



**COMMISSION  
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**SPC evaluation of potential long-term outcomes for bigeye tuna depletion of proposed  
purse seine FAD closure periods and longline Table 3 catch limit changes**

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**SPC**

This document contains TWO tables. First table presents the outcomes of the different purse seine/longline outcomes in terms of stock depletion. The second table presents outcomes in terms of the risk of the stock falling below the LRP.

**SPC evaluation of potential long-term outcomes for bigeye tuna depletion of proposed purse seine FAD closure periods and longline Table 3 catch limit changes.**

Option	PS Effort assumption	PS FAD closure option	Resulting PS Scalar	LL limit increase option	LL 'fully utilised' scalar	BET depletion (%SB <sub>F=0</sub> )	
						Recent	Long term
1	2019-2021	1.5/2.5 mths	1.19	5%	1.62	0.35	0.31
				10%	1.67	0.34	0.30
	2012	1.5/2.5 mths	1.42	5%	1.62	0.32	0.29
				10%	1.67	0.31	0.28
2	2019-2021	2/3.3 mths	1.13	2.5%	1.59	0.35	0.31
				7%	1.64	0.34	0.30
	2012	2/3.3 mths	1.34	2.5%	1.59	0.33	0.29
				7%	1.64	0.32	0.28
3	2019-2021	1.5/5 mths	1.14	10%	1.67	0.34	0.30
	2012		1.36	10%	1.67	0.31	0.28

**NOTES:**

- Bigeye depletion outcomes evaluated for the two future recruitment assumptions (recent and long term, final columns).
- Colours of the bigeye depletion values indicate whether outcomes are above or equal to (black) or below (red) the CMM objective (2012-2015 average levels = 0.34SB<sub>F=0</sub>).
- Two alternative assumptions made for future overall purse seine limits, being 2019-2021 average levels (effort scalar = 1) and 2012 effort levels (consistent with skipjack MP outputs, effort scalar = 1.19)
- LL scalar estimated based upon the 'fully utilised' assumption. This approach has been taken since increases are being proposed to Table 3 fishing levels only, and the proposal of transferability between Table 3 CCMs increases the potential for this fully utilised scenario.
- US flag limits set to 6554mt in all % longline catch change scenarios. Catch levels for American Samoa, CNMI and Guam are set to zero.
- Options for LL MCS do not affect the evaluation.

SPC evaluation of potential long-term outcomes for bigeye tuna risk relative to the LRP of proposed purse seine FAD closure periods and longline Table 3 catch limit changes.

Option	PS Effort assumption	PS FAD closure option	Resulting PS Scalar	LL limit increase option	LL 'fully utilised' scalar	BET LRP risk	
						Recent	Long term
1	2019-2021	1.5/2.5 mths	1.19	5%	1.62	0%	17%
				10%	1.67	0%	22%
	2012	1.5/2.5 mths	1.42	5%	1.62	2%	26%
				10%	1.67	3%	28%
2	2019-2021	2/3.3 mths	1.13	2.5%	1.59	0%	15%
				7%	1.64	0%	19%
	2012	2/3.3 mths	1.34	2.5%	1.59	0%	25%
				7%	1.64	1%	27%
3	2019-2021	1.5/5 mths	1.14	10%	1.67	0%	19%
	2012		1.36	10%	1.67	2%	27%

NOTES:

- Risk of bigeye stock falling below the LRP evaluated for the two future recruitment assumptions (recent and long term, final columns).
- Colour of the LRP risk indicates whether outcomes are less than (black) or greater than (red) 20%.