

**ATLANTIC STATES MARINE FISHERIES COMMISSION**

**REVIEW OF THE INTERSTATE FISHERY MANAGEMENT PLAN**

**FOR AMERICAN LOBSTER**  
*(Homarus americanus)*

**2024 FISHING YEAR**



Prepared by the Plan Review Team

**Approved October 2025**



*Sustainable and Cooperative Management of Atlantic Coastal Fisheries*

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## **1.0 Status of the Fishery Management Plan**

Year of ASMFC Plan's Adoption:

Amendment 3 (1997)

### Plan Addenda:

Addendum II (2001)

Addendum XVII (2012)

Addendum III (2002)

Addendum XVIII (2012)

Addendum IV (2003)

Addendum XIX (2013)

Addendum V (2004)

Addendum XX (2013)

Addendum VI (2005)

Addendum XXI (2013)

Addendum VII (2005)

Addendum XXII (2013)

Addendum VIII (2006)

Addendum XXIII (2014)

Addendum IX (2006)

Addendum XXIV (2015)

Addendum X (2007)

Addendum XXVI (2018)

Addendum XI (2007)

Addendum XXIX (2022)

Addendum XII (2008)

Addendum XXVII (2023)

Addendum XIII (2008)

Addendum XXX (2024)

Addendum XIV (2009)

Addendum XXXI (2025)

Addendum XV (2009)

Addendum XXXII (2025)

Addendum XVI (2010)

Management Unit: Maine through North Carolina

States with a Declared Interest: Maine through Virginia (Excluding Pennsylvania and DC)

Active Committees: American Lobster Management Board, Technical Committee, Lobster Conservation Management Teams, Plan Development Team, Plan Review Team, Advisory Panel, Stock Assessment Subcommittee

## **2.0 Status of the Fishery**

### **2.1 Commercial Fishery**

The lobster fishery has seen incredible expansion in landings over the last 40 years. Between 1950 and 1975, landings were fairly stable around 30 million pounds; however, from 1976 to 2008 the average coastwide landings tripled, exceeding 98 million pounds in 2006. Landings continued to increase until reaching a high of 159 million pounds in 2016, but have been trending downward since then (Table 1). In 2024, coastwide commercial landings were approximately 112.6 million pounds, a 7% decrease from 2023 landings of 120.9 million pounds. The largest contributors to the 2024 fishery were Maine and Massachusetts with 80% and 13% of landings, respectively. The ex-vessel value for all lobster landings in 2024 was approximately \$616.9 million, which is a 2.8% decrease from 2023.

Historically, Lobster Conservation Management Area (LCMA) 1 has had the highest landings and accounted for 80% of total harvest between 1981 and 2012. This is followed by LCMA 3, which accounted for 9% of total landings during the same time period. In general, landings have increased in LCMA 1 and have decreased in LCMA 2, 4, and 6. According to state compliance reports, in 2024,

approximately 92% of the total landings came from LCMA 1, while the remaining 8% were contributed by the other LCMAs<sup>1</sup>. A map of the LCMAs is found in Figure 1.

Landings trends between the two biological stocks have also changed, as a greater percentage of lobster are harvested from the Gulf of Maine/Georges Bank (GOM/GBK) stock. In 1997, 26.3% of coastwide landings came from the Southern New England (SNE) stock. However, as the southern stock declined and abundance in the Gulf of Maine increased, proportional harvest has significantly changed. In 2000, only 15.6% of landings came from the SNE stock and by 2006, this declined to 7%. In 2024, only about 1.4% of coastwide landings came from the SNE stock<sup>1</sup>.

## **2.2 Recreational Fishery**

Lobster is also taken recreationally with pots, and in some states, by hand while SCUBA diving. While not all states collect recreational harvest data, some do report the number of pounds landed recreationally and/or the number of recreational permits issued. In 2024, New Hampshire reported 6,340 pounds of lobster harvested recreationally, and New York reported 1,119 pounds. Maine, Rhode Island, and Connecticut do not collect information on the number of pounds recreationally harvested. For 2024, Rhode Island issued 467 lobster licenses, and 217 lobster licenses were sold in Connecticut in 2024. In general, recreational activity appears to be declining in recent years.

## **3.0 Status of the Stock**

The 2020 American Lobster Benchmark Stock Assessment presents contrasting results for the two American lobster stock units, with record high abundance and recruitment in the Gulf of Maine and Georges Bank stock (GOM/GBK) and record low abundance and recruitment in the Southern New England stock (SNE) in recent years.

The assessment found that abundance estimates for the GOM/GBK stock show an increasing trend beginning in the late 1980s. After 2008, the rate of increase accelerated to a record high abundance level in 2018, the terminal year of the assessment. The GOM/GBK stock shifted from a low abundance regime during the early 1980s through 1995 to a moderate abundance regime during 1996-2008, and shifted once again to a high abundance regime during 2009-2018 (Figure 2). Current spawning stock abundance and recruitment are near record highs. Exploitation (commercial landings relative to stock abundance) declined in the late 1980s and has remained relatively stable since.

The GOM/GBK stock is in favorable condition based on the new recommended reference points adopted by the Board (Table 2). The average abundance from 2016-2018 was 256 million lobster, which is greater than the fishery/industry target of 212 million lobster. The average exploitation from 2016-2018 was 0.459, below the exploitation target of 0.461. Therefore, the GOM/GBK lobster stock is not depleted and overfishing is not occurring.

In contrast to GOM/GBK, model results for SNE show a completely different picture of stock health. Abundance estimates in SNE have declined since the late 1990s to record low levels. Model

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<sup>1</sup> These value does not include data from Massachusetts, which were not provided.

estimates of recruitment and spawning stock biomass have also declined to record low levels. Analysis of these estimates indicates a declining trend in stock productivity, indicating reproductive rates are insufficient to sustain a stable population at current exploitation rates. Exploitation of the SNE stock was high and stable through 2002, declined sharply in 2003, and has remained lower and stable since.

Based on the new abundance threshold reference point, the SNE stock is significantly depleted. The average abundance from 2016-2018 was 7 million lobster, well below the threshold of 20 million lobster (Table 2, Figure 3). However, according to the exploitation reference points the SNE stock is not experiencing overfishing. The average exploitation from 2016-2018 was 0.274, falling between the exploitation threshold of 0.290 and the exploitation target of 0.257. The assessment and peer review panel recommended significant management action be taken to provide the best chance of stabilizing or improving abundance and reproductive capacity of the SNE stock.

A benchmark assessment will be completed in 2025.

#### **4.0 Status of Management Measures**

##### **4.1 Implemented Regulations**

Amendment 3 established regulations which require coastwide and area specific measures applicable to commercial fishing (Table 3). The coastwide requirements from Amendment 3 are summarized below; additional requirements were established through subsequent Addenda.

###### **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. Amendment 3 establishes seven lobster management areas. These areas include the: Inshore Gulf of Maine (LCMA 1), Inshore Southern New England (LCMA 2), Offshore Waters (LCMA 3), Inshore Northern Mid-Atlantic (LCMA 4), Inshore Southern Mid-Atlantic (LCMA 5), New York and

Connecticut State Waters (LCMA 6), and Outer Cape Cod (OCC). Lobster Conservation Management Teams (LCMTs) comprised 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 LCMA's.

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 LCMA's 2, 3, 4, 5, and the Outer Cape.

Addendum III (February 2002)

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

Technical Addendum 1 (August 2002)

Eradicates the vessel upgrade provision for LCMA 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 LCMA 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 LCMA 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 LCMA 2 – permits an eligibility period.

Addendum VII (November 2005)

Revises LCMA 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 LCMA 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 the 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.

Addendum XII (February 2009)

Addresses issues which 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 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 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)

Alters two 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)

Establishes a limited entry program and criteria for Federal waters of LCMA 1.

Addendum XVI: Reference Points (May 2010)

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 following a peer reviewed assessment.

Addendum XVII (February 2012)

Institutes a 10% reduction in exploitation for LCMAs 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.

Addendum XVIII (August 2012)

Reduces traps allocations by 50% for LCMA 2 and 25% for LCMA 3.

Addendum XIX (February 2013)

Modifies the conservation tax for LCMA 3 to a single transfer tax of 10% for full or partial business sales.

Addendum XX (May 2013)

Prohibits lobstermen from setting or storing lobster traps in Closed Area II from November 1 to June 15 annually. Any gear set in this area during this time will be considered derelict gear. This addendum represents an agreement between the lobster industry and the groundfish sector.

Addendum XXI (August 2013)

Addresses changes in the transferability program for LCMAs 2 and 3. Specific measures include the transfer of multi-LCMA trap allocations and trap caps.

Addendum XXII (November 2013)

Implements Single Ownership and Aggregate Ownership caps in LCMA 3. Specifically, it allows LCMA 3 permit holders to purchase lobster traps above the cap of 2000 traps; however, these traps cannot be fished until approved by the permit holder's regulating agency or once trap reductions commence. The Aggregate Ownership Cap limits LCMA fishermen or companies from owning more traps than five times the Single Ownership Cap.

Addendum XXIII (August 2014)

Updates Amendment 3's habitat section to include information on the habitat requirements and tolerances of American lobster by life stage.

Addendum XXIV (May 2015)

Aligns state and federal measure for trap transfer in LCMA's 2, 3, and the Outer Cape Cod regarding the conservation tax when whole businesses are transferred, trap transfer increments, and restrictions on trap transfers among dual permit holders.

Addendum XXVI (February 2018)

Advances the collection of harvester and biological data in the lobster fishery by improving the spatial resolution of data collection, requiring harvesters to report additional data elements, and establishing a deadline that within five years, states are required to implement 100% harvester reporting. The Addendum also improves the biological sampling requirements by establishing a baseline of ten sampling trips per year, and encourages states with more than 10% of coastwide landings to conduct additional sampling trips. Required reporting of additional data elements went into effect on January 1, 2019. The Addendum XXVI requirement for commercial harvesters to



report their fishing location by 10 minute longitudinal/latitudinal square was implemented in 2021.

#### Addendum XXIX (2022)

Implements electronic tracking requirements for federally-permitted vessels in the American lobster and Jonah crab fisheries to collect high resolution spatial and temporal effort data. Specifically, electronic tracking devices will be required for vessels with commercial trap gear area permits for LCMAs 1, 2, 3, 4, 5, and Outer Cape Cod. Requirements will become effective in 2023.

#### Addendum XXVII (2023)

Establishes a trigger mechanism to implement management measures (gauge and escape vent sizes) to provide additional protection of the GOM/GBK spawning stock biomass (SSB). It also implements changes to management measures for LCMAs 1, 3, and Outer Cape Cod to improve the consistency of measures across the GOM/GBK stock.

#### Addendum XXX (2024)

Clarifies the Commission's recommendation to NOAA Fisheries that the increased minimum gauge size in LCMA 1 triggered under Addendum XXVII would also apply to foreign imports of American lobster.

#### Addendum XXXI (February 2025)

Postponed implementation of the Addendum XXVII gauge and vent size measures to July 1, 2025 to reduce negative impacts to the US and Canadian lobster industries in 2025 and allow Canada more time to consider implementing complementary management measures.

#### Addendum XXXII (May 2025)

Repeals all gauge and escape vent size measures from Addendum XXVII to address continued economic concerns and provide the Gulf of Maine states the opportunity to collaborate with the lobster industry to identify alternative conservation approaches.

### ***4.2 Conservation Equivalency Plans***

Amendment 3 to the FMP for American Lobster outlines the adaptive management limitations for lobster management, including measures that can or cannot be substituted using conservation equivalency (CE). The following conservation CE plans have been adopted under the American lobster FMP.

- New Hampshire: In 1999, the Board approved a CE plan that allowed New Hampshire to allocate a portion of their Area 1 fishermen 1,200 traps and the rest 600 traps in a two-tiered system, as an alternative to the 800-trap allocation system as specified in Amendment III.
- New Jersey: Addendum I required initial trap allocations to be based on the number of traps fished in any one calendar year during the period from January 1, 1994 through September 15, 1998. In 2001, the Board approved a CE plan for New Jersey allowing the state to allocate traps to its fishermen based upon the LCMT criteria established for areas 3, 4 and 5 but with a modification of the historical time period to 1980. The CE plan also allowed New Jersey to allocate up to 500 traps to fishermen holding federal permits and using otter trawl gear.

- Massachusetts: In 2003, the Board approved a CE proposal for the OCC management area, specific to section 2.1.7.2 and 2.1.7.3 of Addendum III. The CE plan uses 1999 through 2001 as qualifying years to identify potential participants and allocates traps based on fishing performance during 2000 - 2002 with pounds as the qualifying parameter.
- Connecticut: In 2007, the Board approved a CE plan for Connecticut as an alternative to the Addendum XI measures to end overfishing and rebuild the SNE stock. The CE plan allowed for a v-notching program as an alternative to the minimum size increase to 3-3/8 inch required by Addendum XI for LCMA 6.
- Massachusetts: In 2008, the Board approved a CE plan to the Addendum X requirement that dealers buying lobster from harvesters must report NMFS Statistical Areas for each transaction with harvesters. The CE plan allowed Massachusetts to not require dealers to collect "Area Fished" on a transaction basis and instead rely on the annual recall log's attribution of monthly effort and landings to statistical area.
- Maine: In 2008, the Board approved a CE plan to the Addendum X requirement that dealers buying lobster from harvesters must report NMFS Statistical Areas for each transaction with harvesters. The CE plan allowed Maine to instead assign Statistical Areas to landings from dealers based on the dealer port location.
- Maine: in 2016, the Board approved a CE plan for Maine to allow the transfer of trap tags between traps using hog rings. The American lobster FMP does not allow for trap tags to be moved between traps.

## 5.0 Fishery Dependent Monitoring

The following provisions of Addendum XXVI went into effect January 1, 2019:

- Required reporting of additional data elements;
- Requirement to implement 100% harvester reporting within five years;
- Baseline biological sampling requirement of ten sea and/or port sampling trips per year.

The Addendum XXVI requirement for commercial harvesters to report their fishing location by 10 minute longitudinal/latitudinal square was implemented in 2021. Table 4 describes the level of reporting and monitoring programs by each state. *De minimis* states are not required to conduct biological sampling of their lobster fishery.

In recent years it has been a challenge for the states whose lobster fisheries primarily occur in SNE to complete the required ten required sea and/or port sampling trips for fishery dependent monitoring. In 2024, Connecticut and New Jersey were unable to meet the requirement. New Jersey completed zero trips and continues to have difficulty with vessel Captains accommodating an observer aboard. No fishery dependent sampling has been conducted by Connecticut since 2014 due to reductions in funding and staffing levels. Table 5 provides data on the amount of sampling performed by states.

## 6.0 Status of Fishery Independent Monitoring

Addendum XXVI also requires fishery independent data collection by requiring statistical areas be sampled through one of the following methods: annual trawl survey, ventless trap survey, or young-of-year survey.

### 6.1 Young of Year Index

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: There are currently 40 fixed stations along the Maine coast. Of these 40 stations 38 have been sampled consistently since 2001 with two additional sites added to Zone D, off midcoast Maine, in 2005 and one site swapped with an historical site in Zone A/SA 511 in 2023 and 2024. In recent years, these sites are sampled October to December. Only 36 sites were sampled in 2024 due to staffing and weather limitations. Sites were selected based on orientation to surface winds, position in bays, water temperature during settlement period (for eastern Maine sites) and presence of suitable habitat. The swapped site in 2023 and 2024 is replacing a site that has not been sampled for multiple years due to proximity to storm/sewage overflow. This historical replacement site was sampled in the 1990's but dropped because the water temperatures were deemed too low for good settlement but are now currently experiencing warmer water temperatures. A new R script was developed in 2022 to pull the data directly from Maine's MARVIN archive database to create a replicable and transparent data query, but these numbers differ slightly from past data pulled. Cut-off values for YOY vary by year. In 2022, it was identified that 2013 data had not been uploaded correctly previously so the numbers are different from previous reports (Figure 4).

New Hampshire: New Hampshire Fish and Game conducted a portion of the coastwide American Lobster Settlement Index (ALSI). In 2024, a total of 37 juvenile lobsters were sampled from three sites; 29 older juveniles, YOY lobster, and three one-year-old (Y+). Figure 5 depicts the CPUE (#/m<sup>2</sup>) of YOY lobsters for all New Hampshire sites combined from 2008 through 2024. The abundance index shows a general increasing trend to a time series high in 2011, followed by sustained low to moderate levels from 2012 through 2024 (Figure 5).

Massachusetts: Annual sampling for early benthic phase/juvenile (EBP) lobsters was conducted during August and September, 2024. As of 2024, suction sampling is conducted in the GOM stock unit at 12 sites from Cape Ann to the South Shore area, and in the SNE stock unit at 4 sites in Buzzards Bay. In 2024 densities of YOY lobsters in the GOM remained below time series means in Cape Ann, Salem Sound, and Boston, but were above the mean for South. ). In SNE there were no YOY lobsters found in the Buzzards Bay sampling locations in 2024 (Figure 6).

Rhode Island: In 2024, the RI DEM DMF YOY Settlement Survey (Suction Sampling) was conducted at six fixed stations with twelve randomly selected 0.5 m<sup>2</sup> quadrats sampled at each survey station. The survey stations are located outside of Narragansett Bay along the southern Rhode Island coast, from Sachuest Point (east) to Point Judith (west). The index presented represents the average

annual densities for YOY ( $\leq 13\text{mm}$ ) and total lobsters caught (Figure 7). The 2024 YOY Settlement Survey index was 0.08 lobsters/m<sup>2</sup>, and with all lobsters was 0.08 lobsters/m<sup>2</sup>.

Connecticut: The CT DEEP Larval Lobster Survey in western Long Island Sound was discontinued after 2012. Alternative monitoring data are available for the eastern Sound from the Millstone Power Station entrainment estimates of all stages of lobster larvae. Abundance indices in both programs are delta mean density of larvae per 1000 cubic meters of water, entrained into the power plant in the case of the Millstone program and stage 4 only captured in surface plankton samples in the CT DEEP program. Both programs show a protracted decline in recruitment following the 1999 die-off (Figure 8). The 2023 value (0.480  $\Delta$ -mean density), although the highest since 2006, only represented two observed stage III lobster larvae in all samples obtained. The 2024 value (0.438  $\Delta$ -mean density) represents eight observed stage I larvae and one, stage II larvae. Important to note, the lobster larvae entrainment sample schedule was modified in 2022. The samples were reduced from six per week (3 day and 3 night) to three samples per week (daytime only).

## **6.2 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 and relative abundance while attempting to limit the biases identified in conventional fishery dependent surveys.

Maine: The Maine Ventless Trap Survey changed strategies in 2015 to cover more area by eliminating the vented traps at each site. This change allowed the survey to double the number of sites with ventless traps and increase the sampling coverage spatially to 276 sites. Traps were set during the months of June, July, and August. The stratified mean was calculated for each area using depth and statistical area for ventless traps only. Compared to the previous years, in 2024 the number of sublegal ( $< 83\text{ mm CL}$ ) lobsters caught increased slightly in all three areas (513, 512, and 511) while the number of legal sized ( $\geq 83\text{ mm CL}$ ) lobsters caught decreased in all areas (Figure 9).

New Hampshire: Since 2009, NHF&G has been conducting the coastwide Random Stratified Ventless Trap Survey in state waters (statistical area 513). A total of six sites were surveyed twice a month from June through August in 2024. Catch per unit effort (stratified mean catch per trap haul) from 2009 through 2024 is presented in Figure 10. Annual stratified mean catch per trap haul values varied without significant positive or negative trend throughout the sixteen-year time series.

Massachusetts: The coastwide ventless trap survey was initiated in 2006 and expanded in 2007 with the intention of establishing a standardized fishery-independent survey designed specifically to monitor lobster relative abundance and distribution. The survey was not conducted in 2013 due to a lack of funding; however, starting in 2014 the survey has been funded with lobster license revenues and will continue as a long-term survey.

The time series of relative abundance for sublegal ( $< 83\text{ mm CL}$ ) and legal-sized ( $\geq 83\text{ mm CL}$ ) lobsters for Area 514 (part of LMA 1) is shown in Figure 11 as the stratified mean CPUE ( $\pm$  S.E.). Note that the MA index includes data from both vented and non-vented traps, and includes all four

survey months (June – Sept). The average catch of sublegal lobsters is much higher than the catch of legal-sized lobsters and generally increased from 2006 through 2016 but has been declining since, with values from the last five years (2020-2024) falling below the time series average of 4.28 sublegal lobsters/trap. Catch over the last four years, while relatively low, has been relatively stable. The stratified mean catch per trap of legal-sized lobsters in 2024 was 0.51 ( $\pm$  0.01), and was below the time series average of 0.56.

The time series of relative abundance (stratified mean CPUE  $\pm$  S.E.) for sublegal (<86 mm CL) and legal-sized ( $\geq$  86 mm CL) lobsters in the Area 538 (MA SNE survey area) is shown in Figure 12. Note that due to survey changes for the MA SNE survey region in 2021, the entire MA SNE time series now represents June – August only, first haul of the month, and only those stations that occurred in the reduced survey footprint. The mean sublegal CPUE in 2024 was 0.78 ( $\pm$  0.13), well below the time series average of 1.74 sublegal lobsters/trap haul. The CPUE of legal-sized lobsters in 2024 was 0.20 ( $\pm$ 0.04), below the time series average of 0.33 legal lobsters/trap haul.

Rhode Island: Rhode Island conducted the 2024 ventless trap survey in June, July, and August at a total of 27 stations divided between Block Island Sound, Rhode Island Sound, and Narragansett Bay. Generally, the abundance index of sublegal lobsters in the survey has been below the time series mean, with a declining trend (Figure 13). The depth-stratified abundance index of sublegal lobsters in the 2024 survey, 3.95 lobsters per ventless trap, remains below the time series mean of 5.61 lobsters per ventless trap. The abundance index for legal-sized lobsters, at 0.76 lobsters per ventless trap, is above the time series mean of 0.40 lobsters per ventless trap.

New Jersey: A ventless trap survey has been conducted since 2016 during the months of April, July, and October to coincide with NJ's Ocean Trawl Survey. CPUE data for American lobster captured on and off reef sites is collected (Figure 14).

Delaware: A pilot study was initiated in 2018 to assess the population structure of structure-oriented fish in the lower Delaware Bay and nearshore Atlantic Ocean. Sampling was conducted in the lower Delaware Bay and the nearshore Atlantic Ocean using commercial-sized ventless fish pots during April through December 2024. Eighteen American Lobsters were caught in lower Delaware Bay and 471 American Lobsters in the nearshore Atlantic Ocean with a ratio of 46% males, 51% female and 2% egg laden. The sampled Atlantic Ocean American Lobsters ranged in length from 50 mm to 130 mm.

### **6.3 Trawl Surveys**

Maine and New Hampshire: The Maine-New Hampshire Inshore Trawl survey conducted by Maine Department of Marine Resources began in 2000 and covers approximately two-thirds of the inshore portion of Gulf of Maine. April 29th, 2024, off Portsmouth, NH, and finished May 31st, 2024, off Lubec, Maine. Due to weather and gear conflicts, 100 out of the 120 scheduled tows were completed leading to an 83% completion rate for the survey. A total of 13,418 lobsters were caught and sampled, with 6,256 females, 7,161 males, and 1 unknown sex (Figure 15). The fall survey began on September 23rd, 2024, and finished on October 25th, 2024. Due to adverse weather and gear conflicts, 85 out of the 120 scheduled tows were completed leading to a 71% completion rate for

the survey. A total of 15,578 lobsters were caught and sampled, with 7,674 females, 7,811 males, and 93 lobsters of unknown sex due to a malfunction with recording equipment (Figure 16).

Massachusetts: Since 1978, the Division of Marine Fisheries has conducted spring and autumn bottom trawl surveys in the territorial waters of Massachusetts. This survey has run continuously since 1978, with the sole exception of 2020, when neither the spring nor fall survey took place due to Covid-19 restrictions. After low levels observed in the GOM during the early to mid-2000s, relative abundance indices have increased over the last decade but have declined in recent years, with declines evident in the sublegal sizes a couple years prior to declines in the legal sizes. Sublegal-sized abundance has been at or below the median for the past four years with data (no data in 2020). Legal abundance has remained above the time series median since 2015, although the 2022 and 2023 values were much closer to the median than the previous six years. In SNE, relative abundance from the spring and fall surveys remains low. There were no lobsters observed in the SNE spring surveys, and no legal-sized lobsters observed in the fall survey in 2024 (Figure 17).

Rhode Island: The Rhode Island DFW Trawl Survey program conducted seasonal surveys in the spring and fall, as well as a monthly survey. In 2024, 44 trawls were conducted in the Spring and 44 in the Fall. Monthly Survey includes monthly trawls throughout Narragansett Bay. There were 156 trawls performed as part of the monthly program in 2024. Below are figures depicting the annual mean catch per tow. Spring 2024 mean CPUEs were 0.00 and 0.02 for legal and sub legal lobsters (respectively), where Fall 2024 CPUEs were 0.05 for legal lobsters and 0.16 for sublegal lobsters. The 2024 mean Monthly trawl CPUEs were 0.05 and 0.12 per-tow for legal and sublegal lobsters, respectively (Figure 18).

Connecticut and New York: Juvenile and adult abundance are monitored through the Long Island Sound Trawl Survey during the spring (April, May, June) and the fall (September, October) cruises all within NMFS statistical area 611. Mechanical breakdown of the research vessel prevented sampling in fall 2010; an estimated index is shown as the average of 2009 and 2011 values. Similarly, due to the COVID-19 pandemic, the spring and fall 2020 Long Island Sound Trawl Surveys were not conducted, an estimated index is shown as the average of 2019 and 2021.

The spring 2024 lobster abundance index (geometric mean=0.025 lobsters/tow) had a total of 3 male lobsters observed (2 sub-legal, 1 legal-size). Spring abundance in the last twelve years (2011-2024) remains less than 1.0. All indices from 2008-2024 are below the time series median of 2.74. The spring 2024 lobster abundance index was a slight improvement from 2023 when no lobsters were observed (geometric mean = 0 lobsters/tow). The fall 2024 lobster abundance index (geometric mean = 0.0125 lobsters/tow) is derived from the collection of one, legal-sized female and was a slight improvement from 2019 when no lobsters were caught in September and October. The fall time series median of 2.86 has not been exceeded since 2004 (Figure 19). Both legal and sublegal-size lobster abundance have declined with similar trajectory.

New York: New York initiated a stratified random trawl survey in the near shore ocean waters off the south shore of Long Island in 2018 from the Rockaways to Montauk Point and the New York waters of Block Island Sound. Four sampling cruises were conducted in 2024. These cruises took

place during the Winter (February) Spring (May, June) and Summer (August). Twenty-eight stations were sampled during the cruise in February. Twenty-five stations were sampled during the cruise in May, and thirty stations were sampled during the June cruise. During the Summer, twenty-five stations were sampled in August. Twenty-four lobsters were caught during the 2024 surveys.

New Jersey: An independent Ocean Trawl Survey is conducted from Sandy Hook, NJ to Cape May, NJ each year. The survey stratifies sampling in three depth gradients, inshore (18'-30'), mid-shore (30'-60'), offshore (60'-90'). The mean CPUE is calculated as the sum of the mean number of lobsters per size class collected in each sampling area weighted by the stratum area. The 2023 CPUE is a decrease from the 2022 value (Figure 20). 2024 indices are still being analyzed and currently not available.

Delaware, Maryland, and Virginia conduct bottom trawl surveys but lobster catch is very rare.

## **7.0 State Compliance**

States are currently in compliance with all required biological management measures under Amendment 3 and Addendum I-XXIV. However, the Plan Review Team (PRT) notes that Connecticut and New Jersey did not conduct sea/port sampling in 2024, as required by Addendum XXVI.

## **8.0 De Minimis Requests**

The states of Virginia, Maryland, and Delaware have requested *de minimis* status. According to Addendum I, states may qualify for *de minimis* status if their commercial landings in the two most recent years for which data are available do not exceed an average of 40,000 pounds. Delaware, Maryland, and Virginia meet the *de minimis* requirement.

## **9.0 Regulatory Changes**

### **Massachusetts**

- 4/26/24 – Adopted a more robust definition for term “immediate family” to be inclusive of adoptive and step relations. Relevant to the commercial coastal lobster permit, DMF authorizes transfer of latent permits to immediate family members and allows a waiver to owner-operator requirement for use by immediate family members.

### **Connecticut**

- Regulations of Connecticut State Agencies (Title 26. Sec 26-157c-1 through 26-157c-4) were amended in 2022 to include both the LMA6 seasonal closure, lobster trap vent size requirement and minimum size carapace length. Prior to this, interim rules were implemented by Commissioner Declarations. Connecticut is currently in the regulatory process to implement electronic tracking device requirements for federally permitted lobster and Jonah crab vessels with commercial trap gear area permits.

## **New York**

- On July 10, 2024, NY implemented new regulations requiring all federally permitted vessels holding commercial lobster trap allocations have an approved electronic tracking device installed onboard.

## **10.0 Enforcement Concerns**

### **Maine**

- In 2024, Maine Marine Patrol Officers documented 419 lobster-related violations, with 85 being summonses. Marine Patrol's highest profile cases in 2024 were six individuals being charged with molesting lobster gear, 1 harvester found in possession of 38 short lobsters, and two individuals were found to be fishing lobster traps beyond the Area 1 limit of 800. 55 individuals were issued violations for fishing untagged lobster traps with the most egregious violation being 73 untagged traps. Marine Patrol Officers continue to prioritize lobster enforcement at sea which is illustrated by the documentation of traps hauled, lobster boat boardings, and violations issued at sea. The majority of other lobster-related violations were associated with the possession of illegal lobsters, lobster license violations, and protected resource-related gear violations.

### **Massachusetts**

- Matter of Nee - Commercial coastal lobster permit sanctioned for period of 3-years (2024 – 2026) to limit annual trap tag issuance from 800 tags to 200 traps and seasonal suspension of November 1 – January 31.

### **New York**

- In 2024, New York had multiple infractions. Recreationally, this included permit, size, and trap marking violations. Commercially, New York had an unpermitted take and undersize violation. There were also multiple issues with undersized lobsters imported into New York.

### **New Jersey**

- Two summonses were issued for setting baited lobster traps within state waters during the LMCA seasonal closure. Two summonses were issued for deploying lobster pots within a reef site, and an additional two summonses were issued for failing to notify enforcement prior to deploying lobster gear on a reef.

## **11.0 Research Recommendations**

The full list of research recommendations can be found in the 2020 Stock Assessment Report. Below is a summarized list of the high priority research recommendations from the 2020 Stock Assessment that were compiled by the Lobster Technical Committee (TC) and Stock Assessment Subcommittee (SAS).

**Port and Sea Sampling** - The quality of landings data has not been consistent spatially or temporally. Limited funding, and in some cases, elimination of sea sampling and port sampling programs will negatively affect the ability to characterize catch and conservation discards, limiting the ability of



the model to accurately describe landings and stock conditions. It is imperative that funding for critical monitoring programs continues, particularly for offshore areas from which a large portion of current landings originate in SNE. Sea sampling should be increased in Long Island Sound (statistical area 611), and in the statistical areas in federal waters, particularly those fished by the LCMA 3 fleet, via a NMFS-implemented lobster-targeted sea sampling program.

**Commercial Data Reporting** – Finer resolution spatial data are paramount in understanding how landings align between statistical area and LCMAs. Vessel tracking is recommended for federal vessels. Once in place, the new spatial data should be analyzed for comparison to current spatial understanding of harvest. The growing Jonah crab fishery in SNE continues to complicate the differentiation of directed lobster versus Jonah crab effort. More sea sampling and landings data must be collected to better differentiate the two fisheries' activities.

**Ventless Trap Survey** - Calibration work to determine how catch in the ventless trap surveys relates to catch in the bottom trawl surveys remains an important and unaddressed topic of research. Ventless traps may be limited in their ability to differentiate between moderately high and extremely high abundance, and calibration with bottom trawl surveys may help to clarify how  $q$  might change with changes in lobster density.

**NEAMAP Trawl Survey Protocols** - The SAS recommends that the NEAMAP Trawl Survey sampling protocol be modified for all lobsters caught to be sorted by sex. If a subsample is necessary, subsamples be taken by sex for additional biological data (size, egg presence and stage, vnotch, etc.) This modification would align the biological sampling methodology with other trawl surveys used in the assessment, and perhaps allow the survey to not be collapsed by sex into survey slots.

**Time Varying Growth** - Growth of American lobster has been found to change through time (McMahan et al. 2016), yet the ability to incorporate this dynamic in the assessment model currently is unavailable. Accounting for interannual changes in the growth matrix, including those in increment, probability, and seasonality, is imperative for model convergence. Modification to the assessment model is needed to allow for time varying growth matrices to be used to reflect changing growth in the stocks.

**Expansion of Growth Matrices** - Exploration of expanding the model size structure to smaller sizes could allow the SAS to better capture changes in recruitment for the population by incorporating < 53mm lobster abundances from the surveys currently used, as well as incorporating additional surveys that currently are not model inputs for the assessment, such as those from the young of year settlement surveys. Due to decreased recruitment in SNE and some areas in GOMGBK, available survey data should be evaluated to determine whether current data sources for small sizes are sufficient for expanding the size structure and growth matrices.

**Temperature-Molt Dynamics** - Understanding how the timing for molting, molt increments, and probability by size vary with temperature for all stocks would allow for more accurate and realistic depictions of growth via updated annual growth matrices. The work of Groner et al. (2018) should be expanded by using the Millstone data to specifically analyze how molt frequency and increment

has changed seasonally and interannually.

**Larval Ecology** - Spatial expansion of larval surveys and further testing is warranted, particularly in areas like the eastern GOM and GBK that lack any studies of this nature. Studies that explore greater spatial coverage of larval sampling and examine lobster larval diets, in situ development time in current conditions, larval interactions with well-mixed versus stratified water columns, and varying growth and mortality with temperature would allow for greater context on these variables' influence on recruitment.

**Deepwater Settlement** - There is a need to determine settlement success in habitat not currently sampled and its contribution to overall stock productivity. Research needs to explore the levels of detectability, impact of stratification, and interannual temperature effects on the indices. Additionally, it will be important to understand whether there are differences in growth and survival in these deeper habitats, particularly relative to the desire to expand the growth matrix into smaller size ranges for modeling purposes.

**SNE Recruitment Failure** - The direct cause of the precipitous declines in recruitment under less variable spawning stock biomass is largely unknown. Research designed to understand the causes driving recruitment failure is vital for any efforts toward rebuilding the SNE stock. In addition, being able to predict similar conditions in GOMGBK could allow management the opportunity to respond differently.

**Stock Structure Working Group** - The SAS recommends that a workshop on stock boundaries be convened prior to the initiation of the next assessment to review results of any new research and re-evaluate appropriate stock boundaries. Inclusion of Canadian researchers at this workshop would be beneficial to share data and knowledge on this shared resource.

**Spatial Analyses of Fisheries-Independent Data** – Northeast Fisheries Science Center (NEFSC) trawl survey data remains one of the richest data sources to understand abundance and distribution patterns through time for lobsters by size and sex. Formal analyses of NEFSC trawl survey and the ME/NH trawl survey and should be performed. The Ecosystem Monitoring (EcoMon) Program's larval lobster information should also be considered.

**Reevaluate Baseline Natural Mortality Rate** - Intensive hypothesis-driven sensitivity analyses should be conducted to evaluate the base mortality rate for both stocks by season and year. Canadian tagging data should be examined to determine how natural mortality rates derived from these data compare to the assumptions used currently in the model and sensitivity analyses. Exploration of additional time series representing natural mortality hypotheses (e.g. sea temperature, shell disease prevalence, predators) should be continued to either inform time-varying natural mortality or correlate to rates produced in sensitivity analyses.

**Predation Studies** - It is suspected that a given predator's role in lobster natural mortality has changed through time. Predation laboratory studies and gut content analyses would provide greater guidance on individual species' roles in lobster natural mortality. With this information, predation-

indices as a function of predator annual abundances and their contribution to stock-specific lobster mortality would be immensely valuable, particularly in SNE.

**Management Strategy Evaluation** - Developing a true management strategy evaluation tool that can iteratively project and refit the operating model would best inform future management discussions on rebuilding the SNE stock or providing resiliency for the GOM stock and fishery.

**Economic Reference Points** - Economic analyses considering landings, ex-vessel value, costs, associated economic multipliers, number of active participants, and other factors are imperative to truly discern how declines in the population would impact the GOMGBK industry. The SAS strongly recommends a thorough economics analysis be conducted by a panel of experts to more properly inform economic-based reference points, and ultimately provide resiliency to both the GOMGBK stock and fishery.

## **12.0 Plan Review Team Recommendations**

During its review of the state compliance reports, the PRT noted the following issues:

- Massachusetts was unable to provide a compliance report including all required data by the August 1 deadline<sup>2</sup>.
- In 2024, Connecticut and New Jersey did not meet the Addendum XXVI minimum requirement of ten sea/port sampling trips. Given persistent issues with states being unable to meet the sampling requirement, the Board should consider how to address this issue moving forward.

The PRT Recommends the Board approve the *de minimis* requests of DE, MD, and VA. Other than the issues noted above, all states appear to be in compliance with the requirements of the FMP.

The following are general recommendations the PRT would like to raise to the Board:

- The PRT recommends the Board consider reviewing the monitoring requirements in SNE given the status of the stock and the difficulty obtaining sea sampling trips in a fishery with reduced effort. The TC has discussed the need for additional sampling trips in federal waters as the fishery has shifted offshore. The Stock Assessment Subcommittee is considering this issue as part of the ongoing stock assessment.

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<sup>2</sup> Data for Massachusetts that were not available for this report will be added at a later date.

### 13.0 Tables

**Table 1. Landings (in pounds) of American Lobster by the states of Maine through Virginia. Source: ACCSP Data Warehouse for 1981-2023 landings; state compliance reports for 2024 landings. C= confidential data.**

	ME	NH	MA	RI	CT	NY	NJ	DE	MD	VA	Total Lbs
1981	22,631,614	793,400	11,420,638	1,871,067	807,911	890,218	593,801	55,700	63,108	2,173	39,129,630
1982	22,730,253	807,400	11,265,840	3,173,650	880,636	1,121,644	846,215	90,700	64,788	4,713	40,985,839
1983	21,976,555	1,310,560	12,867,378	5,114,486	1,654,163	1,207,442	769,913	56,700	76,192	20,619	45,054,008
1984	19,545,682	1,570,724	12,446,198	5,259,821	1,796,794	1,308,023	927,474	103,800	98,876	37,479	43,094,871
1985	20,125,177	1,193,881	13,702,702	5,140,131	1,381,029	1,240,928	1,079,723	118,500	82,295	42,881	44,107,247
1986	19,704,317	941,100	12,496,125	5,667,940	1,253,687	1,416,929	1,123,008	109,000	57,593	93,105	42,862,804
1987	19,747,766	1,256,170	12,856,301	5,317,302	1,571,811	1,146,613	1,397,138	84,100	49,820	60,241	43,487,262
1988	21,739,067	1,118,900	12,977,313	4,758,990	1,923,283	1,779,908	1,557,222	66,200	22,966	53,696	45,997,545
1989	23,368,719	1,430,347	15,645,964	5,786,810	2,076,851	2,344,932	2,059,800	76,500	17,502	45,107	52,852,532
1990	28,068,238	1,658,200	16,572,172	7,258,175	2,645,951	3,431,111	2,198,867	68,300	24,941	58,260	61,984,215
1991	30,788,646	1,802,035	15,998,463	7,445,172	2,673,674	3,128,246	1,673,031	54,700	26,445	7,914	63,598,326
1992	26,830,448	1,529,292	14,969,350	6,763,087	2,534,161	2,651,067	1,213,255	21,000	27,279	753	56,539,692
1993	29,926,464	1,693,347	14,350,595	6,228,470	2,177,022	2,667,107	906,498	24,000	46,650	2,940	58,023,093
1994	38,948,867	1,650,751	16,176,551	6,474,399	2,146,339	3,954,634	581,396	8,400	7,992	460	69,949,789
1995	37,208,324	1,834,794	15,903,241	5,362,084	2,541,140	6,653,780	606,011	25,100	26,955	5,210	70,166,639
1996	36,083,443	1,632,829	15,312,826	5,295,797	2,888,683	9,408,519	640,198	20,496	28,726	C	71,311,517
1997	47,023,271	1,414,133	15,010,532	5,798,529	3,468,051	8,878,395	858,426	C	34,208	2,240	82,487,785
1998	47,036,836	1,194,653	13,167,803	5,617,873	3,715,310	7,896,803	721,811	1,359	19,266	1,306	79,373,020
1999	53,494,418	1,380,360	15,875,031	8,155,947	2,595,764	6,452,472	931,064	C	41,954	6,916	88,933,926
2000	57,215,406	1,709,746	14,988,031	6,907,504	1,393,565	2,883,468	891,183	C	62,416	C	86,051,319
2001	48,617,693	2,027,725	11,976,487	4,452,358	1,329,707	2,052,741	579,753	C	31,114	C	71,067,578
2002	63,625,745	2,029,887	13,437,109	3,835,050	1,067,121	1,440,483	264,425	C	20,489	C	85,720,309
2003	54,970,948	1,958,817	11,321,324	3,561,391	C	946,449	209,956	C	22,778	C	72,991,663
2004	71,574,344	4,076,845	11,675,852	3,059,319	646,994	996,109	370,536	13,322	14,931	27,039	92,455,291
2005	68,729,813	C	11,291,145	3,174,852	713,901	1,154,470	369,003	C	39,173	21,988	85,494,345
2006	75,420,639	2,612,389	12,102,232	4,355,690	806,135	1,252,146	470,878	3,706	26,349	28,160	97,078,324
2007	63,987,476	2,468,811	10,046,445	2,299,744	568,696	911,761	334,097	C	26,804	C	80,643,834
2008	69,911,680	2,568,088	10,606,534	2,782,000	427,168	712,075	304,479	C	32,932	C	87,344,955
2009	81,124,149	2,986,981	11,789,758	2,842,088	412,468	731,811	C	6,064	30,618	21,472	99,945,409
2010	96,247,042	3,648,004	12,772,983	2,928,688	441,622	813,513	692,910	C	29,149	16,345	117,590,257
2011	104,957,000	3,919,195	13,385,902	2,754,067	198,928	344,232	698,205	8,879	41,057	12,879	126,320,344
2012	127,464,536	4,229,227	14,486,428	2,706,384	247,857	550,441	919,351	C	65,579	10,823	150,680,627
2013	128,015,530	3,817,707	15,259,573	2,155,762	127,420	496,535	660,367	C	62,601	9,061	150,604,556
2014	124,941,344	4,374,656	15,312,852	2,412,875	127,409	222,843	526,368	26,330	57,414	11,099	148,013,190
2015	122,685,783	4,721,826	16,450,853	2,316,458	205,099	147,414	445,060	22,894	29,284	9,474	147,034,145
2016	132,749,768	5,782,098	17,784,921	2,260,335	254,346	218,846	349,880	C	29,254	2,854	159,432,301
2017	112,153,095	5,645,434	16,493,125	2,031,143	130,015	150,317	409,062	32,364	29,136	1,630	137,075,319
2018	121,226,471	6,199,365	17,697,243	1,905,689	110,580	112,685	344,547	C	24,893	2,727	147,624,201

<b>2019</b>	102,227,108	6,093,615	17,029,462	1,795,212	111,573	112,107	291,072	C	11,831	1,840	<b>127,673,819</b>
<b>2020</b>	97,916,077	5,014,169	15,711,853	1,695,279	159,173	111,678	309,197	11,098	10,176	C	<b>120,938,700</b>
<b>2021</b>	110,718,783	5,712,222	16,826,952	1,351,415	148,758	109,117	290,981	6,193	12,827	3,099	<b>135,180,348</b>
<b>2022</b>	99,019,728	5,264,476	14,907,099	1,189,045	88,654	81,950	266,612	C	13,336	C	<b>120,830,901</b>
<b>2023</b>	97,347,000	6,090,731	15,883,390	1,116,746	126,729	104,899	266,654	C	C	C	<b>120,936,149</b>
<b>2024</b>	86,923,660	7,582,859	16,279,643	1,147,505	179,366	132,529	329,789	C	C	C	<b>112,575,351</b>

**Table 2. Top: Current (2016-2018) reference abundance estimates (millions), current target and threshold abundance (millions), and new recommended abundance reference points for both stocks. Bottom: Current (2016-2018) exploitation, current target and threshold exploitation, and new recommended target and threshold exploitation for both stocks.**

<b>Quantity</b>	<b>GOMGBK</b>	<b>SNE</b>
Current (2016-2018 average)	256	7
Current Target	119	32
Current Threshold	58	25
Fishery/Industry Target	212	NA
Abundance Limit	125	NA
Abundance Threshold	89	20

<b>Quantity</b>	<b>GOMGBK</b>	<b>SNE</b>
Current (2016-2018 average)	0.459	0.274
Current Target	0.457	0.379
Current Threshold	0.510	0.437
Recommended Target	0.461	0.257
Recommended Threshold	0.475	0.290

**Table 3. 2024 LCMA specific management measures.**

Management Measure	LCMA 1	LCMA 2	LCMA 3	LCMA 4	LCMA 5	LCMA 6	OCC
<b>Min Gauge Size</b>	3 1/4"	3 3/8"	3 17/32"	3 3/8"	3 3/8"	3 3/8"	3 3/8"
<b>Vent Rect.</b>	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"
<b>Vent Cir.</b>	2 7/16"	2 5/8"	2 11/16"	2 5/8"	2 5/8"	2 5/8"	2 5/8"
<b>V-notch requirement</b>	Mandatory for all eggers	Mandatory for all legal size eggers	Mandatory for all eggers above 42°30'	Mandatory for all eggers in federal waters. No v-notching in state waters.	Mandatory for all eggers	None	None
<b>V-Notch Definition<sup>1</sup> (possession)</b>	Zero Tolerance	1/8" with or w/out setal hairs <sup>1</sup>	1/8" with or w/out setal hairs <sup>1</sup>	1/8" with or w/out setal hairs <sup>1</sup>	1/8" with or w/out setal hairs <sup>1</sup>	1/8" with or w/out setal hairs <sup>1</sup>	State-only permits in state waters: 1/4" without setal hairs Federal Permit holders: 1/8" with or w/out setal hairs <sup>1</sup>
<b>Max. Gauge (male &amp; female)</b>	5"	5 1/4"	6 3/4"	5 1/4"	5 1/4"	5 1/4"	State Waters: none Federal waters: 6 3/4"
<b>Season Closure</b>				April 30-May 31 <sup>2</sup>	February 1-March 31 <sup>3</sup>	Sept 8-Nov 28 <sup>4</sup>	February 1-April 30

<sup>1</sup> A v-notched lobster is defined as any female lobster that bears a notch or indentation in the base of the flipper that is at least as deep as 1/8", with or without setal hairs. It also means any female which is mutilated in a manner that could hide, obscure, or obliterate such a mark.

<sup>2</sup> Pots must be removed from the water by April 30 and un-baited lobster traps may be set one week prior to the season reopening.

<sup>3</sup> During the February 1 – March 31 closure, trap fishermen will have a two week period to remove lobster traps from the water and may set lobster traps one week prior to the end of the closed season.

<sup>4</sup> Two week gear removal and a 2 week grace period for gear removal at beginning of closure. No lobster traps may be baited more than 1 week prior to season reopening.

**Table 4. 2024 sampling requirements and state implementation. All states have 100% active harvester reporting. Sufficient sea sampling can replace port sampling. *De minimis* states (denoted by \*) are not required to conduct biological sampling of their lobster fishery.**

State	100% Dealer Reporting	10% Harvester Reporting	Sea Sampling	Port Sampling	Ventless Trap Survey	Settlement Survey	Trawl Survey
ME	✓	✓ (10%)	✓		✓	✓	✓
NH	✓	✓	✓	✓	✓	✓	✓
MA	✓	✓	✓		✓	✓	✓
RI	✓	✓	✓	✓	✓	✓	✓
CT	✓	✓	No	No		*	✓
NY	✓	✓		✓			✓
NJ	✓	✓	No	No	✓		✓
DE*	✓	✓			✓		✓
MD*	✓	✓	✓				✓
VA*	✓	✓					✓

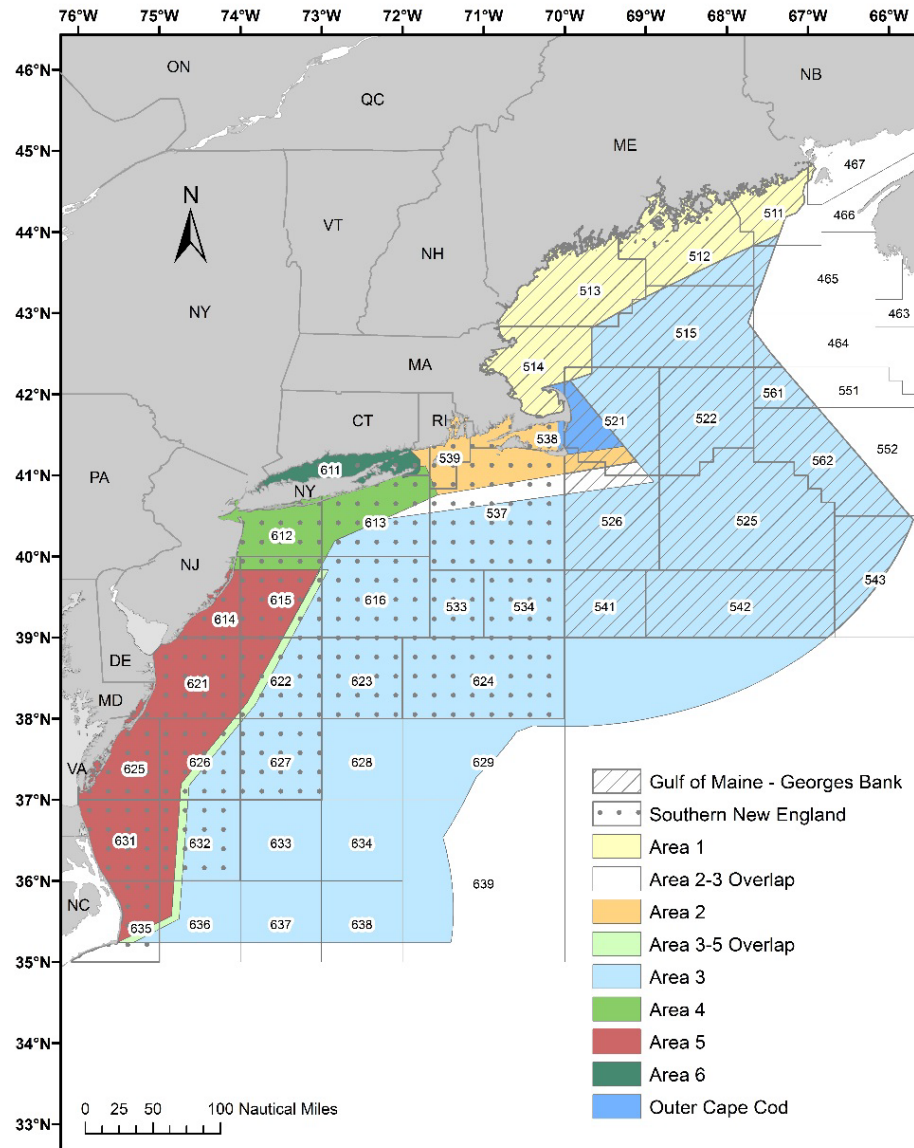
<sup>a</sup> No fishery dependent sampling has been conducted by CT since 2014 due to reductions in funding and staffing levels.

<sup>b</sup> Larval data are available for the eastern Sound (ELIS) from the Millstone Power Station entrainment estimates of all stages of lobster larvae (Dominion Nuclear CT, Annual Report 2016).

**Table 5. 2024 sea and port sampling trips and samples by state. *De minimis* states (denoted by \*) are not required to conduct biological sampling of their lobster fishery.**

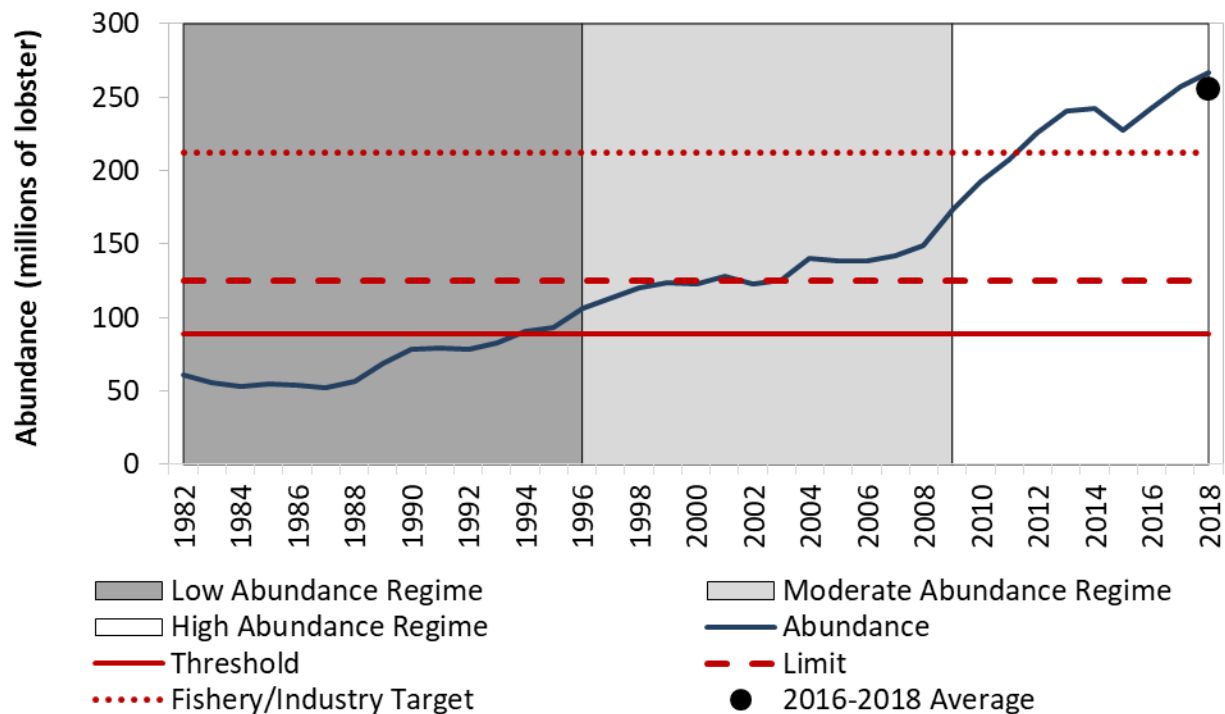
State	Sea Sampling			Port Sampling		Totals	
	Trips	Samples	Traps	Trips	Samples	Trips	Samples
ME	184	212,838	42,631	0	0	184	212,838
NH	14	9,539		12	1,200	26	10,739
MA	59	31,765	13,100	0	0	59	31,765
RI	2	331	185	10	2,282	12	2,613
CT	0	0	0	0	0	0	0
NY	0	0	0	19	1,923	19	1,923
NJ	0	0	0	0	0	0	0
DE*	0	0	0	0	0	0	0
MD*	0	0	0	0	0	0	0
VA*	0	0	0	0	0	0	0
<b>Total</b>	259	254,473	55,916	41	5,405	300	259,878

## 14.0 Figures

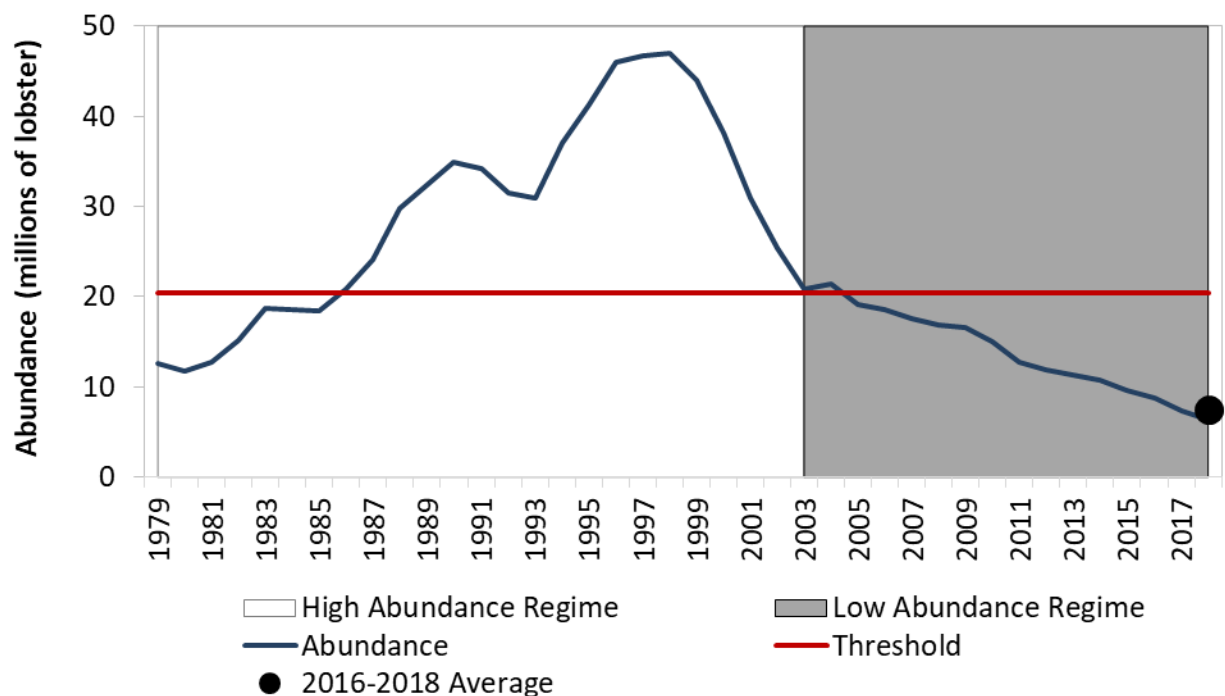


**Figure 1. Lobster Conservation Management Areas (LCMAs) and stock boundaries for American lobster.**

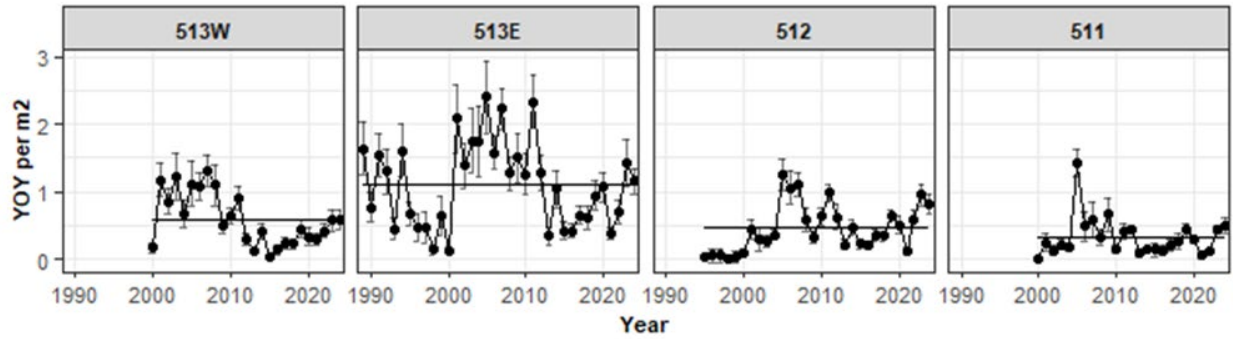




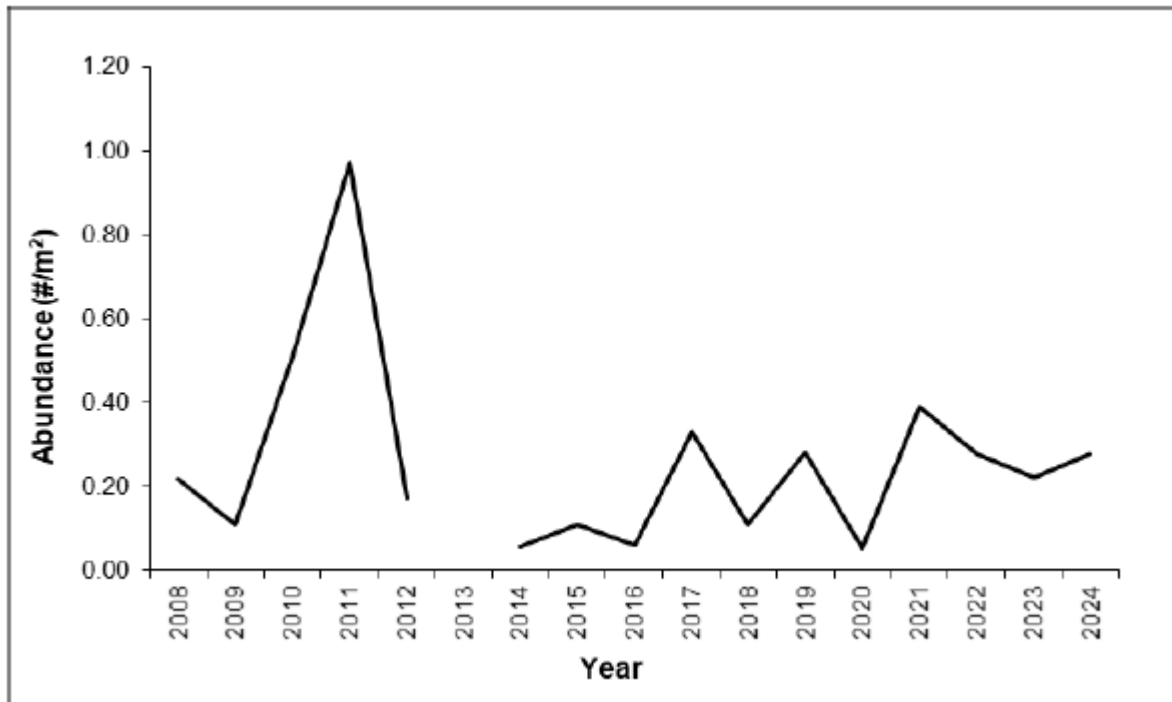
**Figure 2. Abundance for GOM/GBK Relative to Reference Points. Source: 2020 Benchmark Stock Assessment for American Lobster.**



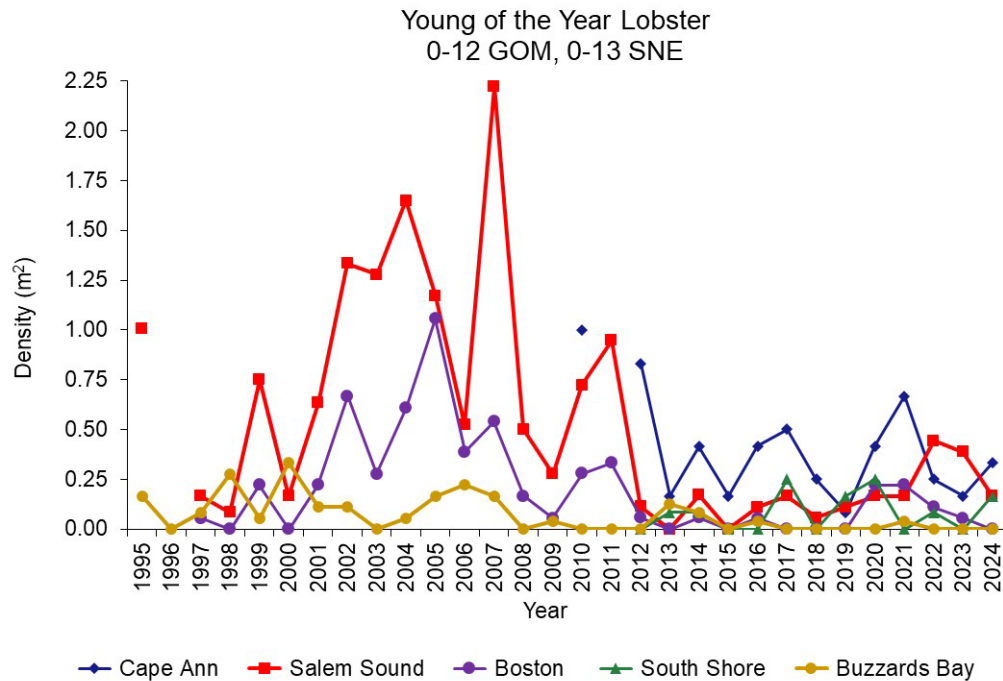
**Figure 3. Abundance for SNE Relative to Reference Points. Source: 2020 Benchmark Stock Assessment for American Lobster.**



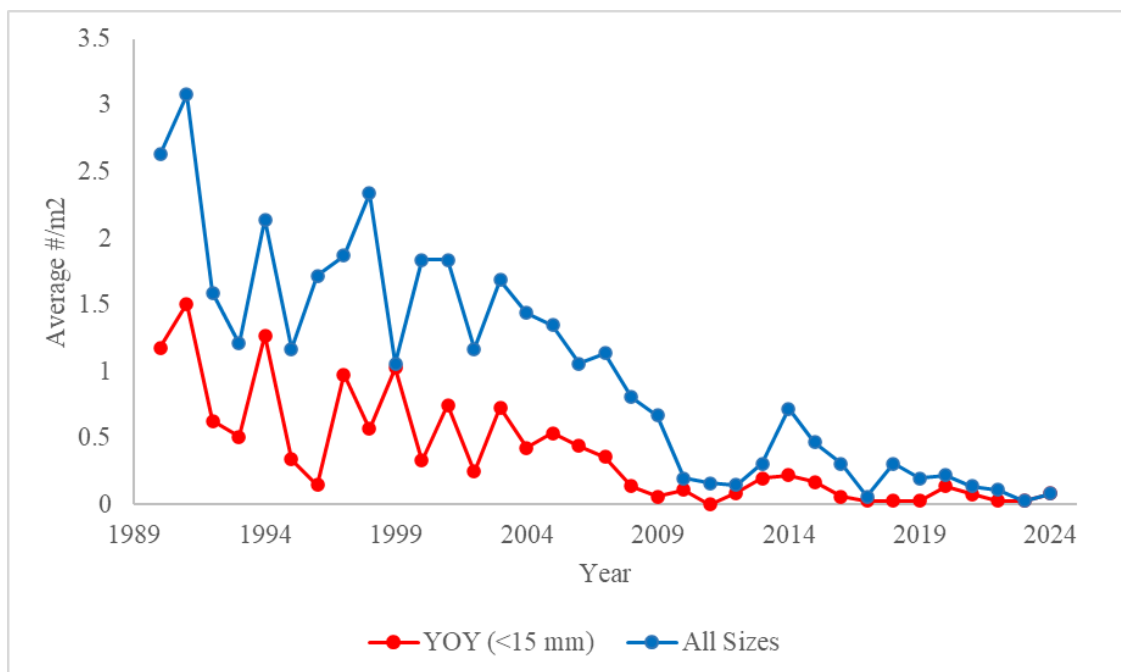
**Figure 4. Maine Lobster Settlement Survey Index 1989-2024 for young of year for each statistical area with series average (solid horizontal line) for each region with standard error bars. The cut-off sizes for YOY vary by year and are based on the annual size frequency distribution and range from 11 to 14.5mm CL.**



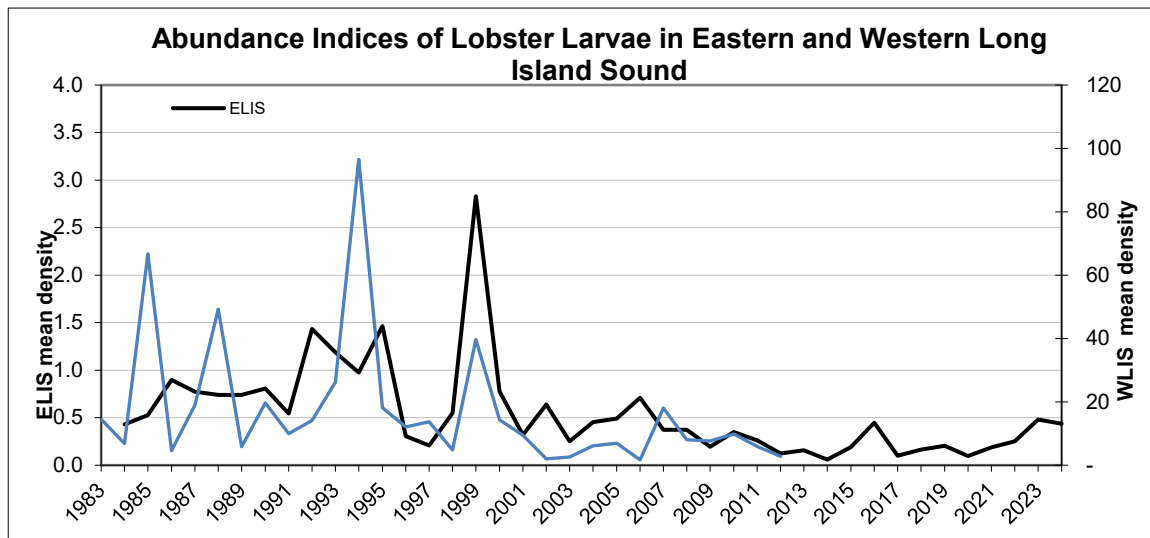
**Figure 5. Catch per unit effort (#/m²) of young-of-year (YOY), one-year-olds (Y+), YOY and Y+ combined, and all lobsters during the American Lobster Settlement Index, by location, in New Hampshire, from 2008 through 2024.**



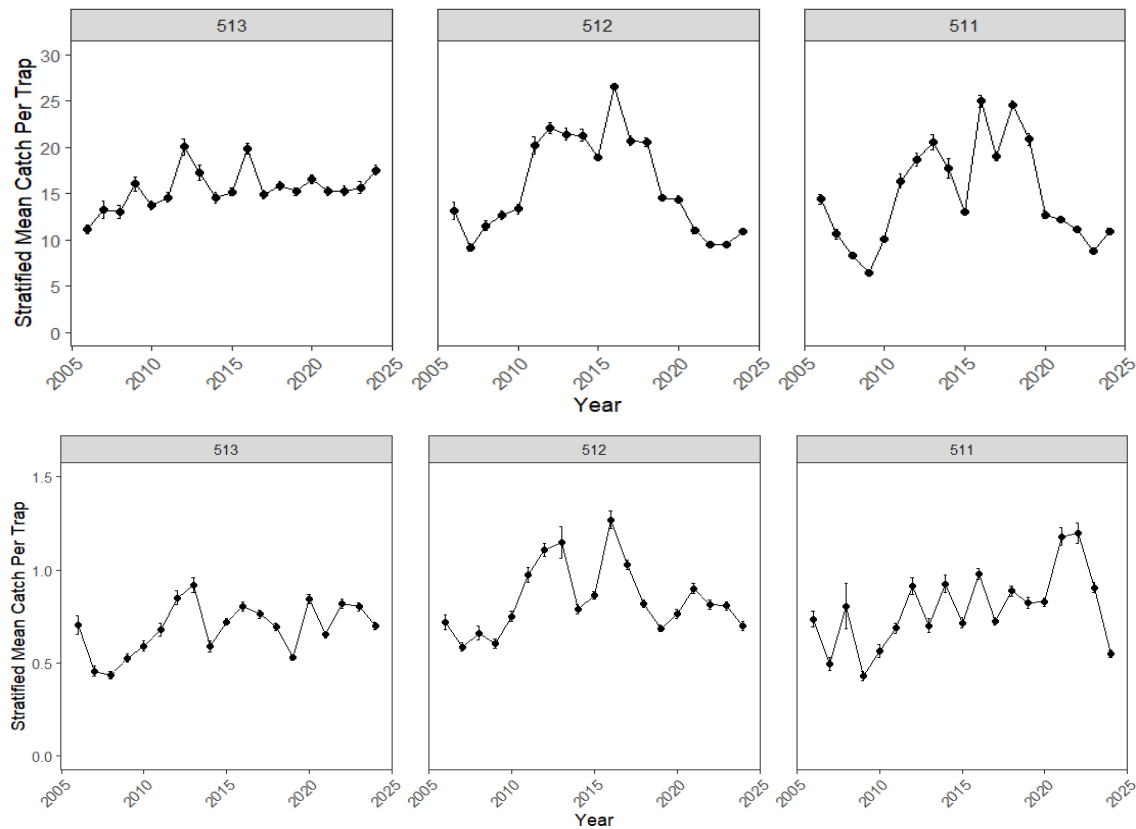
**Figure 6. Young-of-year lobster density in four regions within the GOM stock unit – Cape Ann, Salem Sound, Boston, and South Shore, and one region in the SNE stock unit - Buzzards Bay. In GOM locations, lobsters  $\leq 12$  mm CL are considered YOY, while in SNE locations YOYs are  $\leq 13$  mm CL.**



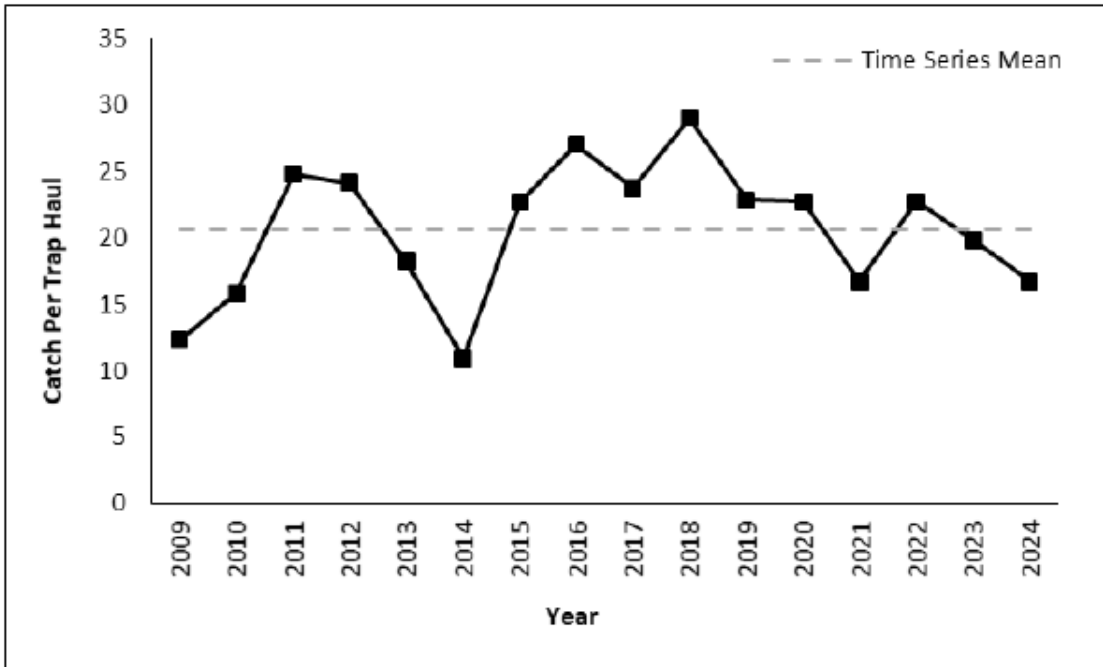
**Figure 7. Average abundance of American lobster in Rhode Island suction sampling sites. Abundances are presented for YOY lobsters 13 mm or smaller (red line) and all sizes (blue line).**



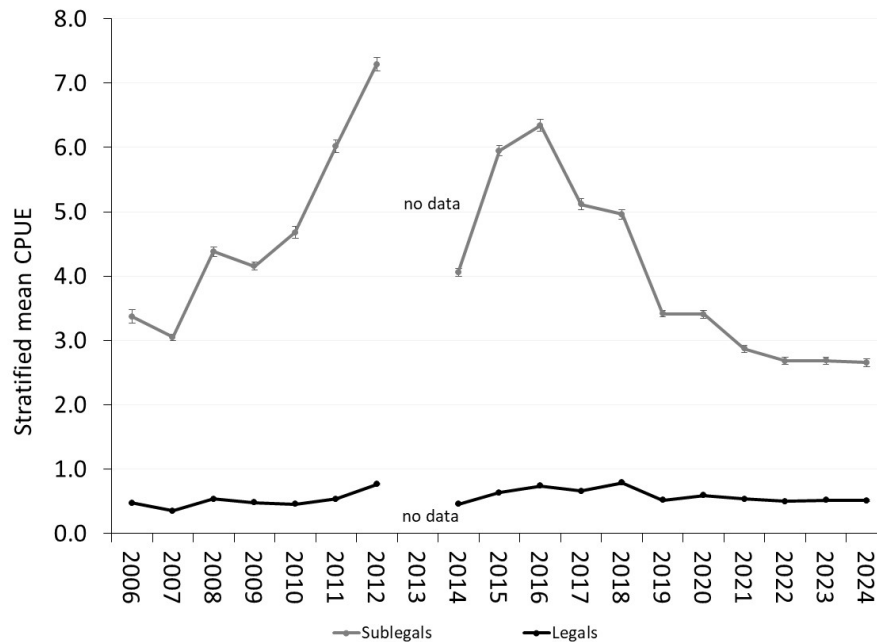
**Figure 8. Abundance indices of lobster larvae from the Connecticut DEEP Larval Lobster Survey in western Long Island Sound and from the Millstone Power Station entrainment estimates in eastern Long Island Sound. The Connecticut DEEP survey was discontinued in 2013.**



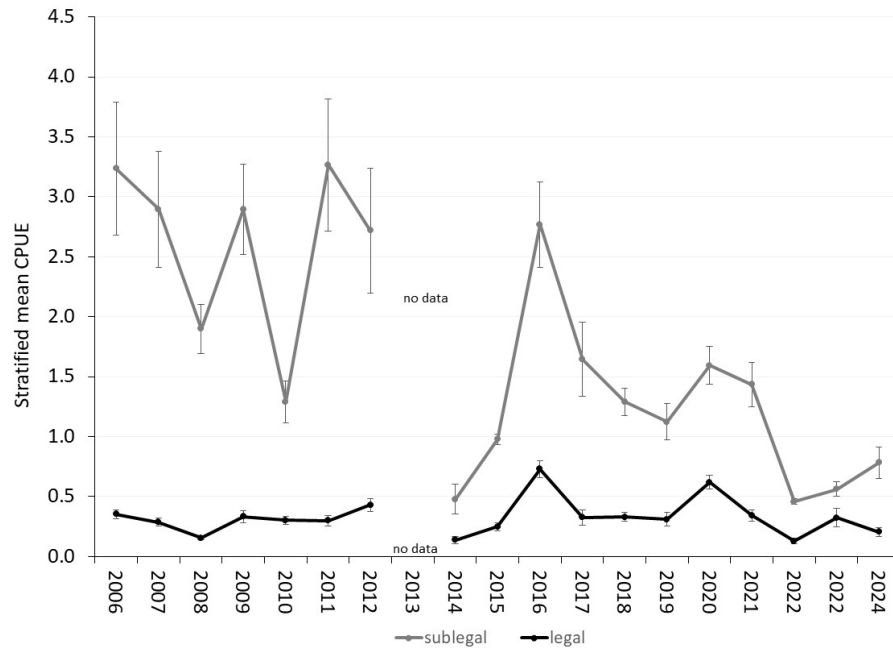
**Figure 9. Stratified mean catch per trap for sublegal (top) and legal (bottom) sized lobsters from Maine's Ventless Trap Survey 2006-2024 by statistical area from ventless traps only. Standard error is shown.**



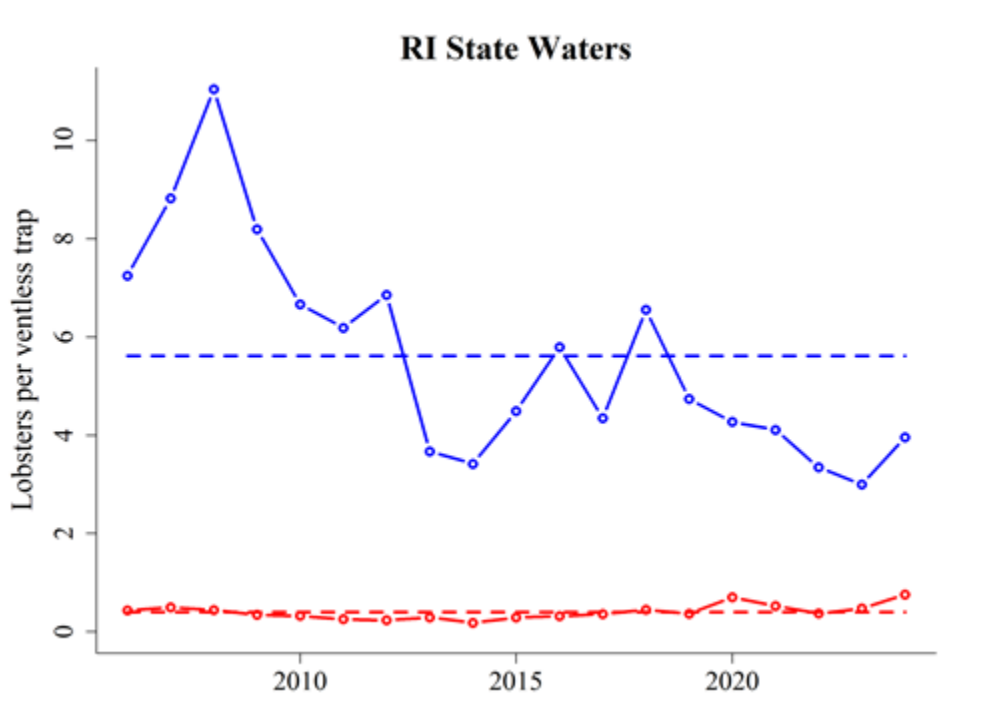
**Figure 10. Stratified mean catch per trap haul (ventless traps only) for all lobsters captured during the coast-wide random stratified Ventless Trap Survey in New Hampshire state waters from 2009 through 2024.**



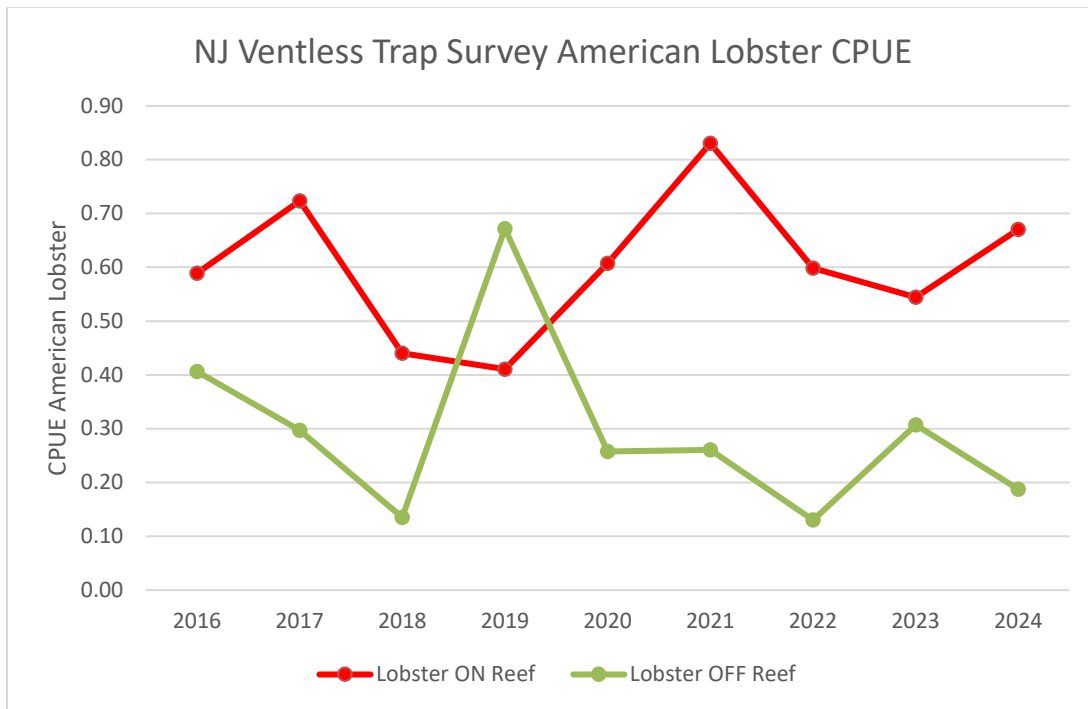
**Figure 11. Stratified mean catch per trap haul ( $\pm$ S.E.) of sublegal (< 83 mm, grey line) and legal ( $\geq$  83 mm, black line) lobsters in NMFS Area 514 from MADMF ventless trap survey from 2006-2024.**



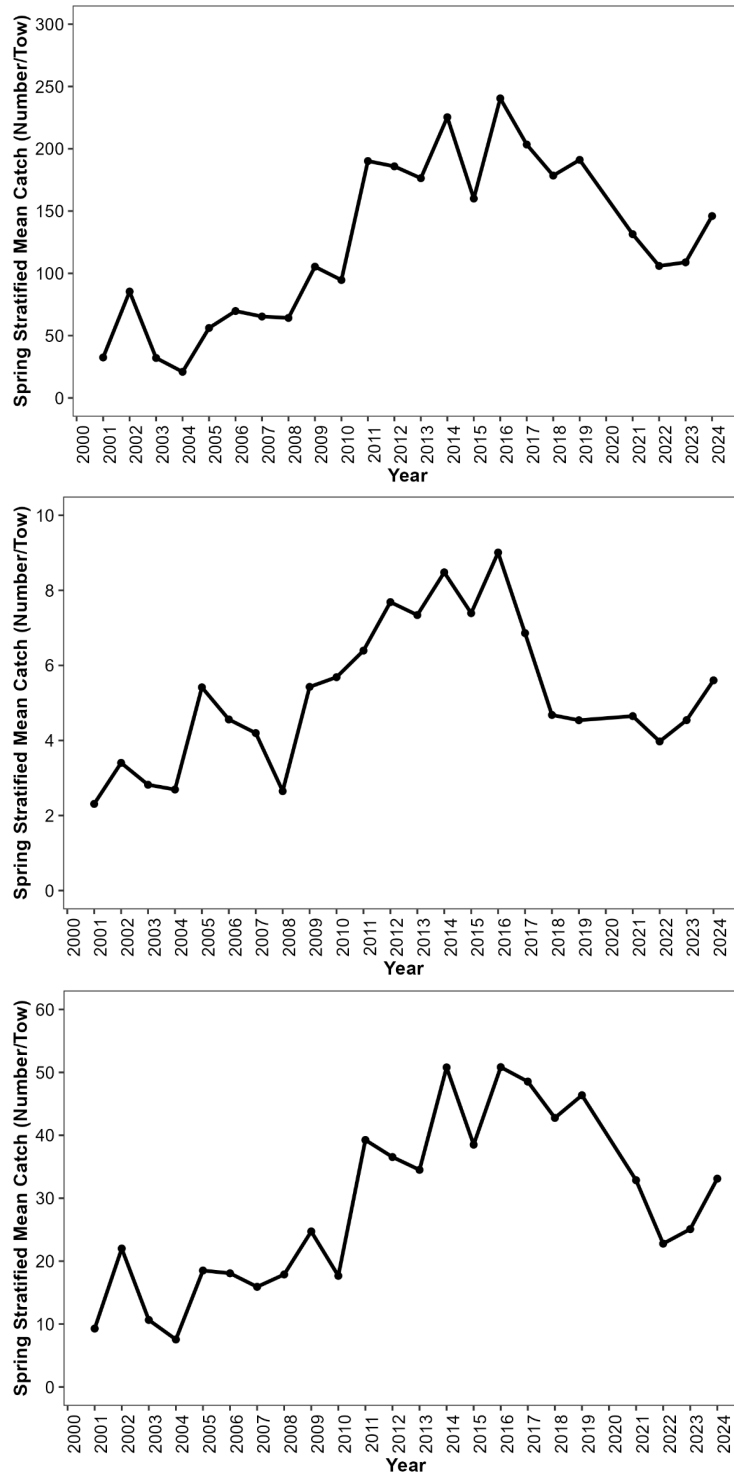
**Figure 12. Stratified mean catch per trap haul ( $\pm$ S.E.) of sublegal ( $< 86$  mm, grey line) and legal ( $\geq 86$  mm, black line) lobsters in the reduced MA SNE survey area, Area 538.**



**Figure 13. Depth-stratified mean catch of sublegal lobsters in the RIDEM DMF ventless trap survey, 2006-2024.**

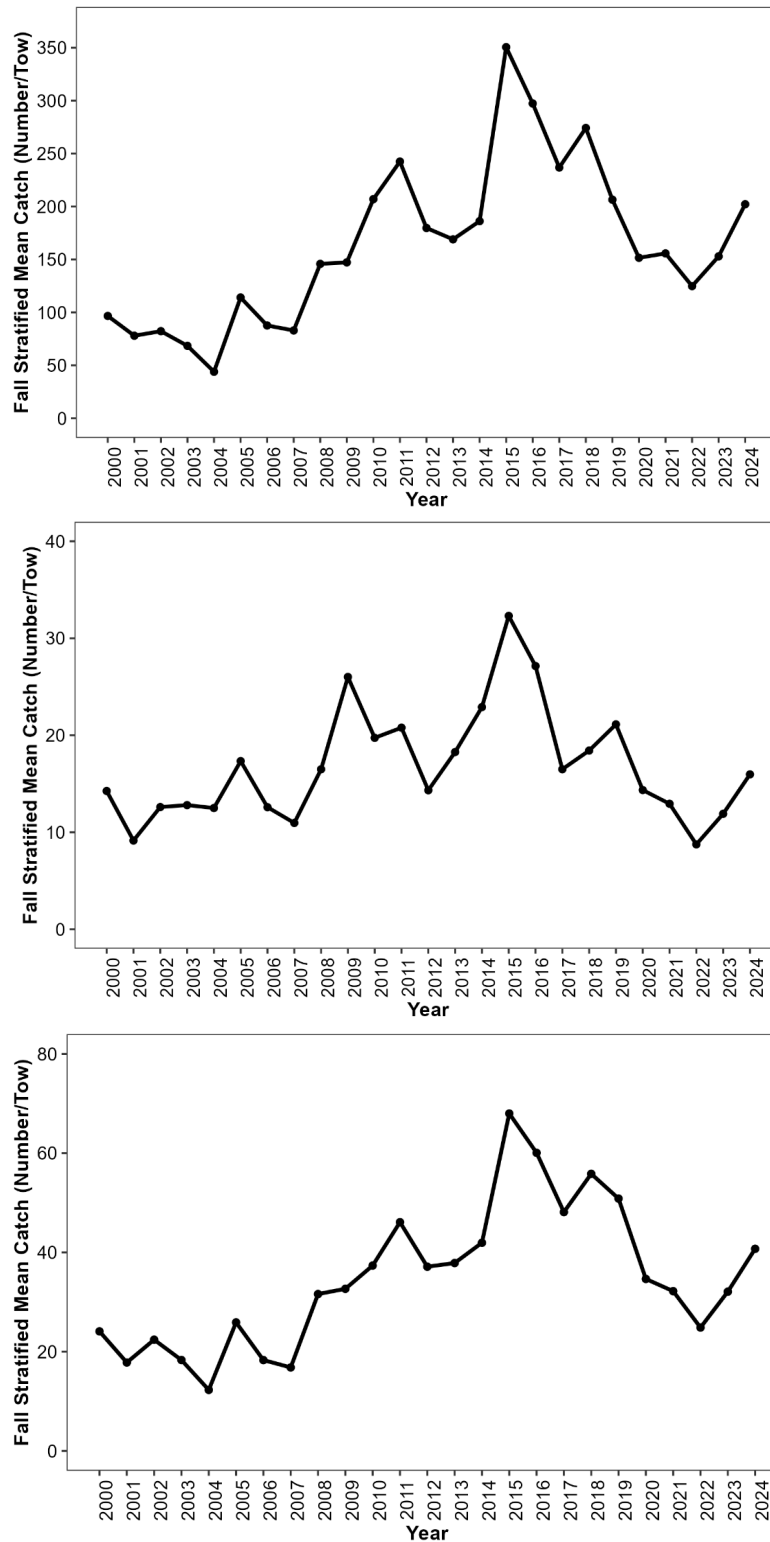


**Figure 14. CPUE of American lobster captured on and off reef sites from NJ Ventless Trap Survey. Sampling is conducted during the months of April, July, and October to coincide with NJ's Ocean Trawl Survey.**

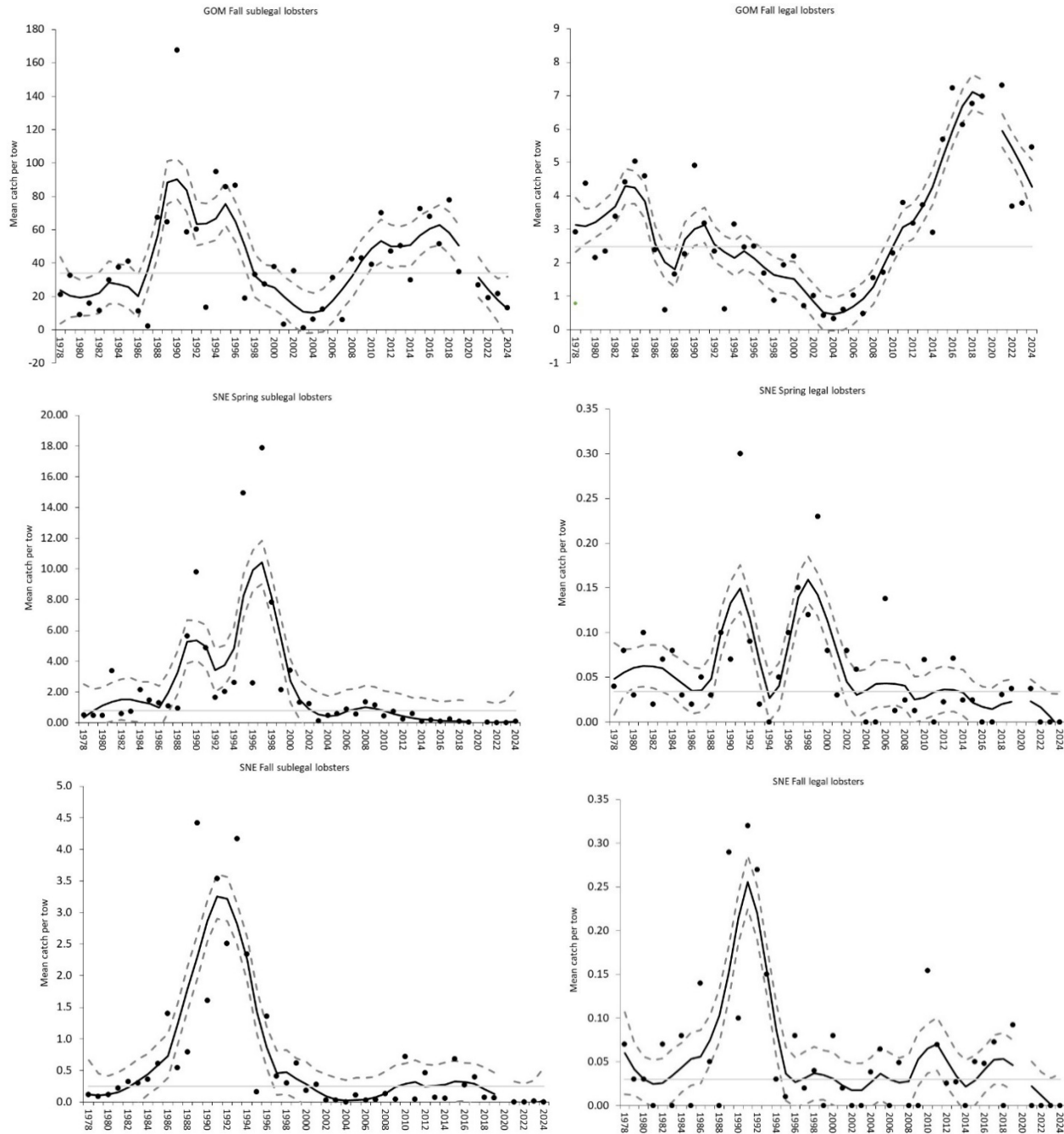


**Figure 15. Stratified mean catch and recruit abundance for American lobster on the Spring ME/NH Inshore Trawl Survey (2000-2023). Top: Mean catch of sublegals (<83). Middle: Mean catch of legal sized lobsters (>82). Bottom: Recruit abundance (71-80 mm lobsters).**

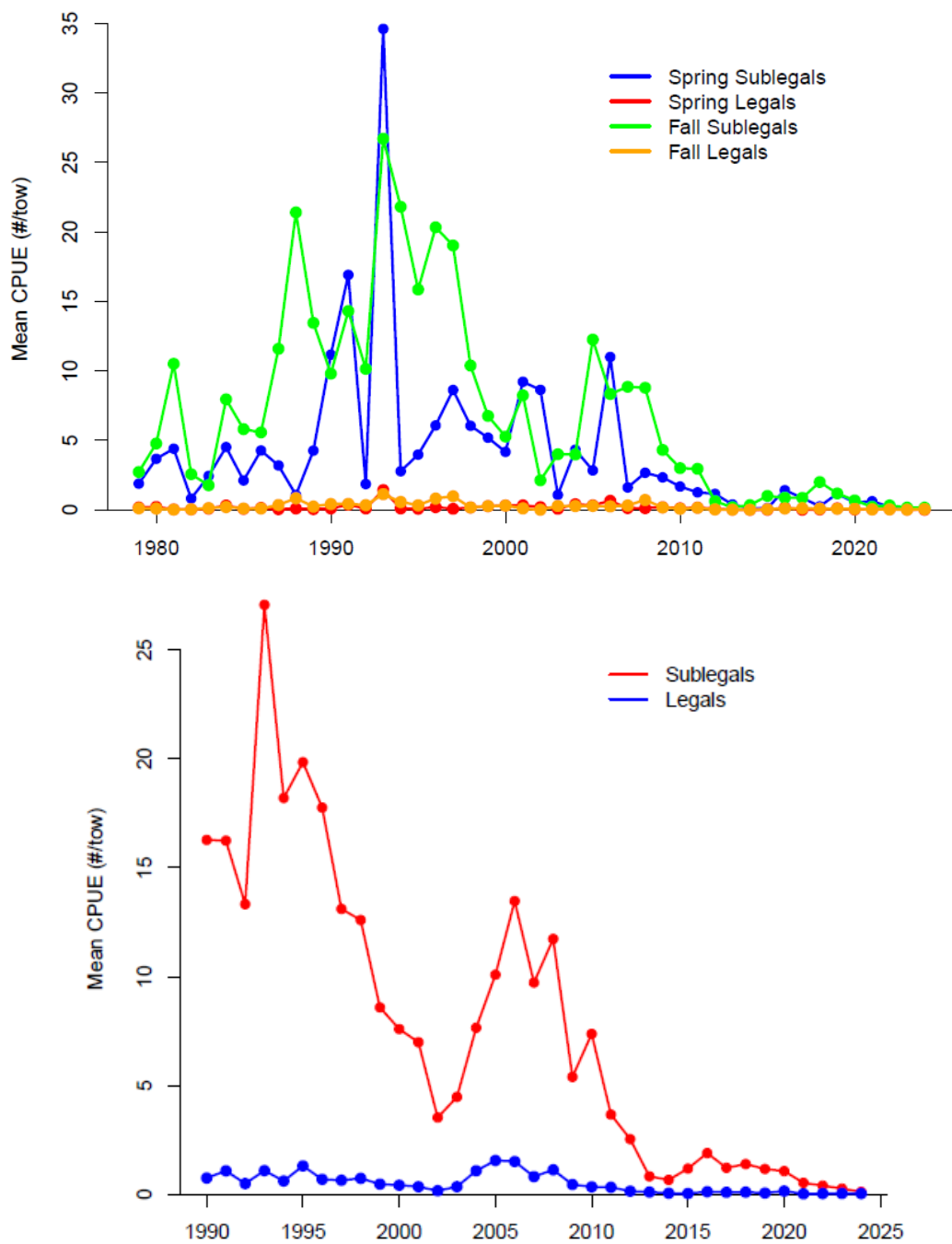




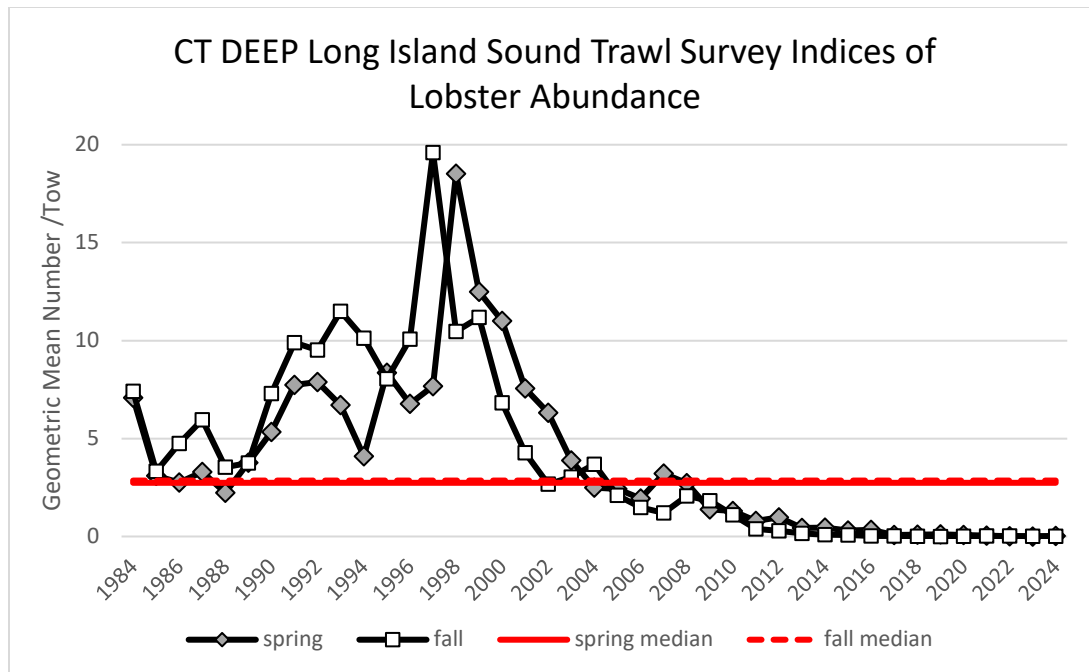
**Figure 16. Stratified mean catch and recruit abundance for American lobster on the Fall ME/NH Inshore Trawl Survey (2000-2023). Top: Mean catch of sublegals (<83). Middle: Mean catch of legal sized lobsters (>82). Bottom: Recruit abundance (71-80 mm lobsters).**



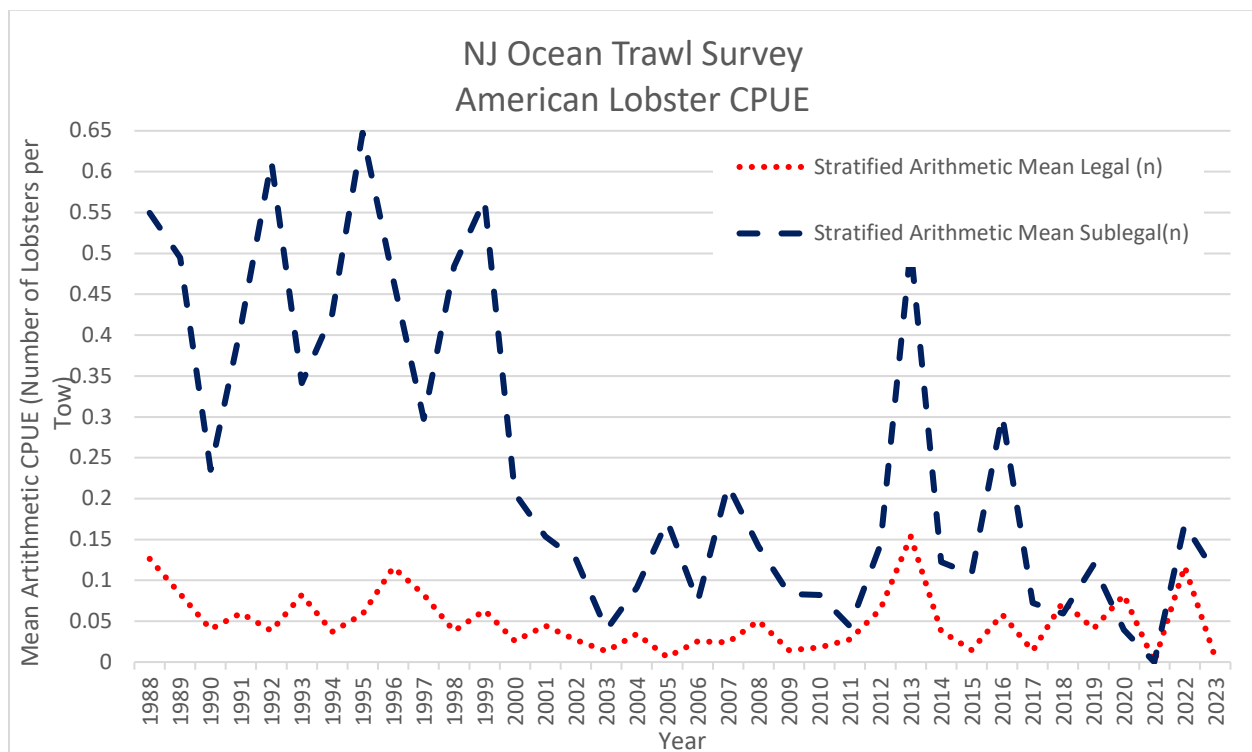
**Figure 17. MADMF Fall Trawl Survey sublegal (left) and legal (right) indices from 1978-2024 sexes combined. Note there was no survey conducted in 2020 (spring or fall) due to the Covid-19 pandemic. The top two charts are from Gulf of Maine and the bottom four charts are from Southern New England. Black line represents a LOESS fit to the data (span = 0.25) and dashed grey lines are upper and lower standard errors of the model fit. The horizontal grey line is the time series median.**



**Figure 18. RIDFW Seasonal (spring and fall) Trawl lobster abundances (top) and Monthly Trawl lobster abundances (bottom). CPUE is expressed as the annual mean number per tow for sub-legal (<85.725mm CL) and legal sized ( $\geq$ 85.725mm CL) lobsters.**



**Figure 19. Results of the Long Island Sound Trawl Survey during spring (April-June) and fall (September-October) within NMFS statistical area 611.**



**Figure 20. Stratified mean CPUE of all lobsters collected aboard the NJDFW Ocean Trawl Survey. \*NOTE: No April 2019 Survey was conducted due to Research vessel mechanical issues. Due to the COVID-19 pandemic, Apr-Oct 2020 and 2021 CPUE and indices were not obtained. 2024 indices are still being analyzed and currently not available.**