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COOK ISLANDS

Ministry *of* Marine Resources

GOVERNMENT OF THE COOK ISLANDS

WESTERN AND CENTRAL PACIFIC FISHERIES COMMISSION

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Pohnpei, FSM

COOK ISLANDS
National Fisheries Report

Scientific data was provided to the Commission in accordance with the decision relating to the provision of scientific data to the Commission by 30 April 2011	**YES**

ABSTRACT
The majority of Cook Islands vessel catches are taken within the Cook Islands EEZ, with under 4% taken beyond the EEZ in 2010. Total effort for the WCPF-CA is approximately 6 million hooks, with 5.5 million hooks of effort attributed to the CK EEZ. Total raised catch estimates for 2010, in the WCPF-CA is 3,156.6mt. Albacore remains the primary catch species accounting for 75% of the total 2010 catches. Total albacore catch estimates for 2010 is 2,423mt. Total catches for yellowfin and bigeye are 319.2mt and 192mt, respectively. The majority of catches are taken in the northern Cook Islands by the fleet based out of Pago Pago, American Samoa.

A total of forty-one longline fishing vessels were licensed to fish within the WCPF-CA, in 2010. Thirty seven licenses were issued to vessels to fish within national waters, and three licenses issued solely authorising fishing activity on the high seas within the WCPF-CA.

An observer training workshop was held in early 2011 to improve coverage in the northern Cook Islands fishery and the WCPF-CA.

1.1 Annual Fisheries Information

Fishery Characteristics

All Cook Islands fishing vessels operating in the WCPF-CA are of longline method gear. The majority of the fleet operates in the Cook Islands EEZ (CK EEZ), with two separate fisheries operating within the zone. The first is the northern fishery that targets albacore tuna (*Thunnus alalunga*), in the area north of 15°S latitude. All vessels operating in this fishery are based in Pago Pago, American Samoa, occasionally unloading bycatch species to Apia, Samoa, and Rarotonga in the southern Cook Islands.

The second fishery is based out of Rarotonga, a small scale fishery that mainly caters for the local demand, with vessels targeting tuna and billfish along with other bycatch species valued on the local market. All vessels operating in this fishery are below 20m LOA and 50mt GRT. In recent years, the fleet operating out of Rarotonga has diminished making up about 10% of total annual CK EEZ catches.

The remainder of the fleet operates beyond the CK EEZ, within the WCPF-CA. Since 2008, no troll vessels have been licenced to fish.

Catch and effort estimates

The majority of Cook Islands vessel catches are taken within the Cook Islands EEZ, with under 4% taken beyond the EEZ in 2010. Total effort for the WCPF-CA is approximately 6 million hooks, with 5.5 million hooks of effort attributed to the CK EEZ.

Total unraised tuna and billfish species caught within the Convention area for the years 2006-2010 are listed in Table 1.a. Total raised catch estimates for the WCPF-CA is 3,156.6mt, listed in table 1.b.

Table 1.a. Unraised annual catch estimates for tuna and billfish species for Cook Islands longline vessels in the WCPF Convention Area, 2006-2010.

Year	ALB (mt)	BET (mt)	YFT (mt)	SKJ (mt)	PBF (mt)	BUM (mt)	BLM (mt)	MLS (mt)	SWO (mt)
2006	1999.2	138.2	221.9	45.1	0.0	21.5	8.9	12.1	79.8
2007	2642.3	233.7	287.8	40.9	0.0	37.1	22.8	18.1	43.0
2008	2422.2	324.5	267.3	51.6	0.0	27.2	18.7	11.1	20.8
2009	1838.2	232.3	202.7	90.6	0.0	16.2	5.0	11.6	18.8
2010	1535.3	125.6	214.7	45.5	0.2	16.1	6.8	8.7	29.0

Table 1.b. Raised annual catch estimates for tuna and total catch for Cook Islands longline vessels in the WCPF Convention Area, 2010.

Species	ALB	BET	YFT	OTH	Total
Catch (mt)	2,423.0	191.7	319.2	288.4	3,165.6

Albacore remains the primary catch species, making up 75% of the total 2010 catches. Yellowfin tuna (*Thunnus albacares*) catches total 10.5% of total catch composition, followed by bigeye with 6.1%. Catch composition of main catch species are found in figure 1. No notable differences in overall catch composition from 2006-2010. See Figure 1 for 2010 total WCPF-CA catch composition.

Table 2. Annual unriased catch and effort estimates for Cook Islands longline fishing vessels within the Cook Islands EEZ.

Area	Year	hhks	ALB (mt)	BET (mt)	YFT (mt)	OTH (mt)	TOT (mt)
North	2006	44417	1698.9	111.1	161.5	138.7	2110.2
South	2006	6480	56.1	14.3	19.6	114.7	204.7
North	2007	41721	2164.5	163.4	160.5	114.5	2602.9
South	2007	6587	82.3	10.3	15.3	72.3	180.2
North	2008	47910	2005.4	259.7	154.4	121.2	2540.8
South	2008	8992	144.5	14.9	14.2	51.9	225.5
North	2009	39552	1664.5	200.7	149.4	140.9	2155.5
South	2009	5079	82.3	8.5	14.6	38.7	144.0
North	2010	34206	1434.6	103.7	174.1	85.9	1798.2
South	2010	7121	70.0	9.3	13.2	78.5	170.9

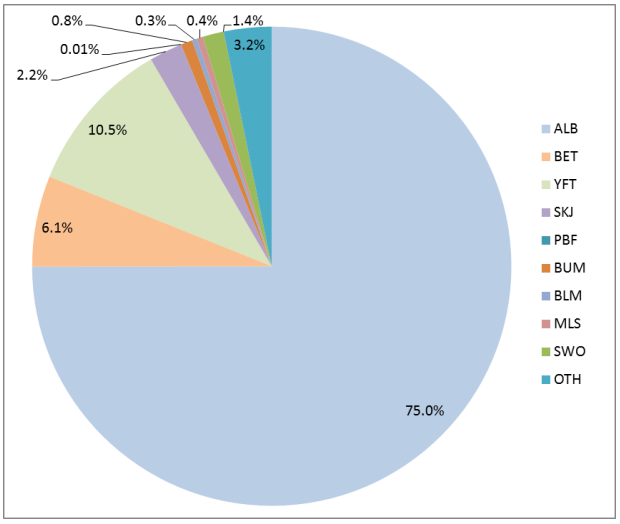

Figure 1. Catch composition within the WCPF-CA, 2010.

Licensing and fleet structure

The Cook Islands fleet operating in the WCPFC-CA solely consists of longliners. The last troll vessel in the fleet changed to longline fishing operations in 2008. There is no set license issuing period during the year, with license applications processed as they are received.

In accordance with the *Marine Resources Longline Fishery Regulations 2011* (also referred to as the Longline Fishery Management Plan), the effort limit for the fishery are fifty fishing licenses. If the total fishery catch of 8,000mt trigger is achieved within any four quarter period, the Management Plan requires a review of the effort and impacts for this level of fishing by a committee, and determines further management action in relation to the licensing regime.

A total of forty-one longline fishing vessels were licensed to fish within the WCPF-CA, in 2010. Thirty seven licenses were issued to longline vessels authorized to fish within national waters, three of which operate solely in the southern fishery. Eighteen licenses authorized fishing activity on the high seas within the WCPFC-CA, fifteen of which were held by vessels that also had licences to fish within the Cook Islands EEZ that rarely fished beyond the CK EEZ. The remaining three high seas licenses were held by vessels based in foreign ports, fishing both on the high seas and in other national jurisdictions. Table 3a shows the number of active longline vessels by size for 2006-2010. Table 3b shows the number of active troll fishing vessels by size for 2006-2010. As previously mentioned, the Cook Islands no longer have a troll fleet.

Table 3.a. Number of active longline vessels by size, 2006-2010

GRT range	2006	2007	2008	2009	2010
0-10	2	2	2	2	-
10-50	4	4	3	17	2
50-200	17	11	15	4	26
200-500	3	5	3	1	9
500+	-	-	-	-	4
Total	***26***	***22***	***23***	***24***	***41***

Table 3.b. Number of active troll vessels by size, 2006-2010

GRT range	2006	2007	2008	2009	2010
0-10	-	-	-	-	-
10-50	-	-	-	-	-
50-200	-	-	-	-	-
200-500	2	1	1	-	-
500+	-	-	-	-	-
Total	***2***	***1***	***1***	***0***	***0***

Non-target species

In 2010, unraised catch estimates of bycatch species totalled about 63mt within the WCPF-CA. On average (years 2006-2010) wahoo (*Acanthocybium solandri*) makes up approximately 52% of annual non-target species catches, followed by mahi mahi (*Coryphaena hippurus*) making up 39% of these catches. Moonfish (*Lampris gutattus*) and non-target billfish species such as sailfish (*Istiophorus platypterus*) and spearfish (*Tetrapturus angustirostris*) account for 5% and 4%, respectively, of non-target species catches. Table 3a lists non-target species catches in metric tons for the period 2006-2010.

Shark catches are not well recorded by the fleet however improvements have been made with certain fleets in the last year. A total of 3mt was recorded for 2010, as listed in table 3b. Observer data from 2010 has yet to be analysed from which shark and turtle information will be used to raise catch estimates by species.

There are no recorded reports of seabirds. The only reported cetacean interactions relate to depredation.

Table 3.a. unraised catches (metric tons) of non-target species by Cook Islands longline vessels, 2006-2010

Non-target species	2006	2007	2008	2009	2010
Barracudas	0.31	0.79	0.46	0.005	0.20
pomfrets and ocean breams	0.28	0.14	0	0.01	0.02
mahi mahi	19.5	16.1	8.3	5	24.4
oilfish	1.7	2.6	0.9	0.4	0.04
moonfish	7.1	8.9	6.4	2.3	3.2
wahoo	72.3	63.1	57.1	35.8	32.5
non-target billfish	4.1	4.7	3.8	2	2.3
Other fish	1.4	4.7	2.8	1.7	0.1

Table 3.b. unraised reported catches (metric tons) of sharks, 2006-2010

Species of special interest	2006	2007	2008	2009	2010
sharks	0.32	0	0.05	2.01	3.01

Socio-economic considerations

The high operating costs out of Rarotonga continues to hinder domestic industry growth, however, a licensing bycatch incentive scheme initiated in 2009 that provides discounted licence fees (in the vessels next licensing period) if 20mt of fish product is unloaded to a Cook Islands port, has promoted offloading of bycatch to Rarotonga by several vessels each year. This activity has encouraged the development of a few small scale value adding businesses catering to the local market.

Fresh fish export volumes have diminished in recent years. Increasing expenses and stagnant prices have made local market sales more profitable.

Northern fishery operations are dependent on the viability of the Pago Pago canneries. Whilst ownership of the canneries has changed in recent years, this is an area of concern that will continue to be monitored.

1.2 Research and Statistics

Observer data for 2010 has not yet been analysed due to human resource constraints. In February this year, the Cook Islands with assistance from SPC carried out an observer training workshop, recruiting 8 Samoan observers to the national program. This workshop has proved beneficial where it has been the first time MMR has been able to maintain coverage on the northern fishery.

One swordfish tag was deployed in 2010, due to poor catch rates. Another 7 tags are planned for deployment by observers beginning late August 2011.

Data coverage estimates using vms and ports authority information is being used to improve historical catch estimates. This work is still ongoing with hopes for complete revised estimates available by years end.