Finning is prohibited. Sharks may be eviscerated and have the heads removed. Sharks may not be filleted or cut into pieces at sea.

(12) Quotas, trip limits and directed fishery thresholds may be set by the Atlantic States Marine Fisheries Commission Spiny Dogfish & Coast Sharks Management Board (Sharks Board) for the smooth dogfish, small coastal, non-sandbar large coastal and pelagic species groups for each commercial fishing year. The department will establish trip limits and directed fishery thresholds within the fishing year consistent with those established by the Sharks Board. Such trip limits and thresholds will be enforceable upon 72 hours notice to license holders of the vessel trip limit allowed.

(13) If the department determines that the maximum allowable harvest of sharks covered by (12) has been taken or is projected to be taken before the end of the fishing year, the department may prohibit the take and possession of a shark species for commercial purposes upon 72 hours notice to license holders.

(14) If the department closes a fishery, but determines that the quota will not be harvested by the projected date, then the department may reopen the fishery for a specified time at a specified trip limit up to the maximum allowed upon 72 hours notice to license holders.

(15) No person shall take, possess or land sharks listed in (4) for commercial purposes when the federal commercial fishery for that species is closed.

(16) No harvester shall sell sharks taken in state waters for commercial purposes except to a holder of a federal Commercial Shark Dealer Permit. A Federal Commercial Shark Dealer Permit shall be required to buy and sell sharks taken in state waters.

d. Harvest

The federal fishing year for spiny dogfish runs from May 1 through April 30. In 2012, the federal and state quotas were synchronized so that the specifications for the 2012/13 fishing year were the same for both federal and state. New York's allocated commercial quota of spiny dogfish is 2.707% of the coast-wide quota. For 2012/13, the coastwide quota was 35.694 million pounds. In 2013/14, this was increased to 40.842 million pounds, making New York's allocation rise to 1,105,593 pounds. According to data available from the NMFS and ACCSP's Data Warehouse, New York's commercial harvest of spiny dogfish is as follows:

Table 1. New York's Spiny Dogfish Landings 2003 through 2013

| Year | New York Landings | Total Coastal Landings | Percent of Total Landings |
|------|-------------------|------------------------|---------------------------|
|------|-------------------|------------------------|---------------------------|

| | | | |
|------|---------|------------|------|
| 2003 | 38,356 | 2,342,429 | 1.64 |
| 2004 | 44,416 | 2,216,491 | 2.00 |
| 2005 | 47,320 | 2,293,671 | 2.00 |
| 2006 | 14,660 | 6,462,371 | 0.23 |
| 2007 | 24,669 | 7,462,813 | 0.33 |
| 2008 | 21,372 | 8,187,659 | 0.26 |
| 2009 | 192,875 | 11,401,681 | 1.69 |
| 2010 | 365,733 | 12,694,714 | 2.88 |
| 2011 | 461,019 | 21,550,886 | 2.14 |
| 2012 | 304,370 | 23,416,769 | 1.30 |
| 2013 | 79,166 | 12,817,739 | 0.62 |

The decrease in commercial spiny dogfish landings in 2013 is largely due to the loss of the sole NY processing facility after Superstorm Sandy.

New York's recreational catch and harvest of spiny dogfish are reported here:

Table 2. New York's Spiny Dogfish Recreational Catch and Harvest

| Year | Total catch (A + B1 + B2) | PSE | Harvest (A + B1) | PSE |
|------|------------------------------|------|---------------------|-------|
| 2003 | 34,475 | 32.3 | 940 | 81.9 |
| 2004 | 55,591 | 50.6 | 0 | - |
| 2005 | 41,369 | 65.4 | 0 | - |
| 2006 | 34,865 | 45.3 | 149 | 91.3 |
| 2007 | 29,118 | 47.6 | 0 | - |
| 2008 | 14,067 | 38.6 | 596 | 100.7 |
| 2009 | 26,910 | 67.1 | 0 | - |
| 2010 | 2,501 | 60.1 | 0 | - |
| 2011 | 5,460 | 51.7 | 0 | - |
| 2012 | 37,501 | 88.9 | 0 | - |
| 2013 | 105,877 | 36 | 3,202 | 98.8 |

e. Habitat recommendations

None

IV. Planned management programs for the current fishing year.

a. Summarized regulations for 2013 fishing year

The regulations listed above will remain in effect for 2014. New York State law prohibits finning as of July 2014, but exceptions are made for the possession and sale of fins from smooth and spiny dogfish.

b. Summarized monitoring programs

No changes are planned.

c. Changes from the previous year

None

V. Plan specific requirements.

New York has no plan specific requirements to report and has not undertaken or approved any exempted fishing permits for spiny dogfish.



MARK WILLIAMS
COMMISSIONER

A.G. 'SPUD' WOODWARD
DIRECTOR

October 17, 2014

Marin Hawk
Spiny Dogfish FMP Coordinator
Atlantic States Marine Fisheries Commission
1050 N. Highland St., Suite 200 A-N
Arlington VA, 22201

Marin:

Please find attached the Georgia 2013 Spiny Dogfish Compliance Report. Let me know if you require additional information.

Sincerely,

Carolyn N. Belcher, PhD
Research and Surveys Program Manager

cc: Pat Geer
Spud Woodward

Georgia Spiny Dogfish Compliance Report for the Year 2013

I. Introduction

Because spiny dogfish occur infrequently in Georgia waters or in the EEZ off Georgia, recreational and commercial fishers do not target the species. Per Georgia law, spiny dogfish, Atlantic sharpnose and bonnethead are defined as the small shark composite and are managed under O.C.G.A. 27-4-130.1. This code was modified January 28th 2009 reducing the daily / possession limit from 2 per person $\geq 30''$ total length to 1 per person $\geq 30''$ fork length. All finfish must be landed whole and transfer at sea is prohibited. There has never been a documented commercial harvest of spiny dogfish in Georgia waters, including during 2013.

II. Request for *de minimus*

For 2014, Georgia respectfully requests a continuation of its *de minimus* status in this fishery. Georgia's commercial fishermen landed no spiny dogfish in 2013.

III. Previous calendar year's fishery and management program

a. Activity and results of the fishery dependent monitoring

Although a directed fishery for spiny dogfish does not exist in Georgia waters, there are a few fishery dependent sampling programs used by the Coastal Resources Division that could encounter bycatch of spiny dogfish. The 2013 data for each program are provided below.

Bycatch Characterization – CRD conducts fishery dependent bycatch characterization studies aboard large trawl whelk vessels. These studies are supported through CRD's federally funded Atlantic Coastal Fisheries Cooperative Management Act (P.L. 103 - 206) project. Participation in the whelk fishery continues to diminish. During 2013, no trips were observed in the whelk fishery. Because of budget constraints and lack of effort in this fishery, bycatch characterization will not be continued after July 2014.

Marine Sportfish Carcass Recovery Project - The Marine Sportfish Carcass Recovery Project, a partnership with recreational anglers along the Georgia coast, is used to collect biological data from finfish such as red drum, spotted seatrout, southern flounder, sheepshead, and southern kingfish. Chest freezers were located at 12 public access points along the Georgia coast. Each freezer is clearly marked and contains a supply of plastic bags, pencils, and data card. Anglers place their filleted fish carcasses in plastic bags along with completed data in the freezer. CRD personnel collect the carcasses and process them to determine species, length, and gender. Sagittal otoliths are removed and processed to determine the age of the fish. In 2013, a total of 4,390 fish carcasses were donated through this program. No spiny dogfish were included.

b. Activity and results of fishery independent monitoring

As a *de minimus* state, Georgia does not conduct an independent monitoring program targeting spiny dogfish. However, there are fishery-independent surveys conducted in areas where spiny dogfish potentially could be encountered.

Adult Red Drum Survey

Sampling occurs in inshore and nearshore waters of southeast Georgia and in offshore waters of northeast Florida. Sampling occurs from mid-April through the end of December. Sampling gear consists of a bottom set 926 m, 600lb test monofilament mainline configured with 60, 0.5 m gangions made of 200lb test monofilament. Each gangion consists of a longline snap and either a 12/0 or 15/0 circle hook. Thirty hooks of each size are deployed during each set. All hooks are baited with squid. Soak time for each set is 30 minutes. During 2013, CRD staff deployed 217 sets consisting of 13,014 total hooks and 108.5 hours of total soak time. Zero spiny dogfish were reported from this effort.

Shark Nursery Survey

Sampling occurs in the inshore waters of St. Simons and St. Andrew sounds. Sampling occurs from mid-April through the end of September. Sampling gear consists of a 305 m braided rope mainline configured with 50, 1 m gangions made of 200lb test monofilament. Each gangion is configured with a longline snap and a 12/0 circle hook. All hooks are baited with squid. Soak time for each set is 30 minutes. During 2013, CRD staff fished 120 longline stations consisting of 6,000 hooks and a total of 60 hours of soak time. Zero spiny dogfish were captured.

Ecological Monitoring Survey

Each month, a 40-foot flat otter trawl with neither a turtle excluder device nor bycatch reduction device is deployed at 42 stations across six estuaries. At each station, a standard 15 minute tow is made. During this report period, 470 tows/observations were conducted, totaling 118.24 hours of tow time. A total of 50 spiny dogfish were captured during 23 tows. Catches occurred during January –May. Lengths ranged from a minimum of 509 mm TL to a maximum of 634 mm TL.

Juvenile Trawl Survey

Although personnel have historically used the EMTS as the primary trawl survey, a second trawl survey has been implemented to target species occurring further upriver in lower salinity waters. Each month, a 20-foot semi-balloon otter trawl with neither a turtle excluder device nor bycatch reduction device is deployed at 18 stations across three estuaries. At each station, a standard 5 minute tow is made. In 2013, 189 tows (observations) were conducted, totaling 15.75 hours of tow time. Given the upriver locations of the sampling stations, it is highly unlikely that spiny dogfish will be encountered.

Marine Sportfish Population Health Survey

The MSPHS is a multi-faceted ongoing survey used to collect information on the biology and population dynamics of recreationally important finfish. Currently two Georgia estuaries are sampled on a seasonal basis using entanglement gear.

During the June to August period, young-of-the-year red drum in the Altamaha/Hampton River and Wassaw estuaries are collected using gillnets to gather data on relative abundance and location of occurrence. In 2013, a total of 216 gillnet and 150 trammel net sets were made, producing zero spiny dogfish.

c. Copy of regulations that were in effect, including a reference to the specific compliance criteria as mandated in the FMP

All sections of the Official Code of Georgia and Rules and Regulations of the Georgia Department of Natural Resources referenced herein have been previously submitted. The only changes to the previously submitted Rules and Regulations impacting spiny dogfish were the reduction of the daily / possession limit from 2 per person $\geq 30''$ TL to 1 per person $\geq 30''$ FL. This change to O.C.G.A. 27-4-130.1 went into effect January 28th 2009.

d. Harvest broken down by commercial and recreational, and non-harvest losses

Commercial Landings – There were no reported commercial landings of spiny dogfish during 2013.

Recreational Landings - Expanded data from the NMFS marine recreational surveys estimate no spiny dogfish were kept in Georgia during 2013; however, an estimated 691 spiny dogfish were released (PSE = 103.6).

e. Review of progress in implementing habitat recommendations

N/A

IV. Planned management programs for the current calendar year

a. Summarize regulations that will be in effect

All current regulations regarding spiny dogfish remain in effect through 2014. Rule 391-2-4.04 restricts fishermen lacking a federal commercial permit to a one fish daily bag/possession limit. All harvest and possession must adhere to a 30-inch FL minimum size. The fishing season is open year round but fishermen with a federal permit are limited to the bag limits when the federal season is closed or when the federal quota has been met. All spiny dogfish must be landed whole, and transfer at sea is prohibited.

b. Summarize monitoring programs that will be performed

Pursuant to Georgia law (O.C.G.A. Section 27-4-118 and Board of Natural Resources Rule 391-2-4-.09) all commercial harvesters landing seafood in Georgia are required to record their harvest and submit these records to the Department of Natural Resources. Historically, Georgia's commercial seafood landings have been collected as part of the NMFS Cooperative Statistics Program. As Georgia's participation in ACCSP continues, catch/effort and economic information have been added to the harvest data collected for every commercial fishing trip terminating in Georgia. These data are collected monthly and afford Georgia's marine fishery managers the opportunity to conduct real time monitoring of the status and trends in our commercial fisheries.

Monitoring of the commercial fishery for both bycatch characterization and landings will continue. O.C.G.A 27-4-110 requires that anyone wishing to engage in commercial fishing in the salt waters of Georgia must obtain a commercial fishing license. Further O.C.G.A. 27-4-118 requires that each commercial fisherman maintain a record and report their landings to and in a manner specified by the Department of Natural Resources. Those reporting requirements are detailed in Board Rule 391-2-4-.09. Additionally, any Georgia seafood dealer must be licensed by the Department of Agriculture (O.C.G.A. 26-2-312) and maintain records and report to the Department of Natural Resources per O.C.G.A 27-4-136 and Board Rule 391-2-4-.09.

The Ecological Monitoring Survey, Juvenile Trawl Survey, Adult Red Drum Survey, Shark Nursery Survey, Marine Sportfish Carcass Recovery Project, and Marine Sportfish Population Health Survey will continue in 2014. Any spiny dogfish captured will be measured for length.

c. Highlight any changes from the previous year

N/A

Spiny Dogfish Alternative Management Proposal for Rhode Island
Spiny Dogfish Management Board
October 2014

Introduction

Rhode Island (RI) proposes an alternative management regime for consideration by the Spiny Dogfish Management Board under Section 4.3 “Alternative State Management Regimes” of the Interstate Fishery Management Plan (FMP) for Spiny Dogfish (ASMFC 2002). Section 4.3, in its entirety, is attached to this submission as Appendix A. In short, Section 4.3 (Alternative State Management Regimes) of the FMP states that:

“A state can request permission to implement an alternative to any mandatory compliance measure only if that state can show to the Board’s satisfaction that its alternative proposal will have the same conservation value as the measure contained in this amendment or any addenda prepared under Adaptive Management (Section 4.5). States submitting alternative proposals must demonstrate that the proposed action will not contribute to overfishing of the resource”.

Section 4.3.1 (General Procedures) of the FMP outlines the procedures for review and decision by the Management Board. Briefly it states that:

“A state may submit a proposal for a change to its regulatory program or any mandatory compliance measure under this amendment to the Commission, ... The Spiny Dogfish and Coastal Shark Management Board will decide whether to approve the state proposal for an alternative management program if it determines that it is consistent with the “target fishing mortality rate applicable”, and the goals and objectives of this amendment.”

In accordance with these Sections, we offer this proposal as a demonstration that the actions of the proposed alternative management regime “... will not contribute to overfishing of the resource” and “...(are) consistent with the “target fishing mortality rate applicable”, and the goals and objectives of this amendment”.

Current Management Regime and Stock Status

The spiny dogfish fishery is managed complementarily by the Mid-Atlantic Fishery Management Council (MAFMC) and New England Fishery Management Council (NEFMC) in federal waters (with MAFMC taking the lead for federal management), and cooperatively by the states through the Atlantic States Marine Fisheries Commission (ASMFC) in state waters. The management unit for spiny dogfish FMP is the defined range of the resource within the US waters of the Northwest Atlantic Ocean.

In accordance with Addenda II and III (ASMFC 2008 and ASMFC 2011, respectively) 58% of the annual quota is allocated to states from Maine –Connecticut (Northern Region) and 42% divided into state shares for states New York – North Carolina. The current management regime for the Northern Region consists of a 5,000 pound daily possession limit, which complements the federal possession limit applicable to all federal permit holders. The current management regime for New York – North Carolina requires each state to manage their allocated quota, including

monitoring of landings and closing their fisheries when their quota is harvested, as well as establish state-water possession limits. Possession limits in these states generally range from 5,000 to 10,000 pounds (lbs) per vessel per day.

According to the most recent stock assessment update conducted by the Northeast Fisheries Science Center (NEFSC), spiny dogfish are not overfished and not experiencing overfishing (NEFSC 2013, 2104). The 2014 Spiny Dogfish Update provided by the NEFSC to the MAFMC Scientific and Statistical Committee (on 9/17/14) concluded that the stock was above Bmsy in 2013, total catch was about 50% of ABC, and the likelihood of a large decline in true abundance and change in status is low and very low, respectively (NEFSC 2014).

Rationale for Proposed Alternative State Management Regime

Despite the positive stock status, total US landings decreased by 31% from 2012 (10,660 mt) to 2013 (7,312 mt) resulting in only 40% of the coast-wide quota being harvested in 2013 (NEFSC 2014). Similarly, the Northern Region only harvested ~32% of the available regional quota, representing a significant underutilization of the resource (based on SAFIS landings queried 10/7/2014). There are several factors contributing to the under-harvest, most importantly a lagging market and correspondingly poor market price, as well as a lack of coast-wide processing centers. As noted in the MAMFC Spiny Dogfish 2013 Fishery Performance, “market conditions were described as explaining 100% of landings levels, i.e., the availability and abundance of the resource (nearshore or offshore) is not at all constraining right now. The low value (*price*) of dogfish limits the extent to which fishermen are willing to retain dogfish as part of their offshore catch in preference of more valuable species” (MAFMC 2013).

RI fishermen have voiced similar concerns, stating that low market prices in combination with low trip limits make participation in the fishery uneconomic. These concerns affect both the directed and non-directed fisheries. The RI Division of Fish and Wildlife also summarized these concerns in a memorandum of April 28, 2014, which is attached to the submission as Appendix B. A weekly aggregate program for dogfish will improve the economics of the fishery and convert some portion of the current regulatory discards to landings, which are both objectives of the FMP. Administration of the program will take place in a manner similar to the current RI scup and summer flounder weekly aggregate programs, both of which were approved by the Commission under alternative management.

Summary of Proposed Alternative State Management Regime

To improve the economics of the RI spiny dogfish fishery and achieve more effective utilization of the resource, RI proposes to change its state management program from a daily possession limit of 5,000 lbs per vessel per day to a weekly aggregate possession limit of up to 28,000 lbs per vessel per week (equating to 80% of the potential 7-day landing total). We believe the proposed change will improve the economics of the fishery, more fully utilize the quota for the northern region, and do so more effectively, by converting some discards into landings. Most importantly, RI is proposing several program conditions to ensure the proposed action does not contribute to overfishing or adversely impact the ability of other states in the region to harvest the available resource (e.g. a cap in landings under the weekly aggregate possession limit). These conditions are described in more detail below (see “Proposed Alternative Management Regime.”)

In addition, to demonstrate that the proposed management program will not contribute to overfishing we assessed what RI landings would look like if *all* spiny dogfish encountered in (and slightly outside) RI state waters were landed. In other words, we asked the question: if the proposed weekly aggregate possession limit (up to 28,000 lbs per vessel per week) converted all discards to landings would RI “...contribute to overfishing of the resource”? In short, our analysis demonstrates the proposed alternative management regime will not contribute to overfishing or put the Northern Region in jeopardy of exceeding the commercial quota set for this species.

Methods

To evaluate whether the proposed program would “...*contribute to overfishing of the resource*” we assessed the potential total RI landings if *all* spiny dogfish encountered in (and slightly outside) RI state waters were retained and landed (zero discard scenario). For this assessment we calculated the ratio of discards to landings using federal observer data from NOAA Statistical Reporting Area (Stat Area) 539, which encompasses RI state-waters, and then extrapolated potential RI landings by applying these discard rates to the 2013 Fishing Year (FY) landings data and summing the total of extrapolated discards plus landings. Further details regarding this analysis is as follows.

Estimates of Discards

Using data collected by the Northeast Fisheries Observer Program (NEFOP) and At-Sea Monitoring (ASM) we calculated gear-specific discard ratios (spiny dogfish discarded divided by kept) for all trips in NOAA Stat Area 539 that intercepted spiny dogfish during the 2010-3103 FY. Since Stat Area 539 completely encompasses RI state-waters we believe this data provides a relatively good representation of the RI spiny dogfish fishery. In an attempt to maximize the extrapolated landings estimates we applied the discard ratio calculated for the bottom-otter trawl fishery (largest discard ratio) to all gear types (e.g. sea scallop dredge, midwater otter trawl, midwater paired trawl), except gillnet.

Extrapolated Landings under the “zero discard scenario”

We used commercial landings data from the Standard Atlantic Fisheries Information System (SAFIS) electronic reporting for dealers (queried 10-7-2014) to assess RI landings of spiny dogfish by gear type for the 2013 FY, which is the most recent complete FY and thus, offers the most accurate representation of the fishery. We used this landing data combined with the discard ratios (discussed above) to extrapolate RI landings under the assumption that all spiny dogfish encountered while fishing in state-waters were kept and landed (zero discard scenario). Specifically, we multiplied the 2013 RI commercial landings (L) of spiny dogfish by the applicable discard ratio (D) and added these estimated discards to known landings.

$$[((L \times D) + L) = \text{extrapolated landings under a zero discard scenario}]$$

We note that “gear code” was missing from much of the landing data; thus, we applied the discard ratio calculated for the bottom-otter trawl to all non-gillnet landings. We also included landings from the Research Set Aside Program (RSA), which will not be offered for the 2015 FY. Both of these measures were, again, an attempt to maximize the extrapolated landings estimates.

Results

In general, data collected by NEFOP and ASM on trips from Stat Area 539 during the 2010-2013 FY suggest that 75% of dogfish encountered are discarded. Across all gear-type groups the bottom-otter trawl fishery encountered and discarded the greatest proportion of spiny dogfish (92% and 79%, respectively) and for every 1.0 lbs kept, 3.8 lbs were discarded (Table 1). In contrast, the gillnet fishery had the lowest discard rate (7%) and discarded 0.07 lbs for every 1.0 lbs kept (Table 1).

Table 1. Spiny dogfish discarded and kept by gear type in Stat Area 539 during observed trips NEFOP and ASM during the 2010-2013 fishing years.

| Gear Type | Number of Trips | Total (lbs) | | | Discard Ratios | |
|-----------------------------------|-----------------|-------------|----------|--------|-----------------|-------------------|
| | | Encountered | Discards | Kept | Discard to Kept | Used in Analysis |
| bottom-otter trawl | 564 | 267,910 | 212,029 | 55,881 | 3.794 | 3.80 |
| gillnet | 17 | 9,169 | 597 | 8,572 | 0.070 | 0.07 |
| all other gear types ¹ | 60 | 13,238 | 4,234 | 9,004 | 0.470 | 3.80 ² |

¹ sea scallop dredge, midwater otter trawl, midwater paired trawl, etc.
² used bottom-otter trawl ratio in analysis. See "Estimates of Discards" section for details.

We used these discard ratios to extrapolate landings under a zero discard scenario (Table 2). Based on the 2013 landings data we expect landings would not exceed 2,589,930 lbs assuming fishing effort and practices from the 2013 FY continue into the future and all dogfish encountered were landed (zero discards). In our opinion it is unlikely that the fishery will change dramatically in the short term; as the industry will focus on converting discards to landings, for this low price species, rather than targeting additional effort on the dogfish stock. However, we note that it is unlikely that all dogfish encountered in and around RI state waters would be landed, so our conclusion overestimates total mortality under the new regulations.

Table 2. Preliminary RI commercial spiny dogfish landings for the 2013 fishing year and extrapolated landings under a zero discard scenario (all dogfish encountered were landed).

| Gear Type | Actual Landings (lbs) ¹ | Discard Ratio | Estimated Discards | extrapolated landings (lbs) |
|---|------------------------------------|---------------|--------------------|-----------------------------|
| bottom-otter trawl & otter trawl ² | 7,299 | 3.8 | 27,734 | 35,033 |
| gillnet | 321,413 | 0.07 | 22,499 | 343,912 |
| all other gear types ³ | 460,622 | 3.8 | 1,750,364 | 2,210,986 |
| Total | 789,334 | - | 1,800,597 | 2,589,930 |

¹ Preliminary year-end totals (data not finalized)

² combined landings from trips coded as bottom-otter trawl & otter trawl

³ combined across all other gears, including those not coded

Overall, this analysis shows that even under an extreme scenario of all discards being landed the proposed alternative management program would not contribute to overfishing. Especially considering that RI will end the proposed weekly aggregate possession limit and revert to the current ASMFC possession limit (i.e. 5,000 lbs per vessel per day) when either 3,000,000 lbs are landed in RI or 80% of the regional quota is harvested (see Proposed Alternative Management Regime for details). It's important to note that 3,000,000 lbs represents about 9.5% of the 2014 Northern Region commercial quota and is generally consistent with the percentage of regional quota harvested by RI during the 2010-2013 fishing years (7.8% ± 3.3% [mean ± 1 standard deviation] based on SAFIS landings queried 10/7/2014).

Proposed Alternative Management Regime

To improve the economics of the RI spiny dogfish fishery and achieve more effective utilization of the resource, RI proposes to change its state management program from a daily possession limit of 5,000 lbs per vessel per day to a weekly aggregate possession limit of up to 28,000 lbs per vessel per week (equating to 80% of the potential 7-day landing total). Most importantly, RI is proposing several program conditions to ensure the proposed action does not contribute to

overfishing or adversely impact the ability of other states in the region states to harvest the available resource.

A complete list of the program conditions are provided below. Briefly, all participants must: 1) possess a valid RI Department of Environmental Management (RI DEM) commercial fishing license and/or landing permit pursuant to “RI DEM Commercial and Recreational Saltwater Fishing Licensing Regulations”; 2) land their catch at a RI DEM licensed state dealer who reports landings electronically using SAFIS; and 3) and report fishing effort via RI DEM’s state logbook reporting system or federal VTR. At the start of the fishing year, RI DEM will enact and enforce a weekly aggregate possession limit of 28,000 lbs per vessel per week for eligible participants until either 3,000,000 lbs are landed in RI or 80% of the regional quota is harvested, at which point RI will revert to the current ASMFC possession limit, i.e., 5,000 lbs per vessel per day. This allowance for higher trip limits, coupled with termination of the program at a point well short of the total regional quota, will enable RI fishermen to increase their harvests and minimize their discards without unduly impacting other states in the region. Indeed, the program would restrain RI fishermen at harvest levels that are below those allowed under the current program (i.e. 35,000 lbs per vessel per week). At present we do not intend to enact fishing seasons, but request the authority to enact seasons in the future, as needed.

If approved by ASMFC, RI will implement this alternative management program soon as possible and no later than May 2016. RI DEM anticipates working with industry to craft a similar proposal for consideration by NOAA for a federal consistency that would afford federally permitted vessels an opportunity to participate, providing they meet the program requirements.

A complete list of the program conditions are as follows:

Participation Requirements:

- All participants must:
 - possess a valid RI commercial fishing license and/or landing license authorizing them to harvest and/or land spiny dogfish in RI,
 - land at a RI DEM licensed state dealer who reports landings electronically using SAFIS, and
 - report fishing effort via state logbook reporting system or federal VTR

Quota Monitoring:

- RI will monitor landings using SAFIS to ensure compliance with weekly limits, and to track total state landings

Implementation date:

- The program will be implemented as soon as possible and no later than May 2016
 - If approved by ASMFC, RI will apply to NOAA for a federal consistency

Weekly Possession Limit:

- 28,000 lbs per vessel per week at the start of the fishing season

Program Cap:

- The weekly aggregate program will end when either 3,000,000 lbs are landed in RI, or 80% of the regional quota is harvested, whichever comes first
- When the program ends, the RI possession limit reverts to the current ASMFC possession limit, which is currently 5,000 lbs per vessel per day

Season:

- RI DEM may exercise its authority to enact seasons, as needed

Literature Cited

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APPENDIX A

Section 4.3 “Alternative State Management Regimes” from the Interstate Fishery Management Plan for Spiny Dogfish

4.3 ALTERNATIVE STATE MANAGEMENT REGIMES

Once approved by the Spiny Dogfish and Coastal Shark Management Board, states are required to obtain prior approval from the Board of any changes to their management program for which a compliance requirement is in effect. Other non-compliance measures must be reported to the Board but may be

implemented without prior Board approval. A state can request permission to implement an alternative to any mandatory compliance measure only if that state can show to the Board’s satisfaction that its alternative proposal will have the same conservation value as the measure contained in this amendment or any addenda prepared under Adaptive Management (Section 4.5). States submitting alternative proposals must demonstrate that the proposed action will not contribute to overfishing of the resource. All changes in state plans must be submitted in writing to the Board and to the Commission either as part of the annual FMP Review process or the Annual Compliance Reports.

4.3.1 General Procedures

A state may submit a proposal for a change to its regulatory program or any mandatory compliance measure under this amendment to the Commission, including a proposal for de minimis status. Such changes shall be submitted to the Chair of the Plan Review Team, who shall distribute the proposal to the Management Board, the Plan Review Team, the Technical Committee, the Stock Assessment Subcommittee and the Advisory Panel.

The Plan Review Team is responsible for gathering the comments of the Technical Committee, the Stock Assessment Subcommittee and the Advisory Panel, and presenting these comments as soon as possible to the Management Board for decision.

The Spiny Dogfish and Coastal Shark Management Board will decide whether to approve the state proposal for an alternative management program if it determines that it is consistent with the “target fishing mortality rate applicable”, and the goals and objectives of this amendment.

4.3.2 Management Program Equivalency

The Spiny Dogfish Technical Committee, under the direction of the Plan Review Team, will review any alternative state proposals under this section and provide to the Spiny Dogfish and Coastal Shark Management Board its evaluation of the adequacy of such proposals. “

4.3.3 De minimis Fishery Guidelines

The ASMFC Interstate Fisheries Management Program Charter defines de minimis as “a situation in which, under the existing condition of the stock and scope of the fishery, conservation, and enforcement actions taken by an individual state would be expected to contribute insignificantly to a coastwide conservation program required by a Fishery Management Plan or amendment” (ASMFC 2000). A state may be granted de minimis status if a state’s commercial landings of spiny dogfish are less than 1% of the coastwide commercial total. If a state meets this criterion, the state will be exempt from biological monitoring of the commercial spiny dogfish fishery. All states, including those granted de minimis status, will continue to report any spiny dogfish commercial or recreational landings within their jurisdiction. States may petition the Spiny Dogfish and Coastal Shark Management Board at any time for de minimis status. Once de minimis status is granted, designated states must submit annual reports to the Management Board documenting the continuance of de minimis status. States must include de minimis requests and compliance with de minimis requirements as part of their annual compliance reports.

APPENDIX B

RI Division of Fish and Wildlife memorandum submitted to the Spiny Dogfish Management board on April 28, 2014 summarizing “Problems Affecting RI Spiny Dogfish Fishery; Proposals for Alternative Management”

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Rhode Island



Department of Environmental Management

DIVISION OF FISH AND WILDLIFE

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Discussion Memo

To: Spiny Dogfish Board

From: RI Commissioners

Subject: Problems Affecting RI Spiny Dogfish Fishery; Proposals for Alternative Management

Date: April 28, 2014

At the February 2014 Spiny Dogfish Board meeting, a request was made to address the current 4,000 lb possession limit for dogfish as an agenda item at the May 2014 Board meeting. In advance of the meeting, this memo is provided as a basis for discussion. It sets forth RI's perspectives on the problems affecting our fishery, and issue, and presents options for addressing the problems via alternative management strategies.

For a host of reasons, described below, we find the current possession limit problematic. We note that recent discussions on the issue at Mid-Atlantic and New England Fishery Management Council meetings have been divergent. We urge the Board to take up the issue, with a view to achieving improved management of the fishery.

Background

Pursuant to the Commission's Spiny Dogfish FMP, the fishery is managed via two different approaches, one for the New England region and another for the Mid-Atlantic region. The NE states (Maine through Connecticut) are lumped into a northern region, which is allocated 58% of the dogfish quota, and managed based on a 4,000 lb possession limit, which is complemented by an identical federal regulation. The Mid-Atlantic States (New York through North Carolina) are lumped into a southern region, which is allocated 42% of the quota, and managed via individual sub-allocations to each state. The management program for the southern region enables the Mid-Atlantic States to enact their own trip limits in state waters; in contrast, the management program

for the northern region binds all the states to a 4,000 lb. trip in state waters. All federal permit holders in both regions are bound by the 4,000 lb limit.

The NEFMC recently voted to eliminate the daily possession limit for dogfish, while the MAFMC recently voted to retain the current 4,000 lb. limit. It is our understanding that NOAA Fisheries plans to respond by developing a proposed rule with a range of alternatives -- including the two options set forth by the Councils, as well as other intermediate options. We further understand that NOAA Fisheries will allow the public comment period to remain open through the ASMFC's meeting, to enable the Board and Commission to review the alternatives and offer a recommendation.

The NEFMC's recommendation to eliminate the federal trip limit is intended to allow markets to develop, and enable industry to increase landings, in keeping with the large and underutilized dogfish quota. It also is intended to provide states the opportunity to adjust their trip limits based on the needs of their fisheries.

Problems with the Dogfish FMP; Need for Change

- The current management program for dogfish runs contrary to the needs and interests of the Rhode Island commercial fishery. The program unduly constrains RI-based fishermen, truckers, and dealers, who find it increasingly difficult to operate in an economically efficient manner under the 4,000 lb. limit. This constraint is ironic given the proximity of RI to the main dogfish processing facilities in New Bedford, MA.
- Total commercial landings of dogfish for the current fishing year, which ends April 30, 2014, are projected to be about 16 million lbs, which is about 40% of the total coastwide quota (40.8 million lbs). This significant underutilization of the resource clearly indicates that the current management program is failing to achieve full and optimum utilization of the resource. On this point alone, there is ample justification for pursuing an increase to the 4,000 lb. limit.
- The coastwide quota for the 2014/2015 fishing year, which begins May 1, 2014, will increase by 8.6 million lbs, to 49.4 million lbs. Absent any changes to the management program, the increased quota is likely to result in an even larger underage. For the northern region, if landing levels remain the same, the projected underage next year will be in the range of 20 million lbs.
- The most recent estimation of dead discards in the fishery is 11.6 million lbs annually, which equates to 72% of this year's commercial landings. A large portion of discards results from catch rates that exceed the daily possession limit. The need to reduce regulatory discards -- by converting them into landings -- lends further, and compelling, justification to a proposed increase to the possession limit.
- The price paid to fishermen has declined from 20-22¢/pound in prior years to 10-12¢/pound in recent years.

- The low price of dogfish, combined with the low daily possession limit, make it uneconomical for small-boat fishermen to harvest the resource, particularly in the small ports that lack dealers. For example, the average small boat (35 feet) in RI has two crew members, and generally travels 7-12 miles to the dogfish grounds. At 12¢/pound, a 4,000 lb. limit results in gross revenue of \$480/day. Assuming fixed operational costs of about \$250/day, that leaves just \$230/day for the captain and crew. Such inadequate earnings pose a disincentive for fishermen to target dogfish, particularly small boats operating out of small ports. Moreover, the current dynamics of the fishery and market pose a disincentive to land incidental catches, so those catches are typically discarded.
- For RI dealers, the economics of the fishery are equally problematic. RI dealers need to make a minimum of 7-10¢/pound to cover the costs of transporting fish from Sakonnet Pt. or Newport to New Bedford, MA. Dealers cannot justify offloading one or two vessels because, at such low volumes, they cannot cover their fixed costs (e.g., fuel, ice, drivers, insurance, vehicle maintenance). The only way a RI-based dealer can justify transporting dogfish is if they engage in volumes, in the range of 20,000 to 40,000 lbs, which would require offloading five to ten boats at the 4,000 lb. limit. Since small harbors in RI, such as Sakonnet Pt. and Newport, lack the capacity to achieve such volumes, the 4,000 lb. limit essentially prevents these ports from participating in the fishery. The management program therefore fails to provide equitable access to the resource, and thus fails to achieve one of the goals set forth by the FMP.
- Dogfish are generally viewed as nuisance species, and known to be a voracious predator, which further emphasizes the importance of facilitating increased harvest opportunities. For example, fishermen who target cod and monkfish with gill nets frequently have to discard significant portions of their target catch, due to dogfish predation. This occurs on both long and short sets of gill net gear, and also occurs on day sets of less than four hours. Dogfish often eat the bellies out of cod in a few hours, and then devour the balance of the catch on longer sets.
- The following examples, drawn from different components of the RI commercial fishery, illustrate the adverse effects of dogfish vis-à-vis the current management program:
 - Groundfish sector fishermen with cod allocations essentially cannot fish for cod due to high dogfish bycatch levels. Most of these fishermen fish about 25 miles offshore, where dogfish and cod comingle during the winter. A typical fisherman targeting cod with groundfish mesh may catch 6,000-12,000 lbs of dogfish. In order to target and land, say, 300 lbs of cod, a fisherman would have to handle up to 12,000 lbs of dogfish during the day, 8,000 lbs of which would have to be discarded. This makes no sense from either a fishery management or business perspective. A far better approach would be to enable the discards to be converted to landings, in keeping with the discard-reduction goals and objectives set forth by the Commission, Councils, and NOAA Fisheries.
 - Trawlers from Pt. Judith targeting flat fish also encounter large numbers of dogfish on a regular basis, resulting in significant regulatory discards, due solely to the low trip limits.

Not only would these vessels benefit by being able to land the bycatch, they could also target dogfish a few days a week and thereby reduce fishing pressure on other inshore stocks.

Alternative Management Approaches

The provisions of the current Dogfish FMP are fairly limited and ostensibly offer only two options to address the problems described above. Both options have pros and cons associated with them.

1. **Raise the trip limit.** The first strategy would be to raise the daily possession limit, across-the-board, to a level that accommodates current catches – i.e., landings plus regulatory discards. For RI, that level would be in the range of 8,000-10,000 lbs. However, that level may not meet industry’s overall needs and interests; and it may have varying impacts depending on gear, season, and the size and location of ports.

So, an across-the-board increase of that amount may not be a preferred solution. Moreover, it is recognized that a doubling of the current daily trip limit could cause a spike in effort, which could disrupt the market and place downward pressure on prices. Accordingly, as set forth below, RI would support a more moderate increase in the daily trip limit, to either 5,000 or 6,000 lbs.

2. **Utilize conservation equivalency.** Sections 4.3, 4.3.1, and 4.3.2 of FMP set forth provisions governing proposal and adoption of Alternative State Management Regimes. The criteria are generally similar to other conservation-equivalency provisions in other FMPs, in that any proposal offered by a state must have the same conservation value as the mandatory measure contained in the FMP. The state must demonstrate that its alternative proposal will not contribute to overfishing of the resource. The proposal must be submitted in writing, as part of the annual FMP review process or annual compliance reporting. Upon receipt and review of the proposal and the advice of the PRT, the Board may approve it, based on a determination that the proposal is consistent with the “target fishing mortality rate applicable,” and the goals and objectives of the FMP. The situation pertaining to dogfish is unique in that the resource is being collectively under-harvested. Also unique is the applicability of a state-based conservation-equivalency proposal pertaining to a regional management program, with a regional quota. The question arises: given the nature of the Dogfish FMP as it pertains to the northern region, what constitutes the same conservation value as the mandatory measure?

The existing criteria in the FMP relating to conservation equivalency are limited, and primarily focused on overfishing standards. The dogfish population is rebuilt, not overfished, and not subject to overfishing. Moreover, the resource is being significantly under-harvested, and that is occurring in the face of upcoming quota increases. Further, the goals and objectives of the FMP specify the need to minimize regulatory discards, and the need to allocate the resource fairly to all fishers. Taken together, these factors suggest that a proposal from RI to increase the RI possession limit could be in order; however, more guidance is needed from the Board on the matter.

Rhode Island's Proposed Approach

RI is interested in managing its commercial dogfish fishery via a weekly aggregate program, similar to the aggregate programs already in place (per Commission approval) for scup and summer flounder. Such a program would afford the State the flexibility to address the constraints on, and other problems affecting, the State's commercial fishery, as described above. Importantly, the program would improve the economics of the fishery and reduce regulatory discards. The program would likely involve some or all of the following provisions: a weekly aggregate limit, the exact amount of which has yet to be vetted and determined, but would likely be in the range of 20,000 lbs (equating to about 70% of weekly totals allowed under the current daily limit); a cap on total allowable landings under the program; a requirement for a state-issued LOA to participate in the program; a specified season, or time period, for the program, including termination criteria based on regional landing levels; and reporting requirements.

RI's proposed approach – offered to the Board in advance of any in-state vetting -- would enable the State to position itself in a manner consistent with the needs and interests of its commercial fishery. Such positioning would be similar to other states in the southern region, such as North Carolina, which has enacted a 10,000 lb. possession limit to provide its state-waters fishermen with the advantages associated with a sufficiently large possession limit.

Pending the outcome of the Board's review of this memo, and subsequent in-state discussions with local industry interests, RI plans to pursue this approach via the submission of an alternative state management proposal pursuant to Sections 4.3, 4.3.1, and 4.3.2 of the FMP.

Summary: Request to the Board

RI seeks the Board's guidance on and response to the issues raised in this paper, with particular reference to the following three potential action items:

1. **Consider increasing the trip limit in the northern region to either 5,000 or 6,000 pounds.** Although an even higher limit could be justified and recommended, it is recognized that significantly higher limits could trigger market, price, and bycatch concerns. Moreover, it may be preferable to move forward via incremental increases, allowing the market to respond and adjust, and helping to keep in check any major shifts in effort. Thus, RI is proposing a moderate increase, aimed at moving the fishery in the right direction. *The Board has already voted to retain the 4,000 lb. possession limit for the 2014/2015 season. Thus, in order to make this proposed change at the May 2014 meeting, the Board would have to vote to reconsider the issue, with at least two thirds of the Board voting in favor, followed by a simple majority vote to increase the trip limit.*
2. **Consider the need for a Federal trip limit.** If the Board moves to adopt a new trip limit, *consider an additional motion to send a recommendation to NOAA Fisheries*

requesting repeal of the existing (4,000 lb.) federal trip limit. This recommendation would align the position of the Commission with that of the New England Council. The federal regulation is duplicative and unnecessary and reduces the flexibility of States and the Commission to adopt new strategies.

3. **Consider the appropriateness, applicability, and guidelines for a conservation equivalency proposal.** RI wishes to move forward with a state-based conservation equivalency proposal, involving the aggregate program described above, and is prepared to do so at the first available opportunity. In advance, the State *seeks the Board's guidance on the potential use of conservation equivalency as a basis for the State's proposal*, per the relevant provisions of the FMP. The State *also seeks guidance from the Board on a set of guidelines that would govern the submittal and review of such a proposal*. For purposes of discussion, the State suggests that, at a minimum, any proposal should include, and be evaluated pursuant to, the following information:

- The State-specific problems addressed by the proposal.
- How the proposal comports with the goals and objectives of the FMP and relates to the existing management program; specifically, how the proposal will achieve the same conservation value as the measures set forth in the FMP
- How the program will be administered and enforced by the State.
 - Identify if a special permit will be required, and how the landings will be tracked, recorded, and monitored.
 - Identify how landings under the program will be capped and not result in overfishing.
 - Identify the timing of the program.
 - Identify terms and conditions on when the program will terminate (e.g., if/when regional landings reaches 75 % of the regional allocation).
- Reporting protocols.



Atlantic Coastal Fish Habitat Partnership

Policy Board Update

October 30, 2014
Mystic, Connecticut

Fall Steering Committee Meeting Summary

- Science & Data Updates
 - Decision Support Tool to Assess Aquatic Habitats & Threats in North Atlantic Watersheds & Estuaries progress via NALCC funding
 - Winter flounder assessment near completion
 - River herring assessment commencing end of this month
 - Species Habitat Matrix manuscript
 - NFWF-funded River Herring Habitat Restoration Strategies
- Implementation plan evaluation
- Fish Habitat Partnership update
 - National
 - Multistate Conservation Grant Program funding secured
 - Coastal
 - Presenting at Restore America's Estuaries next week
 - Regional
 - Whitewater to Bluewater Initiative
- International Federation of Fly Fishers applied for membership to ACFHP

Additionally, the Steering Committee had the opportunity to discuss estuarine climate change and fish passage barrier issues, and visited six fish passage barriers in the Connecticut area this week.

FY2015 Proposals Submitted

This past August, the Atlantic Coastal Fish Habitat Partnership (ACFHP) sent out a request for project applications to restore and conserve habitat for coastal, estuarine-dependent, and diadromous fish species via federal funding provided by the U.S. Fish and Wildlife Service (USFWS).

The maximum amount available for an individual project was \$50,000, which would go to support on-the-ground habitat conservation and improvement, as well as related design and monitoring activities. The submission deadline was Friday, October 3rd, and this year we received three applications. These proposals were reviewed and scored by an ACFHP subcommittee, and on Monday, the full Steering Committee discussed and approved the ranked list of project proposals for USFWS consideration.



Atlantic States Marine Fisheries Commission

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MEMORANDUM

To: ISFMP Policy Board
From: Atlantic Menhaden Technical Committee
RE: Quarterly Update on 2014 Benchmark Stock Assessment Progress
Date: October 22, 2014

In preparation for the 2014 benchmark stock assessment, the Atlantic menhaden Technical Committee (TC) and Stock Assessment Subcommittee (SAS) have held eleven joint webinars and six in-person meetings to date. This seventh progress report memorandum contains a summary from two webinars and one Assessment Workshop conducted by the SAS that occurred since the last progress report on July 22, 2014 (M14-065). The primary goal of these webinars and workshops was to finalize datasets and model runs in preparation for the December 9-11, 2014 Peer Review Workshop (SEDAR 40).

The final step before submitting the assessment to the SEDAR peer review is a TC meeting on November 5-6, 2016 to review and finalize the benchmark stock assessment.

Below is a brief summary of topics discussed and progress made at each meeting since July 2014. A tentative timeline for the 2014 Atlantic menhaden workshops follows.

August 12-15 Assessment Workshop and September 5th, and October 5th-6th Webinar summary:

- Reviewed all finalized input data sources and decisions regarding treatment of data in assessment models.
- Reviewed model base run results, sensitivity runs, and retrospective analysis.
- Reviewed model projection methodology.
- Finalized single-species biological reference points for use in evaluating stock status.

Tentative timeline for 2014 Atlantic menhaden benchmark stock assessment:

November 2014 – Technical Committee Reviews Benchmark Stock Assessment

December 9-11, 2014 – Peer Review Workshop (SEDAR 40)

February Meeting 2015 – Assessment presented to Atlantic menhaden Board