

# 2019-2021 Atlantic Herring OFL/ABC Recommendation

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# TOR and Meeting Materials

*Review information provided by the Council's Herring Plan Development Team, the results of recent Atlantic herring benchmark stock assessment (SAW 65, 2018), and using the acceptable biological catch (ABC) control rule selected by the Council in Amendment 8, recommend the overfishing level (OFL) and the ABCs for Atlantic herring for 2019-2021.*

1. SAW65 for Atlantic Herring, Executive Summary
2. Presentation slides, Dr. Jon Deroba
3. Herring PDT Report (Draft)
4. Presentation slides, Ms. Deirdre Boelke
5. SSC Final Report for Atlantic Herring Specifications (2016-2018), May 2015



# Timing Issues

- Benchmark Assessment final in August 2018 – biomass much lower than previously estimated.
- NOAA Fisheries reduced 2018 catch limits by about 50%.
- Council planned to develop specs for 2019-2021 this fall, with final action in December, and implementation summer 2019.
- Reduced 2018 catch limits would roll over (49,000 mt), but probability of overfishing and overfished very high.
- In September the Council requested NOAA Fisheries make an in-season adjustment to reduce catches again (2019 ABC of 21,266 mt and ACL of under 15,000 mt).

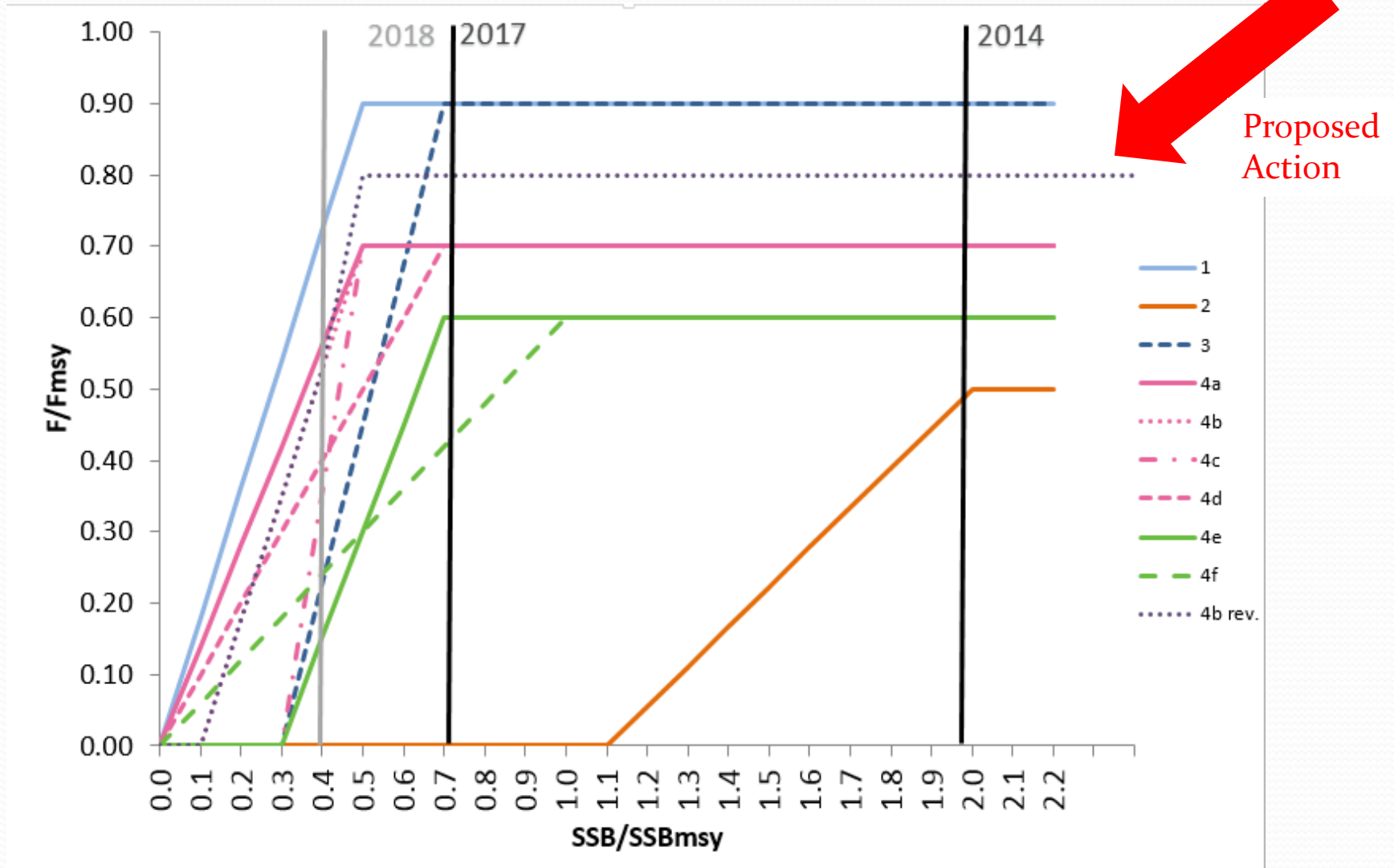


# Amendment 8

- Part 1 – Considered different methods to set overall catch limits (ABC control rule).
  - Almost a dozen alternatives considered
  - MSE developed (SSC overview in 2017).
- Part 2 – Considered measures to address potential localized depletion and user conflicts.
  - Almost a dozen alternatives considered.
  - Mostly prohibitions on the use of midwater trawl gear within 6nm east of Cape Cod to 50nm in all areas south of Area 1A.

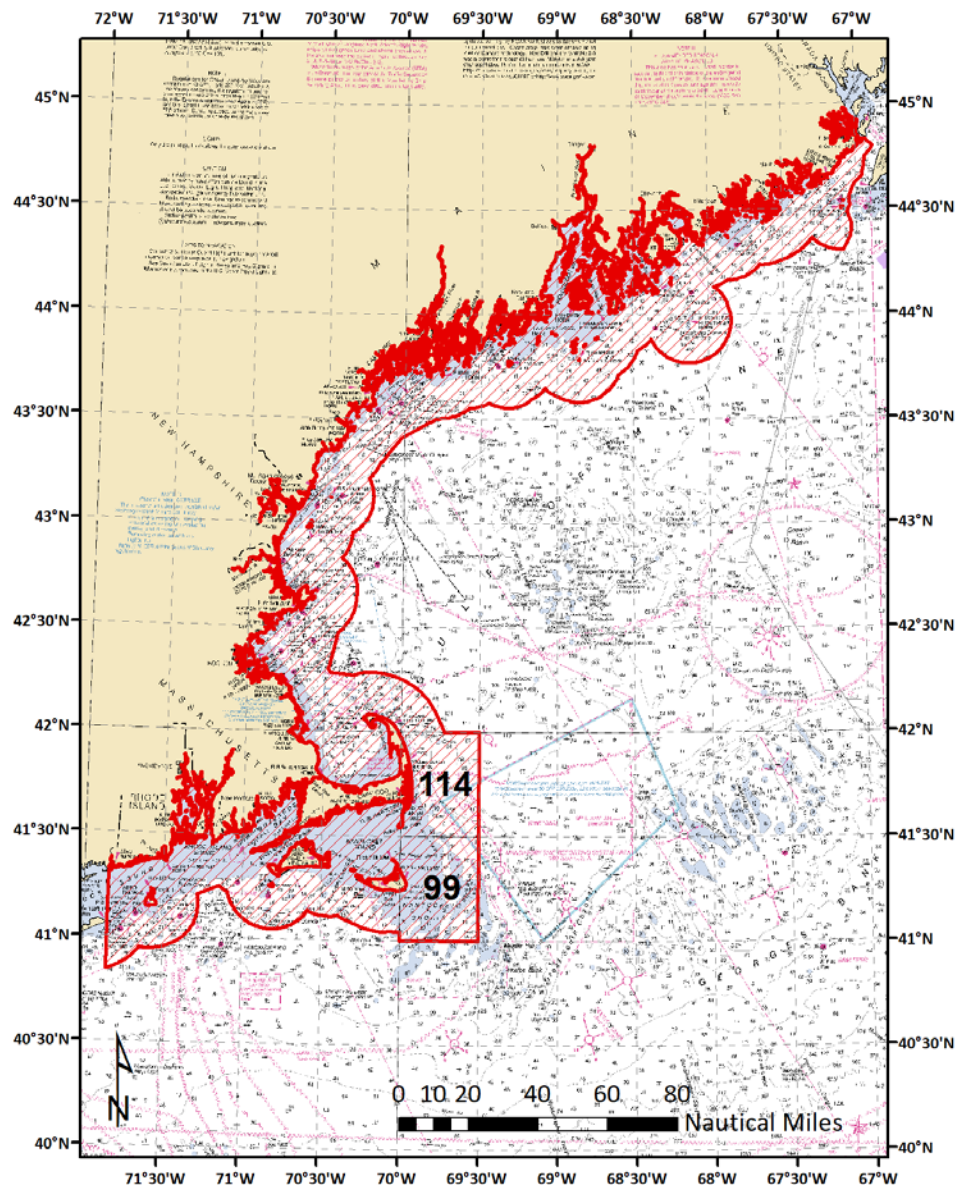


# Range of ABC CR Alternatives



“Localized depletion is a reduction of population size, independent of the overall status of the stock, over a relatively small spatial area as a result of intensive fishing.

12 nm buffer from Hague line to CT/RI border, extends to almost 20 nm east of Cape Cod.





# What's next for Amendment 8?

- PDT will finalize EIS and submit to NOAA Fisheries for review (next several months).
- Proposed and final rule this spring 2019.
- Potential effective date in May 2019.
- NOAA Fisheries expected to set specs for 2019.
- Council would develop specs for 2020-2021 (final action in June and effective before Jan 1, 2020).
- ABCs recommended at this meeting could be used in both actions.



# Part II

## Summary of PDT Report (Document #3)



# Table of Contents

## **1.0 Stock Assessment**

Trends, status, projections, uncertainty

## **2.0 Herring Specifications**

Previous scientific uncertainty buffers - Table 2, p. 11

## **3.0 OFL and ABC Projections**

Table 4 and Table 6

Summary of MSE results

## **4.0 Recent catch and specifications**



# Table 2

	2016-2018		
	2016	2017	2018
OFL	138,000	117,000	111,000
ABC	111,000	111,000	111,000
Total ACL/OY	104,800	104,800	104,800
Catch (U.S.)	63,515	48,147	N/A
Catch (NB Weir)	4,060	2,103	N/A
Stock Assessment	Operational Update Assessment, 2015		
Reference Points	SSBMSY 311,145; FMSY 0.24; MSY =77,247		
Status	Rebuilt (622,991); Not overfishing (0.16)		
Uncertainty	(1) 2011 Year Class; (2) Natural Mortality (M); Biological Reference Points		
Rationale	<ul style="list-style-type: none"> <li>• Constant catch is preferred approach of Council and industry.</li> <li>• Key attributes of stock and assessment have not changed, but 2011 year class will contribute significantly.</li> <li>• Retro has become worse, Mohn's rho correction applied.</li> <li>• P overfishing is 50% in year 3, but P overfished is zero.</li> <li>• Realized catch generally well below ABC. Catch to estimated consumption is 1:4.</li> </ul>		



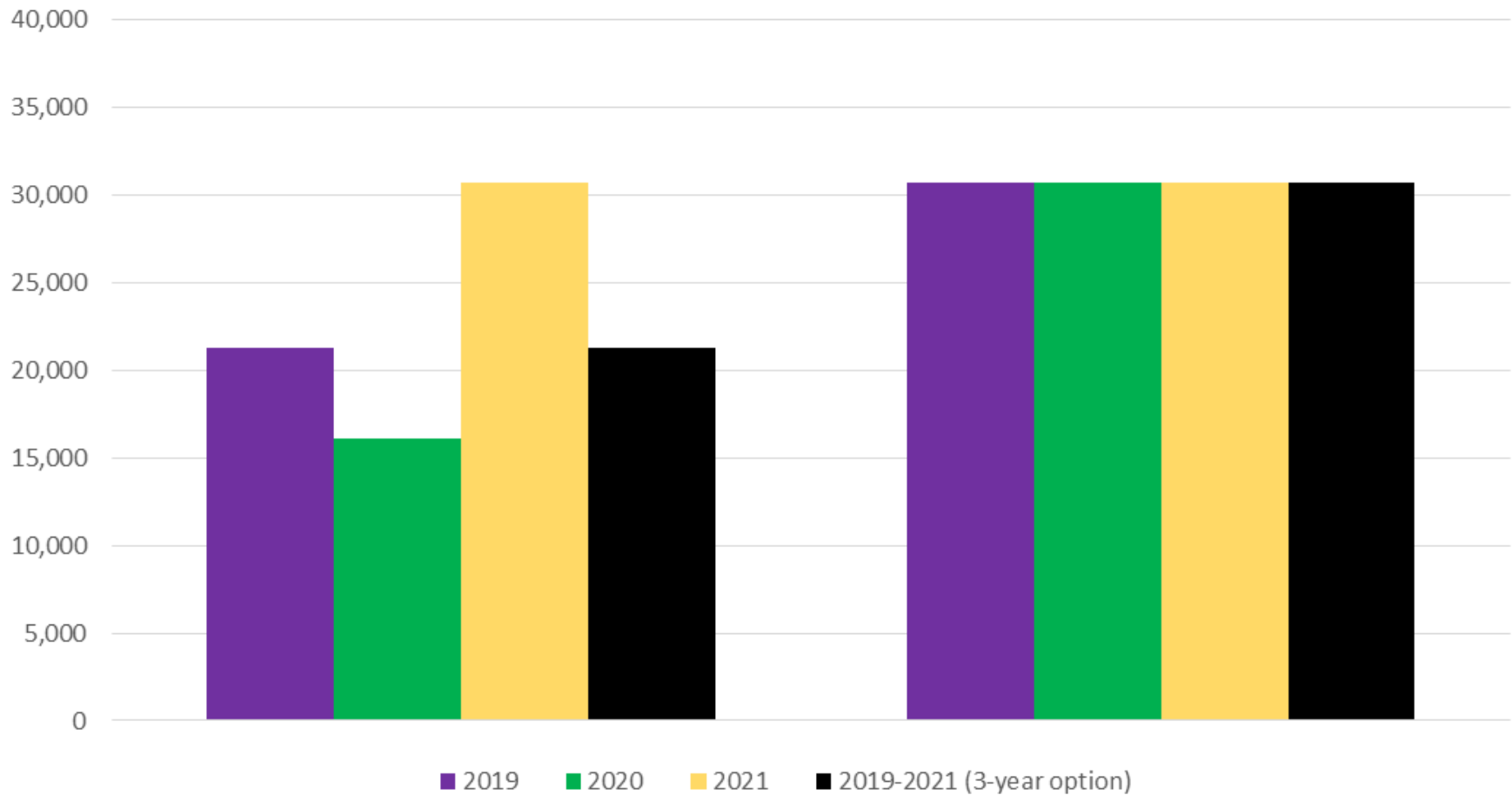
# Table 4 and Table 6

	2018	2019	2020	2021
OFL	49,900	30,668	38,878	59,788
F(ages 7-8)	0.51	0.51	0.51	0.51
SSB	79,673	46,095	43,799	91,645
P(overfishing)	0.50	0.50	0.49	0.49
P(overfished)	0.72	0.91	0.91	0.53
SSB/SSBmsy	0.42	0.24	0.23	0.48

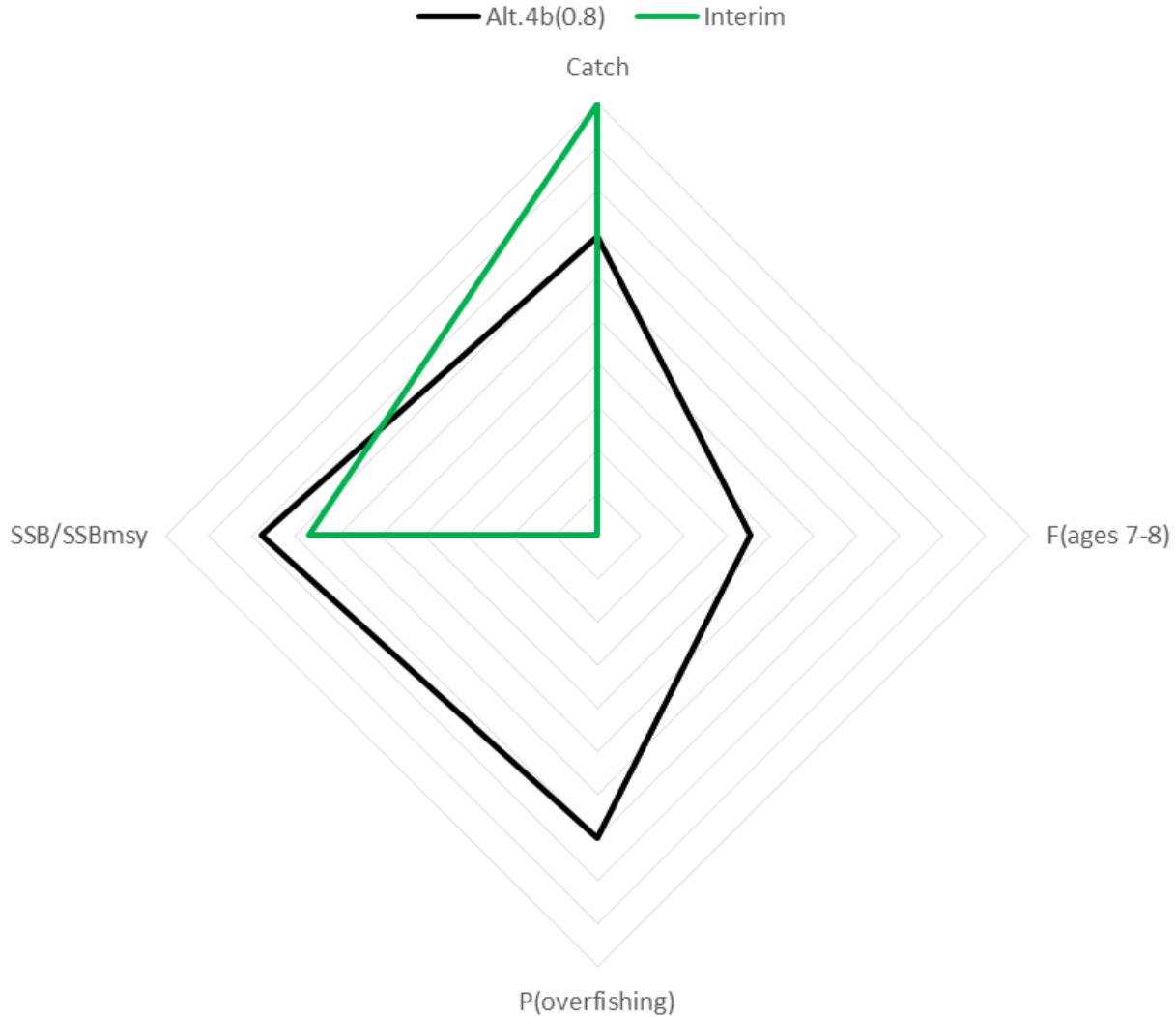
	2018	2019	2020	2021
ABC	49,900	21,266	16,131	30,659
F(ages 7-8)	0.51	0.33	0.18	0.21
SSB	79,673	52,874	58,617	126,394
P(overfishing)	0.50	0.15	0.02	0.03
P(overfished)	0.72	0.88	0.84	0.26
SSB/SSBmsy	0.42	0.28	0.31	0.67



## ABCs in 2019-2021 under Amendment 8 ACB CR compared to alternative designed to function like "interim" CR

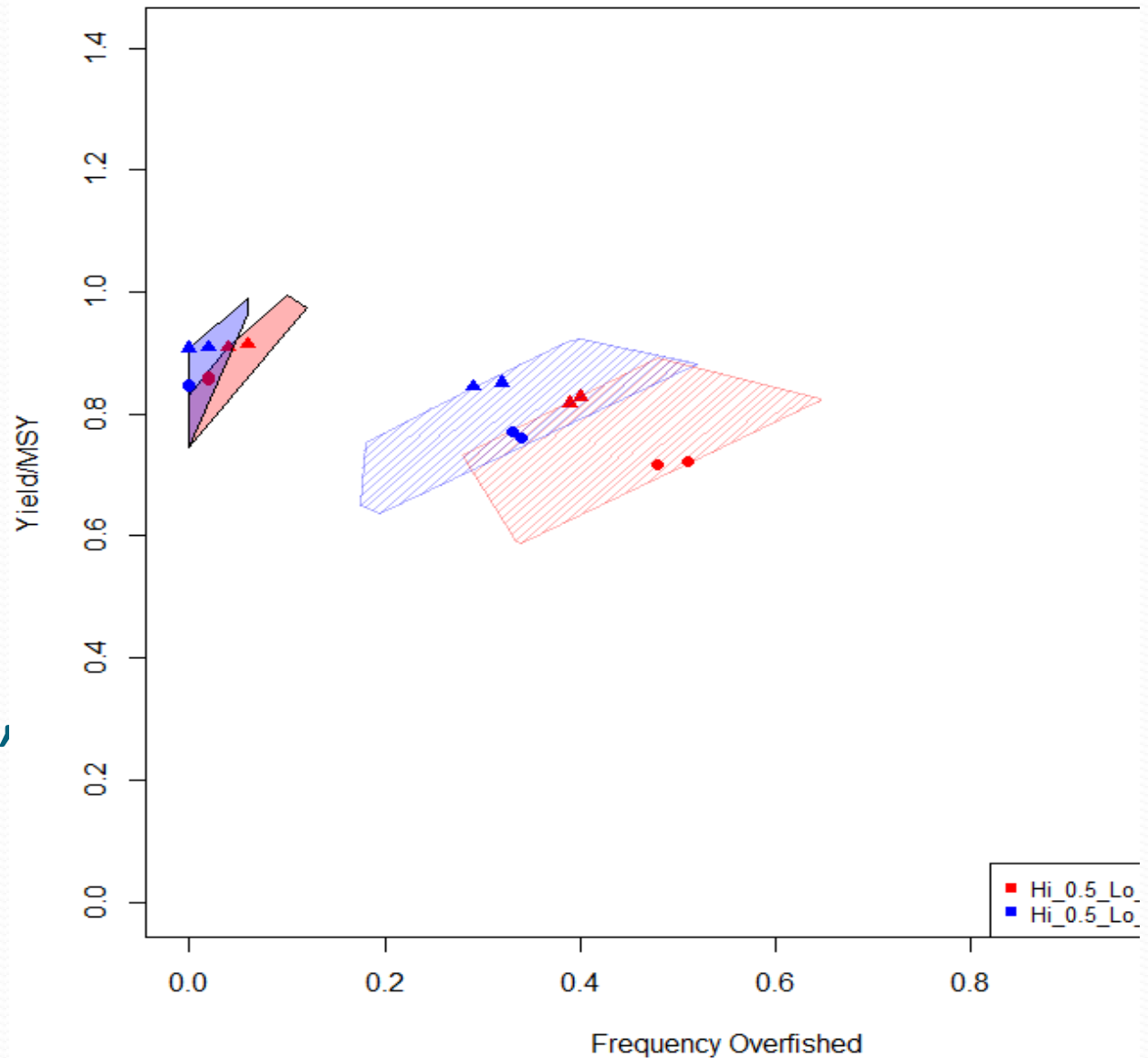


# Short-term performance metrics for A8 ABC CR compared to "Interim" CR alternatives



Long-term  
Freq.  
Overfished

Blue – A8 CR  
Red – “interim”

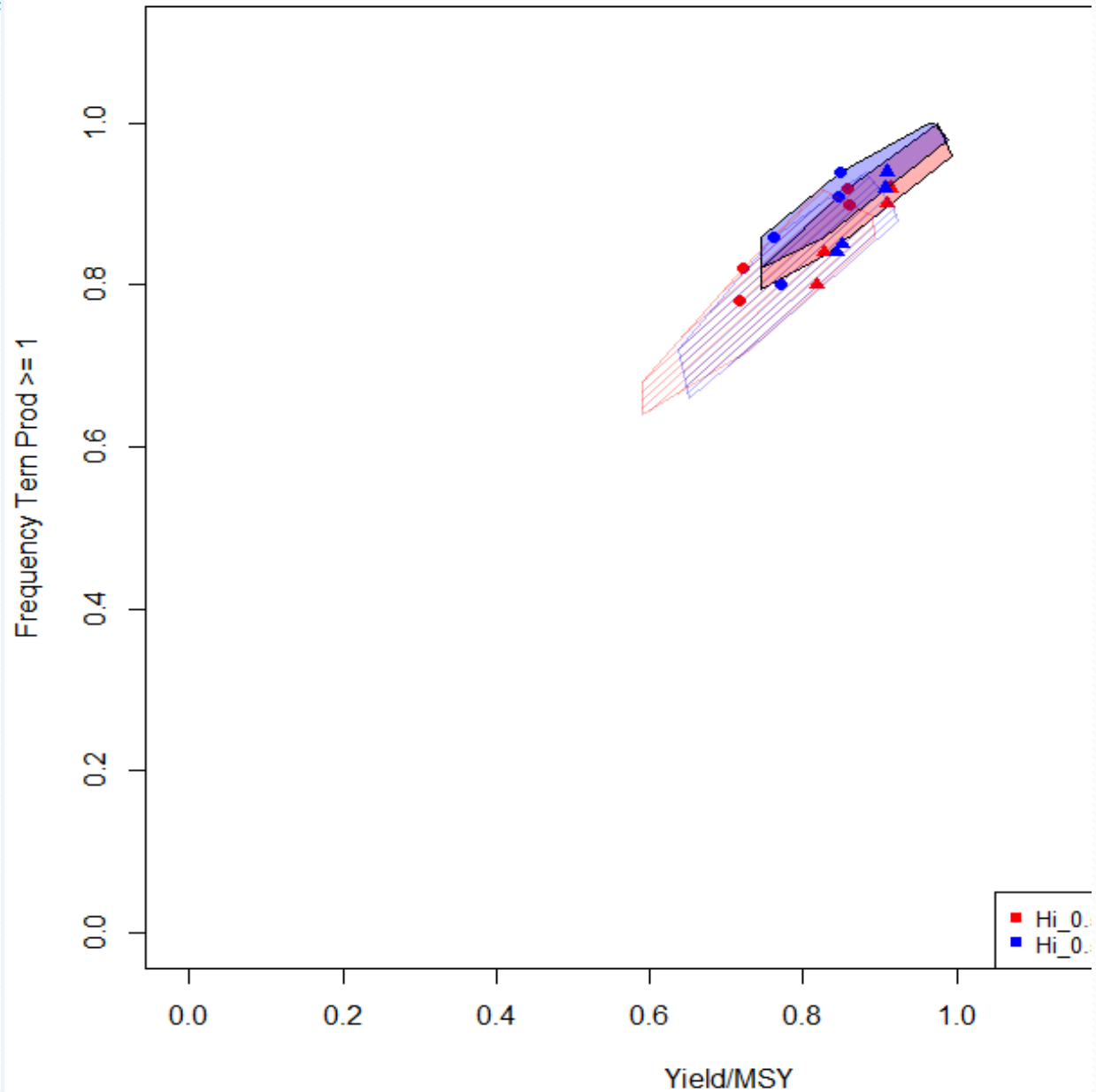




# Long-term Positive Tern production

Blue – A8 CR

Red – “interim”



# PDT Recommendation

	OFL	ABC
2019	30,688	21,266
2020	38,878	16,131
2021	59,788	30,659



**The End**