



Atlantic States Marine Fisheries Commission

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MEMORANDUM

TO: Winter Flounder Management Board

FROM: Winter Flounder Technical Committee

DATE: July 20, 2026

SUBJECT: Analysis of Proposal for an Increase in SNE/MA Recreational Bag Limit

At the February 3, 2026 meeting, the Winter Flounder Management Board (Board) tasked the Winter Flounder Technical Committee (TC) with analyzing available data to assess the potential for increasing the daily bag limit in the recreational Southern New England/Mid-Atlantic (SNE/MA) winter flounder fishery. This task was in response to both public input and Board member request. An increase in the daily bag limit aims to provide greater incentive for both private and for-hire anglers to target winter flounder which are currently held to a 2 fish per day trip limit in state waters. The TC met via webinar on March 17, May 15, and June 16, 2026 to review and provide input on the Board requests. To address the Board task, the TC 1) discussed potential stock implications and 2) analyzed Marine Recreational Information Program (MRIP) data, both of which are described in this memo.

In summary, the TC does not recommend an increased bag limit for SNE/MA winter flounder at this time, due to a high risk of adverse impacts to the SNE/MA winter flounder population. Any increased fishing effort/targeting of SNE/MA winter flounder would likely negatively impact the stock which is currently at time series low biomass and showing no signs of recovery. Additionally, the TC does not believe the available MRIP data, which is highly imprecise due to very low intercepts, is appropriate to conduct an accurate bag limit analysis on the SNE/MA stock.

Stock Implications

The Atlantic States Marine Fisheries Commission (Commission) and New England Fishery Management Council (Council) have had complementary management plans for winter flounder since 1992. Cooperative management between state and federal waters is necessary because of the unique migration patterns and spawning site fidelity of this species. When winter flounder migrate to inshore state water spawning grounds, they become concentrated in certain areas, making it easy for anglers to locate and remove a substantial portion of them. Concentrated fishing effort on spawning females, the reproductive portion of the population, can result in a larger net loss to the population than the landings may suggest with the potential loss of reproductive subpopulations. In addition, fishing induced disruptions on spawning can reduce spawning success and subsequent recruitment. These nearshore grounds are also vulnerable to water pollution and habitat loss. Tagging studies have consistently shown

spawning-site fidelity in winter flounder, meaning that individuals will often return to the location where they were hatched, or close by. This suggests that reproductive subpopulations of winter flounder may be vulnerable to localized depletion which results in reductions in spawning success and productivity. In their discussions, the TC notes that an increase of targeting winter flounder due to a higher bag limit could increase that potential for localized depletion, particularly where relatively larger spawning aggregations still occur. Doing so can result in further reduction in stock productivity.

The SNE/MA winter flounder stock was recently in a rebuilding plan with a rebuild date of 2023. The projections and biological reference points (BRP) calculations for the 2022 assessment updates used a truncated stanza for recruitment, incorporating values from 2002-2021. Previous assessments had used the entire time-series of recruitment, which included historical recruitments that are well beyond the current productivity of the stock. For example, recruitment estimates in recent years have been up to 20 times lower than some of the recruitment estimates from the beginning of the time series. The truncated recruitment stanza used in the 2022 management track led to a much lower biomass target and, as a result, the overfished status of the stock changed. Although the stock was considered rebuilt by the 2023 deadline, the perception of the health of the SNE/MA stock has not changed. SNE/MA spawning stock biomass continues to be estimated at record lows.

Winter flounder discard mortality is estimated at 15% from the recreational hook and line fishery and any fish landed in excess of the current 2 fish limit would increase total fishing mortality (F). Therefore, any increase in recreational effort targeting winter flounder would be expected to increase overall mortality. The TC feels that this option is inconsistent with the originally intended purpose of Addendum I and Amendment 1 to reduce fishing pressure and mortality on spawning fish and promote rebuilding of spawning stock biomass.

Marine Recreation Information Program (MRIP) Data Analysis

The TC conducted a review of MRIP data, and in particular of MRIP data at the intercept level, to explore what information is currently available for SNE/MA winter flounder. This exploration has been split into three directives:

- 1) A comparison of effort and harvest pre- and post- the 2010 reduction in bag limit.
- 2) PSEs of estimates of harvest.
- 3) A comparison of discards and releases to landed fish.

Management measures relevant to this analysis include:

- Amendment 1 (2005): Established minimum size limit, shortened seasons, and lowered trip/bag limits.
- Addendum 1 to Amendment 1 (2009): Established the two-fish recreational bag limit.
- Addendum 2 (2012): Expanded the recreational season to the entire year.

Addendum I to the Winter Flounder FMP established a daily bag limit of 2 fish in the recreational SNE/MA fishery. This low bag limit was implemented in response to results of the 2008 Winter Flounder Stock Assessment which concluded that the SNE/MA winter flounder stock was severely depleted, with spawning stock biomass at only 9% of the target biomass (NEFSC 2008). The

measures for the SNE/MA stock were designed to achieve the lowest possible F rate while minimizing economic and social impacts and dead discards, and prevent an influx of effort into state waters. Zero possession limits were considered by the Board, but were deemed problematic for two main reasons—discarding may increase with zero possession limits and fisheries-dependent data beneficial to the assessment would not get collected.

The two-fish bag limit was established in 2009 but different states may have had it earlier and it may have been implemented at different times. For this analysis we assume a 2010 implementation.

Directive 1: Effort and Harvest Pre- and Post- Bag Limit

The TC received MRIP intercept data pulled by Paul Nitschke of NEFSC. A custom MRIP query was used as the SNE/MA winter flounder stock splits Massachusetts. These data (adjusted observed catch, CLAIM) are used here to summarize positive trips, defined as trips where at least one winter flounder was observed landed. The number of observed trips and catch were pulled by the TC as a first step to determine whether there was adequate data to be able to perform a robust bag limit analysis.

The number of trips with observed SNE/MA winter flounder, the total observed catch of winter flounder, and the mean observed catch per angler have all decreased between 1982 and 2025 (Table 1). Observations began to sharply decline around 2000 and have remained extremely low since approximately 2007. The number of observed SNE/MA winter flounder trips averaged approximately 460 between 1982 and 1999, and averaged 43 between 2000-2025. A mean of 2,600 SNE/MA winter flounder were observed annually between 1982-1999, but fell to a mean of 119 winter flounder between 2000-2025. In the most recent 10 years (2016-2025), the annual mean observed catch in SNE/MA fell to approximately 22 winter flounder. The mean observed catch per angler ranged between 5.21 winter flounder per angler in 1982 and 0.51 winter flounder per angler in 2025. The mean observed catch per angler of SNE/MA winter flounder averaged approximately 3.4 between 1982 and 1999 and fell to 1.55 between 2000-2025.

Based on the limited available data in any given year, particularly in the last 26 years, the TC did not believe there was enough data to perform a bag limit analysis similar to those conducted for stocks such as black sea bass. However, these data may still be informative to the Board based on trends in recreational effort and catch.

In their discussion of the annual data, the TC noted that the number of observed trips, catch, and the mean catch per angler of SNE/MA winter flounder all began a steep decline well before the implementation of the 2-fish bag limit in ~2010 (Table 1; Figure 1). The mean number of fish per angler fell below 2 fish around 2005, prior to the implementation of the bag limit. This provides evidence that the 2-fish bag limit is likely not the only factor limiting winter flounder recreational effort and catches in the SNE/MA.

Observed number of trips, total catch, and mean winter flounder caught per angler were also explored by MRIP wave and by state, summed across all years 1982-2025 (Tables 2 & 3). A

majority of trips and catch (approximately 68% and 70%, respectively) of SNE/MA winter flounder were observed in waves 2 and 3 (March-April and May-June) when aggregated spawning and post-spawn fish are most available to in-shore anglers. The TC noted unusually low numbers of observed trips and catch of SNE/MA winter flounder from Massachusetts, compared to other neighboring states.

The TC also explored breaking down the available data on observed trips by mode, summed across all years (1982-2025; Table 4). A majority of observed recreational trips and catch in SNE/MA were from the private/rental boat mode (53% of observed trips and 72% of total observed catch), followed by the shore mode (14%). The for-hire sector (i.e., charter boats and headboats) only constituted 4% and 1% of the total observed SNE/MA winter flounder trips and catch, respectively.

When these data are further broken down by year (limited to 2000-2025 so trends are more apparent), the number of observed trips and total catch from the private/rental boat and shore modes both show declines prior to the implementation of the 2 fish bag limit (Figure 2). The number of observed headboat trips and catch also suggest a decline prior to the implementation of the bag limit in 2010.

Lastly, the TC explored the available MRIP catch data broken out to all three catch types (i.e., Type A, Type B1, and Type B2) and year (Table 5; Figures 3 & 4). Similarly to observed harvest, reported harvest and releases also show a steep decline well prior to the implementation of the 2-fish bag limit in ~2010. Reported harvest began declining around 1994, and releases began declining around 1995. Thus, anglers were not only harvesting less fish, but were also releasing less fish before the adoption of the lower bag limit in 2010.

Directive 2: PSE on Harvest Estimates

The TC next explored PSE (percent standard error) estimates on available MRIP data. MRIP does not provide PSE values for data parsed to a fine scale (e.g., by stock, by fishing mode). The formula to calculate PSE is the square root of variance over the estimate, multiplied by 100. The key challenge is understanding the scale at which to calculate PSE. It must be done according to survey design and primary sampling unit. The state-level data available from the MRIP public website includes PSE, but this does not allow separation of Massachusetts sites by stock. The TC collaborated with various partners to utilizing existing R code to calculate PSE values for MRIP data parsed to various scales.

Figures 5 & 6 show annual PSE values for all harvest types by state and mode, respectively. Overall, PSE values for all harvest types, including total catch, harvest (A+B1), and releases (B2), by state and mode, have been above 30% PSE since approximately 2002, and a majority of PSEs have fallen above 50% since approximately 2006. The MRIP program suggests PSE values between 30 and 50 be 'treated with caution'. PSE values greater than 50 are highly imprecise and MRIP 'does not support its use'. The TC does not believe such highly imprecise data would be appropriate for use in a bag limit analysis.

Directive 3: Size Composition Analysis

Other sources of uncertainty in available data include the length distribution of recreational discards. Recreational discards are typically a small component of total catch, and the SNE/MA winter flounder stock assessment suffers from very little length information used to characterize recreational discards (Table 6).

For this analysis a cumulative discard length distribution over all available years was used to characterize recreational discards. Size information is used to understand what proportion of discards are of legal size. Comparing discards and releases to landed fish may be used to address which fish might be kept if a bag limit liberalization occurs.

The MRIP size data contain individual fish measurements from intercept interviews. Paul Nitschke provided MRIP length data from the 2025 SNE/MA winter flounder management track stock assessment. Note that sample sizes are sparse in recent years (Table 6). Data are only available from 2005 through 2024 as that was what was available from the stock assessment. Reduced sampling of recreational fishery information could be an issue for the stock assessment moving forward.

Again, the TC does not believe a bag limit analysis is possible with the sparse data and therefore just made observations on the raw information. Overlaid length frequency distributions of kept and released fish across pre- and post-bag limit regulatory periods show an increase in released legal sized fish post-bag limit implementation (Figure 7). This suggests the potential for increased recreational harvest of legal sized fish with an increased bag limit. More small fish were kept in the 2005–2009 period, before the two-fish bag limit was instated (Table 7; Figure 8). This suggests the bag limit has been effective at reducing harvest of smaller fish.

The proportion of legal fish that were released by year indicates a very slight increase in the percent of legal fish that are released in recent years (Figure 9). However, this seems only minimally related to the decrease in bag limits when viewing data from 2008 through 2015 across that transition time period.

References

- Northeast Fisheries Science Center (NEFSC). 2008. Report of the 3rd Groundfish Assessment Review Meeting (GARM III). US Dept Commer, Northeast Fish Sci Cent National Marine Fisheries Service, 166 Water Street, Woods Hole, MA.
<https://www.nefsc.noaa.gov/publications/crd/crd0815/crd0815.pdf>
- NEFSC. 2025. Southern New England Mid-Atlantic Winter Flounder 2025 Management Track Assessment Report. US Dept Commer, Northeast Fish Sci Cent National Marine Fisheries Service, 166 Water Street, Woods Hole, MA. Compiled 09-30-2025.

Tables and Figures

Table 1. Observed trips and catch by year from SNE/MA states. ‘N Trips’ shows the number of MRIP intercepts that occurred within the given year with observed winter flounder. ‘Total Obs. Catch’ shows the total number of fish directly observed during MRIP intercepts each year. ‘Mean per Angler’ shows the average number of winter flounder caught per intercept event each year.

Year	N trips	Total obs. Catch	Mean per angler
1982	431	3,551	5.21
1983	517	3,570	4.06
1984	664	5,526	4.97
1985	511	4,354	4.93
1986	688	3,636	3.67
1987	383	2,466	3.83
1988	648	3,600	3.22
1989	922	3,892	3.02
1990	813	3,915	3.28
1991	565	2,995	3.14
1992	370	1,495	2.63
1993	485	1,760	2.29
1994	297	1,254	2.62
1995	186	919	2.88
1996	273	1,249	2.84
1997	222	1,150	3.11
1998	151	900	3.53
1999	153	579	2.42
2000	71	220	2.48
2001	158	678	2.36
2002	93	269	2.24
2003	116	605	3.72
2004	114	326	2.21
2005	71	164	1.9
2006	42	110	1.96
2007	31	55	1.51
2008	39	85	1.99
2009	31	71	1.82
2010	37	61	1.38
2011	33	66	1.55
2012	38	77	1.61
2013	16	18	1.11
2014	34	49	1.34
2015	18	23	1.25
2016	33	41	1.14
2017	35	46	1.2
2018	27	30	0.99
2019	5	5	0.8
2020	30	33	1.02
2021	16	16	0.96
2022	9	27	1.55
2023	7	7	0.9
2024	12	12	0.82
2025	3	2	0.52

Table 2. Observed SNE/MA winter flounder catch by wave 1982-2025 (Wave 2 = March-April; Wave 3 = May-June; Wave 4 = July-August; Wave 5 = September-October; Wave 6 = November-December). ‘N Trips’ shows the number of MRIP intercepts with winter flounder present that occurred within the given wave. ‘Total Obs. Catch’ shows the total number of fish directly observed during MRIP intercepts each wave. ‘Mean per Angler’ shows the average number of winter flounder caught per intercept event each wave (for events when winter flounder were present).

Wave	N Trips	Total Obs. Catch	Mean Per Angler
2	3,695	18,917	3.33
3	2,673	16,094	3.53
4	655	2,613	2.49
5	1,231	5,255	2.84
6	1,144	7,027	4.05

Table 3. Observed catch by state 1982-2025. ‘N Trips’ shows the number of MRIP intercepts that occurred within the given state with winter flounder present. ‘Total Obs. Catch’ shows the total number of fish directly observed during MRIP intercepts in each state. ‘Mean per Angler’ shows the average number of winter flounder caught per intercept event in each state (for events when winter flounder were present).

State	N Trips	Total Obs. Catch	Mean Per Angler
Massachusetts	357	1,618	3.14
Rhode Island	1,132	5,687	3.06
Connecticut	1,457	7,642	3.15
New York	4,878	25,159	3.34
New Jersey	1,541	9,686	3.89
Delaware	8	18	1.39
Maryland	5	21	1.85
Virginia	20	75	1.74

Table 4. Observed SNE/MA winter flounder recreational catch by fishing mode, 1982-2025. ‘N Trips’ shows the number of MRIP intercepts that occurred among fishing modes. ‘Total Obs. Catch’ shows the total number of fish directly observed during MRIP intercepts among each mode. ‘Mean per Angler’ shows the average number of winter flounder caught per intercept event among each mode. The NA mode consists of trips where mode was either Headboat or Private/Rental Boat prior to 2013.

Mode	N Trips	Total Obs. Catch	Mean Per Angler
Charter Boat	19	38	1.71
Headboat	362	541	1.41
Private/Rental Boat	5,051	36,225	3.96
Shore	2,398	6,986	2.40
NA	1,568	6,116	3.33

Table 5. Catch in numbers of fish by harvest type and year across the entire SNE/MA winter flounder stock. Catch is split into Type A (observed harvest), Type B1 (reported harvest), and Type B2 (releases), using adjusted claim values. These values do not account for the number of anglers on a trip.

Year	Type A (Claim)	Type B1 (Harvest)	Type B2 (Release)
1982	6,732	1,495	1,380
1983	5,364	1,588	2,183
1984	6,485	1,634	2,606
1985	4,887	994	2,159
1986	4,452	2,637	2,502
1987	3,455	1,176	1,610
1988	4,529	2,169	2,299
1989	5,756	2,362	2,654
1990	4,661	3,127	3,443
1991	3,301	3,161	3,037
1992	1,802	1,318	1,540
1993	2,132	1,272	2,635
1994	1,427	619	1,500
1995	1,092	707	1,356
1996	1,407	928	1,100
1997	1,285	825	1,260
1998	994	530	1,001
1999	656	565	681
2000	287	656	574
2001	713	434	764
2002	346	153	433
2003	661	324	258
2004	346	151	107
2005	192	60	211
2006	172	69	207
2007	106	58	107
2008	210	136	155
2009	113	154	283
2010	124	82	223
2011	104	94	155
2012	79	75	106
2013	96	60	91
2014	143	58	124
2015	164	61	196
2016	140	45	216
2017	150	69	83
2018	227	55	136
2019	133	121	91
2020	254	64	149
2021	87	148	150
2022	167	68	49
2023	75	53	56
2024	49	34	34
2025	281	193	217

Table 6. Number of individual SNE/MA winter flounder measured in MRIP observations by year and release disposition.

Year	Kept	Released
2005	208	21
2006	146	3
2007	70	5
2008	101	11
2009	101	12
2010	81	14
2011	71	5
2012	98	11
2013	22	2
2014	54	1
2015	27	0
2016	51	3
2017	50	8
2018	40	9
2019	6	0
2020	39	9
2021	16	10
2022	21	4
2023	16	3
2024	18	3

Table 7. Number and percentage of SNE/MA winter flounder measured in MRIP observations by release disposition and length.

Regulatory period	Disposition	Legal (≥ 12in)	Sublegal (< 12in)	Total N
2005-2009	Kept	96%	4%	626
	Released	32.7%	67.3%	52
Post-2010	Kept	98.4%	1.6%	610
	Released	64.6%	35.4%	82

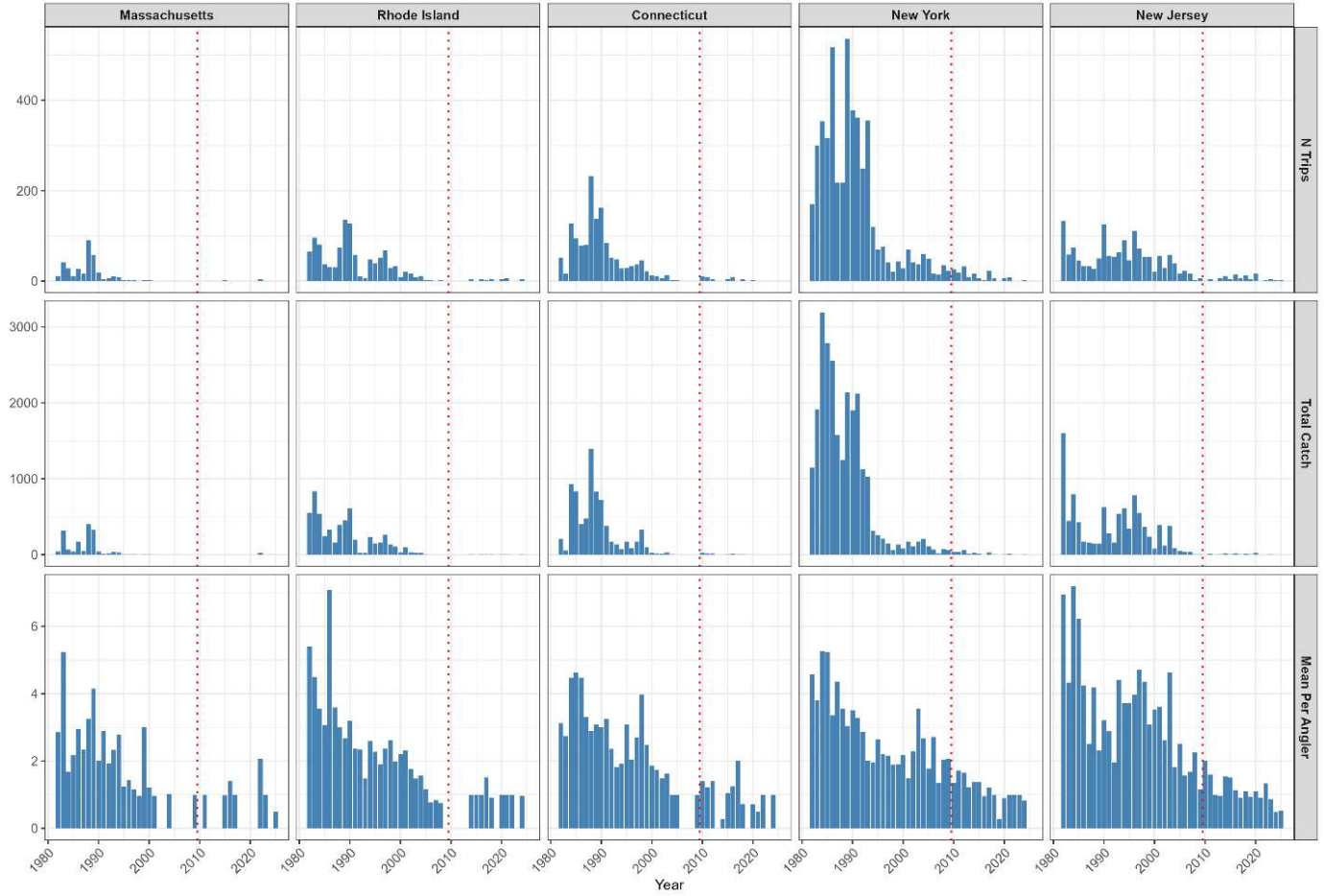


Figure 1. Observed number of trips, total catch in numbers of fish, and mean number of fish per angler of SNE/MA winter flounder by state and year. Massachusetts only includes trips observed within the SNE/MA area. Delaware, Maryland, and Virginia are excluded from the plot below because landings were minimal. The timing of the two-fish bag limit (vertical red dotted line) varied by state but all states had adopted it by 2010.

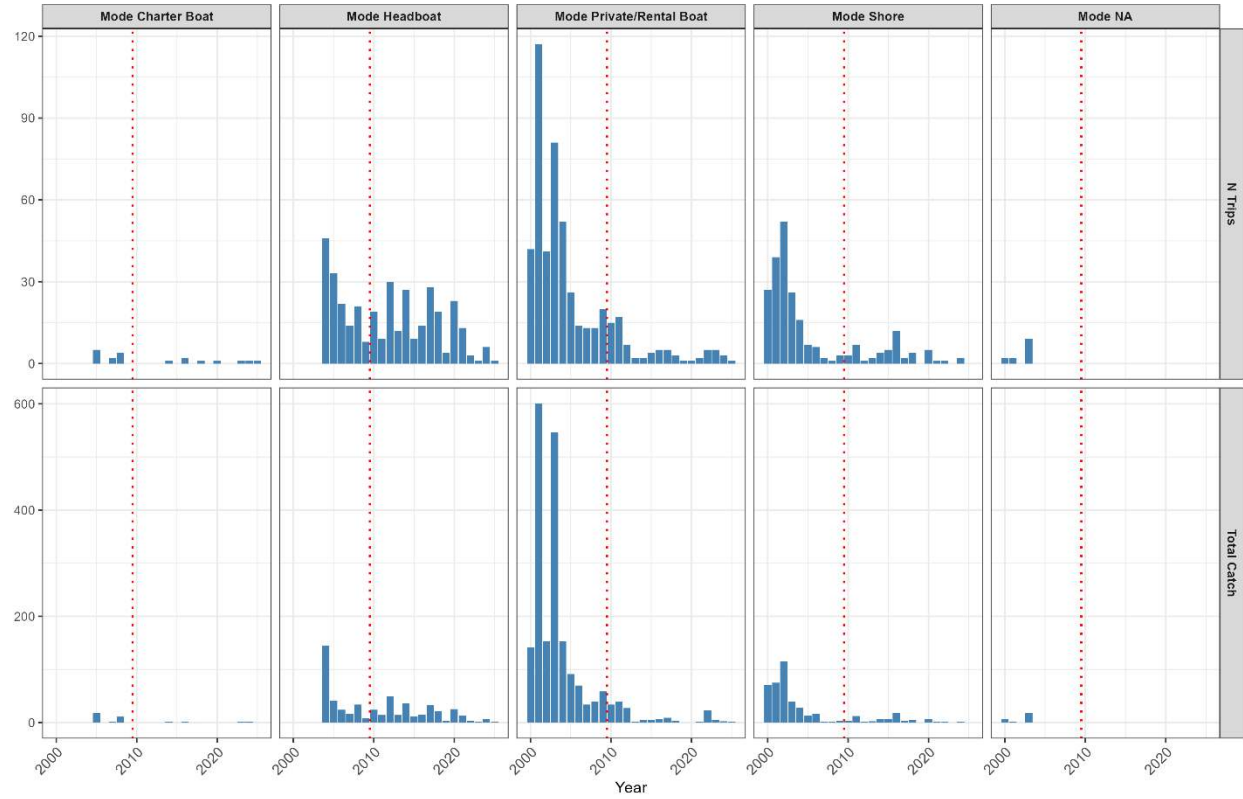


Figure 2. Number of trips and observed catch by year and mode 2000-2025. Filtered to years ≥ 2000 so that trends are more apparent. The timing of the two-fish bag limit varied by state but all states had adopted it by 2010 (denoted by the red dotted line).

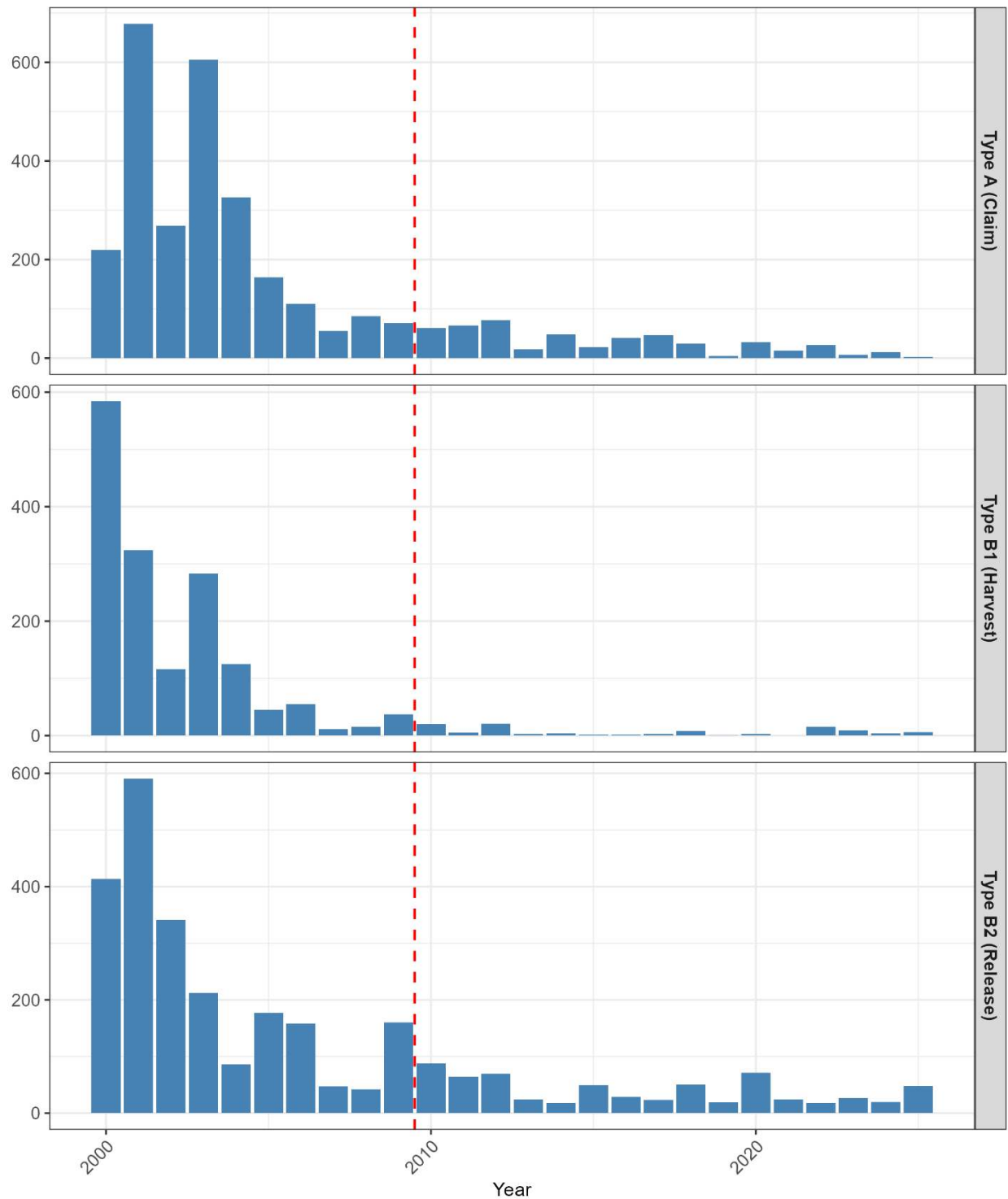


Figure 3. Winter Flounder catch by catch type and year. Catch is split into Type A (observed harvest), Type B1 (reported harvest), and Type B2 (releases), using adjusted values. Filtered to years ≥ 2000 so that trends are more apparent. The dashed red line indicates approximate bag limit change (2 fish, ~ 2010).

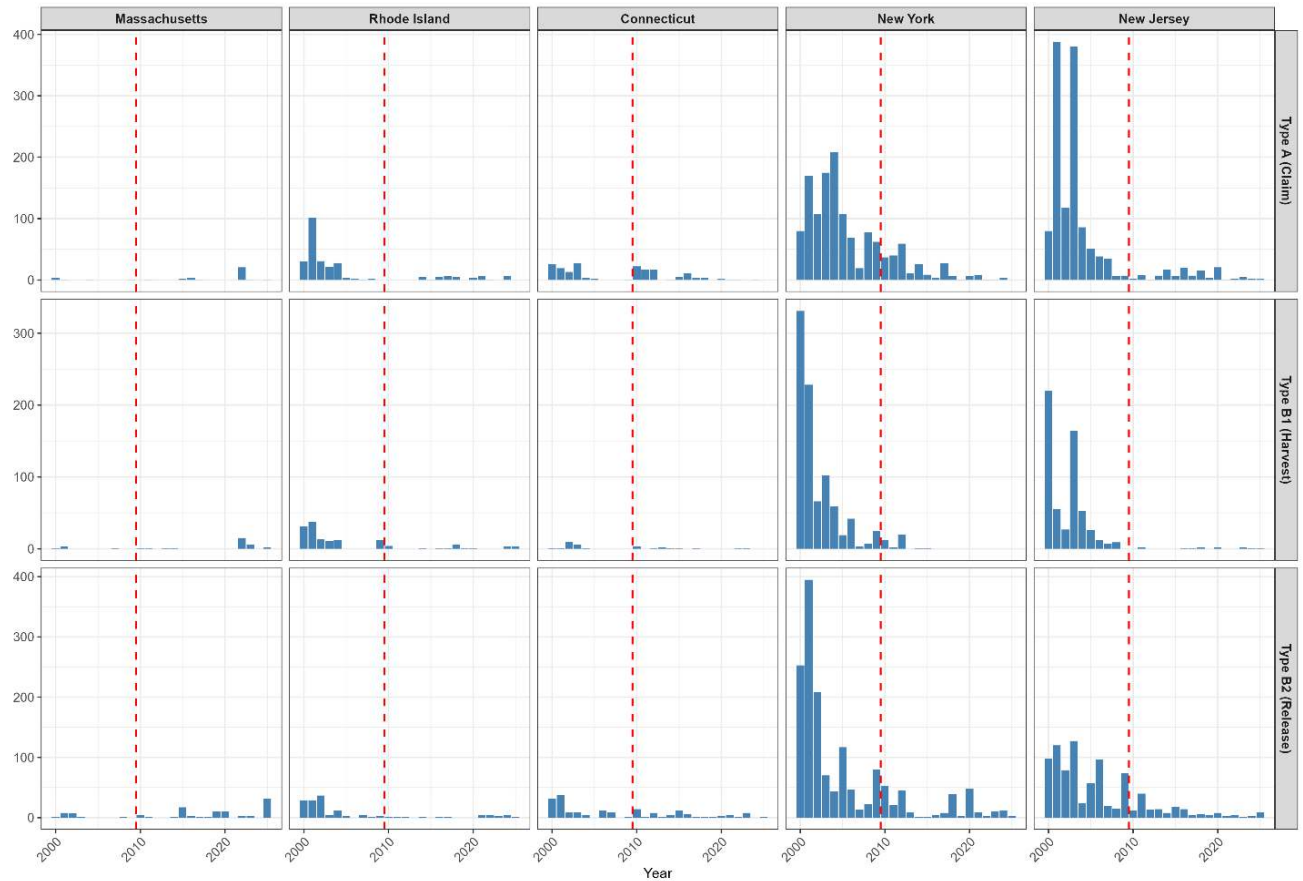


Figure 4. Winter Flounder catch in numbers of fish by catch type, state and year. Catch is split into Type A (observed harvest), Type B1 (reported harvest), and Type B2 (releases), using adjusted values. Filtered to years ≥ 2000 so that trends are more apparent. Delaware, Maryland, and Virginia excluded due to minimal landings. The dashed red line indicates approximate bag limit change (2 fish, ~2010).

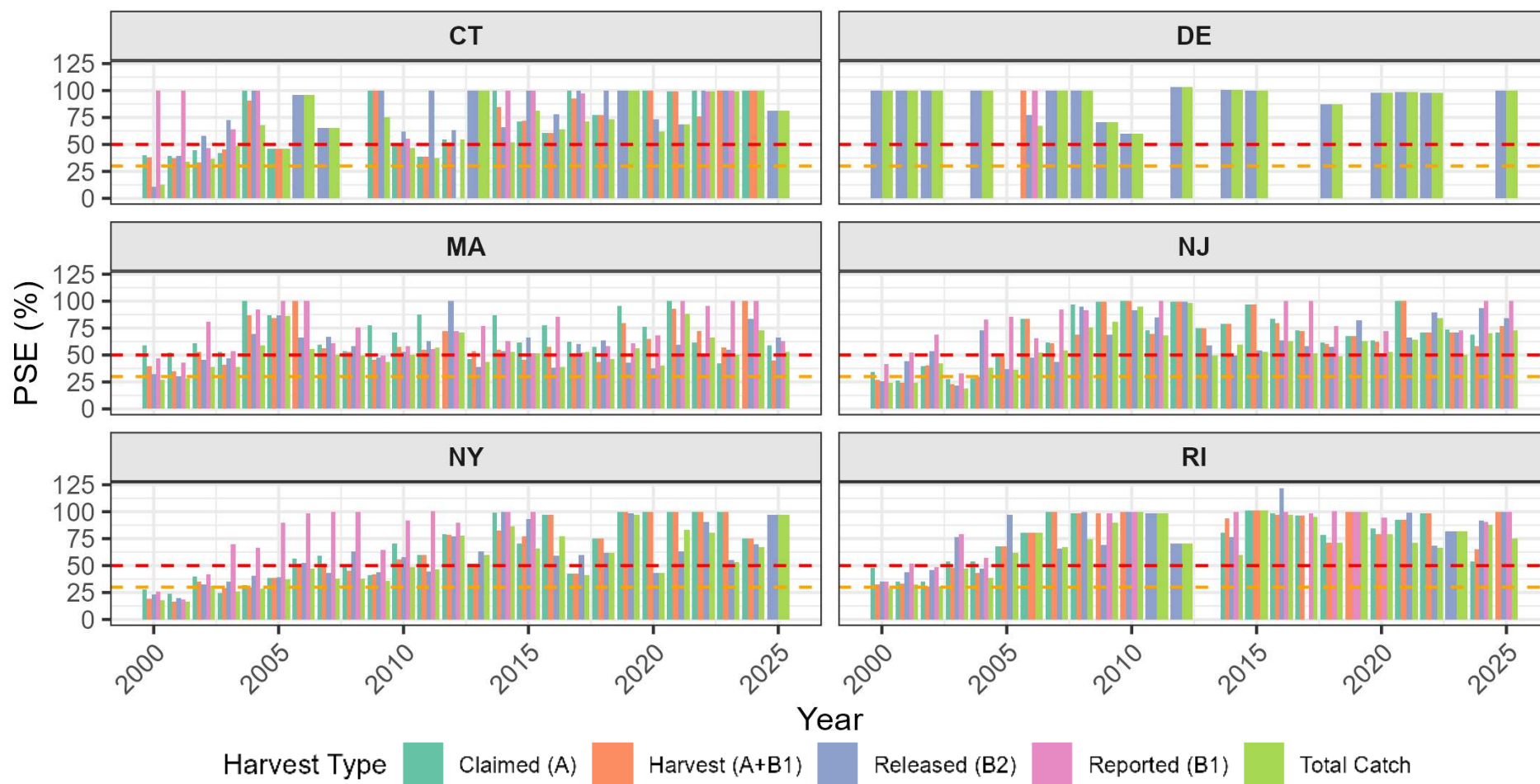


Figure 5. Percent Standard Error (PSE) values for SNE/MA winter flounder by state, harvest type, and year (2000-2025). Dashed orange line indicates PSE value of 30; dashed red line indicates PSE value of 50.

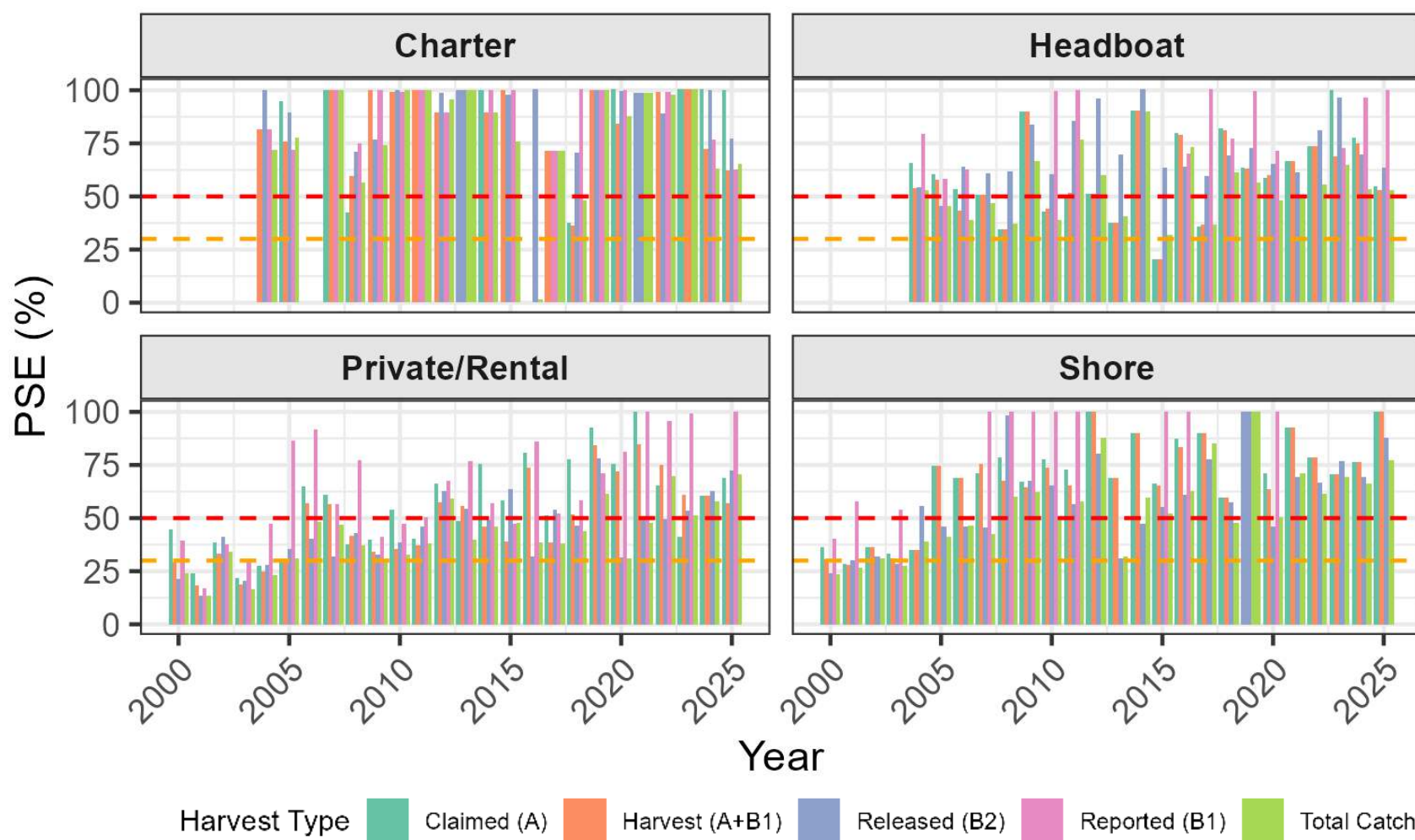


Figure 6. PSE values for SNE/MA winter flounder by fishing mode, harvest type, and year (2000-2025). Dashed orange line indicates PSE value of 30; dashed red line indicates PSE value of 50.

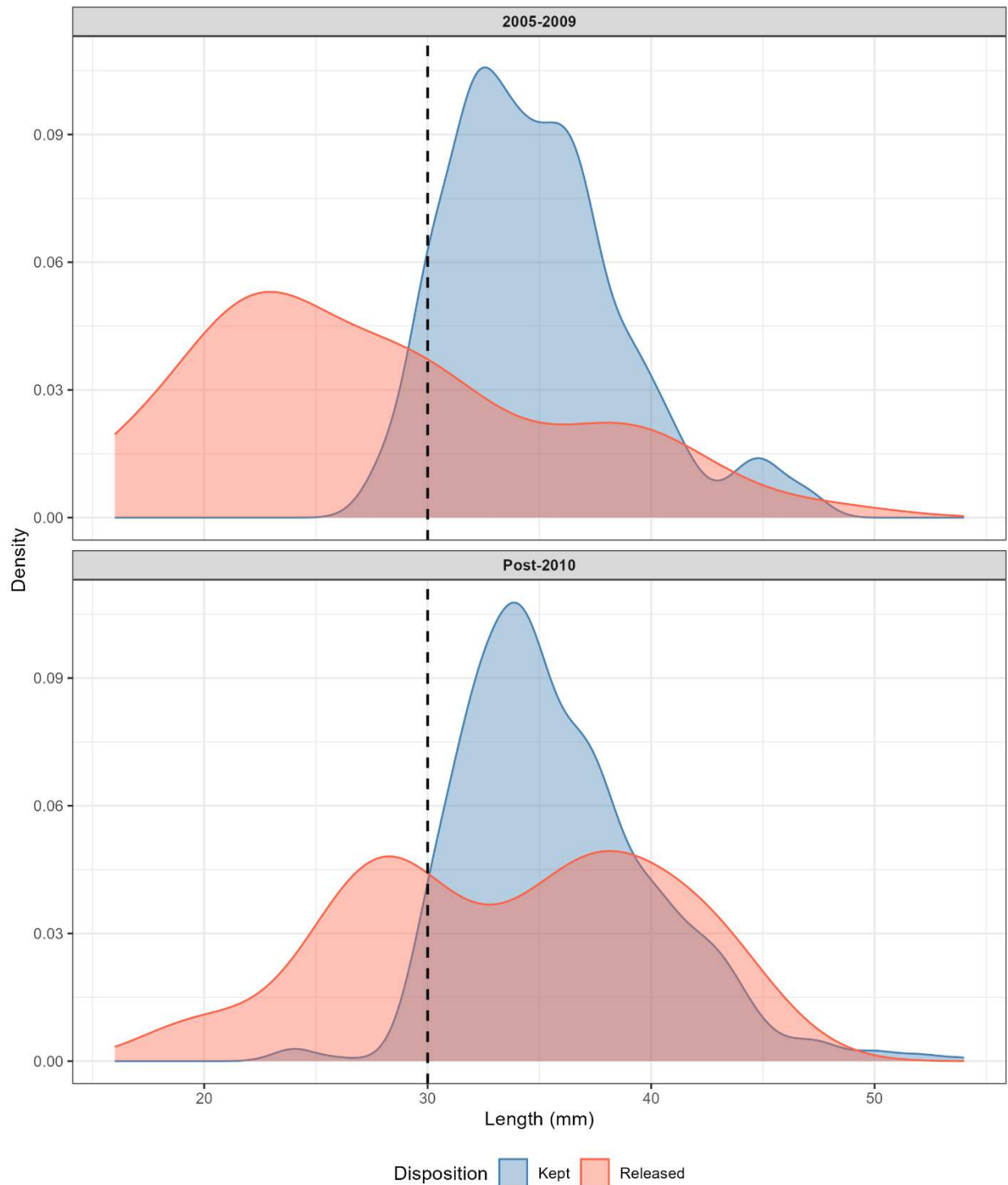


Figure 7. Overlaid length frequency distributions of kept and released fish across pre- and post- bag limit regulatory periods. The dashed vertical line indicates the 12-inch (304.8mm) minimum size limit. This directly shows whether released fish were sublegal or legal sized.

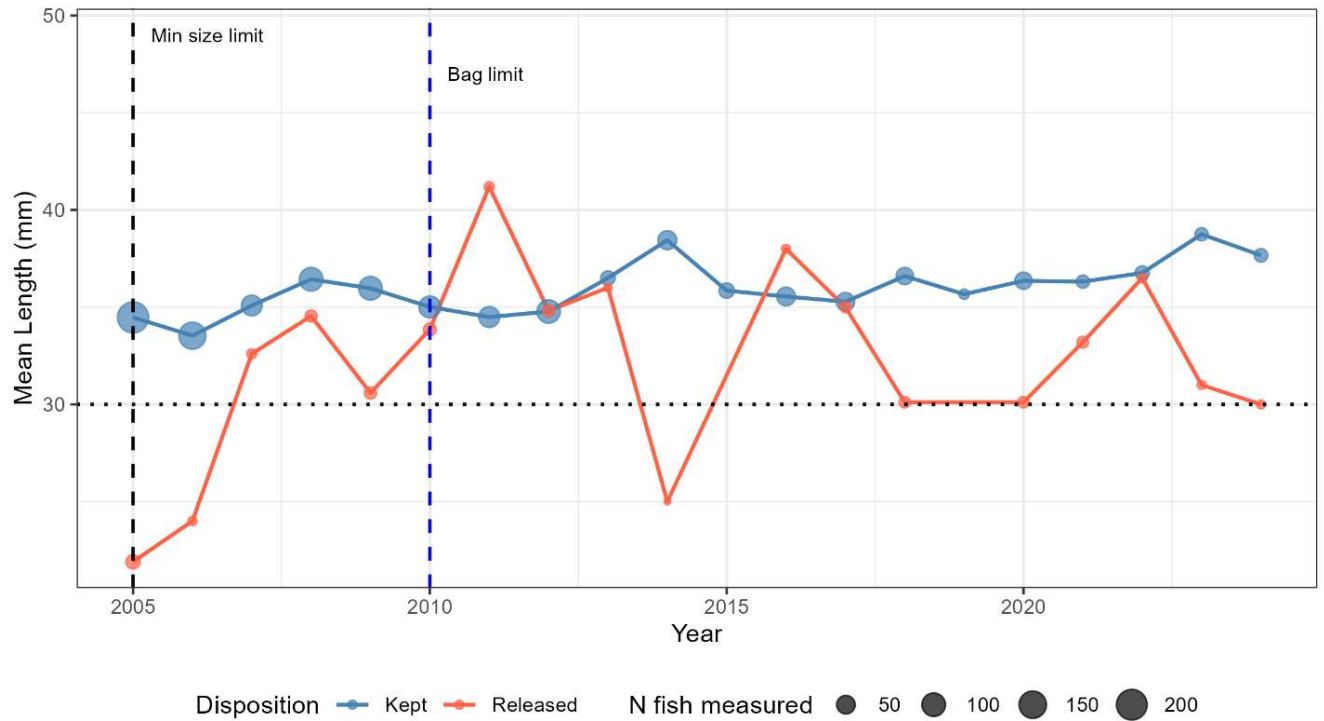


Figure 8. Mean length of kept vs. released winter flounder by year. The vertical black dashed line denotes when the minimum size limit (12-inches) was implemented, and the vertical blue dashed line denotes when the 2 fish bag limit was implemented. The size of each individual data point denotes the approximate number of fish measured. Note the small sample size of released fish across all years.

Proportion of Legal-Sized Winter Flounder That Were Released, by Year

Point size proportional to number of legal fish measured

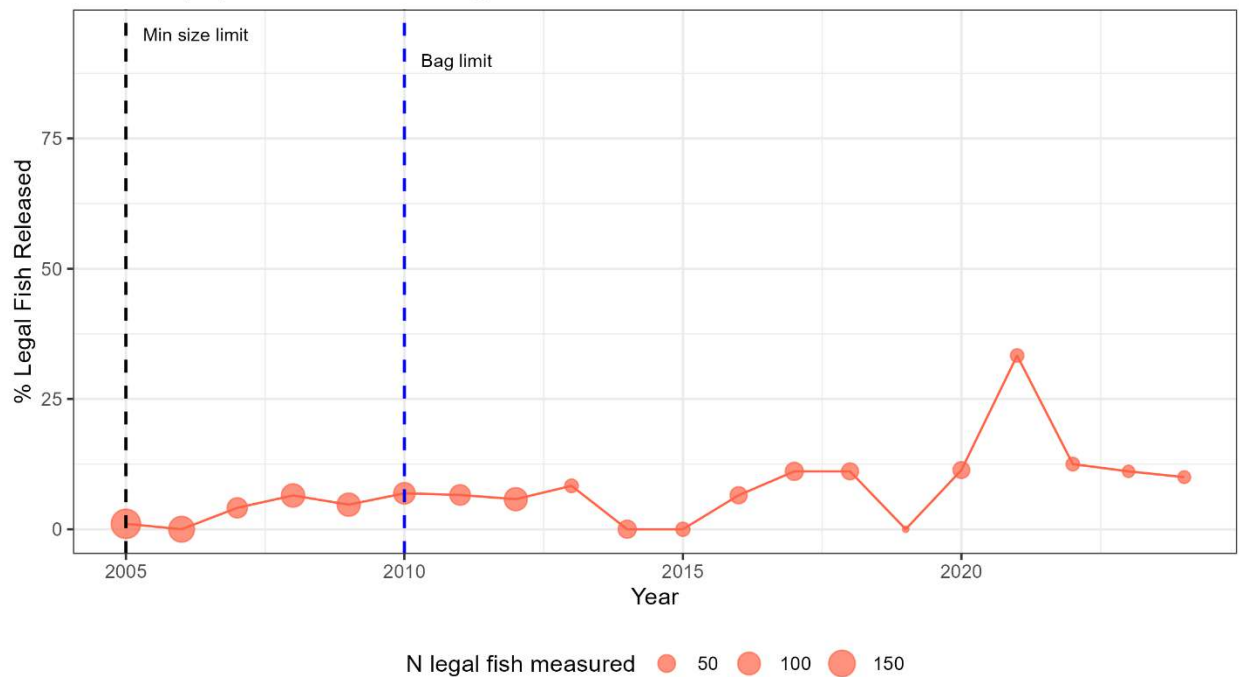


Figure 9. Percentage of legal-sized fish (≥ 12 inches) that were released rather than kept by year. The vertical black dashed line denotes when the minimum size limit (12-inches) was implemented, and the vertical blue dashed line denotes when the 2 fish bag limit was implemented. The size of each individual data point denotes the number of fish measured. A high value suggests anglers were already catching legal fish but releasing them, which is directly relevant to bag limit liberalization. If the bag limit were increased, some of these fish could be retained.