Management Track Assessment of American plaice (*Hippoglossoides platessoides*) Fall 2026



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1 Executive Summary

This 2026 Management Track (MT) assessment of American plaice (*Hippoglossoides platessoides*) builds upon the prior 2024 MT assessment (Hart 2024). In 2024 the stock was not overfished and overfishing was not occurring (Hart 2024). This assessment updates commercial fishery catch data, indices of abundance, the analytical WHAM assessment model, and reference points through 2025. Additionally, age composition data were incorporated from 2018 - 2025 to address high priority research recommendations from the prior assessment and short-term projections were updated through 2031.

State of stock

Based on this MT assessment, the American plaice (*Hippoglossoides platessoides*) stock is not overfished and overfishing is not occurring (Figures 1 - 2). Retrospective adjustments were not made to the model results because the retrospective pattern was minor. Spawning stock biomass (SSB) in 2025 was estimated to be 17,169 (mt) which is 135% of the biomass target ($SSB_{MSY_{proxy}}$ = 12,711; Figure 1). The 2025 fully selected fishing mortality was estimated to be 0.096 which is 23% of the overfishing threshold proxy ($F_{MSY_{proxy}}$ = 0.426; Figure 2).

Projections

Short term projections of biomass and catch were conducted in WHAM (Stock and Miller 2021) using the standard projection approach. Following the 2021 research track (RT) decisions, projections used a terminal 5 year average of the maturity ogive, selectivity, and weights-at-age. The NEFMC Groundfish Plan Development Team provided an interim catch estimate for 2026, and fishing was projected at $F_{MSY_{proxy}}$ for 2027-2031. Retrospective adjustments were not applied in projections because the retrospecitve pattern was minor.

Special comments

1. What are the most important sources of uncertainty in this stock assessment? Explain, and describe qualitatively how they affect the assessment results (such as estimates of biomass, F, recruitment, and population projections).

Survey selectivity is the most important source of uncertainty in this stock assessment. Variable survey selectivity estimates-at-age across model runs contributed to differing fit and scaling of key model results (e.g. F, SSB). Sensitivity analyses suggested that ages with large confidence intervals may overestimate uncertainty and that survey selectivity-at-age point estimates in the candidate model all fall within a more narrow range of likely values. Recruitment is another important source of uncertainty for American plaice. Surface and bottom temperatures in the terminal two years of the time series (2024-2025) were the lowest in recent years and were nearer the optimal spawning temperature range reported in the literature (Behan et al. 2022), but corresponded with the lowest recruitment on record (2024). This record low recruitment could be influenced by data availability as survey and fleet selectivity for ages 1-2 is generally low and reduced survey sampling in fall 2025 further limits the information available to estimate the size of this cohort. Declining SSB across both of these years may also impact recruitment trends, but the assessment estimated larger recruitment in 2025 at lower SSB compared to 2024. This suggests that low SSB alone does not fully account for the record low 2024 recruitment and there is still uncertainty in other ecosystem drivers of recruitment.

2. Does this assessment model have a retrospective pattern? If so, is the pattern minor, or major? (A major retrospective pattern occurs when the adjusted SSB or F_Full lies outside of the approximate joint confidence region for SSB and F_Full).

The 7-year Mohn's ρ relative to SSB, was 0.076 in the 2024 MT assessment and was 0.127 in 2025.The 7-year Mohn's ρ relative to F, was -0.05 in the 2024 MT assessment and was -0.112 in 2025. The retrospective pattern was considered minor in this assessment because the 2025 ρ-adjusted estimates of SSB (SSB_{ρ} = 15236) and F (F_{ρ} = 0.109) were within the approximate 90% confidence intervals around SSB (12787 - 23053) and F (0.069 - 0.134) respectively. Therefore, no retrospective adjustment of spawning stock biomass or fishing mortality in 2025 was required.

3. Based on this stock assessment, are population projections well determined or uncertain? If this stock is in a

rebuilding plan, how do the projections compare to the rebuilding schedule? Current population estimates fall within the confidence bounds of the 2024 MT projections for the 2024 bridge year based on estimated catch. Alignment between prior projections based on fishing mortality and current population estimates were confounded by changes in model scaling. The current estimate for SSB in 2025 (17169 mt) fell just outside of the 2024 MT projection confidence intervals for 2025 (17217-39241 mt), but there is a high degree of overlap in projection confidence bounds between the prior projections and current assessment estimates (Figure 6). This suggests that projections in the bridge year are most consistent with subsequent population estimates, but projections are less robust to changes in model scaling and are also less certain over longer time frames due to increased reliance on model projected recruits (Figure 7).

4. Describe any changes that were made to the current stock assessment, beyond incorporating additional years of data and the effect these changes had on the assessment and stock status.

The largest change to this assessment was the incorporation of commercial age composition and weight-at-age data from 2018-2023 which had been excluded from the 2024 Management Track assessment due to a data processing issue that could not be fully resolved in advance of the 2024 peer review. Incorporating commercial age composition and weight-at-age in terminal years had minimal impacts on model fit, but estimated survey selectivity-at-age generally increased for the oldest age classes. Selectivity estimates influence abundance-at-age which in turn likely contributed to changes in the scale of fishing mortality and spawning stock biomass estimates (on average 21.1% and -7.2% difference from the 2024 assessment respectively). Weight-at-age for spawning age fish tended to be slightly lower than the recent average used in the 2024 Management Track assessment, which also likely contributed to small downward changes in the scale of SSB estimates in this assessment. The minor positive retrospective pattern for SSB and minor negative retrospective pattern for fishing mortality also contributes to this change in scale. Following advice published after the 2024 Management Track (Li et al. 2026), the lognormal adjustment was turned off. This change also had a minimal impact on model fit but scaled SSB and recruitment downward (on average -9.6% and -20.5% difference respectively), and scaled fishing mortality upward (on average 9.9%). The version of WHAM software (2.1.0.9007) used in the 2026 Management Track was updated to make a wider range of features and diagnostics available for consideration, but this software update was found to have no impact on model results. Two additional years of data (2024-2025) were incorporated into this assessment and the Catch Accounting and Monitoring System (CAMS) was used to update total catch data for all years where discard estimates were available for American plaice (2022-2025).

5. If the stock status has changed a lot since the previous assessment, explain why this occurred.

The stock status has not changed since the last stock assessment.

6. Provide qualitative statements describing the condition of the stock that relate to stock status.

The stock has recovered from an all time low spawning stock biomass in the late 1980s and has recently been above the SSB_{target} for more than a decade (Figure 1). SSB has declined over the terminal two years of the assessment, tracking decreasing survey trends in both the spring (2024-2025) and fall (2023-2025) indices. Recruitment is a key uncertainty for this stock but was estimated at a time series low in 2024 and increased in 2025. Exploitation rate was high through the mid-1990s, has been below the $F_{threshold}$ since the late 2010s, and has shown slight but steady increases in recent years (Figure 2) following increases in total catch.

7. Indicate what data or studies are currently lacking and which would be needed most to improve this stock assessment in the future.

Persistent patterns in fleet and fall survey one-step-ahead residuals in this and the prior assessment do not point to big issues in model fit (observed - predicted residuals did not reflect these patterns) but could indicate age- or time-varying interactions that are not fully resolved in the model. Further investigation into drivers of age-specific selectivity and distribution could be informative to resolve these residual patterns. This assessment may also benefit from further exploration of the mechanisms driving recent low recruitment because recent trends potentially contradict the current hypothesis that cooler temperatures improve spawning conditions.

8. Are there other important issues?

Survey sampling interruptions reduce the data available to track changes in poplulations over time and may be particularly influential when changes occur in terminal years. Here, the number of stations sampled in fall 2025

was roughly half that sampled in 2024. However, spatial coverage was sufficient to pick up seasonal movements for American plaice and the model did not fit the aggregate index overly closely so in this case sampling interruptions appear to have limited impacts. Survey selectivity estimates were uncertain for some ages. Although sensitivity runs provided support for the point estimates used in this Management Track assessment, the stability and magnitude of these estimates should be monitored in the future and new data evaluated for use in improving these estimates.

2 Acknowledgements

Many thanks to data collectors and provisioners, including industy vessels, seafood dealers, at-sea and shoreside sampling programs and agers. Thanks also to peer reviewers and community members who have provided feedback to guide research recommendations for this stock.

This document was produced using the R package asar (Schiano et al. 2026), which is free to use and publicly available on GitHub.

3 References

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4 Tables

Table 1: Recent catch (mt) for American plaice.

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Commercial Landings	1,231	1,009	1,134	1,087	970	597	631	699	1,168	1,371	1,513
Commercial Discards	86	108	102	109	78	74	71	57	74	65	51
Total Catch	1,317	1,117	1,235	1,196	1,048	671	702	756	1,242	1,436	1,564

Table 2: Model results for the 2026 Management Track assessment. Spawning stock biomass reported in (mt), recruitment is in (000s), and F_{full} reflects the fishing mortality on fully selected ages (6-9).

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Spawning Stock Biomass	33,204	40,571	43,962	39,307	24,660	19,003	13,930	15,653	21,966	21,473	17,169
F_{Full}	0.046	0.034	0.033	0.034	0.045	0.038	0.060	0.047	0.054	0.072	0.096
Recruits	22,165	47,319	11,948	48,920	31,538	40,894	45,050	37,294	20,696	8,103	32,473

Table 3: Comparison of analytical reference points estimated in the previous (2024) and current (2026) Management Track assessments. An $F_{40\%}$ proxy was used for the overfishing threshold. Mean recruitment was calculated over (1980-2025) and estimates are reported with 90% confidence bounds.

	2024	2026
$F_{MSYproxy}$	0.52	0.43 (0.37 - 0.49)
$SSB_{MSYproxy}$ (mt)	12963	12711 (10267 - 15737)
MSY_{proxy} (mt)	5090	4700 (3792 - 5826)
Ovefishing	overfishing is not occurring	overfishing is not occurring
Overfished	not overfished	not overfished
Mean recruits (age 1) (000s)	59,784	44,522

Table 4: Short term projections of total fishery catch and spawning stock biomass (and 90% confidence intervals) for American plaice based on a harvest scenario of fishing at $F_{MSYproxy}$ between 2027 and 2031. Catch in 2026 was assumed to be 1,442 (mt).

Year	Catch (mt)	SSB (mt)	F_{full}
2026	1442	13154 (9212 - 18784)	0.115
2027	4219	11354 (7656 - 16839)	0.426
2028	3638	10123 (6438 - 15916)	0.426
2029	3691	10168 (5868 - 17619)	0.426
2030	3830	10426 (5783 - 18796)	0.426
2031	3916	10619 (5830 - 19342)	0.426

5 Figures

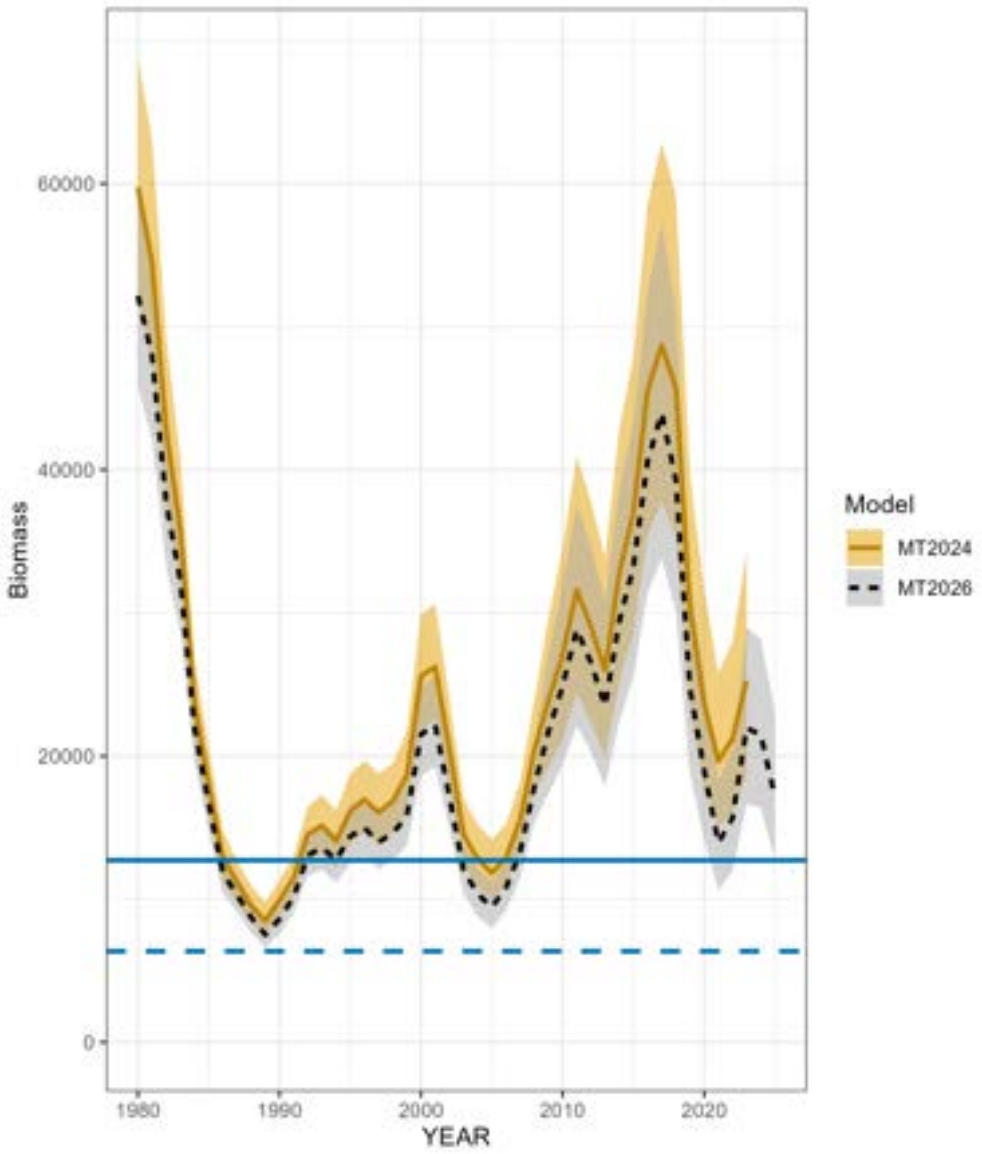

Figure 1: Trends in spawning stock biomass of American plaice between 1980 and 2025 for the current (MT2026) and prior (MT2024) Management Track assessments with 90% confidence intervals. The corresponding 2026 Management Track SSB_{target} ($SSB_{MSYproxy}$; solid horizontal blue line) and $SSB_{threshold}$ (1/2 $SSB_{MSYproxy}$; dashed horizontal blue line) are shown.

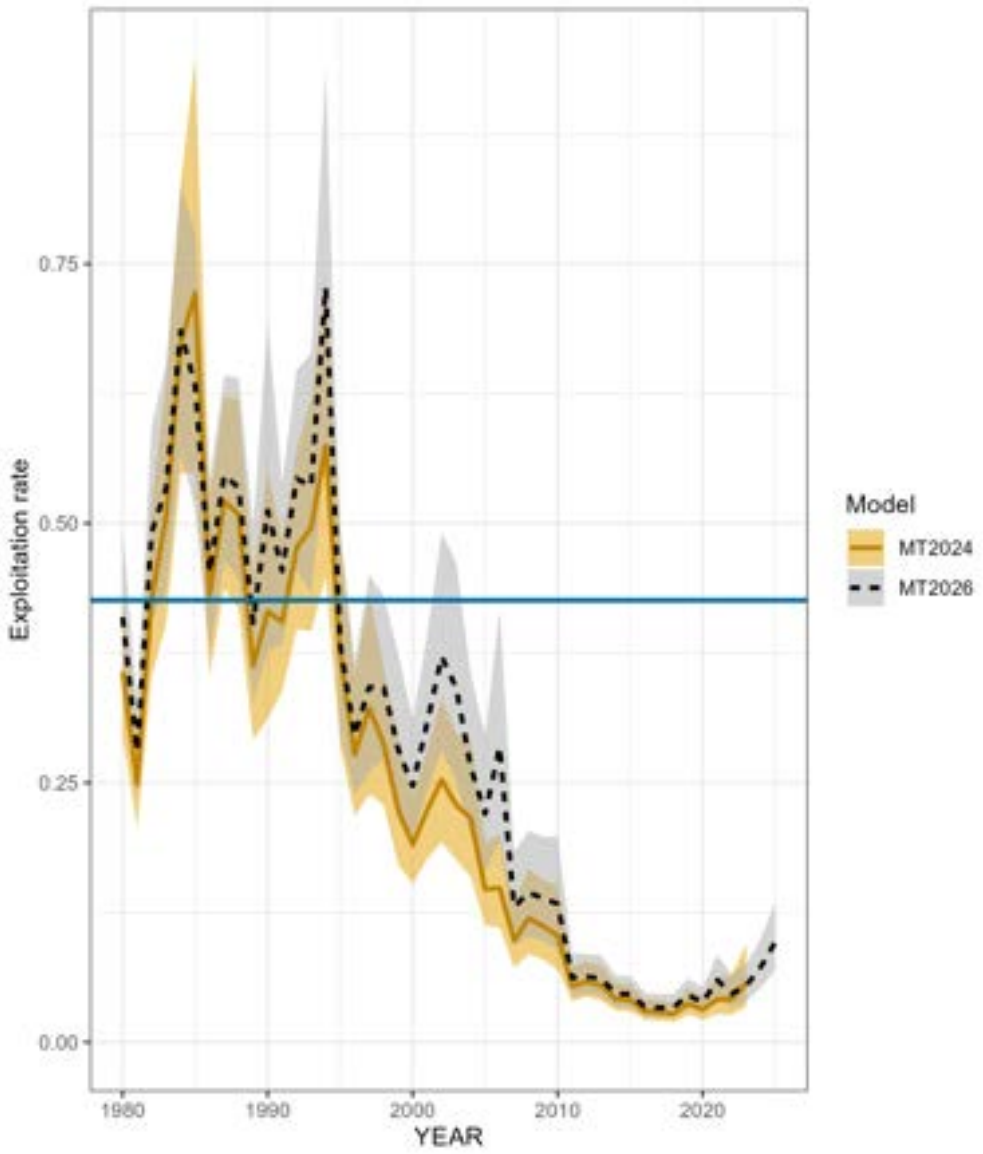

Figure 2: Trends in fully selected fishing mortality (F_{full}) of American plaice between 1980 and 2025 for the current (MT2026) and prior (MT2024) Management Track assessments with 90% confidence intervals. The corresponding 2026 Management Track $F_{threshold}$ ($F_{MSYproxy}$; solid horizontal blue line) is shown.

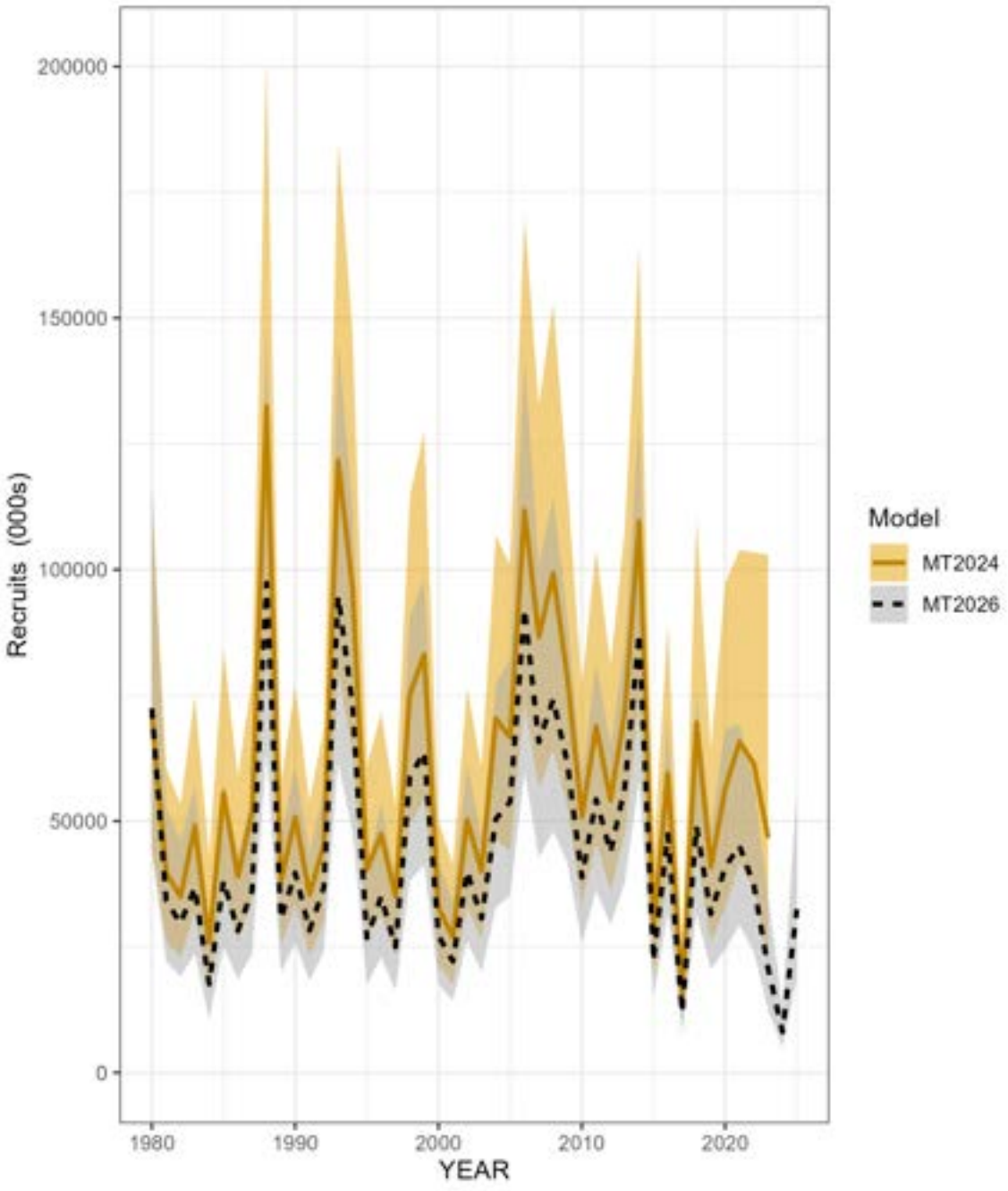

Figure 3: Trends in Recruits (000s) of American plaice between 1980 and 2025 for the current (MT2026) and prior (MT2024) Management Track assessments with 90% confidence intervals.

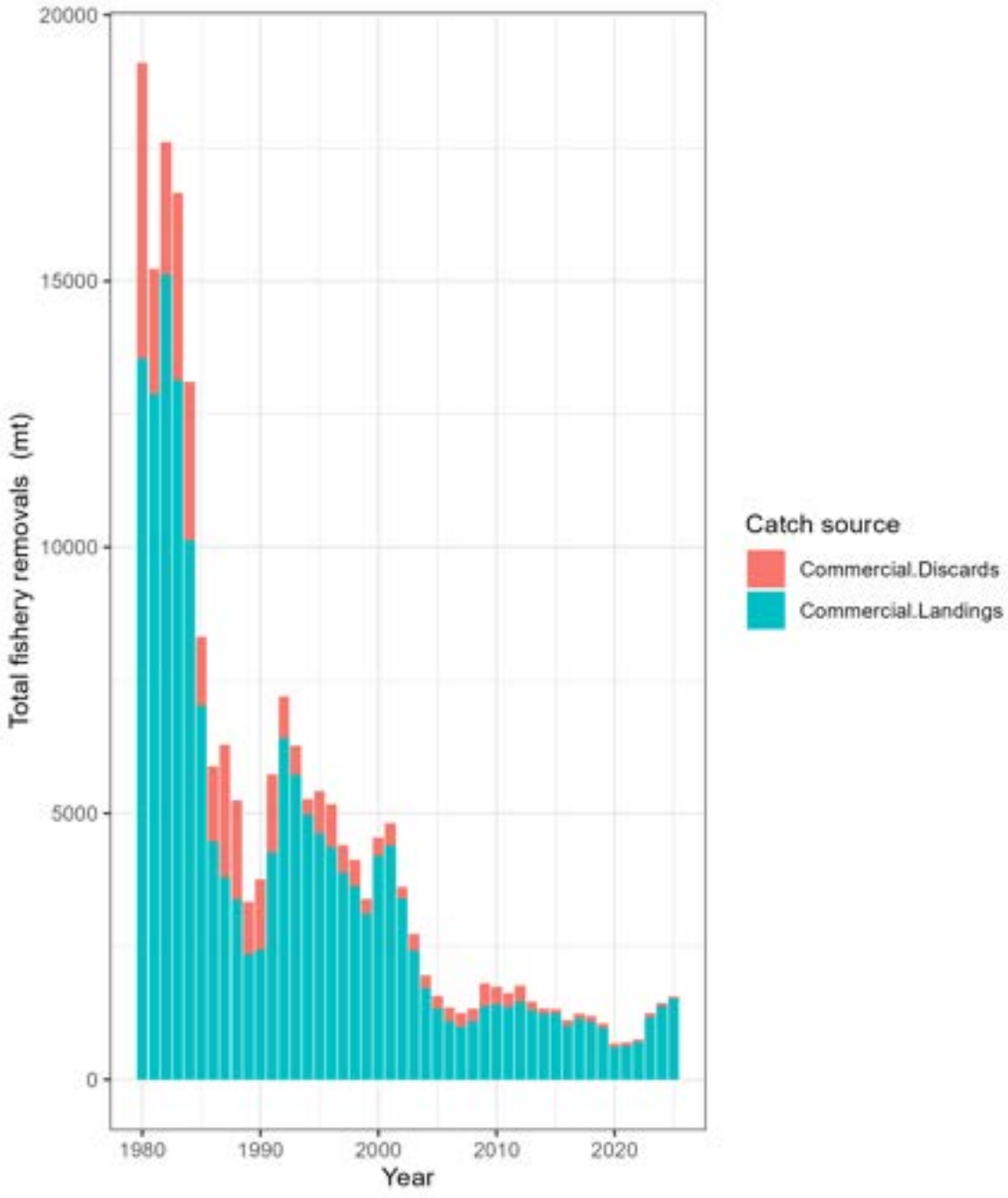

Figure 4: Total catch of American plaice between 1980 and 2025 by catch source.

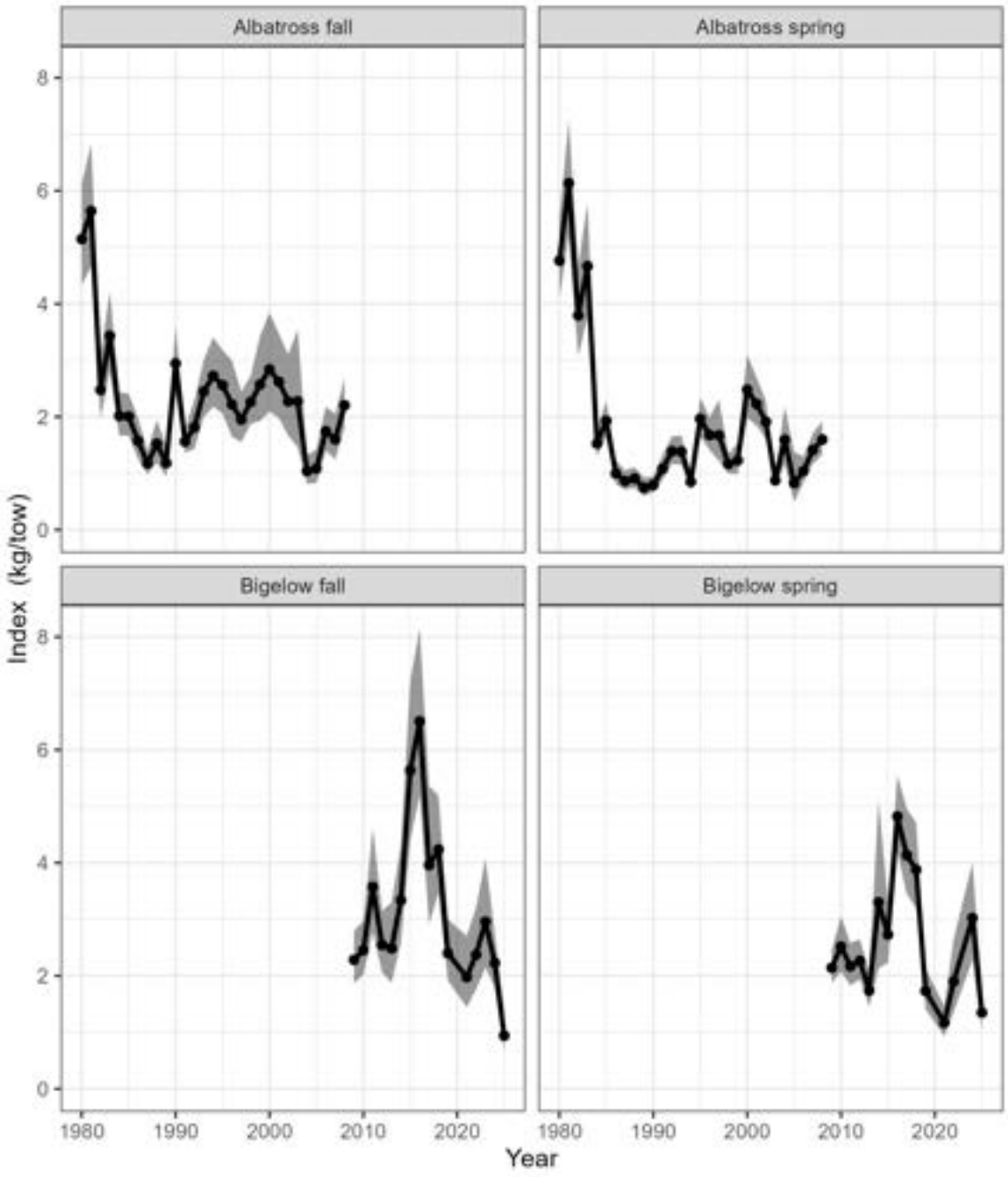

Figure 5: Indices for American plaice between 1980 and 2025 with 90% confidence intervals.

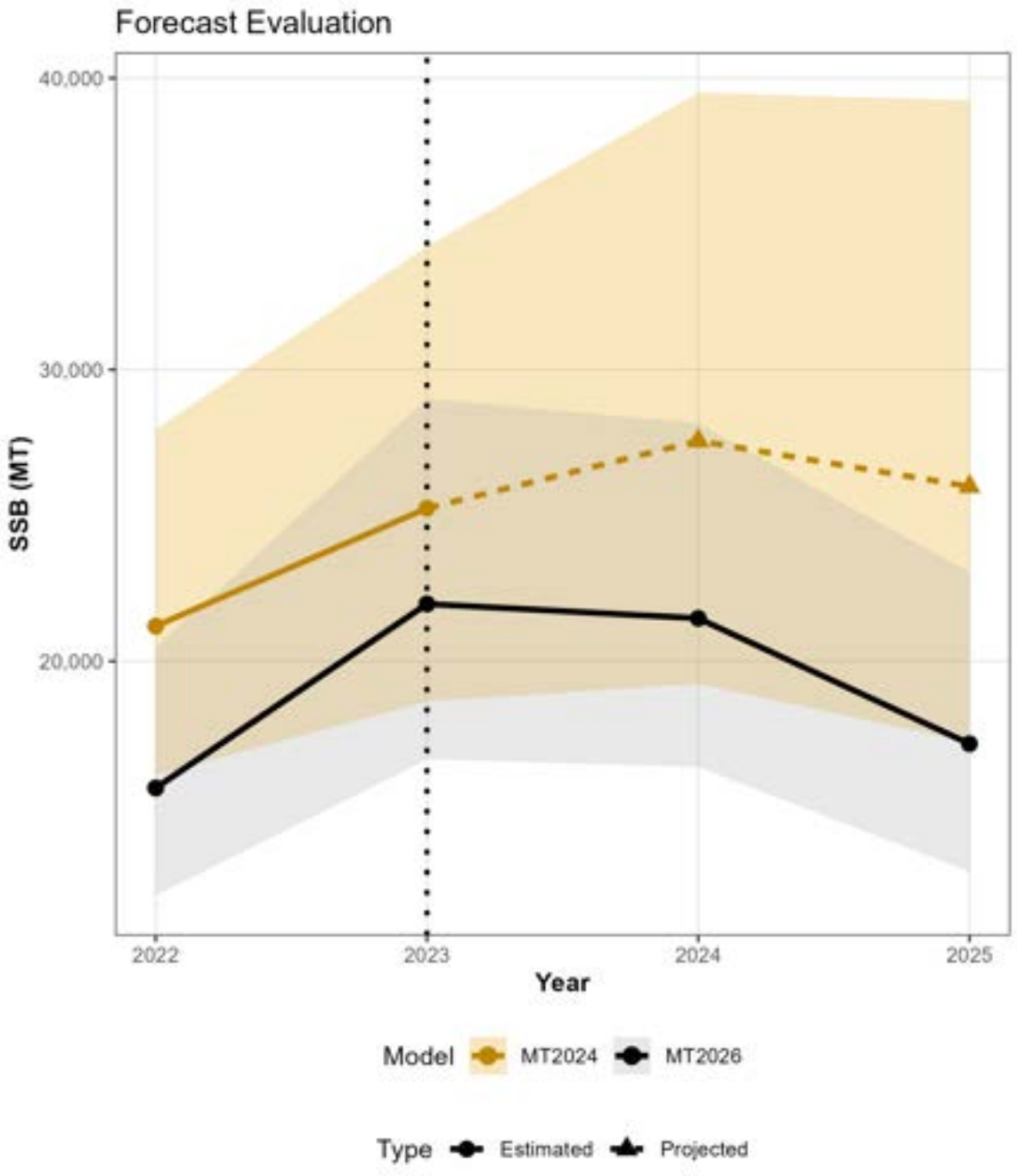

Figure 6: Forecast evaluation comparing projections from prior assessment (2024) to estimates from current assessment (2026). Dashed line denotes the projected years from the prior assessment and the vertical dotted line (black) represents the terminal year of the prior assessment (here, 2023).

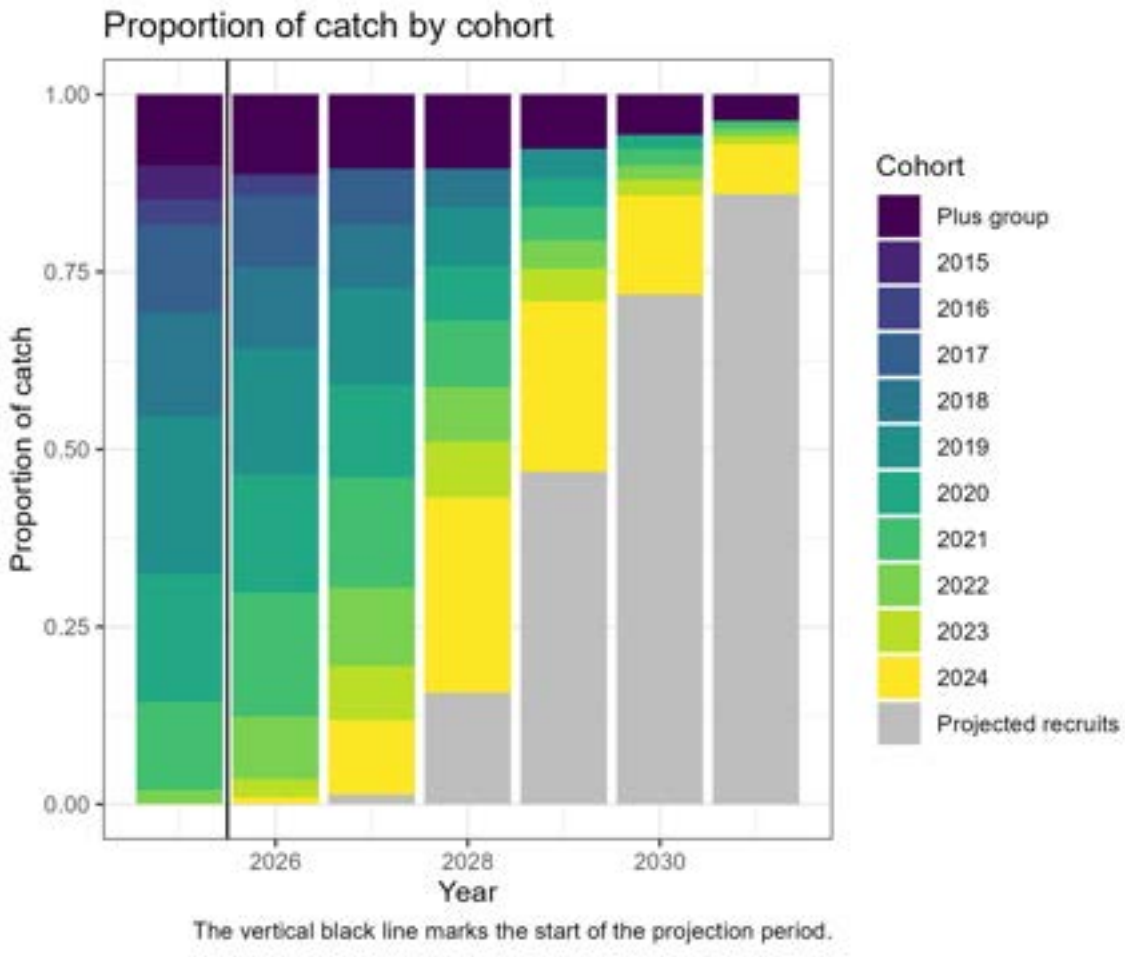

Figure 7: Proportion of catch by cohort for terminal year of the assessment (2025) and standard projection period (bridge year catch assumed for 1 year and 5 years projected at $F_{MSYproxy} = F_{40\%}$).