

Considerations for yellowfin tuna within the mixed fishery harvest strategy framework

WCPFC-SC21-2025/MI-WP-08

SCIENTIFIC COMMITTEE
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Introduction

- Under the current mixed fishery approach there is no WCPFC MP for yellowfin.

Stock	Tropical longline	Southern longline	Northern longline	Pole and line	Purse seine	Troll	Other
Skipjack	0	0	0	0.09	0.83	0	0.08
South Pacific albacore	0.12	0.81	0	0	0	0.07	0
Bigeye	0.27	0.05	0.06	0.01	0.45	0	0.15
Yellowfin	0.08	0.02	0.01	0.03	0.55	0	0.31

- Fisheries that catch yellowfin are either managed through the MPs of skipjack, bigeye, South Pacific albacore or operate in archipelagic waters (outside of WCPFC MPs).
- Need to perform evaluations for yellowfin, and assess probability of achieving management objectives.

Operating models

- Scheduled for agreement 2026
- Can be informed by 2023 assessment (noting next one is 2026)
- Reference set may include:
 - Steepness
 - Tag mixing
 - Effort creep
 - Spatial structure – ideally compatible with MP application
 - Movement dynamics – potentially informed by SC Project 128 (WPEA)
 - Hyperstability in CPUE
 - Climate change scenarios

Management objectives

- CMM 2023-01 states ‘pending agreement on a TRP the $SB/SB_{F=0}$ is to be maintained at or above the average $SB/SB_{F=0}$ for 2012-2015’.
- WCPFC21 supported a “sequenced approach” to the adoption of TRPs for bigeye and yellowfin, whereby the Commission first addresses the TRP for bigeye tuna and then evaluates its implications for achieving management outcomes for yellowfin tuna.
- Given the challenges in simultaneously achieving TRPs for multiple stocks, candidate TRPs may be specified as “threshold targets” (WCPFC21).
- Associated probabilities of being 'at or above' the threshold would need to be specified (WCPFC21).
- Need to be captured by performance indicator.

Other considerations

- Impact of catches in archipelagic waters, particularly Indonesia
 - Harvest strategy in ID AW is being developed. May inform the YFT MSE framework.
 - Given importance of YFT catches in ID AW, important to capture uncertainty around catch levels. Sensitivity scenarios can be developed.
- Monitoring strategy
 - Particularly important as no WCPFC MP for yellowfin.
 - May follow the same structure as for skipjack.
 - Monitoring in Region 2 of current assessment (inc. ID) will be important.

Timeline

- In the harvest strategy workplan, for 2026:
 - SC22 is scheduled to:
 - agree the yellowfin operating models for MSE.
 - provide advice on performance of candidate management procedures.
 - provide advice on relevant elements of the monitoring strategy.
 - WCPFC23 is scheduled to:
 - consider and refine a candidate set of management procedures.
 - agree a target reference point.
- To facilitate the necessary technical work to meet these targets over the next 12 months, key decisions will be required.
- We note that decisions must also be made to further develop the bigeye MP evaluations within the mixed fishery approach.

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SC21 is invited to

- Note the proposed approach for evaluating the outcomes for yellowfin under the mixed fishery approach.
- Provide initial guidance on:
 - candidate scenarios for the yellowfin OM grid.
 - proposed performance indicators for yellowfin.
- Request WCPFC22 provide guidance on:
 - the potential role of a threshold TRP for yellowfin tuna and associated acceptable risk of falling below any threshold.
 - the role of the monitoring strategy in triggering management actions related to yellowfin tuna stock status.