

# COOK ISLANDS OFFSHORE FISHERIES

ANNUAL REPORT

2014

Offshore Fisheries Division



**Ministry of Marine Resources**

GOVERNMENT OF THE COOK ISLANDS

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## Abstract

This report provides a broad overview of the major fisheries operating within the Cook Islands Exclusive Economic Zone (EEZ), highlight activities during the most recent calendar year (2014) and covering the most recent catch estimates by gear and species. This report also covers other work areas of the Cook Islands Offshore Fisheries Division including the observer program and MCS activities as well as flagged vessels operating in areas beyond national jurisdiction.

Cook Islands fisheries have expanded in recent years, comprising of longline, purse seine and artisanal fisheries. The main species targeted by these fisheries is albacore tuna (*Thunnus alalunga*), skipjack tuna (*Katsuwonus pelamis*), yellowfin tuna (*Thunnus albacares*) and bigeye tuna (*Thunnus obsesus*). The Cook Islands also flags two deep sea trawl vessels that operate in the Indian Ocean. These vessels generally target alfonsino (*Beryx decadactylus*) and orange roughy (*Hoplostethus atlanticus*).

The total longline fishery catch in 2014 was 8,583 metric tonnes, the third highest catch on record for the Cook Islands. 55% of this catch was albacore tuna, the key target species of the longline fishery that is used in for canning and frozen export. The total purse seine fishery catch was 13,828mt, the second highest purse seine catch on record. Approximately 87% of the purse seine catch is skipjack tuna, also used in canning. The only authorised purse seine fishing in 2014 was that under the US Multilateral Treaty. Reported artisanal catches were at an all -time high, 219mt, 53% of which is yellowfin.

2014 also saw full operationalization of the Cook Islands Fisheries Field Office in Pago Pago which allowed for an increase in monitoring, control and surveillance activities for fleets operating in the CK EEZ. This allowed for observer deployment and increased port side boardings and inspections.

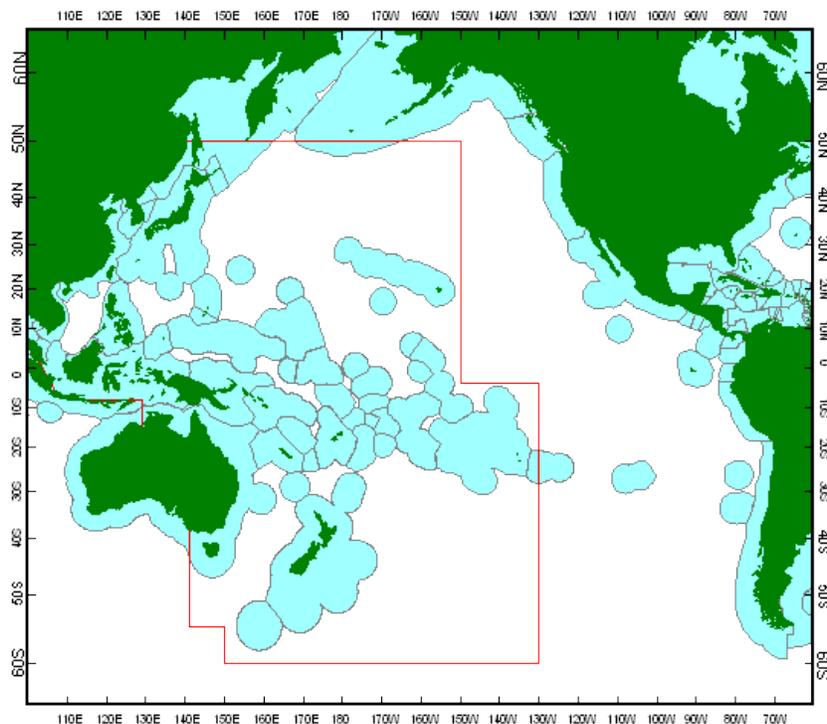
## 1. Introduction

In 2014, the Cook Islands offshore fishery consisted of flagged and foreign longline fishing vessels targeting tuna and tuna like species, and foreign purse seine vessels operating under the US Multilateral Treaty. The majority of the longline fishing activity is concentrated in the Cook Islands Exclusive Economic Zone (EEZ) in the northern Cook Islands waters, in the areas north of 15°S. Some longline fishing also takes place in other areas of jurisdiction within the Western Central Pacific Fisheries Commission (WCPFC) Convention Area (Figure 1). A significant artisanal fishery operates out of each of the inhabited islands.

Albacore tuna is the main target species in the longline fishery. These vessels are generally based out of Pago Pago, American Samoa. Their catch is mostly unloaded to the canneries and they may also unload some by-catch species in Apia, Western Samoa and in Rarotonga, Cook Islands for the domestic market, or export via local Cook Island agents. The purse seine fishery targets skipjack tuna on both free and associated schools. This catch is also unloaded to the canneries in Pago Pago. Only purse seine vessels licenced under the US Multilateral Treaty operate within the CK EEZ.

Two small locally based vessels operate out of Rarotonga and target a range of species that caters mainly for the local market with some exports to Japan. These vessels are around 20m in length and operate typically within 100nm of Rarotonga. Artisanal fishers operate out of each of the twelve inhabited islands. This fishing is mostly for subsistence with some tourist operators in Rarotonga and Aitutaki.

As of December 2012, the entire Cook Islands EEZ was declared a shark sanctuary, prohibiting the targeting or capturing of any shark species.



**Figure 1. The red line above indicates the boundaries of the Western and Central Pacific Fisheries Tuna Commission Convention Area (WCPFC-CA).**

## 2. Licensing and Fleet Structure

### i. Longline

In 2014, the Cook Islands longline fleet consisted of fourteen Cook Island flagged longline vessels operating within the Western and Central Pacific Fisheries Commission-Convention Area (WCPFC-CA). Among these, two domestically based vessels were licenced to fish within national jurisdiction only. Twelve vessels were authorised to fish both within the Cook Islands EEZ and the High Seas, though rarely fished beyond the waters of national jurisdiction. A total of thirty-four Non-Cook Island flagged vessels were licenced and authorised to operate within the Cook Islands EEZ during 2014, of which only 24 vessels actively fished in zone. Foreign flagged fishing in 2014 was undertaken by two Chinese companies, comprised of both Chinese and FSM flagged vessels that operate out of Pago Pago, American Samoa. All longline vessels licenced to fish in zone are prohibited to fish with 12nautical miles (territorial seas) of all islands and 24nm of Rarotonga. The Cook Islands currently has a maximum limit of 50 longline vessels able to be licenced to fish within the Cook Islands EEZ at any one time.

### ii. Purse Seine

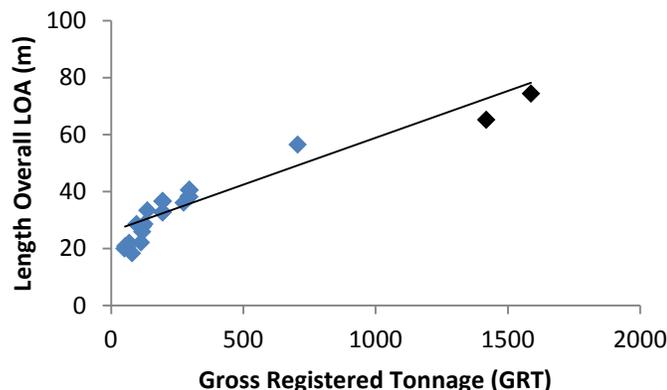
Only purse seine vessels under the US Multi-lateral Treaty were authorised to fish in Cook Islands waters in 2014. All purse seine vessels are prohibited to fish within 24nautical miles of each island and 48nautical miles of Rarotonga.

### iii. Other commercial vessels

In 2014, one Cook Island flagged vessel was licenced to operate in Solomon Islands waters, transshipping in port in Honiara and unloading frozen catch to the cannery in Noro, Solomon Islands. The Cook Islands also has two flagged mid-water trawl vessels that target deep sea species including orange roughy (*Hoplostethus atlanticus*) and alfonsino (*Beryx splendens*). These vessels fish in the Southern Indian Ocean and offload their catches in Mauritius.

**Table 1. Number of vessels by gear, flag and licensed zone in 2014.**

Gear	Licensed Zone	Cook Islands	China	FSM	USA	Total
Longline	CK EEZ	13	21	1	-	35
Purse Seine	CK EEZ	-	-	-	40	40
Trawl	Beyond EEZ	2	-	-	-	2



**Figure 2. Fleet capacity for longline (blue) and trawl (black) vessels licenced to operate in 2014.**

### 3. Longline Fishery

#### 3.1 Longline Catch and Effort Trends

For the purposes of this report, catch estimates are generated using logsheet data. Reported catches for 2014 are raised using Vessel Monitoring System (VMS) data where logsheet coverage is less than 100%. In this instance, logsheet coverage for all trips undertaken in zone is 92%. Un-raised catch estimates for 2014 within the Cook Islands EEZ is 8,583mt, the second highest catch on record following 2012 with the bigeye and swordfish exploratory fisheries. Total fishing effort in the CK EEZ was approximately 18.7 million hooks (Figure 5), with approximately 543,000 hooks of effort from Cook Islands flagged vessels attributed to areas beyond national jurisdiction. Albacore continues to dominate the overall catch totally about 4,701mt and accounting for 55% of the total species catch composition. Yellowfin tuna comprised 25% of the longline catch which was the highest recorded catch (2,116mt), followed by bigeye tuna (753.5mt) at 9% (Figure 3). Other species make up the remaining 12% of catch and include species like blue marlin (320mt), skipjack tuna (227mt), wahoo (199.4mt), mahi mahi (55mt), swordfish (54.2mt) and other non-commercial species (Figure 4).

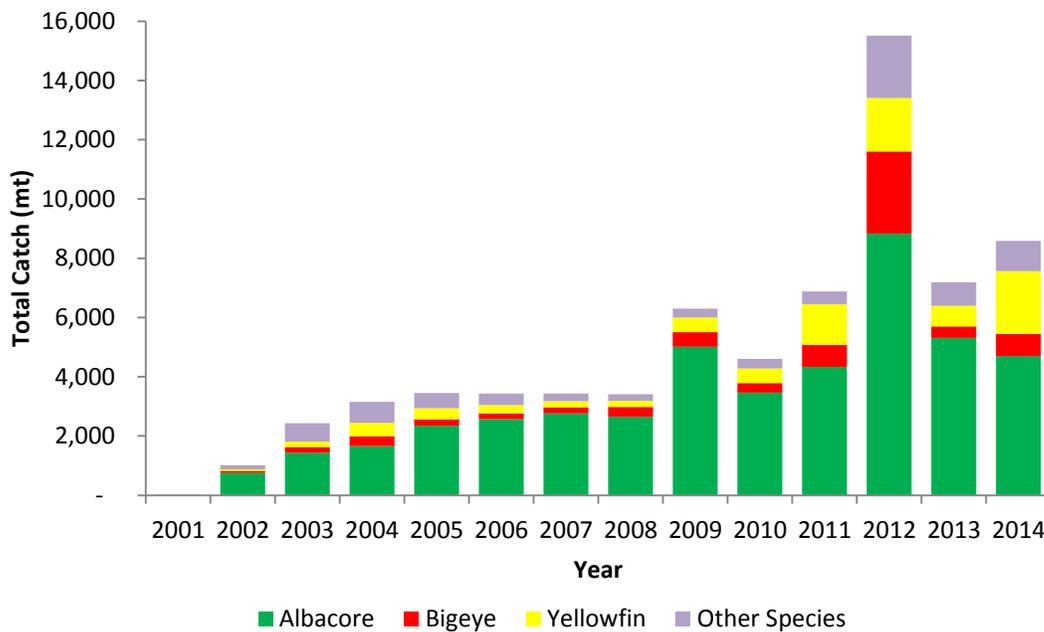


Figure 3. Time series of longline catch by key species within the CK EEZ from 2001-2014.

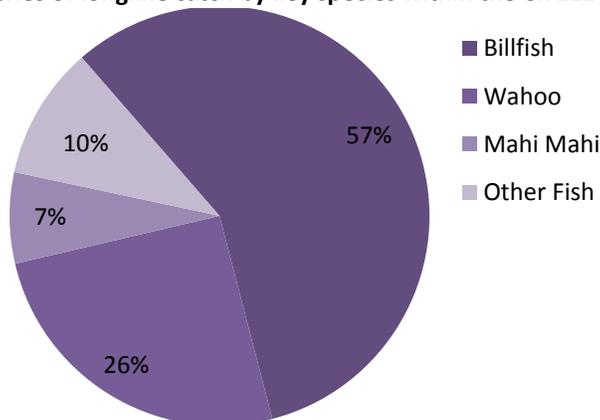
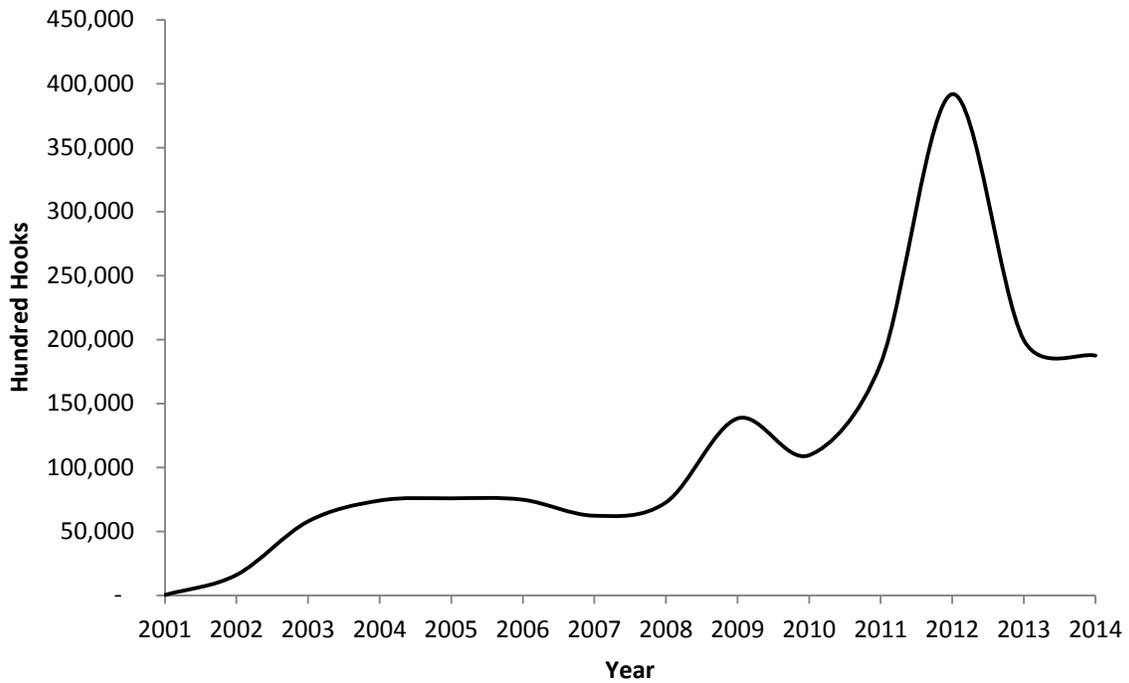
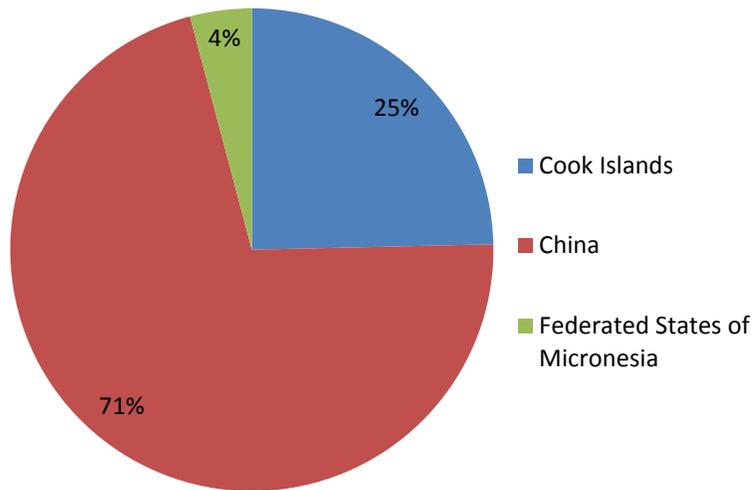


Figure 4. Species catch composition of "other species" in 2014.



**Figure 5. Total longline fishing effort (number of hooks) in zone for 2014.**

The larger majority of catch within the CK EEZ is taken by two Chinese companies that have vessels under Chinese and Federated States of Micronesia flags. This catch equates to 75% of the total with the remaining 25% of zone catches taken by Cook Islands flagged vessels.



**Figure 6. Catch composition by vessel registration (flag) in 2014.**

Catch rates of albacore measured in kilograms per 100 hooks, have steadily declined since 2007 but have stabilised since 2012 around 25kg/Hhks. Catch per unit effort (CPUE), for both bigeye and yellowfin tuna have fluctuated around 4kg/Hhks however in 2014 yellowfin CPUE increased rapidly (Figure 7). The low albacore catch rates earlier in the time series indicate an un-fished or lightly fished fishery.

There is typically a strong seasonality trend evident throughout the calendar fishing year. In general, first and fourth quarter catch rates and total catch remain the lowest during the year, with this period referred to as the off-season. Second and third quarter catches are the peak of the fishing season with CPUE of albacore ranging between 30 and 35 kg per hundred hooks. Yellowfin tuna had unusually high catch rates from March to June, steadying at around 15kg/Hhks (Figure 8).

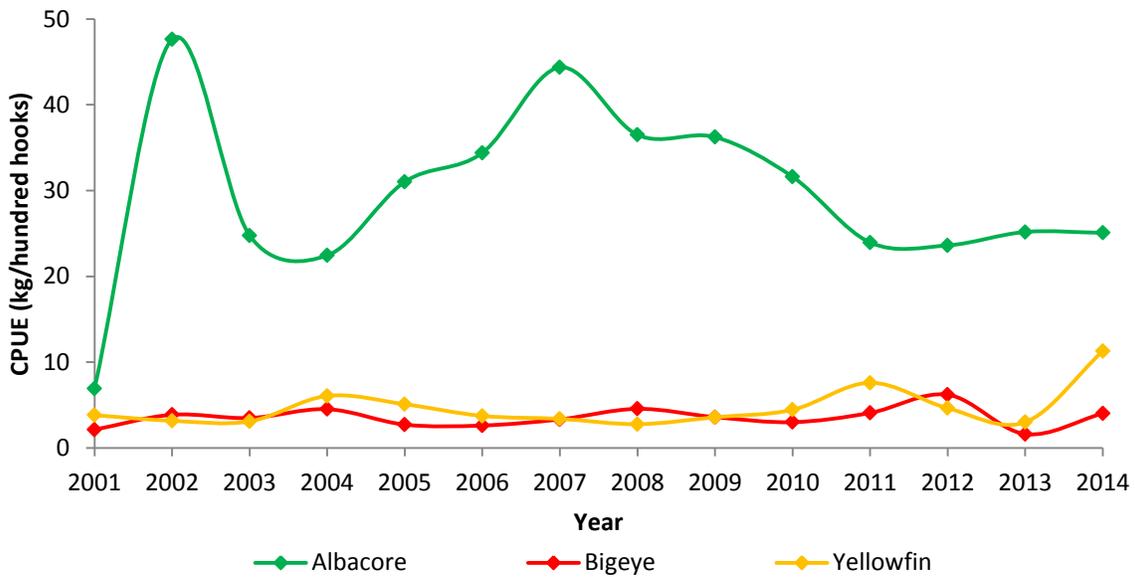


Figure 7. Catch per unit effort (kg per 100 hooks) of key tuna species from 2001-2014.

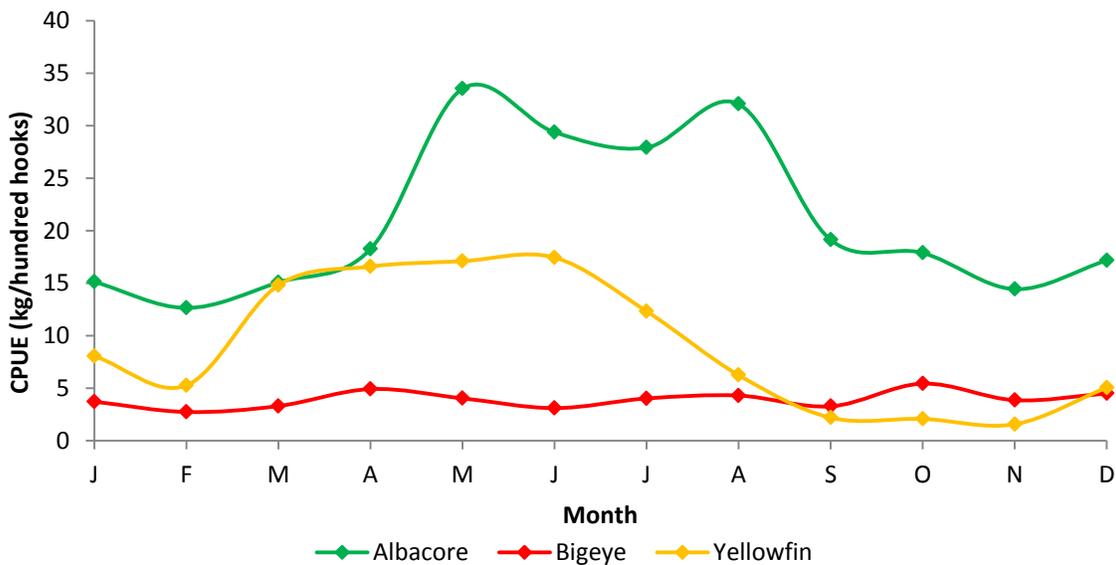


Figure 8. Catch per unit effort (kg per 100 hooks) by month in 2014.

### 3.2 Longline catch and effort beyond National Jurisdiction

All Cook Islands flagged longline fishing vessels issued with EEZ licenses are issued authorizations to fish on the high seas areas within the WCPFC Convention Area. Two vessels sought authorization to fish in areas beyond the EEZ and within areas of other national jurisdictions. A total of 11 longline fishing trips were undertaken in areas beyond the CK EEZ with a total catch of 137.5mt. 98% of this catch was taken in Solomon Islands waters, and the remaining 2% taken in Niue EEZ.

### 3.3 Longline catch and effort distribution

Figure 9 demonstrates 1 degree by 1 degree aggregated distribution of key tuna and billfish species catch for 2014. Albacore, yellowfin and blue marlin catch tends to be evenly distributed, while bigeye catches appear in northern latitudes of the EEZ. Similarly, higher swordfish catches appear in the North West part of the EEZ while more, black marlin was caught in the north eastern zone around Penrhyn Island. 4% of catch was taken south of 15°S with a concentration of fishing effort around Rarotonga indicative of the two domestic fresh-fish longliners that operate out of Avatiu. These vessels catch is largely dominated by blue marlin and swordfish.

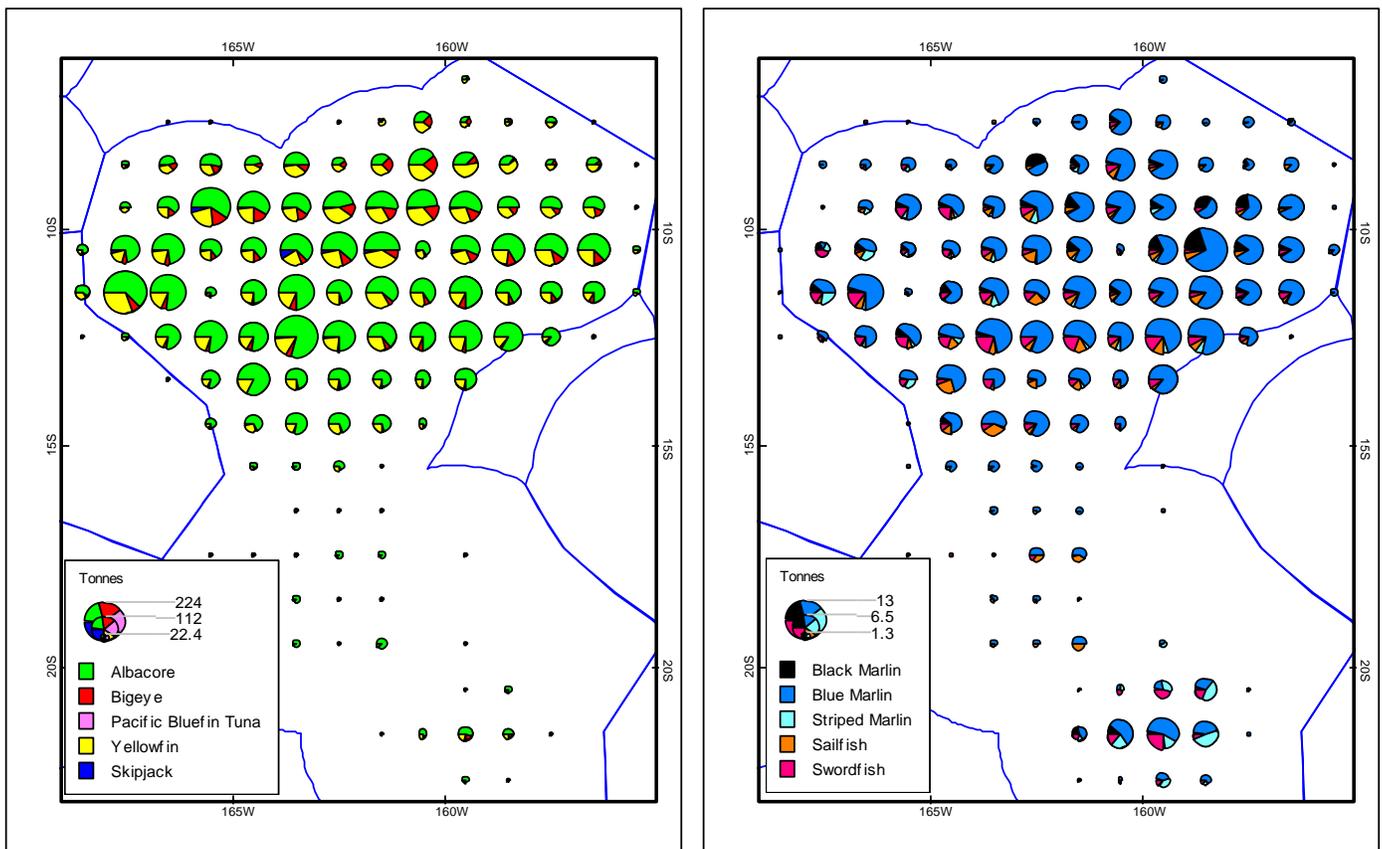
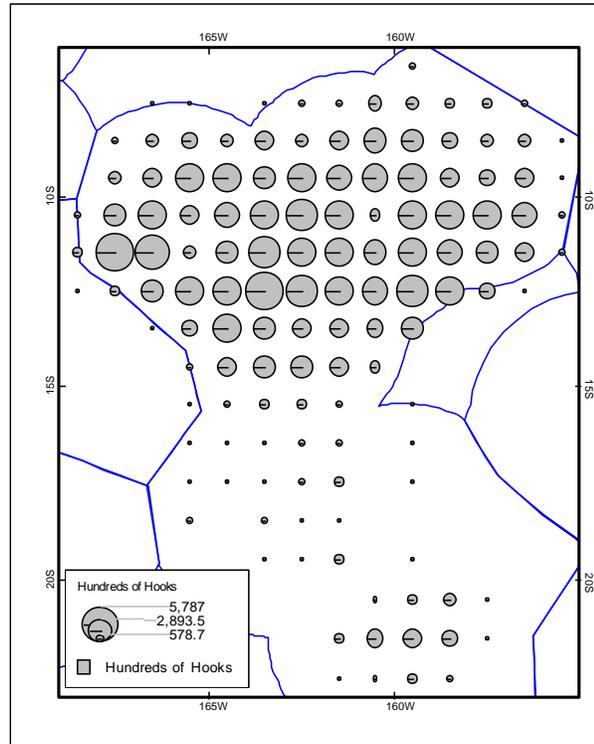


Figure 9. Longline fishing distribution of catch in metric tonnes of key tuna species (left) and billfish (right) within the CK EEZ, 2014.

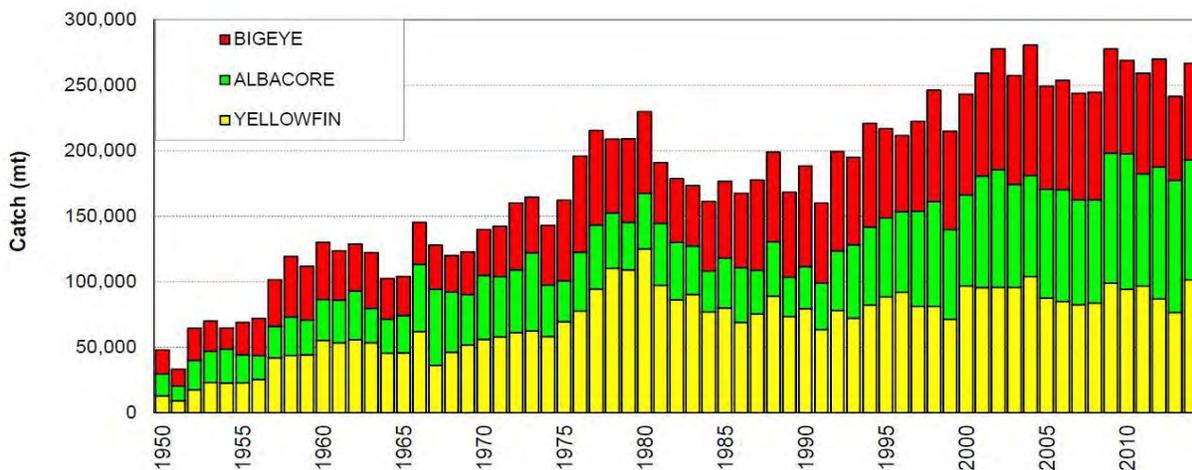
Fishing effort continues to be fairly well distributed yet concentrated in the waters north of 15°S latitude (Figure 10). Approximately 18.7 million hooks were set within the CK EEZ in 2014. There is clear separation of fishing effort between the Northern and Southern Fisheries. The small patch of fishing effort around Rarotonga is indicative of the domestic fresh fish longline fleet.

### 3.4 Regional Perspective

The provisional total Western Central Pacific – Convention Area (WCP-CA) tuna catch for 2014 was estimated at 2,860,648 metric tonnes. Approximately 10% of this catch (268,795mt) was taken by longline fisheries. Albacore tuna constituted 34% of WCP-CA longline catch (91,414mt), rivalled by yellowfin tuna comprising 28% of the LL catch (101,522mt – the highest ever) followed by bigeye tuna at 28% (73,898mt) (Williams & Terawasi, 2015). Annual catches in the longline fishery since 2000 have been amongst the highest ever (Figure 11). By comparison, the total albacore tuna catch in the Cook Islands EEZ comprises only 1.7% of the total WCP-CA albacore catch.



**Figure 10. Spatial distribution of aggregated longline fishing effort (number of hooks) within the CK EEZ, 2014.**



**Figure 11. Longline catch (mt) of target tuna species in the WCPFC-CA.**

*Source: WCPFC SC11/2014-GN-WP-01*

## 4. Purse Seine Fishery

### 4.1 Purse Seine Catch and Effort Trends

The purse seine fishery is essentially a skipjack fishery, targeting surface-schooling skipjack in the tropical waters of the Western and Central Pacific Ocean (WCPO). In 2014, only vessels under the US Multilateral Treaty were licensed to operate in the Cook Islands EEZ. The Cook Islands has been a party to the US Treaty since its inception in 1975. The purse seine fishery is primarily monitored by fishing effort using the Vessel Day Scheme (VDS) which monitors the days fished in zone. A fishing day is defined as either a set (deploying the purse net) or when the vessel is actively searching for a school, or deploying a fish aggregating device (FAD). In 2014, the Cook Islands had 550 days available to be fished by the US vessels, of which 367.9 days were actually used (Figure 12). Fishing effort is validated through the vessel monitoring system (VMS). In addition, catch logsheets are also submitted.

A total of 13,828mt was caught in the purse seine fishery in 2014. 87% of this was skipjack tuna, with 6% of yellowfin and 1% of bigeye tuna (Figure 13). The purse seine fishery is subject to a four month FAD closure which prohibits the setting of nets on FADs. No catch was taken from the CK EEZ during this period (July – October) (Figure 14).

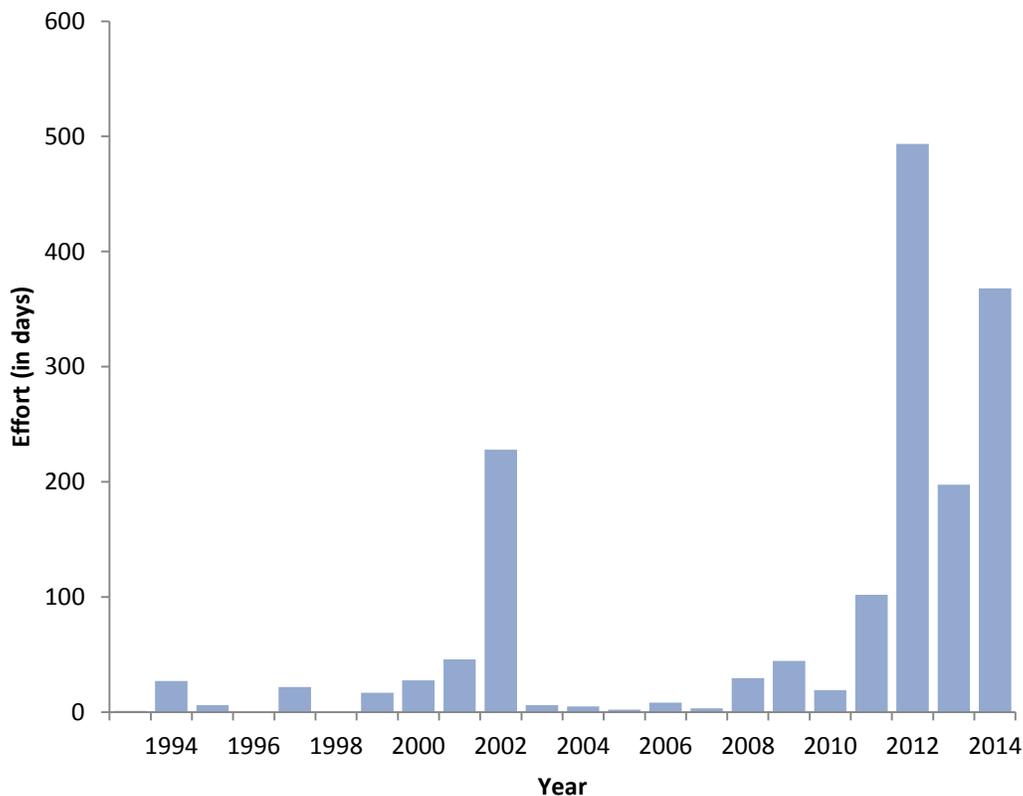


Figure 12. Purse seine fishing effort (in days) fished in CK EEZ from 1993 - 2014.

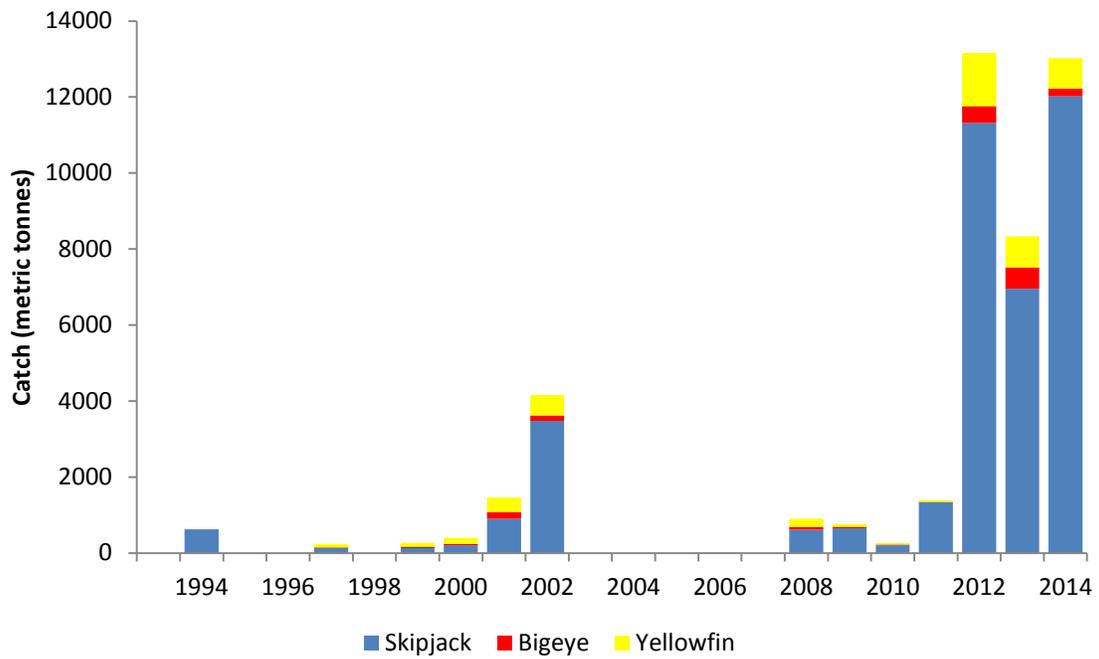


Figure 13. Catch (mt) key tuna species in the purse seine fishery, within the CK EEZ from 1994 - 2014.

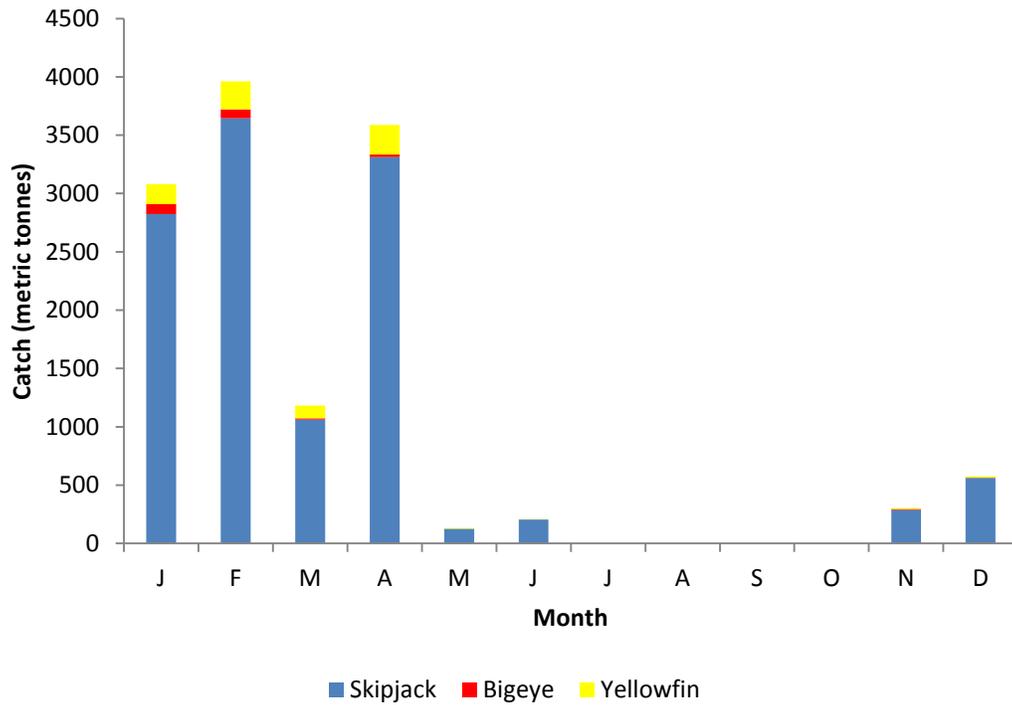


Figure 14. Purse seine logsheet catch estimates (metric tonnes) of key tuna species in 2014.

## 4.2 Purse seine by-catch

The composition of bycatch in the purse seine fishery as depicted from 30% available observer data coverage on 2014 purse seine sets indicates that sharks comprise the largest component of bycatch, followed by rainbow runners, blue marlin and wahoo (Figure 15).

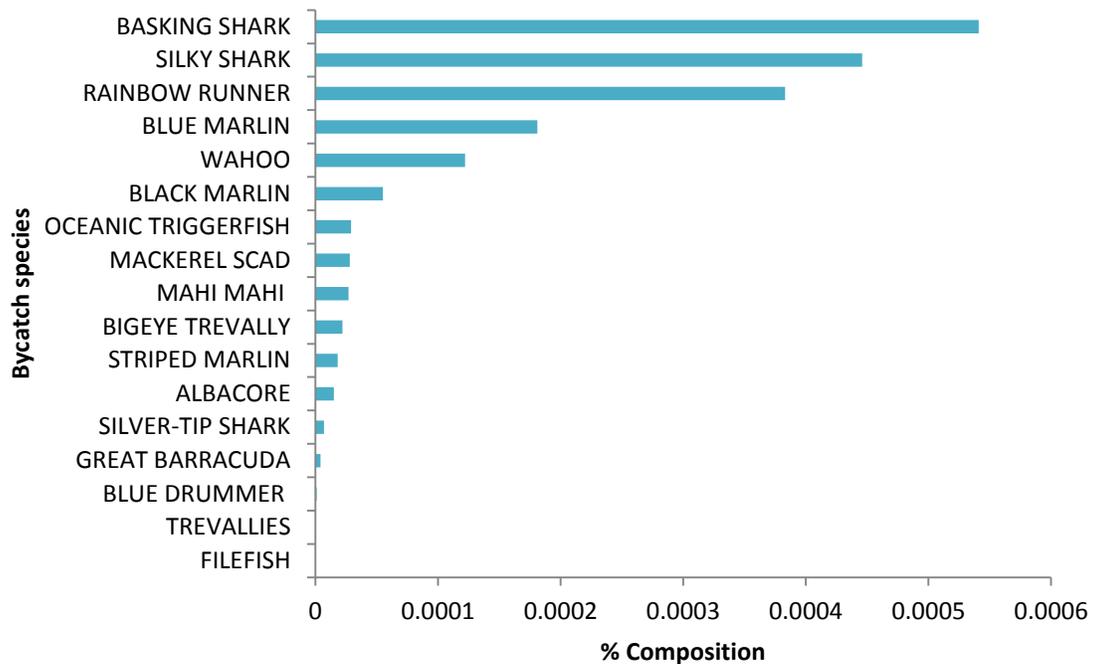
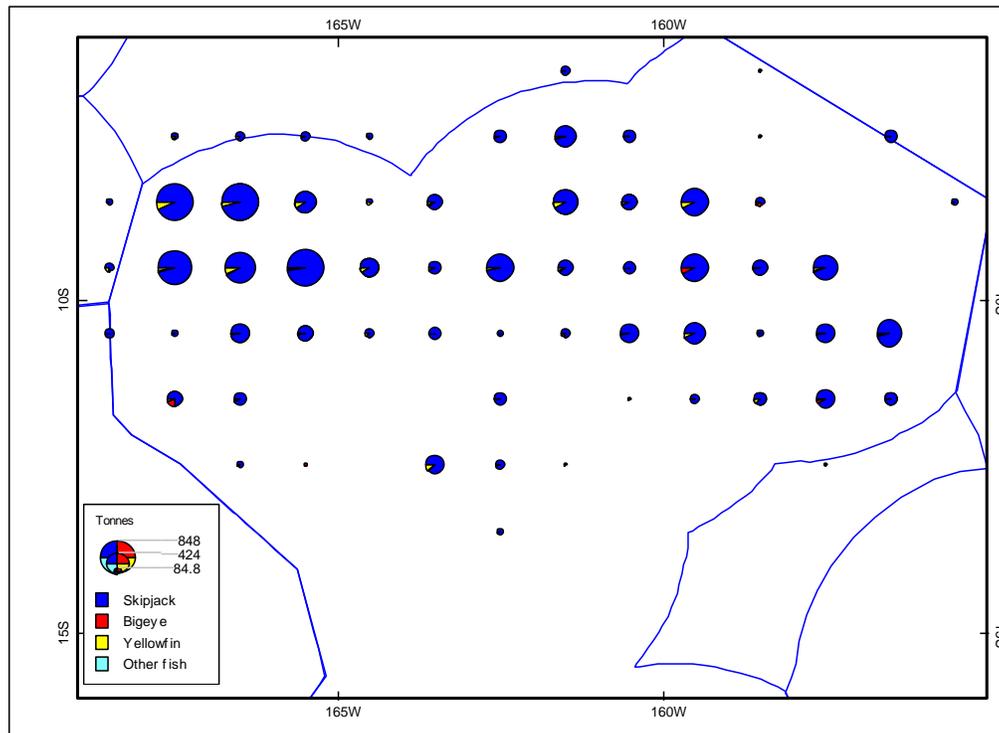


Figure 15. Purse seine by-catch composition in 2014 based on observer data.

## 4.3 Purse seine catch and effort distribution

The spatial distribution of purse seine catches is exclusive to the northern most parts of the EEZ, north of 13°S latitude (Figure 16). The year 2014 saw the start of an El-Nino event and a predicted expansion of purse seine activity into the eastern tropical areas. As such, the Cook Islands experienced increased purse seine fishing activity in the first quarter of the year (Figure 14).



**Figure 16. Purse seine catch (mt) distribution of key tuna species within the CK EEZ 2014.**

#### 4.4 Regional Perspective

The provisional purse seine catch of the WCP-CA in 2014 was 2,020,627 metric tonnes; the highest on record. 79% of this was skipjack tuna (1,587,018mt), 18% was yellowfin tuna (362,049mt) followed by an estimate of 67,367mt of bigeye tuna (Williams & Terawasi, 2015) (Figure 17). Total fishing effort (days) has tracked quite closely with the total purse seine catch since the early 1970's however higher catch and lower effort in 2014 indicate increased catch rates from 2013 (Figure 17). The regional purse seine catch and effort distribution is strongly influenced by El Nino – Southern Oscillation Index (ENSO) events. Weak to moderate La Nina conditions were experienced in 2013 (+) with El Nino conditions developing later in 2014. These El Nino conditions were evident through the expansion of the tropical purse seine fishery into the eastern tropical areas. Purse seine effort was more pronounced to the east of 160°E than in areas around PNG, FSM and Solomon Islands (Williams & Terawasi, 2015) (Figure 18).

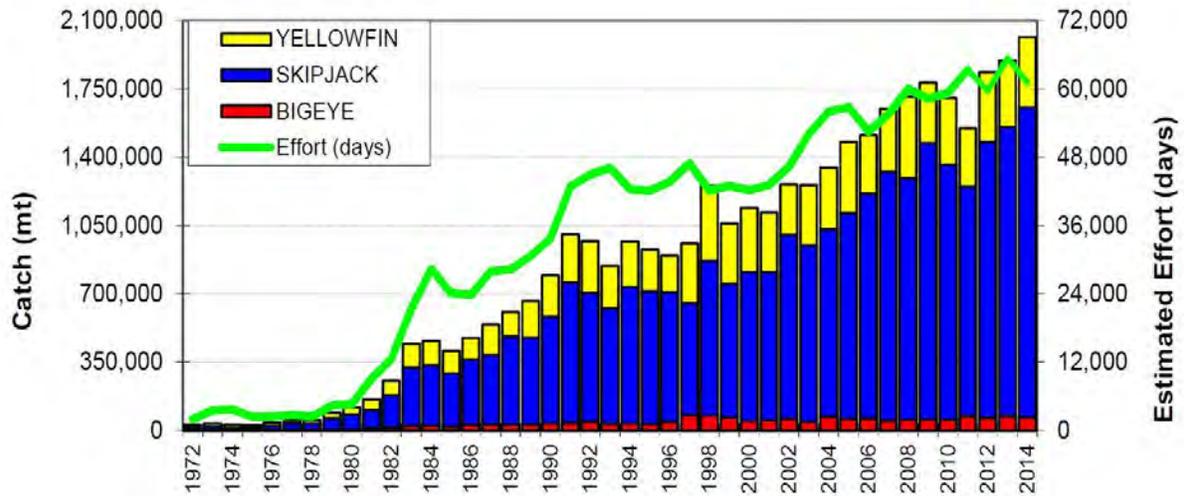


Figure 17. Purse seine catch (mt) of bigeye, skipjack and yellowfin and estimated fishing effort (days fishing and searching) in the WCP-CA. Source: SC11-2015-GN-WP-01

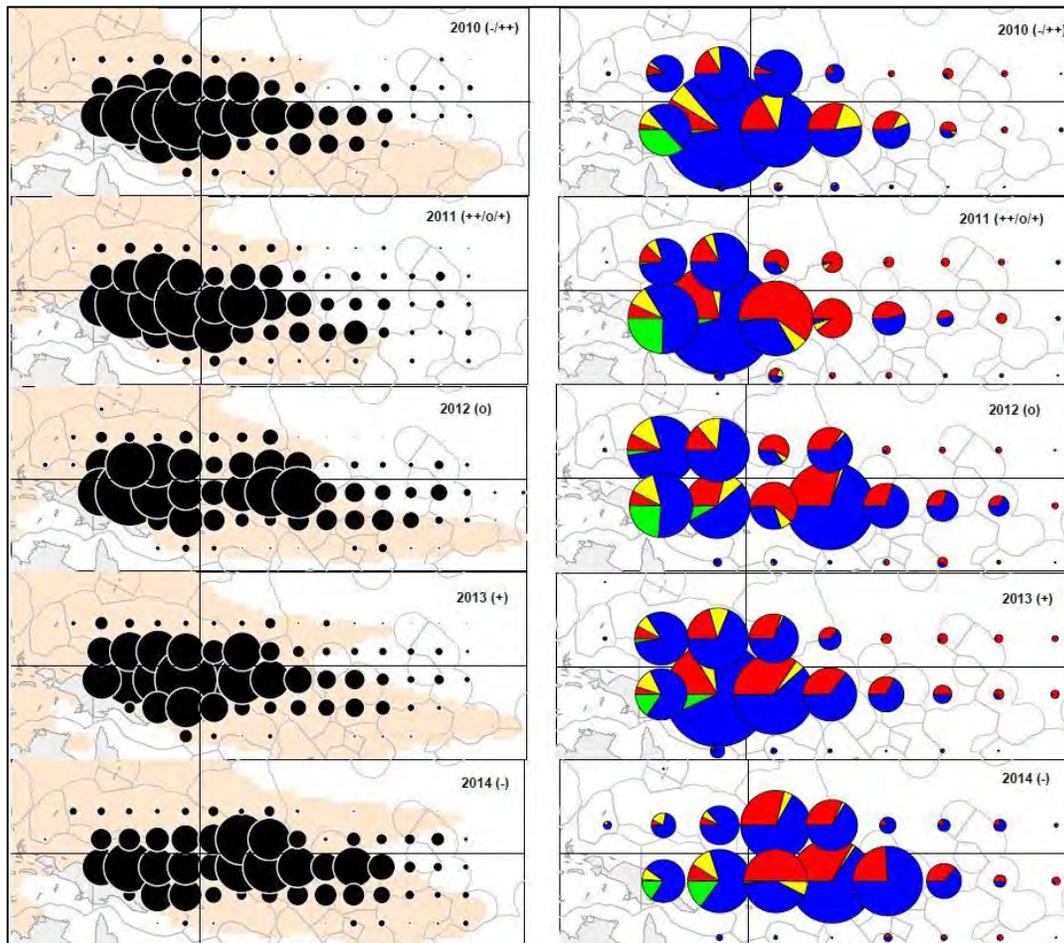


Figure 18. Regional distribution of purse seine fishing effort (LEFT: days fishing; RIGHT: sets by set type (blue – unassociated; yellow – log; red – drifting FAD; green – anchored FAD)) from 2010 – 2014. Faded orange colour indicates distribution of water with a sea-surface temperature of >28.5°C. The (-) minus sign indicates an El Niño year, (+): La Niña and “o”: Transitional period. Source: SC11-2015-GN-WP-01

## **5. Artisanal Fishery**

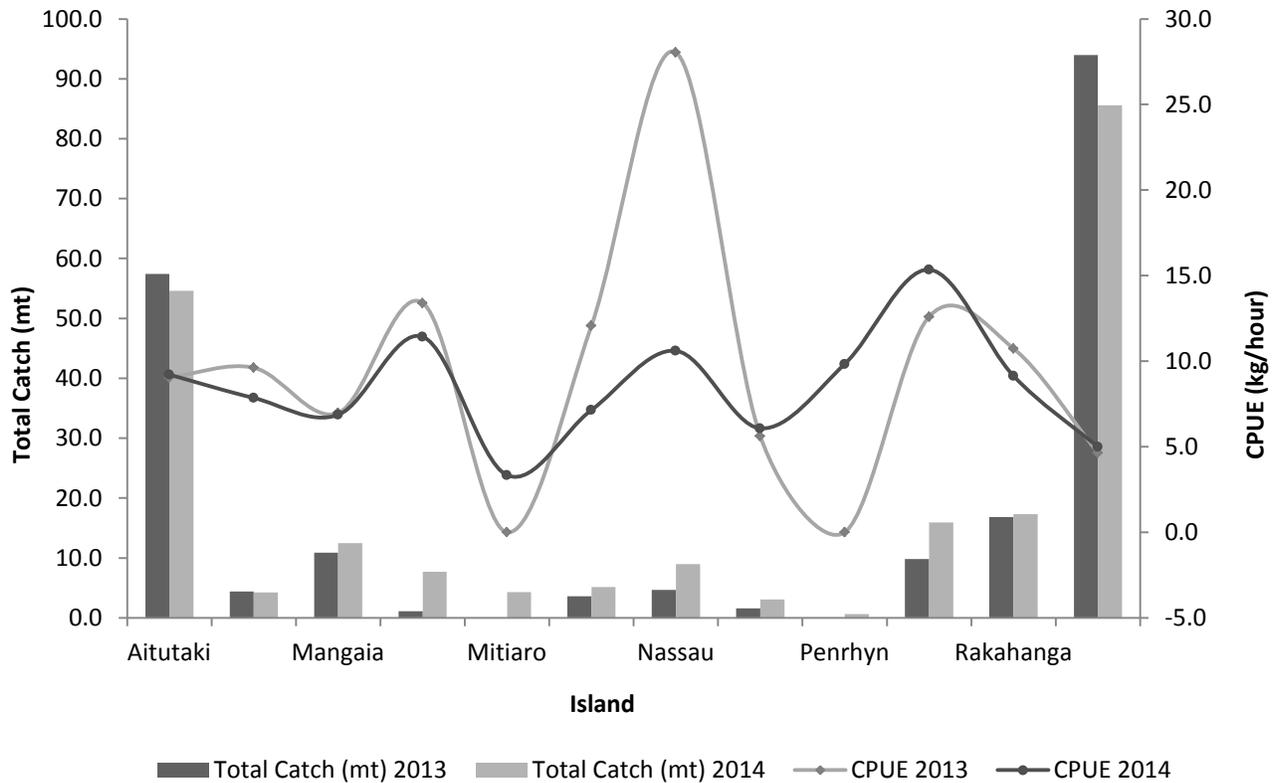
The Cook Islands artisanal fishery occurs throughout all inhabited islands, predominantly targeting tuna and other pelagic species. As of 2014 all islands are now reporting catch and effort data. There are currently 302 active artisanal vessels being reported on the artisanal tuna database (TUFART); 92% of these are small powered boats with outboard motors, 4% are sports/recreational vessels, and 4% are unpowered canoes. It is common for all artisanal fishers with powered vessels to fish around the coast of the island and/or at fish aggregating devices (FADs). However fishing areas do vary as most islands within the Northern Group do not have deployed FADs, therefore fishing can take place within their deep lagoons and along the coast of the islets (motus) which results in a variety of species both reef and pelagic, being caught.

The small aluminium, fibreglass, and wooden boats are powered by outboard motors ranging from 40-150hp. These particular small vessels are approximately 4.8-6 metres in length and can be used by 1-3 people who fish for subsistence. Dropstone, bottom handlining, and trolling are the main fishing methods for fishers with small powered vessels, however there are other effective fishing methods used. It is very common for artisanal fishers in the outer islands to use different fishing methods at one particular spot, due to fuel being limited and very costly. Fishing trips can usually take up to 6 hours.

Unlike small powered vessels which fish for subsistence, the recreational/sports fishing boats aim at selling fishing charters and tours to tourists. There are currently 12 sports vessels in the Cook Islands. These are operated by high powered outboard and in board motors and are approximately 8-12 metres in length. Trolling is the main fishing method used to target billfish, tuna, and other pelagic game species.

### **5.1 In-Zone Catch and Effort**

Un-raised catch data was recorded from the islands of Aitutaki, Atiu, Mangaia, Manihiki, Mitiaro, Mauke, Nassau, Palmerston, Penrhyn, Pukapuka, Rakahanga, and Rarotonga. Artisanal catch totalled 219mt which was a small increase of 15.6mt from 2013. Rarotonga had the highest catch of 85.6mt, followed by Aitutaki with 54.6mt, and Rakahanga with a total of 17.3mt (Table X). In comparison to 2013, Rarotonga saw a decrease of 8.4mt, followed by Aitutaki with a slight decrease of 2.8mt. Despite of the decrease, other islands such as Manihiki, Mangaia, Mauke, Mitiaro, Nassau, Palmerston, Penrhyn, and Pukapuka saw increases, while Atiu and Rakahanga maintained very similar catch totals for both years (Figure 19).



**Figure 19. Total artisanal catch (mt) and catch per unit effort (kg/hour) per island for years 2013 and 2014.**

The highest 2014 catch per unit effort (measured in kilograms caught per hour fished) was primarily from islands within the Northern Group of the Cook Islands. Pukapuka saw the highest CPUE of 15.3 kg/hour, followed by Manihiki with 11.4kg/hour, and Nassau with 10.6kg/hour. The CPUE within 2014 have decreased since 2013 where CPUE in Nassau was 28kg/hour, followed by Manihiki 13.4kg/hour, and Pukapuka 12.6kg/hour (Figure 19). This may be attributed to biases in reporting, where fishers are not recording when they do not catch fish in a trip.

Yellowfin tuna continues to dominate the overall catch, totalling at 116mt (Figure 20) and accounting for 53% of the total catch composition followed by 39% 'other species' (85.1mt), 7% skipjack tuna (15.8mt), and 1% albacore tuna (2.5mt). Mahi mahi and wahoo also contributed a significant amount to the overall species composition (Figure 21).

There appears to be some seasonality trends in the artisanal fishery. When yellowfin catches decline, catches of other species tend to increase. The third quarter (July-Sept) for both years saw yellowfin tuna decrease significantly by 30mt. In spite of the decrease of yellowfin tuna caught within the third quarter, other species saw an increase of approximately 20mt causing a slight fluctuation. Both years have very similar catch patterns (Figure 22).

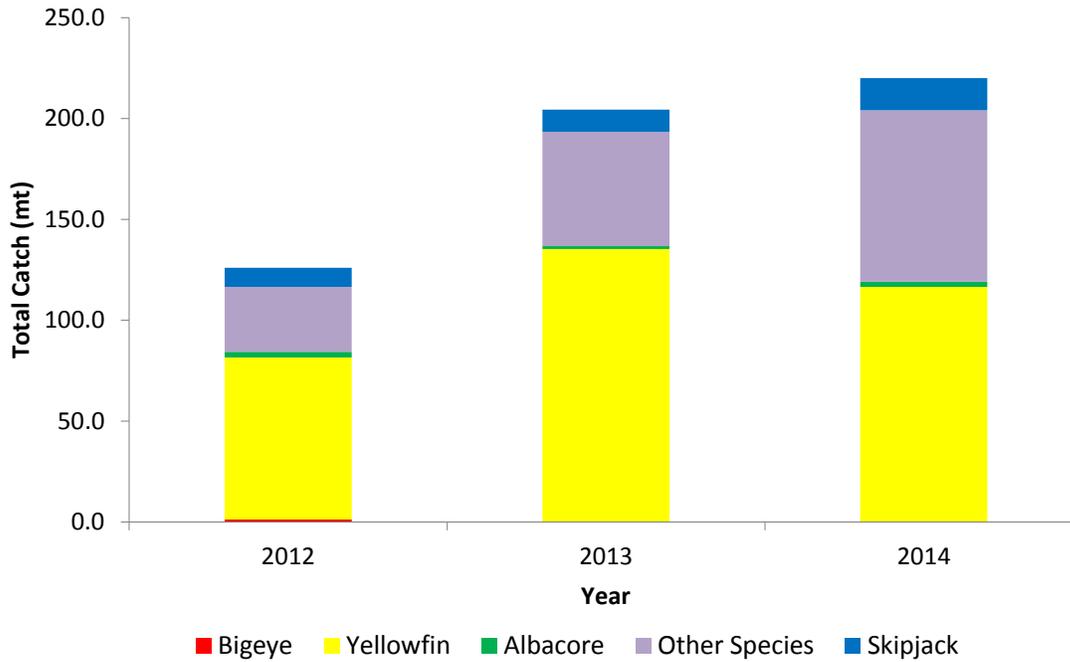


Figure 20. Total catch (mt) of key species from 2012-2014.

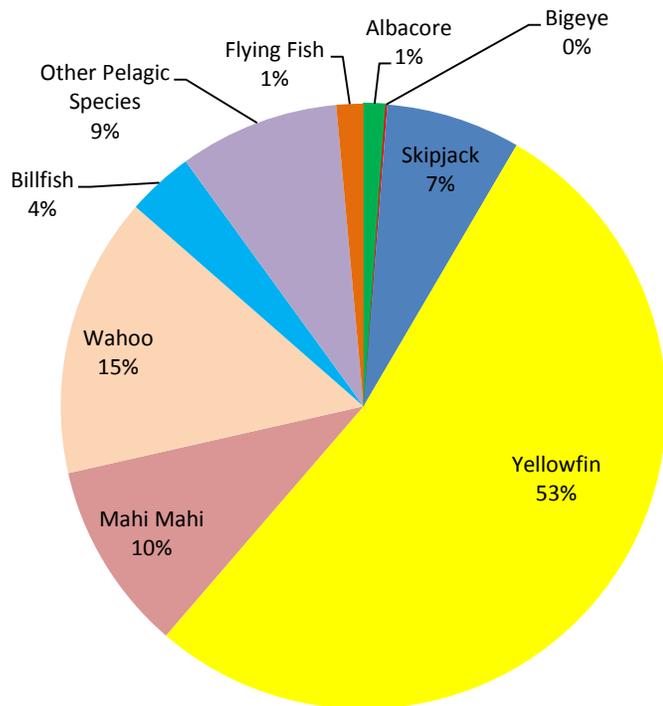


Figure 21. Total artisanal catch composition including "other species" for year 2014.

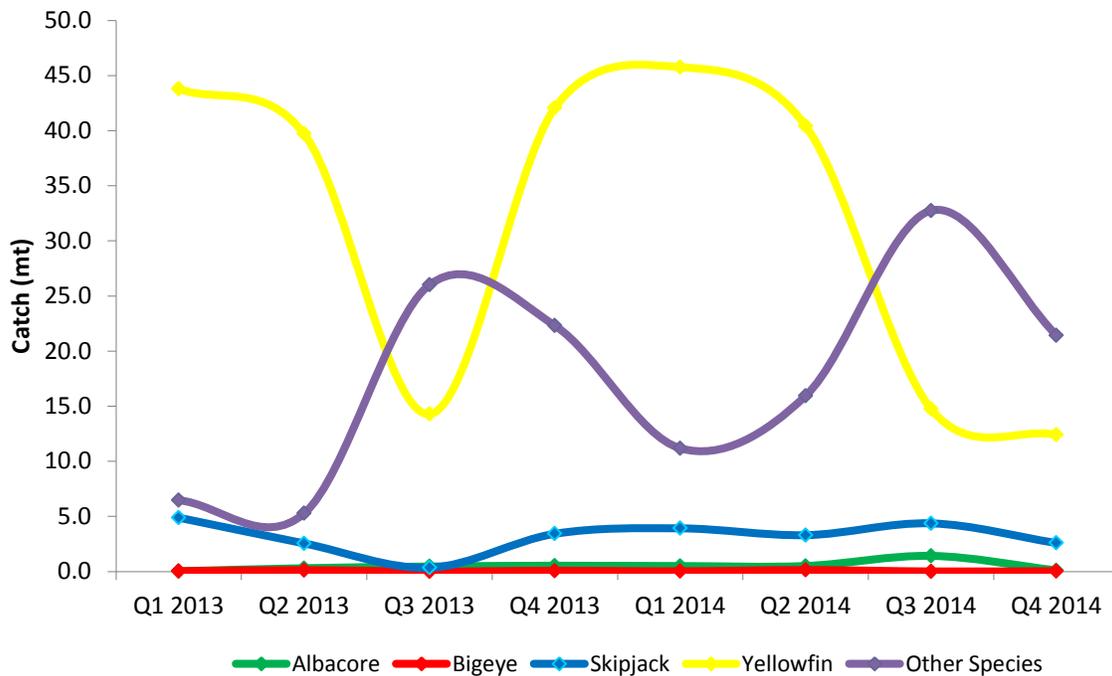


Figure 22. Total catch (mt) for key tuna species over the four quarters for years 2013 and 2014.

## 5.2 Artisanal Fishery Developments

The Cook Islands artisanal fisheries data collection programme has been in place since 2011. The Cook Islands is now one of the leading nations in the Pacific in terms of artisanal fisheries program development.

In collaboration with the Secretariat of the Pacific Community (SPC), the Ministry of Marine Resources intention is to support the continuous collection of good quality tuna data in the Cook Islands. A key component to the success of this will be awareness, through conducting an 'Artisanal Tuna Data Collection Workshop' on each inhabited island.

The long term purpose of the Artisanal Tuna Data Collection Workshop is to improve the quality of artisanal fisheries data for the Cook Islands. Therefore the programme ensures that through direct interaction fisheries officers as well as artisanal fishers will;

- a) Be trained how to accurately complete the updated SPC regional data forms,
- b) Be educated on the importance of collecting good quality data,
- c) Get feedback from data received in past years,
- d) Provide feedback of issues and concerns, and
- e) Register all active fishing vessels

## 6. Observer Program

The Cook Islands National Observer Program has grown significantly in recent years. In 2014 there were seven Non-Cook Islander observers, five of which were based out of Apia and two in Rarotonga. These observers are placed regularly on Cook Island flagged or Foreign licensed fishing vessels.

The Cook Islands National Observer Programme managed to obtain 8.9% coverage of its fishing fleet during 2014. 18 placements were organized; 16 trips on longline (1 trip was cancelled due to family issues) and 2 trips on-board a Purse Seine. Details of the observer placements are shown in Table 2 below.

**Table 2. Summary of observer placements undertaken in 2014.**

Trip No	Vessel	Observer	Dep port	Depart	Ret Port	Return	Obs D/breif	Sea days
CKLP1401	Shen Liang Cheng 882	Leon Toomata	Pago	6/03/2014	Pago	2/05/2014	N	57
CKLP1402	Trip Cancelled	Tagi Patau	Trip Cancelled					
CKLP1403	CFA 21	Atapana Tony	Pago	8/04/2014	Pago	12/05/2014	N	34
CKLP1404	Te Ravakai	Tala Maiava	Apia	2/04/2014	Pago	9/05/2014	N	37
CKLP1405	Shen Liang Cheng 881	Apelu Isaia	Pago	30/04/2014	Pago	20/07/2014	Y	81
CKLP1406	Shen Liang Cheng 883	Iosua Taavao	Pago	12/05/2014	Pago	27/07/2014	Y	76
CKLP1407	Chong Myong 707	Tagi Patau	Pago	26/05/2014	Pago	30/06/2014	N	35
CKLP1408	Grace	Leon Toomata	Pago	8/06/2014	Pago	7/08/2014	N	61
CKLP1409	Ping Tai Rong 13	Ephraim Anseimo	Pago	18/07/2014	Papiete	21/10/2014	Y	95
CKLP1410	Hua Nan Yuh 731	Tagi Patau	Pago	9/07/2014	Pago	11/09/2014	N	60
CKP1411	Hua Nan Yuh 711	Iosua Taavao	Pago	5/08/2014	Avatiu	22/10/2014	N	78
CKLP1412	Ping Tai Rong 9	Tala Maiava	Pago	9/08/2014	Papiete	24/10/2014	N	76
CKLP1413	Esther	Atapana Tony	Pago	20/08/2014	Pago	27/09/2014	N	38
CKLP1414	Toamoana 8	Leon Toomata	Honiara	30/08/2014	Honiara	27/09/2014	N	28
CKLP1415	Grace 1	Apelu Isaia	Pago	1/09/2014	Pago	27/09/2014	N	28
CKLP1416	Toamoana 168	Leon Toomata	Honiara	7/10/2014	Noro	8/10/2014	N	3/TS
CKLP1417	Toamoana 168	Leon Toomata	Noro	16/10/2014	Honiara	17/10/2014	N	11/TS
27LP/24	Cape Cod	Saiasi Sarau	Pago	22/07/2014	Pago	6/08/2014	N	16
27LP/48	Cape Cod	Saiasi Sarau	Pago	10/08/2014	Pago	11/09/2014	N	37



## 8. Cook Islands Fisheries Field Office

### I. Background

Pago Pago, American Samoa is the major fishing vessel operational base for Cook Islands flag vessels and foreign vessels licensed to operate in Cook Islands waters. It is a processing and transshipment hub for the eastern Western and Central Pacific Fisheries Commission region and is where most fish caught in the Cook Islands is unloaded.

Pago Pago hosts key Cook Islands fishing partners including TriMarine, Yuh Yow and Luen Thai and these parties are actively promoting the development of fisheries infrastructure and facilities in the port.

In 2008 the United States and the Cook Islands signed a Memorandum Of Understanding (MOU) unique to this region, on cooperation in fisheries management and conservation, particularly with respect to American Samoa and arrangements both countries are party to (including WCPF Convention and US Treaty). The MOU provides for broad cooperation and identifies the following specific areas for cooperation:

- Information exchange, including operational data and MCS;
- Observer placement;
- Fisheries enforcement;
- Boarding and inspection; and
- Fisheries research.

The MOU also suggests bilateral meetings including around Regional Fisheries Management Organisations (RFMOs) and US Treaty meetings.

To date, cooperation between the two countries has included elements of all the specific areas identified above, although bi-laterals have normally taken place on an informal basis and have focused on Pago Pago and the emerging Te Vaka Moana group (TVM). In particular the US National Marine Fisheries Service (NMFS) has been extremely helpful with respect to observer placements prior to MMR having a permanent presence in Pago Pago. They have greatly assisted the Cook Islands to meet the minimum 5% longline observer coverage as required by the WCPFC.

#### i. Role of the CIFFO

- Pago Pago is a hub port for the region and is a gateway for US markets and in relation to this the port not only features in the Cook Islands and TVM development plans but is also receiving development support from the Western Pacific Fisheries Council (Council) including with respect to fresh fish processing and exporting;

- The Southern Albacore fishery is of critical importance to all countries in the sub-region and proper management of the stock must include all resource owners, including American Samoa (and other non-FFA members such as French Polynesia). An MMR Office facilitates closer working relations;
- Most Cook Islands licensed vessels are based in Pago Pago and most Cook Islands fish is unloaded there;
- A minimum observer coverage for longliners of 5% needs to be achieved to comply with WCPFC requirements. MMR's aim is for 20% coverage which will be facilitated by the operation of the CIFFO;
- The recent Observer Program audit revealed Cook Islands needs to enhance a number of elements, including: de-briefing capacity, observer numbers, vessel safety (and gear) inspections, vessel operator briefings, an observer code of conduct, observer well-fare and safety;
- Observer management, Port sampling coverage and compliance related duties are significantly enhanced

The establishment of an office in Pago Pago has enabled closer and more effective monitoring of licensed and flagged vessels and facilitated greater development opportunities with industry partners as well as American Samoa itself.

#### ii. Future prospects of the CIFFO

In the future, it is anticipated that the facility will become a sub-regional hub allowing for joint monitoring among coastal State partners and be supported by the regional organizations FFA and SPC. Te Vaka Moana funded by Ministry of Primary Industries in New Zealand has also financially contributed to CIFFO and the Western Pacific Fisheries Council has also indicated a willingness to be involved.

## 9. Monitoring and Research Programs

### i. Unloadings

A number of Chinese flagged longliners transhipped in the port of Avatiu, Rarotonga. These vessels were unloading frozen albacore, bigeye and yellowfin from the vessel to shipping containers. A small proportion of frozen by-catch (mahi mahi, wahoo, billfish) was permitted to be sold on the local market during peak tourism season. Approximately 20% of these transhipments in Rarotonga were fully monitored by Marine Resources staff and 100% of by-catch unloads were also fully monitored.

### ii. Port Sampling

The operationalization of the Cook Islands Fisheries Field Office in Pago Pago in 2014 has now increased the capacity for port sampling of the Cook Islands National Fleet that operates out of

American Samoa though port sampling coverage is still limited. Most port sampling occurs in Rarotonga on the small domestic fresh fish longliners that average 2-3mt per trip. Coverage of port sampling is low, but regular. Approximate coverage of port sampling of the National Fleet in 2014 was 23%.

### iii. Logsheet data collection and verification

97% logsheet coverage was achieved for the National longline fleet in 2014. Most logsheets are received as original copies via the post after the completion of a trip or, received in electronic format via email either weekly or after the completion of a trip (scanned). Unloading forms are received by most foreign flagged vessels however some reinforcement is still required for the National Fleet in submitting additional data from time to time.

## 10. Socio-economic Trends

High operating costs out of Rarotonga continue to hinder domestic industry growth. Only two small scale domestic fresh fish vessels operate out of and unload to local markets in Rarotonga and some exports, mainly to Japan. Some Chinese flagged vessels continue to operate out of Pago Pago but will unload to shipping containers in the port of Rarotonga. Here, their catch is transhipped from vessel to shipping container and shipped back to American Samoa. The local economy benefits from the purchase of fuel; temporary labour to assist with the unloading's, purchase of provisions and associated port fees. These vessels are also permitted to seasonally sell frozen by-catch to local businesses. This activity allows the Ministry of Marine Resources to conduct routine port side boarding inspections and port sampling of catches.

## 11. Future Developments of the Fishery

The Cook Islands commercial longline fishery is currently only limited by a cap on the number of longline vessels authorised to fish within the EEZ (50). The Ministry of Marine Resources is exploring the mechanisms for introducing a quota management system (QMS) applicable to albacore and bigeye in the longline fishery. A number of technical working groups that included support from FFA and SPC were conducted in 2014 to help develop a QMS for the Cook Islands. Pending some legislative reviews and possible changes, the system is aimed at being rolled out in January 2017.

## References

Williams, P., and Terawasi, P. (2015) Overview of tuna fisheries in the Western and Central Pacific Ocean, including economic conditions – 2014; WCPFC-SC11-2015/GN-WP-01. Eleventh Regular Session of the Scientific Committee of the WCPFC (SC11). Pohnpei, Federated States of Micronesia, 5-13 August 2015.