COMM6-Report ANNEX3: 2018 Work Plan for Scientific Committee

(WP21, Adopted Feb 2nd, 2018)

Deep water

Task	Objective	Timeline
Orange roughy assessment	Conduct Orange roughy stock assessments: • Explore alternative stock assessment models • Estimate stock status • Provide advice on sustainable catch levels One Tasman Sea stock Louisville Ridge stocks Relevant Tasman Sea stocks	 2018 2019 2020
Orange roughy assessment data	• Ageing of existing and new orange roughy samples • Coordinate and design acoustic surveys for relevant stocks (intersessional consideration)	2018-2021
Deep water stock structure (Seed of $20k from SPRFMO SC)	Establish an ORY sampling plan to ensure appropriate genetic samples are being collected from deepwater stocks Provide priority list for deepwater stock structure analyses based on Tier 2 and 3 Risk Assessment for other DW (non ORY) stocks Use modelling and observation data to predict connectivity and seasonal to decadal variability: Using genetic, microchemistry, morphometric, parasite prevalence and tagging experiments	2018 2019 2021
Other stock assessments, including ecological risk assessment	• Complete quantitative risk assessment of DW sharks caught in SPRFMO bottom fisheries • Scoping analysis of stocks to be assessed (categorising by tiers in assessment framework) • Complete risk assessment of teleost stocks • Review ecological risk assessment methods • Recommend relevant reference points and/or management rules for all assessed DW stocks	2018 2019 2018 2020
VME Encounter	• Review proposed VME encounter protocol thresholds • Annual review of VME encounters • Collect and review VME catch and other benthic sampling data	2018 Annual from 2019 2020
Spatial management	• Update and re-assess VME and habitat suitability modelling as appropriate	2020
Bottom Fishery Impact Assessment	• Review of the current BFIAS • Revise and update BFIAS • Review updated BFIA from members relative to revised BFIAS	2018 2019 2020

Squid

Task	Objective	Timeline
Squid assessment and CMM development	Develop and present alternative assessment approaches Develop a plan for more detailed within-season fishery monitoring Evaluate possible management approaches against Commission objectives	2019-2021 2018 2019+
Squid assessment data	• Identify data needs and recover historical data • Sample biological information year-round in its entire distribution area • Reconstruct historical total catch records including non-CNCPs and non-members • Record and analyse diet data	2018-2020
Squid connectivity	Develop standardised approaches, e.g., for genetic sampling Use modelling and observation data to predict connectivity and seasonal to decadal variability possibly using genetic, microchemistry, morphometric, parasite prevalence, and tagging experiments	2018 2019-2022

Jack mackerel

Task	Objective	Timeline
Jack mackerel assessment data	• Review available input data JM assessment • Evaluate the impact on age-length keys due to any revisions in age determinations • Standardization of commercial tuning indices • Review industry data availability and usability	2018
Jack mackerel assessment (US$25k)	Conduct an assessment of Jack mackerel and have a workshop: • SC and other funds to support experts • An evaluation of alternative stock structure hypotheses • Review appropriate data weightings • Explore alternative stock assessment models • Review the rebuilding plan • Provide TAC advice	2018
Estimation of growth	Analyse growth estimation in light of spatial-temporal changes using a variety of techniques such as daily increment, carbon dating, tagging	2019-2020
Predict recruitment under climatic drivers	Investigate SPRFMO specific drivers of recruitment such as El Nino to improve productivity prediction	2020-2025
Jack mackerel connectivity	Use modelling and observation data to predict connectivity and seasonal to decadal variability herein	2019-2021

Ecosystem

Task	Objective	Timeline
Evaluate the applicability of data collected from fishing vessels targeting pelagic species	Mapping spatial-temporal population density distribution of jack mackerel using a combination of the existing acoustic survey data and acoustic information as obtained from by industry vessels.	2019-2020
Further developments of standardized oceanographic data products and modelling	• Characterize jack mackerel habitat (e.g., past studies done in Peru and Chile) • Provide ecosystem status overview for SC at seasonal to decadal scale	2018-2020
Seabird / bycatch monitoring	• Evaluate available observer data on seabird interaction rates (jack mackerel, different squid fisheries, demersal) and determine where estimates can be improved • Analyse observer-collected seabird interaction data to inform risk assessment • Progress southern hemisphere quantitative risk assessment (SEFRA)	2018-2019 2018
EBSA	• Evaluate impacts of fishing activities	2019

Other

Task	Objective	Timeline
Observer programme	• Provide a discussion paper on the interaction and tradeoffs between observer coverage levels and Commission management objectives for each major fishery • Analyze observer coverage rates from simulation study for SPRFMO fisheries and recommend values to Commission • Evaluate available observer data on seabird interaction rates (jack mackerel, different squid fisheries, demersal) and determine where estimates can be improved	2018 2019 2018-2019
Exploratory fishing	• Should a CMM pass, evaluate pilot study and review analyses on data collected from first year of crab/lobster exploratory fishery by Cook Islands and provide advice to Commission • Review exploratory toothfish fishery and evaluate proposal for its continuation	2019 2018