



Data Gaps in the WCPFC Tuna Fisheries

“SCIENTIFIC DATA AVAILABLE TO THE WCPFC”
(WCPFC-SC17-2021 [ST WP-01](#))

“ROP Data Management”
(WCPFC-SC17-2021 [ST IP-02](#))

“Draft Guidelines for the Voluntary Submission of Purse Seine Processor Data by CCMs to the Commission”
(WCPFC-SC17-2021 [ST WP-03](#))

Online Meeting
11-19 August 2021

Presentation Outline



Recent provisions of (2020) data for WCPFC science...


- Annual catch estimates
- Aggregate catch/effort data
- Operational catch/effort data
- Size data
- ROP (Observer) Data (SC17 ST IP-02)

SC17 consideration for (5) proposals related to data gaps and data dissemination

ANNUAL CATCH ESTIMATES

(see Tables 1 and 2 in ST WP-1)

2020 Annual catch estimates

- o All (32 CCMs = 100%) had provided 2020 estimates by deadline 
- o Some CCMs provided provisional estimates, then updated (e.g. Philippines)

Aggregate Catch/Effort data

(see Tables 3 and 4 in ST WP-1)

2020 Aggregate data

- Data for all CCM fleets available by the deadline (30th April 2021)
- Reporting of key shark species catches (for some CCMs) [Data Gap #18]
- Coverage of data used to produce aggregate data very low (non-binding) - Indonesia

Please refer to the GENERAL Notes column in Tables 3 and 4



COUNTRY / ENTITY	GEAR TYPE	Date Submitted	DATA-GAP Notes	General NOTES	TIER-SCORING EVALUATION LEVEL
Australia	LL, FL, PS, TR	30 Apr 2021		C, I	III
Canada	TR	28 Apr 2021			III
China	LL (DWFN)	30 Apr 2021		P	III
	PS	30 Apr 2021		P	III
Cook Islands	LL, PS, TR	09 Apr 2021		J, O	III
Ecuador	PS	28 Apr 2021		C	III
El Salvador	PS	30 Apr 2021		C	III
European Union	LL	21 Apr 2021		C, F, P, R	III
	PS	21 Apr 2021		C	III
Federated States of Micronesia	LL, PS	09 Apr 2021		J, O	III
Fiji Islands	LL, FL	09 Apr 2021		J, O	III
French Polynesia	LL	09 Apr 2021		J, O	III
Indonesia	LL, PS, FL	30 Apr 2021	18	Q, O, S, T	I (50%)
	HL, TR, GN, OT	30 Apr 2021		N, Q	III
Japan	LL	21 Apr 2021		A, F, H, I, L, R	III
	FL	21 Apr 2021		L	III

Operational CATCH/EFFORT Data

(see Tables 5 and 6)

2020 Operational data

- Data for all CCM fleets available by the deadline (30th April 2021).
- Positive developments during the past year...
 - Vietnam revised national logbook to adhere to WCPFC requirements
 - Indonesia now providing the catch in number of fish
- Some required fields are missing from Indonesia (binding)
- Key shark species catch not provided by Indonesia (binding)
- Incomplete coverage of operational data for several fleets (non-binding)
- Reliability of key shark species reporting (non-binding)

Please refer to the Notes and COVERAGE column in Table 6 ...

FLAG STATE / ENTITY	GEAR(s)	Date Submitted	DATA-GAP Notes	General NOTES	TIER-SCORING EVALUATION LEVEL	
					KEY ATTRIBUTES	COVERAGE
Australia	LL, PL, PS, TR	30 Apr 2021		E	III	100%
Canada	TR	28 Apr 2021			III	100%
China	LL	30 Apr 2021	11		III	70% *
	PS	30 Apr 2021			III	100%
Cook Islands	LL, PS	09 Apr 2021		C, J	III	100%
Ecuador	PS	28 Apr 2021	11	F	III	80% *
El Salvador	PS	30 Apr 2021			III	100%
...	LL	...		E	III	100%

Size Data

(see Table 7)

Generally, now well covered ...  ... but note the impacts on 2020 submissions due to COVID...

Gaps in Table 7 refer to FLAG-STATE reporting obligations

2020 Size data were not provided (.. but non-binding)

- US south Pacific albacore troll fleet
- EU Longline
- Tuvalu Longline

Status of Observer data management

Refer to [SC17 ST IP-02](#)

Purse seine observer data submissions

- [Figure 1](#) and [Tables 1 and 2](#) (.. highlighting declines during 2020 and 2021 due to COVID)

ROP Longline coverage by fleet for compliance ...

- [Tables 3 and 4](#) (.. impacts due to COVID ..)



Overall Longline observer coverage (ROP & non-ROP) ...

- [Table 5](#) (2019 – 5.2%) and [Table 6](#) (2020 – 3.0%; data yet to be provided and COVID impacts)

			REGIONAL OBSERVER PROGRAMME (ROP) DATA COVERAGE						
			(minimum required for ROP is 5%)						
CCM Fleet	Fishery	Metric selected for Coverage	Total estimated effort	As reported by flag state		Total estimated effort	As per data submission		See NOTES
				Observer	%		Observer	%	
AUSTRALIA	Domestic	No. of Hooks	–	–	–	–	–	–	2, 17
CHINA	Ice/Fresh	Days fished	52,254	2,968	5.7%	53,000	1,834	3.5%	3, 10, 11, 22
	Frozen								
COOK ISLANDS	Pacific Islands	Days at Sea	2,447	0	0.0%	2,447	0	0.0%	8, 9, 28
EUROPEAN UNION	Distant-water	No. of Trips	13	0	0.0%	13	0	0.0%	4, 10, 19, 28
FSM	Pacific Islands	No. of Trips	–	–	–	–	–	–	26, 27
FJI	Pacific Islands	No. of Trips	546	126	23.1%	99	7	7.1%	7
FRENCH POLYNESIA	Pacific Islands	Days at Sea	–	–	–	–	–	–	2

Check the status of your Scientific data provisions



SC17 ST WP-1 paper – Data Gaps

- Tables 1 and 2** – Annual catch estimates for 2019 and 2020
- Tables 3 and 4** – Aggregated catch/effort data for 2019 and 2020
- Tables 5 and 6** – Operational catch/effort data for 2019 and 2020
- Table 7** – Size data for 2020
-
- SC17 ST IP-02** – ROP (observer) data not yet provided

Review the DATA-GAP Notes in each table for your fleets

Please contact me if there are any issues.

#1 – COVID Impacts on Observer data

In anticipation of questions from SC17, [Peatman et al. \(2021 : SC17-ST-IP-04\)](#) conducted an initial study on the impacts of reductions in purse seine observer coverage due to COVID on the precision of tuna catch estimates.

The main outcome was that reduced observer coverage significantly effects, *inter alia*, the precision of the purse seine bigeye tuna catch estimates in the aggregate data used for the assessments.

So, to ensure future assessments are based on reliable data, **a return to 100% purse seine observer coverage is strongly recommended as soon as it is safe and logistically feasible.**

#2 – Guidelines for the Voluntary Submission of Purse seine processor data

SC15 and SC16 acknowledged the potential of cannery data for the work of the Commission

SC16 reviewed the draft guidelines and proposed minor updates.

SC17 is invited to ...

- review the draft guidelines again, and
- consider endorsement for forwarding to TCC17 and WCPFC18

(see [SC17-2021-ST-WP-03](#))

#3 – Enhance Scientific data submission guidelines (SciData) (see Section 2.4 and ANNEX 2 of data gaps paper)

- Proposing additional tables of operational data fields which match the text...
- No changes to the content or requirements for SciData
- Provides a better understanding of the operational data requirements for technicians preparing and scientists using the data
- Consistency and linkages with WCPFC SSPs for Electronic Reporting guidelines

RECOMMENDATION : Prepare tables for longline, purse seine and pole-and-line operational data fields as a new ANNEX in Scidata for SC18 and TCC18 review.

▲ ANNEX 2 – Proposed additional ANNEX to the “Scientific Data to be Provided to the Commission”

42.1 Longline operational data – TRIP INFORMATION

FIELD	Reference text in Attachment K, Annex 1.	Binding	Notes on recommended submission requirements
TRIP IDENTIFIER		NO	Internally generated. Can be NATURAL KEY or unique integer. NATURAL KEY would be VESSEL + DEPARTURE DATE
VESSEL IDENTIFIER	<p>Name of the vessel, country of registration, registration number, and international radio call sign:</p> <p>The registration number is the number assigned to the vessel by the state that has flagged the vessel. A code may be used as a vessel identifier instead of the name of the vessel, registration number and call sign for vessels that have fished and that intend to fish only in the waters of national jurisdiction of the State that has flagged the vessel.</p>	YES	<p>Using a vessel identifier field (ideally the WCPFC VID) removes the redundancy of including all vessel attributes with each trip record and ensures standardisation and consistency through referencing the WCPFC Vessel Registry database.</p> <p>Please provide a separate list of Vessel attributes linked to the Vessel identifier field.</p>
PORT/PLACE OF DEPARTURE	<p>The start of a trip is defined to occur when a vessel (a) leaves port after unloading part or all of the catch to transit to a fishing area or (b) recommences fishing operations or transits to a fishing area</p>	YES	<p>Where possible, please provide a standardised Port location code through the following facility</p> <p>https://www.iso.org/standard/64599.html</p>

#4 – WCPFC Public domain SIZE DATA

- Several requests received for aggregated WCPFC SIZE DATA
- SIZE data are listed as PUBLIC DOMAIN (lowest risk classification) in the WCPFC data rules... but with a condition ...
 - “if adequate time has passed to allow the scientists that organised for the collection of such data to publish a paper analysing it”
- Not sure how to interpret this requirement ?

(see Section 4.1 of data gaps paper which list the SIZE data fields to be disseminated)

Recommendation

- Aggregated SIZE data fields to be disseminated via the WCPFC public domain web page
- Options to deal with the condition (“...adequate time...”)
 1. Exclude size data for the two (2) most recent years; OR
 2. CCMs to advise on which of their size data submissions should be excluded



#5 – Latest version of ACE Tables

WCPFC17 recommended the expansion of ACE TABLES to include

- additional estimates of effort; and
- estimates of annual area-based CMM quantitative limits

Latest version of ACE Tables are available here for CCM review

- <https://www.wcpfc.int/ace-by-fleet>

Opportunity for CCM comments

Derived recent annual catch and effort estimates that could be relevant to review of implementation of some CMMs and for certain CCMs	2019	2020	Notes
CMM 2006-04 : South Pacific striped marlin			
– count of fishing vessels/effort in area south of 15S	N/A	N/A	Vessels
– catches of MLS by flag in area south of 15S	N/A	N/A	
CMM 2009-03: Swordfish - south WCPFC area			
– count of longline fishing vessels and/or effort in area S20S	N/A	N/A	Vessels
– catches of SWO in convention area S of 20S	N/A	N/A	
CMM 2015-02 : Albacore - south WCPFC area			
– count of vessels actively fishing for SP albacore S of 20S	N/A	N/A	Vessels
– catch of ALB in convention area south of 20S	N/A	N/A	
– count of troll fishing vessels and/or effort in area S20S	N/A	N/A	
CMM 2019-03 : Albacore - north WCPFC area			
– number of vessels in area north of the equator (for this GEAR TYPE)	95	95	Vessels
– effort directed to albacore in area north of the equator (by this GEAR TYPE)	22,604,895	25,243,533	Hooks
– catches of albacore in WCPFC area north of the equator (by this GEAR)*	WCPFC-North	WCPFC-North	Refer to "WCPFC-North" ACE Table/worksheet
CMM 2010-01 : Striped marlin - north WCPFC area			
– catches of striped marlin in WCPFC area north of the equator (by this GEAR)*	WCPFC-North	WCPFC-North	Refer to "WCPFC-North" ACE Table/worksheet
CMM 2020-02 : Pacific Bluefin - north WCPFC area			
– fishing effort north of the 20°N in WCPFC area	N/A	N/A	Hooks
– catches of PBF < 30kgs in WCPFC area north of 20°N	N/A	N/A	
– catches of PBF ≥ 30kgs in WCPFC area north of 20°N	N/A	N/A	
Tropical tuna CMM (CMM 2018-01)			
– PS fishing effort by all EEZs combined	N/A	N/A	
– PS fishing effort by flag for high seas of Convention Area (20 N to 20 S only)	N/A	N/A	
– PS fishing effort/vessels by flag in convention area south of 20S	N/A	N/A	

SCIENTIFIC DATA AVAILABLE TO THE WCPFC



Thank you - Questions ?

SC17 Considerations	Potential Action
#1 – COVID Impacts on Observer data	General recommendation to resume 100% coverage when possible
#2 – Guidelines for the Voluntary Submission of Purse seine processor data	Endorse guidelines and recommend to TCC17 and WCPFC18
#3 – Enhance SciData guidelines with tables of data fields	Recommend further work for SC18 review
#4 – WCPFC Public domain SIZE DATA	Recommend publishing public domain size data
#5 – Latest version of ACE Tables	Note and comment