Atlantic States Marine Fisheries Commission

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MEMORANDUM

TO: **Northern Shrimp Section**

FROM: **Northern Shrimp Technical Committee**

DATE: **November 25, 2025**

SUBJECT: **2025 Data Update and Management Trigger Evaluation**

This memo updates the available fishery-independent datasets for northern shrimp and evaluates the recruitment and temperature triggers laid out in Amendment 4 (2025) to the Northern Shrimp Fishery Management Plan.

The dedicated Summer Shrimp Survey was suspended after the 2023 sampling season. However, the NEFSC Fall Bottom Trawl and the Maine-New Hampshire Spring Inshore Trawl Surveys continue to operate and provide information on northern shrimp in the Gulf of Maine. In addition to indices of total abundance, indices of recruitment were developed from these surveys to address the recruitment trigger outlined in Amendment 4. The indices of recruitment from those surveys are based on the proportion of shrimp that are between 11mm and 18mm carapace length in the survey catch. Several environmental datasets were also examined, including an index of predation pressure and the winter and spring temperature time-series that inform the temperature trigger.

The recruitment trigger is defined by three consecutive years of non-failed recruitment, and the temperature trigger is defined by two out of three consecutive years of winter surface temperature and spring bottom temperature below the 80th percentile of the reference period (1984-2017). Non-failed recruitment is defined as a recruitment index that is above the 20th percentile of the reference period that persists in the length composition in subsequent years.

Both the NEFSC Fall Bottom Trawl Survey and the Maine-New Hampshire Spring Inshore Trawl Survey showed new time-series lows in total abundance in the most recent year of data (Figure 1). Neither the recruitment trigger nor the temperature trigger was tripped. The last three years of recruitment were below the 20th percentile for both indices (Table 1, Figure 2). The winter surface temperature index was below the 80th percentile in 2025, but 2023-2024 were above the 80th percentile (Table 2, Figure 3). The 2025 spring bottom temperature data were not available at the time of this analysis, but even if that index value was below the 80th percentile, the trigger would not have tripped, as the 2023 and 2024 spring bottom temperatures were above the threshold (Table 2, Figure 3).

The predation pressure index was below the 80th percentile in 2025 as well (Figure 4). Despite these less negative environmental conditions in 2025, overall stock condition remained poor as measured by total abundance and recruitment. Therefore, the NTSC does not recommend any level of removals for 2026.

Table 1. Recruitment triggers for northern shrimp. Colors indicate status relative to reference levels, where: RED = at or below the 20th percentile; YELLOW = between the 20th and 80th percentiles; and GREEN = at or above the 80th percentile of the time series from 1984-2017. White indicates no data.

Survey	NEFSC	ME-NH
2005		1.0876
2006		0.5574
2007		0.2864
2008		0.8804
2009	0.9061	1.0663
2010	0.4398	1.6976
2011	0.0568	1.1636
2012	0.0238	0.0684
2013	0.0179	0.0083
2014	0.3570	0.3231
2015	0.0247	0.0278
2016	0.0682	0.2245
2017	0.0027	0.0296
2018	0.1464	0.0375
2019	0.0049	0.0211
2020		
2021	0.0015	0.0092
2022	0.0001	0.0000
2023	0.0000	0.0000
2024	0.0001	0.0000
2025		0.0001
20th percentile (1984-2017)	**0.02**	**0.05**
80th percentile (1984-2017)	**0.39**	**1.08**

Table 2. Temperature triggers for northern shrimp. Colors indicate status relative to reference levels, where: RED = at or above the 80th percentile; YELLOW = between the 20th and 80th percentiles; and GREEN = at or below the 20th percentile of the time series from 1984-2017. White indicates no data.

Year	Spring Bottom Temp	Winter Surface Temp
1984	5.7	2.9
1985	5.2	2.8
1986	6.1	2.6
1987	5.1	1.8
1988	5.7	2.7
1989	4.9	1.9
1990	4.1	2.6
1991	5.6	3.4
1992	5.7	3.2
1993	4.4	1.2
1994	5.4	1.8
1995	5.9	3.3
1996	6.2	3.3
1997	6.1	3.7
1998	6.1	2.9
1999	5.7	2.9
2000	6.2	3.1
2001	5.8	2.9
2002	6.4	4.1
2003	4.9	2.4
2004	4.3	3.0
2005	5.1	3.0
2006	6.4	5.5
2007	5.4	2.0
2008	6.0	2.3
2009	5.5	2.6
2010	6.0	4.1
2011	7.4	2.9
2012	7.2	5.5
2013	6.4	3.9
2014	5.8	2.2
2015	5.2	1.4
2016	6.6	4.2
2017	6.1	3.8
2018	6.1	4.5
2019	6.6	3.5
2020		4.6
2021	7.2	4.0
2022	7.1	3.7
2023	6.7	4.6
2024	7.1	4.4
2025		3.0
20th percentile	**5.2**	**2.3**
80th percentile	**6.2**	**3.8**

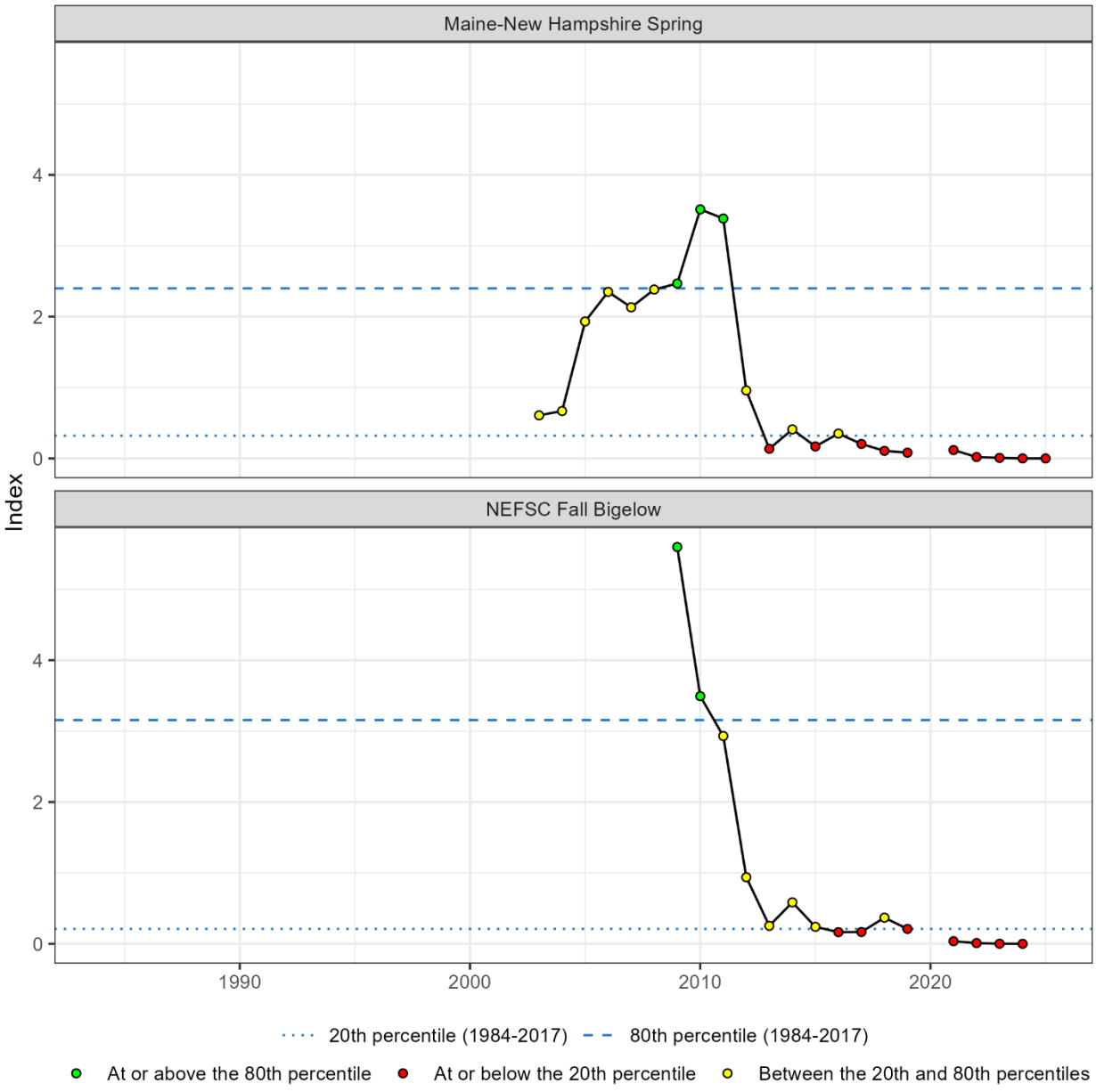

Figure 1. Indices of total abundance of northern shrimp from the Maine-New Hampshire Spring Inshore Trawl Survey (top) and the NEFSC Fall Bottom Trawl (bottom).

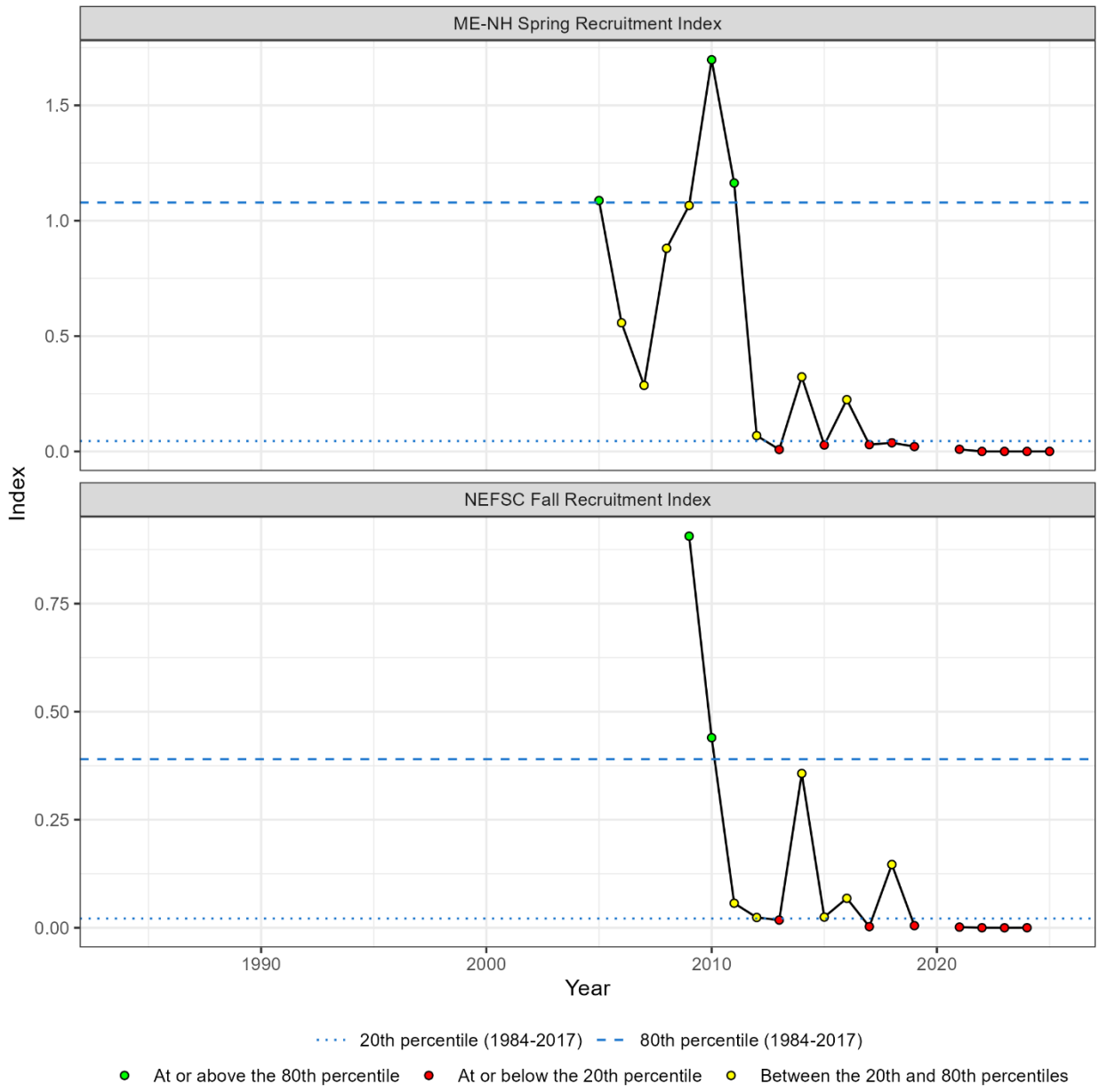

Figure 2. Recruitment triggers for northern shrimp from the Maine-New Hampshire Spring Inshore Survey (top) and the NEFSC Fall Bottom Trawl Survey (bottom).

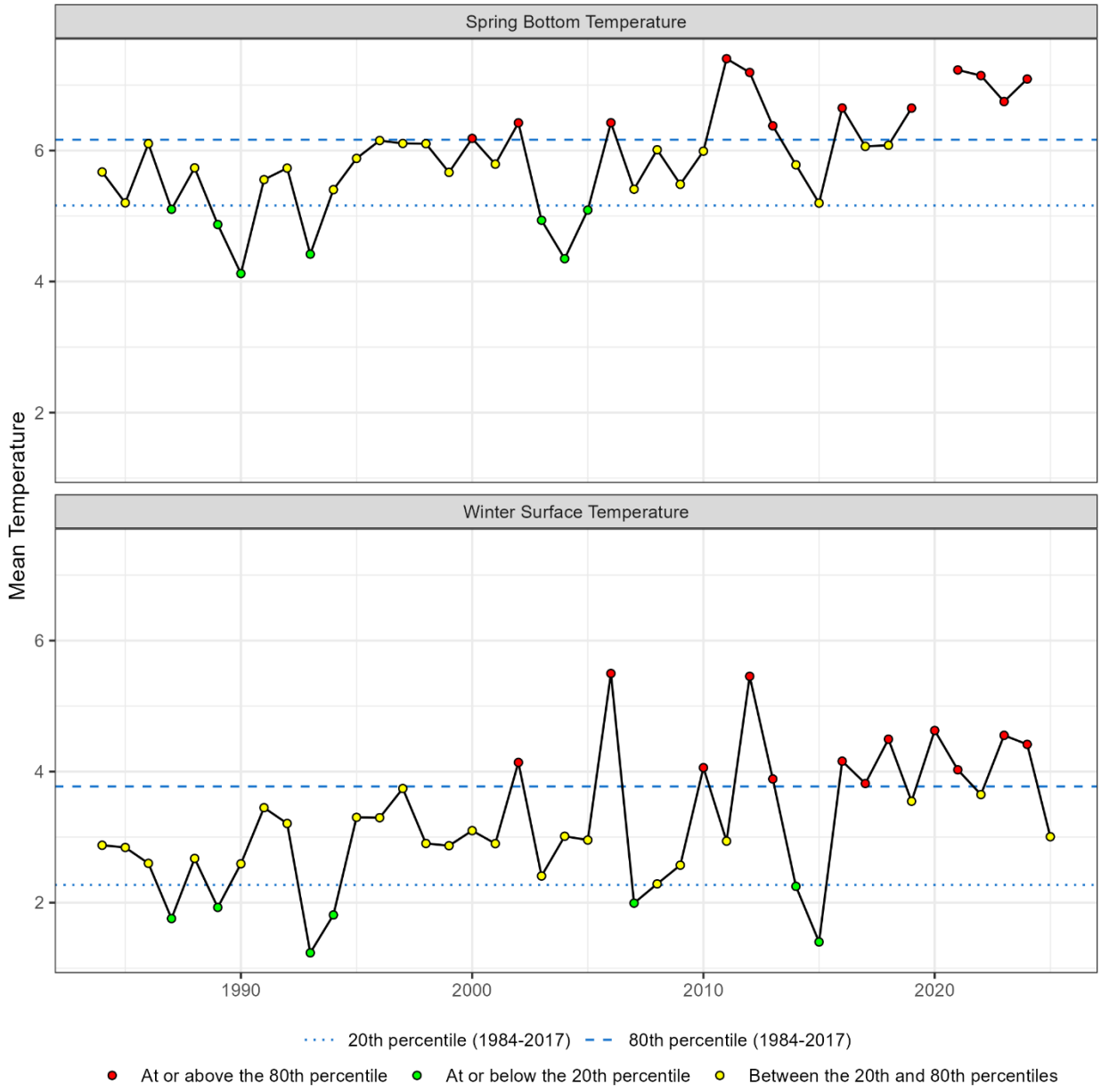

Figure 3. Temperature triggers for northern shrimp from the NEFSC Spring Bottom Trawl Survey (top) and Boothbay Harbor (bottom).

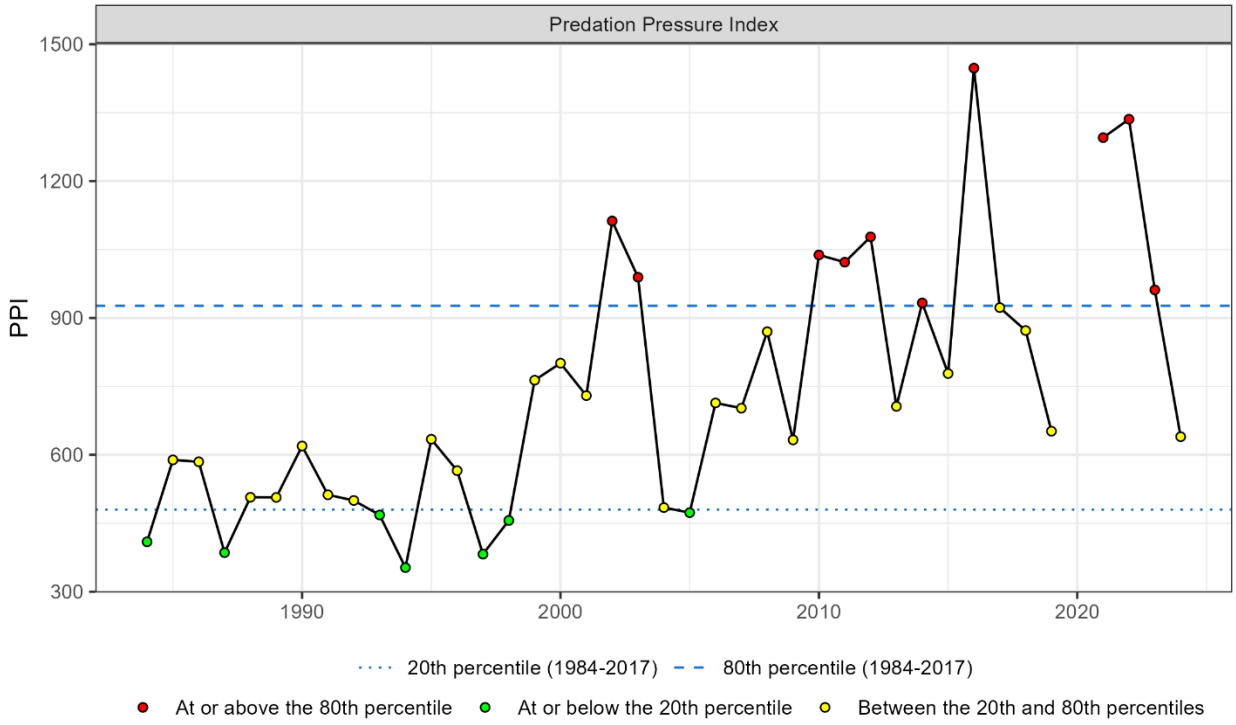

Figure 4. Index of predation pressure on northern shrimp derived from predator biomass indices from the NEFSC bottom trawl surveys.