

INTERSTATE FISHERIES MANAGEMENT PROGRAM OVERVIEW

Atlantic Herring

Species Range

New Brunswick to Virginia



Management Unit

Maine through New Jersey

Stock Status

A [2022 Management Track Assessment](#) was peer reviewed in June 2022 and indicates the stock is overfished while overfishing is not occurring. This is the same stock status determination as the 2020 Management Track Assessment. Spawning stock biomass (SSB) has been declining since 2014 and was estimated at 39,091 mt in 2021. This 2021 estimate is the lowest value in the time series and is below the SSB target of 185,750 mt. Fishing mortality (F) has declined since 2018 with a 2021 level of 0.15, the lowest value in nearly six decades and below the overfishing threshold of 0.5. The assessment also indicates recruitment has continued to be poor in recent years.

The 2022 assessment is an update from the 2020 management track assessment and is based on the age-structured model (ASAP) from the 2018 benchmark assessment. The 2022 assessment updated the methods for calculating the biological reference points and projections to (1) account for mortality from the fixed gear fishery and (2) use a subset of the recruitment time series (1992-2019) based on analysis suggesting a shift in environmental conditions since 1992 affecting recruitment.

In early 2023, the Atlantic Herring Management Board will consider 2023-2025 Atlantic herring fishery specifications based on the results of the 2022 stock assessment. In February 2021 the Atlantic Herring Management Board adopted the 2021-2023 Atlantic herring specifications as outlined in the New England Fishery Management Council's Framework 8, which was implemented by NOAA Fisheries in March 2021. The specifications include lower annual catch limits based on the results of the 2020 assessment and following the acceptable biological catch (ABC) control rule outlined in the Council's Amendment 8, which accounts for herring's role in the ecosystem.

Involved States and Jurisdictions

ME, NH, MA, RI, CT, NY, NJ, NEFMC, NMFS

Active Boards/Committees

Atlantic Herring Board, Technical Committee, Stock Assessment Subcommittee, Plan Review Team, Advisory Panel

Chairs

Board, Chair – Megan Ware (5/2022); Vice-Chair – Vacant
Technical Committee, Chair – Renee Zobel (1/2013)
Advisory Panel, Chair – Jeff Kaelin (5/2012)

Staff Lead

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Management Plan History

[Atlantic Herring Fishery Management Plan \(November 1993\)](#)

The Plan created the North Coastal, South Coastal, and Georges Bank management areas. This FMP defines overfishing as a fishing mortality rate that reduces the stock to 20% of its maximum spawning potential.

[Amendment 1 to the Interstate Fishery Management Plan for Atlantic Sea Herring \(February 1999\)](#)

Amendment 1 was developed in order to maintain consistency between the ASMFC and New England Fishery Management Council's (Council) FMPs. This amendment establishes the same overfishing definition and biological reference points as the Council, which were created under guidelines stipulated in the revised Magnuson-Stevens Fishery Conservation and Management Act prior to the 2006 re-authorization. The overfishing and biological reference points are based on an estimate of maximum sustainable yield (MSY) for the entire stock complex.

Amendment 1 also establishes "days out" control measures which prohibit directed fishing on Friday and Saturday when 50% of the TAC is projected to be harvested, Friday through Sunday when 75% of the TAC is projected to be harvested, and Thursday through Sunday when 90% of the TAC is projected to be harvested.

[Addendum I \(July 2000\)](#)

The Section developed Addendum I (to Amendment 1) to re-address the protection of spawning areas because the National Marine Fisheries Service rejected the spawning closures in federal waters for Management Area 1A (inshore Gulf of Maine). Specifically, Addendum I redefines the state waters spawning areas outlined in Amendment I. This addendum also changed the due date for annual state compliance reports to February 1st.

[Technical Addendum 1a \(October 2001\)](#)

The Commission approved Technical Addendum #1a (to Amendment 1) to change the delineation of the Eastern Maine spawning boundary because the spawning aggregations were not adequately protected in 2000.

[Addendum II \(February 2002\)](#)

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

[Amendment 2 \(March 2006\)](#)

Amendment 2 was developed in close coordination with the Council as they developed Amendment 1 to the Federal Fishery Management Plan for Atlantic Herring. The Council's Amendment 1 is complementary to ASMFC Amendment 2 in that both documents' goal is optimum yield through coordinated management between state and federal waters. Amendment 2 altered the management boundaries, set biological reference points, expanded on the TAC specification setting process, established research set-asides, altered days out measures, removed any allowance for fishing during spawning closures, and granted exemptions for east of Cutler fixed gear fishermen.

Changes to the management boundaries were based on recommendations from the 2003 TRAC to better reflect spawning distributions and minimize reporting errors. The new boundaries result in a larger boundary for Area 3.

The biological reference points, based on $MSY = 220,000$ mt, give a measurable criteria for overfishing and overfished and allow management to determine if rebuilding efforts are necessary. The TAC process only changed slightly with Amendment 2. Amendment 2 allows analytical approaches other than those defined in Amendment 1 to establish area-specific TACs. These changes allow the TC to use the best available science when recommending TACs rather than binding them to methods that were the best when Amendment 1 was created. Another change to the TAC process under Amendment 2 is that the Section will set the TACs for three years with the flexibility to adjust in interim years.

Research set asides were established under Amendment 2 allowing up to 3% of an area to be designated for and allocated to research.

In addition to establishing a number of new management measures, Amendment 2 altered several measures enacted in Amendment 1. Default percentages for setting days out were removed to allow states adjacent to an area to meet and agree on which days to take out as best meets the needs of the fishery for that given year. The 20% spawning tolerance for directed fishing during spawning closures was removed and a "Zero-Tolerance" measure was enacted. Amendment 2 also granted exemptions for east of Cutler fixed gear fishermen from days out and spawning closure restrictions established in Amendment 1. These exemptions were granted because the east of Cutler landings are part of a New Brunswick stock and have been insignificantly small historically. These herring do not often migrate inshore until after the Area 1A TAC is harvested making exemptions the only way to protect this historical fishery. These landings are counted against the overall Area 1A TAC.

[Technical Addendum I \(August 2006\)](#)

Technical Addendum I was developed to clarify the intent of the “Zero Tolerance” spawning provision of Amendment 2. Some states were interpreting the zero tolerance to mean that you could still fish in an area closed to spawning as long as no spawn herring were present in the area. This addendum makes it clear that *any vessel is prohibited to fish for, take, land, or possess herring from or within a restricted spawning area.*

[Addendum I \(February 2009\)](#)

Addendum I (to Amendment 2) was developed to control effort in Area 1A using a combination of quotas, additional days out restrictions, and weekly state reporting requirements to effectively manage quota. Specifically, Addendum I allows states adjacent to Area 1A to select bimonthly, trimester, or seasonal quotas as best meets the needs of the fishery. States also have the flexibility to save quota from January – May and distribute it to later in the year when price and demand are often higher. Fishermen are restricted to one landing per day and state-only fishermen must report weekly in order to effectively manage quota.

[Addendum II \(December 2010\)](#)

Addendum II was designed to mirror the New England Fishery Management Council’s (NEFMC) Amendment 4 and changes the specifications’ definitions (and associated acronyms), modifies the process to set specifications, and establishes accountability measure (AM) paybacks. Under Addendum II, the overall quota is now called an annual catch limit (ACL) and the quota allocated to each management area (Area 1A, 1B, 2, 3) is called a sub-ACL (previously TAC). In addition, if harvest in any area is exceeded, the sub-ACL will be reduced an amount equal to the overage the first year after final landings are available.

NEFMC’s Amendment 4 includes provisions to bring the Herring FMP into compliance with provisions of the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006. It changes the specification setting process and definitions to include an overfishing limit, acceptable biological catch, annual catch limits, and accountability measures, as well as involvement of a Science and Statistical Committee.

[Addendum V \(August 2012\)](#)

Addendum V refines and clarifies current spawning regulations without making significant changes. Specifically, Addendum V establishes when closures are triggered based on the percent of stage III – V spawn herring that are greater than or equal to 23 cm and increased the number of samples states are required collect from 50 to 100 (states are currently sampling at this level). The Addendum replaces all spawning regulations in previous management documents to provide a single, clear document for states to use when complying with ASMFC spawning regulations.

[Addendum VI \(August 2013\)](#)

The Addendum improves alignment between state and federal Atlantic herring management by allowing the use of consistent tools across all four management areas of the species range. The Addendum's measures include (1) seasonal splitting of the annual catch limit sub-components (sub-ACLs) for Areas 1B, 2, and 3; (2) up to 10% carryover of a sub-ACL for all management areas; (3) the establishment of triggers to initiate the closing of directed fisheries; and (4) the use of the annual specification process to set triggers.

[Amendment 3 \(February 2016\)](#)

Amendment 3 refines the spawning closure system, modifies the fixed gear set-aside, and includes an empty fish hold provision contingent on federal adoption. The Amendment allows for the use of a modified GSI-based spawning monitoring system to track reproductive maturity in an effort to better align the timing of spawning area closures with the onset of spawning, which was tested and evaluated for effectiveness during the 2016 fishing season. Additionally, the fixed gear set-aside that was previously available to fixed gear fishermen exclusively only through November 1, is now accessible to them as long as the directed fishery is open. Amendment 3 consolidates prior amendments (and associated addenda) and recent management decisions into a single document; it is now the comprehensive document for Atlantic herring management in state waters.

[Addendum I \(May 2017\)](#)

Addendum I includes management measures intended to stabilize the rate of catch in the Area 1A fishery and distribute the seasonal quota throughout Trimester 2 (June through September), which has 72.8% of the season's allocation. The addendum established that the Section would separately address days out provisions for federal herring Category A vessels and small-mesh bottom trawl vessels with a federal herring Category C or D permit. In addition to landing restrictions associated with the days out program, Category A vessels are now prohibited from possessing herring caught from Area 1A during a day out of the fishery. Small-mesh bottom trawl vessels with a Category C or D permit must notify states of their intent to fish in Area 1A prior to June 1st. The addendum also established that the Section would set a weekly harvester landing limit for vessels with a Category A permit. Forty-five days prior to the start of the fishing season, Category A vessels will notify states of their intent to fish in Area 1A, including a specification of gear type, to provide states with an estimate of effort to calculate the weekly landing limit. States may also either implement measures that herring caught in Area 1A can only be landed by the respective harvester vessel (i.e. no carrier vessels) or that herring carrier vessels are limited to receiving at-sea transfers from one harvester vessel per week and landing once per 24-hour period. Through the addendum, NOAA Fisheries granted access to vessel monitoring system-submitted daily catch report data for select staff in Maine, New Hampshire and Massachusetts to provide real-time data for the states to implement a weekly landing limit. The Section also approved continuing the use of the GSI30-based forecast system to determine spawning closures in Area 1A.

[Addendum II \(May 2019\)](#)

Addendum II strengthens spawning protections in Area 1A (inshore Gulf of Maine) by initiating a closure when a lower percentage of the population is spawning (from approximately 25% to 20%), and extending the closure for a longer time (from four to six weeks). The Addendum also modifies the trigger level necessary to reclose the fishery, with the fishery reclosing when 20% or more of the sampled herring are mature but have not yet spawned. These changes to spawning protections are in response to the results of the 2018 Benchmark Stock Assessment which showed reduced levels of recruitment and spawning stock biomass over the past five years, with 2016 recruitment levels the lowest on record.

Pending Management Actions

The Board initiated Draft Addendum III to Amendment 3 in October 2019 to consider new approaches for managing the Area sub-ACL under low quota scenarios for the 2020 fishing season and beyond. This action responds to the challenges encountered in managing the reduced sub-ACL based on the 2018 benchmark stock assessment, which highlighted declining trends in recruitment and spawning stock biomass. Draft Addendum III also considers expanding landing provisions across different permit categories within the days out program. Public comment on the Draft Addendum was received in February and March 2020, with four public hearings held in three states (Maine, New Hampshire and Massachusetts).

In May 2020, the Board postponed final action on Addendum III until a final rule for the Council's Amendment 8 has been published and until the Council and Commission leadership conduct discussions on coordination of Atlantic herring management. NOAA Fisheries published the final rule on the Council's Amendment 8 in January 2021 and coordination discussions between Council and Commission leadership are still ongoing.

Annual Events

- Atlantic Herring Compliance Reports are due by February 1
- Fishery Management Plan Review
- Specification setting for management area sub-ACLs and Area 1A seasonal quota allocation