



**SCIENTIFIC COMMITTEE
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**ANNUAL REPORT TO THE COMMISSION
PART 1: INFORMATION ON FISHERIES, RESEARCH AND STATISTICS**

WCPFC-SC20-AR/CCM-04 (Rev.02)

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COOK ISLANDS



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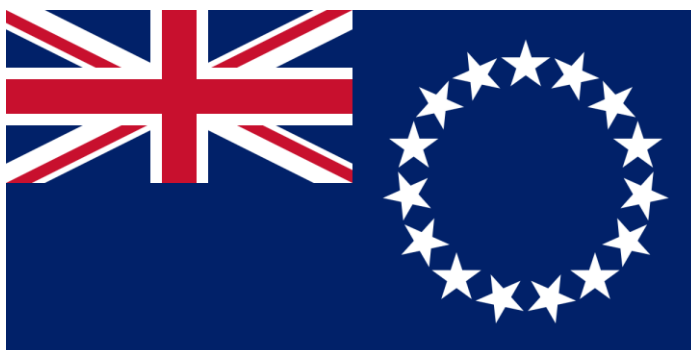
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ANNUAL REPORT TO THE COMMISSION
PART 1: INFORMATION ON FISHERIES, RESEARCH, AND
STATISTICS

**WCPFC-SC20-
AR/CMM-04**

COOK ISLANDS



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Executive summary

In 2023, the Cook Islands' national fleet comprised 3 longline vessels, 4 bunkervessels, and 2 purse seine vessels operating in the Western and Central Pacific Fisheries Convention Area (WCPFC-CA). Most of these vessels operated south of the equator. The total fishing effort of the national longline fleet, measured by the number of hooks used, decreased significantly by 78%, from 4.5 million hooks in 2022 to almost 1 million hooks in 2023. This led to a noticeable decline in the total catch of primary species, which was 274t, a 78% decrease compared to the previous year. The catches were higher, reaching 1,258t in 2022 and 1,216t in 2021.

Within the Convention Area, the longline fleet primarily caught albacore, accounting for 80% (217t) of the total longline catch. Yellowfin tuna contributed 10% (30t), bigeye tuna accounted for 2% (8t), and the remaining 8% (19t) consisted of bycatch. Notably, no vessels in the fleet targeted marlin or swordfish, and any catch of these species was considered bycatch. Among the billfish species taken as bycatch, striped marlin was the highest at 6t, followed by blue marlin (5t), black marlin (2t), and striped marlin (2t).

Artisanal fishers in the Cook Islands reported a catch of 130t in 2023. This catch spanned across 11 of the 12 inhabited Cook Islands and was predominantly yellowfin tuna, comprising 84% of the artisanal catch composition. The artisanal fishery mainly used trolling and hand lining techniques. The catch and effort data for the artisanal fishery are based on nominal catches for the months of January to December 2023 due to the isolation of many artisanal landing sites and the lack of fisheries officers to monitor these sites.

The Cook Islands' purse seine national fleet consisted of 2 vessels. Additionally, 87 foreign-flagged vessels were authorized to fish and conduct service activities in the Cook Islands Exclusive Economic Zone (EEZ). These foreign vessels included 54 longline vessels, 24 purse seine vessels, and 9 bunker vessels. The total catch of the national purse seine fleet in the WCPFC-CA in 2023 was 3,127t, a 32% decrease from the 2022 catch levels of 4,648t.

The main species caught by the national purse seine fleet in the WCPFC-CA were skipjack tuna (2,430t), yellowfin tuna (659t), and bigeye tuna (38t). Compared to the national fleet, the catch of licensed foreign vessels operating within the Cook Islands EEZ was 5,730t, representing a 68% increase from the 2022 catch levels of 1,832t. The major catch for the foreign fleet was skipjack tuna (5,097t), followed by yellowfin tuna (374t) and bigeye tuna (255t). Overall, the purse seine fishery experienced an increase in catch for the foreign fleets in 2023.

1 Background

In 2023, the Cook Islands maintained a national fishing fleet comprising both longline and purse seine vessels, with a primary focus on catching tuna and related species. Additionally, there was an operating artisanal fishery spanning the twelve inhabited islands. To regulate the extensive pelagic longline fishery, the Marine Resources Regulation introduced a Quota Management System (QMS) in December 2016.

In terms of catches, the Cook Islands' longline national fleet harvested 217 t of albacore in the zone, which constituted 2% of the quota bought, totaling 7,957 t. Moreover, they landed 8 t of bigeye tuna, equating to 1% of the bought quota of 1,328 t.

Predominantly, longline fishing activities are concentrated in the northern regions of the Cook Islands, specifically north of 15 degrees south latitude. Cook Islands vessels also engage in longline fishing activities beyond national jurisdiction, within the Convention Area. Historically, the majority of purse seine fishing in the Cook Islands EEZ was undertaken by US Treaty vessels. However, since 2015, there has been a rise in fishing activities due to the growing interest from other foreign fleets operating under bilateral agreements. By 2023, the Cook Islands had two purse seine vessels operating in the Western and Central Pacific Ocean (WCPO).

The primary target for Cook Islands-flagged longline vessels is albacore tuna, while skipjack tuna is the main target for Cook Islands-flagged purse seine vessels operating in the Convention Area. There is also a small, locally operated fresh fish longline vessel based out of Rarotonga, mainly targeting tuna and billfish for the local market. This vessel, under 80 Gross Registered Tonnage (GRT), typically operates within a range of 50 to 100 nautical miles from Rarotonga. Other Cook Islands-flagged vessels operate out of foreign ports such as Suva, Pago Pago, and Apia, with most unloading happening in Apia, Suva, Pago Pago, and Pape'ete.

2 FLAG STATE REPORTING

2.1 Catch and Effort Trends

The data presented in Table 1 provides insight into catch and effort estimates within national waters and beyond, highlighting several key patterns. The total effort of the national longline fleet in the Convention Area is approximately 1 million hooks, all used within national boundaries since there was no longline fishing beyond these areas.

Figure 1 shows that the total catch of tuna and billfish in the convention area reached a peak in 2021, totaling 1,255 tons. However, in 2023 there was a notable 77% decrease, resulting in a catch of just 286 tons. This decline is attributed to several factors,

including the absence of vessel charters in the Cook Islands compared to prior years and climate variability linked to El Niño oscillations, which increased tuna catches in the western central Pacific.

In terms of distribution, all longline effort and catch in 2023 occurred within national jurisdiction, as there was no fishing beyond these areas.

Analysis of the catch composition within the Convention Area indicates that albacore was the primary target species for the national fleet in 2023, accounting for 79% (217 tons) of the total catch. This proportion is consistent with catch compositions from 2018-19. Yellowfin tuna made up 10% (30 tons) of the 2023 catches, showing a decrease compared to 2022 levels. Meanwhile, bigeye tuna decreased to 3% (8 tons) of the total catch, down from 2021. Bycatch species comprised the remaining 8% of the catch.

Artisanal fishery operations take place on each inhabited island, primarily targeting yellowfin tuna. In 2023, artisanal fishers caught 74 tons of yellowfin tuna (Table 3), utilizing trolling and hand lining as their main fishing methods. Although catch reporting in the artisanal fishery is typically unregulated, the Ministry of Marine Resources (MMR) introduced a fuel subsidy program in June 2017 to incentivize fishers to voluntarily submit catch and effort data. The 2023 artisanal catch increased from 2022 levels, reflecting improved data collection across the islands and better overall coverage.

The Cook Islands Government, in partnership with the European Union, has established a Sustainable Fisheries Partnership Agreement (SPA) that includes a subsidized fuel program. Since 2017, this program has significantly improved data collection efforts for the Cook Islands' artisanal fishery. A notable success has been the increased reporting of artisanal fishery data, facilitated by the implementation of the Tails application developed by the Pacific Community's Oceanic Fisheries Program (SPC-OFF). This application uses mobile devices as a practical solution for data collection from remote islands.

Table 1: Annual catch (t) and effort (Hhooks) estimate for the national fleet, by gear and primary species within and beyond national jurisdiction in 2023

Area	Gear	Effort	ALB	BET	YFT	SKJ	PBF	BLM	BU M	MLS	SWO	TOTAL
CK EEZ	LL	9,850 Hhooks	217	8	30	4	0	2	5	6	2	274
	PS	8 Days	0	0	1	0	0	0	0	0	0	1
Beyond CK EEZ	LL	-	-	-	-	-	-	-	-	-	-	-
	PS	117 Days	0	38	0	529	0	0	0	0	0	567

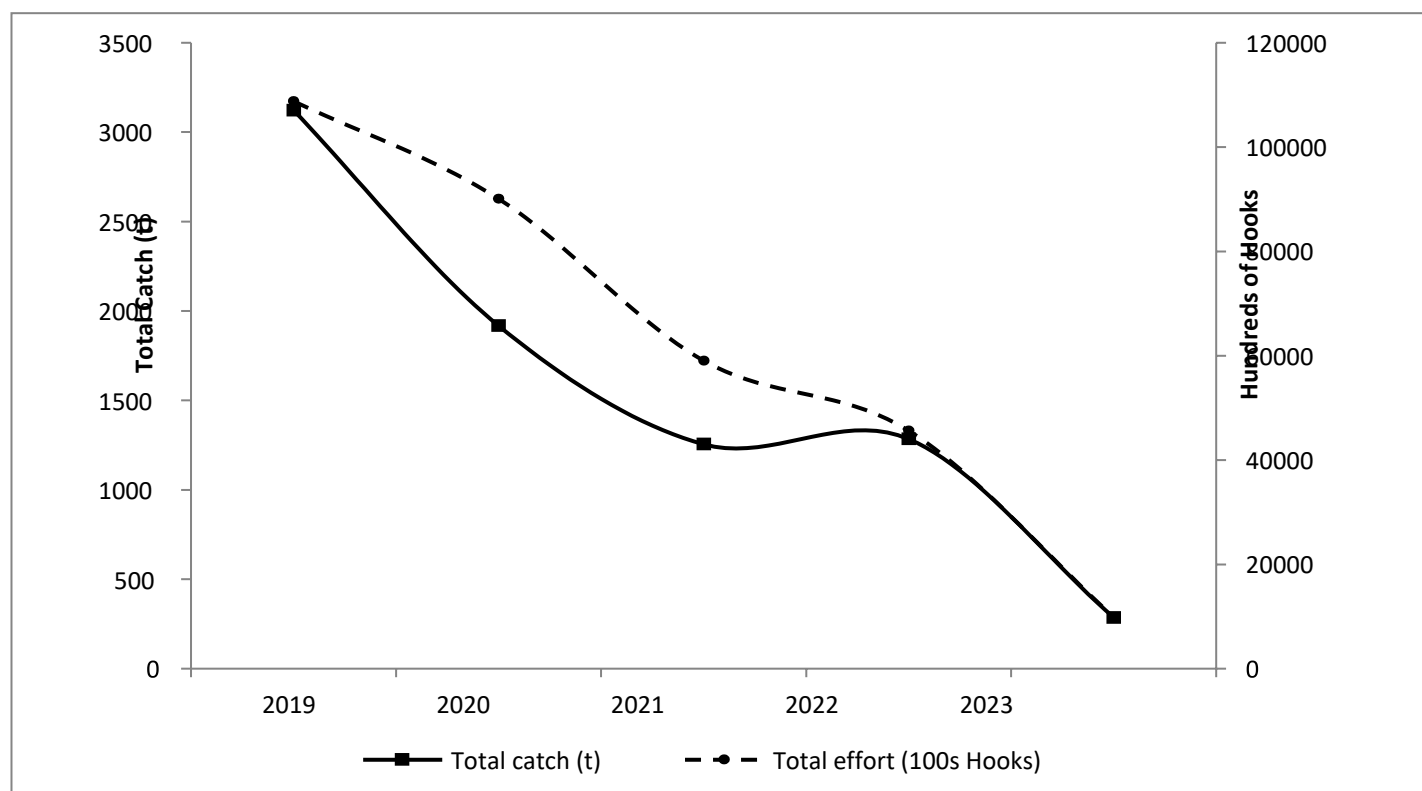


Figure 1: Historical total annual catch (t) estimates for National Longline Fleet within the WCPFC Convention Area, 2019– 2023

Table 2: Historical annual catch estimates (t) for the national longline fleet, by primary species in the Convention Area from 2019- 2023

Area	Year	ALB	BET	YFT	SKJ	PBF	BUM	BLM	MLS	SWO
WCPFC-CA										
	2019	2,235	120	395	115	0	23	61	18	23
	2020	1,162	99	388	64	0	47	21	10	21
	2021	714	82	303	27	0	37	9	9	8
	2022	921	68	198	14	0	43	5	5	9
	2023	217	8	30	4	0	5	2	6	2
WCPFC-CA (Sth of equator)										
	2019	2,235	120	395	115	0	23	61	18	23
	2020	1,162	99	388	64	0	47	21	10	21
	2021	714	82	303	27	0	37	9	9	8
	2022	921	68	19	14	0	4	5	5	9
	2023	217	8	30	4	0	5	2	6	2
WCPFC-CA (Nth of equator)										
	2019	0	0	0	0	0	0	0	0	0
	2020	0	0	0	0	0	0	0	0	0
	2021	0	0	0	0	0	0	0	0	0
	2022	0	0	0	0	0	0	0	0	0
	2023	0	0	0	0	0	0	0	0	0
WCPO Area										
	2018	3,075	195	531	75	0	108	16	9	41
	2019	2,235	120	395	115	0	23	61	18	23
	2020	1,162	99	388	64	0	47	21	10	21
	2021	714	82	303	27	0	37	9	9	8
	2022	92	68	198	14	0	43	5	5	9
	2023	217	8	30	4	0	5	2	6	2
North Pacific Ocean										
	2019	0	0	0	0	0	0	0	0	0
	2020	0	0	0	0	0	0	0	0	0
	2021	0	0	0	0	0	0	0	0	0
	2022	1	0	0	0	0	0	0	0	0
	2023	0	0	0	0	0	0	0	0	0
South Pacific Ocean										
	2019	2,235	120	395	115	0	23	61	18	23
	2020	1,162	99	388	64	0	47	21	10	21
	2021	741	82	303	27	0	37	9	9	8
	2022	919	67	197	14	0	43	5	4	9
	2023	217	8	30	4	0	5	2	6	2

Table 3: Historical catch (t) and effort (Hhks) estimates for the national fleet by gear and primary species in the Convention Area, 2019-2023

Year	Gear	Effort	ALB	BET	YFT	SKJ	PBF	BLM	BUM	MLS	SWO
2019	LL	108,626 hhks	2235	120	395	115	0	23	61	18	23
	PS	94 days	0	158	1	2009	0	0	0	0	0
	ART	13,642 hrs	3	1	64	7	0	1	2	1	0
2020	LL	90,060 hhks	1162	99	388	64	0	47	21	10	21
	PS	36 days	0	30	13	316	0	0	0	0	0
	ART	10,890 hrs	0	0	69	5	0	2	2	0	0
2021	LL	58,193 Hhks	741	82	303	27	0	37	9	9	8
	PS	185 Days	0	152	171	3447	0	0	0	0	0
	ART	13,295 hrs	0	0	44	3	0	0	1	0	0
2022	LL	45,610 Hhks	916	67	196	14	0	5	43	5	9
	PS	303 days	0	275	47	4325	0	0	0	0	0
	ART	16,821 hrs	1	0	68	3	0	0	4	0	0
2023	LL	9,850 Hhks	217	8	30	4	0	2	5	6	2
	PS	125 days	0	38	1	529	0	0	0	0	0
	ART	23,409 hrs	1	0	74	4	0	2	7	0	0

Table 4: Annual catch estimates (t) for the national fleet by gear in the Convention Area for non-target and bycatch species (including key shark species) for 2023. No shark species were retained

Gear	SSP	DOL	LAG	OIL	WAH
LL	3	2	0	1	4
PS	0	0	0	0	0
ART	0	6	0	0	11

2.2 Catch and Effort Spatial Distribution

Under the Marae Moana Act of 2017, the Cook Islands established a commercial fishing exclusion zone extending 50 nautical miles (nm) around all its islands. This legislation is the primary framework governing marine activities and the creation of the Marae Moana, a zoned, multi-use marine park. The primary goal of Marae Moana is to ensure the sustainable and responsible use of ocean resources while adhering to high environmental and conservation standards.

In 2023, there was a significant increase in catch and fishing efforts beyond the national jurisdiction by the Cook Islands' fleet, compared to previous years. This trend is visible in the annual catch and effort distribution data (See Figure 4). Within this distribution, albacore remained the most caught species by the longline fleet, with yellowfin and bigeye tuna emerging as critical secondary target species.

Back in August 2019, the Cook Islands launched its first and only purse seine vessel. By 2023, this number had doubled to two purse seine vessels flying the Cook Islands flag. The catch from these vessels was predominantly secured in the high seas above the Cook Islands' Exclusive Economic Zone (EEZ), particularly to the west of the Kiribati Line Islands. In 2023, all purse seine vessel catches were concentrated in this location, specifically between latitudes 10°N and 10°S (Refer to Figures 5 and 6).

Minimal catches were reported within the national jurisdiction. Skipjack tuna was the primary species caught using the purse seine method, with yellowfin tuna serving as a secondary target in 2023 (See Figures 5 and 6).

Overall, the data reflects the dynamic nature of fishing efforts and the strategic focus on different species, dependent on location and fishing method, highlighting the ongoing challenges and adjustments in sustainable fishing practices.

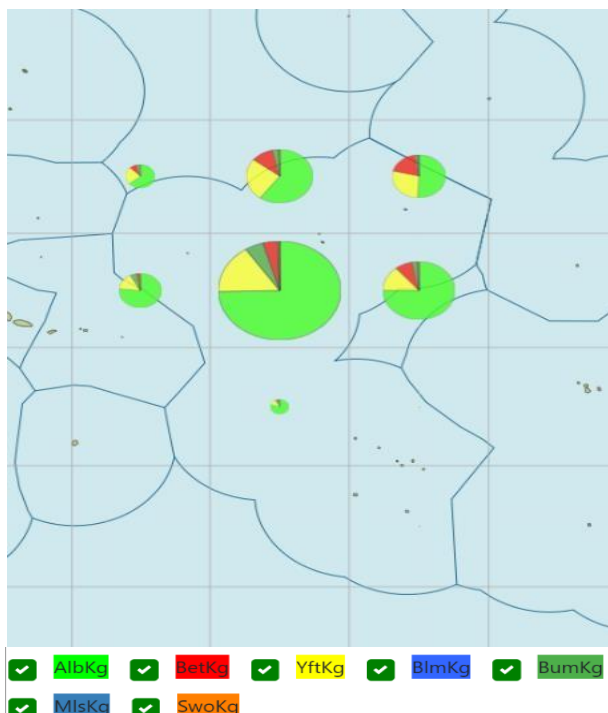


Figure 3: Catch distribution (5 x 5) of key tuna species for the National Longline Fleet within the WCPFC-CA 2023.

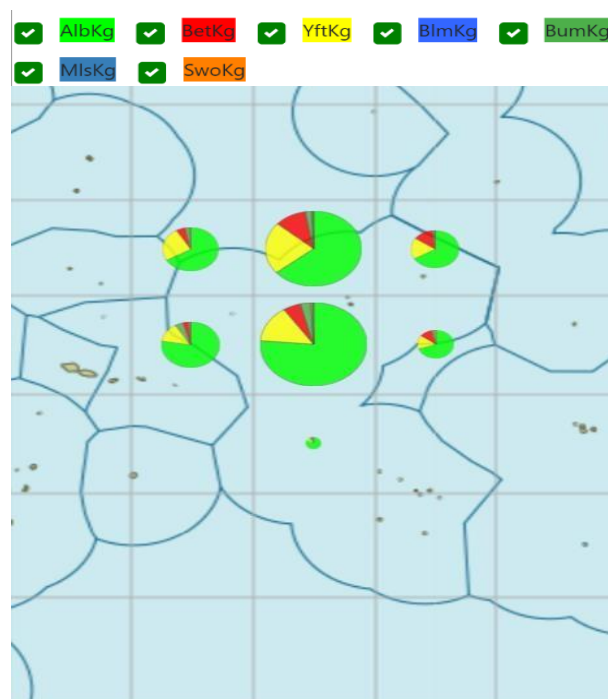


Figure 4: Catch distribution (5 x 5) of key tuna species for the National Longline Fleet within the WCPFC-CA 2022.

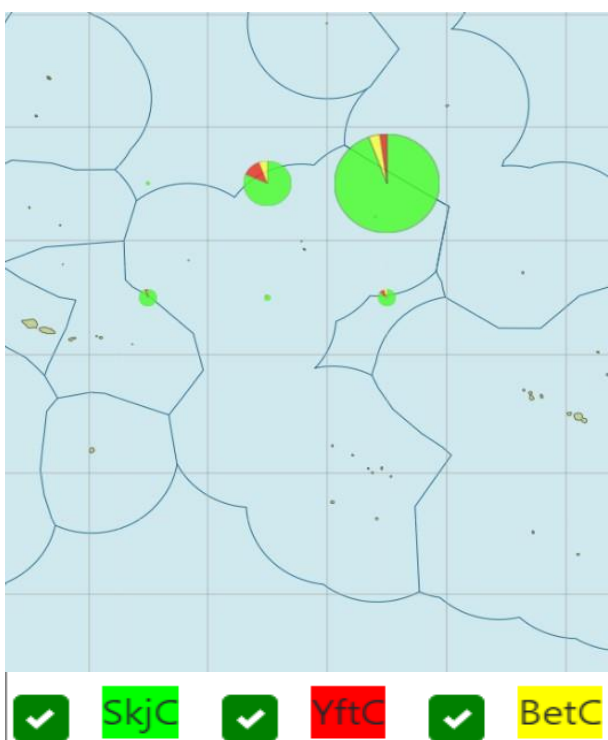


Figure 5: Catch distribution (5 x 5) of key tuna species for the National Purse Seine Fleet within the WCPFC-CA 2023.



Figure 6: Catch distribution (5 x 5) of key tuna species for the National Purse Seine Fleet within the WCPFC-CA 2022.

2.3 Licensing and Fleet Structure

Since January 2017, the Cook Islands' commercial longline fishery in the in-zone area has been effectively managed through the implementation of the Quota Management System (QMS), replacing the previous vessel limits. As of 2023, the national fleet of the Cook Islands comprised 2 longline vessels, 1 purse seine vessel, and 4 bunker vessels operating within the Convention Area. Notably, all catches attributed to the Cook Islands originate from vessels that are flagged and licensed to fish within the in-zone area, as there were no chartered vessels in 2023; the Cook Islands last chartered vessels in 2019.

The foreign fleet consisted of 54 longline vessels, 24 purse seine vessels, and 9 bunker vessels authorized to fish or operate within the Cook Islands' Exclusive Economic Zone (EEZ).

In terms of foreign-licensed commercial longline vessels, 10 were between 51 and 200 Gross Registered Tonnage (GRT), and 44 were between 200 and 500 GRT. All purse seine and bunker vessels had a tonnage greater than 500 GRT (refer to Table 5). It's important to highlight that vessels licensed to fish within the in-zone area are strictly prohibited from fishing within a 50 nautical mile radius around any island, in accordance with the Marae Moana Act of 2017.

Additionally, in 2023, there were 201 active artisanal vessels reporting catch and effort data, with most fishing activities occurring within the territorial waters.

Table 5: Number of national fleet vessels by gear and size, active within the Convention Area 2019-2023

Year	00-50 GRT		51-200 GRT		201-500 GRT		500 GRT			Total
	LL	Artisanal	LL	PS	LL	PS	LL	PS	Bunker	Total
2019	-	236	16	-	1	-	-	1	11	265
2020	-	171	13	-	1	-	-	1	9	195
2021	-	188	12	-	1	-	-	1	7	209
2022	-	216	5	-	1	-	-	1	5	228
2023	-	201	2	-	1	-	-	2	4	210

3 Coastal State Reporting

3.1 Catch and Effort Trends

Foreign-flagged longline vessels operating within the Cook Islands' EEZ had a significant impact on the total catch. As detailed in Table 6, these vessels were responsible for a total catch of 11,312 t, representing approximately 97% of the total longline catch within the zone. The fleet composition included 76% Chinese-flagged vessels, 23% Federated States of Micronesia-flagged vessels, and 1% Vanuatu-flagged vessels.

In terms of species composition for the longline fishery, albacore dominated the catch, making up 66% of the total, followed by yellowfin tuna at 18%.

Turning to the Cook Islands' purse seine fishery, restrictions were implemented to limit fishing effort to 1,250 days within any consecutive four-quarter period. The majority of the purse seine catch, about 82%, was captured by the US fleet, followed by 10% by Spain, 7% by Korea, and 1% by El Salvador. Foreign-flagged purse seine vessels achieved a total catch of 5,730 t. Skipjack tuna was the most captured species, accounting for 90% of the total catch, followed by yellowfin tuna at 6% and bigeye tuna at 4%.

Overall, foreign-flagged vessels had a significant presence in both longline and purse seine fisheries within the Cook Islands' EEZ, substantially contributing to the total catch.

Table 6: Annual catch estimates (t) for all licensed foreign vessels by gear within the Cook Islands EEZ, for tuna and billfish species in 2023

Gear	Effort	ALB	BET	YFT	SKJ	PBF	BLM	BUM	MLS	SWO	OTH	TOTAL
LL	342,343 Hhks	7,498	857	2,046	120	0	3	390	25	39	334	11,312
PS	127 days	0	255	374	5,097	0	0	0	0	0	4	5,730

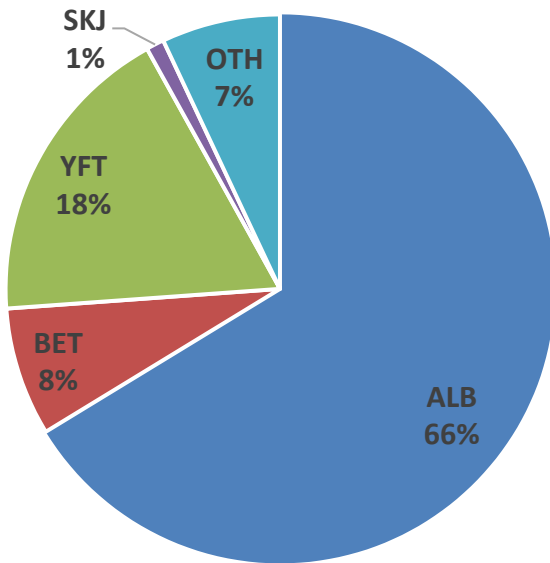


Figure 7: 2023 Foreign Longline fleet catch composition in CK EEZ

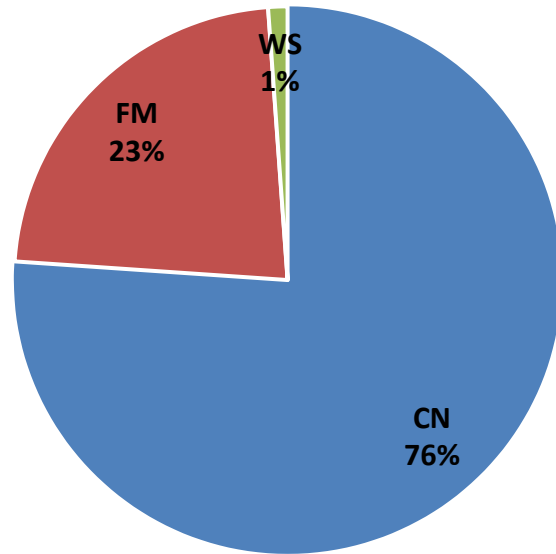


Figure 8: 2023 Foreign longline catch composition in CK EEZ by flag

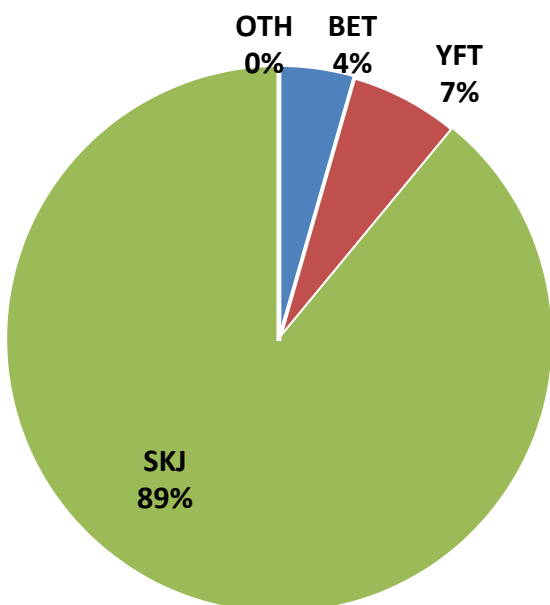


Figure 9: 2023 Foreign Purse Seine fleet catch composition in CK EEZ

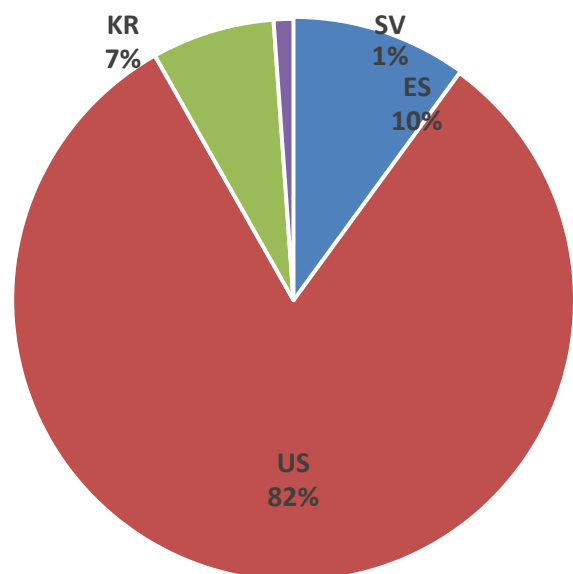


Figure 10: 2023 Foreign Purse Seine catch composition in CK EEZ by flag

Table 7: Number of active foreign flagged vessels by gear authorised to operate within the Cook Islands EEZ by size in 2023

GRT Range	Longline	Bunker	Purse Seine	Total
0-10				
10-50				
50-200	10			10
200-500	44			44
500+		9	24	33

4 Socio-economic Factors

The expansion of the domestic fishing industry in the Cook Islands has encountered significant challenges, largely due to the high operating costs associated with port activities. Notwithstanding these difficulties, one small-scale domestic fresh fish vessel was active in 2023, operating out of Rarotonga. This vessel offloaded its catch at the Port of Avatiu, although it spent a considerable portion of 2023 in dry dock. The presence of this vessel has yielded multiple economic benefits for the local community, including employment opportunities for temporary labor during un/loadings, as well as the purchase of fuel, procurement of necessary supplies, and payment of port-associated fees. Additionally, these vessels are permitted to sell fresh by-catch to local businesses during specific seasons, contributing to the local economy.

To ensure adherence to regulations and upkeep quality control, the Ministry of Marine Resources (MMR) conducts consistent inspections and port sampling of catches. According to the Quota Management System (QMS), the MMR allocates a quota of 50 t of bigeye tuna and 50 t of albacore tuna to all domestically based vessels. The Large Pelagic Longlining Fishery and Quota Management System Regulation of 2016 mandates a minimum quota distribution of 20 t of bigeye tuna and 25 t of albacore tuna.

The rise in fuel costs has compelled the domestic vessel to curtail its fishing days per trip, typically returning to port after about five days at sea. This reduction in fishing duration has had extensive socio-economic ramifications, notably on the local population, which now faces increased difficulties in accessing pelagic fish compared to the pre-COVID years. The diminished availability of fresh fish impacts not only the livelihood of local fishermen but also the wider community, as pelagic fish constitute an essential source of sustenance and income for the Cook Islands. Effective strategies to mitigate the escalated operating costs and bolster the domestic fishing industry are imperative to restore access to this critical resource.

5 New Fishery Developments

In 2019, the MMR of the Cook Islands initiated trials between the industry electronic reporting application called 'HiFish' and the TUFMAN2 database. The aim was to streamline the collection and transmission of catch and effort data from vessels using the HiFish application into the TUFMAN2 database. This electronic reporting (ER) application served as a complement to the existing 'Onboard' app from SPC (Secretariat of the Pacific Community) for other licensed vessels in the longline fishery. While some technical issues were identified during the trials, ongoing work has been carried out since 2021 in collaboration with SPC-OFP, vessel operators, and the developer of the HiFish application to address and resolve these issues.

MMR has recognized several benefits associated with electronic reporting, including improved efficiency in data management, access, and utilization. These improvements ultimately support better information for fisheries management purposes. As a result, MMR has identified the Onboard application as the primary ER solution for longline vessels and plans to extend its implementation to all longline vessels operating within the Cook Islands' Exclusive EEZ. Furthermore, MMR has taken the opportunity to collaborate with other South Pacific countries to facilitate capacity building in ER, and training programs are scheduled to commence in 2023.

In terms of artisanal fisheries, MMR has experienced a significant increase in coverage through the introduction of the SPC 'Tails' application in 2017. This mobile application allows for the direct population of artisanal catch data into the Cook Islands' catch and effort databases. One notable benefit of this technology is its ability to operate with limited internet connectivity, which addresses the challenges posed by geographic isolation on many islands. The Tails application has provided a practical solution for collecting and managing artisanal fisheries data, contributing to improved understanding and management of this sector.

6 Research and Statistics

6.1 Log sheet data collection and verification

In 2023, the MMR of the Cook Islands achieved 100% logsheet coverage for the commercial longline fleet. The majority of logsheets were obtained as original copies through postal submission after the completion of a fishing trip. Alternatively, some logsheets were received electronically via email, either on a weekly basis or after the trip, in scanned form. Additionally, unloading forms were collected from all foreign-flagged vessels. These efforts have laid the foundation for achieving 100% ER by 2023.

To accomplish this goal, MMR has introduced resources such as the 'on-board' application, which is designed to facilitate electronic reporting. The aim is to transition

from the current system of receiving logsheets and forms in physical or scanned formats to a fully electronic system. By implementing ER, MMR expects to align with the reporting standards of the Western and Central Pacific Fisheries Commission (WCPFC) and ensure compatibility with the Cook Islands' catch and effort database, TUFMAN 2.

MMR recognizes the importance of engaging with the fishing industry and aims to conduct annual consultations with operators who are active in Cook Islands waters. These consultations provide a valuable opportunity to gather feedback from industry stakeholders and ensure that the development of ER applications meets their needs effectively.

For locally based commercial vessels that undertake shorter trips lasting less than a week, MMR can provide regular feedback and updates on the implementation of ER. This allows for timely communication and adaptation as necessary. However, vessels operating out of Pago Pago, which spend longer periods at sea, pose challenges in terms of providing timely feedback. To address this, MMR will be trialing a newly developed observer data application called OLLO on the domestic fleet. This application aims to capture important information while at sea, despite the extended time spent away from shore.

Overall, the efforts of MMR and the introduction of ER applications are intended to enhance fisheries data collection, streamline reporting processes, and ensure compliance with international standards. These developments mark significant progress in achieving more efficient and effective fisheries management in the Cook Islands.

6.2 Observer Program

In 2023, the Cook Islands National Observer Program encountered considerable obstacles, primarily due to a shortage of active observers. By this time, the program retained only five employed observers. To address this shortfall, MMR enlisted contracted observers from other Pacific Islands national observer programs. Notably, observer data coverage in 2023 saw a substantial increase to 44.4%, a marked improvement from the previous year's mere 2.5%.

Despite these hurdles, the Cook Islands remain steadfast in its commitment to enhancing its observer program. The objective is to ensure that 100% of observer data and reports undergo debriefing by a certified Pacific Islands Regional Fisheries Observer (PIRFO) debriefer before submission to the Secretariat of the Pacific Community (SPC) for data entry. This debriefing process is crucial for maintaining the accuracy and reliability of the collected data.

To tackle the observer shortage and improve coverage, the MMR plans to conduct observer recruitment training in mid-2023. This training initiative aims to bolster the program by increasing the number of active observers, thereby enhancing the deployment capacity. With an increased observer workforce, the Cook Islands can

significantly improve its data collection efforts, leading to a better understanding of the state of fisheries within its jurisdiction.

Moreover, despite the challenges faced in 2022, the Cook Islands remain dedicated to advancing its observer program and strengthening its capability to gather accurate and reliable fisheries data. The forthcoming observer recruitment training is anticipated to play a pivotal role in achieving improved observer coverage and data accuracy.

In addition to deploying observers on Cook Islands-flagged vessels, 2023 also saw the strategic deployment of observers on Chinese-flagged longline vessels. This move not only contributes to the Cook Islands' data collection efforts but also enhances overall regional coverage, reinforcing cooperative fisheries management among Pacific nations.

Overall, the Cook Islands' efforts in 2023 reflect a resilient approach to building an effective observer program. Through strategic initiatives, including targeted training and regional collaboration, the Cook Islands aim to strengthen their fisheries management framework, ensuring sustainable use of marine resources and compliance with international standards.

Table 8: Estimated annual coverage of operational catch and effort, port sampling, unloading's and observer data for the National Fleet, active in the WCPF Convention area for 2018 - 2022.

Year	Operational Catch & Effort	Port Sampling	Unloading	Observer Data (Trip coverage)
2019	99%	9.7%	54.7%	12.4%
2020	100%	6.9%	50.6%	0%
2021	100%	18.3%	43.3%	3.4%
2022	100%	6.4%	27.3%	2.5%
2023	100%	1.2%	13.9%	44.4%

6.3 Port Sampling Program

In 2023, most port sampling activities in the Cook Islands took place in Rarotonga. These port sampling activities primarily targeted locally based fresh fish longliners, which typically recorded an average catch of 2-3t per trip.

Despite efforts to expand port sampling coverage, the overall coverage of the domestic fleet was relatively low at 1.2% in 2023, as indicated in Table 8.

Port sampling plays a crucial role in obtaining valuable information about the catch

composition, fishing effort, and other key variables in the fisheries sector.

Enhancing the coverage of port sampling is vital to improve our understanding of the fisheries resources and their sustainability. By increasing the coverage, MMR can collect a more comprehensive and representative sample of data from the domestic fleet. This will enable better management decisions, ensure compliance with fishing regulations, and promote the conservation of fish stocks in the Cook Islands' waters.

To address the relatively low coverage of port sampling, MMR may consider implementing strategies to increase the participation of domestic vessels in the sampling process. This could involve outreach and education campaigns to highlight the importance of port sampling, providing incentives for vessels to participate, or streamlining the sampling procedures to make it more convenient for vessel operators.

Overall, improving the coverage of port sampling activities for the domestic fleet in the Cook Islands is crucial for effective fisheries management. By collecting accurate and comprehensive data, MMR can make informed decisions to ensure the long-term sustainability of fish stocks and the livelihoods of those involved in the fisheries sector.

7 Addendum



ADDENDUM TO ANNUAL REPORT PART 1

8 April 2024¹

SECTION A: SPECIFIC INFORMATION TO BE PROVIDED IN ANNUAL REPORT PART 1 AS REQUIRED BY CMMS AND OTHER DECISIONS OF THE COMMISSION.

CMM 2009-03 [Swordfish], Para 8	<table><tr><th rowspan="2">YEAR</th><th colspan="3">CCM-FLAGGED VESSELS SOUTH OF 20S</th><th colspan="2">CHARTERED VESSELS</th><th colspan="3">OTHER VESSELS FISHING WITHIN THE CCM'S WATERS SOUTH OF 20S</th></tr><tr><th>CATCH IN METRIC TONNES</th><th>VESSEL NUMBERS</th><th></th><th>CATCH IN METRIC TONNES</th><th>VESSEL NUMBERS</th><th>FLAG</th><th>CATCH (TONNES)</th><th>VESSEL NUMBERS</th></tr><tr><td>2021</td><td>3.396</td><td>3</td><td></td><td>0</td><td>0</td><td></td><td></td><td></td></tr><tr><td>2022</td><td>2.597</td><td>2</td><td></td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>2023</td><td>1.751</td><td>2</td><td></td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr></table>													YEAR	CCM-FLAGGED VESSELS SOUTH OF 20S			CHARTERED VESSELS		OTHER VESSELS FISHING WITHIN THE CCM'S WATERS SOUTH OF 20S			CATCH IN METRIC TONNES	VESSEL NUMBERS		CATCH IN METRIC TONNES	VESSEL NUMBERS	FLAG	CATCH (TONNES)	VESSEL NUMBERS	2021	3.396	3		0	0				2022	2.597	2		0	0	0	0	0	2023	1.751	2		0	0	0	0	0
YEAR	CCM-FLAGGED VESSELS SOUTH OF 20S			CHARTERED VESSELS		OTHER VESSELS FISHING WITHIN THE CCM'S WATERS SOUTH OF 20S																																																			
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Observer coverage (WCPFC 11 decision – para 484(b))	<table><tr><th rowspan="2">CMM Fleet</th><th rowspan="2">Fishery</th><th colspan="3">No. of Hooks</th><th colspan="3">Days Fished</th><th colspan="3">Days at Sea</th><th colspan="3">No. of Trips</th></tr><tr><th>Total estimated</th><th>Observer</th><th>%</th><th>Total estimated</th><th>Observer</th><th>%</th><th>Total estimated</th><th>Observer</th><th>%</th><th>Total estimated</th><th>Observer</th><th>%</th></tr><tr><td>CK</td><td>LL</td><td></td><td></td><td></td><td>322</td><td>65</td><td>20.2</td><td>330</td><td>90</td><td>27.3</td><td>9</td><td>4</td><td>44.4</td></tr></table>													CMM Fleet	Fishery	No. of Hooks			Days Fished			Days at Sea			No. of Trips			Total estimated	Observer	%	Total estimated	Observer	%	Total estimated	Observer	%	Total estimated	Observer	%	CK	LL				322	65	20.2	330	90	27.3	9	4	44.4				
CMM Fleet	Fishery	No. of Hooks			Days Fished			Days at Sea			No. of Trips																																														
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CMM 2009-06 [Transshipment], Para 11 (ANNEX II)	Cook Islands vessel did not conduct transshipment activities.																																																								

CMM 2011-03 [Impact of PS fishing on cetaceans], Para 5	No Cook Islands vessels interacted with Cetaceans.							
CMM 2018-03 [Seabirds] Para13	Year	FlagId	Coverage	Numhooks	Raisedhooks			
	2023	CK	100%	985088	985088			
	Year	Fishing effort				Observed seabird captures		Area
		Number of vessels	Number of hooks	Observed hooks	% hooks observed	Number	Rate ²	25S to 23N
	2023	3	7998	142966	17.9	1	0.01	25S to 23N
	2022	7	4332355	5740	0.1	0	0	25S to 23N
	2021	1	424200	114052	26.9	7	0.06	25S to 23N
	2021	11	5033951	125207	2.5	7	0.06	25S to 23N
	2019	18	9066451	744525	8.2	0	0	25S to 23N

		Combination of Mitigation Measures	Proportion of observed effort using mitigation measures				
			South of 30°S	25°S-30°S	25°S to 23°N	North of 23°N	
		No mitigation measures			15.38		
	Options required south of 25°S	TL + NS					
		TL + WB					
		NS + WB					
		TL + WB + NS					
		HS					
	Other options 25°S-30°S	WB					
		TL					
	Other options north of 23°N	SS/BC/WB/DSL					
		SS/BC/WB/(MOD or BDB)			60		
	Provide any other combination of mitigation measures here	NS					
		NS MOD			24.62		
		Totals (must equal 100%)			100%		
Species	South of	25oS-30oS	North of	23oN –	Total		
BIRD (Unidentified)				1	1		

¹ Reporting requirements requested by CMMs and decisions of the Commission, as of WCPFC20 (Dec 2023). First issued on 8 April 2024. Changes made from Addendum for 2022 include the revised CMM 2023-03 for North Pacific Swordfish and **WCPFC20 Agreed Audit Points**.

SECTION B: ADDITIONAL ANNUAL REPORTING REQUIREMENTS THAT COULD BE INCLUDED IN ANNUAL REPORT PART 1, IF NOT OTHERWISE REPORTED ANNUALLY TO WCPFC

CMM 2006-04 [South West striped Marlin], Para 4	<table><tr><th>Flag</th><th>Yr</th><th>Vessels</th><th>Numcaught</th><th>Weightcaught</th></tr><tr><td>CK</td><td>2021</td><td>7</td><td>171</td><td>8.406</td></tr><tr><td>CK</td><td>2022</td><td>5</td><td>95</td><td>4.834</td></tr><tr><td>CK</td><td>2023</td><td>3</td><td>102</td><td>5.522</td></tr></table>	Flag	Yr	Vessels	Numcaught	Weightcaught	CK	2021	7	171	8.406	CK	2022	5	95	4.834	CK	2023	3	102	5.522																																														
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CMM 2015-02 [South Pacific Albacore]Para 4	Addressed through the regular provision of operational catch/effort logsheet data to SPC.																																																																		
CMM 2019-03 [North Pacific Albacore], Para 3	<p>There were no NP Albacore caught north of the equator in 2023</p> <table><tr><th>Gear</th><th>Flag</th><th>Yr</th><th>VessNumTarg</th><th>VessDaysTarg</th><th>SpNTarg</th><th>SpCMtTarg</th><th>VessNum</th><th>VessDays</th><th>SpN</th><th>SpCMt</th></tr><tr><td>L</td><td>CK</td><td>2022</td><td>1</td><td>6</td><td>58</td><td>1.192</td><td>1</td><td>6</td><td>58</td><td>1.192</td></tr><tr><td>L</td><td>CK</td><td>2016</td><td>0</td><td>0</td><td>0</td><td>0</td><td>7</td><td>148</td><td>48</td><td>1.195</td></tr><tr><td>L</td><td>CK</td><td>2017</td><td>0</td><td>0</td><td>0</td><td>0</td><td>7</td><td>284</td><td>463</td><td>10.023</td></tr><tr><td>L</td><td>CK</td><td>2018</td><td>0</td><td>0</td><td>0</td><td>0</td><td>5</td><td>177</td><td>374</td><td>8.627</td></tr><tr><td>L</td><td>CK</td><td>2015</td><td>0</td><td>0</td><td>0</td><td>0</td><td>2</td><td>22</td><td>61</td><td>1.052</td></tr></table>	Gear	Flag	Yr	VessNumTarg	VessDaysTarg	SpNTarg	SpCMtTarg	VessNum	VessDays	SpN	SpCMt	L	CK	2022	1	6	58	1.192	1	6	58	1.192	L	CK	2016	0	0	0	0	7	148	48	1.195	L	CK	2017	0	0	0	0	7	284	463	10.023	L	CK	2018	0	0	0	0	5	177	374	8.627	L	CK	2015	0	0	0	0	2	22	61	1.052
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CMM 2023-03 [North Pacific Swordfish], para 4	Does not apply to the Cook Islands and there were no NP SWO caught.
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