



Introduction

Management
Framework

Approach

Analysis

Current status

Status-quo
projections

Comparison of
alternative TRPs

Discussion

Current and projected stock status of skipjack tuna to inform consideration of Target Reference Points

MOW3/WP-03

SPC-OFP

MOW3 Meeting, Apia, Samoa

Friday 28th November 2014



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Aims

- ▶ Provide estimates of current skipjack stock status with respect to the range of TRP levels requested at WCPFC10;
- ▶ Provide projections of the skipjack population to indicate possible levels of future abundance under status-quo conditions;
- ▶ Provide a comparison of very basic fishery performance metrics against different candidate TRPs; and
- ▶ Highlight the importance of developing Harvest Control Rules so that we can more fully evaluate the implications of particular levels of skipjack TRPs.



Management Framework

Current and projected stock status of skipjack tuna to inform consideration of Target Reference Points

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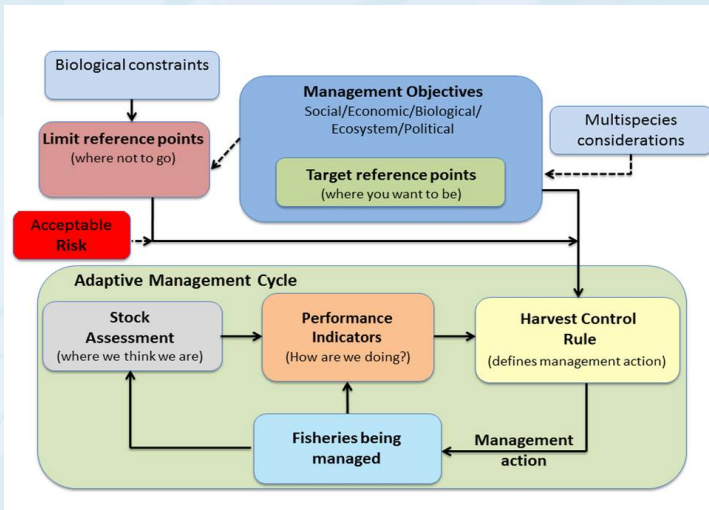
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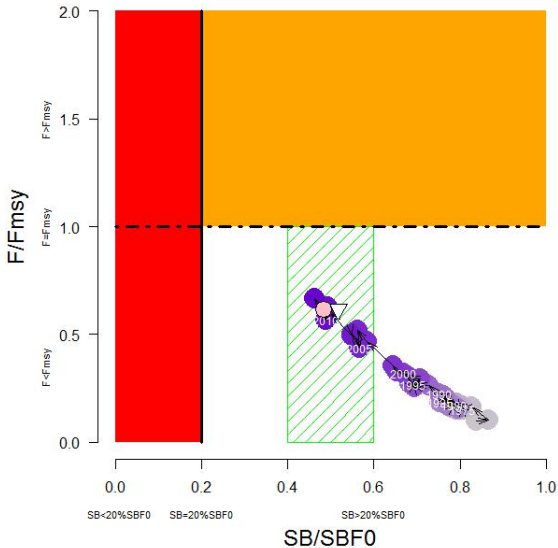
Three part assessment

1. Evaluate current stock status against candidate TRP levels;
2. 30 year stochastic projections under either current catch or effort levels;
3. Determination of scalars and fishery indicators at 40, 50, and 60% depletion levels; and
4. Include uncertainty in the 'state of nature' across all analyses.

Estimated current situation



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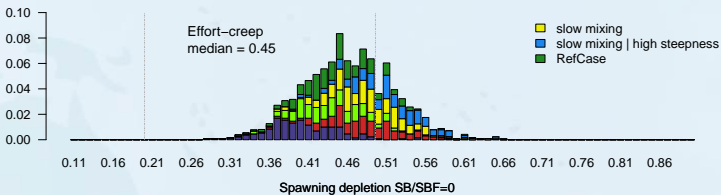
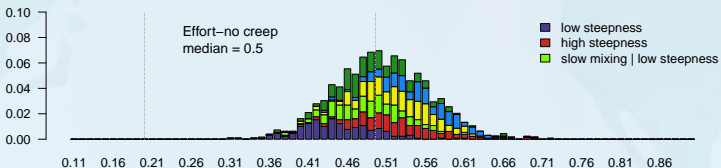


Status-quo projections



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Skipjack tuna risk profiles





Comparison of some indicators

Median depletion level (%SBF=0)	Change in spawning biomass from 2012 levels	Change in effort from 2012 levels [†]	Median equilibrium yield (%MSY)	Mean size of fish**	Median F/FMSY
60%	+22%	-33%	76%	54cm	0.40
50%	+2%	0	90%	53cm	0.57
40%	-18%	+50%	98%	52cm	0.79



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1. Which performance indicators are important for choosing between alternative TRPs?
2. What other performance indicators might be useful for evaluating between TRPs or harvest strategies in general?