

FIFTH E-REPORTING AND E-MONITORING WORKING GROUP MEETING

(ERandEMWG5)

Electronic Meeting

19 – 20 July 2022 from 10.00am to 2.00pm Pohnpei time

CHAIR'S SUMMARY REPORT

Agenda item 1. Welcome and Opening

- The 5th Session of the WCPFC Electronic Reporting and Electronic Monitoring Working Group (ERandEM WG) was held virtually over two four-hour sessions on the 19th and 20th July 2022. Ms. Claire van der Geest (Australia), the ERandEMWG Chair, called the meeting to order and provide an opening prayer.
- 2. The WG adopted the agenda without amendment (Attachment A) and the Chair outlined that the meeting would proceed with discussion of agenda items two and three, the proposed framework and data gaps respectively, with these items remaining open for decision by the participants on the second day to enable deliberations by delegations. The workplan would be discussed following the discussions and decisions of agenda items two and three.
- 3. The following members, cooperating non-members and participating territories (CCMs) attended ERandEMWG5: Australia, Canada, China, Ecuador, Federated States of Micronesia (FSM), Indonesia, Japan, Republic of Korea, Republic of Marshall Islands, Nauru, New Zealand, Palau, Papua New Guinea, Philippines, Samoa, Chinese Taipei, Tonga, Tokelau, Tuvalu and United States of America.
- 4. Representatives from the following regional organisations attended ERandEMWG5: the Commission for the Conservation of Southern Bluefin Tuna (CCSBT), the Inter-American Tropical Tuna Commission (IATTC), the Pacific Islands Forum Fisheries Agency (FFA), the Parties to the Nauru Agreement (PNA) and the Secretariat of the Pacific Community (SPC).
- Observers representing American Tunaboat Association, BirdLife International, International Pole and Line Foundation (IPNLF), International Seafood Sustainability Foundation (ISSF), Marine Stewardship Council (MSC), The Ocean Foundation, Pew Charitable Trusts (Pew), The Nature Conservancy, The Safina Centre (formerly Blue Ocean Institute), World Wide Fund for Nature (WWF) also attended ERandEMWG.
- 6. A full list of participants is provided in **Attachment B**.

Agenda item 2 & 3. WCPFC Electronic Monitoring (EM) framework and prioritisation of EM implementation

- 7. The Chair outlined that the objective of the meeting was to:
 - a. discuss how the proposed institutional framework for the WCPFC Regional Electronic Monitoring Programme (REMP) will work, including clarifying the relationship between the

REMP and the Regional Observer Program (ROP), and how it will work in concert with the existing monitoring tools, with a view to presenting the proposal to the SC18, TCC18 and to the Commission in December 2022 and seeking in-principal approval from the Commission to enable progression by the ERandEM WG in 2023,

- b. agree the data gaps and priority areas for the implementation of the REMP, and
- c. amend and agree the workplan for the ERandEM WG.
- 8. The ERandEM WG recalled that the sages that drafted the WCPF Convention has foreseen the importance and need for mandatory data collection and reporting, and effective monitoring and verification of fishing events at sea, so reference to the ROP, the high sea boarding and inspection regime, and the VMS were included in the Convention text. Participants also recalled that parties to the Convention have given effective to these elements of the Convention through the adoption of a range of CMMs including:
 - a. the requirement for the submission of operational level data, or primary data, and
 - b. the ROP, first adopted as 2007-01, to verify the primary data collected by the fishing fleets themselves.
- 9. The ERandEM WG noted that in the Chair's discussion paper it identified a number of WCPFC reports that highlighted that the monitoring and verification of fishing events at sea and the implementation of the ROP over the past ~15 years has been problematic in some sections of the WCPFC fisheries, leading to issues with verification of the primary operational level data collection and the ability of CCMs to effectively monitor implementation and compliance with adopted CMM. Hence in 2014 the Commission agreed to a progress to develop the Electronic Monitoring program as another avenue to enable the effective monitoring of fishing activities at sea and particularly from those parts of the WCPFC fleet where independent monitoring and verification of operational level data was very limited.
- 10. The Chair presented *Electronic Monitoring within the WCPFC Fisheries Management Framework Chair's initial consultative discussion paper* (WCPFC-ERandEMWG5-2022-02), noting that the overarching objective for the paper was to find a path through the different starting points and perspectives of all CCMs all of which are valid to enable the collective design, development and implementation of the REMP that provide critical data to inform the Commission's decision-making, including harvest strategies, CMMs, and monitoring the implementation of those CMMs. The Chair clarified that the paper and the at sea monitoring framework approach set out therein, is not proposing to modify any other CMM or WCPFC requirement, including the application or coverage of the ROP. Rather the paper is seeking to provide the tool to fill critical data gaps and work in concert with the ROP where it has already been implemented.
- 11. The WG had robust discussion on the above issues and reiterated earlier WG discussions that there are a range of complex issues that need to be considered and addressed in developing the REMP, for example review rates, maintenance and reliability of the systems onboard, upfront costs and costing programs and the need for data. Some participants of the ERandEM WG noted that these issues are very important and that they need to be progressed in a step wise manner.
- 12. The ERandEM WG confirmed that there are existing obligations set out in the WCPF Convention, Commission decisions and CMMs that call for the collection and reporting of independently verified data of fishing activities at sea and specifically verifying the operational level data required to be collected by all vessels on the Record of Fishing Vessels including collection through the ROP.
- 13. The ERandEM WG recognised that the Regional Observer Program (ROP) and the REMP are linked in that their objectives are the same and that they are seeking to provide independent monitoring and verified data of fishing activities at sea, including verifying the operational level data required to be collected by all vessels conducting fishing activities covered by the WCPF Convention.

- 14. The ERandEM WG acknowledged that the remit of the WG is the development of the REMP only, and that there is no remit to amend or propose amendments to the ROP or any other related measures. As such the WG acknowledged that there would be no consideration by the ERandEM WG on ROP coverage. Some members of the WG noted that this may need to be considered by the Commission once the REMP had been drafted.
- 15. The ERandEM WG acknowledged that the data collected via monitoring tools such as the ROP are important sources of data to both the scientific and compliance processes of the WCPFC and noted that the REMP also has the potential to become one of the important data sources like the ROP.
- 16. The ERandEM WG noted that the Chair's discussion paper recalled that the Commission's decision to progress the development of the REMP was to provide another tool to meet these existing obligations given that the ROP had not been able to be implemented in some fleets resulting in significant data and monitoring gaps.
- 17. The ERandEM WG acknowledged that the Chair's discussion paper identified that there are a greater range of monitoring tools available to verify the operational level data from the purse seine sector, including the ROP, transshipment data, processing facility data and port sampling. The ERandEM WG noted that although there is transshipment monitoring to provide verification of transshipments from longline vessels, that there is a significant gap in the collection of data that can be used to verify activities at sea and operational level data reported from the longline sector.
- 18. The ERandEM WG noted that the Chair's discussion paper outlined that the at sea monitoring framework in the paper is intended to provide a flexible, adaptable, and pragmatic way forward for CCMs to consider the development of the REMP, particularly in light of the past few years where there has been an inability to place observers and that these types of external shocks may continue to hamper the ability of the Commission to collect important verified data on activities at sea and therefore impact the management of WCPFC fisheries resources.
- 19. The ERandEM WG also noted that the at sea monitoring framework in the paper is intended to provide CCMs with multiple tools for what may be used to meet the existing data and monitoring obligations and that they were not locked into the REMP or the ROP but were able to use the most appropriate tool for their fleet and circumstances, as long as it met the data requirements. Some ERandEM WG participants identified their concerns regarding the mandate of this WG in in terms of developing an overarching CMM to regulate the relationship between ROP and REMP; the Chair pointed the participants to the agreed terms of reference and the Commission's workplan for the WG that articulates that this WG has a mandate to consider how, in developing the REMP, there may be intersections and/or ramifications for other CMM's.
- 20. In relation to addressing the data issues identified in the high seas, the majority of ERandEM WG participants noted that in providing multiple tools for monitoring and verification the REMP can be used equally on the high seas and in zone to achieve the data obligations in support of achieving the Commission's objectives.
- 21. The ERandEM WG agreed to refresh/establish two small drafting groups to work on the development of the at sea monitoring framework and the SSPs at the small drafting group level for the ERandEM WG consideration in 2023-2024 before possible presentation to the Commission, noting very importantly that all aspects of the REMP development will remain in draft/square brackets until all elements are drafted to ensure that the REMP works in concert with other monitoring tools and there is clarity between the ROP and REMP.
- 22. The ERandEM WG noted the ongoing discussions of the submission of data collected from observers of transshipment events and that the submission of ROP data to the Commission is beyond the remit of the ERandEM WG. The ERandEM WG recommends that the TCC advise the Commission on how to resolve the issue of the submission of transshipment observer data to the Secretariat.

- 23. The ERandEM WG noted the importance of continuing to work to ensure a compatible and harmonized REMP in the WCPFC and IATTC.
- 24. The ERandEM WG, through their engagement at and in the meeting, identified their clear desire to progress the development of the REMP as soon as practicable, noting and considering of technological development, cost-efficiency, compatibility with international regulations and CCMs' national laws, the coordination with other RFMOs, and other potential issues.

Agenda item 4. Workplan

25. The ERandEM WG recognised the importance of progressing the development of the REMP without delay. To that end, the participants at ERandEM WG5 agreed to recommend the following amendments to the existing WCPFC18 endorsed TCC workplan 2022-24 (text in bold) to support the timely progression of the REMP development:

26. In 2022-23:

- a. Consider and provide advice on outputs from the ERandEM WG including those related to existing obligations, data gaps and the utilisation of ER and EM
 - i. Immediately refresh the small drafting group of interested ERandEM WG Participants to commence the development of the *At-Sea Data Collection, Verification and Monitoring* CMM and the *EMP* CMM with a view to having drafts for ERandEM WG consideration by mid 2023.
 - ii. Seek expert advice by no later June 2023 on key issues related to the establishment of the REMP to enable the ERandEM WG to review and develop the REMP, including related REMP policies, as follows:
 - Legal advice on current principles that establish data ownership for other Commission data sources and consider their applicability to EM related data ERandEM WG to consider if the existing data access and sharing arrangements in Commission Data Rules and Procedures are fit for purpose in the EM context.
 - 2. Legal advice including from TCC to clarify roles and responsibilities of CCMs or the Commission/Secretariat for different elements of the REMP based onto the Commission's Rules of Procedure.
 - 3. TCC advice on the extent of the MCS data fields that can be collected by an REMP.
 - 4. Legal advice to determine if the current policies related to data collection, retention and disposal are fit for purpose in the context of the REMP, specifically the retention of the EMP footage (video data) and annotated data derived from the video footage.
 - 5. Legal advice to consider what data is required to be submitted to the Secretariat including any precedents: the video footage and the annotated data derived from the video footage or just the annotated data derived from the video footage.
 - 6. Legal advice to determine if the current policies related to data access, dissemination and sharing are fit for purpose for the REMP's annotated data derived from the video footage.

b. Draft minimum standards for electronic monitoring.

i. Establish a small drafting group to continue to draft the SSP's with the advice and guidance as outlined above (anticipated from June 2023).

27. In 2023-24:

- a. Consider and provide advice on outputs from the ERandEM WG, including a draft EM CMM.
 - i. Consider the two draft CMMs and/or framework and continue drafting the SSPs.
 - ii. Once drafting is completed, assess any consequential amendments to, for example to Commission data rules and procedures, and present these through the Commission processes and to the Commission for adoption.
- b. Seek SC19 advice on the extent of the scientific data fields that can be collected by an EMP.

28. The ERandEM WG will utilize the WCPFC Online Discussion Forum (<u>https://forum.wcpfc.int/c/erandem-iwg/21</u>¹) to continue the progression of the workplan, will convene a meeting(s) in 2023-24 and provide updates to the SC, TCC and the Commission as required.

29. The meeting was closed at 1:26pm Pohnpei time on 20th July 2022.

¹ For technical issues accessing the WCPFC Online Discussion Forum please contact the WCPFC Secretariat IT support via email: itsupport@wcpfc.int.

Attachment A



FIFTH E-REPORTING AND E-MONITORING WORKING GROUP MEETING (ERandEMWG5)

Electronic Meeting

19 - 20 July 2022 from 10.00am to 2.00pm Pohnpei time

PROVISIONAL AGENDA

WCPFC-ERandEMWG5-2022-01 14 June 2022

AGENDA ITEM 1. WELCOME AND OPENING

- 1.1 Adoption of agenda
- **1.2** Meeting arrangements

AGENDA ITEM 2. WCPFC ELECTRONIC MONITORING (EM) FRAMEWORK

- 2.1 Introduction of the discussion paper
- 2.2 Basis for at sea monitoring
- 2.3 EM and the ROP
- 2.4 Proposed framework for at sea monitoring

AGENDA ITEM 3. PRIORITISATION OF EM IMPLEMENTATION

- **3.1** Data needs and current data sources
- 3.2 Data gaps
- **3.3** Proposed priorities for EM Implementation

AGENDA ITEM 4. WORKPLAN

- 4.1 Working Issues
- 4.2 **Prioritisation of the working issues**
- 4.3 Proposed workplan

AGENDA ITEM 5. OUTCOMES AND RECOMMENDATIONS

- 5.1 Approach to SC
- 5.2 Approach to TCC

AGENDA ITEM 6. CLOSE OF MEETING

Attachment B

Meetings

Attendees - 5th meeting of the WCPFC E-reporting and E-monitoring Working Group

Chair

Claire van der Geest	General Manager Fisheries Information and Services Branch,
claire.vandergeest@afma.gov.au	AFMA
MEMBER - Australia	
Alexandrea Franks	Policy Officer,
alexandrea.franks@afma.gov.au	Australian Fisheries Management Authority
James Van Meurs	Assistant Director,
James.VanMeurs@agriculture.gov.au	Department of Agriculture, Water and the Environment
Katie Benning	Manager International Compliance Policy,
katie.benning@afma.gov.au	Australian Fisheries Management Authority
Kylie Tonon	A/g Director, Pacific Fisheries and Maritime,
Kylie Tonon@dfat.gov.au	Department of Foreign Affairs and Trade
Marguerite Tarzia	Senior Policy Officer , Australian Fisheries Management Authority
Mat Kertesz	Assistant Director, Regional Fisheries,
mat.kertesz@awe.gov.au	Department of Agriculture, Fisheries and Forestry
Matthew Boyle	Policy Officer,
Matthew.Boyall@dfat.gov.au	Department of Foreign Affairs and Trade

MEMBER - Canada

Frédéric Cossette	Policy Analyst,
frederic.cossette@dfo-mpo.gc.ca	Fisheries and Oceans Canada
Justin Turple	Director, International Fisheries Policy,
Justin.Turple@dfo-mpo.gc.ca	Fisheries and Oceans Canada

MEMBER - China

Li Yan	Deputy Director of High Seas Fisheries,
liyancnfj@outlook.com	China Overseas Fisheries Association
Liu Xiaobing	Visiting Professor,
xiaobing.liu@hotmail.com	Shanghai Ocean University
Xiao Mengjie	Advisor,
xiaomengjie1128@126.com	China Overseas Fisheries Association
Zhu Jiangfeng	Professor,
jfzhu@shou.edu.cn	Shanghai Ocean University

MEMBER - Federated States of Micronesia

Dan Gilmete	EMER Coordinator,
dan.gilmete@norma.fm	FSM NORMA

MEMBER - Indonesia

Jimmi	Head of Section of the Monitoring of Fish Resources Management,
jimbot75@gmail.com	Ministry of Marine Affairs and Fisheries of the Republic of Indonesia
Mumpuni Cyntia Pratiwi	Capture Fisheries Production Management Officer,
mumpuni.cpratiwi@gmail.com	Ministry of Marine Affairs and Fisheries of the Republic of Indonesia
Panca Berkah Putra	Staf,
pancazz371@gmail.com	MMAF

MEMBER - Japan

Akihito Fukuyama	Managing Director,
fukuyama@kaimaki.or.jp	Japan Far Seas Purse Seine Fishing Association
Aya Matsushima	Staff, International Affairs Division,
aya_matsushima190@maff.go.jp	Fisheries Agency of Japan
Fuyuki Hayashi	Assistant Director,
fhayashi@japantuna.or.jp	Japan Tuna Fisheries Co-operative Association
Katsuma Hanafusa	Advisor to the Minister of Agriculture, Forestry and Fisheries,
hanafusa@ofcf.or.jp	Ministry of Agriculture,Ministry of Agriculture
Kotaro Nishida	Deputy Secretary General,
k-nishida@zengyoren.jf-net.ne.jp	National Ocean Tuna Fishery Association
Michio Shimizu	Executive Secreatary,
mic-shimizu@zengyoren.jf-net.ne.jp	National Ocean Tuna Fishery Association
Norikazu Takai	Exective Secretary,
n-takai@zengyoren.jf-net.ne.jp	National Ocean Tuna Fishery Association
Nozomu Miura	Assistant Director,
miura@japantuna.or.jp	Japan Tuna Fisheries Co-operative Association
Reiko Ohashi	Assistant Director,
ohashi@japantuna.or.jp	Japan Tuna Fisheries Co-operative Association
Shinji Hiruma	International Affairs Division ,
shinji_hiruma150@maff.go.jp	Fisheries Agency of Japan
Takumi Fukuda	Resource Management Department ,
takumi_fukuda720@maff.go.jp	Fisheries Agency of Japan

MEMBER - Nauru

Julian Itsimaera	Enforcement Officer,	
Julian.itsimaera2016@gmail.com	NFMRA	

MEMBER - New Zealand

Heather Ward Head of Delegation Heather.Ward@mpi.govt.nz	Principal Advisor, Ministry for Primary Industries
Andrew Wright	Team Leader ,
andrew.wright@mpi.govt.nz	Ministry for Primary Industries
Karen L. Middlemiss	Marine Science Advisor,
kmiddlemiss@doc.govt.nz	Department of Conservation
Lyndsey Holland	Science Advisor,
lholland@doc.govt.nz	New Zealand Department of Conservation
Mandy Leathers	Senior Analyst,
mleathers@doc.govt.nz	Department of Conservation

Kathleen Sisior Head of Delegation utau.sisior@gmail.com	Acting Chief, Fisheries Policy Advisor, Division of Oceanic Fisheries, Bureau of Fisheries, Ministry of Agriculture, Fisheries and Environment
Everson Sengebau	Office Observer,
ebs6ya@gmail.com	Division of Oceanic Fisheries / Bureau of Fisheries / Ministry of Agriculture, Fisheries & the Environment
Keith Mesebeluu	Policy ,
keithmesebeluu@gmail.com	Oceanic Fisheries

MEMBER - Papua New Guinea

Angela Kwapena	Tuna Fisheries Management Officer,
akwapena@fisheries.gov.pg	National Fisheries Authority
Benthly Sabub	Fisheries Management Officer, Tuna Fishery,
bsabub@fisheries.gov.pg	National Fisheries Authority (NFA)
Guan Oon	SERVICE PROVIDER,
guan.oon@gmail.com	NATIONAL FISHERIES AUTHORITY
Sai Ugufa	Fisheries Management Officer,
sugufa@fisheries.gov.pg	National Fisheries Authority (NFA)

MEMBER - Philippines

Jeric Jara	Observer Staff,
jeric_jara@yahoo.com	BFAR
Marlo Demo-os	Aquaculturist II,
mbdemoos@gmail.com	DA-BFAR
Peter Erick Cadapan	Senior Fishing Regulations Officer, DA BFAR
Suzette B. Barcoma	Science Research Specialist II,
suzette_barcoma@yahoo.com	National Fisheries Research and Development Institute

MEMBER - Republic of Korea

GeunRyeong Kim Head of Delegation geunryeongkim@korea.kr	Deputy Director, Ministry of Oceans and Fisheries
Bongjun Choi	Manager, Korea Overseas Fisheries Association
Haewon Lee	Senior scientist,
roundsea@korea.kr	National Institute of Fisheries Sciences (NIFS)
Hyunjin Ma	Assistant Manager,
hjma@sla.co.kr	SILLA CO., LTD
Ilkang Na	Policy Officer / Multilateral Fisheries Negotiator,
ikna@korea.kr	Ministry of Oceans and Fisheries
Jong Hyun Choi	assistant manager,
cjh@sajo.co.kr	Sajo Industries co.,ltd
Sangjin Baek	Assistant Manager,
sjbaek@kosfa.org	Korea Overseas Fisheries Association
Sona Park	Researcher, Citizens' Institute for Environmental Studies
Won Tae-hoon	Policy Analyst,
4indamorning@kofci.org	Korea Overseas Fisheries Cooperation Center
Youjung Kwon	Scientist,
kwonuj@korea.kr	National Institute of FIsheries Science

MEMBER - Republic of Marshall Islands

Beau Bigler	Chief Officer ,
bbigler@mimra.com	MIMRA
Berry Muller	Deputy Director - Oceanic and Industrial Affairs Division,
bmuller@mimra.com	Marshall Islands Marine Resources Authority (MIMRA)
Glen Joseph	executive director,
gjoseph@mimra.com	mimra

MEMBER - Samoa

Serafina Ah-Fook	SFO,		
serafina.ahfook@maf.gov.ws	MAF		

MEMBER - Chinese Taipei

Chi-Chao Liu	Senior Specialist, Deep Sea Fisheries Division,
chichao@ms1.fa.gov.tw	Fisheries Agency, Council of Agriculture
Lin Han Yu	section chief,
tony@tuna.org.tw	Taiwan tuna association
Scott Tai-Yun Wen	Secretary,
wty@ofdc.org.tw	Overseas Fisheries Development Council
Shirley Shih-Ning Liu	Secretary,
shirley@ofdc.org.tw	Overseas Fisheries Development Council
Wenying Wang	Section Chief, International Fisheries Affair Section, Deep Sea Fisheries Division,
wenying@ms1.fa.gov.tw	Fisheries Agency, Council of Agriculture
Yee-Chun Chiang	Assistant Trainer, International Fisheries Affair Section, Deep Sea Fisheries Division,
yeechun@ms1.fa.gov.tw	Fisheries Agency, Council of Agriculture

MEMBER - Tonga

Losaline Lotoahea	Principal Fisheries Officer,
losilini@gmail.com	Ministry of Fisheries
Mele Atuekaho	Deputy CEO,
meletoaatuekaho@gmail.com	Ministry of Fisheries

MEMBER - Tuvalu

Manuao Taufilo	Senior Fisheries Officer - Compliance and Enforcement ,
mtaufilo@gmail.com	Tuvalu Fisheries Department

MEMBER - United States of America

Christa Marie Svensson	Sustainability Program Manager Global,
csvensson@trimarinegroup.com	Tri Marine
Craig Heberer	Deputy Director, Large Scale Fisheries Program,
craig.heberer@tnc.org	The Nature Conservancy
David G Itano	Contractor,
daveitano@gmail.com	The Nature Conservancy
Elizabeth O'Sullivan	Enforcement Attorney,
elizabeth.osullivan@noaa.gov	NOAA General Counsel
Emily Crigler	Fisheries Management Specialist,
emily.crigler@noaa.gov	NOAA Fisheries
Emily Reynolds	Fishery Policy Analyst,
emily.reynolds@noaa.gov	NOAA Fisheries

Keith Bigelow	Supervisory Fisheries Research Scientist,
keith.bigelow@noaa.gov	NOAA Fisheries Pacific Islands Fisheries Science Center
Michael Marsik	Biologist,
Michael.Marsik@NOAA.gov	US NOAA Fisheries
Stuart Chikami	Manager,
schikami@westpacfish.com	Western Pacific Fisheries, Inc.
Valerie Post	Fishery Policy Analyst,
valerie.post@noaa.gov	NOAA Fisheries
Yonat Swimmer	Research Fisheries Biologist,
yonat.swimmer@noaa.gov	NOAA NMFS Pacific Islands Fisheries Science Center

PARTICIPATING TERRITORY - Tokelau

Lesley Gould	Fisheries Advisor, Tokelau Fisheires Management Agency
Stan Crothers	Fisheries Advisor, Tokelau Fisheries Management Agency

COOPERATING NON-MEMBER - Ecuador

Luis Gustavo Chompoy Salazar	Analista de Politicas Pesqueras y Acuicola,
lchompoy@produccion.gob.ec	Ministerio de Produccion, Comercio Exterior, Inversiones y Pesca

OBSERVER - American Tunaboat Association (ATA)

Beth Vanden Heuvel	Manager of Fishing Strategy,
bvandenheuvel@capefisheries.com	Cape Fisheries Management Company

OBSERVER - Birdlife International

Dimas Gianuca	Consultant,
dimas.gianuca@savebrasil.org.br	Birdlife International Marine Programme
Stephanie Borrelle	Pacific Marine Regional Coordinator,
stephanie.borrelle@birdlife.org	BirdLife International

OBSERVER - Blue Ocean Institute

Eric Gilman	Research Scientist,
ericlgilman@gmail.com	Pelagic Ecosystems Research Group; The Safina Center

OBSERVER - Commission for the Conservation of Southern Bluefin Tuna (CCSBT)

Frank Meere	Compliance Committee Chair,
fmeere@aapt.net.au	CCSBT

OBSERVER - Inter-American Tropical Tuna Commission (IATTC)

Marlon Roman	Bycatch and Electronic Monitoring Scientist,
	Inter-American Tropical Tuna Commission (IATTC)

OBSERVER - International Pole and Line Foundation (IPNLF)

lain Hayes	Co Founder,
iain@integratedmonitoring.net	Integrated Monitoring

OBSERVER - International Seafood Sustainability Foundation (ISSF)

Hilario Murua	Senior Scientist,	
hmurua@iss-foundation.org	International Seafood Sustainability Foundation (ISSF)	

Holly Koehler	VICE PRESIDENT, POLICY AND OUTREACH,
hkoehler@iss-foundation.org	International Seafood Sustainability Foundation

OBSERVER - Marine Stewardship Council

Bill Holden	Senior Tuna Fisheries Outreach Manager,
bill.holden@msc.org	Marine Stewardship Council

OBSERVER - Pacific Community (SPC)

Aurélien Panizza	Observer Data Manager,
aurelienp@spc.int	Pacific Community (SPC)
Emmanuel Schneiter	Regional Fisheries Data Manager,
EmmanuelS@spc.int	SPC
Eparama Loganimoce	Regional ER Technical Coordinator, SPC
Leontine Baje	Fisheries Adviser ,
leontineb@spc.int	Secretariat of the Pacific Community
Ludwig Kumoru	Fisheries advisor (Climate),
ludwigk@spc.int	Secretariat of the Pacific Community
Malo Hosken	Regional EM ER Co-ordinator ,
maloh@spc.int	SPC
Timothy Park	Senior Fisheries Advisor (Monitoring),
timothyp@spc.int	SPC

OBSERVER - Pacific Islands Forum Fisheries Agency (FFA)

'Ana F. Taholo	Compliance Policy Advisor,
ana.taholo@ffa.int	Pacific Islands Forum Fisheries Agency
Jason Raubani	FFA MCS Policy Advisor,
jason.raubani@ffa.int	Pacific Islands Forum Fisheries Agency (FFA)
Yaniba Alfred	Catch Documentation Scheme Technical Advisor ,
yaniba.alfred@ffa.int	Pacific Island Forum Fisheries Agency

OBSERVER - Parties to the Nauru Agreement (PNA)

Brian Kumasi	Policy Manager,
brian@pnatuna.com	Office of the Parties to the Nauru Agreement
John Kelimana	IT Manager,
john@pnatuna.com	PNA Office
Joseph Kendou	Compliance Officer,
joseph@pnatuna.com	PNA Office

OBSERVER - Pew Charitable Trust

Esther Wozniak	Principal Associate,
ewozniak@pewtrusts.org	The Pew Charitable Trusts
Glen Holmes	Officer,
gholmes@pewtrusts.org	The Pew Charitable Trusts

OBSERVER - The Nature Conservancy (TNC)

Barbara Hanchard	Consultant,
barbara@hanchard.net	TNC

Dave Gershman	Officer, International Fisheries,
dgershman@oceanfdn.org	The Ocean Foundation

OBSERVER - World Wide Fund for Nature (WWF)

Bubba Cook	Western and Central Pacific Tuna Programme Manager,
acook@wwf.org.nz	WWF NZ

Secretariat

Aaron Nighswander	Finance and Administration Manager,
aaron.nighswander@wcpfc.int	Western and Central Pacific Fisheries Commission
Albert Carlot	VMS Manager,
albert.carlot@wcpfc.int	Western and Central Pacific Fisheries Commission (WCPFC)
Donald David	Data Quality Officer,
donald.david@wcpfc.int	Western and Central Pacific Fisheries Commission (WCPFC)
Eidre Sharp	Assistant Compliance Manager,
Eidre.Sharp@wcpfc.int	Western and Central Pacific Fisheries Commission (WCPFC)
Elaine G. Garvilles	Assistant Science Manager , Western and Central Pacific Fisheries Commission (WCPFC)
Emma N. Mori	Project Management Assistant ,
emma.mori@wcpfc.int	Western and Central Pacific Fisheries Commission (WCPFC)
Feleti Teo	Executive Director,
feleti.teo@wcpfc.int	Western and Central Pacific Fisheries Commission (WCPFC)
Joseph D Jack	Compliance Officer,
joseph.jack@wcpfc.int	WCPFC
Karl Staisch	ROP Coordinator,
karl.staisch@wcpfc.int	Western and Central Pacific Fisheries Commission (WCPFC)
Kilafwasru Albert	ROP Data Entry Technician,
Kilafwasru.Albert@wcpfc.int	Western and Central Pacific Fisheries Commission (WCPFC)
Lara Manarangi-Trott	Compliance Manager,
Lara.Manarangi-Trott@wcpfc.int	Western and Central Pacific Fisheries Commission (WCPFC)
Lucille Martinez	Administrative Officer,
lucille.martinez@wcpfc.int	Western and Central Pacific Fisheries Commission
Samuel T. Rikin	IT Officer,
samuel.rikin@wcpfc.int	Western and Central Pacific Fisheries Commission (WCPFC)
SungKwon Soh	Science Manager,
sungkwon.soh@wcpfc.int	Western and Central Pacific Fisheries Commission (WCPFC)
Tim Jones	ICT Manager,
tim.jones@wcpfc.int	Western and Central Pacific Fisheries Commission (WCPFC)