



Pacific  
Community  
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# Trial Application of the BDEP Template for Summarizing Bycatch Data

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EB SWG WP-12

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# Presentation Outline



- Background
- Methodology and issues dealt with during the process
- Coverage of data
- BDEP Template - Explanation....
- Value of BDEP
- RECOMMENDATIONS
- Options
- ACKNOWLEDGEMENTS

# BACKGROUND : SC11 recommendation



The report of SC11 (Para. 669 of Anon,. 2015a) recommended:

*...that SPC, with help from ABNJ Tuna Project:*

*develop a process to populate the [BDEP] template; and provide the first BDEP template (for 2013-2015) to SC12 for review with ROP data subject to the WCPFC data rules.*

# METHODOLOGY and ISSUES DEALT WITH

- Technical approach covered in paper
- Applied standard rules to data
- Includes WCPFC ROP data
- Issues like miscoding identified and addressed
- Other issues arising need more work – addressed in recommendations

# COVERAGE

Calendar Year	Fishery	Total Effort (LONGLINE: Hooks PURSE SEINE: Sets)	Total observed effort	Observer Coverage
2013	L	1,009,980,400	12,202,226	1.2%
2014	L	1,042,549,430	12,129,370	1.2%
2015	L	991,184,990	6,872,992	0.7%
2013	S	54,298	36,833	67.8%
2014	S	55,509	32,091	57.8%
2015	S	45,789	21,507	47.0%

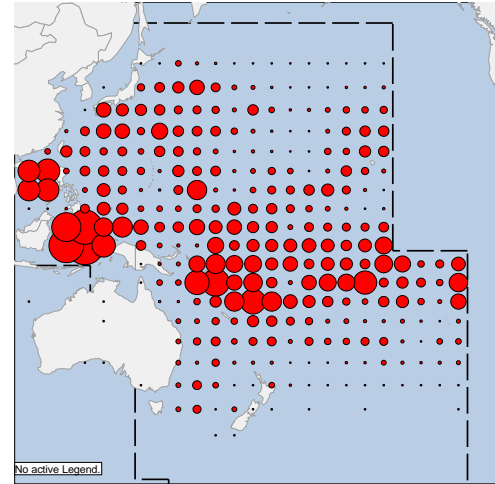
ROP (BDEP)

Calendar Year	Fishery	Total Effort (LONGLINE: Hooks PURSE SEINE: Sets)	Total observed effort	Observer Coverage
2013	L	1,009,980,400	19,216,819	1.9%
2014	L	1,042,549,430	16,851,867	1.6%
2015	L	991,184,990	8,838,493	0.9%
2013	S	54,298	43,475	80.1%
2014	S	55,509	36,829	66.3%
2015	S	45,789	26,518	57.9%

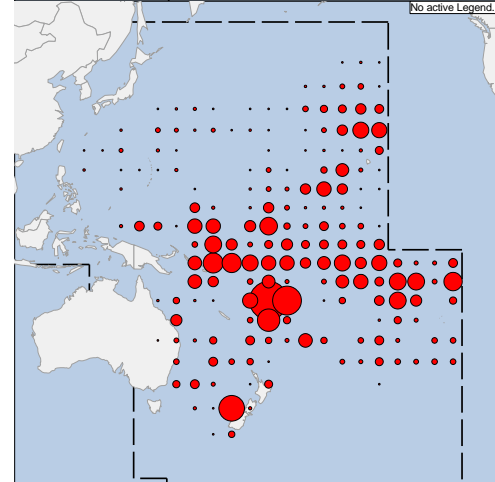
SPC

# SPATIAL COVERAGE LONGLINE

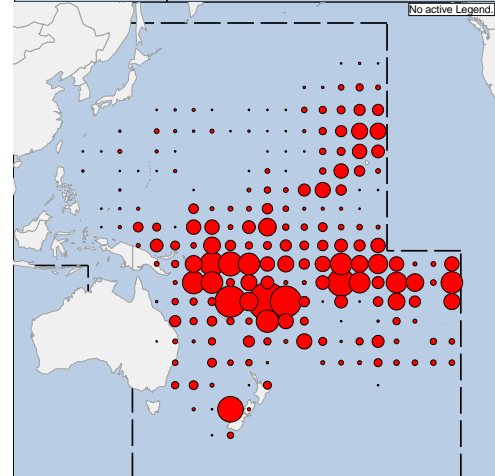
WCPFC  
EFFORT



WCPFC  
ROP  
[BDEP]



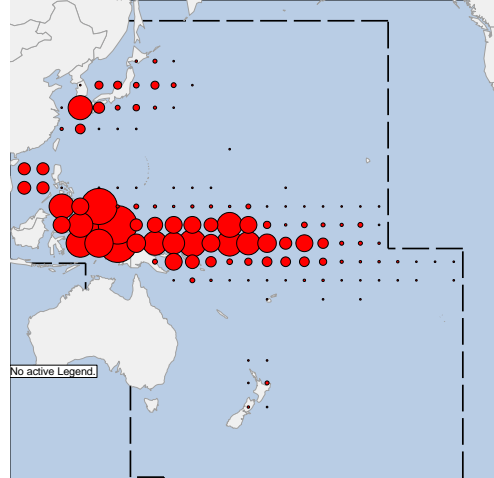
Observer  
data  
available to  
SPC



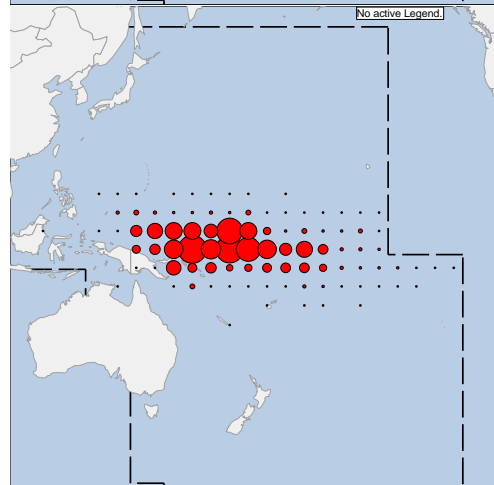
# SPATIAL COVERAGE

## PURSE SEINE

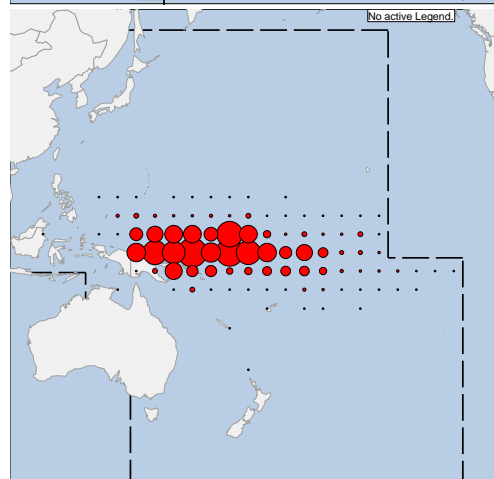
WCPFC  
EFFORT



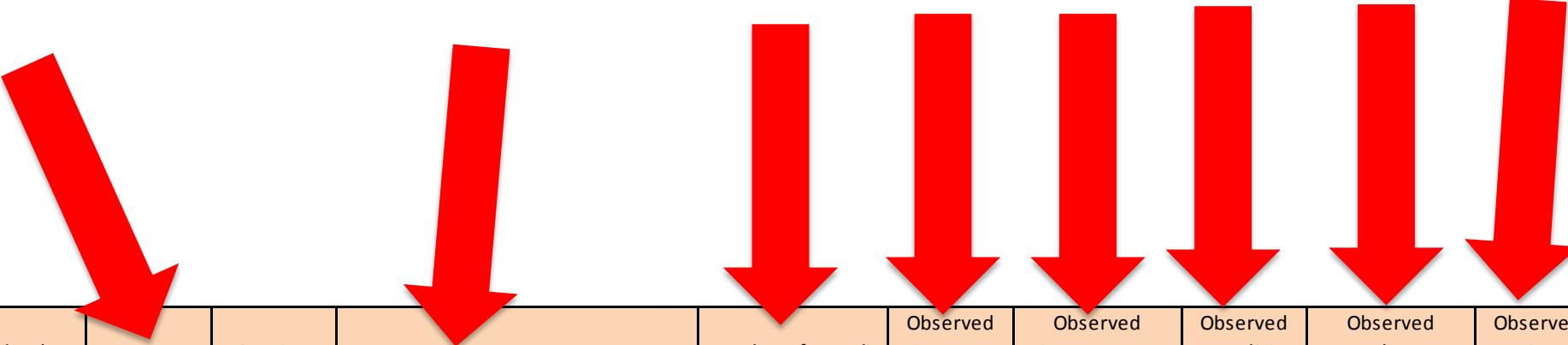
WCPFC  
ROP  
[BDEP]



Observer  
data  
available to  
SPC



# BDEP Template - SUMMARY



Calendar Year	Fishery	Species Category	Species (or group)	Number of vessels with observer data	Observed Captures (number)	Observed Capture Rate (per 1000 hooks)	Observed Mortalities (number)	Observed Mortality rate (per 1000 hooks)	Observed Live Releases
2013	L	BRD	GIANT PETRELS	98	7	0.000639	6	0.000548119	0
2014	L	BRD	GIANT PETRELS	95	11	0.000999	8	0.000726348	1
2015	L	BRD	GIANT PETRELS	77	24	0.003605	7	0.001051346	0
2013	L	BRD	OTHER ALBATROSSES	98	93	0.008496	64	0.005846603	29
2014	L	BRD	OTHER ALBATROSSES	95	78	0.007082	45	0.004085708	32
2015	L	BRD	OTHER ALBATROSSES	77	25	0.003755	1	0.000150192	0
2013	L	BRD	OTHERS	98	23	0.002101	15	0.001370298	6
2014	L	BRD	OTHERS	95	9	0.000817	7	0.000635555	0
2015	L	BRD	OTHERS	77	10	0.001502	0	0.000000000	0
2013	L	SHK	BIGEYE THRESHER SHARK	98	1498	0.136847	312	0.028502191	1096
2014	L	SHK	BIGEYE THRESHER SHARK	95	3399	0.308607	870	0.078990354	2479
2015	L	SHK	BIGEYE THRESHER SHARK	77	69	0.010363	14	0.002102691	41



# BDEP Template by 5°x5° cell



Calendar Year	Fishery	LATITUDE (5° cell)	LONGITUDE (5° cell)	Species Category	Species (or group)	Number of vessels with observer data	Observed Captures (number)	Observed Capture Rate (per 1000 hooks)	Observed Mortalities (number)	Observed Mortality rate (per 1000 hooks)	Observed Live Releases
2013	L	-17.5	-177.5	BRD	GIANT PETRELS	18	1	0.002219042	0	0.000000000	0
2013	L	-17.5	-147.5	BRD	GIANT PETRELS	15	5	0.026556616	5	0.026556616	0
2014	L	-17.5	-152.5	BRD	GIANT PETRELS	7	1	0.013785118	1	0.013785118	0
2014	L	-17.5	-147.5	BRD	GIANT PETRELS	12	3	0.014104372	3	0.014104372	0
2014	L	-17.5	177.5	BRD	GIANT PETRELS	32	1	0.000671222	1	0.000671222	0
2014	L	-12.5	-147.5	BRD	GIANT PETRELS	11	1	0.005400443	0	0.000000000	1
2014	L	-12.5	-142.5	BRD	GIANT PETRELS	10	1	0.006128690	0	0.000000000	0
2014	L	2.5	162.5	BRD	GIANT PETRELS	5	2	0.008036453	1	0.004018227	0
2015	L	-17.5	-152.5	BRD	GIANT PETRELS	5	1	0.026941833	1	0.026941833	0
2015	L	-17.5	-147.5	BRD	GIANT PETRELS	9	3	0.022293893	3	0.022293893	0
2015	L	-12.5	-147.5	BRD	GIANT PETRELS	10	2	0.010965153	0	0.000000000	0
2014	L	-22.5	177.5	BRD	OTHER ALBATROSSES	20	2	0.003815811	2	0.003815811	0
2014	L	-17.5	-147.5	BRD	OTHER ALBATROSSES	12	1	0.004701457	0	0.000000000	0

## VALUE OF BDEP

- Observer data accessibility and transparency
- Improve data quality and management
- Start to understand patterns and trends
- Promote sharing for better management across RFMOs – noting the similar work also happening in various national programmes



# RECOMMENDATIONS

[Consider an SC12 SWG to review ?]

1. The BDEP trial should continue
2. Publish BDEP as public domain information on the WCPFC web site... BDEP tables and issues addressed in SC Data gaps paper
3. Resolve issues for estimating mortality rates for purse seine
4. Provide a table of observer effort by 5°x5°
5. Request vessel identities in observer data where missing (seek advice from the respective CCMs)
6. Report seabirds to the species level, where possible
- ...

# RECOMMENDATIONS (cont...)



7. Expand the BDEP protocol to marine mammals to the species level, where possible
8. Review and update length-length and length-weight relationships for BDEP for SSIs
9. Undertake a trial regional BDEP compilation for purse seine at the scale of the Pacific Ocean, in co-operation with the IATTC and CCSBT Secretariats (subject to resourcing)

# Options

A. Basic, no-cost (*reprioritise other DM tasks*)

Continue trial in 2017-18 (1), publish on web (2)

B. Enhance, low cost

As for A., plus, resolve purse seine form links (3), provide table of observer effort (4), resolve vessel identifiers (5), report seabirds to the species level (6), include marine mammals (7)

C. Focus, moderate cost

As for B., plus, review and update L:L and L:W relationships for SSIs (8), and undertake regional trial (9)

# ACKNOWLEDGEMENTS



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