



SENT VIA EMAIL TO: [comments@NEFMC.org](mailto:comments@NEFMC.org)

Andrew Gottlieb  
Executive Director

April 29, 2024

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Cate O'Keefe, Ph.D.  
Executive Director  
New England Fishery Management Council  
50 Water Street, Mill #2  
Newburyport, MA 01950

Re: APCC comments on "Atlantic Herring Amendment 10 Scoping Comments"

Dear Dr. O'Keefe:

The Association to Preserve Cape Cod (APCC) submits the following comments for the New England Fishery Management Council's scoping for Amendment 10 of the Atlantic Herring Fishery Management Plan. We urge the Council to include in its scoping for the proposed Amendment 10 measures to enhance river herring avoidance and other catch reduction measures in order to protect river herring at sea from the effects of overfishing by trawlers. Overfishing at sea is at odds with the decades-long efforts by the restoration community to restore and protect river herring habitat in inland waters and represents a significant user conflict that needs to be addressed by eliminating offshore trawlers from the waters surrounding Cape Cod. Finally, we urge the Council to recognize the restoration community of organizations and agencies as a legitimate user group that is heavily invested in protection, restoration, and monitoring of river herring and their habitat.

Established in 1968, APCC is the Cape Cod, Massachusetts region's leading nonprofit environmental advocacy and education organization, working for the adoption of laws, policies and programs that protect and enhance Cape Cod's natural resources and quality of life (<https://apcc.org>).

In its consideration of scoping for the proposed Amendment 10, the Council should consider the following:

- River herring run size estimates calculated from volunteer herring counts show that Cape Cod herring runs have been declining for years and some runs have nearly disappeared. Time-series plots of run size estimates show that since volunteer counts began, the highest run size estimates have occurred in the past (see **Attachment 1, APCC Summary of Cape Cod Herring Counts, 2007-2023**

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also posted at <https://apcc.org/wp-content/uploads/2023/11/Cape-Cod-Herring-Run-Summary-2007-2023-Final.pdf> and **Attachment 2, APCC, Summary of Cape Cod River Herring Monitoring Program from 2007-2023**).

- Declining runs are found on the Cape Cod Bay side as well as Nantucket Sound and the Atlantic Ocean side of the Outer Cape (Attachment 1).
- These two facts—declining runs and their locations on Nantucket Sound and Cape Cod Bay—point to the need to prohibit mid-water fishing trawlers from operating in Area 1 (Gulf of Maine), Area 2 (Southern New England) and Area 3 (east of Cape Cod). All of these areas should have prohibitions on fishing trawlers.
- Avoidance of river herring catch in prohibited zones needs to be confirmed through effective monitoring to ensure there are no loopholes.
- Overfishing at sea directly conflicts with efforts to protect and restore river herring and their habitat in inland waters. Local, state and federal agencies and organizations, including APCC, have for years expended enormous effort and resources to restore herring runs and restore populations. On Cape Cod, millions of dollars have been spent to restore herring runs—and millions more dollars will be spent—because people want to see river herring return and be part of a healthy ecosystem. Many herring run restoration projects have been funded by NOAA, the Massachusetts Division of Marine Fisheries, and other organizations and agencies. As one example of a Cape-wide herring run restoration effort, the Cape Cod Water Resources Restoration Project, approved by Congress in 2010 with the goal of restoring 4,200 acres of river herring spawning habitat, 1,500 acres of impaired salt marsh, and 7,300 acres of shellfish beds, is administered by the USDA Natural Resources Conservation Service and the Cape Cod Conservation District. To date, this program has allocated over \$8.4 million for herring run restoration projects on Cape Cod with corresponding municipal match provided of over \$1.8 million; an additional \$13.8 million is planned for restoration, with municipal match of \$4.4 million (**Attachment 3, Cape Cod Conservation District letter dated 4-24-24**). These significant investments in restoration—which support a wider economy—should be complemented by protection of river herring at sea, not wasted due to overfishing at sea.
- There is a significant user group that needs to be recognized in scoping: the restoration and monitoring community. These include volunteers, agencies, and organizations that support and conduct restoration and monitoring activities. These include:
  - River herring monitoring groups: On Cape Cod, at least 300+ volunteers in 14 different organizations and groups, supported by municipal staff, conduct herring counts along 18 herring runs located in 12 towns. At least five state and federal agencies partner with APCC and counting

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groups. Each year these partners—volunteers, municipal employees, other organizations, and state and federal agencies—work with APCC to conduct herring counts along the Cape’s runs. Volunteer herring count groups and APCC’s role were recognized by the Massachusetts Division of Marine Fisheries in a 2023 Memo (**Attachment 4, “DMF Notice to Volunteer River Herring Counting Groups”** also posted at [https://apcc.org/wp-content/uploads/2022/03/DMF-Herring-counting-notice-to-groups\\_03.21.2012.pdf](https://apcc.org/wp-content/uploads/2022/03/DMF-Herring-counting-notice-to-groups_03.21.2012.pdf)).

- The restoration community consisting of local, regional, state and federal organizations and agencies, which participate in restoration, protection, and management activities in inland waters habitat of river herring. Restoration projects such as the Cape Cod Water Resources Restoration Project were developed and are being implemented by many partners. Local natural resource staff, herring wardens and town committees provide hundreds of hours of volunteer labor each year to maintain runs on Cape Cod.
- Finally, our coastal and freshwater ecosystems, which rely on healthy river herring populations, should be regarded as a “user group” of paramount importance. River herring are an important food source for many commercially and recreationally important fish species and wildlife, including birds and mammals, which rely on river herring adults and juveniles as food. Damage to this “user group” through overfishing of river herring at sea has cascading ecological and economic effects that benefit no one.

Thank you for the opportunity to provide comments.

Sincerely,



Andrew Gottlieb  
Executive Director



Jo Ann Muramoto, Ph.D.  
Director of Science Programs

Attachments:

Attachment 1, APCC Summary of Cape Cod Herring Counts, 2007-2023, also posted at <https://apcc.org/wp-content/uploads/2023/11/Cape-Cod-Herring-Run-Summary-2007-2023-Final.pdf>

Attachment 2, APCC, Summary of Cape Cod River Herring Monitoring Program from 2007-2023).

Attachment 3, Cape Cod Conservation District letter dated 4-24-24.

Attachment 4, “DMF Notice to Volunteer River Herring Counting Groups”, also posted at [https://apcc.org/wp-content/uploads/2022/03/DMF-Herring-counting-notice-to-groups\\_03.21.2012.pdf](https://apcc.org/wp-content/uploads/2022/03/DMF-Herring-counting-notice-to-groups_03.21.2012.pdf)

SUMMARY OF CAPE COD HERRING COUNTS, 2007 - 2023

Compiled by Association to Preserve Cape Cod (APCC) and Massachusetts Bays National Estuary Partnership, Cape Cod Region (MassBays)  
Estimated run size based on volunteer counts is calculated by the Massachusetts Division of Marine Fisheries using "Visual Count" software.  
Boldface black is highest run size

Key: Estimated run size based on visual counts be cancelled or cut back. NA - not available

Table with columns: Run Name, Town, Marine water body, Year, Electronic Counts, # Fish Counted, # of Observations, Visual Counts, Plus/Minus, Peak 10 Min Count, Date of Peak Count, Water temperature at Peak 10-minute count, First fish counted, Water temperature when first fish counted, Date when last fish counted, Water temperature when last fish counted, Peak Water Temp, Water Temp, Date of Peak, Towns, Organizations & Partners No. Volunteers.

2015	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
2016	430	13	NA	NA	200	5/11/16	17.0	4/16/16	9.0	5/14/16	20.0	20.00	2	
2017	395	93	20,215	5,137	29	4/14/17	13.0	4/4/17	7.0	6/2/17	17.0	21.00	2	
2018	510	96	22,711	6,097	75	4/26/18	16.0	4/6/18	6 to 8	6/3/18	22.0	24.00	2	
2019	92	402	1,002	310	9	5/12/19	18.0	4/17/19	15.0	5/22/19	23.0	24.00	28	
2020	0	9											1	
2021														
2022	123	247	NA	NA	20	5/20/22	19.0	4/7/22	11.0	5/29/22	18.0	26.00	6/26/22	11
2023	28	274	532		3	4/16/23	17.5	4/16/23	17.5	4/30/23	16.0	28.00	6/15/23	
<b>Average:</b>	<b>199</b>		<b>10,643</b>											
Upper Shawme Pond/Sandwich	Cape Cod Bay	2011	0	23	NA	NA	0	NA	NA	NA	NA	17.00	MassBays	6
		2012	4089	25	NA	NA	1	4/24/12	15.0	4/24/12	15.0	22.00	Electronic counter	1

(Continued on next page)

Run Name	Town	Marine water body	Year	Electronic Counts	# Fish Counted	# of Observations	Estimated Run Size (Visual Counts)	Plus/Minus	Peak 10 Min Count	Date of Peak Count	Water temperature at Peak 10-minute count	First fish counted	Water temperature when first fish counted	Date when last fish counted	Water temperature when last fish counted	Peak Water Temp	Date of Peak Water Temp	Towns, Organizations & Partners	No. Volunteers	
Herring River	Wellfleet	Cape Cod Bay	2009	1,663	235		21,870	3,976	131	4/18/09	11.0	4/7/09	9.5	5/25/09	20.0	20.00	Friends of Herring River	18		
			2010	744	265		12,052	1,595	61	4/7/10	14.5	4/4/10	13.0	5/30/10	23.0	24.00	Town of Wellfleet	20		
			2011	564	222		9,534	1,640	111	4/27/11	16.0	4/10/11	10.5	5/23/11	8.0	24.00	APCC, MassBays	32		
			2012	1,192	466		11,653	4,179	122	4/9/12	13.0	3/9/12	10.0	5/24/12	20.0	22.00		23		
			2013	2,035	383		24,985	11,813	220	4/26/13	11.5	4/6/13	7.0	5/26/13	16.0	23.00		26		
			2014	4,903	323		61,781	7,556	320	4/14/14	12.5	4/9/14	8.5	5/26/14	19.0	22.00		22		
			2015	1,480	293		18,025	6,207	208	4/26/15	12.0	4/11/15	8.0	5/25/15	17.0	24.00		32		
			2016	1,379	347		12,874	4,505	143	4/22/16	13.0	3/18/16	12.0	5/24/16	20.0	23.00		30		
			2017	673	279		8,044	5,385	177	4/11/17	12.5	4/7/17	7.0	5/18/17	22.0	22.00		25		
			2018	2,426	304		27,083	11,440	288	4/29/18	14.0	4/11/18	9.0	5/30/18	18.0	24.00		30		
			2019	3,244	318		46,009	13,617	214	5/8/19	17.0	4/6/19	9.0	5/29/19	16.0	20.00		28		
			2020	1,555	473		13,267	3,602	81	4/30/20	9.5	3/27/20	10.0	5/27/20	17.0			35		
			2021	2,640	373		31,710	7,830	312	5/14/21	19.0	4/10/21	11.0	5/23/21	22.0	15.00		40		
			2022	5,215	554		47,384	12,608	416	5/13/22	20.0	3/21/22	9.2	5/31/22	22.0	22.90	6/11/22			
			2023	7,040	495		65,529	12,248	300	4/28/23	17.5	3/30/23	10.0	6/11/23	18.9		5/13/23			
<b>Average:</b>				<b>2,450</b>			<b>27,453</b>													
Tom Mathews Pond	Yarmouth	Cape Cod Bay	2014	5,925	248		70,169	8,674	178	5/15/14	22.0	4/18/14	3.0	5/27/14	20.0		Bass River Rod & Gun Club	13		
			2015	2,706	141		52,742	9,589	174	5/7/15	20.0	4/4/15	10.0	5/22/15	18.0	24	APCC, MassBays	5		
			2016	1,139	137		25,872	6,003	76	4/19/16	14.0	4/14/17	10.0	5/28/16	22.0	23.00		5		
			2017	34	93		826	724	8	5/1/17	17.0	4/17/17	19.0	5/2/17	16.0	23.00		4		
			2018	32	144		966	819	13	5/12/18	17.0	5/4/18	20.0	5/16/18	19.0	24.00		7		
			2019	16	92		830	617	7	5/17/19	14.0	4/22/19	14.0	5/17/19	14.0	16.00		5		
			2020	2	37				2	4/12/20	10.0	4/12/20	10.0	4/12/20	10.0			1		
			2021	1	96		39	489	1	5/12/21	16.0	5/12/21	16.0	5/12/21	16.0	25.00		12		
			2022	0	93		0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		8	
<b>Average:</b>							<b>18,931</b>													
Long Pond	Yarmouth	Nantucket Sound	2016	917	420		9,270	1,513	56	4/19/16	15.0	3/12/16	10.0	5/21/16	21.0	25	Town of Yarmouth	21		
			2017	222	271		2,805	1,347	45	4/11/17	11.0	3/13/17	13.0	5/21/17	20.0	24	Cape Cod Salties	23		
			2018	1	107		13	NA	1	4/23/18	13.0	4/23/18	13.0	4/23/18	13.0	21	APCC, MassBays	18		
			2019	122	141		2,770	980	16	4/15/19	15.0	4/8/19	13.0	5/9/19	19.0	20		18		
			2020																	
			2021	16	98		394	295	3	4/28/21	13.0	4/8/21	13.0	5/28/21	13.0	13.6		10		
			2022																	
			2023	94	91		Insufficient data		24	5/9/23	19.0	4/3/23	9.0	6/19/23	19.0	25.0	5/31/23			
<b>Average:</b>				<b>229</b>			<b>3,090</b>													
Trunk River	Falmouth	Vineyard Sound	2012	4,158	65		NA	NA	141	4/21/12		3/15/12	NA	5/19/12		NA		Trunk River Volunteers	15	
			2022	945	319		13,092	5,679	165	5/4/22		4/16/22		5/24/22					17	
			2023	2,391	223		40,250	564	564	4/30/23	13.0	4/5/23	10.0	5/17/23	14.0	24	4/14/23			
<b>Average:</b>				<b>2,498</b>			<b>26,671</b>													
Marstons Mills River	Barnstable	Nantucket Sound	2006	719	378		6,302		NA	4/15/06		4/12/06	NA	5/14/06	NA			Marstons Mills River Watershed Association (MMRWA)		
			2007	1,741	378		13,862		NA	5/3/07		4/20/07	NA	5/17/07	NA					
			2008	5,232	342		42,404		NA	4/20/08		4/10/08	NA	5/16/08	NA					
			2009	1,332	225		10,668		NA	4/27/09		4/19/09	NA	5/10/09	NA			APCC, MassBays		
			2010	478	270		3,944		NA	4/5/10		4/4/10	NA	5/3/10	NA					
			2011	53	189		428		NA	4/17/11		4/17/11	NA	5/19/11	NA			Three Bays Preservation		
			2012	10,327	479		87,308													
			2013	8,117	509		56,987													
			2014	6,396	391		47,006													
			2015	3,667	540		23,840		NA	4/17/15		3/21/15	NA	5/19/15	NA			Barnstable Clean Water Coalition		
			2016	2,043	483		13,954												APCC, MassBays	
			2017	5,251	446		36,148													
			2018	1,567	474		10,306	1,139	49	5/3/18	17.5	4/12/18	14.0	5/17/18	14.0	23				
			2019	4,521	472		35,092	2,456	104	5/8/19	17.7	4/1/19	14.0	5/22/19	17.3	22				
			2020																	
		Mill Pond	2021	5,736	431		54,713	5,663	186	4/20/21		4/1/21		5/30/21				Barnstable Clean Water Coalition		
		Middle Pond	2021	2,077	409		18,851	1,947	99	4/21/21		4/1/21		5/30/21				Barnstable Clean Water Coalition		
		Mill Pond	2022				50,961												Barnstable Clean Water Coalition	
		Middle Pond	2022				26,492												Barnstable Clean Water Coalition	
		Mill Pond	2023	12,952	490		92,723		493	4/15/23	19.2	4/2/23	14.2	5/13/23	20.1	22.7	6/2/23	Barnstable Clean Water Coalition	60	
		Middle Pond	2023	6,382	468		55,926		351	5/2/23	14.8	4/6/23	9.0	6/12/23	21.0	24.9	5/27/23	Barnstable Clean Water Coalition	49	
<b>Average:</b>				<b>4,366</b>			<b>34,396</b>													
Red Lily Pond	BA	Nantucket Sound	2013	42	190		913	651	12	5/7/13	20.0	4/9/13	11.5	5/7/13	20.0	26.00		Red Lily Pond Project	6	
			2014	17	35		NA	NA	11	4/22/14	12.0	4/22/14	12.0	5/25/14	20.0	20.00		APCC, MassBays	2	
			2015	7	22		NA	NA	2	5/4/15	26.0	5/4/15	26.0	5/23/15	19.0	26.00			1	
			2016																	
			2017																	
			2018																	
			2019																	
			2020																	
			2021	5	253		127	124	1	5/10/21	14.0	5/10/21	14.0	5/27/21	21.0	20.00			10	
			2022	3	303		50	NA	1	4/25/22	13.0	4/25/22	13.0	5/31/22	20.0	27.00	6/13/22		6	
			2023	1	285		22	1	1	5/25/23	21.0	5/25/23	21.0	5/25/23	21.0	28.00	5/26/23			
<b>Average:</b>				<b>13</b>			<b>72</b>													
Centerville River	BA	Nantucket Sound	2021	9,285	125		216,143	59,777												2
			2022	3,211	681		18,343	8,070	250	5/2/22	14.0	4/1/22	8.0	5/30/22	21.0	26.50	6/14/22		7	
			2023	10,290			7,300	Large SE	502	5/10/23	17.0	4/3/23	9.4	6/10/23	10.0	22.80	5/31/23			
<b>Average:</b>																				



## **Summary of Cape Cod River Herring Monitoring Program from 2007-2023**

April 28, 2024

Prepared by:

Dr. Jo Ann Muramoto, Director of Science Programs  
Association to Preserve Cape Cod (APCC) and

Regional Coordinator for the Cape Cod region, Massachusetts Bays National Estuary Partnership

### **Introduction**

This report summarizes the results of the Cape Cod River Herring Monitoring Program, initiated in 2007 by APCC and the Cape Cod regional coordinator for the Massachusetts Bays National Estuary Partnership.

The Association to Preserve Cape Cod (APCC) is a 501(c)(3) organization founded in 1968 to protect and restore the natural resources of Cape Cod. APCC is a Cape-wide organization with members and projects in all 15 towns of Barnstable County. APCC is also the Regional Service Provider for the Cape Cod region of the Massachusetts Bays National Estuary Partnership (MassBays). MassBays is a National Estuary Program designated by EPA in 1995 to protect and restore the estuarine habitats of Massachusetts Bay, Cape Cod Bay, and Ipswich Bay. To achieve these goals, APCC conducts outreach, monitoring and restoration, engagement of citizens, and provides recommendations for public policies.

### **Background**

Since 2007 APCC has supported volunteer herring counts along Cape Cod herring runs, working with the Massachusetts Division of Marine Fisheries (DMF) to ensure counts are done using DMF's method. Reasons for conducting volunteer counts include: a) Since the 2006 ban on fishing, fisheries managers need data on river herring populations to help inform protection and management; b) Count data support herring run restoration projects; and c) Counts engage people, which builds public support for river herring protection and management. We act as a central hub for training, data collection, and sending QAed count data to DMF to calculate run size estimates. We distribute the run size estimates through an annual report to the River Herring Network, through training events, and our website, where a large spreadsheet summarizes all the results.

## **Volunteer herring count method**

Volunteers use a visual count method designed by DMF (Nelson, 2006, DMF Technical Report TR-25) for volunteer groups. Visual counts provide an estimate of the number of herring migrating along a run based on counts obtained from April 1 to June 15, seven days a week, 12 hours each day.

## **Partners and number of runs with count programs**

In 2007 when we began our program, there were three runs being monitored for counts. As of this year, there are 18 herring runs with volunteer count programs located in 12 towns on Cape Cod. Counts are conducted by at least 300+ volunteers in 14 different organizations and groups. At least five state and federal agencies partnered with APCC and counting groups. Partners include:

- Estimated 300+ volunteers,
- 12 of 15 towns (Barnstable, Brewster, Chatham, Dennis, Eastham, Falmouth, Harwich, Mashpee, Orleans, Sandwich, Wellfleet, and Yarmouth)
- 14 Organizations:
  - Association to Preserve Cape Cod
  - Bass River Rod & Gun Club
  - Barnstable Clean Water Coalition
  - Cape Cod Commercial Fishermen's Alliance
  - Cape Cod Salties
  - Coonamessett River Trust
  - Dennis Conservation Trust
  - Eastham Conservation Foundation
  - Friends of Herring River, Wellfleet
  - Harwich Conservation Trust
  - Massachusetts Bays National Estuary Partnership
  - Oyster Pond Environmental Trust
  - Red Lily Pond Project
  - River Herring Warden Network
- Five agencies:
  - Massachusetts Division of Marine Fisheries
  - NOAA Restoration Center, Gloucester
  - Barnstable County Cooperative Extension / WHOI Sea Grant
  - Cape Cod Conservation District
  - USDA Natural Resources Conservation Service

## **Annual summary of run size estimates**

Each year, APCC provides a summary of run size estimates of river herring calculated by DMF based on volunteer counts. In December 2023, APCC released our annual summary, which indicated a mixed bag with both good and bad news. The good news was that the 2023 herring run size estimates were generally better than in 2022, and two runs had their best year ever since their volunteer counts began. The bad news was that over the longer term of five to eleven years,



most herring runs have declined in size; i.e., most runs saw their all-time highs in the past. The list below compares run size estimates in 2023 with all-time high numbers in bold face font.

Cape Cod Bay run size estimates:

- Mill Creek, Sandwich: 532 in 2023; **the all-time high was 22,711 in 2018;**
- Stony Brook, Brewster: 132,389 in 2023 was up from 39,839 in 2022; **the all-time high was 271,363 in 2014;**
- Tom Mathews Pond, Yarmouth: Counts were not done this year as the pond was being restocked with herring to attempt to restart the run; last year's run size estimate was 0, down from the **all-time high of 70,169 in 2014.**
- Herring River, Eastham: 3,476 in 2023 was up from 1,327 in 2022; **the all-time high was 12,716 in 2018;**
- Herring Brook, Eastham: 1,769 in 2023 was up from 823 in 2022; **the all-time high was 3,310 in 2018;**
- Herring River, Wellfleet: The **all-time high of 65,529 occurred this year**, up from 47,384 in 2022. Herring River was the only run on the Cape Cod Bay side to see an all-time high in 2023. However, this increase is considered to be minor—the fact remains that the Herring River run remains in the 10,000s range.
- **On the Cape Cod Bay side, five (5) runs have declined since 2014-2018. The Herring River in Wellfleet saw its highest run size in 2023 since counts began but this increase is considered minor.**

Nantucket Sound run size estimates:

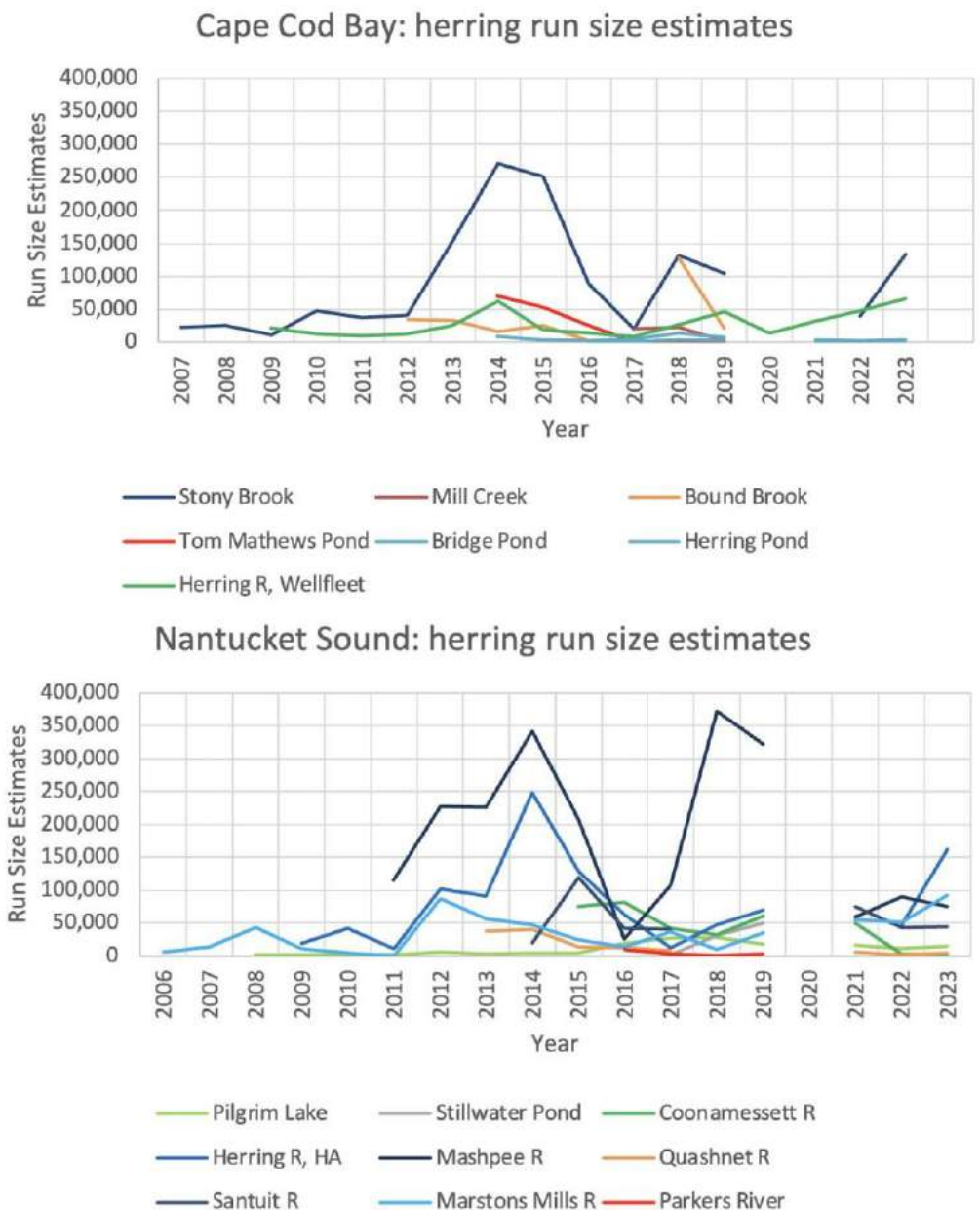
- Mashpee River, Mashpee: 75,348 in 2023 was down from 90,386 in 2022; **the all-time high of 372,996 was in 2018;**
- Quashnet River, Mashpee: 4,377 in 2023 was up from 1,327 in 2022; **the all-time high was 40,854 in 2014;**
- Santuit Pond, Mashpee: 44,757 in 2023 was up from 42,507 in 2022; **the all-time high was 143,262 in 2012;**
- Coonamesett River, Falmouth (daytime): 3,032 in 2023 was up from 2,602 in 2022; **the all-time high was 81,317 in 2016;**
- Trunk River, Falmouth: **40,250 in 2023** was up from 13,092 in 2022.
- Herring River, Harwich: 161,962 in 2023 was up from 47,621 in 2022; **the all-time high was 247,894 in 2014;**
- Marstons Mills River, Barnstable (Mill Pond): **All-time high of 92,723 occurred in 2023**, up from 50,961 in 2022.
- Red Lily Pond, Barnstable: 22 in 2023 was down from 50 in 2022; **the all-time high was 913 in 2013;**
- Centerville River, Barnstable: 7,300 in 2023 was down from 18,343 in 2022; **the all-time high was 216,143 in 2021.**
- Pilgrim Lake, Orleans: 15,348 in 2023 was up from 10,987 in 2022; **the all-time high was 28,135 in 2018.**
- **On the Nantucket Sound and Pleasant Bay side, eight (8) runs have declined since 2012-2018. In 2023 the Marstons Mills River saw its best year since volunteer counts began.**

## Conclusions and Discussion

Over time, most Cape Cod runs remain low: 13 runs have declining run size estimates over a period of time ranging from 2012 to 2018: five runs on Cape Cod Bay and eight on Nantucket Sound. These results suggest that overall, despite some minor gains in 2023, herring abundance in Cape Cod runs remains low.

Many of the declining herring runs were restored or are in the planning stage for restoration. Declining runs include seven which were restored and four which are in the planning stage for restoration.

2) These patterns are shown in the graphs below.



Of great concern is that fact that some runs have nearly disappeared. Several runs that used to number in the ten thousand to several tens of thousands range have decreased to low numbers—less than a thousand—in recent years. Examples of dramatically decreasing runs include runs on Cape Cod Bay (Mill Creek in Sandwich, Bound Brook in Dennis, Tom Mathews Pond in Yarmouth), Nantucket Sound (Red Lily Pond in Centerville, and Long Pond/Parkers River in Yarmouth).

### **Reasons for declining river herring**

Fisheries agencies and scientists point to several reasons for declining herring numbers in freshwater: barriers to fish migration, water pollution, water withdrawals, climate change, and overfishing in both freshwater and marine environments.

However, barriers to fish migration are being addressed by numerous restoration projects. Water pollution is being monitored through a new Cape Cod Freshwater Initiative to monitor pond water quality to inform pond restoration. Water withdrawals are managed by regulatory agencies. Fishing in freshwater has been prohibited since 2006. Overfishing now can only arise from fishing trawlers at sea, therefore river herring need more protection from overfishing at sea.

### **Overfishing at sea conflicts with restoration of herring runs in inland waters**

APCC and many other organizations, municipalities, and state and local agencies have made huge investments in restoring river herring runs—this should be matched by better protection at sea. State, local, and federal agencies and organizations, including APCC, have expended enormous effort and resources to restore herring runs in order to help restore river herring populations. On Cape Cod, millions of dollars have been spent to restore herring runs—and millions more dollars will be spent—because people want to see river herring return and be part of a healthy ecosystem. In addition, the significant number of stakeholders—volunteers, agencies, organizations, that support herring restoration and monitoring need to be considered as users who would benefit from greater herring numbers.

### **Healthy ecosystems require healthy river herring populations**

Finally, our coastal and freshwater ecosystems rely on healthy river herring populations. River herring are an important food source for many commercially and recreationally important fish species and wildlife, including birds and mammals, rely on river herring adults and juveniles as food.

### **Acknowledgements**

APCC thanks the many individuals, organizations, and agencies that made this program possible. These include but are not limited to:

- Estimated 300+ volunteers
- 12 towns (Barnstable, Brewster, Chatham, Dennis, Eastham, Falmouth, Harwich, Mashpee, Orleans, Sandwich, Wellfleet, and Yarmouth)

- Organizations
  - Massachusetts Bays National Estuary Partnership
  - Cape Cod Conservation District
  - Cape Cod Salties
  - Bass River Rod & Gun Club, Yarmouth
  - Barnstable Clean Water Coalition
  - Coonamessett River Trust, Falmouth
  - Eastham Conservation Trust
  - Friends of Herring River, Wellfleet
  - Harwich Conservation Trust
  - Oyster Pond Environmental Trust
  - Red Lily Pond Project
  - River Herring Warden Network
  - Cape Cod Commercial Fishermen’s Alliance
- Agencies:
  - Massachusetts Division of Marine Fisheries
  - NOAA Restoration Center, Gloucester
  - Barnstable County Cooperative Extension / WHOI Sea Grant
  - USDA Natural Resources Conservation Service

## Resources

MA Division of Marine Fisheries:

- Nelson, 2004: A Guide to Statistical Sampling for the Estimation of River Herring Run Size Using Visual Counts. MA DMF Technical Report 25, <https://www.mass.gov/files/documents/2016/08/om/tr-25.pdf>

Nicholas Tyack, 2011. A Summary of Volunteer River Herring Counts in Massachusetts. NOAA Fisheries Service, Habitat Restoration Center, Northeast Regional Office, 55 Great Republic Drive, Gloucester, MA 01930.

Association to Preserve Cape Cod, Herring Monitoring Program:

- Count Form, Instructions, Blank Schedule, Herring ID, other information, and our website data entry system: <https://apcc.org/our-work/science/community-science/herring/>
- Schedule of training events and list of count coordinators is provided at APCC’s Herring Monitor Hub: <https://apcc.org/our-work/science/community-science/herring/hub/>

River Herring Network at <https://riverherringnetwork.org>

- Best practices for herring run management
- Links to herring monitoring groups and news
- Annual meeting registration and presentations



Cape Cod Conservation District  
303 Main Street  
West Yarmouth, MA 02673

April 24, 2024

Jo Ann Muramoto  
MassBays Regional Coordinator, Cape Cod  
Association to Preserve Cape Cod (APCC)  
482 Main Street  
Dennis, MA 02638

Re: Natural Resource and Conservation Service (NRCS) funding summary for fish passage restoration under the Cape Cod Water Resources Restoration Project (CCWRRP)

Jo Ann Muramoto,

The Cape Cod Conservation District (CCCD), in partnership with the Natural Resources Conservation Service (NRCS), is pleased to provide a summary of allocated and anticipated funds for fish passage restoration projects under the Cape Cod Water Resources Restoration Project (CCWRRP). The CCWRRP is a Cape Cod watershed-wide plan that aims to improve river herring access to 4,200 acres of spawning habitat, restore over 1,500 acres of degraded salt marsh, and improve water quality of over 7,300 acres of shellfish beds. Since the plan's release in 2006, NRCS has allocated over \$8,400,000 for fish passage restoration with the Cape Cod Towns contributing over \$1,800,000. The CCCD anticipates an additional approximately \$13,800,000 of funding to be available from NRCS and an additional \$4,400,000 to be contributed by the various Towns. With the already allocated NRCS and Town funding and anticipated funding, the CCWRRP aims to meet its goal of improving river herring migration and access to spawning habitat.

We strongly urge you to consider the fish passage restoration efforts and allocated funding on Cape Cod during your scoping for Amendment 10 concerning river herring management in offshore waters. If you have any questions, please contact the CCCD Program Manager, Martha Craig at [Martha.Craig@usda.gov](mailto:Martha.Craig@usda.gov) or at 508-439-9980.

Sincerely,

Mark R Forest  
Chair, Cape Cod Conservation District Board of Supervisors





**Paul J. Diodati**  
*Director*

# *Commonwealth of Massachusetts*

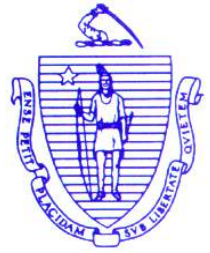
## **Division of Marine Fisheries**

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**Deval Patrick**  
*Governor*  
**Richard K. Sullivan, Jr.**  
*Secretary*  
**Mary B. Griffin**  
*Commissioner*

### **MEMORANDUM**

March 21, 2012

From: John Sheppard, *MarineFisheries*  
To: River herring volunteer counting groups

We wish to thank Nicholas Tyak and Eric Hutchins of the NOAA-NMFS Restoration Center for their efforts in coordinating, processing, analysis and reporting results of herring run size estimates from several coastal river systems in Massachusetts from last year (and where available, previous years as well). Their efforts along with those of Dr. Jo Ann Muramoto of the Association to Preserve Cape Cod and the Massachusetts Bays Program were essential in organizing volunteer groups and the execution of a monitoring protocol that is consistent among each group.

The Massachusetts Division of Marine Fisheries (*MarineFisheries*) has reached an agreement with NOAA to transfer the responsibilities of data collection and processing, analysis and reporting to the staff of *MarineFisheries*. The *MarineFisheries* Anadromous Fish Dynamics and Management Program is responsible for the management and investigations regarding the anadromous fish resources of the Commonwealth. As part of our management responsibilities, *MarineFisheries* is committed to long-term monitoring at various coastal rivers throughout the Commonwealth through population estimation and biological sampling. We seek to expand our monitoring efforts to obtain population estimates from all coastal watersheds and this is accomplished largely through the contributions of town officials, Natural Resource Departments, Watershed Associations, and volunteer counting groups.

*MarineFisheries* has the interest and resources to store and disseminate all data for each run. Using the protocols and guidelines established in the *MarineFisheries* Technical Report (TR-25; Nelson 2006: [http://www.mass.gov/dfwele/dmf/publications/tr\\_25.pdf](http://www.mass.gov/dfwele/dmf/publications/tr_25.pdf)) which is implemented in the *MarineFisheries* software program and stored in a Microsoft Access master database, *MarineFisheries* staff can process, analyze and report the results. We kindly ask that all volunteer counting groups please send their count data to *MarineFisheries* (ATTN: John Sheppard) 1213 Purchase Street, 3<sup>rd</sup> Floor, New Bedford, MA 02740. Count data can also be sent electronically (preferably in EXCEL format) to [john.sheppard@state.ma.us](mailto:john.sheppard@state.ma.us). We thank you for your continued cooperation and look forward to working with you this spring.