Indian Ocean Albacore Tuna Management Procedures Evaluation: Status Report

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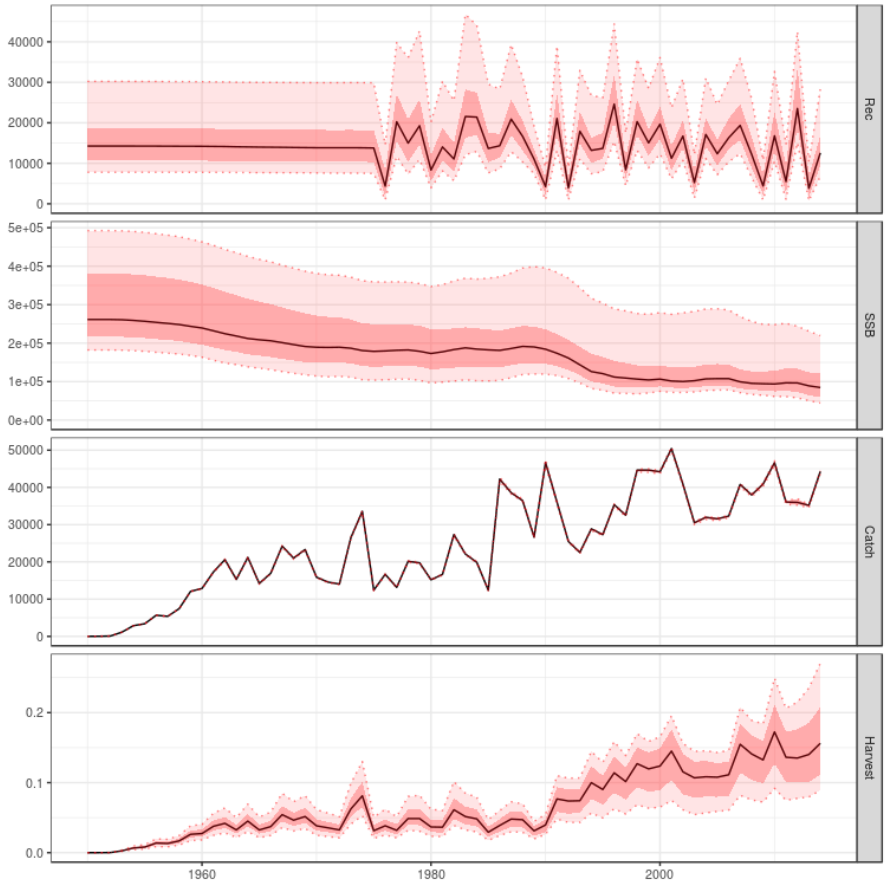
Funded by:

iotc ctoi

Food and Agriculture Organization of the United Nations

Previous Albacore Operating Model

- WPTmT 2016, data 1950-2014
- Uncertainty in
  - M
  - Steepness
  - recruitment variability
  - sampling size length data
  - CV CPUE
  - Yearly increase catchability LL
  - Selectivity model
- 1,440 model runs, equal weight



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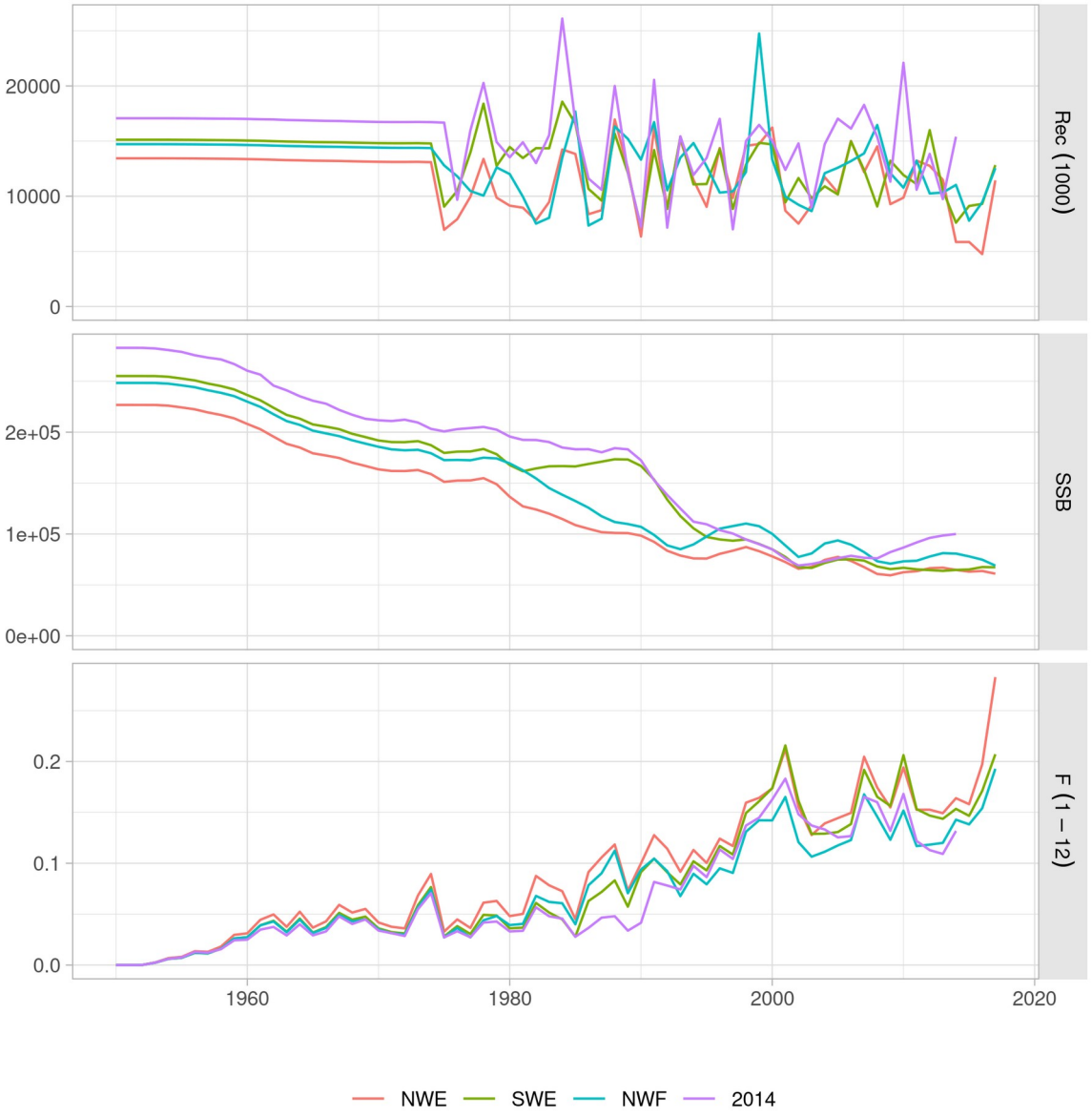
Updated Albacore Stock Assessment

- 2 sex, 1 area
- 4 LL fleets, PS (NW), DN (1982-92).
- NW CPUE + LF, SW CPUE + LF, NW CPUE down LF.
- Lower K, lower SB, higher F than 2014 model.



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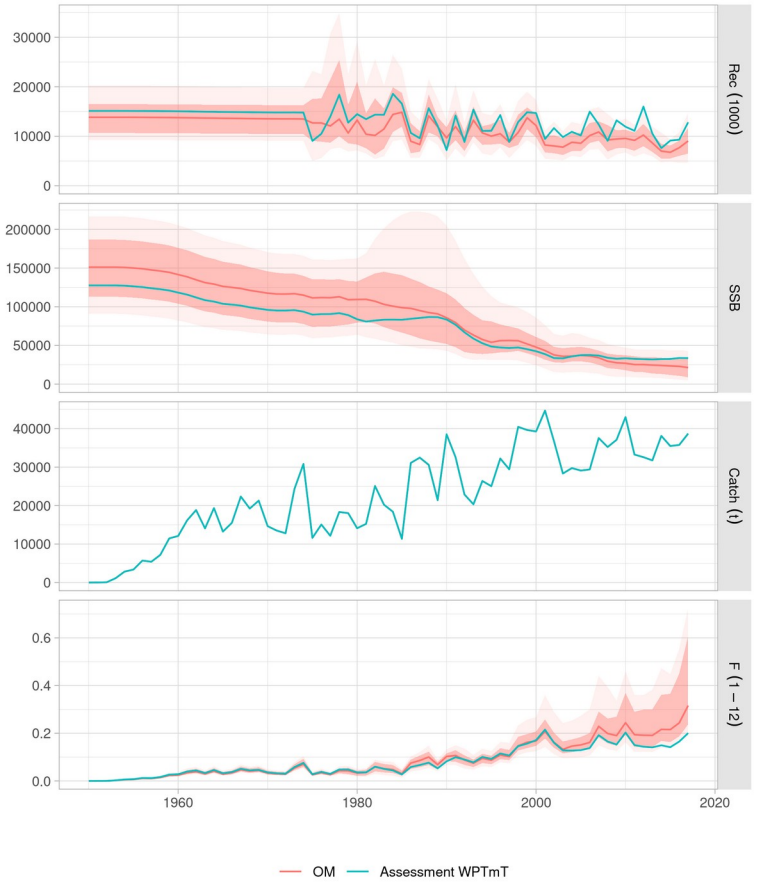
Updated Albacore Operating Model

- WPTmT 2019, data 1950-2017
- Uncertainty in
  - M
  - Steepness
  - recruitment variability
  - Weight CPUE / length data
  - Yearly increase catchability LL
  - CPUE (NW, SW)
- Partial factorial grid (84 runs)
- Weights based on prediction skill



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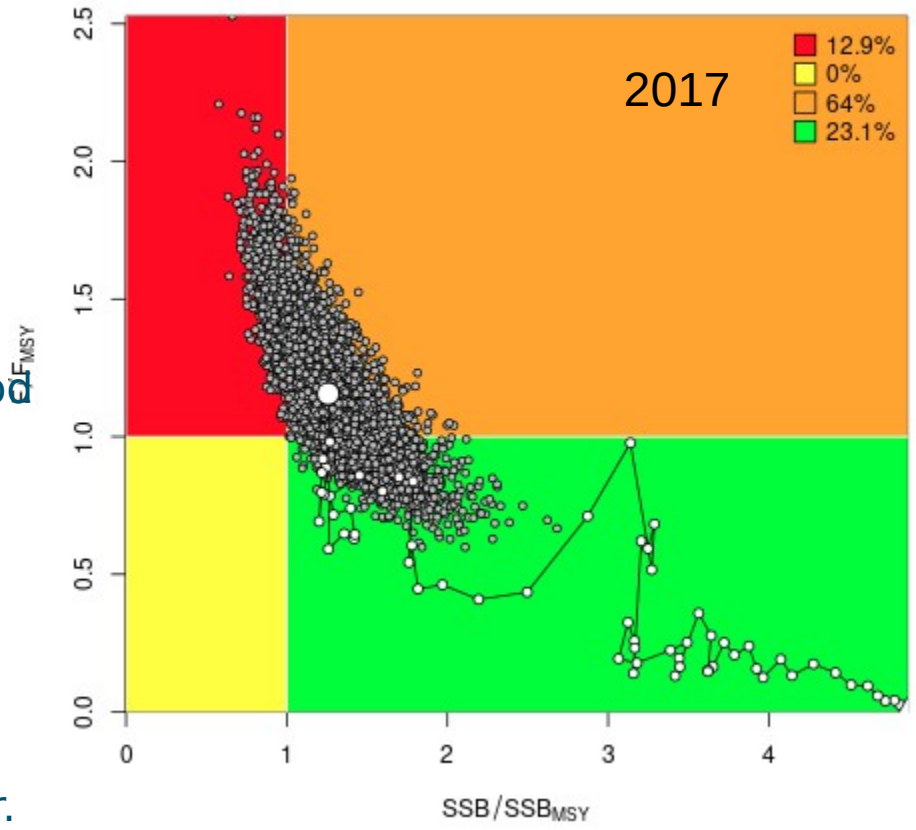
Tuning Objectives

- **TA2**: P(Kobe = green) = 50%
- **TA3**: P(Kobe = green) = 60%
- **TA4**: P(Kobe = green) = 70%
- Computed over the 2030-2034 period

Constraints:

- 3-year TAC setting
- 15% TAC constraint
- Two year data lag, effect of one year.



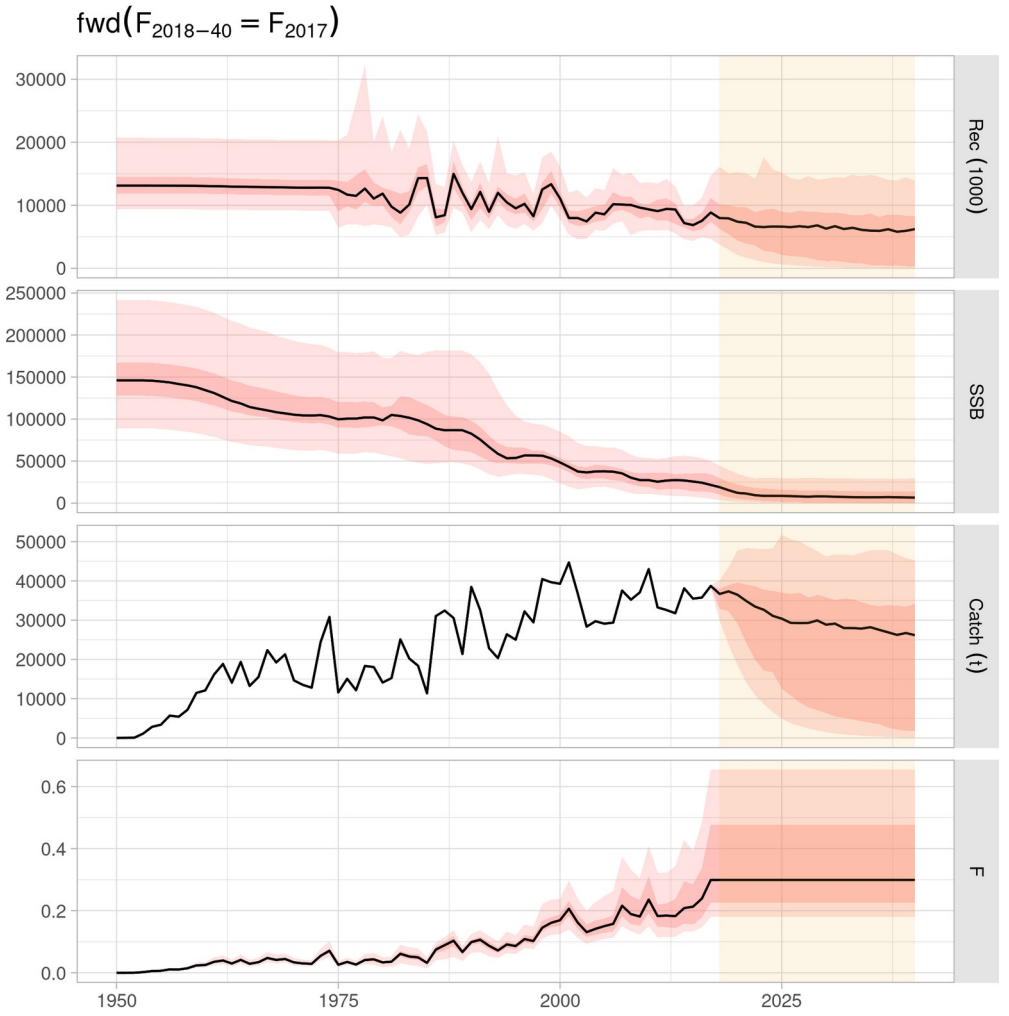
Feedback from TCMP 04

Tuning objectives

Are the three objetives still appropiate?

Robustness

Any possible or expected changes in the fishery?



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Next steps

- Final OM and simulation platform (WPM)

- Adoption of OM and platform (SC)

- Delivery of simulations and platform (December 2021)

- End of contract (December 2021)

Thank you for your attention!

To explore the potential of nature to improve the quality of life

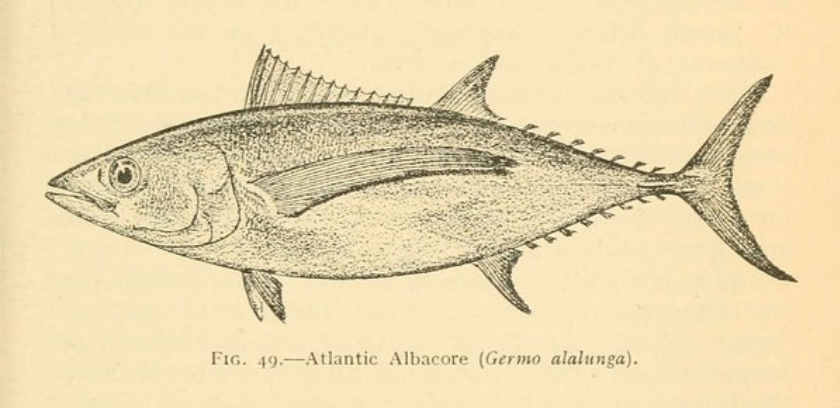

Fig. 49.—Atlantic Albacore (*Germo alalunga*).

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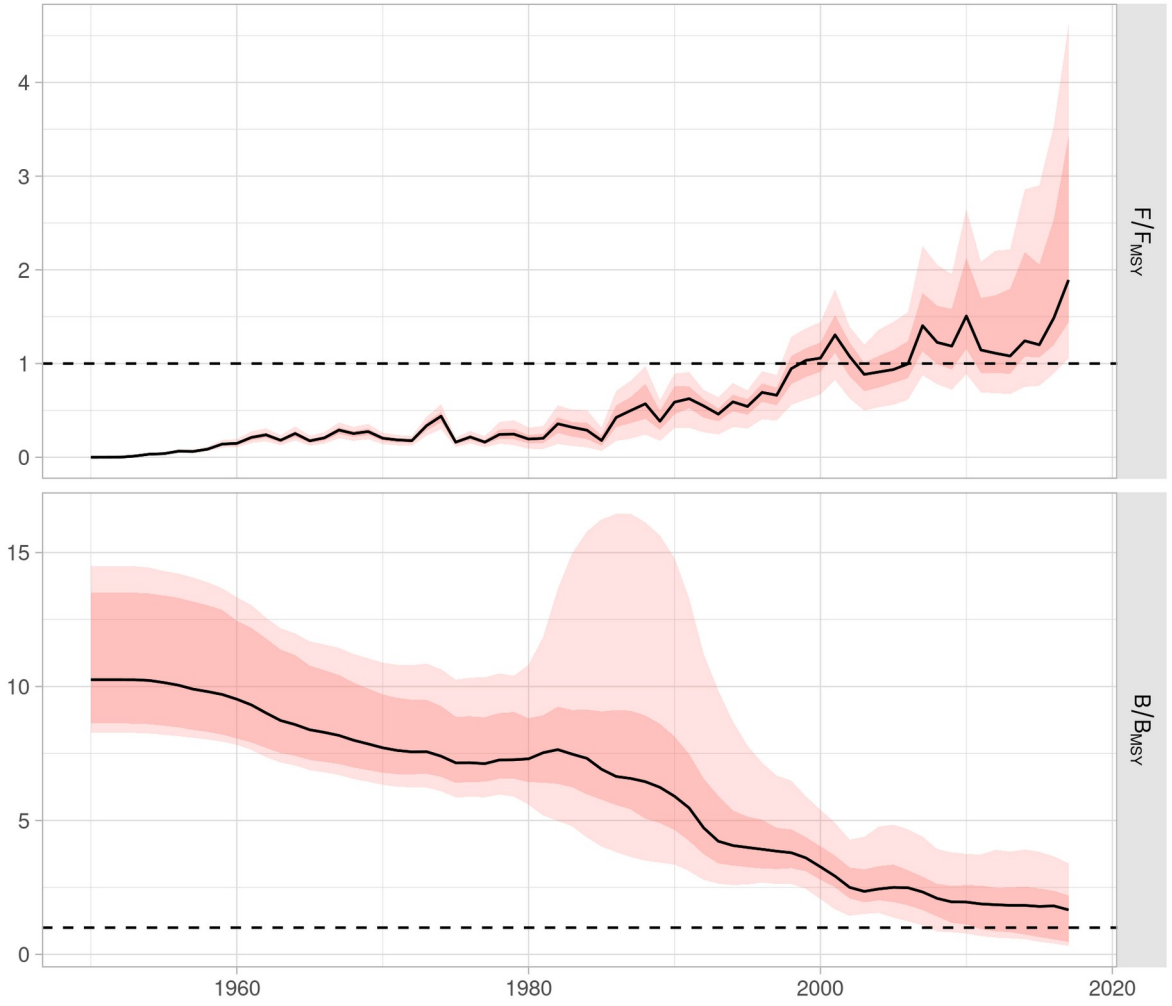
Updated Albacore Operating Model



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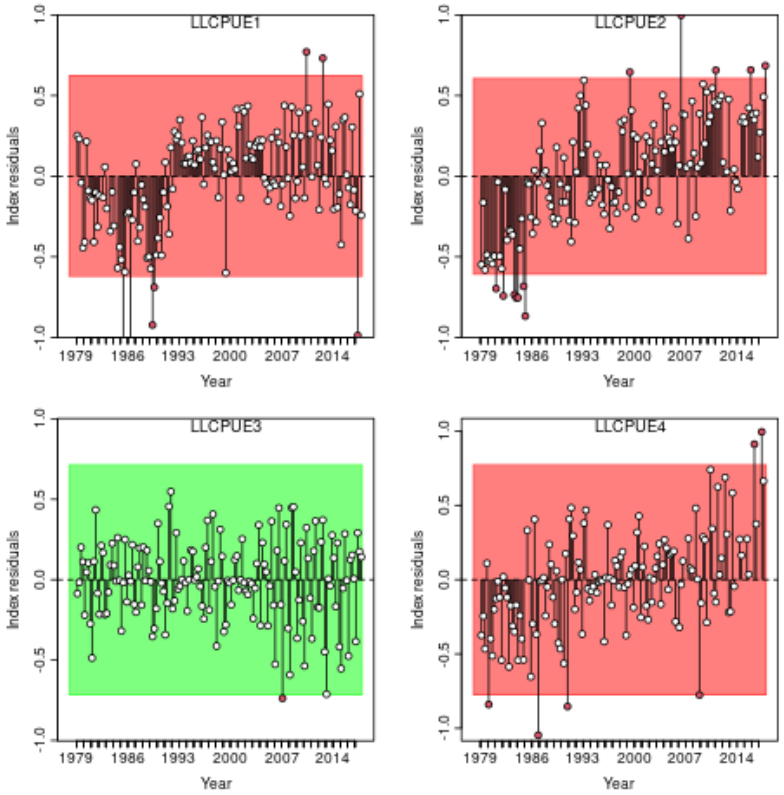
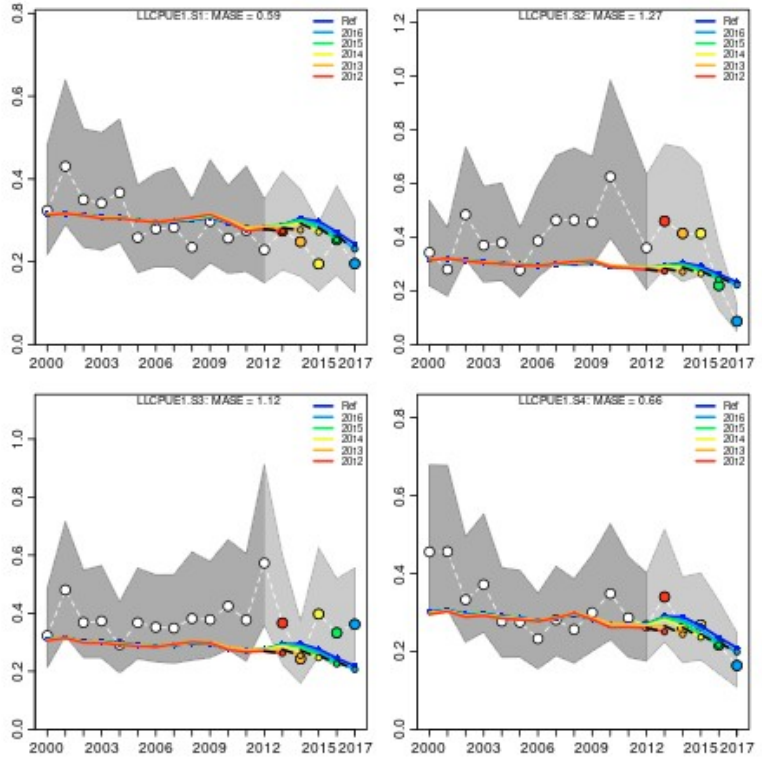
Index of abundance: LLCPUE3

Southwest LL CPUE to inform Management Procedure





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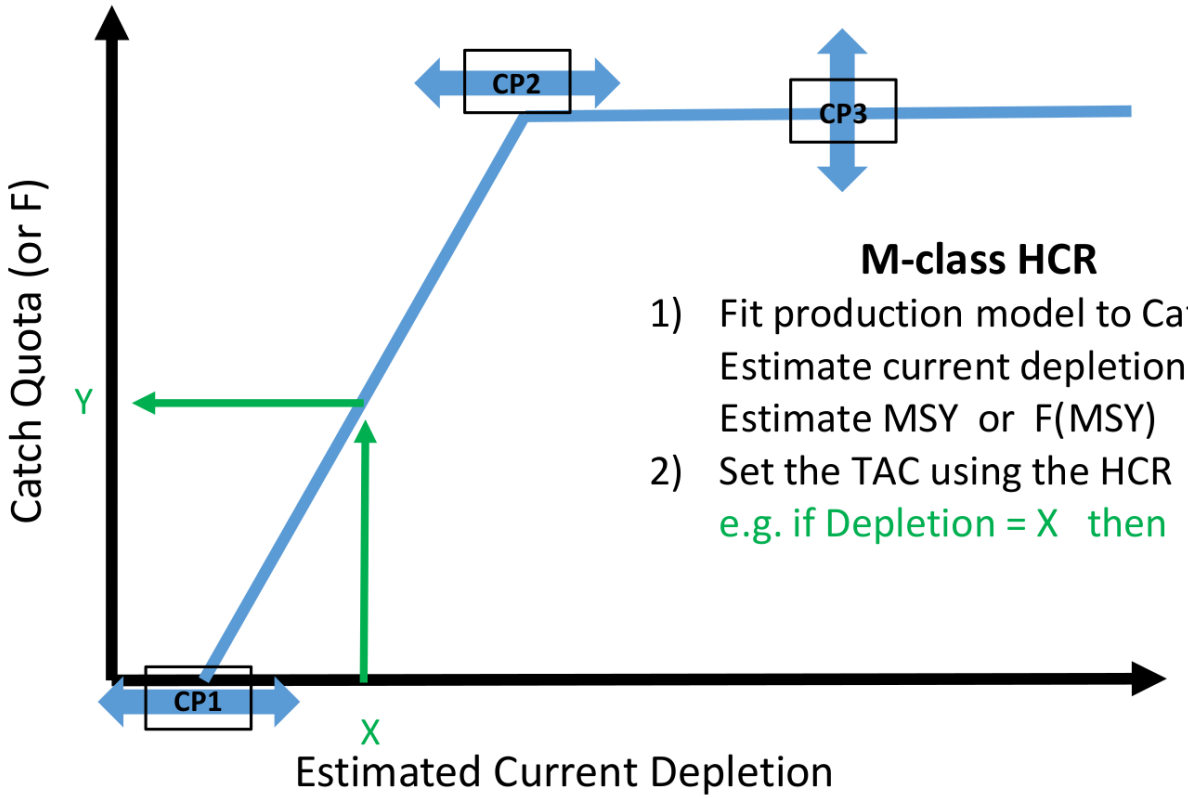
Candidate Management Procedures

M class (model-based) MPs



M-class HCR

1) Fit production model to Catch and CPUE data
   Estimate current depletion
   Estimate MSY or F(MSY)
2) Set the TAC using the HCR
   e.g. if Depletion = X then Quota(T+1) = Y

Candidate Management Procedures

D class (data-based) MPs