



PURSE SEINE FISHERY PLAN (2013)

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**Part 1–
Preliminary Information**

1. Title

The title of this plan is the Skipjack Tuna Purse Seine Fishery Plan (2013), there after referred to as “Fishery Plan”

2. Application

- (1) The Fishery Plan has been prepared in accordance with section 6 of the Marine Resources Act, 2005. The Skipjack Tuna Purse Seine Fishery is hereby declared to be a Designated Fishery in terms of section 6.
- (2) All activities carried out under this Fishery Plan shall be subject to the applicable provisions of all Acts and Regulations of Cook Islands.
- (3) The Fishery Plan applies to all purse seine fishing for Skipjack tuna (*Katsuwonus pelamis*)
- (4) The Fishery Plan shall enter into force by Order in Executive Council.

3. Purpose

The purpose of the Fishery Plan is to provide ecologically sustainable development and establish an effective, beneficial and enforceable management structure for the purse seine fishery.

4. Definitions

The terms in this Fishery Plan shall have the meanings ascribed to them in the Marine Resources Act 2005 unless the context provides otherwise or as otherwise set out in this section.

“Act”	means the Marine Resources Act 2005;
“bycatch species”	means non-target, dependent or associated species of the target species;
“commercial fishing”	means taking fish for sale;
“conservation and management measures”	means measures to conserve and manage one or more species of living marine resources in accordance with the objectives of this Fishery Plan and the provisions of sections 3 and 4 of the Act;
“Fishery Plan”	means the Purse Seine Fishery Plan prepared by the Secretary in accordance with Section 6 of the Act;
“purse seine fishing”	means fishing using a surrounding net which utilises a purse line at the bottom of the net.
“Purse Seine Fishery”	means commercial fishing targeting the Skipjack tuna (<i>Katsuwonus pelamis</i>).

5. Target species and Area of application

- a) For the purposes of this Fishery Plan, the skipjack tuna purse seine fishery is defined to encompass all purse seine fishing activities involved in the catching of tuna species from the fishery waters of the Cook Islands other than those exempted under the Marine Resources (Purse Seine Fishing) Regulations 2013.
- b) Purse seine fishing for tuna in the Pacific Islands region targets skipjack, and to a lesser degree yellowfin tuna, very largely for canning, although

more recently some purse seiners have been fitted to deliver higher quality tuna also, especially yellowfin. Purse seine fishing has become the increasingly dominant form of fishing method being used in the region, and now takes approximately 95% of tuna catches in Pacific Island Countries' waters, largely because of increased economic efficiency, including lower relative fuel costs when compared with longlining.

- c) The Cook Islands purse seine fishery and status is summaries in Annex 1.

Part 2

Strategies

6. Fisheries Management Objectives

The primary management objectives of this fishery plan are:

- a) to provide for the sustainable use of large pelagic fish resources for the benefit of the people of the Cook Islands;
- b) to ensure the long-term sustainability of the purse seine fishery;
- c) to mitigate the impact of fishing on non-target species;
- d) to develop and maintain the economic viability of the purse seine fishery and associated fishing industry, including the development of the Cook Islands domestic fleet and onshore processing in the Cook Islands;
- e) to ensure that Cook Islands meets its international environmental and fisheries obligations;
- f) to strengthen the exercise of Cook Islands sovereign rights and ensure that its special requirements as a Small Island Developing States are appropriately taken into account in regional tuna management, and position Cook Islands for equitable participation in the regional tuna fisheries;
- g) to protect traditional and small scale commercial inshore fishers;
- h) to protect the integrity of government revenue; and
- i) to fulfil the purposes and principles in the Act.

7. Principal Ways to Achieve the Objectives

The measures applied to achieve the objectives of the Fishery Plan include the following:

- a) Establish licensing arrangements that encourage fishing operations to provide greater benefits to Cook Islands, particularly through the landing, value adding and processing of fish in Cook Islands;
- b) Limit the size of the purse seine fleet in the fishery waters to avoid local depletion particularly of skijack tuna and yellowfin tuna;
- c) Require the use of fishing gear and methods that reduce the impacts of fishing on non-target species;
- d) Monitor fishing operations and catches, particularly through vessel monitoring systems, onboard observers and port sampling;
- e) Collect other scientific and fisheries information on the purse seine fishery, including collection and analysis of daily catch and effort information;
- f) Combat IUU fishing and ensure compliance with laws, regulations, licence conditions and provisions of the Fishery Plan;

- g) Implement relevant measures of the WCPF Commission and the relevant provisions of the WCPF Convention and other relevant international fisheries and environmental instruments.

8. Potential Benefits of the Fishery

Potential benefits from the development of this fishery include:

- a) revenue from licensing, with the prospect that the value of licensing revenue from purse seining could equal and surpass that currently received from the longline fleet;
- b) potential for broader Cook Islands participation and broader economic benefits from increased fishing operations in the northern Cook Islands, including benefits from servicing and monitoring of vessel operations;
- c) establishment of a basis for long term rights for Cook Islands in purse seine fishing within the emerging regional arrangements for tuna conservation and management;
- d) improved control of a fishery known to operate around the most remote area of the Cook Islands EEZ;

Part 3

Conservation and Management Considerations

9. Appropriate Scale and Extent of the Fishery

- a) Despite a long period of access for the US fleet, there are only sporadic results and one comprehensive year of catch history to fully understand the likely catch rates and catch values of the domestic purse seine fishery;
- b) Stock assessment conducted by the oceanography division of the French Space Agency (CSL) suggest that biomass of skipjack tuna in the Cook Islands waters is 189,000 tonnes and fishing effort of 30,000 tonnes will not significantly reduce spawning biomass below the forty percent reference point commonly utilized in fisheries management;

10. Impacts and Interactions

- a) The impact on tuna stocks. While there are no substantial concerns about the risk of overfishing of the skipjack stock which is expected to make up the bulk of the purse seine catch in Cook Islands waters, there are concerns about the status of yellowfin tuna, and particularly bigeye tuna, which will also be caught in the purse seine fishery;
- b) The relatively high catch rates of juvenile bigeye tuna in waters north east of the Northern Cook Islands. The bigeye tuna bycatch rates from sets on floating objects/FADs are known to be moderately high in waters adjacent to the Cook Islands EEZ in the north east, but there is little information available on bigeye tuna bycatches in Cook Islands waters. If these are less than bycatches to the north and east then fishing in Cook Islands waters could provide an alternative fishing ground that would reduce impacts on juvenile bigeye compared with where the fleet now operates;
- c) The impact on non-target species, particularly whale sharks, sharks and sea turtles. No information is available on the impact of this fishing on non-target species in Cook Islands waters;
- d) The impact on the longline fishery. Since the existing longline fishery targets mainly albacore, and the purse seine fishery targets mainly

skipjack, the interactions between the two fisheries will be more limited than if they were both targeting the same stock. However, yellowfin is an important secondary target stock for both the longline and purse seine fisheries, and a single purse seiner can catch as much yellowfin tuna as the existing fleet of around longliners. To a lesser degree, the same likely to be true of bigeye tuna.

11. **Monitoring, Control and Surveillance (MCS)**

- a) An observer programme shall be established to achieve the level of observer coverage in the purse seine fishery that the Secretary is satisfied is appropriate to meet the objectives of the Act and this Fishery Plan, and which is consistent with any applicable regional and international standards and obligations. This may include participation in regional programmes, where appropriate;
- b) The Secretary shall establish a MCS program programme that assists in meeting the conservation and management objectives of this Fishery Plan and all relevant international and regional obligations. Such a programme may include -
 - (i) vessel monitoring systems;
 - (ii) the provision of observers and the conditions under which they operate;
 - (iii) a vessel inspection regime;
 - (iv) a port and catch inspection regime;
 - (v) the prohibition or regulation of transshipment at sea or in port;
 - (vi) aerial and sea surveillance;
 - (vii) participation in co-operative regional arrangements.
- c) Applying limits to fishing effort in fishing days will require MMR to closely monitor fishing days by Vessel Monitoring System (VMS) and observer coverage;
- d) During periods of the FAD closure measures there shall be no manual VMS reporting, 100% observer coverage and poling frequency of VMS to increase;
- e) Associated with conservation and management measures applying to purse seining in the Western Central Pacific are a range of international obligations which are outlined below.

12. **International Obligations**

- a) The Cook Islands applies the key principles and obligations in international law relating to offshore fisheries, including the application of the precautionary approach, through the Marine Resources Act. In addition, Cook Islands cooperates with other states to ensure the effective conservation and management of shared tuna stocks through the Western and Central Pacific Fisheries Commission (the WCPFC);
- b) The WCPFC Conservation and Management Measure CMM 2008-01 sets out a range of requirements for control of purse seining between 20N and 20S. This measure was temporarily extended by CMM 2012-01 with additional interim measures, which the Cook Islands will apply in its waters, including:
 - (i) a 3 month ban on setting on floating objects from July to September;

- (ii) additional reduction of FAD sets by electing to (i) one month FAD closure in October, or annual limit of FAD sets to 8/12 of the average FAD sets of the three years average from 2009-2011;
 - (iii) a ban on discards of all bigeye, skipjack and yellowfin tuna – referred to as the catch retention scheme; and
 - (iv) 100% observer coverage except for trips wholly in Cook Islands waters;
- c) There are a range of other WCPFC measures applying to purse seine fishing between 20N and 20S including monitoring, control and surveillance measures, and measures to mitigate the impact of fishing on non-target species;
- d) More broadly, if the domestic purse seine fishery is conducted in accordance with applicable WCPFC measures, it should assist the Cook Islands to secure an equitable outcome from regional conservation and management arrangements.

Part 4

Authorities

13. Authority to Manage the Fishery

- a) Pursuant to section 6 of the Marine Resources Act 2005, the Queen's Representative has the power to declare a designated fishery and has done so by Order in Executive Council thereby declaring that all commercial fishing activities involved in purse seining of skipjack tuna and yellowfin tuna, having made such order, having regard to scientific, social, economic, environmental and other relevant considerations, it is determined that such fishery, is important to the national interest and requires management measures for ensuring sustainable use of the fishery resources.
- b) Having determined that such fishery is important to the national interest; and requires management measures for ensuring sustainable use of the fishery resource a fishery plan for the management of the designated purse seine fishery in the fishery waters shall be prepared by the Secretary, and kept under review. Each fishery plan shall –
 - (i) identify the fishery;
 - (ii) describe the status of the fishery;
 - (iii) specify management measures to be applied to the fishery;
 - (iv) specify the process for the allocation of any fishing rights provided for in the fishery plan;
 - (v) make provision in relation to any other matter necessary for sustainable use of fishery resources.

Part 5

Consultative Process

12. Stakeholder Consultation

- a) The Secretary shall organise consultations with key stakeholders in the purse seine fishery at least once in each calendar year.
- b) The scope of the consultations shall include matters –

- (i) related to the management and regulation of fishing including licensing and conditions of fishing;
- (ii) related to the development of fishing and fish processing including investment policies, financial arrangements and projects to promote purse seine fishing, marketing or processing;
- (iii) related to socio-economic or environmental impacts of large pelagic fishing, processing and marketing; and
- (iv) such other issues related to the large pelagic longline fishery as the Secretary may decide.

Part 6

Management Measures

13. Limits on Fishing Effort

- a) The effort of purse seine fishing vessels shall be limited to 1,250 days per annum in the fishery waters.
- b) If the Secretary determines that the level of total purse seine catch in the fishery waters exceeds 30,000 metric tonnes in any consecutive 4 quarter period, he or she shall review the impact of this level of catch on achievement of the objectives of the Fishery Plan, and may reduce the total effort of purse seine fishing, or apply appropriate limits to fishing in the fishery waters, which may include time/area closures.
- c) The Secretary may apply additional limits to fishing with the approval of the Minister and after consultation with the key stakeholders in the purse seine fishery when he or she is of the opinion that it is in the interest of the sustainability or economic viability of the purse seine fishery.

14. Protection of Non-Target Species

- a) The Cook Islands National Plan of Action for Reducing Incidental Catch of Seabirds (NPOA Seabirds) prepared in accordance with the FAO IPOA – Seabirds, shall be complied with at all times.
- b) The Cook Islands National Plan Of Action For Sea Turtle Bycatch Mitigation (NPOA-Turtles), implementing the FAO Guidelines to Reduce Sea Turtle Mortality in Fishing Operations and the Regional Action Plan for Sea Turtle By-Catch Mitigation in respect of fishing in Cook Islands waters and fishing by Cook Islands vessels, shall be complied with at all times.
- c) The Cook Islands Marine Resources (Shark Protection) Regulations 2012 shall be complied with at all times.
- d) All purse seine operators are required to avoid the capture, and release unharmed, to the extent practicable, non-target species that are not to be retained.

15. Discarded Catches

- a) All discarded catches shall be reported to the Secretary

16. Vessel licensing

- a) No vessel 10 metres or more in length shall be used for commercial purse seine fishing or related activities in the fishery waters except in accordance with a valid license issued pursuant to the Act.
- b) Applications for a licence for commercial purse seine fishing shall be made to the Secretary in accordance with section 9 of the Marine Resources Act 2005 and the Marine Resources (Licensing) Regulation 2012.
- c) A licence may be issued on behalf of the Cook Islands by the Administrator of a multilateral treaty to which the Cook Islands is a party.

17. Transshipment

- a) No licensed purse seine vessel shall land at any port except for the island of Rarotonga, unless provided with the express permission in writing, of the Secretary.
- b) No fish may be transhipped in the Cook Islands at sea in the fishery waters or in areas beyond national jurisdiction, including areas of High Seas, unless provided with the express permission in writing, of the Secretary.
- c) The Company shall provide to the Secretary, information relating to the catch offloaded in form as may be prescribed by the Secretary. Such information shall include details of the catch offloaded by weight, species, rejected catch, and final destination of the catch offloaded.

18. Conditions of fishing

- a) All commercial purse seine fishing shall be conducted in accordance with the Act, the regulations, and conditions of licences.
- b) No licensed purse seine vessel shall fish within 48 nautical miles of Rarotonga.
- c) No licensed purse seine vessel shall fish within 24 nautical miles of any island of the Cook Islands.
- d) Notwithstanding any regulation, the Minister may by Notice in the Gazette, publish from time to time, any harmonised regional terms and conditions for purse seine vessels, including those made pursuant to any multi-lateral Treaty or arrangement, to which the Cook Islands is a party.
- e) Where regional or multi-regional terms and conditions are agreed as part of that Treaty or arrangement those terms and conditions will be forthwith promulgated as part of the laws of the Cook Island, with any necessary modifications.

19. Directives

- a) The Secretary may, by notice in writing, give directives providing for such matters as are contemplated by or necessary for giving full effect to the provisions of this Fishery Plan;
- b) Any conditions or obligations imposed under any directive may be additional to, or more restrictive than, but shall not be inconsistent with, the provisions of the Fishery Plan or the Act.

Part 7

General

20. General Obligations of the Secretary

- a) (1) The Secretary shall establish a system for the collection and compilation, storage and exchange of data and other fishery related information on purse seine fishery. This information shall include position reports, catch and effort log sheets, observer and other scientific data.
- b) The Secretary shall determine the characteristics and procedures of such a system in accordance with international and regional standards and the objectives of the Act and this Fishery Plan.

21. Biennial Review of the Fishery Plan

- a) The Secretary shall, prior to the expiry of every 2-year period from the commencement date of the Fishery Plan, conduct a review of the conservation and management measures set out in this Fishery Plan, and determine whether the Fishery Plan should be amended and/or revoked.
- b) In reviewing the Fishery Plan the Secretary shall have particular regard to, amongst others –
 - (i) the objectives of the Act and this Fishery Plan;
 - (ii) the effectiveness of the data collection, observer and monitoring,
 - (iii) control and surveillance programmes;
 - (iv) the status of the stocks (both target and non-target or associated species), including changes in yield, species, size composition or distribution;
 - (v) the status and economic viability of the fishery and associated fishing industry;
 - (vi) the appropriateness of fees and charges;
 - (vii) the effectiveness of the conservation and management measures.
- c) Having conducted the analysis, the Secretary shall make recommendations to the Minister as to the continued management of the purse seine fishery. In particular the Secretary may make recommendations regarding the amendment, revocation or continuation of the Fishery Plan.
- d) The Secretary shall consult with key stakeholders prior to making any recommendation to the Minister as a result of the review.

22. Delegation

- a) The Secretary may, in writing, delegate to an officer of the Ministry, any of his powers or functions under this Fishery Plan, except this power.

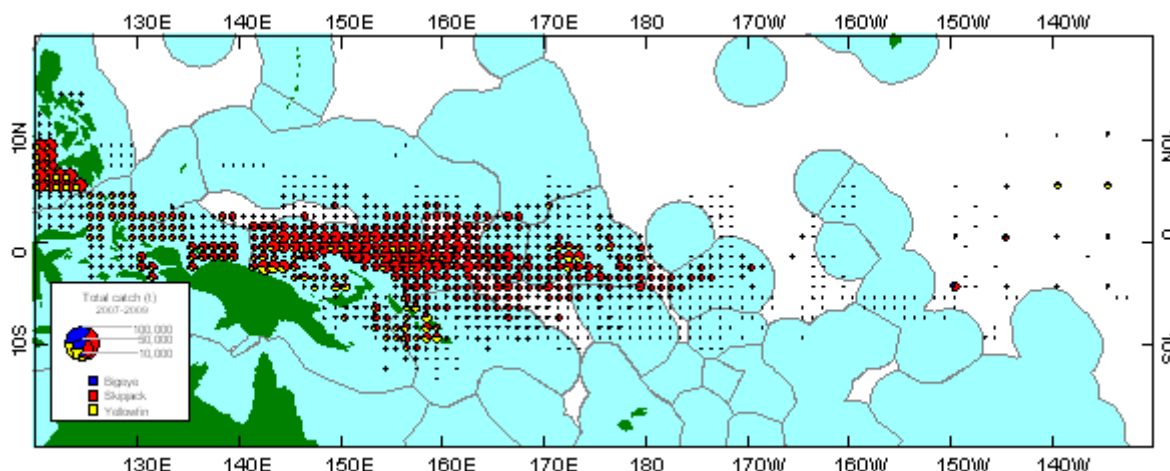
22. Savings

- a) This Fishery Plan shall be interpreted in a manner consistent with the provisions of the Act provided however that if any provision of this Fishery Plan or any conditions imposed by or under this Fishery Plan are held to be invalid, the invalidity does not affect the provisions of any other part of the Fishery Plan or conditions imposed, and to this end the remaining provisions of the Fishery Plan or other conditions shall be treated as severable from the invalid provisions or conditions.

Appendix 1

Status of the Cook Islands Purse Seine Fishery

1. Purse seine fishing in the Western and Central Pacific region has been heavily concentrated in the west from Papua New Guinea across to the Gilbert Islands and within 5 degrees either side of the equator as shown in the figure below of the distribution of purse seine catches for the period 2001-9 by 1 degree squares.



2. Purse seine fishing in Cook Islands waters has historically been regarded as viable only in occasional periods of favourable oceanographic conditions because purse seine catch rates are generally higher elsewhere in the region. However, the regional purse seine fisheries are undergoing substantial structural change driven by a mix of biological and economic factors.
3. Licensed purse seine fishing in Cook Islands' waters in past years has been limited to fishing by US vessels authorised under the Multilateral Treaty with the US. Purse seine catches in Cook Islands waters make up around 0.3% of the regional purse seine catch.
4. Purse seine fishing in the Cook Islands EEZ has generally been at low levels with only two periods of 'significant' fishing effort of more than 100 sets in a year. It is generally thought that the Cook Islands EEZ is located east and south of the main fishing grounds. Estimated purse seine catches in Cook Islands waters are shown in the table below.
5. The greatest level of effort occurred during the most recent year and logsheet and VMS data suggest that over 400 sets have been made with catches of more than 10,000 mt. It is not clear if this reflects a particular set of oceanographic conditions which has made fishing favourable in Cook Islands waters, or reflects changes in fishing patterns by some fleets to target fish that have always existed.
6. When all data is combined, associated (FAD) sets slightly outnumber unassociated or free school sets with 54% of sets on associated schools. However, when catches are considered, 68% of catch comes from associated sets and this is reflected in the considerably higher catch per set for associated sets.

7. Recent results from the SEAPODYM model (developed by SPC in conjunction with Collecte Localisation Satellites (CLS)) for skipjack suggests that a significant biomass of skipjack exists in the northern part of the Cook Islands EEZ. While these results are preliminary and have not been fully validated, the recent fishing activity is not inconsistent with the predictions from SEAPODYM that skipjack exist in fishable densities in Cook Islands waters.

Table 1: Summary of operational logsheet data for the period 1989-90 to 2011-12 by United States Tuna Treaty licensing periods (Jul-Jun).

Year	Licensing period	Fishing days	Sets	Total tuna catch (t)	Catch per day fished
1988-1989	1	2	3	-	0.0
1989-1990	2				
1990-1991	3				
1991-1992	4				
1992-1993	5				
1993-1994	6	12	15	518	43.2
1994-1995	7	1	1	77	77.0
1995-1996	8				
1996-1997	9				
1997-1998	10	23	15	228	9.9
1998-1999	11	15	11	210	14.0
1999-2000	12	19	13	293	15.4
2000-2001	13	32	28	813	25.4
2001-2002	14	162	116	3,132	19.3
2002-2003	15	75	64	1,598	21.3
2003-2004	16	1	1	4	4.0
2004-2005	17	4	2	45	11.3
2005-2006	18	5	4	79	15.8
2006-2007	19	1	1	4	4.0
2007-2008	20	4	3	205	51.3
2008-2009	21	45	37	1,537	34.2
2009-2010	22	11	10	245	22.3
2010-2011	23	28	27	476	17.0
2011-2012	24	369	354	9,138	24.8

Table 2: Summary of Vessel Monitoring System (VMS) data for the period 2008-09 to 2011-12. Fishing days are estimated from total days using a specific algorithm that attempts to separate out fishing from transiting.

Year	Licensing period	Fishing days	Total seas days
2008-2009	21	27	44
2009-2010	22	23	41
2010-2011	23	26	44
2011-2012	24	416	470

Table 3: Number of sets and catch by set-type as estimated from operational logsheet data.

Set-type	Sets	Total catch	Catch per set
Free school	319	5,963	18.7
FAD	381	12,630	33.1

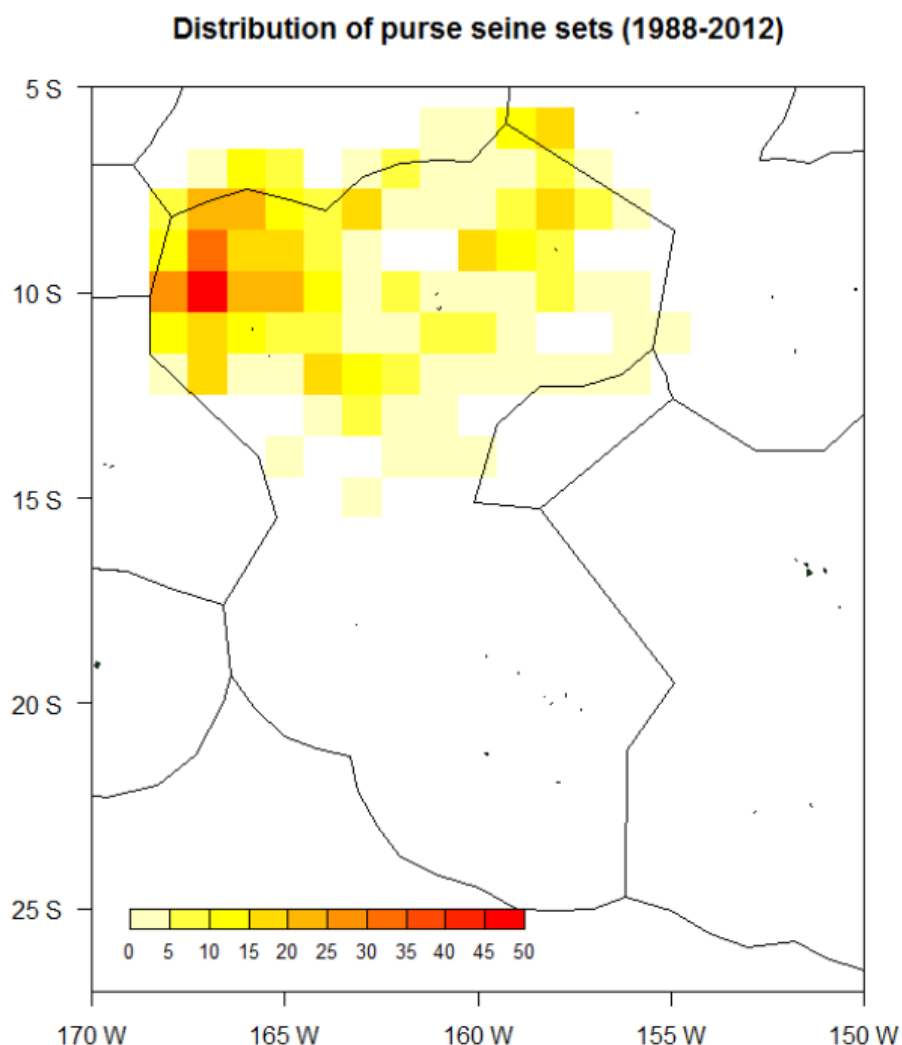


Figure 2: Spatial distribution of purse seine sets made for the period 1988-2012. The resolution is 1x1 degree square and the maximum is 51 sets in a square.

8. Currently, the only significant commercial benefit that Cook Islands receives from the regional skipjack resources which it shares, and the regional purse seine fishery based on the skipjack resource, is from the Treaty with the US from which Cook Islands.
9. A number of factors indicate the possibility of a sustainable, beneficial purse seine fishery within Cook Islands waters, and opportunities for the sustainable development of a small Cook Islands purse seine fleet

operating substantially in the Cook Islands EEZ and the adjacent high seas areas. These factors include:

- a) Increased exploitation and tighter limits on purse seining in the main fishing grounds along the equator causing purse seine operators to look for other fishing grounds;
- b) the general tightening of access to the regional purse seine fishery also encouraging purse seine operators to work more closely with resource-owning Pacific Island countries, including transferring their vessels to Pacific Island Countries registry/flagging. This includes both existing operators who are keen to have secure access in future, and new operators who may be excluded if they don't enter into association with a resource-owning Pacific Island country now;
- c) an increase in purse seine operations in the Central Pacific resulting from developments such as those in Pago Pago and increased interest for tuna supplies from processing industries in the east, especially Ecuador;
- d) increased interest expressed by foreign processors and purse seine operators in purse seine fishing in Cook Islands waters and adjacent high seas areas.