

COOK ISLANDS OFFSHORE FISHERIES

ANNUAL REPORT

2015

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), and highlights activities during the most recent calendar year (2015,) covering the most recent catch estimates by gear and species. The report also covers other work areas of the Marine Resources Offshore Division including the Observer Program, Monitoring Control and Surveillance (MCS) activities, and flagged vessels operating in areas beyond national jurisdiction.

Cook Islands fisheries have expanded in recent years, and comprise longline, purse seine and artisanal fisheries. The main species caught in these fisheries are albacore tuna (*Thunnus alalunga*), skipjack tuna (*Katsuwonus pelamis*), yellowfin tuna (*Thunnus albacares*) and bigeye tuna (*Thunnus obsesus*). The Cook Islands also flags two High Seas trawl vessels that operate in the Indian Ocean, targeting alfonsino (*Beryx decadactylus*) and orange roughy (*Hoplostethus atlanticus*).

The total longline fishery catch in 2015 was 6,705 metric tonnes, 55% of which was albacore tuna for canning and frozen export. The total purse seine fishery catch was 18,546mt, a record purse seine catch for the Cook Islands. Approximately 96% of the purse seine catch is skipjack tuna, also used in canning. Reported artisanal catches were at an all -time high at 219mt, 53% of which was yellowfin.

1. Introduction

In 2015, 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 and other bilateral agreements. The majority of the longline fishing activity was concentrated in the Cook Islands Exclusive Economic Zone (EEZ) in the northern Cook Islands, in areas north of 15°S. Some longline fishing also took place in other areas of jurisdiction within the Western Central Pacific Fisheries Commission (WCPFC) Convention Area (Figure 1). All purse seine fishing activity occurred within the EEZ. A significant artisanal fishery continues to operate out of each of the inhabited islands, mostly for subsistence, with some tourist operators present in Rarotonga and Aitutaki.

South Pacific albacore tuna is the main target species in the longline fishery. The longline vessels are mostly operated out of Pago Pago, American Samoa and Apia, Samoa. Catch is unloaded to fish canneries, or transhipped to a carrier or containers. Two locally based longliners operate out of Rarotonga catching albacore tuna and a range of species that cater mainly for the local market with some exports to Japan. These vessels are around 20m in length and operate typically within 100nm of Rarotonga.

The purse seine fishery operates in the northernmost waters of the EEZ targeting skipjack tuna on both free and FAD associated schools with catch unloaded at canneries in Pago Pago. Historically purse seine fishing has been conducted in the CK EEZ only by US Treaty vessels. In 2015, the Cook Islands entered into purse seine bilateral agreements with Korea and New Zealand. 2015 was the first year that purse seine fishing occurred outside the scope of the US Treaty. Negotiations were also completed in October 2015 for a Sustainable Fisheries Partnership Agreement with the European Union.

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

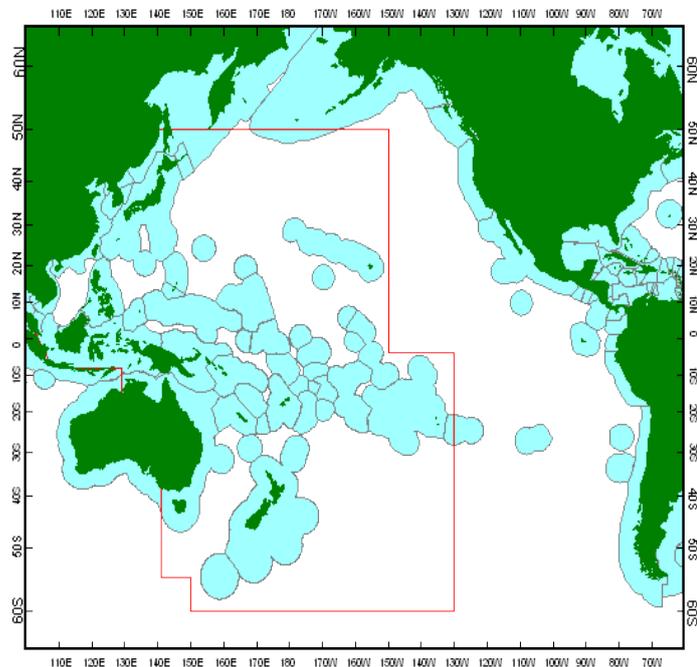


Figure 1. The red line above indicates the boundaries of the Western and Central Pacific Fisheries Tuna Commission

2. Licensing and Fleet Structure

i. Longline

In 2015, the Cook Islands longline fleet consisted of twelve 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. Eight vessels were authorised to fish both within the Cook Islands EEZ and the High Seas, but rarely fished beyond the waters of national jurisdiction. A total of twenty-six foreign flagged vessels were licenced and authorised to operate within the Cook Islands EEZ during 2015. Foreign flagged longline fishing in 2015 was undertaken by two Chinese companies, with Chinese flagged vessels operating out of Pago Pago (American Samoa), Suva (Fiji), Papeete (French Polynesia) and Kosrae (Federated States of Micronesia). All longline vessels licenced to fish in zone are prohibited to fish with 12 nautical miles (territorial seas) of all islands and 24nm of Rarotonga. In 2015 the Cook Islands had a maximum limit of 50 longline vessels able to be licensed to fish within the Cook Islands EEZ at any one time.

ii. Purse Seine

Purse seine vessels under the US Multilateral Treaty were authorised to fish in Cook Islands waters in 2015. An additional twenty-five foreign purse seine vessels were authorised under bilateral negotiations. Three key companies were authorised to fish with vessels flagged from Kiribati, Korea and New Zealand. All purse seine vessels are prohibited to fish within 24 nautical miles of each island and 48 nautical miles of Rarotonga.

iii. Other commercial vessels

The Cook Islands has two flagged mid-water trawl vessels that target orange roughy (*Hoplostethus atlanticus*) and alfonso (*Beryx splendens*). These vessels fish in the Southern Indian Ocean and offload their catches in Port Louis, Mauritius and Capetown, South Africa.

Three bunker vessels which supply other Chinese longline vessels with fuel and provisions were also authorised to operate within the EEZ.

Table 1. Breakdown of number of licenced vessels by gear, flag and authorised area of operation in 2015.

Gear	Area of Operation	Cook Islands	China	Kiribati	Korea	NZ	USA	Total
Longline	CK EEZ	12	26	-	-	-	-	38
Purse Seine	CK EEZ	-	-	5	18	2	40	65
Trawl	Beyond EEZ	2	-	-	-	-	-	2
Bunker	CK EEZ	3	-	-	-	-	-	3

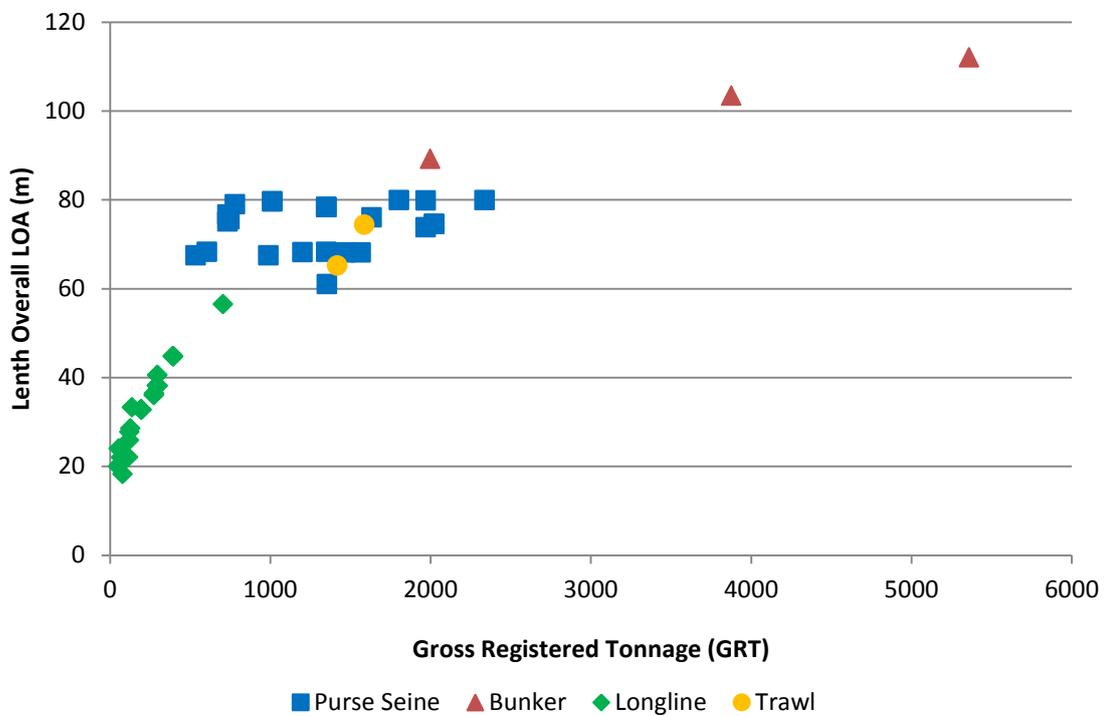


Figure 2. Fleet capacity for longline (green), purse seine (blue), bunker (red) and trawl (yellow) vessels licenced to operate in 2015.

3.1 Longline Catch and Effort Trends

For the purposes of this report, catch estimates are generated using logsheet data. Reported catches for 2015 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 100% for Cook Island flagged vessels and 89% for foreign flagged vessels. The total longline tuna catch estimate for 2015 within the Cook Islands EEZ is 5,795mt, which is a 12% decrease from 2014 and a 1,377mt difference from the 2010-2015 average. Total fishing effort in the CK EEZ was approximately 18.7 million hooks (Figure 3), with 1,011,207 hooks of effort from Cook Islands flagged vessels attributed to areas beyond national jurisdiction. Albacore continues to dominate the overall catch totalling about 3,849mt and accounting for 57% of the total species catch composition. Yellowfin tuna comprised 23% of the longline catch (1,767mt), followed by bigeye tuna (597mt) at 9% (Figure 3). Other species make up the remaining 10% of catch, including species such as blue marlin (216mt), skipjack tuna (151mt), wahoo (123mt), swordfish (47mt), mahi mahi (19mt) and other non-commercial species (Figure 4).

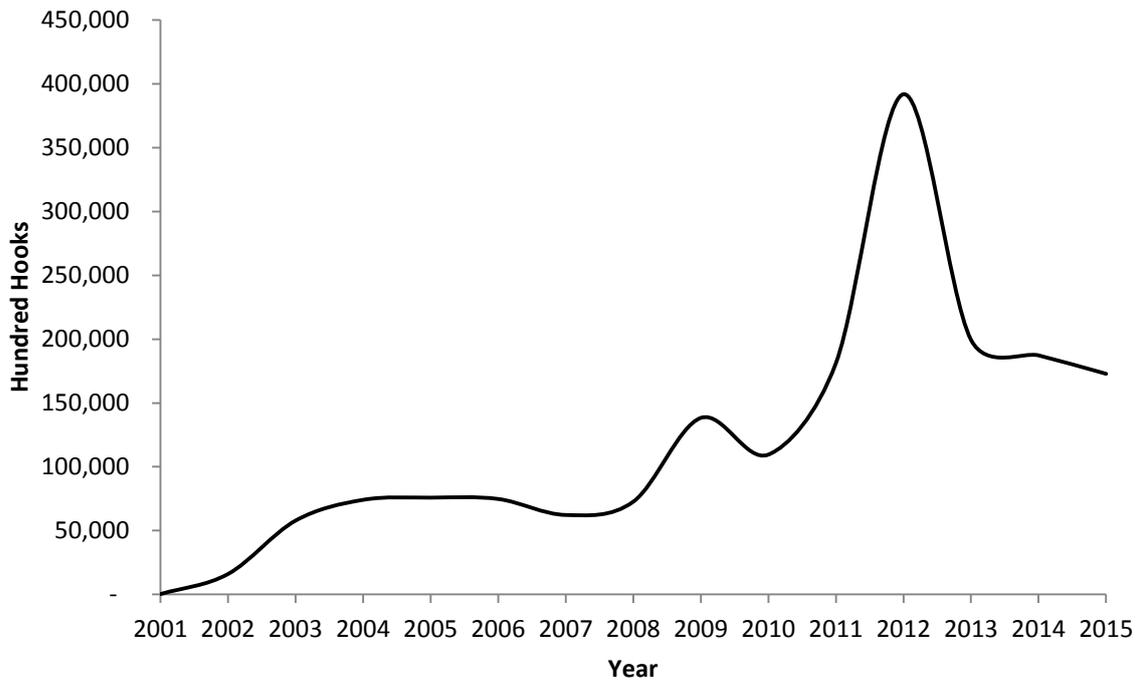


Figure 3. Total longline fishing effort (number of hooks) within the CK EEZ per year from 2001 – 2015.

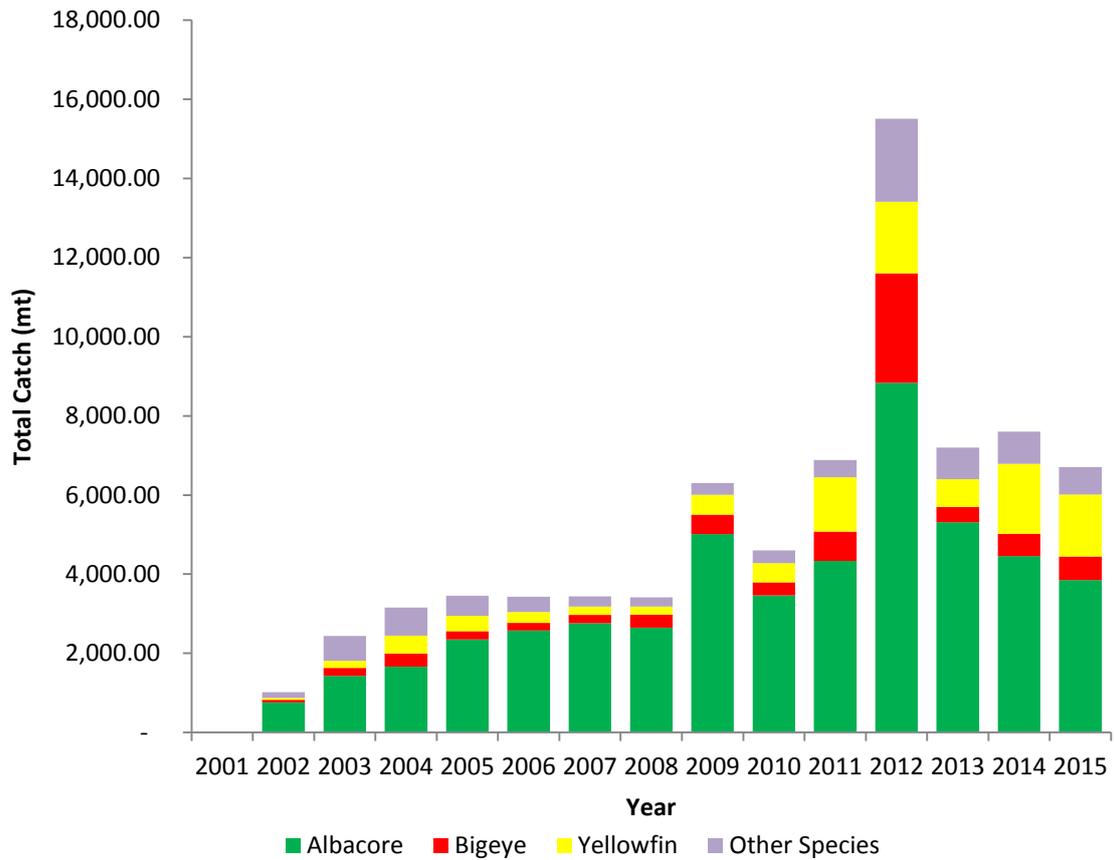


Figure 4. Time series of longline catch by key species within the CK EEZ from 2001 – 2015.

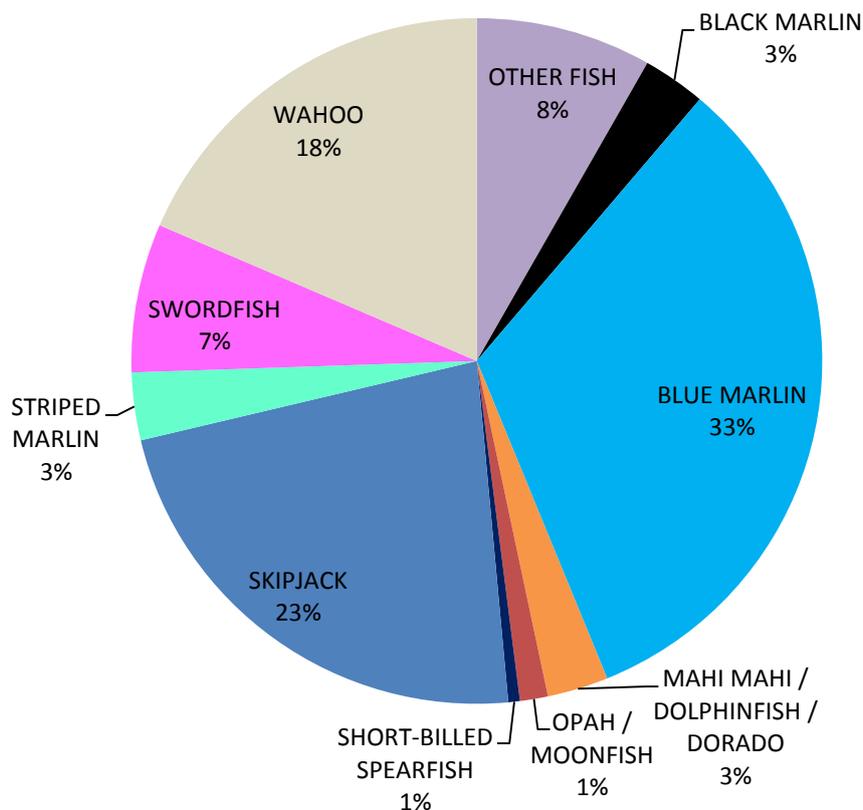


Figure 5. Species catch composition of “other species” in 2015.

Catch rates of albacore measured in kilograms per 100 hooks, have steadily declined since 2007 from around 44kg/Hhks to 22k/Hhks. Catch per unit effort (CPUE), for both bigeye and yellowfin tuna have fluctuated around 4kg/Hhks. In 2014 yellowfin CPUE more than doubled and remained at that rate through 2015 (Figure 7). Low albacore catch rates earlier in the time series indicate an un-fished or lightly fished fishery.

There is a strong seasonal trend evident in relation to the calendar fishing year. In general, first and fourth quarter catch rates and total catch are low, 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 35 and 67 kg per hundred hooks. Yellowfin tuna had high catch rates from March to June in both 2015 and 2014, with a second peak of increased CPUE (22kg/Hhks) around August. Catch rates of all three key tuna species steadily declined from September onwards, signalling the end of the fishing season (Figure 8).

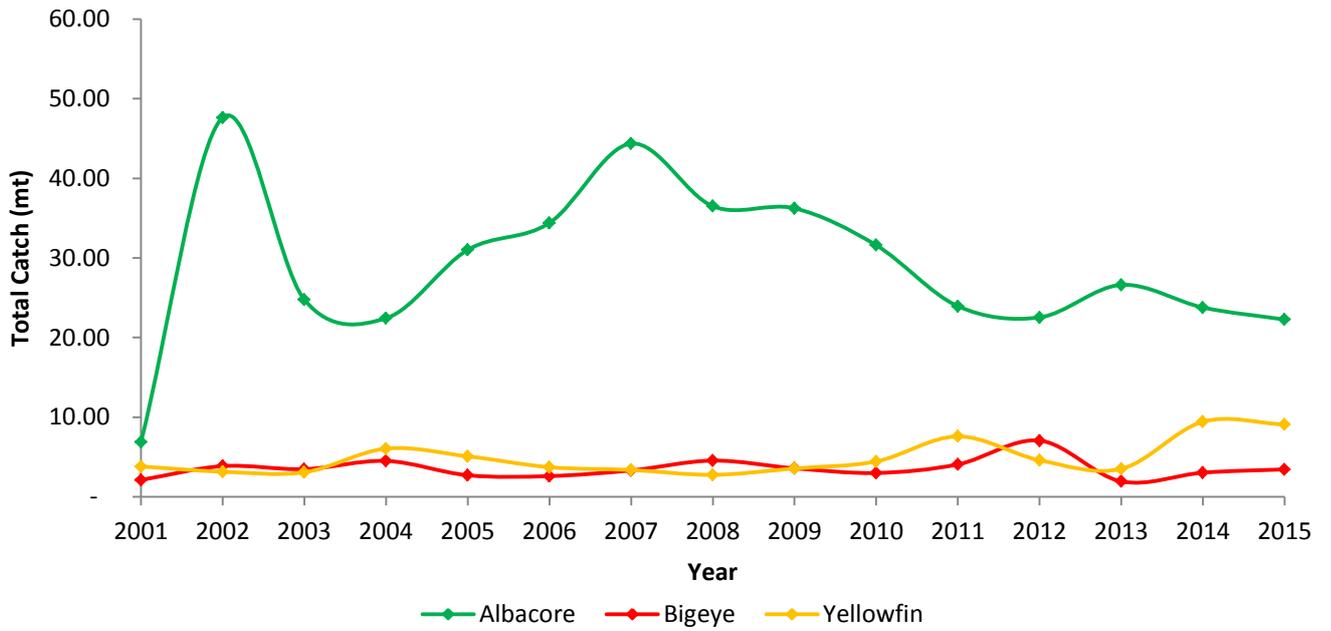


Figure 6. Annual average catch per unit effort (kg per 100 hooks) of key tuna species from 2001-2015.

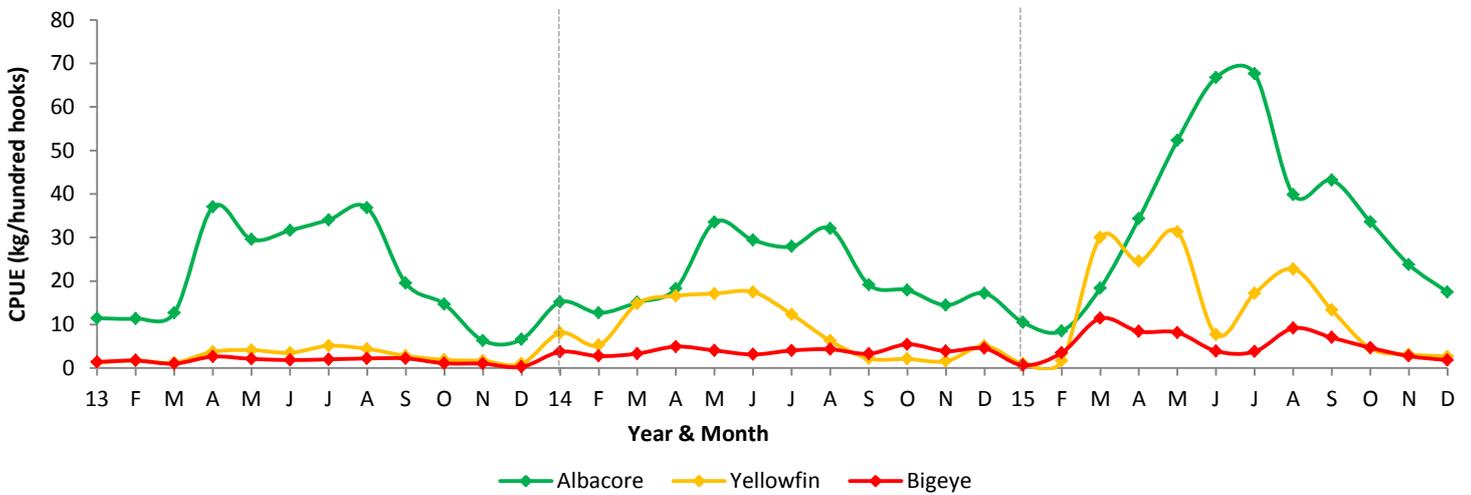


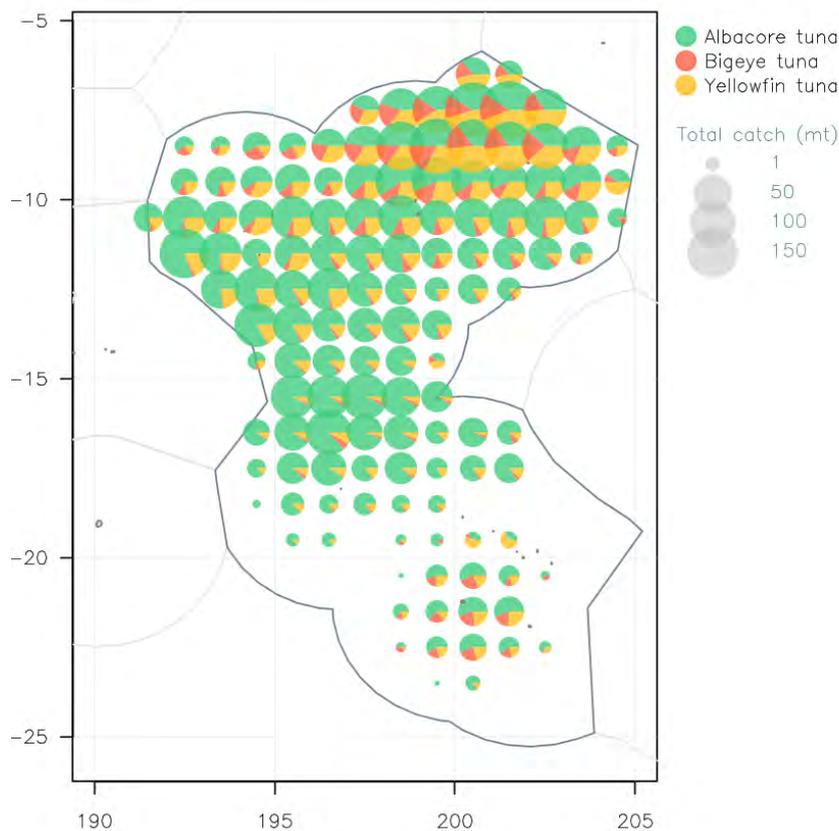
Figure 7. Monthly CPUE for albacore (green), yellowfin (yellow) and bigeye tuna (red) from 2013-2015 of all vessels fishing within the CK EEZ. The dashed lines indicate a new year.

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 and areas beyond national jurisdiction within the WCPFC Convention Area. A total of 11 longline fishing trips were undertaken in areas beyond the CK EEZ with a total catch of 475mt.

3.3 Longline catch distribution

Figure 9 demonstrates 1 degree by 1 degree aggregated distribution of key tuna species catch for 2015. The longline fishery is typically delineated around 15°S however longline fishing effort and catch extended further south than in previous years. In 2015, 36% of key tuna species were caught below 15°S latitude. Bigeye tuna is mostly taken in the northernmost part of the EEZ, north of Penrhyn, closer to the equatorial belt. Similarly, there are higher catches of yellowfin tuna in the same tropical band (north of 10°S). Large concentrations of albacore were taken on the western border of the EEZ, south of Pukapuka and around Suwarrow, likely because these fishing grounds are close to Pago Pago where a



number of vessels unload to. The concentration of fishing effort around Rarotonga is indicative of the two domestic fresh-fish longliners operating out of Avatiu.

Figure 8. Longline fishing distribution of catch in metric tonnes of key tuna species within the CK EEZ, 2015.

3.4 Regional Perspective

The provisional total Western Central Pacific – Convention Area (WCP-CA) tuna catch for 2015 was estimated at 2,687,740 metric tonnes. 10-13% of this catch (243,547mt) was taken by longline fisheries. Albacore tuna was 33% of WCP-CA longline catch (80,596mt), yellowfin tuna was 40% of the LL catch (97,289mt), and bigeye tuna was 26% (63,986mt) (Williams & Terawasi, 2015). Annual catches in the longline fishery since 2000 have been high compared to historical catch figures (Figure 11). In comparison, the total albacore tuna catch in the Cook Islands EEZ comprises only 4.7% of the total longline WCP-CA albacore catch.

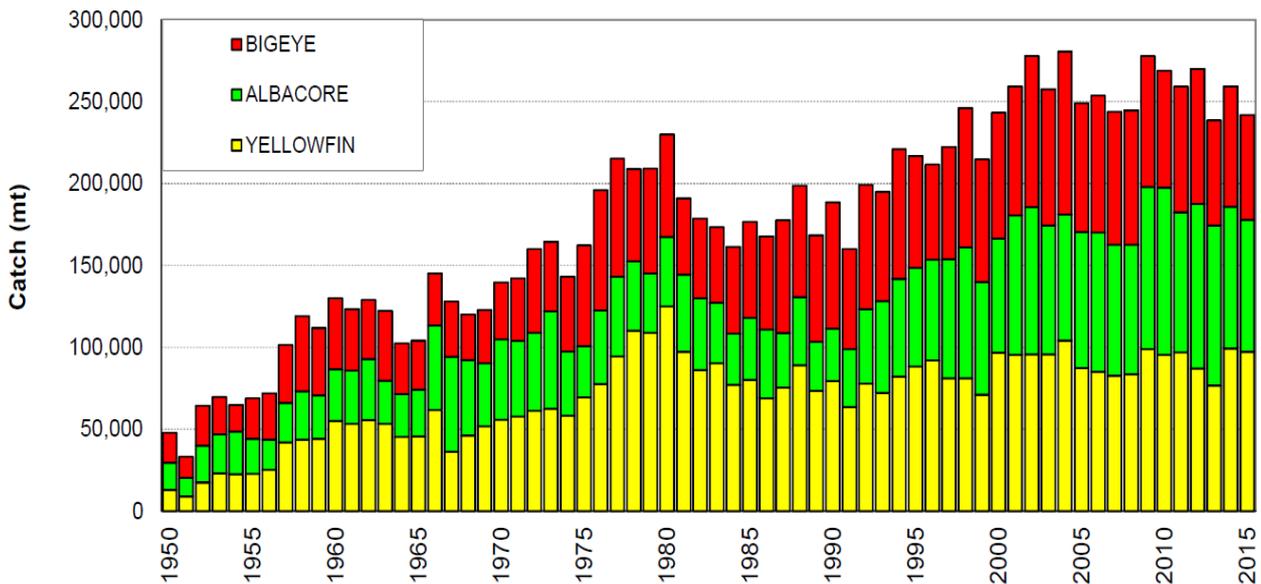


Figure 9. Longline catch (mt) of target tuna species in the WCPFC-CA from 1950 - 2015.

Source: WCPFC SC12/2015-GN-WP-01 Rev 1

4. Purse Seine Fishery

4.1 Purse Seine Catch and Effort Trends

The purse seine fishery is a surface fishery targeting schooling skipjack tuna in the tropical waters of the Western and Central Pacific Ocean (WCPO). The purse seine fishery operates in the northernmost waters of the EEZ targeting tuna on both free and FAD associated schools. Associated schools include sets on drifting logs and drifting rafts known as Fish Aggregating Devices (FADs). This catch is unloaded in Pago Pago. 2015 was the first year the Cook Islands entered into bilateral negotiations to license foreign flagged purse seine vessels in addition to vessels under the US Multilateral Treaty. An additional 25 vessels from Korea, Kiribati and New Zealand were licenced to fish in the Cook Islands EEZ.

The purse seine fishery is controlled 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 2015, the Cook Islands had 350 days available to be fished by the US vessels, of which 261.1 days were actually used. 900 days were available to be fished by any other purse seiners, of which 159.1 days were used (Figure 12). Fishing effort is validated through the vessel monitoring system (VMS). In addition, catch logsheets are also submitted. All reported catch presented here is from vessel logsheets.

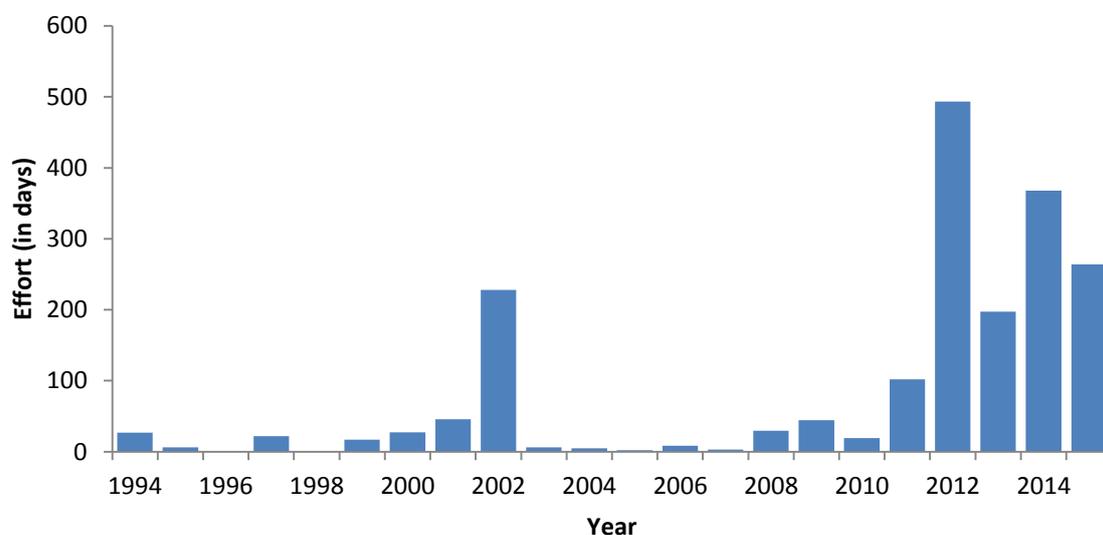


Figure 10. Total effort (in days) for the purse seine fishery within the CK EEZ from 1994 - 2015

The purse seine fishery in the Cook Islands EEZ has been more active since 2012, with catches in 2015 (18,546mt) representing a 30% increase from 2014. 96% of the total catch was skipjack tuna, with 3% of yellowfin and 1% of bigeye tuna (Figure 13). 75% of the total catch in 2015 was taken from FAD associated sets and 24% from free school sets (Figure X). Since 2012, an average of 79% of the total purse seine catch has been from associated sets, with 21% from unassociated sets, indicating the reliance on FAD sets for the viability of the fishery in Cook Islands waters.

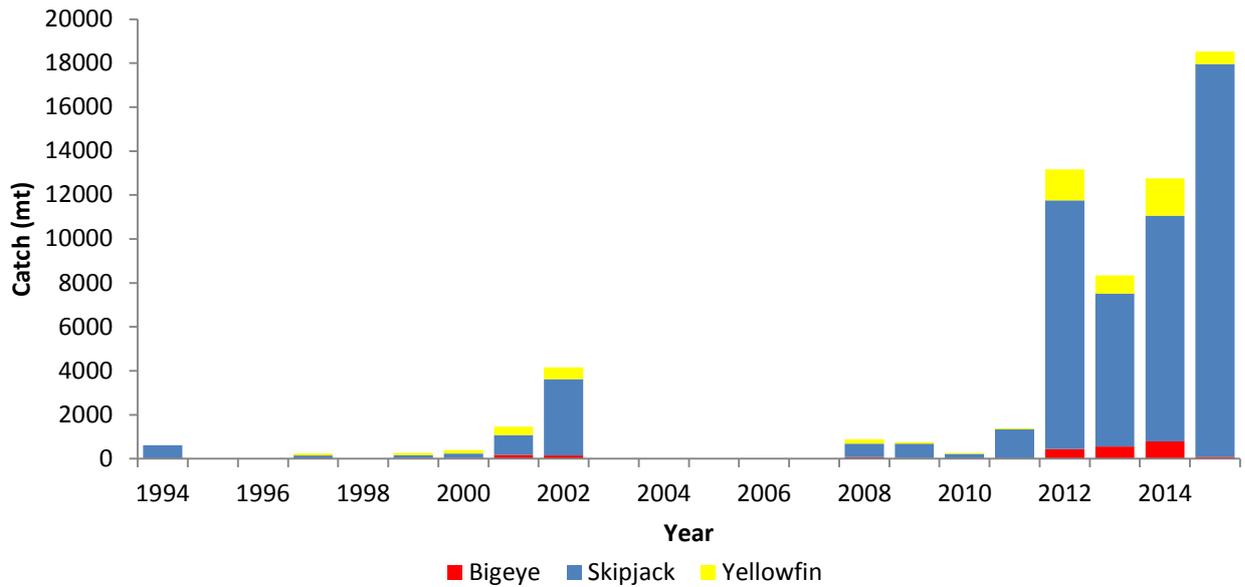


Figure 11. Catch (mt) of key tuna species in the purse seine fishery, within the CK EEZ from 1994 – 2015.

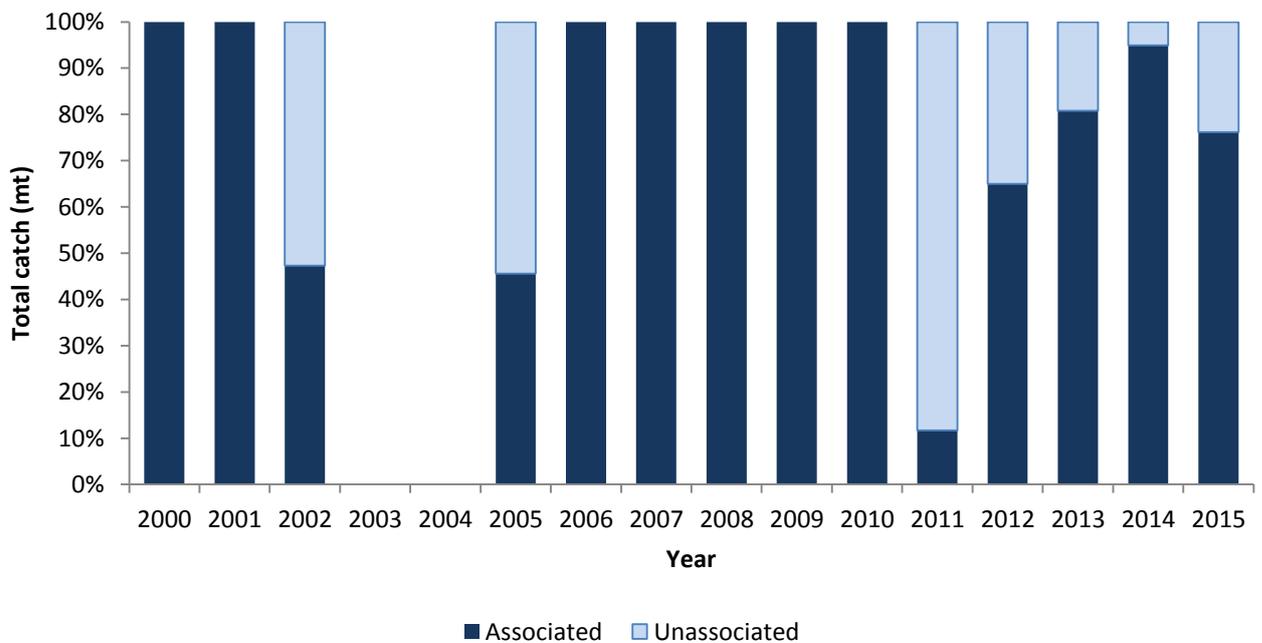


Figure 12. Proportion of the total purse seine catch (mt) taken on associated (FAD) versus unassociated (free school) within the CK EEZ, from 2000-2015.

There is a strong seasonal trend in the purse seine fishery, with the fourth and first quarter of the year the peak season of the fishery. This is opposite to the longline fishery which operates largely through the winter months. The purse seine fishery is subject to a four month FAD closure from July to October which prohibits the setting of nets on FADs. Only 1,637mt of catch (Figure 13) from unassociated sets was taken during the FAD closure with no catch in both July and October (Figure 14).

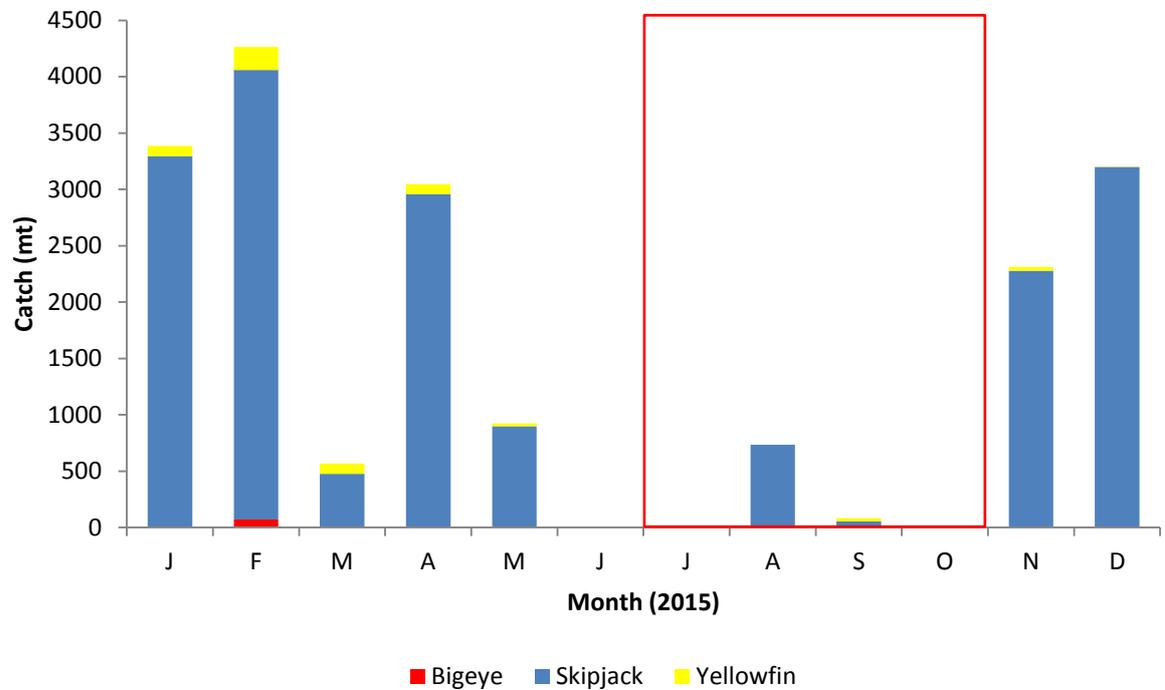


Figure 13. Purse seine logsheet catch estimates (metric tonnes) of key tuna species in by month in 2015. The red shaded area depicts the four month FAD closure.

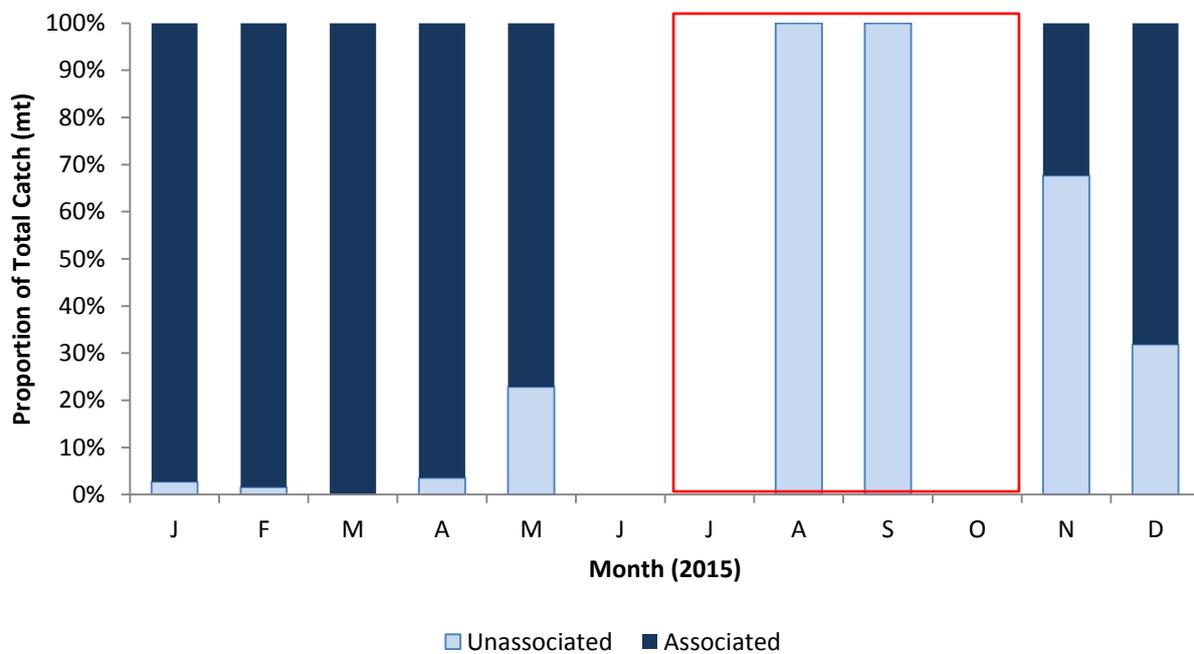


Figure 14. Proportion of catch taken in associated and unassociated sets by month in 2015. The red shaded area depicts the four month FAD closure.

4.2 Purse seine by-catch

The composition of bycatch in the purse seine fishery available from observer data coverage on 2015 purse seine sets indicates that rainbow runners comprise the largest component of bycatch, followed by blue marlin and silky sharks (Figure 15). Purse seine by-catch in this context does not include yellowfin and bigeye tuna.

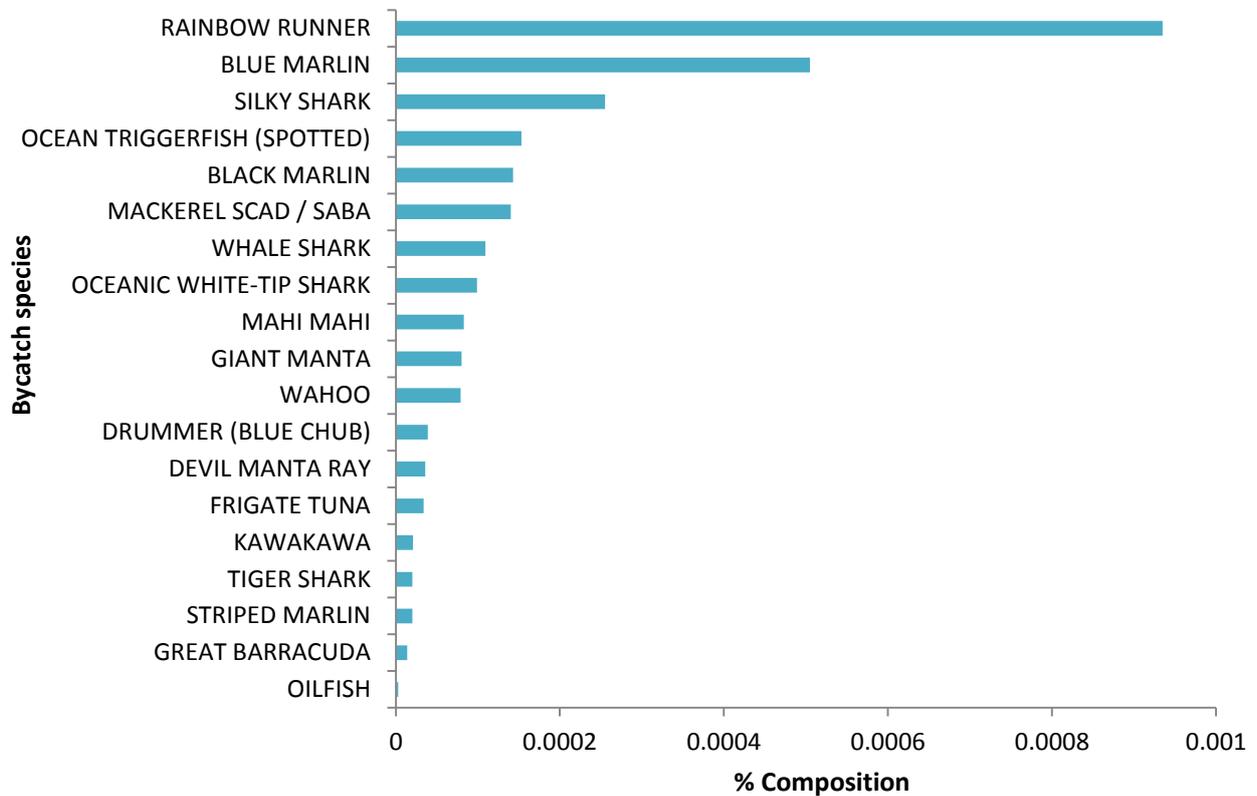


Figure 15. Purse seine by-catch composition in 2015 based on observer data.

4.3 Purse seine catch 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). 2015 was a strong El Nino year (Figure 18) and resulted in the expansion of purse seine activity into the eastern tropical areas. As such, the Cook Islands experienced increased purse seine fishing activity, particularly in the first quarter of the year (Figure 14).

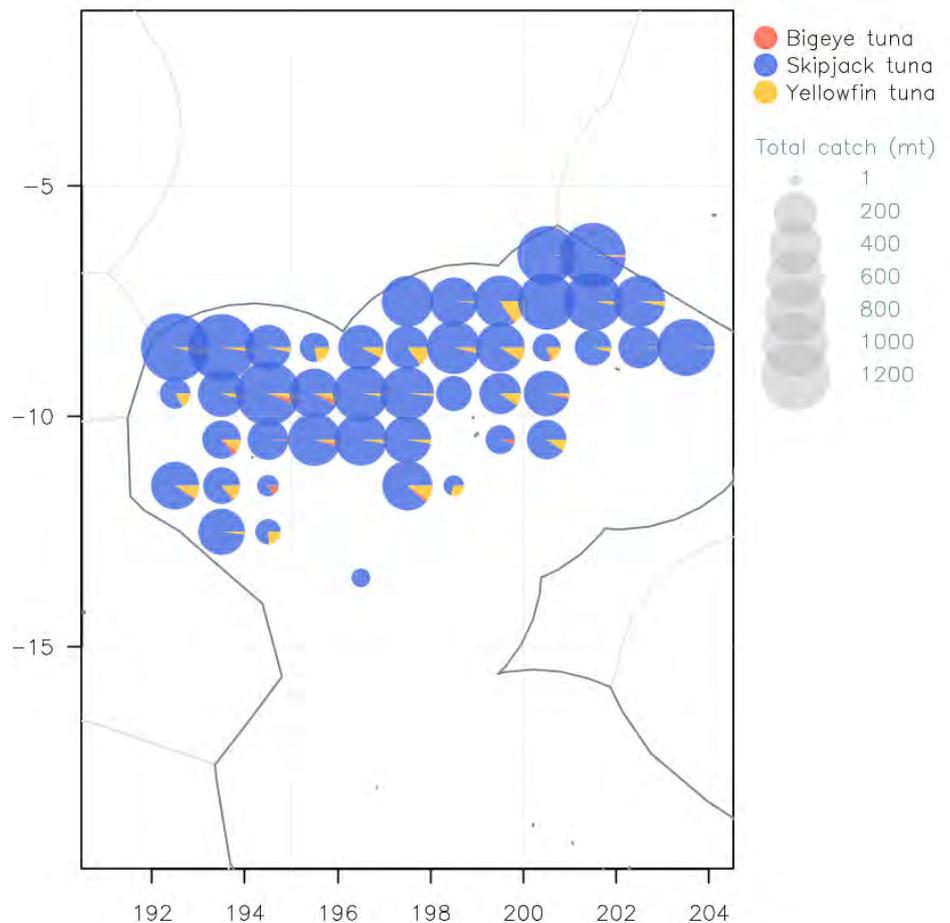


Figure 16. Purse seine catch (mt) distribution of key tuna species within the CK EEZ 2015.

4.4 Regional Perspective

The provisional purse seine catch in the WCP-CA in 2015 was 1,766,070 metric tonnes; of which 80% was skipjack tuna (1,416,453mt), 17 yellowfin tuna (298,847mt), and 48,722mt of bigeye tuna. (Williams & Terawasi, 2015) (Figure 17). Total fishing effort (vessel days) has tracked quite closely with the total purse seine catch since the early 1970's. Higher catches with lower effort in 2014 shows increased catch rates over both 2013 and 2015 (Figure 17).

The Cook Islands purse seine catch (18,546mt) constituted just 1.05% of the total WCP-CA purse seine catch in 2015. The regional purse seine catch and effort distribution is strongly influenced by El Nino – Southern Oscillation Index (ENSO) events. Fishing activity in 2014 and 2015 extended further to the central and eastern area of the WCPO, driven by a very strong El Nino event that continued through into 2015. Purse seine effort was more pronounced to the east of 160°E during 2014 and 2015. In the previous 6 years effort was concentrated to the west in areas around Papua New Guinea, the Federated States of Micronesia and the Solomon Islands (Figure 18). It was predicted that the El Nino conditions will weaken in 2016 with more effort in the western tropical area expected to result (Williams & Terawasi, 2015).

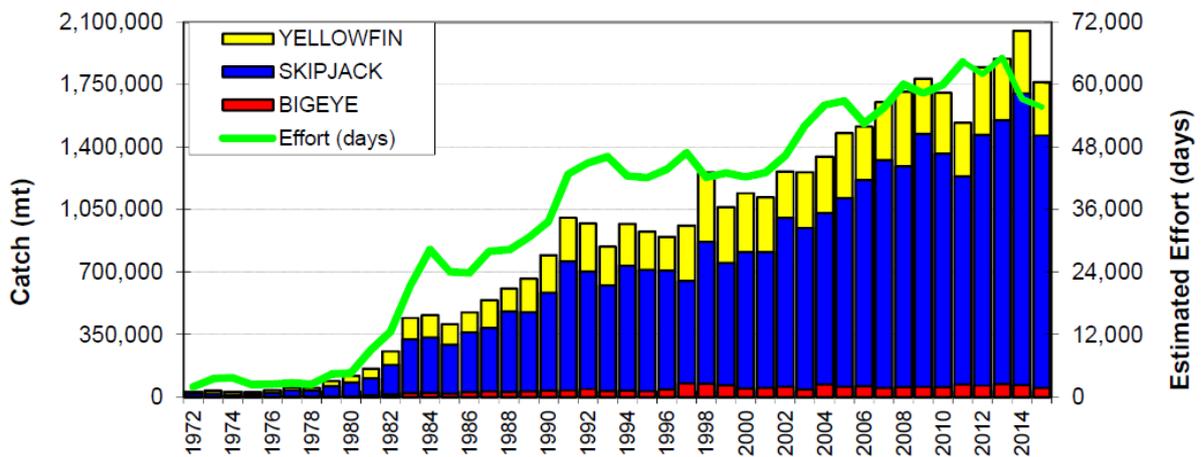


Figure 17. Purse seine catch (mt) of bigeye, skipjack and yellowfin and estimated fishing effort (days fishing and searching) in the WCP-CA from 1972 - 2015. Source: WCPFC SC12/2015-GN-WP-01 Rev 1

5. Artisanal Fishery

The Cook Islands artisanal fishery occurs from all inhabited islands, primarily targeting tuna and pelagic species. In 2015 there were 318 active artisanal vessels being reported on the artisanal tuna database. 92% were small powered boats with outboard motors, 4% were sport or recreational vessels, and the 4% were unpowered canoes.

The small aluminium, fibreglass or wood constructed powered vessels are generally 2-4 metres in length crewed by 1-3 people fishing for subsistence purposes. It is common for artisanal fishers with powered vessels to troll around the coast of the islands, while unpowered canoes tend to fish at fishing aggregating devices (FADs) using handlining methods. Fishing areas vary between the two island groups. Most islands within the Northern Group do not have deployed FADs and fishing in the north takes place within deep lagoons, and along the coast of islets (motus), resulting in a variety of reef and pelagic species being caught. It is very common for artisanal fishers in the outer islands (north and south) to use multiple fishing methods at one particular spot due to fuel being limited and expensive. Fishing trips can take up to 6 hours.

Unlike small powered vessels which fish for subsistence, 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 high powered outboard and in board motorboats 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

Artisanal catch data was recorded from the islands of Aitutaki, Atiu, Mangaia, Manihiki, Mitiaro, Mauke, Nassau, Palmerston, Penrhyn, Pukapuka, Rakahanga, and Rarotonga. Artisanal catch estimates totalled 340 metric tonnes in 2015.

Rarotonga saw the highest catches for 2015 with an estimated total of 89mt, followed by Nassau 40mt, Mitiaro 39mt, Pukapuka 35mt and Aitutaki 30mt (figure 18).

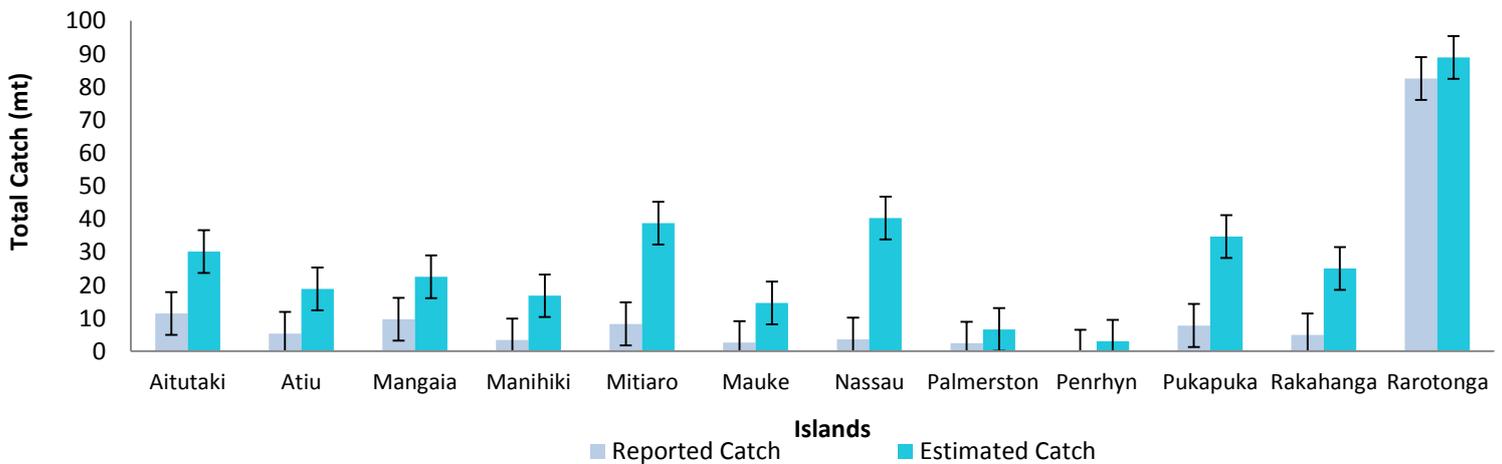


Figure 18. Artisanal reported and estimated catch totals (metric tonnes) per island for 2015.

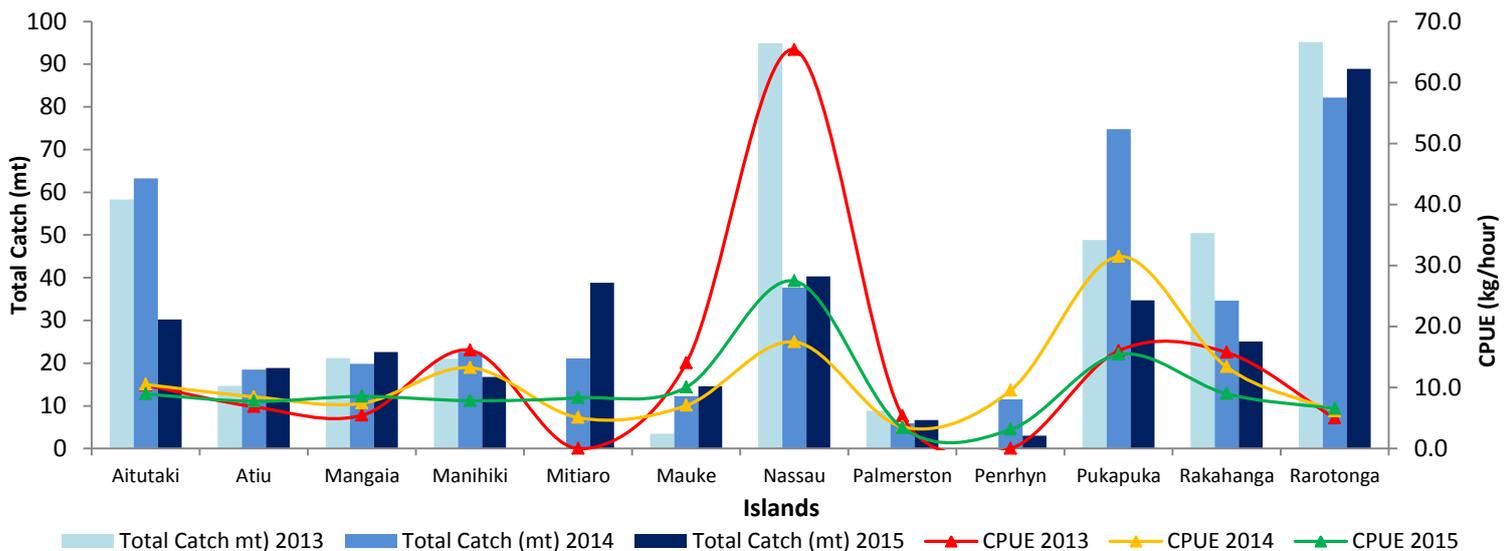


Figure 19. Total artisanal catch (metric tonnes) and catch per unit effort (kilograms of fish caught per hour) per island over years 2013, 2014 and 2015.

Artisanal catch totals from the year 2013 to 2015 were relatively similar for the islands of Atiu, Mangaia, Manihiki, Palmerston and Rarotonga. While Mitiaro saw an increase of total catches in 2015 of over 50% from 2014, Aitutaki's catches declined dramatically from 63mt to 30mt. Mauke catches have continued to increase over the years totalling at 15mt in 2015, while Rakahanga catches have decreased from 50mt in 2013 to 25mt in 2015 (figure 19). Although Nassau saw a decline in total catches from 2013 to 2014, the CPUE (kilograms of fish caught per hour) over all three years, an average of 36.8kg/hour, was the highest amongst all other islands. This indicated that there was very little effort used to catch high quantities of fish. While the CPUE varied by island, the trend each year was similar.

Yellowfin continues to dominate the overall catch totalling at 223mt in 2015 (figure 20), and accounting for 67% of the total composition (figure 21); followed by other species 17% (56mt), skipjack 15% (52mt), and Albacore 1% (2mt).

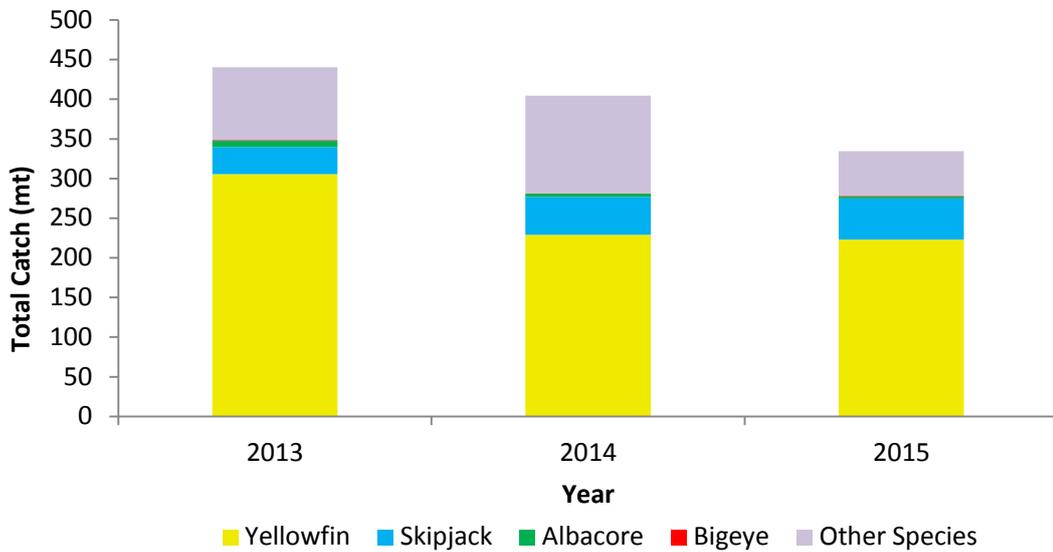


Figure 20. Total catch (metric tonnes) of key species for the years 2013, 2014 and 2015.

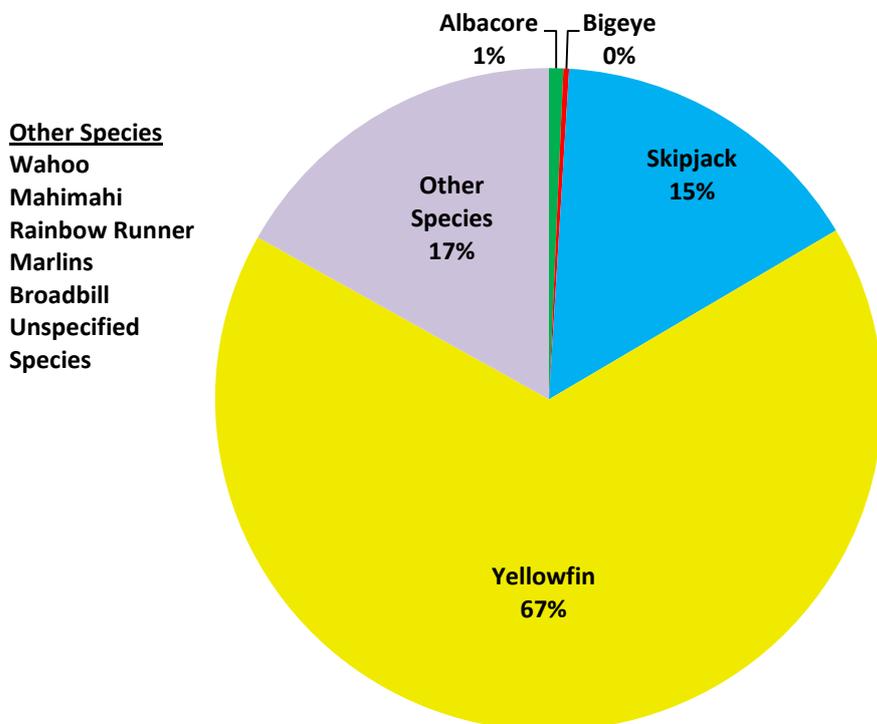


Figure 21. Total artisanal catch composition including 'other species' for year 2015.

Catch rates of yellowfin tuna and other pelagic species measured in kilograms per have fluctuated since 2013 to 2015. There appears to be some seasonal trends in the artisanal fishery. In general when yellowfin tuna catches decline (during the third quarter of every year), the catch rates of other pelagic species tend to increase. In each year, from the end of the second quarter (July to September) catches of yellowfin tuna decline by 57% (59mt accumulative total) (Figure 22).

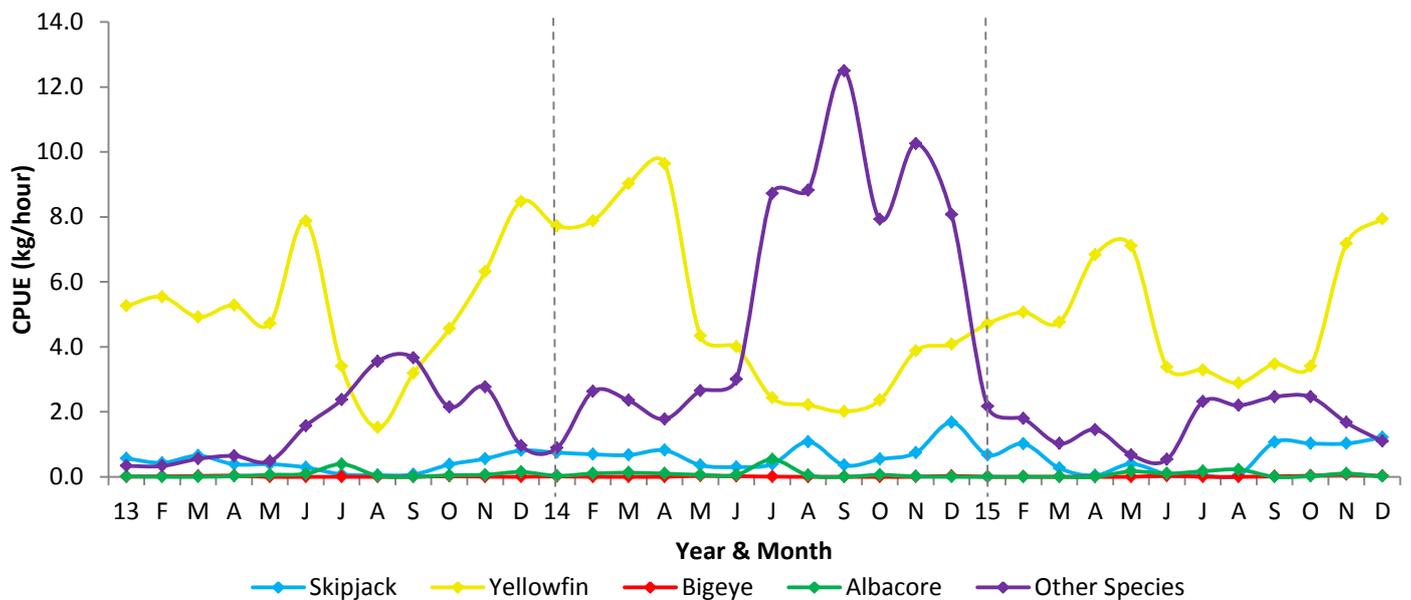


Figure 22. Monty catch per unit effort of key tuna species and other pelagic species for years 2013, 2014 and 2015. The dashed line indicates a new year.

In 2015 other pelagic species CPUE more than doubled during the months of June through to December (Figure 22). The low bigeye and albacore catch rates indicate an unfished or lightly fished fishery. The species with the highest CPUE (kg/hour) per island for 2015 was yellowfin tuna, followed by other species.

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

In 2015 the Cook Islands National Observer Program employed six Observers, four of which were based out of Apia, one in Rarotonga and one in New Zealand. Observers are placed regularly on Cook Island flagged or Foreign licensed fishing vessels fishing on the High Seas and in the Cook Islands EEZ.

The Cook Islands National Observer Programme obtained 8.9% coverage of its fishing fleet during 2015. Thirteen placements were organized; ten trips on longline, one trip on-board a US purse seiner and two aboard Cook Island flagged trawl vessels . All other purse seine trips were placed with observers from the FFA Sub-Regional Observer Program to fulfill the 100% coverage requirement on Purse Seine vessels (Table 2).

Table 2. Summary of observer placements from the Cook Islands Observer Program undertaken in 2015.

Gear	Flag	Vessel	Observer	Departure port	Departure Date	Return Port	Return Date	Sea days
LL	CK	Chong Myong 705	Atapana Tony	Pago Pago	22/04/2015	Pago Pago	2/06/2015	41
LL	CK	Chong Myong 707	Leon Toomata	Pago Pago	22/04/2015	Pago Pago	27/05/2015	35
LL	CN	Ping Tai Rong 13	Tala Maiava	Pago Pago	04/06/2015	Pago Pago	9/6 2015	5
LL	CN	Ping Tai Rong 31	Iosua Taavao	Pago Pago	01/06/2015	Pago Pago	28/08/2015	88
LL	CN	Hua Nan Yu 731	Tala Maiava	Pago Pago	24/06/2015	Pago Pago	11/10/2015	113
LL	CK	Gold Country	Saiasi Sarau	Avatiu	17/07/2015	Avatiu	22/07/2015	5
LL	CK	Toamoana # 8	Leon Toomata	Pago Pago	23/09/2015	Apia	27/10/2015	34
LL	CK	Grace	Tala Maiava	Pago Pago	21/10/2015	Pago Pago	2/12/2015	62
LL	CK	Grace 1	Iosua Taavao	Pago Pago	17/11/2015	Pago Pago	17/01/2016	62
LL	CK	Wairau	Saiasi Sarau	Avatiu	23/11/2015	Avatiu	28/11/2015	6
PS	US	Pacific Princess	Saiasi Sarau	Pago Pago	23/05/2015	Pago Pago	02/07/2015	40
TR	CK	Nikko Maru	Richard Callaghan	Mauritius	28/02/2015	Mauritius	16/05/2015	78
TR	CK	Will Watch	Richard Callaghan	Cape Town	10/09/2015	Cape Town	28/11/2015	80

7. Monitoring, Control and Surveillance and Enforcement

i. Boarding and Inspections

In 2015, a total of 37 boardings and inspections were conducted. 8 vessels were inspected in the port of Avatiu, 29 boardings and inspections at sea were undertaken by the Police Patrol Boat Te Kukupa. One major violation was found regarding shark fins and is still in process for settlement.

Table 3. Summary of port side and at-sea boarding's and inspections conducted in 2014.

Year	Port Inspection in Avatiu		At Sea Boardings				
	CK Flag	Foreign Flag	Licensed		Non Licensed		Joint Operation
			CK EEZ	High Seas	CK EEZ	High Seas	WS EEZ
2015	2	6	24		1		4

ii. Patrols and Joint Operations

The Cook Islands participated in five regional operations in 2015.

Operation Name	Countries Involved
Tautai 15	Kiribati, Cook Islands and French Polynesia
Ikamoana 15	Tonga, Samoa, Niue, Cook Islands
Tuimoana 15	French Polynesia, America, New Zealand, Australia, Cook Islands, Solomon Islands, Papua New Guinea, Samoa, Tonga
Kurukuru 15	All 17 FFA members plus Quad Nations
Calypto 15	New Zealand, Australia, Cook Islands, Niue, Samoa

iii. Illegal, Unreported, Unregulated Fishing

The Cook Islands MCS and Enforcement team of Offshore Fisheries Officers and Maritime Police work together to detect illegal, unreported and unregulated (IUU) fishing activity within our zone. Surface patrols on the Cook Islands Patrol Boat Te Kukupa and HMNZS Otago and monitoring via a satellite based Vessel Monitoring System (VMS) detected four major breaches of Cook Islands Regulations. Three have already been settled with compensation payments and one Cook islands flagged vessel had its license cancelled and was removed from the Cook Islands Registry of Vessels.

8. Cook Islands Fisheries Field Office (CIFFO)

In 2015 Pago Pago, American Samoa was a major operational base for fishing vessels licensed to operate in Cook Islands waters. It is a processing and transshipment hub for the eastern area of the Western and Central Pacific Ocean (WCPO) and is where most fish caught in the Cook Islands was unloaded.

In 2008 the United States and the Cook Islands signed a Memorandum of Understanding (MOU) to cooperate in fisheries management and conservation. 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.

CIFFO was established in 2014 to enable more effective monitoring of licensed and flagged vessels and to facilitate development opportunities with industry partners in American Samoa. In 2015, Observer management and compliance related duties were conducted from CIFFO in Pago Pago.

Funding from the Cook Islands Government, Te Vaka Moana, the Pacific Forum Fisheries Agency (FFA) and the Pacific Community (SPC) enabled the office to operate and carry out assigned duties for MMR and Sub-regional Observer programs.

9. Monitoring and Research Programs

i. Unloading

Four Chinese flagged longliners transhipped in the port of Avatiu, Rarotonga, unloading frozen albacore, bigeye and yellowfin tunas to freezer containers, which were then shipped to Pago Pago. 25% of transhipments in Rarotonga were fully monitored by MMR staff. None of the catch was sold on the local market.

ii. Port Sampling

All port sampling for 2015 was conducted by Fisheries Officers on long liners unloading in Rarotonga. Port sampling coverage in 2015 was 35%. No port sampling was conducted in overseas ports.

iii. Logsheet data collection and verification

100% logsheet coverage was achieved for the National longline fleet in 2015, while foreign flagged vessel logsheet coverage was 89% at the time of writing. 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, as a scanned copy.

Four Cook Islands National Fleet vessels participated in electronic logsheet reporting trials using the SPC eTUNALog software in 2015. The trial worked well for the two domestic vessels using the program in Rarotonga as these vessels undertake short trips (< 1 week). MMR was then able to provide regular feedback and training. The two trial vessels operating out of Pago Pago spend longer at sea and were consequently more difficult to provide timely feedback to. The trials have continued into 2016.

The Pacific Community's Oceanic Fishery Program also rolled out the implementation of the TUFMAN2 regional database to the Cook Islands in December. This has greatly improved the

data reception, checking and regional sharing capacity of the Cook Islands. TUFMAN2 has also supported the electronic logsheet reporting trials by allowing the e-reported data to be automatically imported into the database, thus reducing data entry 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 operated out of and unloaded to local markets in Rarotonga with some exports, mainly to Japan, in 2015. Four Chinese flagged vessels continued to operate out of Pago Pago but unloaded to shipping containers in the port of Rarotonga. Here, their catch was transhipped from vessel to shipping container and shipped back to American Samoa. The local economy benefitted from the purchase of fuel, temporary labour to assist with the unloadings, the purchase of provisions, and with associated port fees. This activity also allowed the Ministry of Marine Resources to conduct routine port side boarding inspections and port sampling of catches.

11. Future Developments

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) for albacore tuna and bigeye tuna in the longline fishery within the Cook Islands EEZ. Pending legislative changes include a new Marine Resources Bill, new Large Pelagic Longline Fishery Regulations and an accompanying Large Pelagic Longline Fishery Management Plan. The QMS is scheduled for introduction in January 2017.

100 per cent electronic reporting is expected to be achieved across all licenced longline vessels with the roll out of the QMS in order to monitor catches in near real time. The Ministry also hopes to implement electronic monitoring in years to come.

The EU Sustainable Fisheries Partnership Agreement, also brings with it the potential to fund projects across the full spectrum of fisheries and fisheries related activity for the benefit of all Cook Islanders and should be implemented in 2017.

Relationships at a regional and international level are also emerging in other new Regional Fisheries Management Organizations (RFMOs) such as SIOFA (the Southern Indian Ocean Fisheries Agreement), SPRFMO (The South Pacific RFMO) which have the potential to attract revenue for the Cook Islands under access agreements, licencing, and the development of sustainable High Seas fisheries.

Reference

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