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Effects of revised MRIP estimates on stock assessments: Black Sea Bass example

SAFMC SSC MRIP workshop

August, 2019

Background

- The SEFSC provided assessments with revised MRIP estimates for black sea bass, blueline tilefish, red grouper, and vermilion snapper.
- For black sea bass, the revision resulted in a change of status
 - not overfishing → overfishing
- The SSC's October meeting report noted:
 - *During the webinar the SSC will explore the change in trend, especially in discards, at end of time series that changes status.*
 - *Discards ramp up since 1999, with a large jump in the last 4 years.*
- This current analysis considers two more sets of time series to describe recreational removals of black sea bass
 - This exercise is purely exploratory

Black sea bass: Four time series of recreational removals

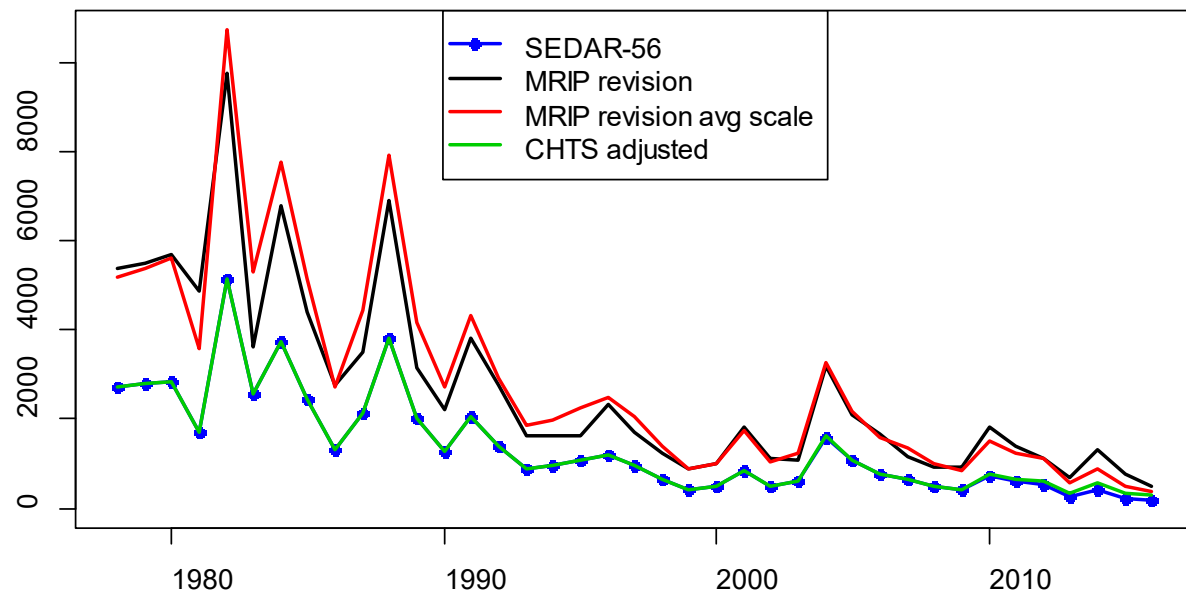
1. **SEDAR-56** — SEDAR-56 values (pre-MRIP revision)
2. **MRIP revision** — FES-calibrated values Version 1
 - Annual adjustments to SEDAR-56 landings and discards
3. **MRIP revision avg scale** — FES-calibrated values Version 2
 - Landings adjustment averaged across years. Same for discards adjustment.
4. **CHTS adjusted** — CHTS adjusted to account for landline telephone bias
 - Annual, increasing adjustments to SEDAR-56 landings and discards (2010-2016)

“Experimental design”

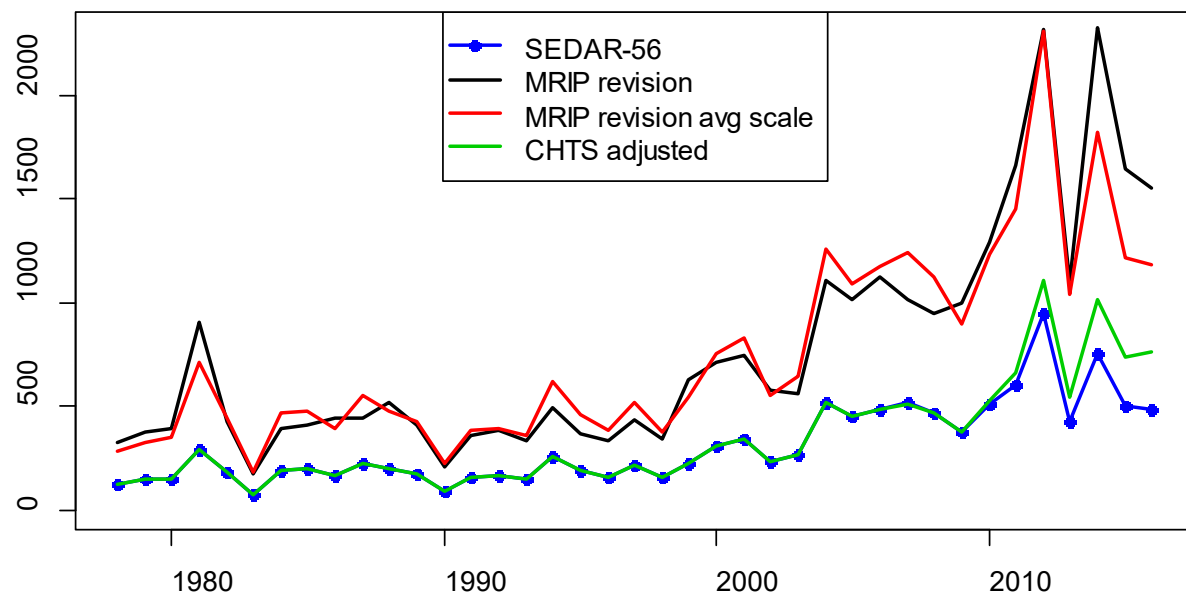
		Increasing trend at end of time series?	
		No	Yes
Increased scale of full time series?	No	SEDAR-56	CHTS adjusted
	Yes	MRIP revision avg scale	MRIP revision

Time series of removals

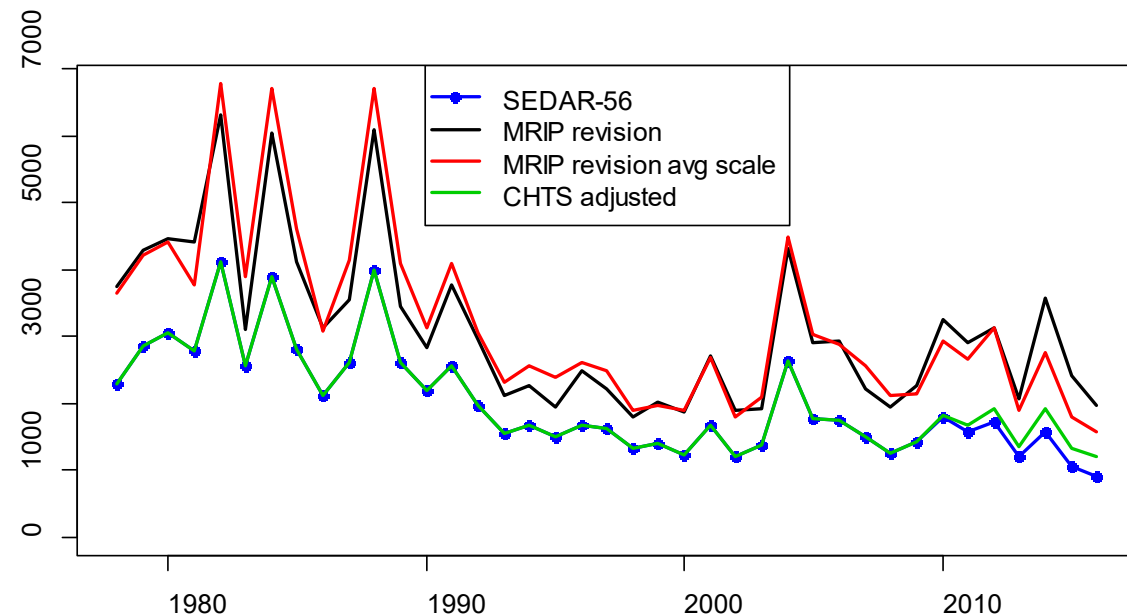
Rec landings (1000 fish)



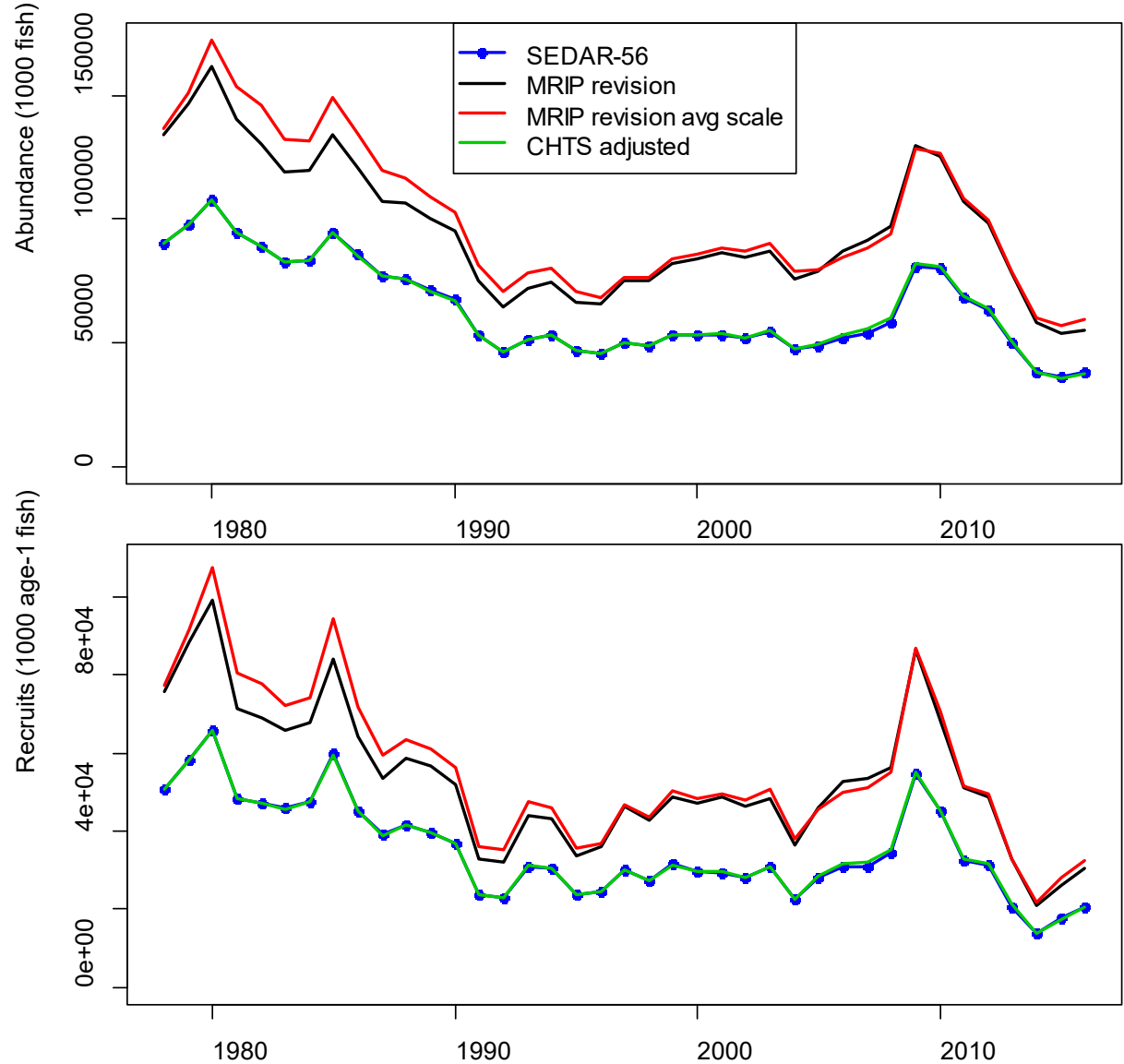
Rec discard mortalities (1000 fish)



Total removals (L+D, 1000 lb)

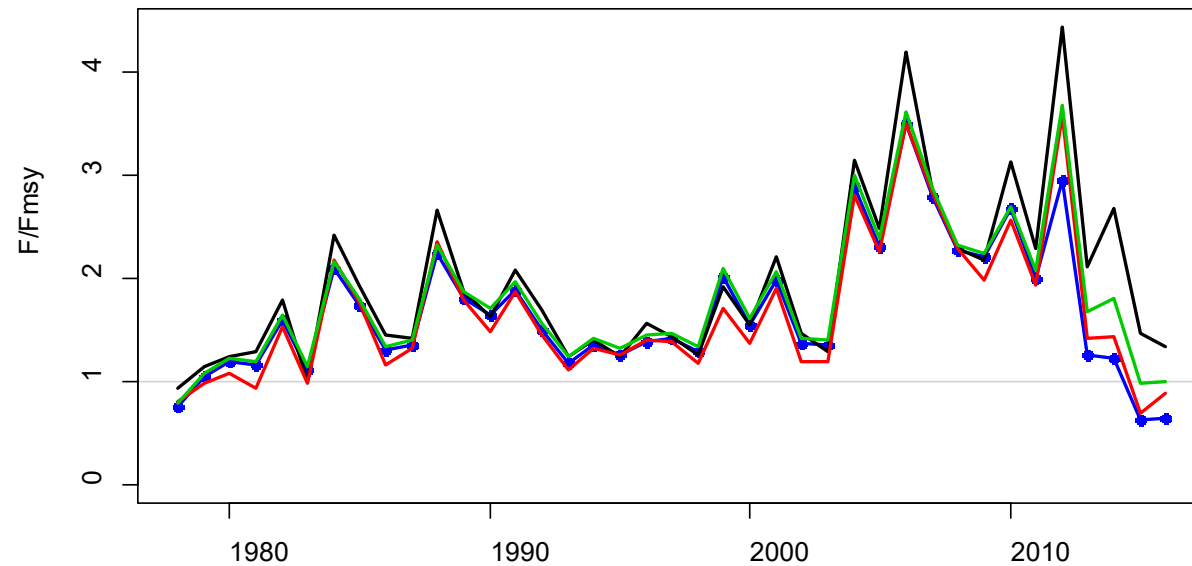
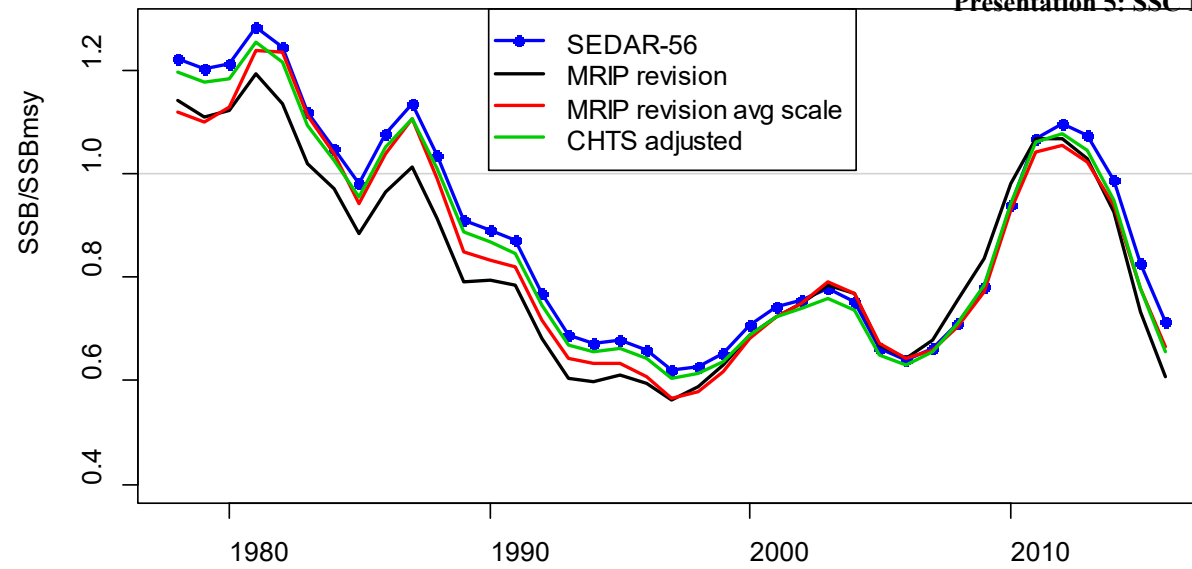


Estimates of stock and recruitment



Estimates of status

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Summary

- The primary effect of revised MRIP values on assessment output is greater estimated abundance
 - Must be more fish in the ocean to support the larger catches
 - This means larger TACs
 - In the black sea bass example, MSY is 36% higher with FES estimates than in SEDAR-56
- The change in status, as seen in the black sea bass example, is due to the increased slope at the end of the revised MRIP time series