Summary and Discussion of the Ifremer Paper:

“Effects of increasing catch limits on northern and southern sea bass stocks”

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Background

L'Institut Français de Recherche pour l'Exploitation de la Mer ("**Ifremer**") is the French national research institute dedicated solely to knowledge about the ocean – it is the French equivalent of Cefas in the UK.

In December 2025, Ifremer published the paper "Effects of increased catch limits on northern and southern sea bass stocks", in French.

The Ifremer paper was commissioned by the French Directorate General for Maritime Affairs, Fisheries and Aquaculture - the French equivalent of Defra in the UK.

One of the authors, Dr Mathieu Woillez – a Senior Researcher at Ifremer, was also an author of the latest ICES Sea Bass Benchmark paper published in 2025.

The Ifremer paper covers both the Northern Sea Bass stock and the Bay of Biscay Sea Bass stock. This summary and discussion paper only covers the Northern Sea Bass stock.

Context

Ifremer noted:

- the June 2025 ICES advice, which recommended the Maximum Sustainable Yield[1] for 2026 should not exceed 5,180 tonnes, represents a 98% increase over the previous year's advice.
- this increase comes at a time when recruitment[2] is expected to decline in the years to come.
- there is a risk that the spawning stock biomass—currently estimated to be in good condition—could fall below the "Btrigger" and/or "Blim" reference points in the long term (2031).

Ifremer's objective was to define a precautionary approach to help decision-making on 2026 fishing quotas for the Celtic Sea, English Channel, North Sea sea bass stock by carrying out simulations of multi-year recommendations, to make it possible to anticipate the negative effects of poor recruitment in the future.

[1] The theoretical yield that kills the most bass over time.

[2] young bass joining the mature breeding stock

Approach

Ifremer modelled what would happen over 5 years (2026 to 2031) if sea bass fishing pressure was increased to:

a) the ICES FMSY recommendation; and

b) lower levels (5% to 60%).

This modelling was done for three recruitment scenarios:

1) assuming the stock/recruitment relationship in the ICES assessment model; and

2) assuming recruitment at the mean of the years 2021 – 2024.

3) assuming recruitment at the lowest value in the last 10 years.

Modelling Results

The key result highlighted by Ifremer was:

"It is important to note that the scenario of increased catches corresponding to the FMSY (ICES advice) will lead to a sharp decline in catch opportunities, regardless of recruitment assumptions, for the years 2027-2031. In the long term, this scenario does not allow for remaining above the "Btrigger" and "Blim" reference points in 2031."

The full results (including the impact on catches) are set out in the appendices.

Focusing only on the impact on the spawning stock:

Fishing at ICES FMSY – 98% increase in fishing pressure

- best recruitment scenario - the spawning stock falls sharply, and goes below "Btrigger[3]" in the period to 2031.

- average and lowest recruitment scenarios - the spawning stock falls sharply, and goes below "Blim[4]" in the period to 2031.

Fishing Pressure Increase of 5% - 60%

- best recruitment scenario - the spawning stock remains above Btrigger, but in all cases declines. Increases of 40% or more result in a 10% probability of the stock declining below Blim (i.e. in breach of the 5% probability rule).

[3] Btrigger is the stock level below which rebuilding is needed.

[4] Blim is the stock level below which the ability of the stock to rebuild itself is impaired. The stock may not recover.

- average recruitment scenario - only scenarios involving a 5% to 35% increase in catches allow the stock to remain above "Btrigger" in the period to 2031.

- lowest recruitment scenario - the spawning stock falls sharply, and only scenarios with an increase in catches of 5% to 25% allow the stock to remain above the "Btrigger" in the period to 2031.

Discussion

This Ifremer paper is now the best available science on the impact of different levels of fishing pressure in the five-year period 2026 to 2031.

It indicates that fishing at the ICES FMSY is not precautionary in the short term because, even using ICES' own recruitment assumption, it is estimated to drive the stock below Btrigger, so that a fresh programme of stock rebuilding would be required.

And if recruitment were only at the average of the levels in 2021 – 2024, fishing at ICES FMSY is estimated to drive the stock below Blim, a disastrous result.

With the bass stock having only recently recovered, the last thing fishers want is for the stock to be fished down again and be put back into emergency measures.

These results illustrate some important points:

- ICES' FMSY is not precautionary or sustainable in the short to medium term.
- ICES' derivation of FMSY is based on certain modelling assumptions and these assumptions, such as recruitment, may not hold true in the real world.
- ICES FMSY is aimed at delivering the stock to a target equilibrium level in the long term (after a 150 year "burn-in" period). However, in the real world we are much more interested in what is likely to happen to the stock in the short and medium term.
- The ICES assessments do not tell us what might happen in the short and medium term if we follow the ICES FMSY advice. In this case, the ICES assessment failed to warn us of major risks.
- It appears that, when identifying ICES FMSY, ICES only checks that the stock will be above Blim once the stock level reaches an equilibrium. It does not appear to check that the stock remains above Blim and Btrigger before it reaches the target equilibrium level. In the real world, it is necessary to keep the stock at a safe level at all times.

Conclusion

The Ifremer paper is an important reality check on the short-term consequences of following the ICES FMSY advice, particularly where recruitment may be worse than is assumed in ICES' model.

We urge fishery managers to pay close attention to Ifremer's conclusions when setting fishing opportunities for 2027 onwards, particularly in light of the large increases in fishing pressure in 2026, the consequences of which are currently unknown.

Following the ICES FMSY advice for 2027 would be a serious error, exposing the recently recovered bass fishery to unnecessary risk.

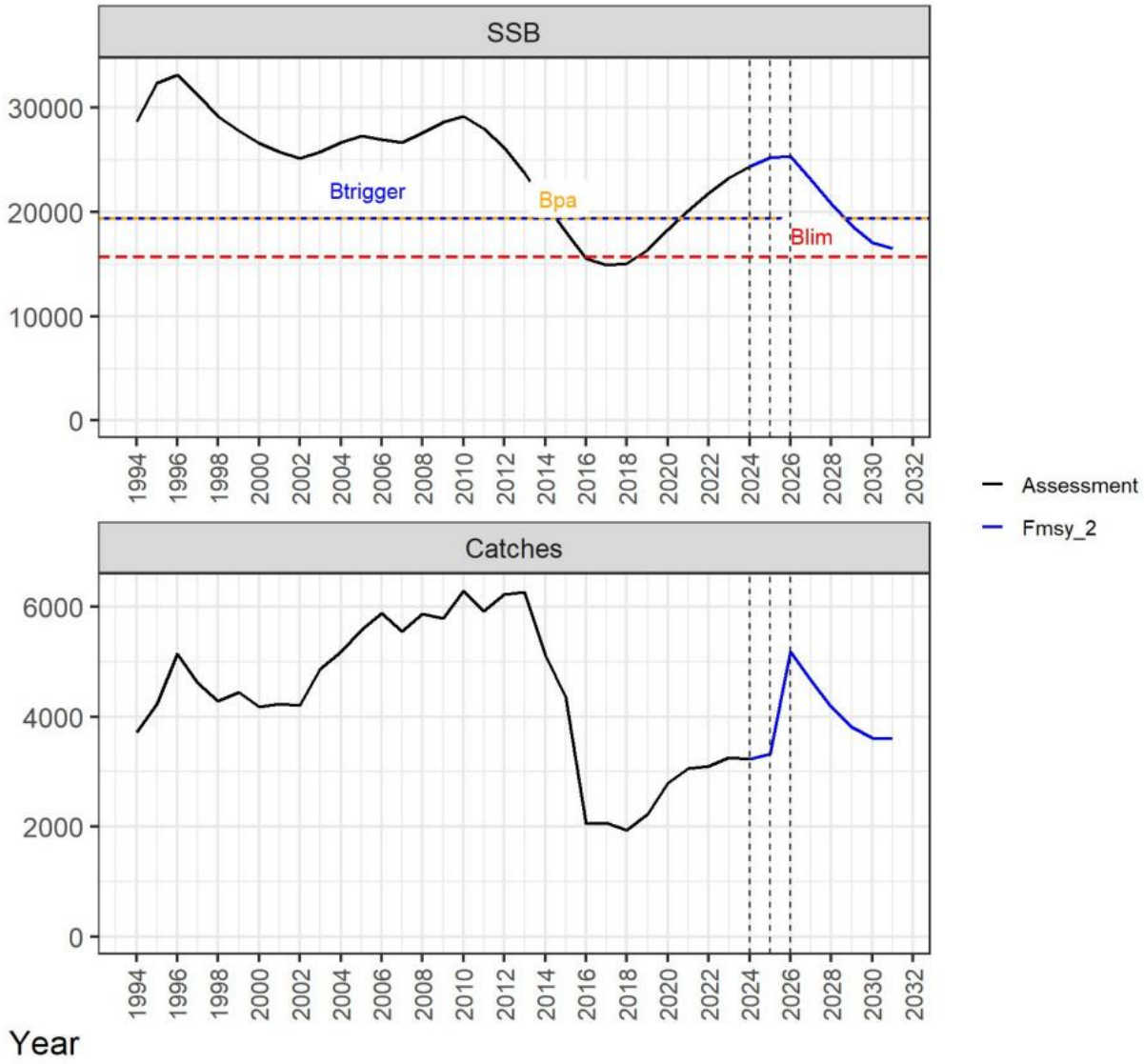
Appendix 1

	Stock/recruitment relationship per the ICES assessment model	Recruitment at the mean of the years 2021 – 2024	Recruitment at the minimum value in the series
Fishing pressure: **ICES FMSY** **98% increase on 2025**	ICES FMSY does not allow the stock to remain above the "Btrigger" reference point in the period to 2031. Spawning biomass declines sharply. Catch opportunities decline sharply and systematically after the sharp rise in 2026.	ICES FMSY does not allow the stock to remain above the "Blim" reference point in the period to 2031. Spawning biomass declines sharply. There is no recovery of spawning biomass in the period to 2031. Catch opportunities decline sharply and systematically after the sharp rise in 2026.	ICES FMSY does not allow the stock to remain above the "Blim" reference point in the period to 2031. Spawning biomass declines sharply. There is no recovery of spawning biomass in the period to 2031. Catch opportunities decline sharply and systematically after the significant increase in 2026.
Fishing Pressure: **5% to 60% increase on 2025**	The stock remains above Btrigger but in all cases declines. Increases of 40% or more result in a 10% probability of the stock declining below Blim.	Only scenarios involving a 5% to 35% increase in catches allow the stock to remain above the "Btrigger" reference point in the period to 2031.	Only scenarios with an increase in catches of 5% to 25% allow the stock to remain above the "Btrigger" reference point in the period to 2031. Regardless of the increase scenario considered, spawning biomass falls sharply over the period 2026-2031.

Appendix 2

Fishing pressure: ICES FMSY - 98% increase on 2025

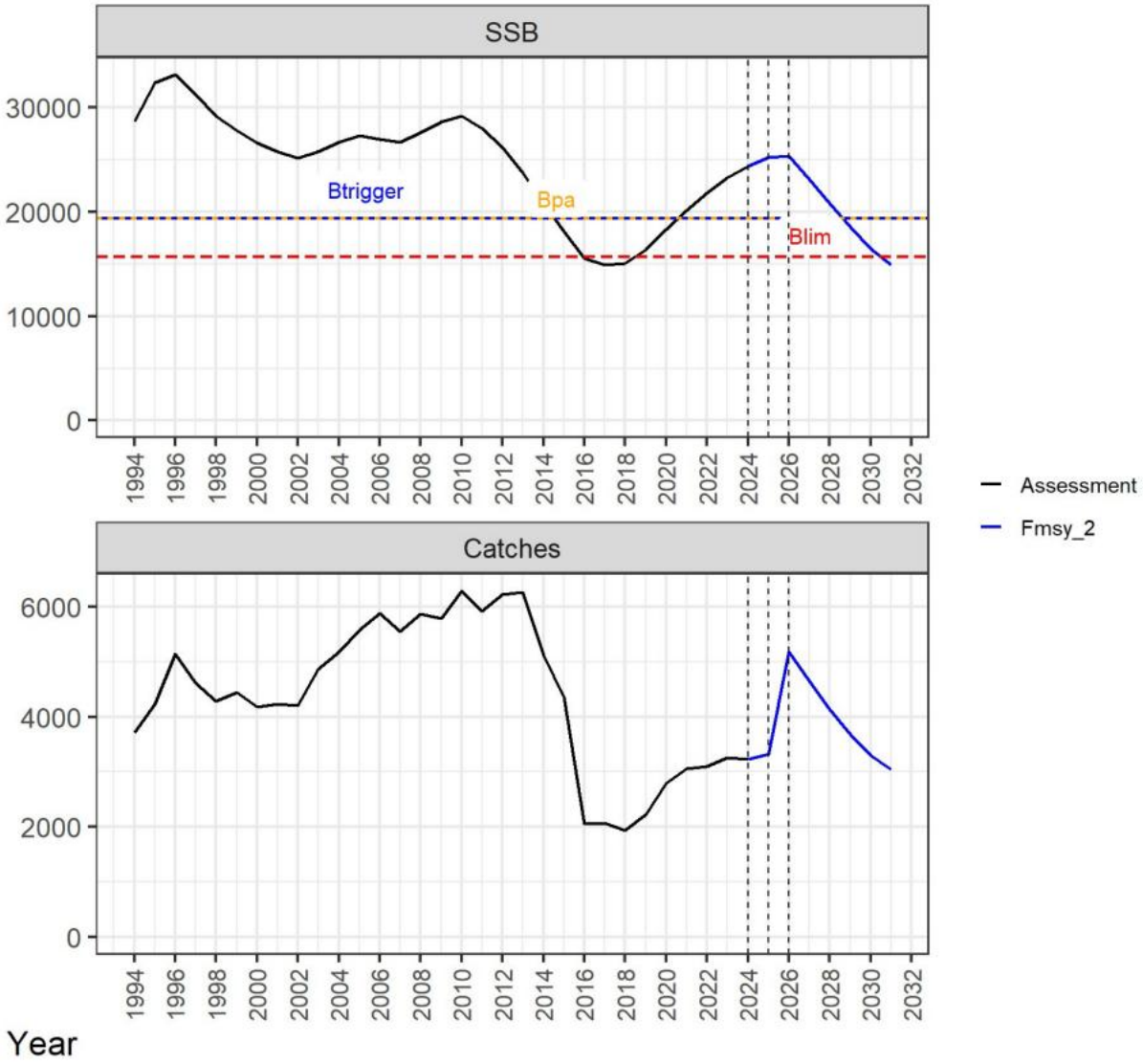
Stock/recruitment relationship per the ICES assessment model



Appendix 3

Fishing pressure: ICES FMSY - 98% increase on 2025

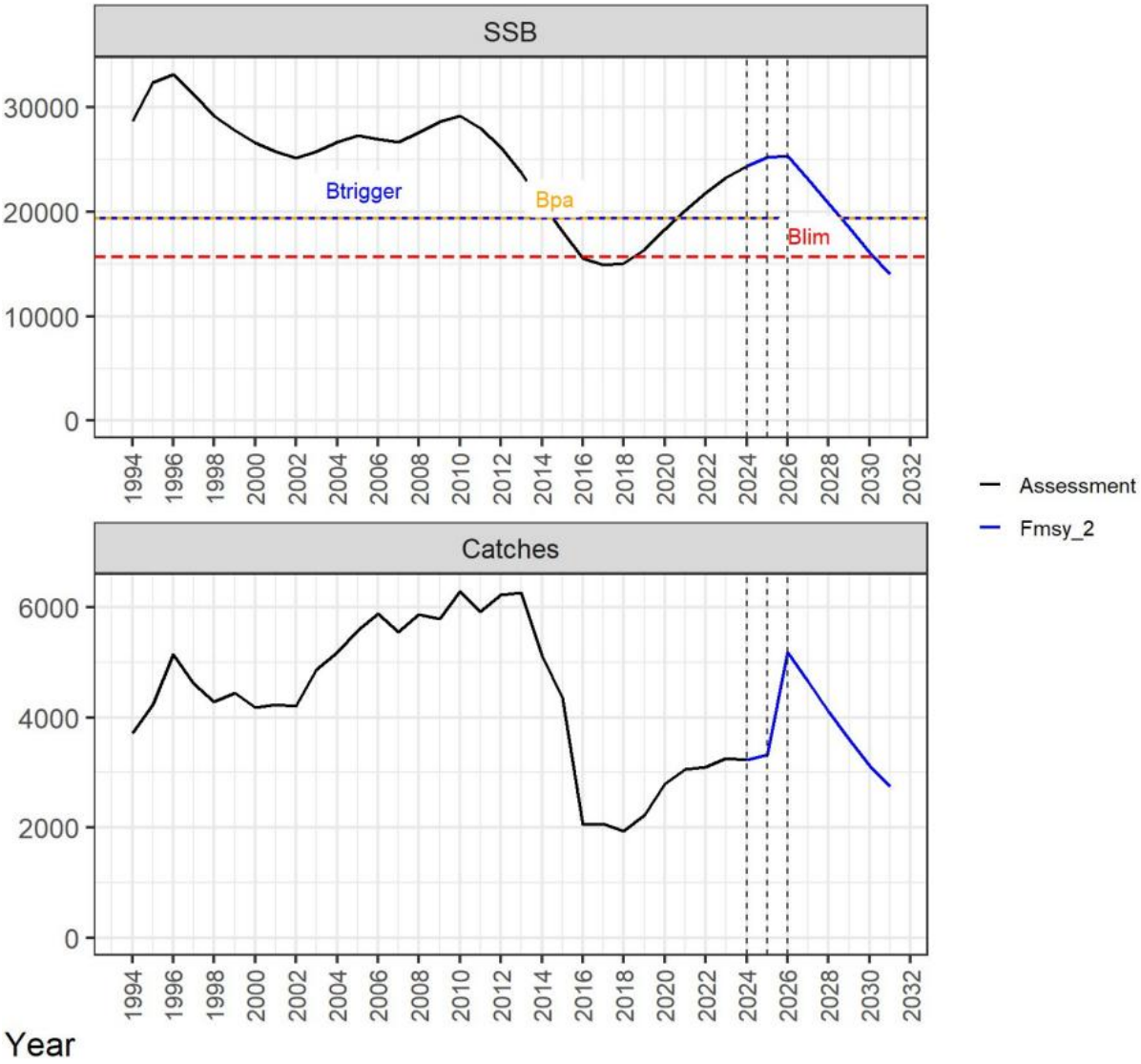
Recruitment at the mean of the years 2021 – 2024



Appendix 4

Fishing pressure: ICES FMSY - 98% increase on 2025

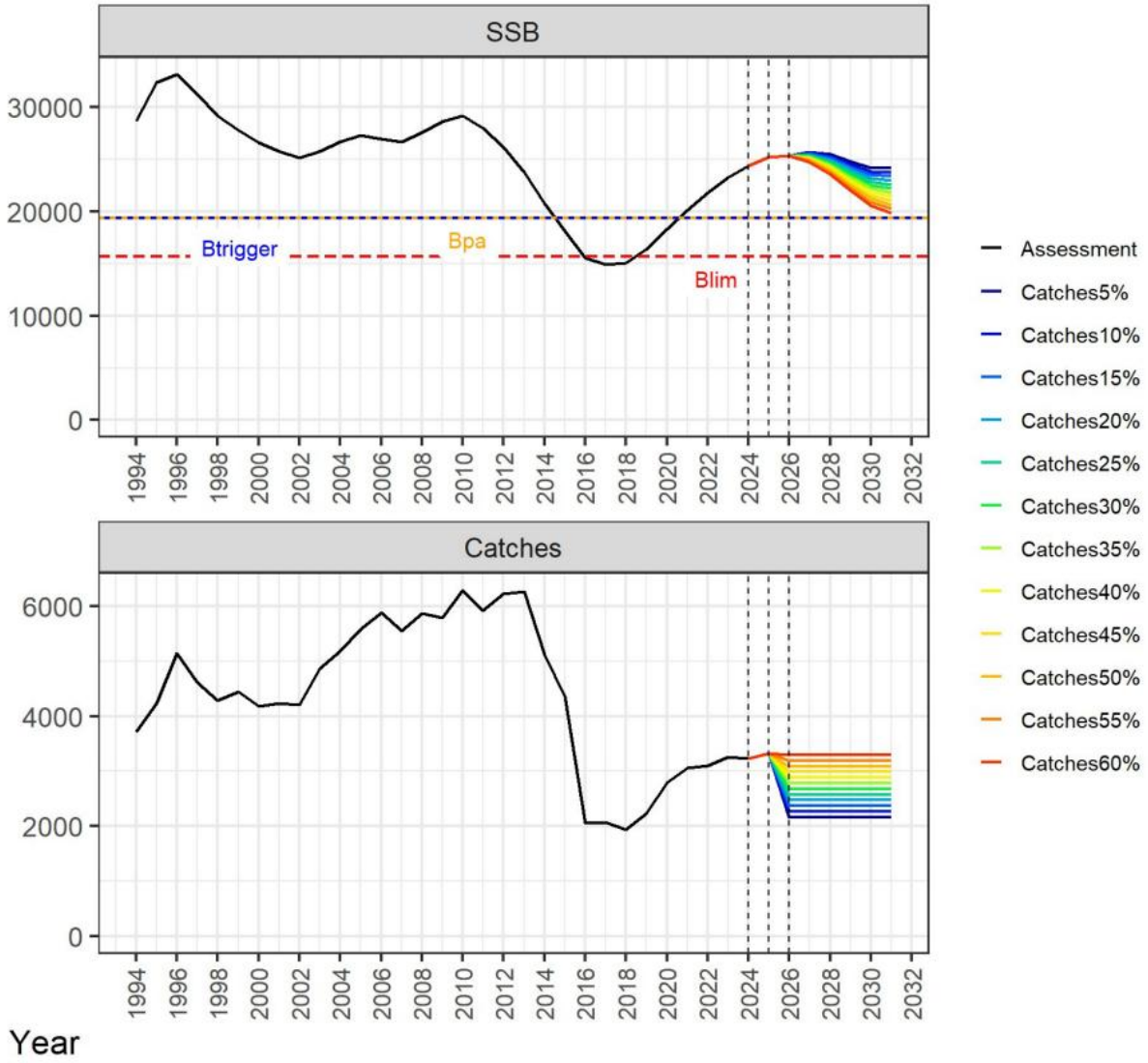
Recruitment at the minimum value in last 10 years



Appendix 5

Fishing pressure: 5% to 60% increase on 2025

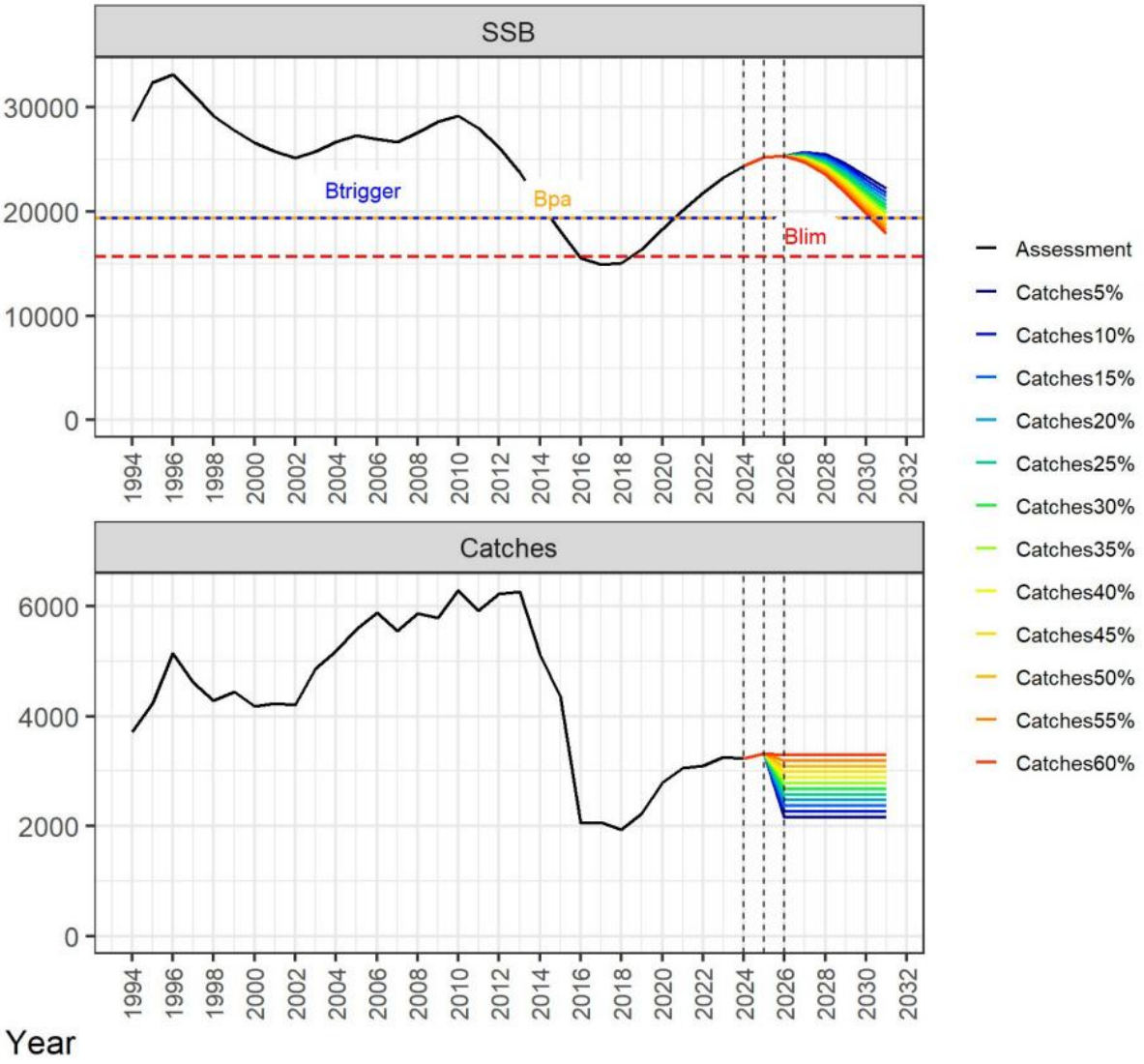
Stock/recruitment relationship per the ICES assessment model



Appendix 6

Fishing pressure: 5% to 60% increase on 2025

Recruitment at the mean of the years 2021 – 2024



Appendix 7

Fishing pressure: 5% to 60% increase on 2025

Recruitment at the minimum value in last 10 years