Scientific Committee
Seventeenth Regular Meeting

Stock Assessment
Theme Session

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Lead: Bigelow

3.1.1 South Pacific albacore – 11 August

SA-WP-02 Stock assessment of south Pacific albacore

3.3.1 Southwest Pacific swordfish – 12 August

SA-WP-05 Focusing on the front end: A framework for incorporating uncertainty in biological parameters in model ensembles of integrated stock assessments

SA-WP-04 Stock assessment of Southwest Pacific swordfish

Lead: Minami

3.3.2 Pacific blue marlin – 14 August

SA-WP-08 ISC. Pacific blue marlin assessment

3.2.1 Southwest Pacific blue shark – 16 August

SA-WP-03 Southwest Pacific blue shark stock assessment

3.4 Peer review – 14 August or earlier as time permits. Lead: Bigelow

SA-WP-06 Draft Terms of Reference for WCPO yellowfin assessment peer review

By the end of each stock assessment

1) Delegations provide comments on the assessments
2) Agree on what components of the structural uncertainty grid to include in Stock Status and any weighting
3) Delegations provide initial comments on what components to include in Management Advice and Implications for the report

Report format for Scientific Advice

Stock status and trends

Table 1. Description of the structural sensitivity grid used to characterise uncertainty in the assessment.

Table 2. Summary of reference points over all 72 individual models in the structural uncertainty grid

Figure 1. Spatial structure used in the 2021 stock assessment model

Figure 2. Time series of total annual catch (1000's mt) by fishing gear over the full assessment period

Figure 3. Estimated annual average recruitment by model region for the diagnostic case model

Figure 4. Estimated annual average spawning potential by model region for diagnostic case model

Figure 5. Estimated annual average juvenile and adult fishing mortality for the diagnostic case model

Figure 6. Plot showing the trajectories of fishing depletion (of spawning potential) for the ? model runs included in the structural uncertainty grid

Figure 7. Majuro plot summarising the results for each of the models in the structural uncertainty grid

Figure 8. Kobe plot summarising the results for each of the models in the structural uncertainty grid

August 14

3.1.1 SPALB

Grid results
Management advice

Lead: Minami

3.3.2 Pacific blue marlin – 14 August

SA-WP-08 ISC. Pacific blue marlin assessment

August 14

	Discussion			Report clearing		
	Assessment Comments	Grid	Management advice	Assessment & Recommendations	Stock Status	Management advice
SP ALB	✓	✓	**14-Aug**	16-Aug	16-Aug	
SW SWD	✓	14-Aug (?)	16-Aug			
BUM	**14-Aug**	N/A	**14-Aug**			
SW BSH	16-Aug	16-Aug	16-Aug			

1) SC17 noted the concern that the standardized CPUE indices do not show linear contrast over the past 20 years when the catch has increased by 2 to 3 fold and also that the fit to the indices show a residual pattern over time. SC17 supported the assessment scientist's suggestion to consider split indices in future assessments, which might allow the data to be more informative during the contemporary period, which is more important.
2) SC17 noted a possible a nonlinear relationship between relative abundance and CPUE or a time-varying relationship with changing fishing power and catchability. The next assessment could investigate such nonlinear relationship. **additional language?**

3) SC17 noted the concern that the standardized CPUE model with hooks per basket (HPB) did not converge. The time-series is almost 70 years with substantial shifts to deploy more HPB though time. These gear changes have probably altered SP ALB catchability and require additional research.

4) Based upon the SC-agreed 2021 South Pacific albacore SA, re-calibrate the WCPFC TRP (the median depletion in the WCPFC-CA, SB/SBF=0) that would on average achieve the agreed objective of an 8 percent increase in vulnerable biomass (catch per unit of effort proxy) for the southern longline fishery as compared to 2013 levels. Within that projection-based analysis, WCPFC-CA longline and troll fisheries should be modelled based upon catch, and fishing levels within the EPO should be adjusted in the same way as the WCPO for one scenario and fixed at recent catch levels for another scenario. Future recruitment should be sampled from the long term recruitment pattern.

August 16

	Discussion			Report clearing		
	Assessment	Grid	Management	Assessment &	Stock	Management
	Comments		advice	Recommendations	Status	advice
SP ALB	✓	✓	14-Aug	17-Aug	17-Aug	
SW SWD	✓	**16-Aug**	**16-Aug**			
BUM	14-Aug	N/A	14-Aug			
SW BSH	**16-Aug**	**16-Aug**	**16-Aug**			