



**COMMISSION
EIGHTH REGULAR SESSION**
Tumon, Guam, USA
26-30 March 2012

PEW Policy Statement WCPFC and Covering Letter

**WCPFC8- 2011-OP/04
9 March 2012**

Paper prepared by PEW



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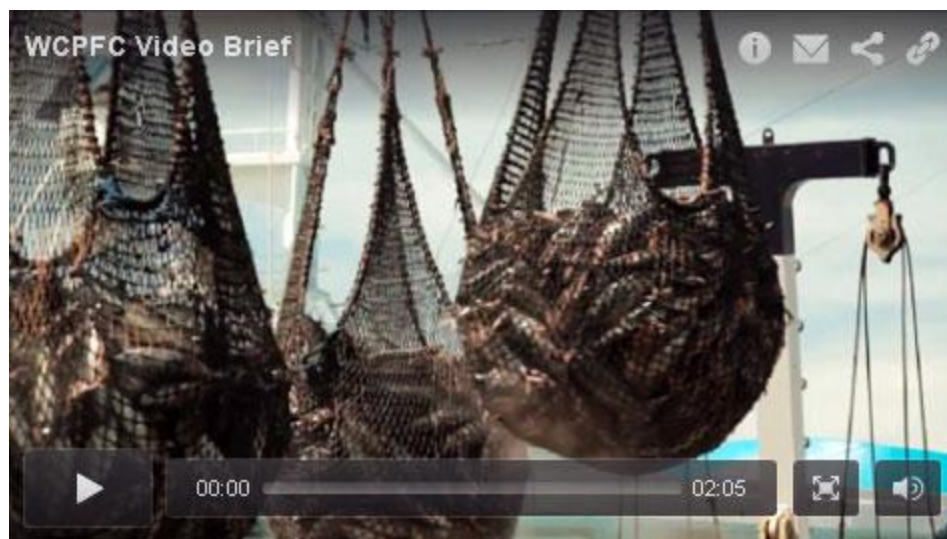
5 March 2012

Dear Sir or Madam,

I am writing on behalf of the Pew Environment Group, in regards to the discussions that will take place at the upcoming 8th Regular Session of the Western and Central Pacific Commission (WCPFC) in Guam. As you know, the WCPFC Convention Area covers nearly 20% of our planet and is home to the world's largest tuna fishery. WCPFC's actions this year can ensure that these critically important fisheries are managed responsibly into the future.

WCPFC 8 offers an opportunity for WCPFC members to adopt effective conservation and management measures that end and prevent overfishing for tunas, protect vulnerable shark species, and strengthen controls against IUU fishing. Our attached policy statement contains the details of what we believe WCPFC delegates should aim to accomplish at this meeting.

This year we also made a short video featuring Pew's policy experts and footage from the region. Click on the image below to watch Pew's WCPFC 8 video.



In particular, the Pew Environment Group calls on members of WCPFC to take the following actions at the 8th Regular Session of the Commission:

- **End Overfishing and Implement the Precautionary Principle With New Conservation Measures for Tropical Tunas**
 - Adopt a new Conservation and Management Measure (CMM) for tropical tunas that effectively ends over fishing of bigeye tuna
 - Adopt a CMM on Fish Aggregating Devices (FADs) to manage their use and provide scientists with data.
 - Establish target and limit reference points for tropical tunas.
 - Strengthen the WCPFC compliance regime for CMMs.

- **Adopt Conservation Measures to Protect Sharks**
 - Prohibit the retention of oceanic whitetip sharks and establish concrete, precautionary catch limits for North Pacific blue sharks.
 - Mandate gear modifications such as the compulsory use of single monofilament nylon traces to protect sharks.
 - Prohibit purse seine vessels from intentionally setting nets around whale sharks.
 - Prohibit the removal of shark fins at sea to improve enforcement of the shark finning ban.

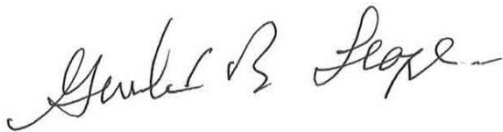
- **Strengthen Controls Against Illegal, Unreported and Unregulated (IUU) Fishing**
 - Improve port State measures to deter IUU fishing activities.
 - Require unique vessel identifiers for all vessels operating in the WCPFC area.

We would also like to point your attention to the [“Closing the Gap” report](#), which compares tuna RFMO port State measures with those established by the Port State Measures Agreement. The need for such an analysis was highlighted during discussion at the Technical and Compliance Committee 7 meeting last year, in order to progress implementation of measures to prevent illegal, unregulated and unreported fishing in the WCPFC Convention area. We hope you find this analysis both informative and useful.

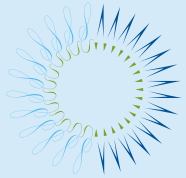
We look forward to working with you and your delegation in Guam to progress sustainable fisheries in the Pacific through conservation of shark and tuna populations and progress towards elimination of IUU fishing.

Please feel free to contact me at gleape@pewtrusts.org at any time.

Sincerely,


A handwritten signature in black ink that reads "Gerry Leape". The signature is written in a cursive, flowing style.

Gerry Leape
Senior Officer, International Policy
The Pew Environment Group



THE
PEW
ENVIRONMENT GROUP

RECOMMENDATIONS TO THE 8TH REGULAR SESSION
OF THE WESTERN AND CENTRAL PACIFIC FISHERIES
COMMISSION (WCPFC)
26–30 MARCH 2012
GUAM



POLICY
STATEMENT

MEASURE UP FOR SUSTAINABILITY!



Yellowfin tuna, © C and M Fallows

RECOMMENDATIONS

The Pew Environment Group calls on Members, Cooperating Non-members, and Participating Territories of the Commission (CCMs, collectively) of the Western and Central Pacific Fisheries Commission (WCPFC) to take the following critical actions at the 8th Regular Session of the Commission:

1. End Overfishing And Implement The Precautionary Principle With New Conservation Measures For Tropical Tunas

- 1.1 Adopt a new comprehensive and effective Conservation and Management Measure (CMM) for tropical tunas.
 - 1.1.1 Extend the fish aggregating device (FAD) closure to end the overfishing of bigeye tuna and put a limit on the number of FAD sets during the non-closure period.
 - 1.1.2 Maintain the management advice from CMM 2008-01 on longline fisheries and increase observer coverage to 100 percent on large-scale freezer longliners and 20 percent on all other longline vessels.
 - 1.1.3 Ensure that CCMs that benefit the most from bigeye fishing, lead bigeye conservation efforts.
 - 1.1.4 Maintain high seas pocket closures.
 - 1.1.5 Take measures to conserve tuna across the entire convention area, ensuring compatibility between the high seas and EEZs.
- 1.2 Adopt a CMM on FADs to manage their use and provide scientists with data.
- 1.3 Establish target and limit reference points for tropical tunas.
- 1.4 Strengthen the compliance regime for CMMs.

2. Adopt Conservation Measures To Protect Sharks

- 2.1 Prohibit the retention of oceanic whitetip sharks and establish concrete, precautionary catch limits for North Pacific blue sharks.
- 2.2 Mandate gear modifications such as the compulsory use of single monofilament nylon leaders to protect sharks.
- 2.3 Prohibit purse seine vessels from intentionally setting nets around whale sharks.
- 2.4 Prohibit the removal of shark fins at sea to improve enforcement of the shark finning ban.

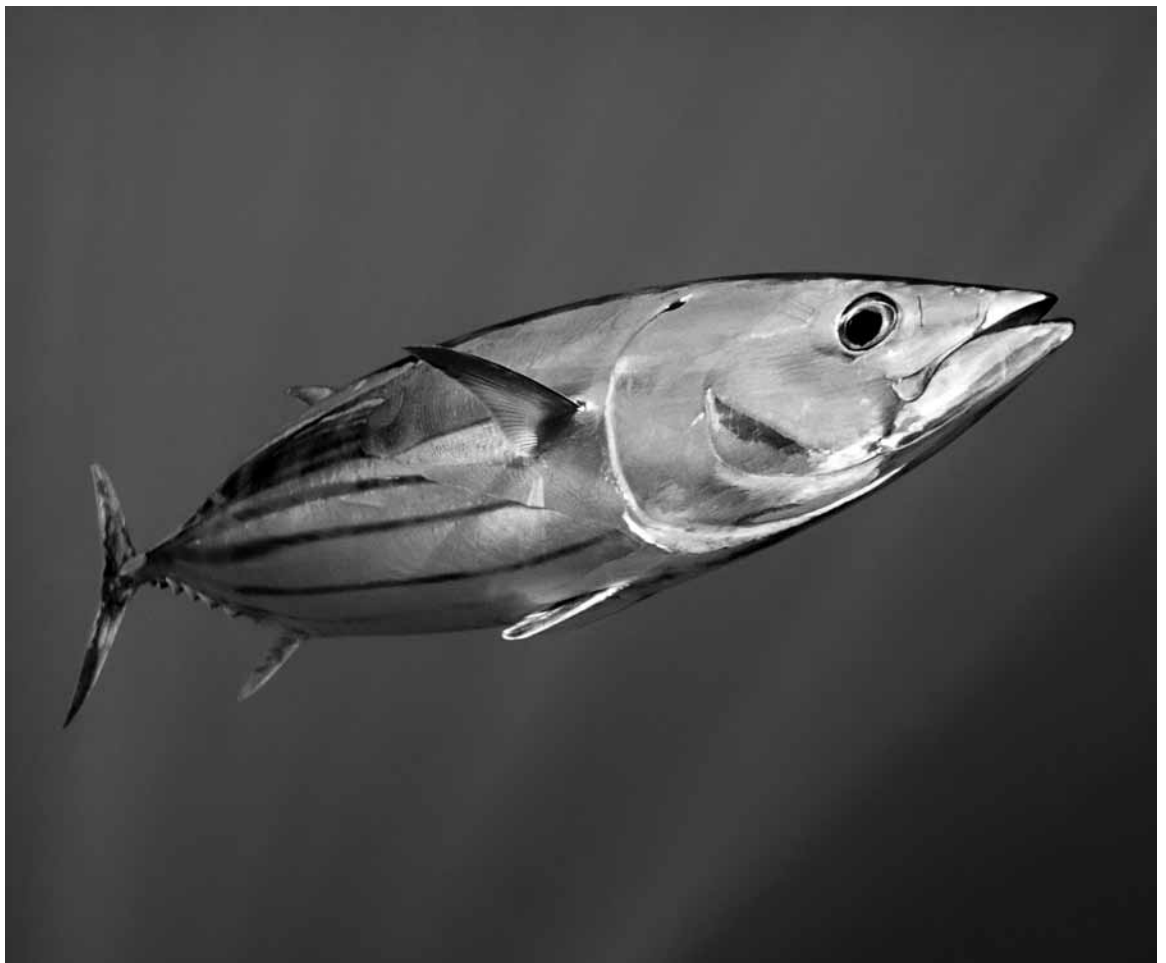
3. Strengthen Controls Against Illegal, Unreported And Unregulated (IUU) Fishing

- 3.1 Improve port State measures to deter IUU fishing activities.
- 3.2 Require unique vessel identifiers (UVIs) for all vessels operating in the WCPFC area.

INTRODUCTION

The WCPFC aims to ensure the long-term conservation and sustainable use of the fish stocks in the Western and Central Pacific Ocean (WCPO), an area covering 20 percent of the Earth's surface and containing the world's largest tuna fishery. CCMs have committed to valuing the unique social, economic, and geographic characteristics of the region without placing a disproportionate conservation burden on developing countries.¹ While there are challenges in balancing the aspirations of developing coastal States with the historical and current fishing by distant-water fishing nations, there are still many opportunities to advance sustainable management.

Given WCPFC's more modern and comprehensive mandate, CCMs have the ability to apply current "best practices" in fisheries management so that the tunas, sharks, and other species under its remit do not follow the same path as those managed by tuna RFMOs in other regions. In this regard, the Pew Environment Group encourages the WCPFC to adopt an effective CMM for tropical tunas that ends overfishing of bigeye and prevents overfishing of yellowfin and skipjack; adopt conservation measures to protect sharks; and strengthen controls against IUU fishing.



Skipjack tuna, © M Ushioda SeaPics

1. END OVERFISHING AND IMPLEMENT THE PRECAUTIONARY PRINCIPLE WITH NEW CONSERVATION MEASURES FOR TROPICAL TUNAS

As CMM 2008–01 expires, WCPFC has an opportunity to evolve its primary tuna management tool—an evolution with precaution at its core. An example of this is the FAD ban which was based on sound scientific advice and implemented in order to reduce juvenile bigeye catch during closures by purse seine vessels. According to the Secretariat of the Pacific Community (SPC), while some components of CMM 2008-01 were successful,² the overall objectives of the measure were not achieved. Bigeye tuna is still experiencing overfishing and may already be in an overfished state.³ With fishing effort primarily managed via fishing “days,” there are still too many vessels fishing too many days.⁴

The primary shortfalls of CMM 2008–01 were the numerous exemptions, the limited area of application, and the failure to limit the overall effort on FADs when the ban was not in force. The next generation CMM must address these shortfalls, implement target and limit reference points, and provide an enforceable framework for skipjack, yellowfin, and bigeye tuna conservation into the future.

Species of concern:

Bigeye: The scientific advice has not changed in several years. Overfishing is occurring, and the stock may be in an overfished state.⁵ The new CMM should comply with both the advice from the Seventh Scientific Committee (SC7) and Article 30 of the convention so that overall fishing mortality is decreased by 39 percent from 2004 levels, and “a disproportionate burden of conservation action is not placed onto developing States Parties, and territories and possessions.”⁶

Yellowfin: Yellowfin should not experience increases in fishing effort, especially in the western equatorial region, where the spawning biomass is estimated to have declined to about 31 percent of the unexploited level.⁷

Skipjack: SC7 noted that future catch rates are likely to decline and catches will decrease as stocks are fished down to MSY levels.⁸ It recommended that the Commission consider developing limits on skipjack fishing to slow declines in catch rates associated with diminishing biomass.⁹

Based on the scientific advice and the requirements spelled out in the convention, the Pew Environment Group encourages WCPFC CCMs to address the following topics in the next generation CMM for tropical tunas:

1.1 ADOPT A NEW, COMPREHENSIVE, AND EFFECTIVE CONSERVATION AND MANAGEMENT MEASURE (CMM) FOR TROPICAL TUNAS.

1.1.1 Extend the FAD closure to end the overfishing of bigeye and put a limit on the number of FAD sets during the non-closure period.

Previously, the primary mechanism to reduce bigeye mortality in the purse seine fishery had been the FAD closure. However, increased FAD fishing in the non-closure period offset the projected conservation gains of the closure.¹⁰ WCPFC should extend the closure and limit the number of FAD sets in the non-closure period to 2010 levels.

1.1.2 Maintain the management advice from CMM 2008-01 on longline fisheries and increase observer coverage to 100 percent on large-scale freezer longline vessels and 20 percent on all other longline vessels.

A recent analysis of monitoring, control and surveillance risks in the western and central Pacific notes: "Unlike other parts of the world, there is a strong case to be made that the majority of IUU activity in the FFA region [Pacific Islands' Forum Fisheries Agency] is associated with licensed vessels."¹¹ Misreporting of target catch and bycatch is one of the most widespread compliance issues in the region and continues to undermine CMMs and the integrity of data provided to scientists.

To fully address these problems, 100 percent of the longline fishing activity should be observed. Pew recognizes that 100 percent observer coverage would be impossible to implement across the entire fleet in the near term. However, given the high impact that large-scale freezer longliners have on target and associated and dependent species, WCPFC should mandate 100 percent observer coverage on these vessels. Pew also recommends that WCPFC increase coverage levels on all other longliners to at least 20 percent, in accordance with the best available scientific advice.¹² WCPFC should also investigate the potential for the use of electronic monitoring (i.e., require cameras and daily catch reporting through a vessel monitoring system, or VMS). Until misreporting in the longline fishery is addressed, CMMs will continue to fall short of their objectives, scientists will have incomplete and inaccurate data for stock assessments, and future potential benefits from maintaining sustainable stocks in the region will be undermined.

1.1.3 Ensure that CCMs that benefit the most from bigeye fishing, lead bigeye conservation efforts.

According to Article 30 of the convention, WCPFC must implement measures to ensure that a disproportionate burden of conservation action is not placed on developing States Parties, and territories and possessions. In short, the WCPFC CCMs that benefit the most from bigeye fishing should lead conservation efforts. (See Tables 1 and 2).

Table 1. CCMs that benefit the most from bigeye tuna in longline fisheries

CCMs	Economic Benefit from Longline Activities in the WCPFC Convention Area (2009) ¹³
Republic of Korea	\$145,834,461
Japan	\$120,530,742
Chinese Taipei	\$109,026,805
China	\$95,360,372
USA	\$32,885,110

Table 2. The 10 WCPFC CCMs with the highest catch of bigeye tuna in the purse seine fishery, the number of purse seine vessels, average bigeye tuna catch per vessel, and whether the CCMs have submitted a current FAD management plan.¹⁴

CCM	Bigeye Tuna Caught in Purse Seine Fishery (mt)	Purse Seine Vessels	Avg Bigeye Tuna Catch per Vessel (mt)	Current FAD Management Plan
PNG	6512	41	159	YES
United States	5931	38	156	NO
EU—Spain	3816	4	954	YES
Japan	3433	35	98	NO
Marshall Islands	2248	6	375	NO
El Salvador	2162	2	1081	NO
Korea	2140	27	79	NO
Chinese Taipei	2113	33	64	YES
Philippines	1693	25	68	NO
China	1535	12	128	NO

At the 7th Technical and Compliance Committee (TCC7) meeting in November 2011, it was informally proposed that a \$250 charge per tonne of bigeye tuna caught by CCM longline fleets be charged as a conservation levy. This is one possible solution, as is the possibility of “pricing” vessel days at a higher rate when fishing on FADs, in recognition of the impact of that effort on juveniles (i.e., one FAD fishing day may be charged as two fishing days). Regardless of the mechanism used, the aim must be to minimize juvenile bigeye catch, and not to under-manage the bigeye population or treat it as a secondary consideration, both of which run counter to implementation of an ecosystem-based approach.

1.1.4 Maintain and expand high seas pocket closures.

High seas pocket closures should be maintained at least until measures demonstrated to prevent and deter IUU activity in those areas are in place and effectively implemented. For these closures to be effective in reducing the catch of bigeye tuna, overall fishing effort must be reduced instead of displaced, and the closures should also apply to longline fisheries as they routinely transship at sea.

1.1.5 Take measures to conserve tuna across the entire convention area, ensuring compatibility between the high seas and EEZs.

The new CMM should cover the entire WCPFC Convention Area to avoid the pitfalls of the previous measure. Furthermore, measures between EEZs and high seas areas must be consistent to ensure that conservation is not undermined throughout the range of the species. The Pacific Island States that are Parties to the Nauru agreement (PNA) have shown leadership in adopting strong precautionary measures that are in force in their EEZs, and the WCPFC should take measures that are equally effective in conserving these critical resources across the entire convention area.

1.2 ADOPT A CMM ON FADS TO MANAGE THEIR USE AND PROVIDE SCIENTISTS WITH DATA.

In addition to an extended FAD closure, CCMs fishing with FADs should be required to submit FAD management plans and FAD data so the scientific committee has better information on the extent of their use, potential ecosystem impacts associated with the uncontrolled proliferation of FADs, and marine debris information. Requirements of FAD plans should be clearly stipulated to ensure comprehensive management. Thus far, CCM compliance with FAD management requirements has been extremely poor, as noted in the Pew Submission WCPFC-TCC7-2011-OB-01. The uncontrolled proliferation of FADs must be addressed as a matter of priority.



Bigeye tuna and FAD, © M Ushioda SeaPics

1.3 ESTABLISH TARGET AND LIMIT REFERENCE POINTS FOR TROPICAL TUNAS.

Article Six of the WCPFC Convention states: “In applying the precautionary approach, the members of the Commission shall: (a) apply the guidelines set out in Annex II of the Agreement, which shall form an integral part of this Convention, and determine, on the basis of the best scientific information available, stock-specific reference points and the action to be taken if they are exceeded.”¹⁵

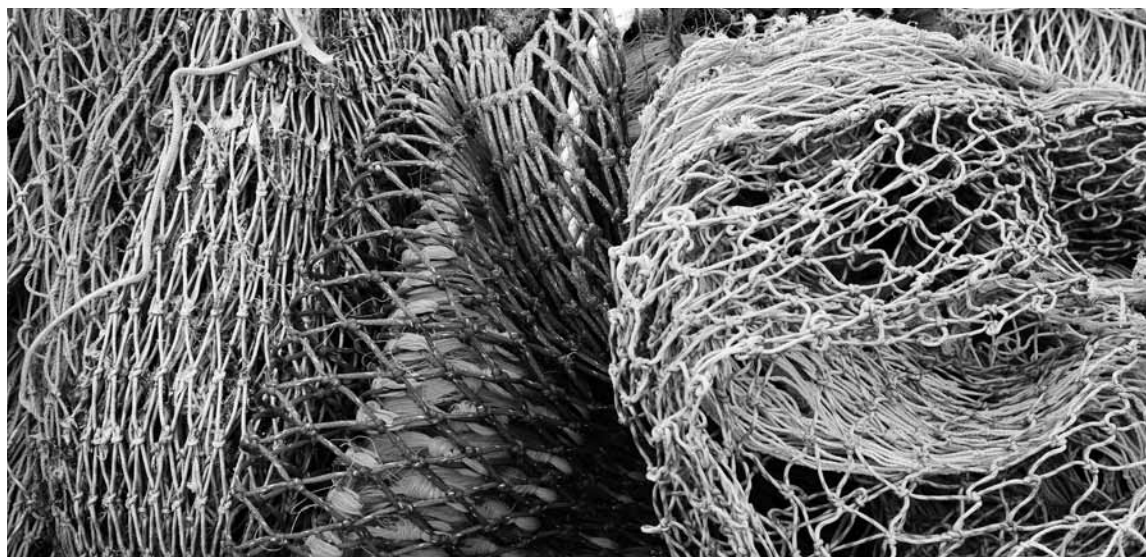
As a first step in implementing this critical requirement, the interim target and limit reference points suggested in Working Paper WCPFC-TCC7-2011-01, “Discussion of a Possible Way Forward in the Development of a CMM for Bigeye, Yellowfin and Skipjack Tuna in the WCPFC Convention Area”, should be adopted at WCPFC 8 for tropical tunas. Further discussion on target reference points should be undertaken in 2012, and adopted at WCPFC 9 for all species managed by WCPFC.

Table 3. Target and Limit Reference Points from Working Paper WCPFC-TCC7-2011-01

Species	Limit Reference Point		Target Reference Point
	Fishing Mortality	Spawning Biomass	Spawning Biomass
Bigeye	Fspr 30%	20% SB ₀	40% SB ₀
Skipjack		20% SB ₀	45% SB ₀
Yellowfin	Fspr 30%	20% SB ₀	40% SB ₀

1.4 IMPLEMENT A COMPLIANCE REGIME FOR CMMS.

Noncompliance with CMMs threatens fish populations, and associated and dependent species. It also undermines the activities of those who play by the rules. To ensure that CCMs are fully accountable for their fishing activities, WCPFC should agree to implement a comprehensive and transparent compliance regime that systematically reviews fishing activities and automatically imposes appropriate penalties on CCMs that violate conservation measures. This process should allow for the consideration of all relevant data, including information from observer organizations.



Industrial fishing nets, © Shutterstock

2. ADOPT CONSERVATION MEASURES TO PROTECT SHARKS

Sharks caught in high seas fisheries are among the ocean's most vulnerable animals. More than one-half of the shark species taken in high seas fisheries are classified as Endangered, Vulnerable, or Near Threatened on the International Union for the Conservation of Nature (IUCN) Red List.¹⁶ Until robust stock assessments are available, CMMs should be developed to protect sharks as a precautionary measure. Even though the WCPFC is the most modern of the tuna RFMOs and has the clearest mandate to protect species within its jurisdiction, it is the only tuna RFMO that has not taken meaningful action on sharks. The WCPFC must act to ensure that targeted fishing and bycatch do not deplete shark species and drive them to extinction.

2.1 PROHIBIT THE RETENTION OF OCEANIC WHITETIP SHARKS AND ESTABLISH CONCRETE, PRECAUTIONARY CATCH LIMITS FOR NORTH PACIFIC BLUE SHARKS.

SC7 recommend specifically mitigation measures for oceanic whitetip sharks and North Pacific blue sharks. Information presented to the SC7 suggests the need for immediate action: *“Although there has been no stock assessment conducted for this species to date, there is consensus that the oceanic whitetip population in the Atlantic is depleted. Recent analysis . . . show[s] clear, steep and declining trends in abundance indices for this species. Analysis . . . confirmed that oceanic whitetip sizes decreased significantly until samples became too scarce for analysis. Given the strong existing evidence for the depleted state of the oceanic whitetip population in the WCPO, stock assessment studies may clarify but will not alter the case for further conservation and management action.”*¹⁷

Additionally, WCPFC should continue to add to the key shark species list. The remaining shark species that are at highest risk from longline and purse seine fishing, such as those identified in the Pacific Islands Regional Plan of Action¹⁸ (PI-RPOA)—blacktip, salmon, silvertip, sandbar, and Galapagos sharks, as well as pelagic stingrays—should be included. Without catch data for these species, it is difficult to assess whether they are being negatively affected by the longline and purse seine fleets.



Oceanic whitetip sharks, © Jim Abernethy

2.2 MANDATE GEAR MODIFICATIONS SUCH AS THE COMPULSORY USE OF SINGLE MONOFILAMENT NYLON LEADERS TO PROTECT SHARKS.

Sharks are targeted or caught as bycatch in fisheries around the world. Their life history characteristics make them extremely susceptible to fishing pressure, and the recovery potential for depleted shark species is significantly less than that of other fish species. Many longline vessels use a wire leader (also known as a steel trace) to secure their catch on the line. Whether unintended, unwanted, or highly sought after, shark bycatch from wire leaders and the impact of shark removals on wider ecosystem stability need urgent attention.

Scientific studies have shown a nylon monofilament leader is actually a better gear option than a wire leader for reducing bycatch of sharks and increasing the catch of some targeted species.¹⁹

Prohibition of wire leaders would also facilitate compliance with WCPFC's existing CMM 2010-07 paragraph 10. Gear modifications, such as the use of single monofilament nylon leaders, should be mandated so that fewer sharks are caught as bycatch in WCPFC tuna fisheries. Additionally, vessels fishing in the WCPFC area should be required to immediately release all live sharks.

2.3 PROHIBIT PURSE SEINE VESSELS FROM INTENTIONALLY SETTING NETS AROUND WHALE SHARKS.

It is estimated that about 60 whale sharks were killed by fishing nets in 2009 in WCPFC fisheries, which is far too many for a species classified by the IUCN as Vulnerable to extinction.

To protect these slow-moving sharks, WCPFC should prohibit purse seine vessels from intentionally setting nets around whale sharks in the convention area and in their EEZs, because mortality occurs in approximately one in every 10 sets involving a whale shark interaction.²⁰ Further, because whale sharks rarely escape unassisted before the net is closed, vessel operators must be required to safely release entangled whale sharks.

2.4 PROHIBIT THE REMOVAL OF SHARK FINS AT SEA TO IMPROVE ENFORCEMENT OF THE SHARK FINNING BAN.

WCPFC's existing ban on finning can be strengthened by prohibiting the removal of shark fins at sea (requiring that sharks that are caught are landed with their fins naturally attached), which will also facilitate collection of species-specific catch data and help to ensure compliance with existing WCPFC conservation and management measures for sharks. Additionally, vessels should be prohibited from dumping shark carcasses after landing.



Whale shark, © Olivier Roux/Marine Photobank

3. STRENGTHEN CONTROLS AGAINST IUU FISHING

A study has estimated the loss from IUU fishing in the western and central Pacific Ocean region to be approximately 21 to 46 percent of reported catch, which is valued at up to US\$1.5 billion per year.²¹

IUU fishing is a serious concern in the WCPFC convention area, where it undermines conservation and management measures, inhibits stock rebuilding efforts, increases overfishing, and threatens food security and livelihoods for poor coastal communities. The WCPFC should use all available tools to combat IUU fishing in the convention area.

3.1 IMPROVE PORT STATE MEASURES TO DETER IUU FISHING ACTIVITIES.

Port State Measures (PSMs)²² are some of the most cost-effective tools to combat IUU fishing. The negotiation and subsequent adoption of the Port State Measures Agreement (PSMA)²³ in 2009 show international recognition of the critical role that port States can play in stopping IUU fishing. The U.N. General Assembly has urged States to cooperate regionally through RFMOs to adopt all necessary port measures consistent with International law.²⁴

The Pew Environment Group has conducted a gap analysis comparing the PSMs in WCPFC and the other tuna RFMOs with those established by the PSMA. The research assessed the extent to which measures adopted by these RFMOs meet the new international minimum standard set by the PSMA. This work revealed a number of gaps in the WCPFC's PSMs.²⁵ In particular, WCPFC lacks a comprehensive inspection scheme; it does not have rules in place requiring vessels to provide information prior to entering ports; and it does not require port States to designate ports of entry for foreign vessels.

The Pew Environment Group is aware that a number of WCPFC CCMs cannot fully implement the provisions of the PSMA immediately. This should not, however, be an impediment to WCPFC taking the initiative to strengthen its PSMs. WCPFC can initiate constructive action towards the development of stronger measures by gradually adopting enhanced PSMs in line with the PSMA. In doing so, WCPFC CCMs should analyze their needs and identify the steps they should be taking to implement PSMs effectively.²⁶ Developed State members should identify options for assisting developing States to effectively implement PSMs. This should include, but not be limited to, participation in the process initiated by the U.N. Food and Agriculture Organization (FAO) to implement Article 21 of the PSMA on the special needs and requirements of developing States.²⁷ WCPFC CCMs should take steps at the March 2012 meeting to begin strengthening PSMs, with the aim of meeting the standards of the PSMA by 2014. This should include providing the necessary support to developing States to effectively implement PSMs.

In particular, at this year's meeting, WCPFC CCMs should consider adopting the following reforms²⁸:

1. Develop a comprehensive system of port inspections.
2. Establish clear duties to notify relevant States, RFMOs and international organizations about all the different port State actions taken.
3. Adopt a measure requiring port States to designate and publicize ports of entry.
4. Adopt a measure requiring all vessels to provide advance information, following the standards of Annex A of the PSMA, before calling into a port.

3.2 REQUIRE UNIQUE VESSEL IDENTIFIERS (UVIs) FOR ALL VESSELS OPERATING IN THE WCPFC AREA.

The implementation of UVIs for tuna vessels will increase transparency in the fisheries sector and enhance coordination of action against IUU fishing operators. Research conducted by the Pew Environment Group confirms the need for UVIs.²⁹ In addition, the Kobe III joint meeting of the tuna RFMOs acknowledged that these bodies need to make progress on implementing vessel identifiers.³⁰

The only fully developed and currently used UVI is the International Maritime Organization (IMO) number, provided through registering with the IHS Fairplay³¹ ship numbering scheme (IHS-F, previously Lloyd's Register).

In accordance with the recommendations of Kobe III, the WCPFC should require any fishing and support vessel larger than 100 gross tonnes (GT), or longer than 24 meters that are authorized to operate in the convention area to register with the IHS Fairplay ship numbering system and obtain an IMO number. This number should be on record, used in all relevant communications, and made publicly available.³²

WCPFC and relevant 2011 UN Sustainable Fisheries Decisions A/RES/66/68.(Adopted in December 2011.)

1. Welcoming shark sanctuaries
2. Welcoming the COFI decision to report on challenges in implementation of IPOA-Sharks
3. Expressing support for work at the WTO to prohibit subsidies which contribute to overcapacity and overfishing
4. Calling upon States to study, develop and adopt effective management measures to minimize by-catch, including specifically the issue of FADs
5. Recognizing the importance of regulating transshipment as a tool in combating IUU.

ENDNOTES

- 1 Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean, Article 30, www.wcpfc.int/key-documents/convention-text.
- 2 John Hampton and Peter Williams, "Analysis of purse seine set type behaviour in 2009 and 2010." . 2011. WCPFC-SC7-2011/MI-WP-01. www.wcpfc.int/node/3647.
- 3 Summary Report of Scientific Committee's 7th Regular Session to the Commission for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean, 2010
- 4 Summary Report of Scientific Committee's 7th Regular Session to the Commission for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean, 2011. Found at <http://www.wcpfc.int/meetings/2011/7th-regular-session-scientific-committee> .
- 5 Ibid 2
- 6 Ibid 4
- 7 Ibid 4
- 8 Ibid 4
- 9 Ibid4
- 10 Ibid 4
- 11 Safeguarding the Stocks. 2009. <http://www.m2cms.com.au/uploaded/5/FFA%20MCS%20Final%20Synopsis%20Report.pdf>
- 12 Babcock, Elizabeth and Pikitch, Ellen. 2003. How much Observer Coverage is Enough to Adequately Estimate Bycatch? Pew Institute of Ocean Science. http://na.oceana.org/sites/default/files/o/uploads/BabcockPikitchGray_2003FinalReport.pdf
- 14 Pew Review of WCPFC FAD Management Plans Submitted by CCMs submitted to TCC7 <http://www.wcpfc.int/doc/wcpfc-tcc7-2011-b-01/pew-environment-group-review-fad-management-plans>
- 15 Convention on the Conservation and Management of High Migratory Fish Stocks in the Western and Central Pacific Ocean, Article Six <http://www.wcpfc.int/key-documents/convention-text>
- 16 Dulvy, N.K. et al. (2008). You can swim but you can't hide: the global status and conservation of oceanic pelagic sharks and rays. *Aquatic Conservation: Marine and Freshwater Ecosystems* 18:459-482. <www.lenfestocean.org/publications/Pelagic_Sharks_paper_final_version.pdf>.
- 17 Clarke, S. A Status Snapshot of Key Shark Species in the Western and Central Pacific and Potential Management Options, WCPFC-SC7-2011/EB-WP-04. <http://www.ffa.int/sharks>
- 18 <http://www.ffa.int/sharks>
- 19 Ward, P., et al., 2008, "Large-scale experiment shows that nylon leaders reduce shark bycatch and benefit pelagic longline fishers," *Fisheries Research* 90: 100-108.
- 20 Summary information on Whale Shark and Cetacean Interactions in the Tropical WCPFC Purse Seine Fishery. Document WCPFC7-2010-IP/01.
- 21 MRAG and Fisheries Ecosystems Restoration Research, Fisheries Centre, University of British Columbia, The Global Extent of Illegal Fishing, 2008, Table 1. Other estimates consider that IUU catches in the WCPFC area could be as high as 10 percent of reported catches, or 200 000 tonnes in total. See FAO, *The State of World Fisheries and Aquaculture, 2008*, p. 71 and n. 37.
- 22 PSMs are requirements established or interventions undertaken by port States that a foreign fishing vessel must comply with or is subjected to as a condition for use of ports within the port State. www.fao.org/fishery/psm/en
- 23 Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing, adopted by the FAO Conference on 22 November 2009, available at: <http://www.fao.org/Legal/treaties/037t-e.pdf>
- 24 U.N. General Assembly Resolution 65/38, U.N. document A/RES/65/38, 30 March 2011, paragraph 49. See also paragraphs 50-52.
- 25 Closing the gap: comparing tuna RFMO port State measures with the FAO Agreement on Port State Measures (Closing the Gap). June 2011, available at: http://www.pewenvironment.org/uploadedFiles/PEG/Publications/Report/Tuna_RFMO_Report_July2011.pdf.
- 26 To assist in States' identification of their capacity needs with regard to the implementation of the PSMA, the Pew Environment Group has produced "A Methodology for Capacity Needs Assessment towards implementation of the Port State Measures Agreement". This report is available at www.pewenvironment.org/iuufishing.
- 27 An informal open-ended technical meeting to review draft terms of reference (TORs) for the ad hoc working group referred to in Article 21.6 of the PSMA took place at the FAO headquarters in Rome, from the 21st to the 24th of November, 2011. Information of this meeting can be found at <http://www.fao.org/fishery/meetings/en>.
- 28 For a detailed report of WCPFC's gaps on PSMs as compared to the PSMA, and a full list of recommendations, see supra Closing the Gap.
- 29 See Flothmann S, Kistowski K, Dolan E, Lee E, Meere F, Album G (2010) Closing Loopholes: Getting Illegal Fishing Under Control. *Science* 328, 1235-1236, and Pew Environment Group (2010) Port State Performance: Putting Illegal Unreported and Unregulated Fishing on the Radar. Report, 40 pp.
- 30 Kobe III Recommendations, paragraph 9, available at: http://www.tuna-org.org/Documents/TRFMO3/K3-REC_ENG.pdf.
- 31 IHS Fairplay (IHSF) is the originating source for the IMO Ship Number and is the sole authority with responsibility for assigning and validating these numbers. The Numbers are issued from the global maritime databases maintained by IHSF and consist of a unique seven digit number. IHSF manages this Scheme on behalf of the IMO. See: http://www.ihsfairplay.com/about/imo_standards/imo_standards.html
- 32 This requirement is consistent with the conclusions and recommendations of the Technical Consultation to Identify a Structure and Strategy for the Development and Implementation of the Global Record of Fishing Vessels, Refrigerated Transport Vessels and Supply Vessels (Rome, Italy, 8 - 12 November 2010), FAO Fisheries and Aquaculture Report No. 956, p. 6-7.

Other related documents available from the Pew Environment Group

- Interest and Influence in the World's Largest Tuna Fishery: A snapshot of tropical tuna fisheries in the Western and Central Pacific Ocean
- Fisheries Bycatch of Sharks: Options for Mitigation
- Closing the gap: Comparing tuna RFMO port State measures with the FAO Agreement on Port State Measures
- A Methodology For Capacity Needs Assessments Towards Implementation of The Port State Measures Agreement
- Oceanic whitetip factsheet
- Whale shark factsheet
- Wire leaders factsheet



Skipjack and yellowfin, © Richard Herrmann SeaPics

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The Pew Environment Group is the conservation arm of The Pew Charitable Trusts, a non-governmental organization that works globally to establish pragmatic, science-based policies that protect our oceans, preserve our wildlands and promote clean energy.