



Pacific  
Community  
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du Pacifique

# Data Gaps in the WCPFC Tuna Fisheries

STATISTICS WORKING GROUP

“SCIENTIFIC DATA AVAILABLE TO THE WCPFC”  
(WCPFC-SC12-2016 / ST SWG WP-1)

SC 12, Bali, Indonesia

3-11 August 2016

# Presentation Outline



## Recent provisions of data ...

- Annual catch estimates
- Aggregate catch/effort data
- Operational catch/effort data
- Size data
- ROP (Observer) Data (SC12 ST IP-02)

## Tier-scoring for evaluating data submissions...

## Summary - the main data gaps...

- Operational Catch/Effort data...
- Shark species catch
- Observer data

## Other recent developments ...

- WPEA SM Project -- Philippines, Indonesia and Vietnam fisheries

## WCPFC Public Domain data 3-vessel rule

## SC12 Considerations

Recent provisions of  
data...

## ANNUAL CATCH ESTIMATES

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

### 2015 Annual catch estimates

- o 26 of the 29 CCMs (93%) had provided 2015 estimates by deadline
- o Outstanding estimates now provided (Ecuador, Indo, Vietnam)
- o Continued improvement noted ...
- o **Shark species catch estimates** continue to improve but still some work to do
- o **Estimates of discards** also requires some attention... [but non-binding]

# Recent provisions of Scientific Data to the WCPFC

## Aggregate Catch/Effort data



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

### Main data gaps ...

- **2015 LONGLINE data** : low coverage for latter months by some fleets ?
- Non-provision of **HISTORICAL operational data** means that “**Annual catch/effort estimates for EEZ/high seas**” must be provided, but not yet by **CHINA and KOREA...**
- Lack of aggregate catch/effort data from **Indonesia**, but expectations ...

Also please refer to the DATA GAP and 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, PL, PS, TR	28 Apr 2016		C, I	III
Belize	LL	30 Apr 2016		E	III
Canada	TR	29 Apr 2016			III
China	LL (DWFN)	30 Apr 2016		P	III
	PS	30 Apr 2016		P	III
Cook Islands	LL, TR	30 Apr 2016		J, I, O	III
Ecuador	PS	09 Jun 2016		C	III
El Salvador	PS	26 Apr 2016		C	III
Federated States of Micronesia	LL, PS	30 Apr 2016		J, O	III

## Operational CATCH/EFFORT Data

(see Tables 5 and 6)

### Significant progress over past year ...

- Provision of **2015 operational data** for the first time...
  - JAPAN Longline, Pole-and-line and Purse seine (south of 20°S related to CMM 2014-01 requirement)
- Korea and China LL and PS **operational data** for 2015 (following on from 2014 provisions)...
- Full operational data for HW LL and AS LL for years prior to 2007 (provision to SPC)

# Recent provisions of Scientific Data to the WCPFC

## Operational CATCH/EFFORT Data



(see Tables 5 and 6)

### Main data gaps ...

- Lack of 2015 operational data for two main fleets (Ch. TP & Indonesia)
- Lack of historical operational data for Asian fleets
- Low coverage of data from some fleets

Please refer to the DATA GAP Notes and COVERAGE column in Table 5 ...

FLAG STATE / ENTITY	GEAR(s)	Date Submitted	DATA-GAP Notes	General NOTES	TIER-SCORING EVALUATION LEVEL	
					KEY ATTRIBUTES	COVERAGE
Australia	LL, PL, PS, TR	28 Apr 2016		E	III	100%
Belize	LL	30 Apr 2016		A	III	N/A
Canada	TR			A	III	N/A
China	LL	30 Apr 2016	6	I	III	< 40% *
	PS	30 Apr 2016			III	100%
Cook Islands	LL, TR	30 Apr 2016		C, J	III	100%
Ecuador	PS	09 Jun 2016	11	F	III	73% *
El Salvador	PS	26 Apr 2016			III	100%

## Size Data

(see Table 7)

- Generally, well covered ...
- Gaps in Table 7 refer to FLAG-STATE reporting obligations ...
- In some instances, the FLAG STATE has NOT provided size data, but have been covered through COASTAL STATE provisions ...



# ROP (observer) data

**(Refer to SC12 ST IP-02 – Status of Observer data management)**

Recent developments with OBSERVER DATA SUBMISSIONS include...

- China distant-water longline trips (2015)
- Chinese Taipei longline trips for 2015
- 2015 JP Longline data (82 trips, but no set-level effort or catch data provided)
- Data loaders for all non-standard observer data now developed
- Significant progress on backlog of PS data entry
- Enhanced web-based reporting of observer data available to authorised users

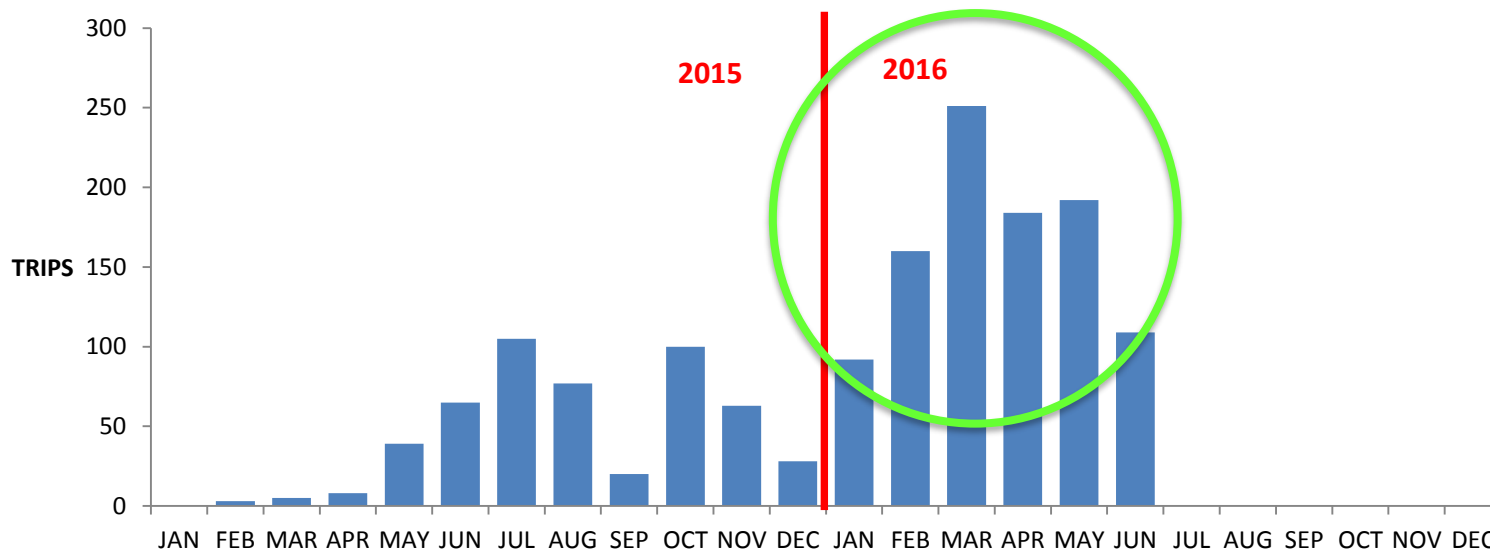
However, there remain issues in the provision of observer data...

- Lags in the provision of observer data
- CCMs notifying of observer coverage, but data yet to be provided !

# ROP (observer) data

## ISSUE : lag in provision of PS observer data

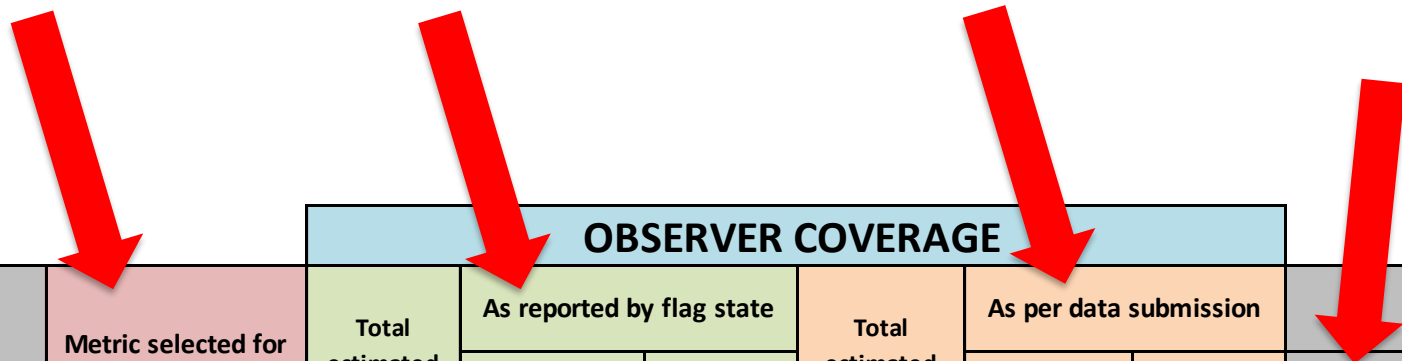
Monthly frequency of provision of 2015 purse seine data



# ROP (observer) data

## Provisional 2015 Longline observer coverage by CCM

based on (i) reporting from CCMs and (ii) data submissions  
(Table 4 in SC12 ST IP-02)



CCM Fleet	Fishery	Metric selected for Coverage	OBSERVER COVERAGE						See NOTES
			Total estimated effort	As reported by flag state		Total estimated effort	As per data submission		
				Observer	%		Observer	%	
AUSTRALIA	Domestic	No. of Hooks	8,220,000	482,623	5.9%	8,180,749	0	0.0%	2, 17
CHINA	Ice/Fresh	No. of Trips	2,185	31	1.4%	2,185	31	1.4%	3, 10, 11
	Frozen	No. of Trips							
COOK ISLANDS	Pacific Islands	Days at Sea	1,915	245	12.8%	2,392	230	9.6%	8, 9
EUROPEAN UNION	Distant-water	No. of Trips	11	0	0.0%	11	0	0.0%	4, 10
FSM	Pacific Islands	No. of Trips			3.0%	306	4	1.3%	7
FIJI	Pacific Islands	No. of Trips	709	147	20.7%	709	147	20.7%	8, 9

## *Check the status of your Scientific data provisions*

### SC12 ST WP-1 paper – Data Gaps

- Tables 1 and 2** – Annual catch estimates for 2014 and 2015
- Tables 3 and 4** – Aggregated catch/effort data for 2014 and 2015
- Tables 5 and 6** – Operational catch/effort data for 2014 and 2015
- Table 7** – Size data for 2015

### **SC12 ST IP-02**

- ROP (observer) data not yet provided & longline coverage table

**Review the DATA GAPS in each table for your fleets**

Please see me if there are any issues.

# Tier-scoring for evaluating data submissions...

# Tier-scoring evaluation of data

Refer to ANNEX in SC12 ST-WP-01 – WCPFC11 directive...

I	No data are provided, or data have been provided but they have been evaluated as 'unusable' ...
II	I. Data have been provided ... but ... (i) there are one or several (minimum-standard) data fields not provided, and/or ... (ii) the coverage of the data is not according to the requirements....
III	Data have been provided, there are no gaps ... and the coverage of data is sufficient ...

# Tier-scoring evaluation of data

## OPERATIONAL CATCH/EFFORT DATA PROVISIONS

FLAG STATE / ENTITY	GEAR(s)	Date Submitted	DATA-GAP Notes	General NOTES	TIER-SCORING EVALUATION LEVEL	
					KEY ATTRIBUTES	COVERAGE
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Canada	TR			A	III	N/A
China	LL	30 Apr 2016	6	I	III	< 40% *
	PS	30 Apr 2016			III	100%
Cook Islands	LL, TR	30 Apr 2016		C, J	III	100%
Ecuador	PS	09 Jun 2016	11	F	III	73% *
El Salvador	PS	26 Apr 2016			III	100%
Federated States of Micronesia	LL	30 Apr 2016	11	C, J, F	III	71% *
	PS			C, J	III	100%
Fiji Islands	LL, PL	30 Apr 2016		C, J	III	100%
French Polynesia	LL	30 Apr 2016	11	C, J, F	III	63% *
	PL			G	III	#
	TR			G	III	#
Indonesia	LL, PS, PL			K	I	0%
	HL, TR, GN, OT			G, K	III	#



### COVERAGE

Coverage has been determined from VMS trip coverage where possible. Where VMS data are incomplete or not available, coverage has been determined in some cases by comparing the total target tuna catch from operational data for that gear to the total target tuna catch from ANNUAL CATCH ESTIMATES.

*	Instances where coverage of operational data is less than 100%, but annual catch/effort estimates by geographic area have been made available and together with the operational level catch and effort data that has been submitted, is sufficient to allow the scientific work of the Commission to be undertaken
#	"It is recognized that certain members and cooperating non-members of the Commission may have practical difficulties in compiling operational data for fleets comprised of small vessels."

# TCC11 Recommendation...

## Overall evaluation of data submission

COUNTRY / TERRITORY / ENTITY	GEAR(s)	Annual Catch estimates	Aggregate CATCH/EFFORT data	Operational CATCH/EFFORT data	SIZE data	OVERALL Science Data
Australia	LL, PS, PL, HL,TR	100%	100%	100%	100%	100%
Belize	LL	100%	100%	100%	100%	100%
Canada	TR	100%	100%	100%	100%	100%
China	LL, PS	100%	100%	100%	50%	88%
Cook Islands	LL, TR	100%	100%	100%	100%	100%
Ecuador	PS	100%	100%	100%	0%	75%
El Salvador	PS	100%	100%	100%	0%	75%
Federated States of Micronesia	LL, PS	100%	100%	100%	100%	100%
Fiji Islands	LL, PL	100%	100%	100%	100%	100%
French Polynesia	LL, PL, OT	100%	100%	100%	100%	100%
Indonesia	LL, PS, PL, HL, TR, OT	80%	0%	0%	100%	45%
Japan	PS, LL, PL, TR, OT	100%	100%	100%	100%	100%
Kiribati	LL, PS, OT	100%	100%	100%	50%	88%
Republic of Korea	LL, PS	100%	100%	100%	100%	100%
Marshall Islands	LL, PS	100%	100%	100%	100%	100%
New Caledonia	LL	100%	100%	100%	100%	100%
New Zealand	LL, PS, TR, PL	100%	100%	100%	100%	100%
Niue	LL	100%	100%	100%	100%	100%
Palau	LL, PL	100%	100%	100%	100%	100%
Papua New Guinea	LL, PS	100%	100%	100%	100%	100%
Philippines	PS, LL, HL, RN, OT	100%	100%	100%	100%	100%
EU-Portugal	LL	100%	100%	100%	100%	100%
Samoa	LL	100%	100%	100%	100%	100%
Senegal	LL	100%	100%	100%	100%	100%
Solomon Islands	LL, PS, PL	100%	100%	100%	100%	100%
EU-Spain	LL, PS	100%	99%	94%	50%	86%
Chinese Taipei	LL, PS	100%	100%	0%	100%	75%
Tokelau	OT	100%	100%	100%	100%	100%
Tonga	LL	100%	100%	100%	100%	100%
Tuvalu	LL, PS, OT	100%	100%	100%	50%	88%





# Main data gaps...

## Operational catch/effort data

- 2015 operational data lacking (Ch.TP and Indonesia)
- Historical data yet to be provided by CN, ID, JP, KR and Ch. TP. ...
- ...some level of access through collaboration [hopefully resolution at SC12]

## Key shark species ...

- Catches of some key shark species still not provided for some fleets
  - Improving the reporting, awareness, etc....
- Difficult to evaluate under-reporting
  - A systematic approach
  - Improving evaluation of key shark data submissions
    - What approach? Resourcing considerations?

## Observer data ...

- Data collected but not provided (see Longline Coverage)
- Lags in provision of data

Other recent developments...

WPEA SM Project

## Recent developments

### PHILIPPINES

- 7<sup>th</sup> Philippines NSAP Data review Workshop (May 2016)
- 9<sup>th</sup> Philippines Annual Catch Estimates Workshop (May 2016)
- Preliminary review of Port sampling data from expanded coverage

### INDONESIA

- 4<sup>th</sup> Indonesia/WCPFC Tuna fishery Data Review Workshop (March 2016)
- 7<sup>th</sup> Indonesia/WCPFC Area Annual Catch Estimates Workshop (June 2016)
- Continued expansion of landings monitoring (govt. funding)
- Increase in logbook submissions (nearly 5,000 for WCPFC Area in 2015)

### VIETNAM

- 5<sup>th</sup> Vietnam Annual Catch Estimates Workshop (June 2016)
- Continued expansion of WCPFC data collection to other provinces
- National support of tuna fishery data collection in the future
- Clear understanding of WCPFC requirements

## Main data gaps

### PHILIPPINES

- Operational PS logbook coverage in PH EEZ
- More reliable estimates for small-scale municipal fisheries

### INDONESIA

- Aggregate and Operational PS, LL and PL logbook
- More detail on sources of catch estimates for key fisheries (LL, HL and P&L)
- Observers collecting WCPFC ROP data

### VIETNAM

- Aggregate and Operational catch/effort data to the WCPFC
- Enhanced logbook data collection in LL, PS and GN fisheries
- A sustainable observer programme

# WCPFC Public Domain data



(July 2015) IATTC members agreed to amend their data rules, inter alia, relating to the definition of public domain data, whereby their AGGREGATE data...

*“... are considered to be in the public domain, provided that the catch of no individual vessel, company, or person can be identified within a time/area stratum. In cases when an individual vessel, company, or person can be identified, the data will be aggregated by time, area or flag to preclude such identification, and will then be in the public domain.”*

Can / should the WCPFC consider something similar ?

Draft Recommendation in Data Gaps paper suggests an SWG ?

# WCPFC Scientific data

## SC12 Considerations / Discussion points

1. 2015 submissions of data and the main data gaps main
2. The new OVERALL tier-score evaluation for scientific data submissions
3. The new format of the Longline ROP coverage table
4. The review of WCPFC public domain data definition and the three-vessel rule