

# MI-WP-03 REV1

## South Pacific albacore iTRP

WCPFC SC20  
Manila, Philippines

SPC-OFP  
14-21 August 2024

# SPA iTRP

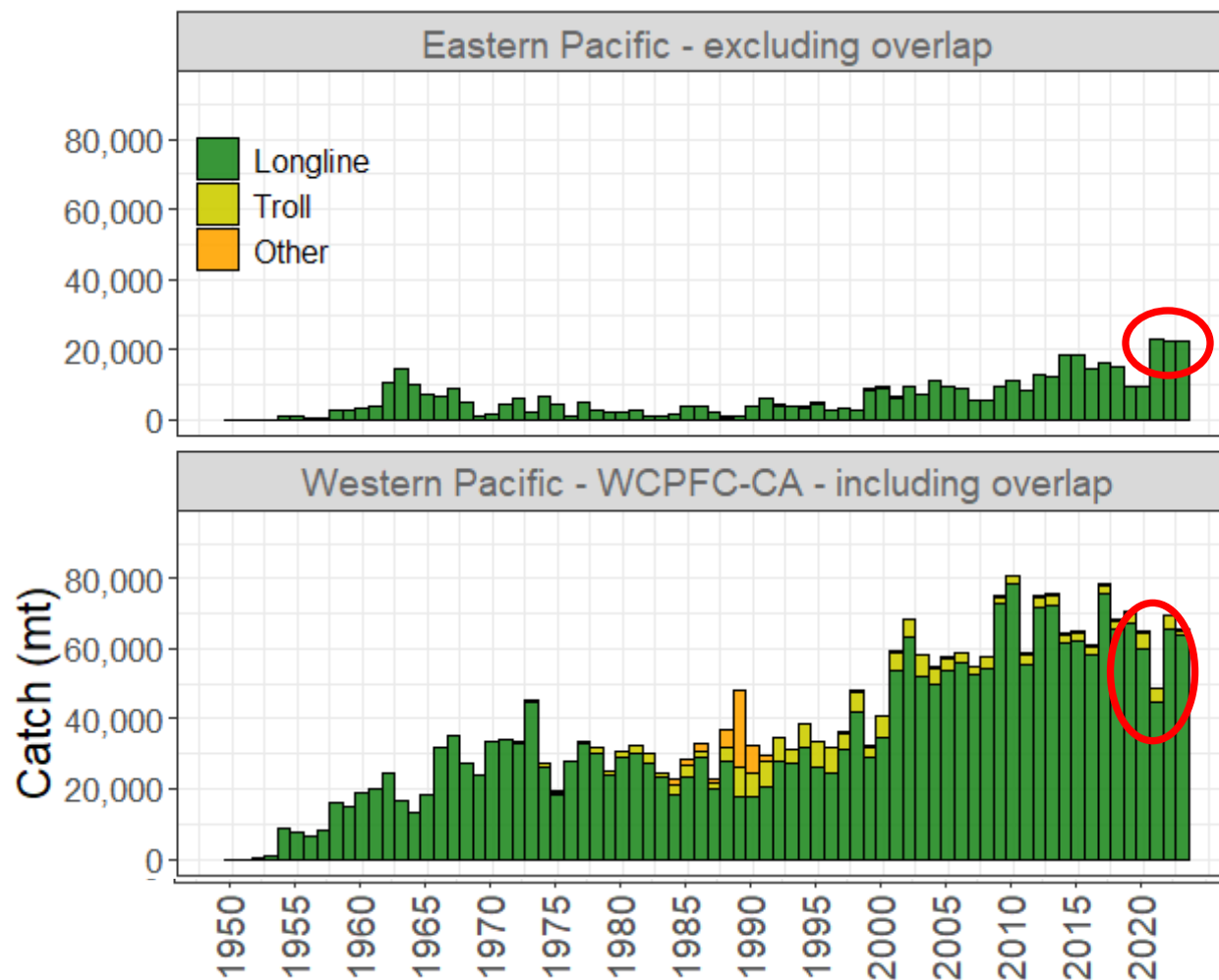
- Recalibrate the iTRP based upon the new assessment
- Evaluate the implications of the range of depletion levels requested by WCPFC20 (0.42 – 0.56  $SB_{F=0}$ )
- Recalibration – used the requested approach of WCPFC20
  - 0.96 x median of
    - $\text{mean}(SB_{2017}/SB_{F=0,2007-2016}, SB_{2018}/SB_{F=0,2008-2017}, SB_{2019}/SB_{F=0,2009-2018})$  from each assessment run
  - result: 50%  $SB_{F=0}$

# SPA iTRP – alternative depletions

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- Used stochastic projections and look at long term implications
- Catch based projections – based on numbers of fish
- Adjust future catch to achieve depletions in the long term
- Baseline 2020-2022 catch levels in the WCPFC-CA. Remainder of EPO 'set' at 22,500 mt
- Two scenarios
  - Adjust WCPFC-CA LL and TR fisheries up and down, constant catch in remainder EPO
  - Adjust across the whole of the South Pacific (where EPO adjusted from 22.5k)
- 50 projections for 40 yrs across the 100 assessment models
- Future recruitment ~ 1973 - 2020

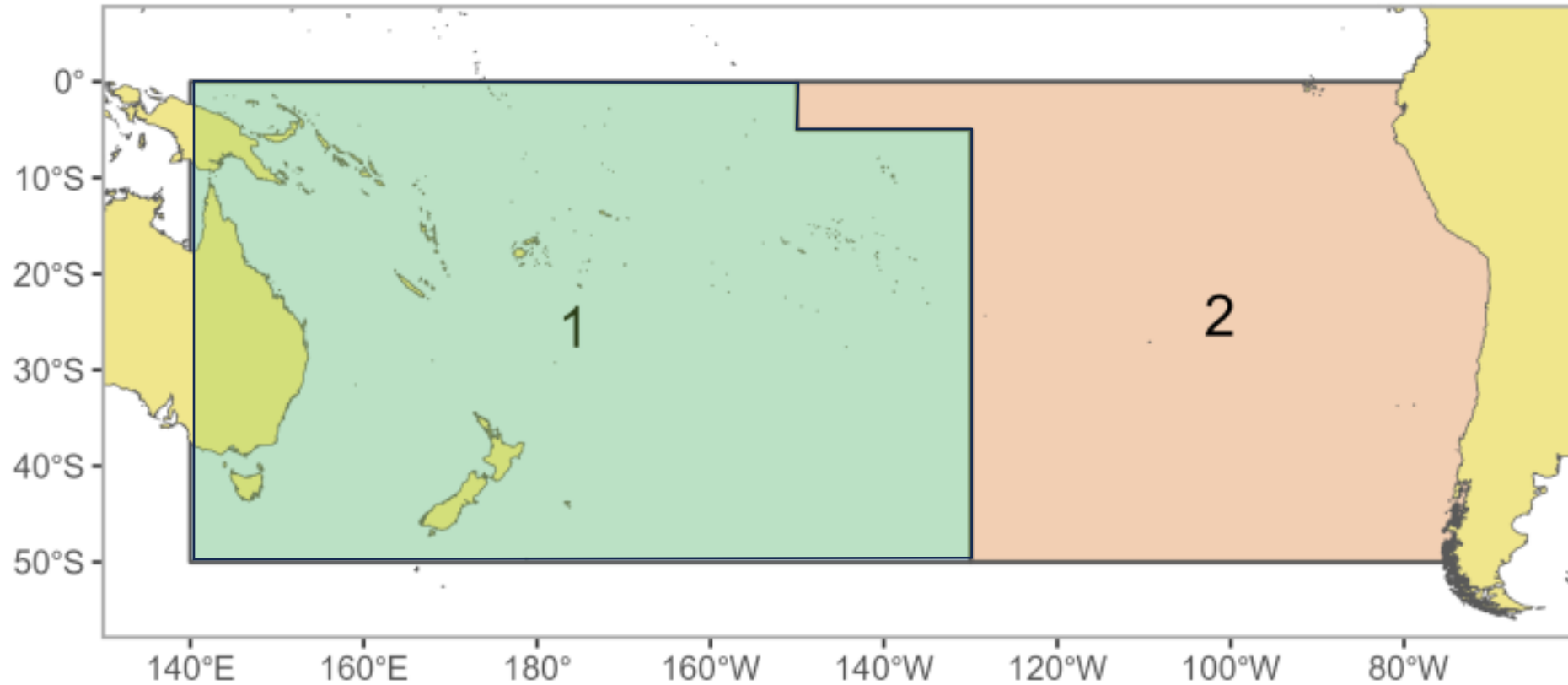
# SPA iTRP – catch assumptions



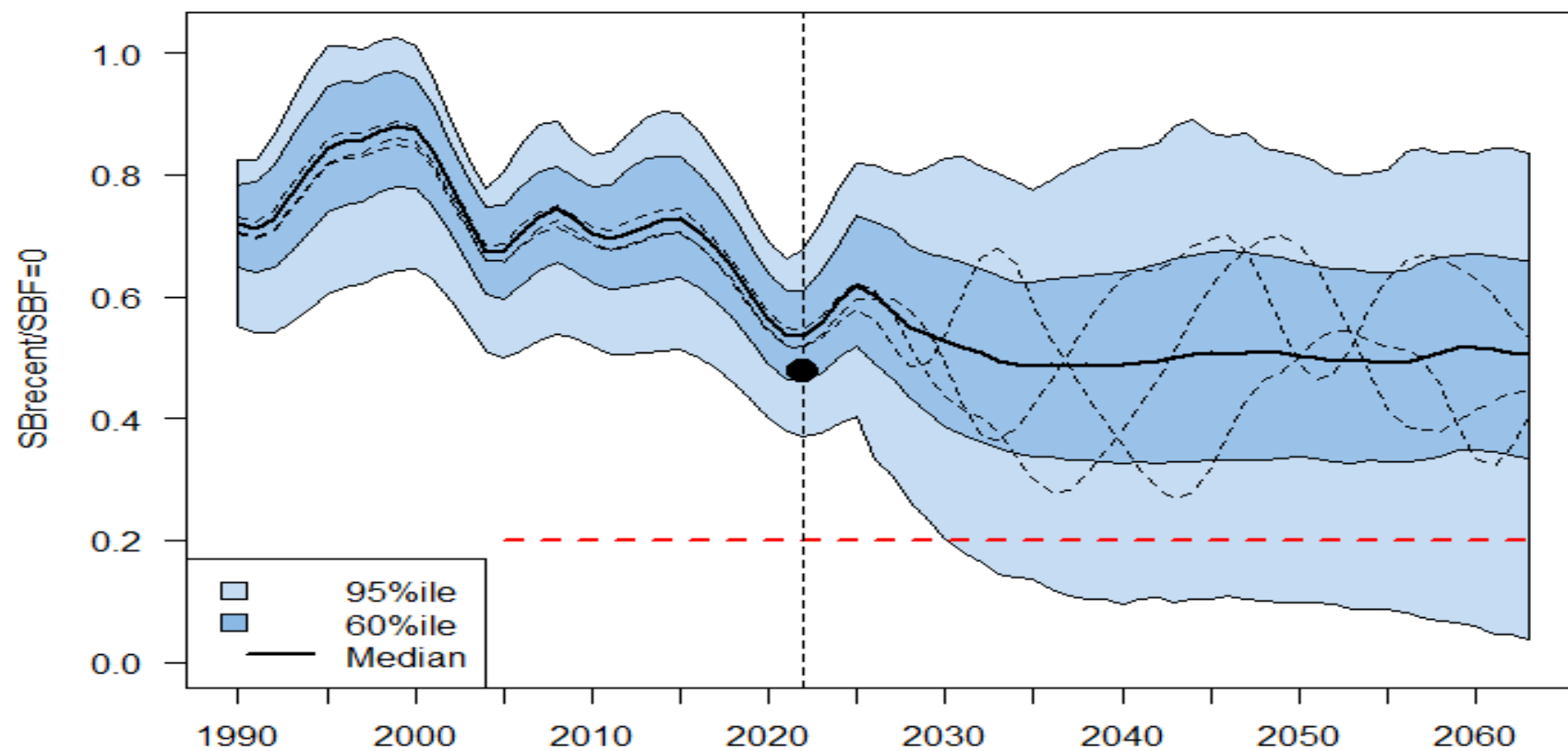
Set 22,500 mt

~60,700 mt (LL + TR)

# SPA iTRP 'fishery control' – WCPFC-CA



# SPA iTRP preliminary results



# SPA iTRP

- WCPFC-CA only adjustment to catch (numbers)

Depletion		
Long term avg SB/SB <sub>F=0</sub> (WCPFC-CA)	% 2017- 2019 SB <sub>F=0</sub>	Depletion relative to iTRP
0.56	1.07	1.11
0.53	1.01	1.05
0.50	0.96	1.00
0.46	0.88	0.92
0.42	0.80	0.84

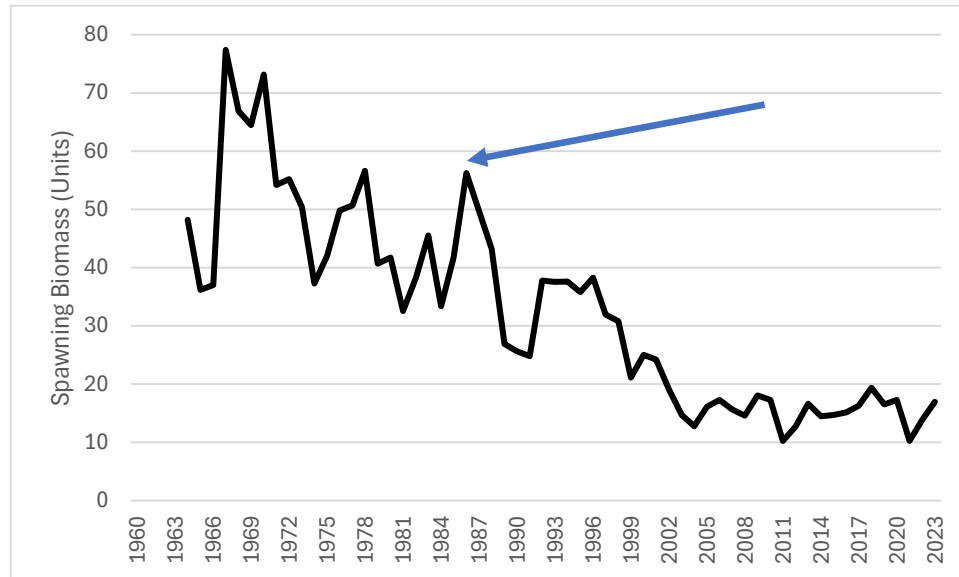
# SPA iTRP – caveats

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- Note when considering higher future catches, some projections ‘failed’ (insufficient fish to allow the projected catch to be taken)
  - These runs set to zero for the estimation of depletion and risk
- SPA OMs convert catch in numbers to catch in weight.
  - Outcomes appear more pessimistic
  - SC20 will need to think about what approach is better



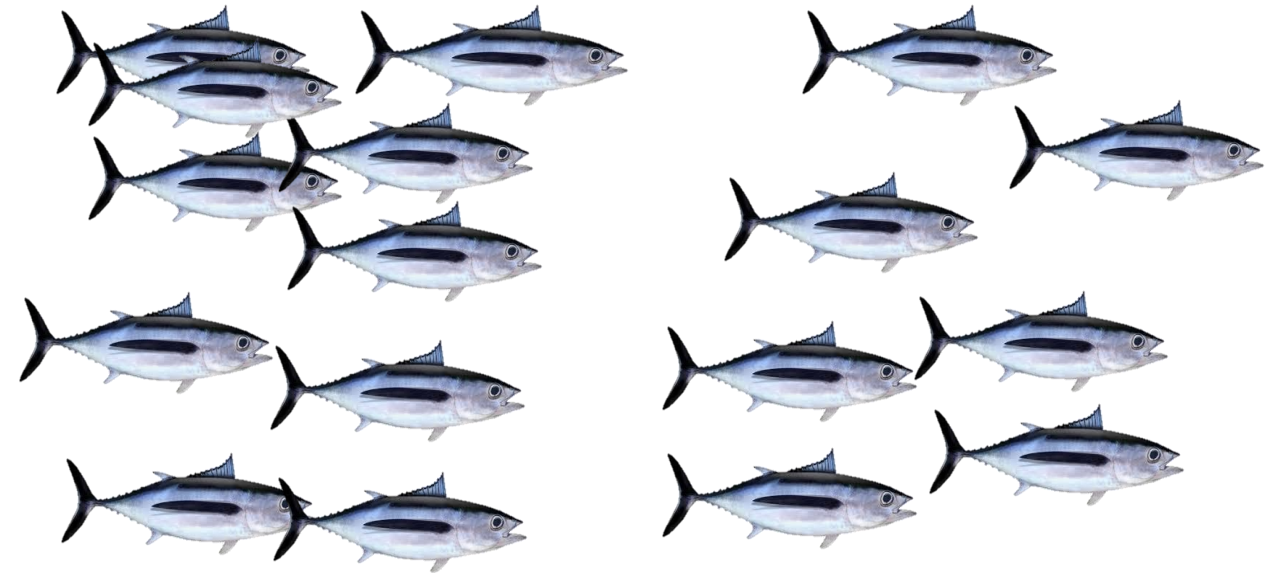
# SPA iTRP – caveats



Projected catch

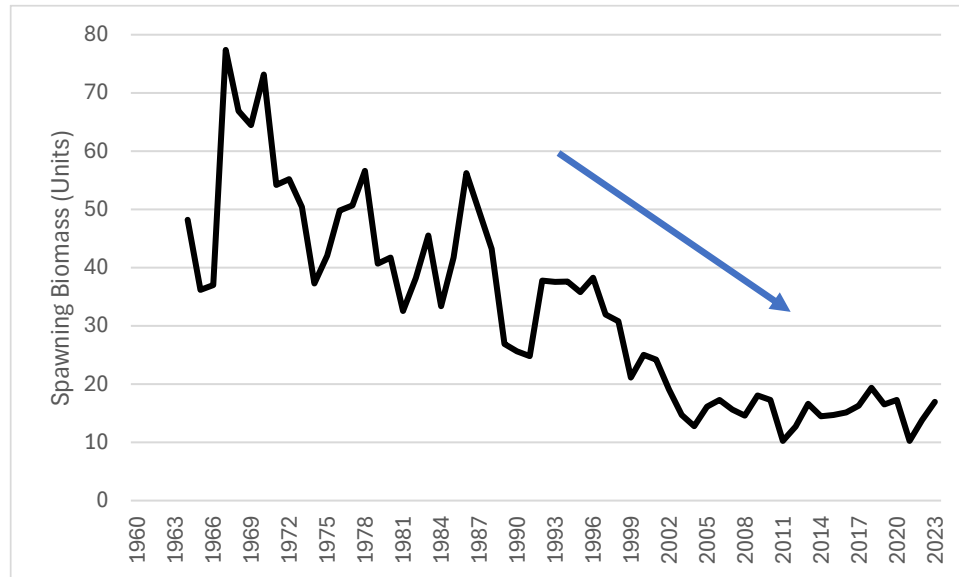
Numbers = 10 fish

Weight = 350kg



Weight = 400kg

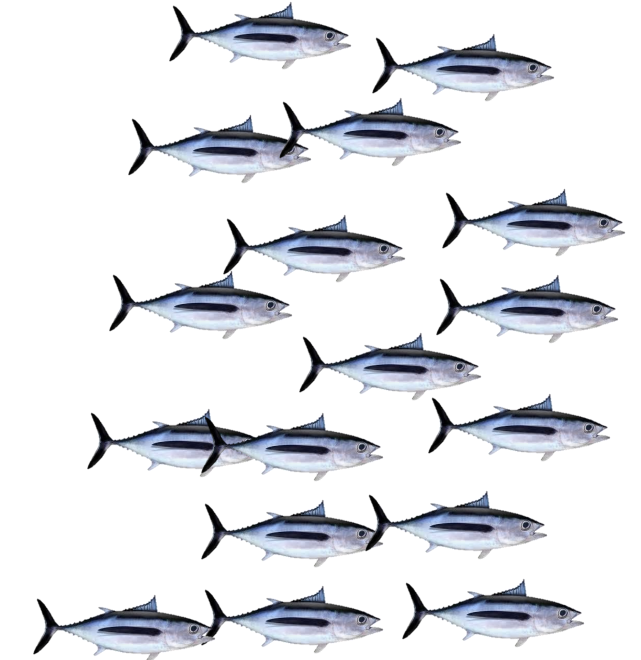
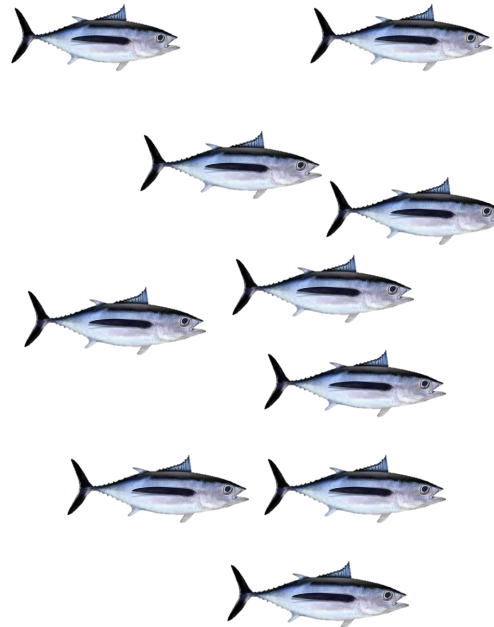
# SPA iTRP – caveats



## Projected catch

Numbers = 10 fish

Weight = 350kg



Weight = 300kg?



# SPA iTRP – catch v weight (see Appendix)

- WCPFC-CA only adjustment to catch (numbers/**weight**) (EPO fixed)

Catch scalar (cf 2020-2022 avg)	Approx catch (LL+TR, mt)	Depletion		Vulnerable biomass		
		WCPFC-CA	Long term avg SB/SB <sub>F=0</sub> (WCPFC-CA)	Risk < LRP	VB/VB <sub>2017-2019</sub>	VB/VB <sub>2013</sub>
0.875/0.85	53,100/ <b>51,600</b>		0.56	3%/6%	0.82/ <b>0.83</b>	0.74/ <b>0.74</b>
0.935/0.925	56,750/ <b>56,150</b>		0.53	5%/10%	0.79/ <b>0.78</b>	0.70/ <b>0.70</b>
1 / 1	60,700		0.50	8% / 14%	0.74/ <b>0.73</b>	0.67/ <b>0.68</b>
1.18/1.075	71,300/ <b>65,250</b>		0.46	16%/20%	0.64/ <b>0.68</b>	0.57/ <b>0.61</b>
1.25 / 1.15	75,900/ <b>69,800</b>		0.42	19%/26%	0.59/ <b>0.64</b>	0.53/ <b>0.57</b>

# Recommendations

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- Note the recalibrated iTRP depletion value based on the submitted 2024 stock assessment grid, for use in provision of stock status advice relative to this level.
- Consider the levels of fishing necessary to achieve the recalibrated iTRP and alternative depletion levels, and corresponding catch, catch rate and risk outcomes.
- Consider whether alternative depletion levels should be evaluated.
- Consider the implications of management action within the WCPFC Convention Area only, and those where action is taken across the South Pacific.
- Provide advice on the methodology for longline catch-based projections in terms of use of catch in numbers of fish or catch weight as their basis.



# SP-wide catch (numbers)

Catch scalar (cf 2020-2022 avg)	Approx catch (mt)		Depletion				Vulnerable biomass		F/F <sub>MSY</sub>	
	WCPFC-CA	Remainder EPO	Long term avg SB/SB <sub>F=0</sub> (WCPFC-CA)	% 2017-2019 SB <sub>F=0</sub>	Depletion relative to iTRP	Risk < LRP	VB/VB <sub>20</sub> 17-2019	VB/VB <sub>20</sub> 13	F/F <sub>MSY</sub>	Risk F>F <sub>MSY</sub>
0.880	53,400	19,800	0.56	1.07	1.11	3%	0.84	0.75	0.17	4%
0.940	57,050	21,150	0.53	1.01	1.05	5%	0.79	0.71	0.19	6%
1	60,700	22,500	0.50	0.96	1.00	8%	0.74	0.67	0.20	9%
1.100	66,800	24,750	0.46	0.88	0.92	13%	0.67	0.60	0.23	13%
1.180	71,600	26,550	0.42	0.80	0.84	17%	0.62	0.56	0.24	17%